



Promises and Greenwashing

What climate-related commitments are companies making that could expose them to liability?

Briefing

July 2024

Greenwashing Prototype: Briefing

Overview

Danu Insight aims to illuminate the influence of corporate lobbying on legislation and public policy, enhancing climate transparency and establishing strong connections with key institutional investors. This briefing introduces our new Greenwashing Prototype. Misleading environmental claims by companies consistently undermine market trust and hinder progress on climate action. By utilising advanced Natural Language Processing (NLP) and a sophisticated analytical framework, Danu Insight uniquely combines the analysis of environmental claims with corporate political lobbying to offer a comprehensive view of a company's practices. This approach not only aligns with regulatory expectations for innovation and consumer benefit, but also empowers investors with actionable insights to make informed decisions, prioritizing transparency and accountability in environmental stewardship.

The Greenwashing Problem

Our work addresses what we view as one of the most pressing systemic risks to the world – climate change and biodiversity loss. We work with and focus on the financial sector as it has an unparalleled ability to prevent corporate **obstruction of legislation** and the **most environmentally harmful corporate impacts**. Our initiative targets corporate greenwashing, a practice that is increasingly concerning for investors, regulators, and the broader market. This focus is critical as greenwashing can undermine market trust and impede progress on climate change.

We designed our Greenwashing Prototype to address the following challenges within the market:

- Every listed company and financial institution make climate-related claims in its publications and marketing materials.
- No organization (that we know of) can keep track of these environmental claims across the whole market.
- 95% of listed companies are directly or indirectly involved in lobbying against climate policy, and all create some environment harm.

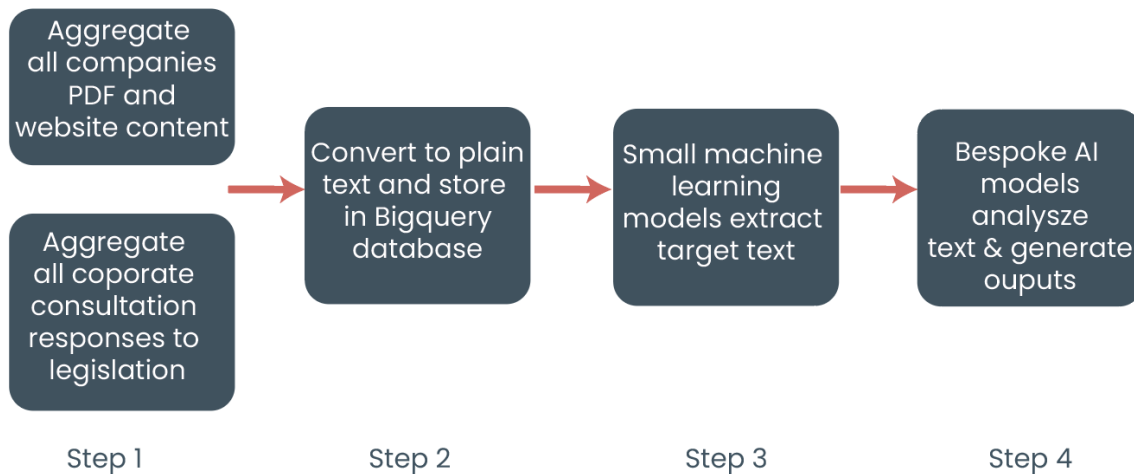
Danu Insight's Greenwashing Prototype

Unique Aspects of Our Approach – While other companies also use AI to detect greenwashing, we believe our approach is unique for several reasons:

- We are the only ones focused systematically on comparing environmental claims with corporate political lobbying, providing a holistic view of a company's practices.
- Our deployment of advanced Natural Language Processing (NLP), combined with a detailed analytical framework, uniquely positions us to meticulously decode the sincerity and implications of each green promise.

What we have achieved so far

With a small, focussed team, Danu has successfully trained our models to identify climate change promises and lobbying text, and then perform complex analysis, allowing us to evaluate over 50,000 pieces of lobbying evidence. Using advanced data science and cutting-edge AI, we have developed systems that deliver evidence analysis 20 times faster than manual methods.



The foundation of our system is the scraping and aggregating of an extremely wide range of raw data. This includes the content of thousands of corporate websites and consultation responses to proposed legislation from dozens of countries globally. After distilling this data down to only the relevant parts using our fine-tuned machine learning models, we perform sophisticated analysis using large language models (LLMs).

By closely examining the language used by companies when discussing their climate promises, we are able to gain a comprehensive understanding of the types of promises made, what area of climate change they relate to, how strongly they commit to their promises, and how they frame these promises. When produced at scale, this analysis will enable an unparalleled understanding of the landscape of corporate climate commitments. Furthermore, in-depth comparisons against our comprehensive lobbying platform will vastly improve corporate transparency by showing contradictory behaviour on climate change efforts.

As a demonstration of our technology, we have applied our scraping and analytical processes to 10 high-profile companies across different industries, assessing a small number of documents each.

