

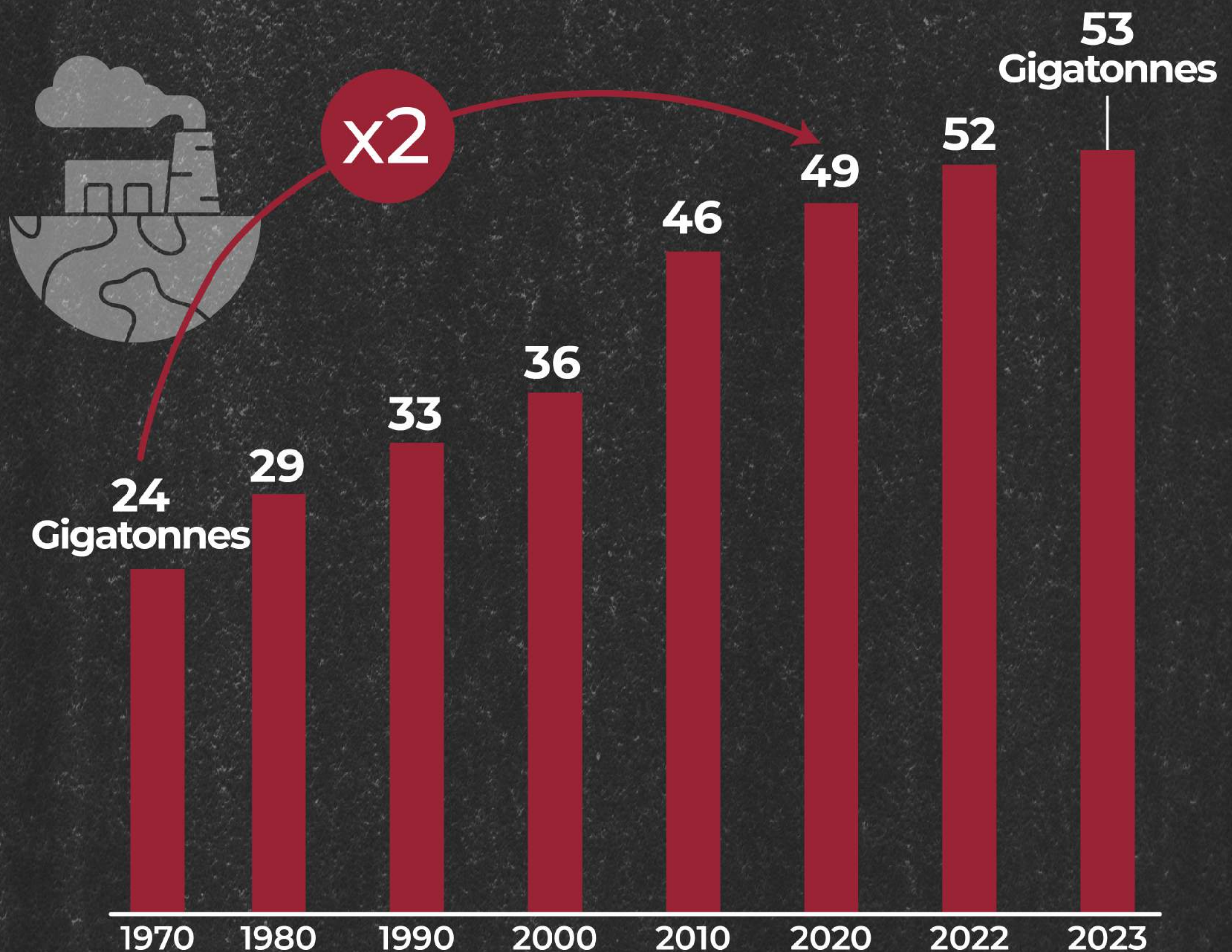
To what extent do listed companies contribute to climate change?



Vincent Bouchet, Scientific Portfolio
(an EDHEC Venture)
Director of ESG and Climate research

Global greenhouse gas (GHG) emissions have doubled in 50 years, rising from 24 GtCO₂e in 1970 to 53 GtCO₂e in 2023.

In gigatonnes of carbon dioxide equivalent (GtCO₂e)

