



Travel Smart Ranking- 2023 edition

Benchmarking global corporate flyers on leadership towards purposeful travel

March 2023

Executive Summary

The 2023 Travel Smart Ranking measures efforts made by global companies towards reducing corporate air travel emissions, tracking their commitment, emissions and reporting performance. The yearly ranking is published by the Travel Smart campaign, a global campaign which seeks to get companies to reduce business flying emissions by -50% or more from 2019 levels, by 2025 or sooner.

- **85% of global companies don't have credible plans to reduce corporate flying emissions; and yet businesses have the responsibility and the means to make this necessary reduction happen to protect our planet, our health, and their reputation.**
 - **Only four companies out of 322 in the ranking abide by the "gold standard": they report air travel emissions and commit to a reduction of 50% or more, by 2025 or sooner.**
 - **If 10% of companies - the biggest emitters of the ranking - set 50% reduction targets, this would go half the way towards achieving the global target of -50% in corporate air travel emissions by 2025. After a year of inaction, there's no time to lose.**
 - **40 leading companies report the full climate impacts of their business flying including non-CO2 emissions, but the majority do not yet take these into account.**
 - **Businesses have found ways to perform while flying less in 2020 and 2021, and have not returned to the same level as overall commercial aviation; Only by setting targets can they ensure the sustained reduction needed.**
 - **Governments should accelerate and extend mandatory frameworks for corporate climate impact reporting to include air travel CO₂ and non-CO₂ emissions, and for climate transition plans to include business flying emissions reduction targets.**

Efforts to reduce corporate flying emissions are rare

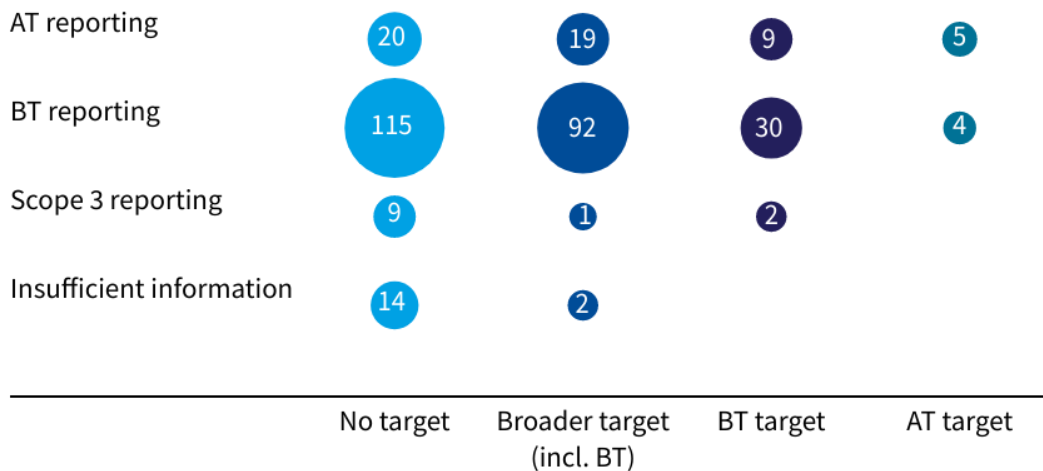


Figure ES.1: Number of companies by their business travel emissions commitment and reporting

85% of global companies are failing to set ambitious targets to reduce corporate travel emissions. Only 50 companies out of 322 have set targets to reduce business travel. While measuring and reporting seems to be a widespread practice, actually committing to reducing emissions is still residual. Moreover, only 16% of companies provide air travel emissions specifically, despite this being the most climate-intensive form of business travel, estimated to account for about 15-20% of air travel emissions globally¹ and 25-30% at European level².

Gold standard

Of the 50 companies which have committed to reducing business travel emissions, 41 have set a business travel target and only 9 have committed to reducing air travel specifically. However, this is not enough to keep global warming below 1.5°C. Only four companies in the ranking achieve the “gold standard” - i.e. reporting air travel emissions and committing to a reduction of 50% or more, by 2025 or sooner. These are Novo Nordisk (Pharmaceuticals, Denmark), Swiss Re (Finance, Switzerland), Fidelity International (Finance, United Kingdom) and ABN Amro (Finance, Netherlands).