The metrics explained

Danu Insight has produced detailed methodologies in order to analyse the content of corporate climate change promises. The following section details the key AI outputs that are produced:

Commitment: The Commitment measures the firmness and definitiveness of the language used around a green commitment made by a company. For example, stating we are doing or have done something (definitive, present/past tense) is stronger than saying 'we will do' something (future tense,

firm language). By comparison, using 'our goal is to set' (future tense, equivocal) leaves room for that target not to be met. This is measured from very low to very high.

Evidence Score: The Evidence Score is a weighted average of the Commitment level and a sentiment score. This overall score captures the definitiveness of the targets and how positive an average person would believe it to be. It reflects a company's liability should other evidence suggest the promise was not met or the statement misleading. The Evidence Score is measured from 1 to 10.

Category Score: The Category Score represents the highest Evidence Score that the company received in that category of promises, which is taken as the company's liability for adhering to the green commitment on issue.

Comment: In addition to the comparative metrics, we also produce an AI comment that provides a more detailed analysis of the evidence, explaining the specific language which leads to the given commitment level.

Impact and Benefits

Tangible Benefits

Given the Financial Conduct Authority's (FCA) emphasis on genuine innovation and consumer benefit, our approach aligns perfectly with regulatory expectations. We have therefore worked to ensure that our prototype not only represents a significant advancement in identifying and analysing greenwashing but also delivers tangible benefits in terms of transparency and accountability.

Examples of Insights Generated

The following examples illustrate how a variety of corporate statements can be analysed and broken down.

| | | | | | | |
|------------------|-------------------------|--|-----------|---|---|--|
| Renewable Energy | Hydrogen infrastructure | In 2022 low carbon activity investment, a subset of our total transition growth investment - accounted for more than 80% of our total aim 5 investment. It increased from 2.2 billion in 2021 to over 4 billion. Most of this investment was in biogas offshore wind EV charging and hydrogen. | Very High | 8 | 8 | The statement provides specific and measurable past achievements regarding the company's investment in low carbon activities, with clear numerical targets and timeframes. The language used indicates definitive past action, which would be legally indefensible if not true, hence the high Commitment score. |
|------------------|-------------------------|--|-----------|---|---|--|

Figure 1 - A commitment from BP relating to renewable energy, which receives a very high commitment score due to the description of past activity.

| | | | | | | |
|-----------|----------------------|--|------|---|---|--|
| Emissions | Zero Emissions Goals | We have a long term target to become a net zero emissions energy business by 2050. The target covers emissions from our operations Scope 1 emissions from the energy we buy to run our operations Scope 2 and emissions from our customers use of the energy products we sell Scope 3. | High | 7 | 8 | The statement uses firm language ('long-term target to become') to convey a clear and measurable commitment to achieving net-zero emissions by 2050, covering Scope 1, 2, and 3 emissions. The commitment is future-looking and indicates a decision has been made, suggesting action will be taken to meet this target. |
|-----------|----------------------|--|------|---|---|--|

Figure 2 – A strong future commitment made by Shell on emissions

| | | | | | | |
|----------------|--------------------------------|---|--------|---|---|---|
| Transportation | Electric Vehicles use/Mandates | We aim to achieve global sales of 3.5 million BEVs per year by 2030 | Medium | 5 | 8 | The statement uses suggestive language ('We aim to') to convey green intent for future action, indicating a specific and measurable target of 3.5 million BEVs per year by 2030. However, the use of 'aim to' rather than a firm commitment language like 'we will' or 'we commit to' results in a moderate Commitment score. |
|----------------|--------------------------------|---|--------|---|---|---|

Figure 3 – A less committal goal from Toyota on transportation, with weaker language used to describe its future intentions.

How it can be used?

When using the [prototype tool](#), users can navigate to the 'Greenwashing Analysis Tool' tab. Here, users are presented with a list of companies to choose from. When a company is selected, the bar chart below provides a visual breakdown of the number of promises the company has made in the documents analysed. Figure 1 shows BP's promises, illustrating that the vast majority of their climate efforts are focused on emissions.

Select a company to analyse their corporate climate promises.