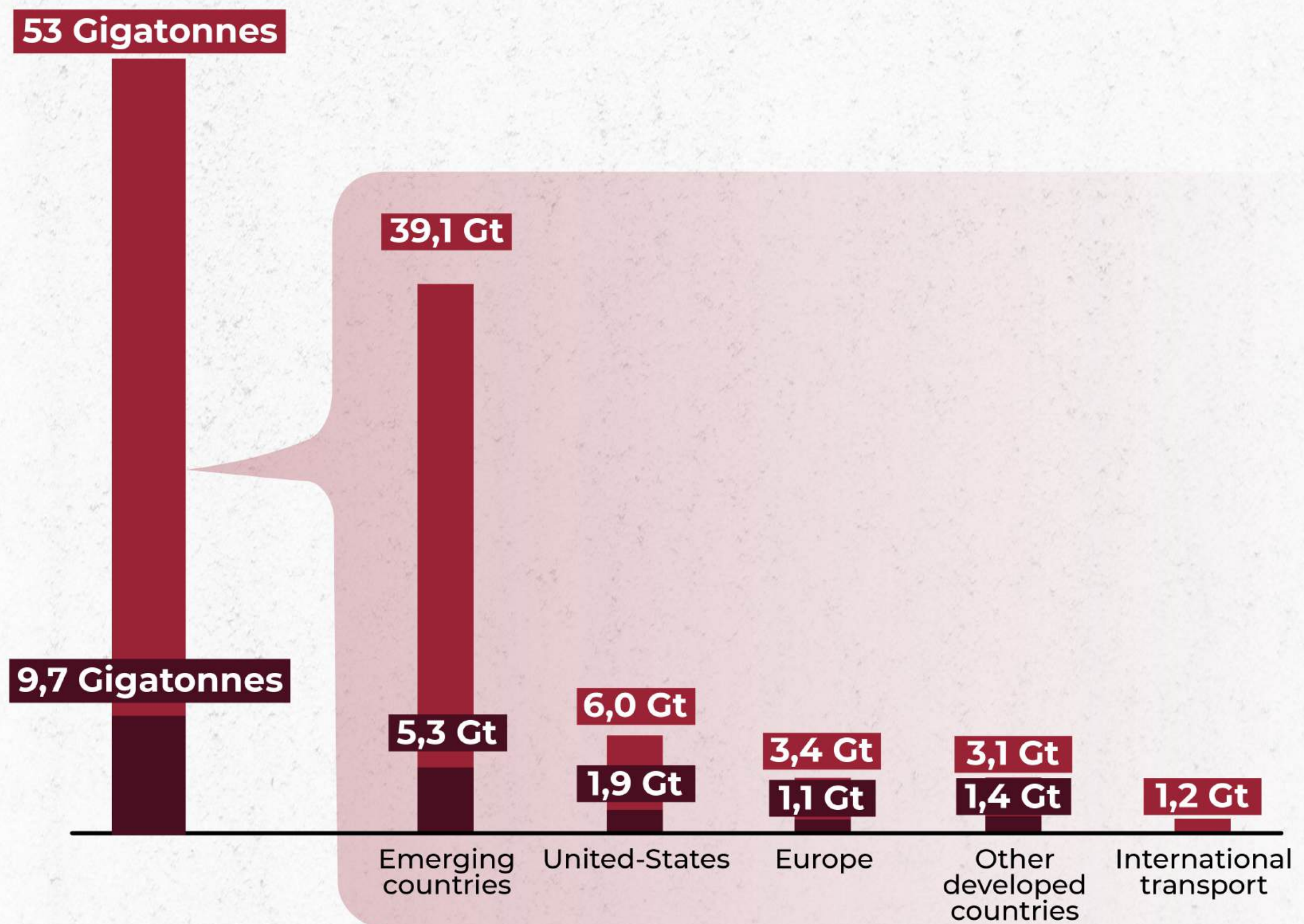


Of these 53 GtCO₂e, what share is attributable to listed companies, and which sectors are the largest emitters?

Listed companies representing 88% of global market capitalisation account for nearly 20% of global GHG emissions.

5,018 listed companies (representing 88% of global market capitalisation) emit **9.7 GtCO₂e** in Scope 1 (direct emissions), or **18%** of global emissions.

Share of GHG emissions (Scope 1) produced by listed companies:



Lecture

In 2023, the United States emitted 6 GtCO₂e, of which 1.9 GtCO₂e originated directly from listed companies.

However, not all corporate emissions are direct; some are indirect.

