Scope 3*

*Is the magic number

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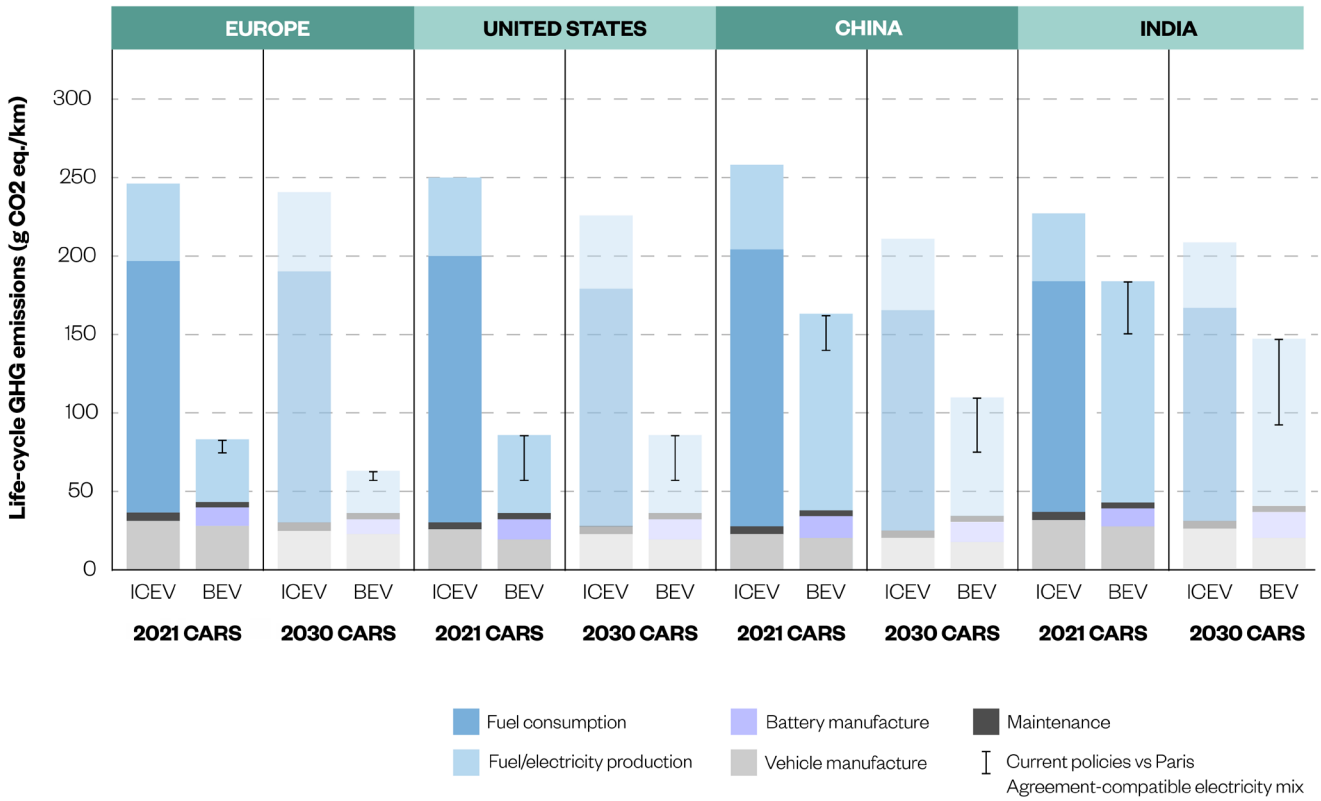
Awareness around the benefits and challenges of measuring Scope 3 emissions - those connected with a company but not produced as a result of their own direct operations or energy consumption - has grown rapidly over the past year. A key reason why it has become "the magic number" in determining who is at the forefront of the race to net-zero can be simply explained by the humble automobile.

As shown in the table in Figure 1, the emissions related directly to building a battery powered electric vehicle can be even greater than that of its fossil fuel-powered counterpart (when you include the manufacturing of the battery). The real difference, however, is in the use of the finished product. The electric vehicle simply does not emit. And when you have an energy grid with a low carbon output, this makes the electric vehicle's Scope 3 emissions even lower. Because of this, Tesla estimate they have avoided 8.4 million tCO2e in 2021 alone[1]. And yet, only by comparing Tesla's Scope 3 emissions to its internal combustion engine rivals will this difference be evident.