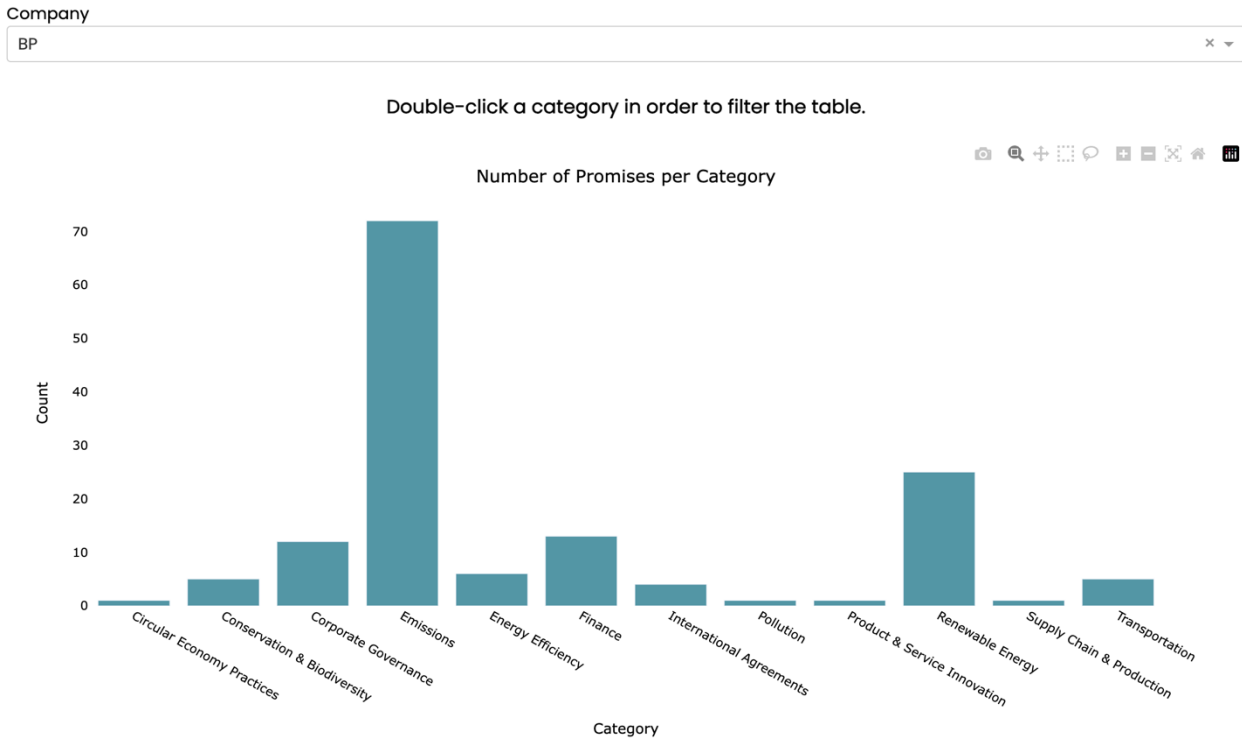


Figure 5 - frequency of BP's promises across different climate categories.

Company promises with a Liability Score from 1-10.

| Category | Subcategory | Statement | Commitment | Evidence Score | Category Score | Comment |
|-----------|----------------------------------|--|------------|----------------|----------------|---|
| Emissions | Carbon capture and storage (CCS) | We intend to significantly scale up our hydrogen business and aim to deliver 0.5-0.7Mtpa of hydrogen production by 2030. We anticipate this will primarily be green hydrogen electrolysis of water using renewable power while selectively pursuing blue hydrogen generated from natural gas opportunities where there is regulatory support and CCS access. As markets evolve we expect to invest to build global export hubs for hydrogen and hydrogen derivatives. These are in advantaged geographies where we have an established presence. | Low | 3 | 8 | The statement uses non-committal language ('intend to', 'aim to', 'anticipate', 'expect to') to convey green intent for future actions, which are specific and measurable with a clear target range and timeframe. However, the language does not constitute a firm commitment, and the mention of 'selectively pursuing' and 'where there is regulatory support' introduces conditions that could potentially limit the company's liability. |

Figure 4 - An example of an analysed climate commitment from BP

By selecting one of the bars, the user is able to reveal a detailed list of the company's specific promises in that category, and the AI generating analysis. Figure 2 displays an example of how this looks with a piece of evidence from BP.

The future of the product

As we continue to build-upon our existing systems, our prototype provides a first illustration Danu Insight's greenwashing product.

- **Scale to cover whole market:** Our goal is to expand the reach of our technology to encompass an index of 10,000 companies, enabling comprehensive coverage and analysis of the most impactful listed companies and financial institutions, in line with Danu's corporate political lobbying work.
- **Company-level analysis:** We are improving our front-end product to simplify the process of comparing companies based on their environmental commitments and lobbying activities. This is designed to increase transparency and accountability by helping investors and stakeholders easily assess and distinguish the environmental credentials and political influences of different companies and sectors. This tool will provide valuable insights into the consistency between public statements and actions, helping users identify discrepancies and potential greenwashing.
- **Automation of quantitative targets:** We have a vast database of corporate communications and are planning to expand our work by automating the process of evaluating companies' quantitative climate targets across various environmental aspects. This includes targets related to emissions reduction, renewable energy usage, and waste management. Our goal is to streamline the verification and comparison of these targets to ensure they are ambitious, credible, and aligned with global climate goals.
- **Expansion to biodiversity:** Biodiversity-related lobbying data at scale is largely unavailable on the market, despite increasing investor interest and data supply from CDP, which has been including lobbying questions in its Forests and Water disclosure program for years. However, the introduction of new types of disclosures from TFND and regulations such as CSRD will result in a significant increase in available data. Our unique offering value lies in our ability to aggregate and analyse large amounts of green promises using our technology and systems, and to cross-reference and validate claims to improve transparency in this space.