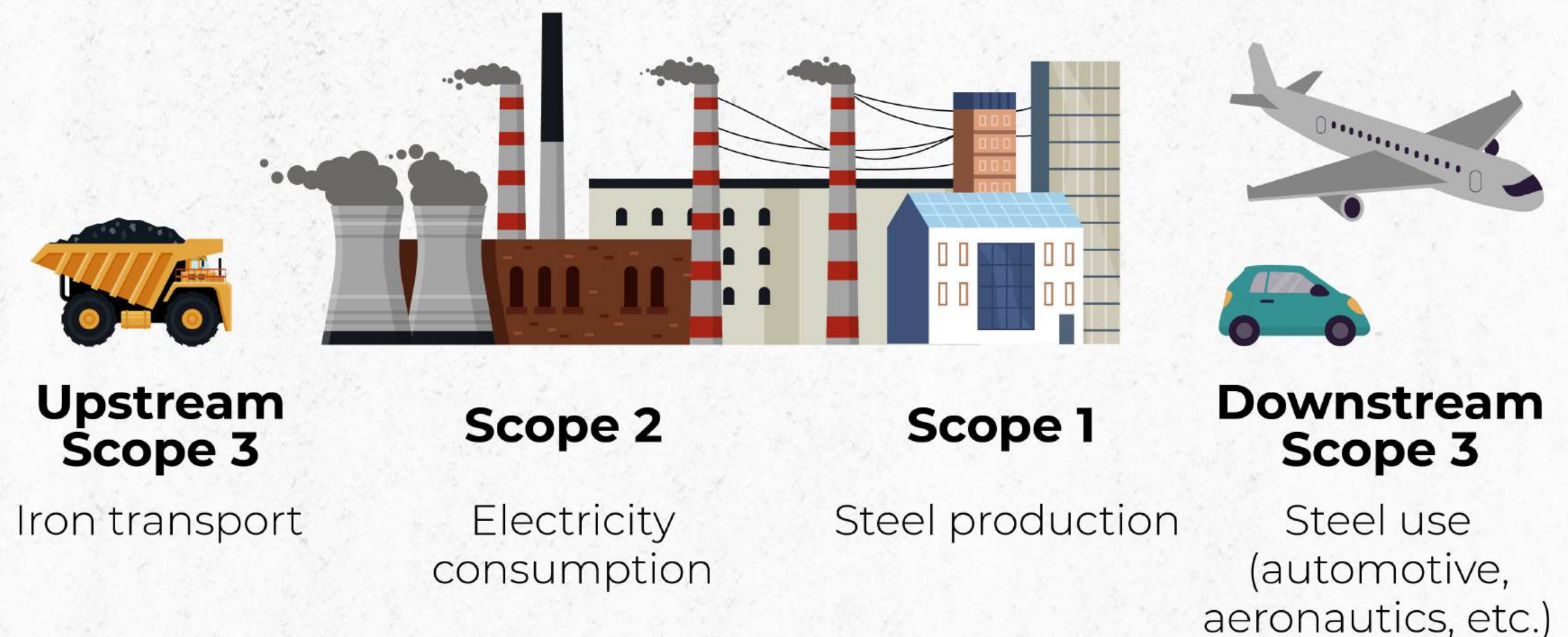
To take them into account, emissions are categorised by 'scope'.

Scope 1 These are greenhouse gases directly emitted by the company's activities.

Scope 2 These are indirect GHG emissions associated with the consumption of electricity, steam, heat or cooling by the company.

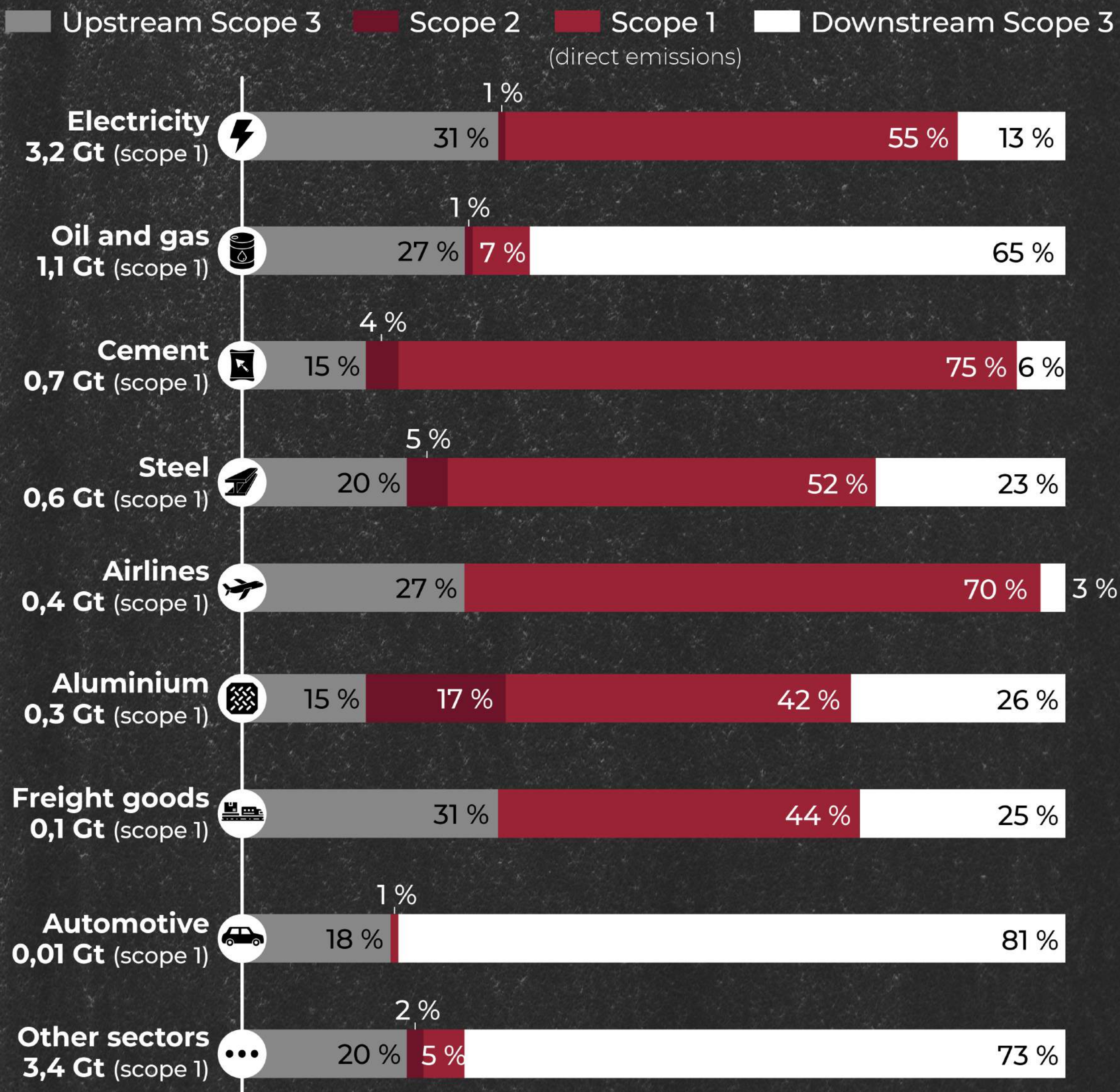
Scope 3 These are all other indirect emissions that occur in the company's value chain, both upstream and downstream (e.g. transport, waste, usage, etc.).