Figure 1. Lifecycle GHG emissions of average medium-size gasoline internal combustion engine (ICEVs) and battery electric vehicles (BEVs) registered in Europe, the United States, China, and India in 2021 and projected to be registered in 2030.

The error bars indicate the difference between the development of the electricity mix according to stated policies (the higher values) and what is required to align with the Paris Agreement[2a].

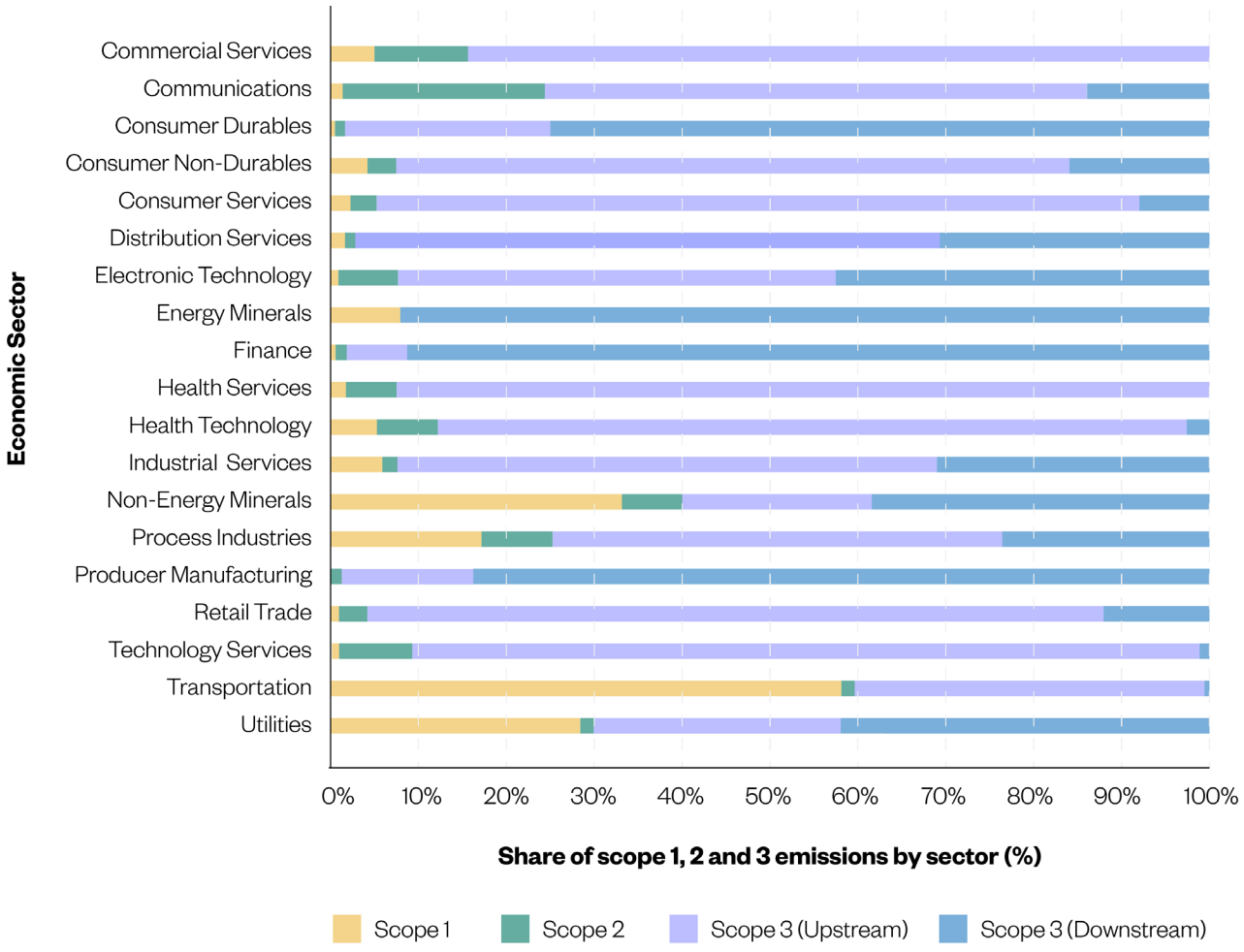


To clearly demonstrate the extent to which we should include Scope 3 in our thinking, let's zoom out across all sectors of the economy. The table in Figure 2 shows the relative contribution of each scope to overall greenhouse gas (GHG) emissions. It is clear that for almost every sector, Scope 3 is by far the most important to consider. As with the previous electric vehicle example, by only considering Scope 1 and 2, we therefore ignore what is often the vast majority of life cycle emissions from a company, and can arrive at a highly skewed picture of how that company is contributing to global warming.

a. Bieker, Georg. "A global comparison of the life-cycle greenhouse gas emissions of combustion engine and electric passenger cars." The International Council on Clean Transportation, 2021.

Reporting Scope 3 emissions is of course easier said than done; they are notoriously challenging for companies to accurately track for a myriad of reasons. Firstly, Scope 3 covers a wide range of activities, and can vary significantly depending on the industry and the specific supply chain. Secondly, companies often have limited visibility into their suppliers' operations and emissions, making it difficult to clearly assess the impact of their value chain. Finally, the lack of standardisation and consistency in the measurement and reporting of Scope 3 emissions can make it difficult for companies to accurately compare their emissions against peers and track progress over time.

Figure 2. Average relative contribution of each scope to the total greenhouse gas emissions of a company according to ESG Book's disclosed emissions data. Companies have been filtered so that only those that report the most material scope 3 emissions, as defined by ESG Book, are included. Data correct as of 16th May 2023.

