



Industry overview — as it relates to executive compensation

Technology

The technology sector is seen as being part of the solution in mitigating the effects of climate change. In fact, the U.K. government's independent advisors, the Committee on Climate Change (CCC), has identified technology as key to making the U.K.'s net zero emissions target feasible and cost-effective. According to a report from the International Telecommunications Union, a United Nations body, digital technology could help reduce the world's carbon emissions by about 17%.

On March 19, 2021 (Digital Day), 25 technology companies signed a pledge, known as the European Green Digital Coalition, to collaborate and invest in, innovate and develop green digital solutions that will help reduce carbon dioxide emissions and digitally transform key economic sectors. Signatories, which included Microsoft, Ericsson and Vodafone, also committed to becoming carbon-neutral themselves by no later than 2040.

European nations also signed a pledge to support what they called "clean digital technologies." Among other things, countries vowed to build 5G and 6G networks and provide support for blockchain technology, quantum computing and artificial intelligence, which are all thought to be influential in curbing global emissions. Examples of ways the industry can mitigate climate change and help protect the environment include:

- Artificial intelligence has the potential to make electric transmission grids more efficient.
- Blockchain technology could allow people to track carbon emissions from corporations.
- Satellites can continue to monitor environmental changes and activities such as illegal logging, mining and waste dumping.

Conversely, the sector is thought to be responsible for 2% to 3% of global greenhouse gas emissions. It was found that data centers that mine for Bitcoin used up to 0.3% of the world's electricity alone in 2019, which is equal to that of Belgium. It is therefore critical for the sector to understand its own emissions, develop quantifiable metrics to track their impact on the environment and act (for example, switch to cleaner energy and recycle) — as well as working with suppliers and manufacturers to do the same.

In response, most large technology companies have made climate commitments and articulated how they plan to meet them. This includes the likes of Facebook, Apple, Amazon, Netflix, Alphabet (Google), Microsoft and Salesforce.



What are companies measuring and reporting?

Carbon emissions is the main target for technology companies, often accompanied by goals around investment in carbon removal strategies and the use of renewable energy in operations.

Examples of commitments include:

- **Facebook:** achieved net zero emissions in its global operations and plans to reach net zero emissions for the value chain in 2030.
- **Apple:** set a goal to become carbon neutral across its entire footprint by 2030, reducing emissions by 75% compared to 2015 and investing in carbon-removal solutions for remaining emissions.
- **Amazon:** set a goal to be net-zero carbon by 2040, driven in part by the path it is on to power operations with 100% renewable energy by 2025 — five years ahead of the original target of 2030. In 2020, Amazon became the world's largest corporate purchaser of renewable energy, reaching 65% renewable energy across the business.
- **Netflix:** has a three-step plan called Net Zero + Nature. To help reach its goal, Netflix will achieve net zero greenhouse gas emissions by the end of 2022 and every year thereafter.
 - Step 1: Reduce Scope 1 and 2 emissions by 45% by 2030, based on the science-based Targets Initiative Guidance.
 - Step 2: Retain existing carbon storage — by the end of 2021, for emissions they can't avoid internally, including Scope 3 emissions, Netflix will fully neutralize them by investing in projects that prevent carbon from entering the atmosphere.
 - Step 3: Remove carbon from the atmosphere — by year-end 2022, they will incorporate investment in the regeneration of critical natural ecosystems to achieve net zero.
- **Microsoft:** has a strategy for a sustainable future focuses on climate, ecosystems, water and waste. On climate, this includes a commitment to becoming carbon negative across operations and the supply chain by 2030, shifting to 100% renewable energy by 2025, and launching a climate innovation fund to invest \$1 billion over the next four years in new technologies and innovative sustainability solutions.
- **Alphabet (Google):** First major company to be carbon neutral since 2007. Plans to be the first major company to achieve 24/7 carbon-free energy by 2030. It eliminated all legacy carbon emissions since Google's founding in 1998 through the procurement of high-quality carbon offsets.
- **Salesforce:** Achieved net-zero greenhouse gas emissions in 2017. The company expects 100% renewable energy for global operations but has not specified a date.
- **Qualcomm:** 2025 GHG reduction goal to reduce absolute Scope 1 (mainly natural gas) and Scope 2 (electricity) GHG emissions from global operations by 30%, compared to 2014.



Aligning climate goals and targets with executive compensation

There is a distinct disconnect between the clear climate strategies many technology companies have articulated and how these are being driven through metrics in executive compensation plans. It is reasonably common for companies operating across the broader technology, media and telecommunications (TMT) sectors to have a metric in their short-term incentives (STI) or long-term incentives (LTI) (but predominantly the former) that focuses on broader ESG factors such as diversity and talent; however, very few have embedded climate-related targets so far. Although there are some exceptions (examples of the tech giants below), these are not yet climate-specific nor are they assessed with quantifiable targets.

- Apple has an ESG modifier based on the six “Apple Values”, which includes one that is environment-related.
- Microsoft announced that as of July 2021 it includes progress on sustainability goals as a factor in determining pay for the senior leadership team (e.g., this is a discretionary assessment under the culture and organizational leadership factor for the CEO, which has a 33.3% weighting).
- Alphabet has committed to creating a bonus program for senior executives that is partly based on their performance in supporting ESG goals, which will start in 2022. Shareholders requested the compensation committee prepare a report assessing the feasibility of integrating sustainability metrics into performance measures or vesting conditions that may apply to senior executives under the company’s compensation plans or arrangements. Sustainability is defined as how environmental and social considerations and related financial impacts are integrated into long-term corporate strategy.

Other examples of where climate is reflected within executive compensation in the broader TMT category are Vivendi (a European median company) and Vodafone (a U.K. technology and telecommunications company), both with a form of emissions-reduction target within a broader strategic ESG scorecard.



Challenges aligning climate goals and executive compensation

The lack of examples of technology companies that have or are embedding climate goals within their executive compensation frameworks is likely down to the type of incentive-plan design that is typical in the industry — especially among the large U.S. companies with prominent founding shareholders.

The incentive design of technology companies is characteristically simple. For example, it is fairly common for these types of companies not to operate annual bonus plans, but where they exist, they often focus on revenue; and long-term incentive (LTI) plans are typically value focused — so they are either tied explicitly to share-price-based metrics or restricted stock is used as the LTI vehicle.



Leading company example — Vodafone

- Metric name and description: ESG Performance – Greenhouse gas reduction (50% reduction from FY17 baseline by 2025)
 - Weight in vehicle: 10% (one out of three ESG goals) of the long-term incentive plan