Let's take the example of a steel producer, operating in a sector responsible for around 10% of GHG emissions:



And for some companies, indirect emissions are the most significant.

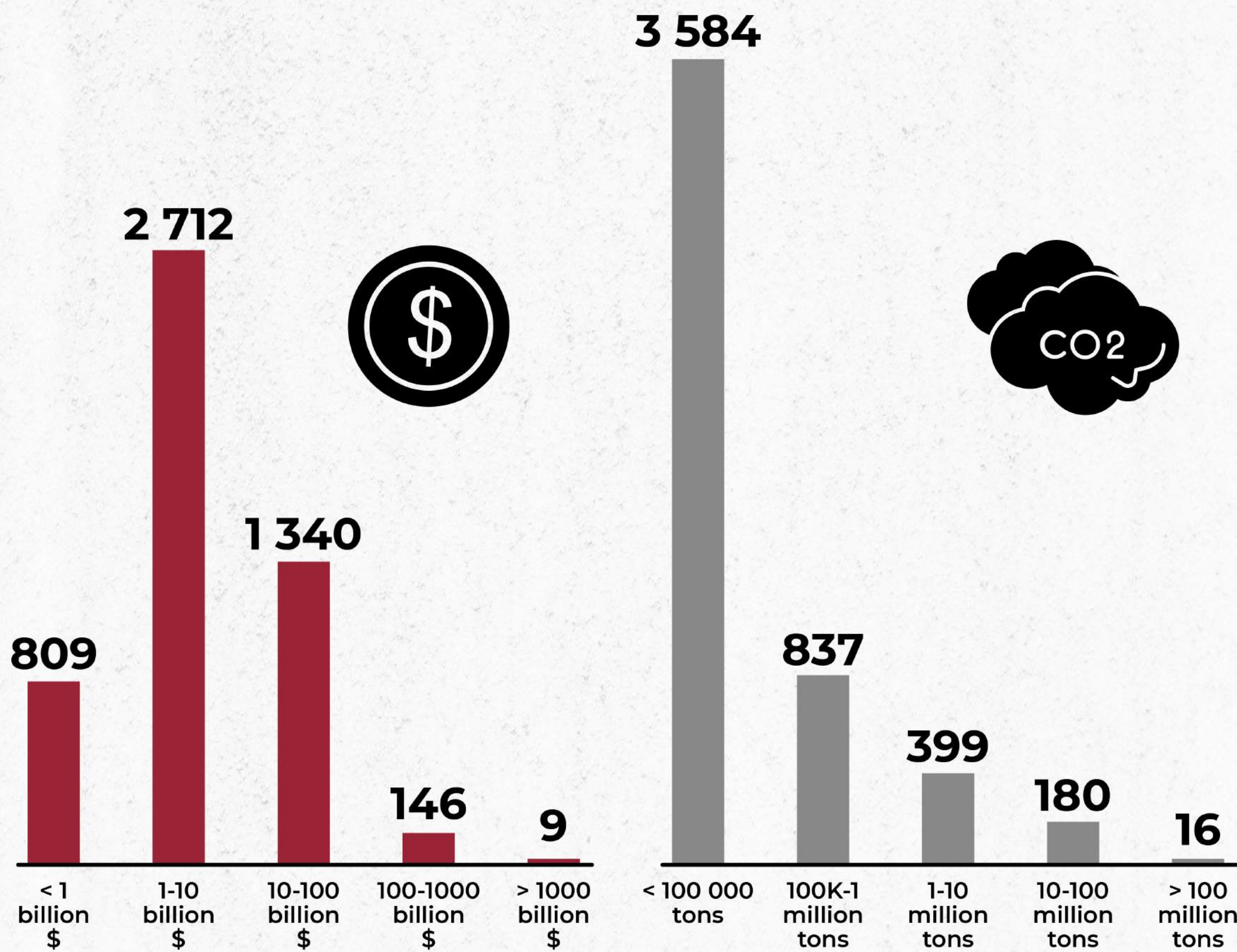
Breakdown of CO2e emissions from listed companies by sector and scope.