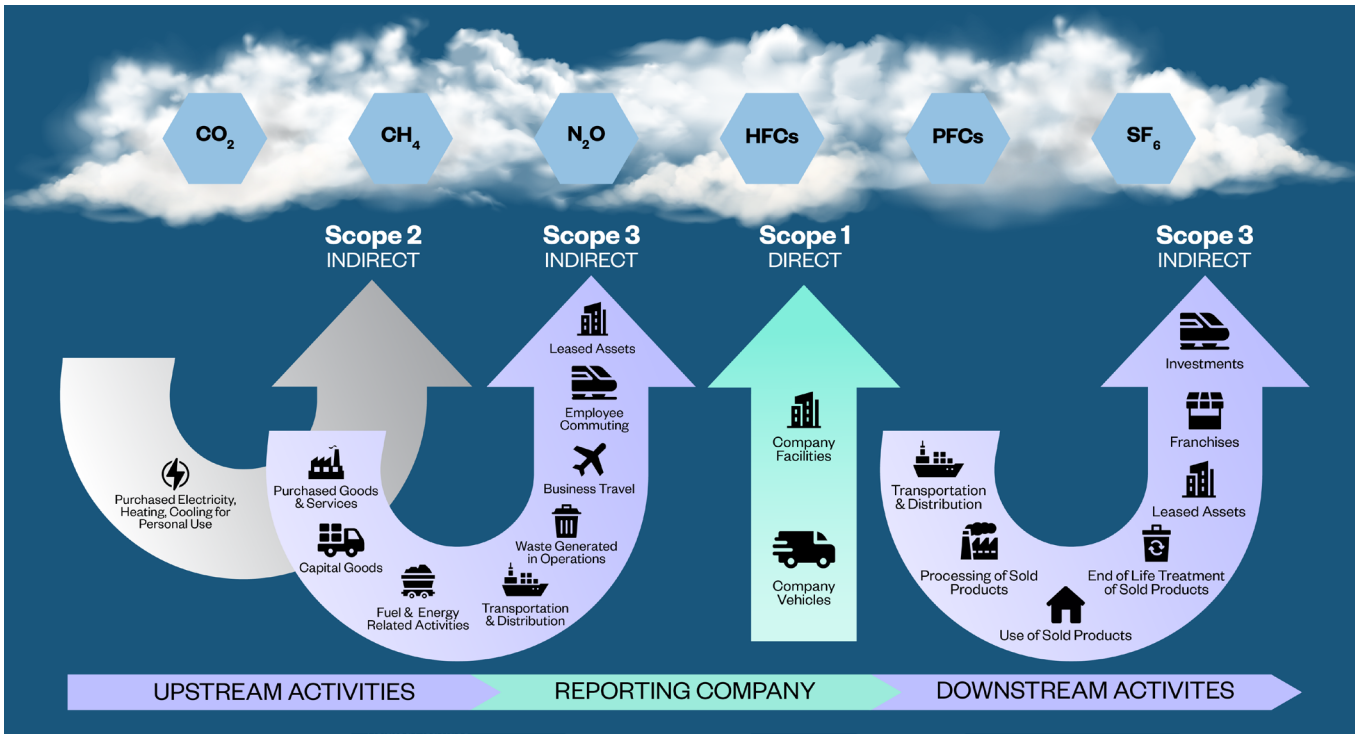


Despite these challenges, investors, lenders, and other stakeholders including consumers are growing ever more concerned about the environmental impact of the companies they do business with or invest in. At ESG Book, we track the Scope 3 emissions of approximately 6,700 companies. Of these, only 2,886 report total Scope 3 emissions in line with the Greenhouse Gas protocol, the gold standard emissions reporting rulebook[b].

Scope 3 emissions can be divided into upstream (those due to any emissions coming from the company's supply chain), and downstream emissions from the product and services consumed by customers. This helps us to understand the facets of industry leaders and their value chains. Returning to the example of Tesla, the savings in emissions are only seen in downstream Scope 3 emissions. The upstream emissions, due to the manufacture of the car's components will likely be the same as conventional manufacturers.

b. True as of 16th May 2023.

Figure 3. Overview of scope emissions across a company's value chain[3]



Of the 2,886 companies that currently report Scope 3, just under 80% (2,208) break down emissions into the 15 categories that describe upstream and downstream Scope 3 emissions, as shown in Figure 3.

However, being able to subsequently identify the climate leaders across different industries is not as straightforward as it would appear.

Reporting what is material, not what is easy.

Looking at the example of the finance industry, ESG Book's Scope 3 data, together with studies carried out by SBTi[4] and CDP[5], indicate that Category 15 – investments - is the most material category. However, of the 376 financial organizations that break down emissions by category, only 50 report investments. The vast majority (326), meanwhile, do report business travel. Whilst this is a business activity that is easy to estimate, it does not usually contribute significantly, in percentage terms at least, to the overall GHG emissions of a company.

The effect of under-reporting Scope 3 emissions in the financial sector is evident when we look at the emissions per dollar earned of companies.