Reporting full climate impacts

Non-CO₂ effects (resulting from the interaction between other aviation emissions than CO₂ and the earth’s atmosphere) are estimated to account for two thirds³ of aviation climate impact. Only 40 leading companies, or 12%, report these emissions and thus account for the complete climate impacts of their business flying.

¹ McKinsey & Company, The Travel Industry Turned Upside Down Report, September 2020, <https://www.mckinsey.com>

² In-house estimation, Transport & Environment, *Roadmap to climate neutral aviation in Europe*, (2022).

³ <https://www.easa.europa.eu/en/document-library/research-reports/report-commission-european-parliament-and-council>

The biggest flyers have the highest share of responsibility

A small group of well-known companies have a bigger share of emissions than the rest of the companies in the ranking. Our calculation shows that 10% of companies committing to -50% targets can go half the way in achieving the global target of -50% by 2025 compared to 2019⁴. However, too many of these big emitters don't have specific business travel reduction targets. The ten biggest flyers without a target, i.e. Volkswagen, KPMG International, Johnson & Johnson, Accenture, Siemens, IBM, Microsoft, Alphabet (parent company of Google), Merck & Co. and SAP collectively accounted for 3.5 MtCO₂ of air travel emissions in 2019, or 20% of emissions from companies in our ranking

Companies have innovated to perform while flying less

In 2020 and 2021, companies' air travel emissions decreased by 64% and 70% respectively compared to 2019. This was mostly due to travel restrictions as a result of the COVID-19 pandemic, but analysis shows that companies' emissions have not rebounded in the same way as commercial aviation emissions did in 2021, pointing out that corporations are innovating their practices to perform with less business flying. More companies following this path are needed for a shift towards more sustainable and responsible business practices.

Governments need to step up in their role to ensure sustained reductions

The UK and France both have legal frameworks requiring large businesses to report annually on their greenhouse gas emissions. The EU Corporate Sustainability Reporting Directive will extend reporting requirements on business travel emissions to 50,000 companies with operations in the European Union. The U.S. Securities Exchange Commission has also made a proposal in this direction. However, legal requirements for companies to define climate transition plans and emissions reduction targets are still in the starting blocks, which partly explains the lack of business air travel targets. A faster and more specific deployment of target setting requirements will be necessary.

⁴ This calculation takes into account the 262 companies for which baseline (i.e. 2019 or 2018) business travel emissions are available.

1. Context

Global air travel accounts for an estimated 3.5% of anthropogenic climate warming⁵ and is predicted to grow significantly in the next decades. It could consume up to a quarter of the global carbon budget remaining to keep global warming below 1.5C above pre-industrial levels⁶. Business travel is a significant part of aviation's climate problem. It accounts for about 15 - 20% of global air travel, or about 154 million Mt CO₂ in 2019⁷, and in Europe we have estimated that about 27% of aviation emissions come from business travel⁸. At the same time, the pandemic upturned long-held ideas about the necessity of air travel and the inevitability of travel-related greenhouse gas emissions. Moreover, the war between Ukraine and Russia has shown us more than ever that we must be smart with our use of energy. It is thus logical to consider business travel as one of the low hanging fruits in the fight against climate change and a key way towards a more sustainable and resilient society.

Air travel, and business flying in particular, finds itself at a crossroads. After two years (2020 and 2021) of reduction forced by the COVID-19 pandemic, we've seen a temptation to return to business as usual in 2022. At the end of 2022, European traffic was down by only 20% compared to the same period in 2019⁹. The only way to control aviation emissions in this decade is to stop the growth in demand and for this, reducing business travel is key. Global levels of business travel in 2022 as compared to 2019 were relatively lower than for air travel as a whole, at 67% for domestic bookings and 54% for international bookings.¹⁰ In 2023, all global businesses should capitalise upon experience in innovating practices to perform with less flying, in order to avoid increases associated with reopening of travel with China, or plans for aviation growth in India, or return to outdated routines in Europe and North America. A meaningful and long-term reduction target of 50% in corporate air travel emissions is both necessary and possible in this decade, and companies have the means and power to make this happen.