Breakdown of listed companies according to:

Their market capitalisation

Their direct CO₂e emissions



Thus, among more than 5,000 listed companies analysed, just 310 account for 90% of direct emissions (scope 1).



Source :

Scientific Portfolio (an EDHEC Venture)

Focus on companies* involved in fossil fuel-related activities:



Coal



Oil



Gaz

Number of listed companies

146

517

199

Share of global market capitalisation

2 %

10 %

2 %



Share of GHG emissions (Scope 1) of listed companies

19 %

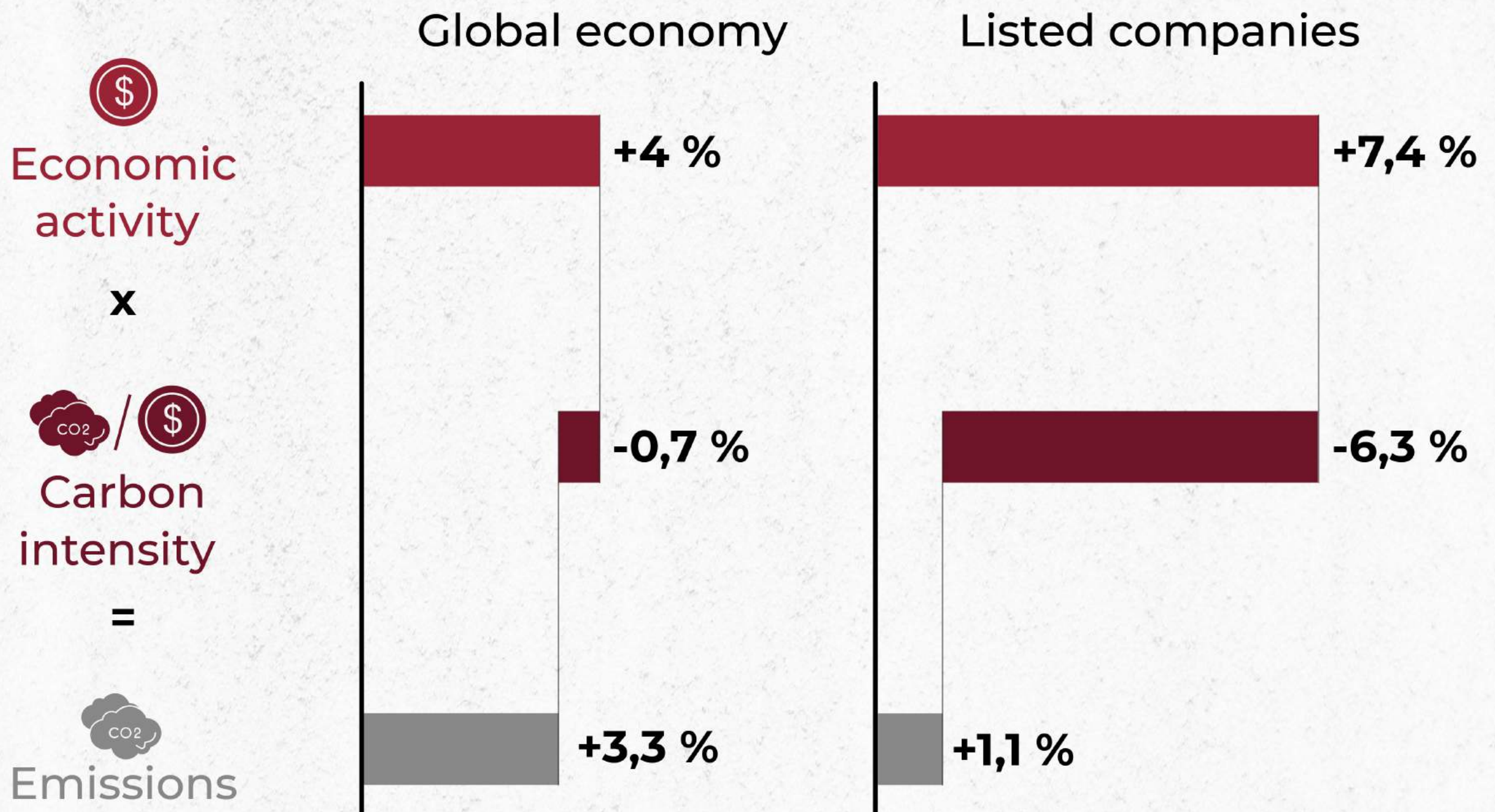
35 %

6 %



*A single company may be involved in several activities.