According to ESG Book's data, financial organisations that report investments have almost 100-times greater total GHG emissions per dollar compared to those who report other non-material categories.

Overall, we estimate that of the 2,208 companies that report Scope 3 emissions broken down by category, only 1,240 report on what, by ESG Book's assessment, is the most material category to that company.

This therefore suggests that half of all companies that report some Scope 3 categories do not report the most material category. In many cases, companies report what is easy, and not what is material. This highlights the significant need for companies to report Scope 3 categories that are most material to them depending on what sector of the economy they are in.



ESG Book's new reporting score

The good news is that an increasing number of companies are now reporting on at least some Scope 3 emissions. However, much greater work is needed to ensure more comprehensive disclosure across Scope 3 categories. In addition, there needs to be greater awareness amongst investors on understanding how Scope 3 emissions are calculated for an industry.

The rise of global regulation will also increase the urgency around corporate climate disclosure. In particular, the U.S. Securities and Exchange Commission (SEC)'s March 2022 climate-related rule proposal will require many more companies to disclose their Scope 3 emissions, some as early as 2024.

To meet growing client need, ESG Book has developed a unique Scope 3 materiality map for every sector of the economy based on empirical evidence and theoretical research. This mapping will form part of ESG Book's new Emissions Reporting Indicator, a new addition to our suite of climate analytics, that comprehensively assesses a company's Scope 1, 2, and 3 reporting, and gives each an associated rating.

As the race to net-zero accelerates, corporate reporting on Scope 3 emissions will become more widespread. Only when companies are reporting what is most material, however, can we fully judge their decarbonisation efforts.



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