To measure companies' progress towards this goal, in 2022 we set up the Travel Smart Ranking, benchmarking global corporate flyers on leadership towards purposeful travel. This new edition presents an update of this ranking based on information reported by companies for the year 2021 and made public before the end of 2022. We present a broadened list of companies based on an objective set of criteria detailed in section 4. We detail the updates into our data collection process and the challenges encountered while working with the current reporting framework, mainly the

⁵ in 2018, see D. Lee et al., 'The contribution of global aviation to anthropogenic climate forcing for 2000 to 2018', *Atmospheric environment*, 244 (2021), 117834.

⁶ <https://www.carbonbrief.org/aviation-consume-quarter-carbon-budget/>

⁷ McKinsey & Company, *The Travel Industry Turned Upside Down Report*, September 2020, <https://www.mckinsey.com>

⁸ Transport & Environment, *Roadmap to climate neutral aviation in Europe*, (2022)

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<https://www.businesstravelnewseurope.com/Air-Travel/European-air-traffic-doubles-on-strong-international-rebound>

¹⁰ Global Business Travel Association, Q1 2023 Business Travel Outlook Poll.

CDP dataset. We present the updates made to our ranking criteria to take into account more of the many aspects of corporate air travel reporting. When presenting our results, we identify differences between industry sectors and countries, we analyse the reporting and commitment performance of companies in detail and we show the drop in companies' air travel emissions in the last two years as well as forecast their likely evolution in future years.

2. Questions & Answers: Methodology

- **How did you select the companies?**

In the first edition of the ranking published in 2022, 229 companies were selected. These were chosen from the 2021 Top 100 Corporate Flyers List, the Science-Based Targets (SBTi) database, and through a selection of European companies based upon market capitalisation, business travel commitments or reporting.

Last year's list was kept as a template, although we removed a limited number of companies, if they were relatively small or did not fly much for business. We then decided to add large companies, susceptible to flying a lot for business. For the 17 countries chosen to be part of the 2023 ranking (Austria, Belgium, Denmark, Finland, France, Germany, India, Italy, Ireland, Netherlands, Poland, Portugal, Spain, Sweden, Switzerland, United Kingdom and United States), we also included the countries' largest companies in terms of employees, the top 10 companies by market capitalization, and the companies with the highest business travel emissions in the CDP dataset.

The ranking now includes 322 companies.

- **How do you attribute points to the companies?**

The ranking grades the 322 companies according to ten indicators, relating to air travel emissions, reduction targets and reporting. Each indicator was broken down into varying levels of success, which gave a company a specific amount of points.

For example, for the first indicator on commitment (i.e. does a company have a reduction commitment and does it specifically mention business air travel), a company was awarded 0 points for no target, 0.5 points for a broad emissions reduction target, 1 point for a business travel emissions reduction target, and 1.5 points for an air travel emissions reduction target.

For a detailed overview of the ten indicators and how many points were attributed for each level of success, please refer to Table 2 of the full briefing.

We divided the range for total score, which goes from -1 to 14 points, in four equal parts corresponding to categories A, B, C or D. Companies are categorised based on their total score.

- **Why do some companies have a negative score?**

Points are deducted for not disclosing emissions and for being a major emitter (e.g. having emissions above 280,000 tCO₂). The minimum score (-1) represents a company which has no emissions reduction target, and either has no reporting or is a major emitter.

- **How does a company get an A, B, C or D grade?**

An A grade corresponds to a score of 10.5 points or above. A company with the grade B has a total score ranging from 6.5 to 10. The grade C was given to all those companies with a score between 3 and 6. And the lowest grade, D, was for all companies scoring 2.5 points or less.

- **Is the ranking different than last year?**

The ranking was updated to include more companies this year (see question 1). In addition, we extended the number of indicators and the point system. And the geographic scope was extended to include India.

As the impacts of climate change are more visible than ever, and the harmful effects of fossil-fueled aviation on the planet are clear, we tightened the criteria in this edition of the ranking. General company-wide targets, such as Scope 3 targets, were not considered relevant enough. We only granted points for targets specific to business travel. Similarly, we did not attribute points to target achievement dates after 2030.

Two new indicators were added in this edition of the ranking. 0.5 points were attributed to companies reporting their corporate environmental data in CDP. CDP offers the most comprehensive standard and comparable dataset for company environmental data disclosure. Secondly, this year's ranking looks at reporting of non-CO₂ effects associated with business travel. Aviation's non-CO₂ effects are estimated to warm the atmosphere twice as much as its CO₂ effects only. It is thus capital to make non-CO₂ reduction a priority in the coming years. We have thus granted an additional 0.5 points to companies which report the full climate impacts of business flying, including non-CO₂ effects.