Emissions from listed companies have increased... but less rapidly than global emissions.



Lecture











Between 2019 and 2023, despite faster growth in their activity (+7.4%) than in the global economy (+4%), listed companies emitted proportionally less (+1.1% vs +3.3%) thanks to a sharp reduction in their carbon intensity (-6.3%).

However, companies have followed very different decarbonisation pathways. Which one are leading, and which are lagging? 🤔



Among the companies with the highest emissions, few have significantly reduced their emissions.

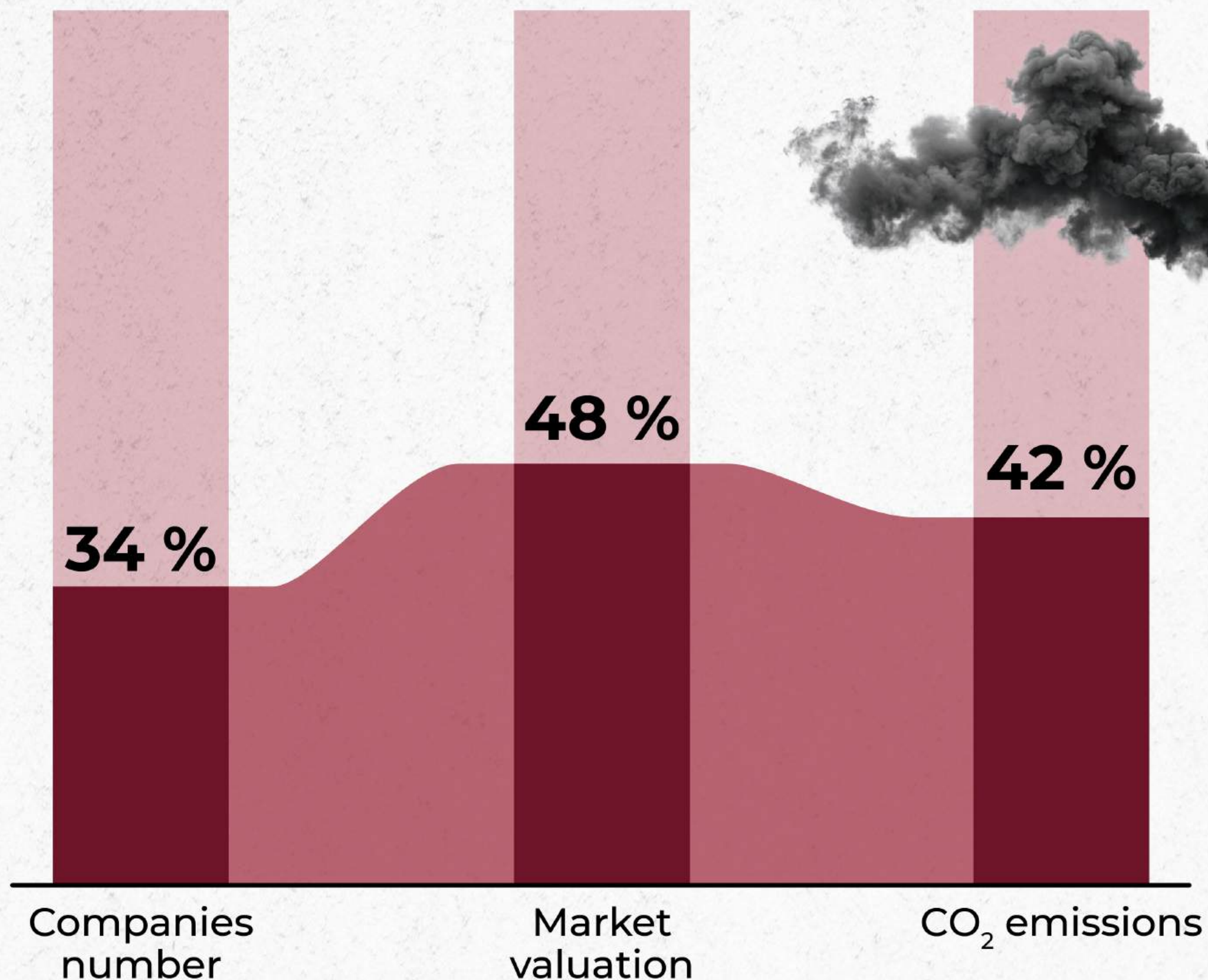
Fewer than one in two companies has achieved an annual reduction of more than 7%*.

	Number of companies	Of which annual CO ₂ e reduction > 7%	Of which annual CO ₂ e reduction < 7%	Proportion of “virtuous” companies
Airlines	28	1	27	 4 %
Aluminium	10	1	9	 10 %
Automotive	31	15	16	 48 %
Cement	15	2	13	 13 %
Electricity	94	37	57	 39 %
Oil and gas	87	14	73	 16 %
Other sectors	4 694	2 013	2 681	 43 %
Shipping	32	6	26	 19 %
Steel	27	8	19	 30 %
Total	5 018	2 097	2 921	 42 %

* Considered to be the pace of decarbonisation compatible with the targets set by the Paris Agreement.

Do listed companies plan to reduce their emissions by 2050?

Only 1,700 companies have set ambitious reduction targets, representing 48% of market capitalisation and 42% of direct CO₂e emissions from listed companies.



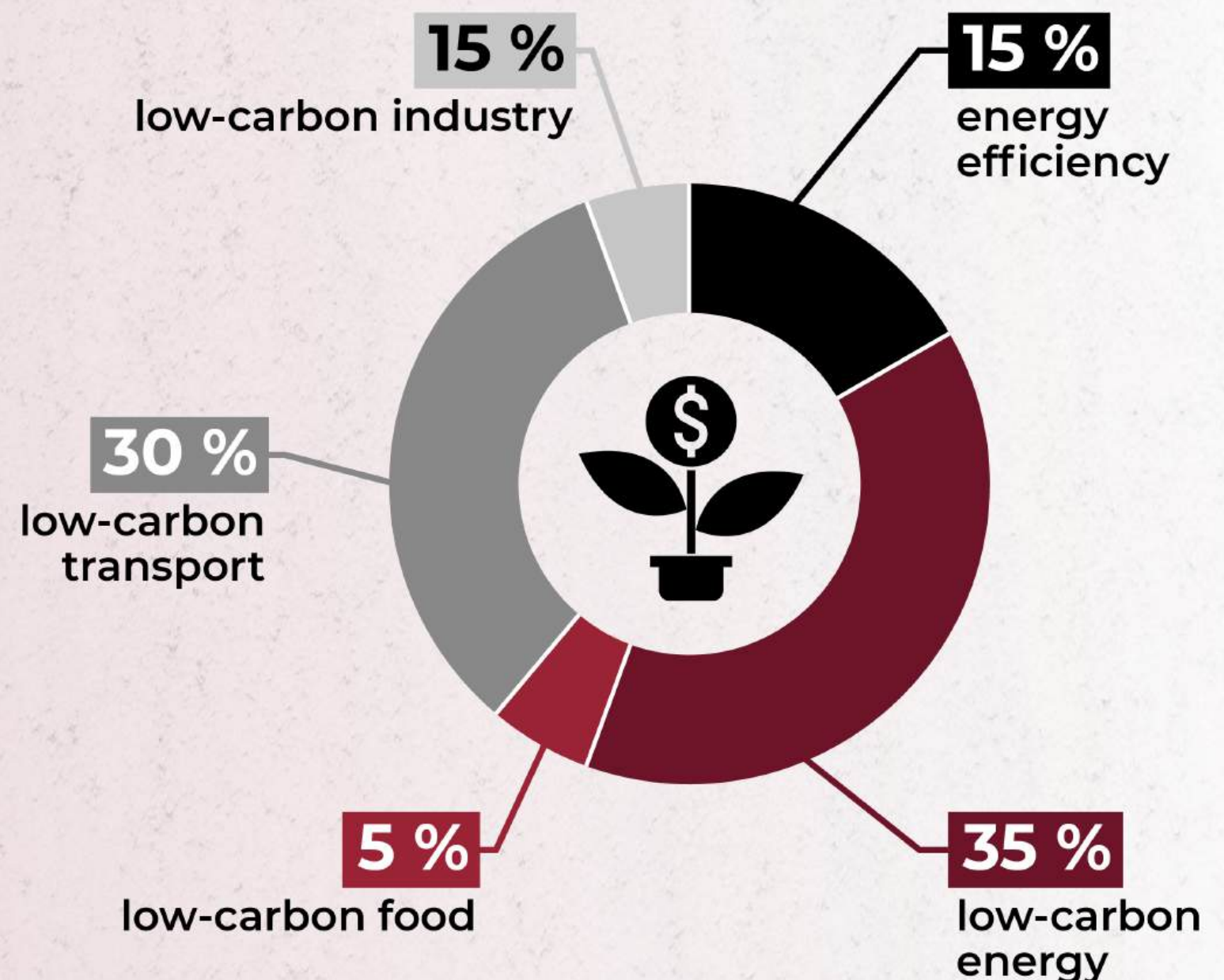
There is often a gap between commitments and reality. For example, 19 of the 28 publicly traded airlines have set ambitious targets, but only one has significantly reduced its emissions over the past three years.

The contribution of companies to climate change can also be measured through 'green' revenues.

These green revenues* account for only **2,7 %** of the total revenues of listed companies.



They are distributed as follows

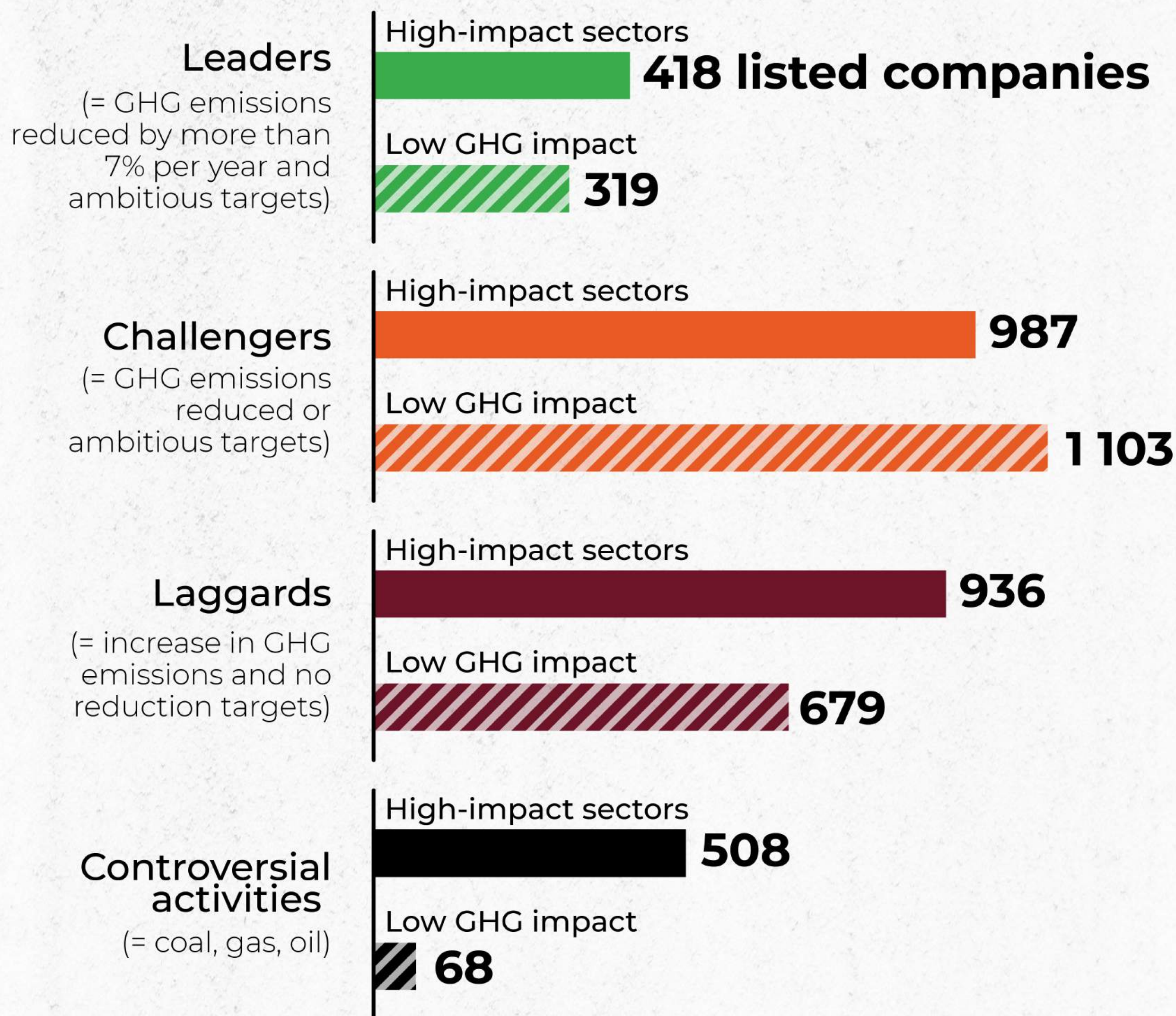


Focus

Only 492 listed companies generate more than 10% of their turnover through mitigation solutions.

* Revenue related to products or services that represent climate change mitigation solutions.

Summary: how listed companies are ranked according to their contribution to GHG emissions.



Lecture

418 listed companies operate in high-impact sectors and have both reduced their emissions by more than 7% per year in recent years and set ambitious future reduction targets.

Investors seeking to reduce their climate impact should therefore:



Invest more
in companies
leading the
transition



Engage with
companies
challenging
the transition
(through
dialogue
and voting)



Exclude
or weigh down
listed
companies with
controversial
activities
or those
lagging behind

'To avoid significant divergences in portfolio performance and risk, these reallocations must be optimised while taking financial constraints into account.'



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Sources

Scientific Portfolio (an EDHEC Venture)

Created by EDHEC in 2024, Scientific Portfolio (an EDHEC Venture) provides investors with the technology to independently analyse and build equity portfolios.

Information on companies' emissions, decarbonisation targets, and revenues associated with climate solutions has been processed by Scientific Portfolio using data provided by ISS, Clarity, and Moody's.

Edgar

The Emissions Database for Global Atmospheric Research (Edgar) is an independent database on greenhouse gas emissions and air pollution from 1970 to the present day.