- **Which are the top emitting companies?**

We pay particular attention to the top emitting companies which do not have targets to reduce their business travel emissions. These include, in order, Volkswagen, KPMG International, Johnson & Johnson, Accenture, Siemens, IBM, Microsoft, Alphabet Inc, Merck & Co. and SAP.

- **What does an arrow up or arrow down mean on the Ranking webpage?**

The grade attributed to companies may have changed compared to 2022. In this case, an arrow is there to indicate if the company has moved up or down a category.

- **Have the companies received the ranking, and have you engaged with them on the results?**

All companies were contacted before the publication of the ranking. Any company wishing to submit additional data is free to do so. We will then review the data and update the ranking if relevant.

- **Why are you still showing 2019 air travel emissions ?**

In 2020 and 2021, companies' total air travel emissions have decreased by 64% and 70%, respectively. Most of this is due to travel restrictions as a result of the COVID-19 pandemic, but we note that companies' emissions have not rebounded in the same way as commercial aviation emissions did. A meaningful corporate travel target should take 2019 (or a previous year) as a baseline rather than 2020 and 2021. We have decided to publish emissions data from 2019 as this is more representative of companies' air travel when they have been free to fly.

- **What does “Broader target (incl. BT)” mean?**

Companies may find themselves attributed a “broad target” even though they include business travel in a target they have set. This is because targets that include business travel together with other sources of emissions may be able to be achieved without a meaningful reduction in business travel. For example, if a target is set on employee commuting and business travel, it is well possible that the company achieves its target by reducing employee commuting emissions only. For business travel emissions to be meaningfully targeted, they must represent a substantial share of the scope on which a target is set. We considered a target to be business travel specific if travel emissions represent more than 75% of the emissions on which a target is set, and/or if the company clearly and explicitly detailed its plan to reduce business travel emissions as part of its broader target.

- **Why is it important for companies to account for the non-CO₂ effects of aviation?**

On top of CO₂, aircraft engines emit other gases – nitrous oxides, sulphur dioxide and water – and particulate matter (soot). These are commonly referred to as non-CO₂ emissions, and it is [estimated](#) that they account for two thirds of total climate warming from flying¹¹. Yet only very few companies reflect the total impact of business flights by accounting for non-CO₂ effects.

Companies should take into account the full climate warming impacts of business flying and reduce them. We found that 40 companies out of 322 are leading the way by reporting non-CO₂ emissions associated with corporate flights.

¹¹<https://www.easa.europa.eu/en/document-library/research-reports/report-commission-european-parliament-and-council>

- **Which sectors are doing well?**

The financial, consulting and pharmaceutical sectors have the best score distribution with several companies ranked A and B. The most represented sector, manufacturing, has almost only C and D scores, similarly to retail and construction. The tech sector has a few B's but no top marks.

- **Which countries are doing well?**

Companies from the three most represented countries, the US, the UK and France, rank similarly although the UK has a higher share of A companies. This can be explained by the fact that the UK has a third of companies from the financial sector. The UK¹² and France¹³ both have legal frameworks requiring large businesses to report annually on their greenhouse gas emissions. Many U.S. businesses annually report emissions to some degree, but there has not yet been a legal obligation with a defined standard.

Germany, on the other hand, does not have any A or B companies. Its high share (35%) of poorly ranked manufacturing companies partially explains it, but clearly German companies from other sectors do not rank well either. A national policy would be welcome to fix this lack of transparency and commitment to reduce business travel emissions.

3. Updates on company selection and data gathering

In this section we present the updates we made to the list of companies included in the 2023 ranking and the new ways in which we collected data. The methodology presented in the document accompanying the first ranking¹⁴ remains valid unless explicitly stated below.

3.1. Company selection

For the first ranking published in May 2022, Stand.earth Research Group had put together a list of 229 companies¹⁵ using Business Travel News's (BTN) Top 100 Corporate Flyers List from 2021, the Science-Based Targets (SBTi) database, and European companies chosen based upon market capitalisation, business travel commitments or reporting. This year, we extended the list of companies from 229 to 322 in order to better include large companies and companies likely to be flying a lot.

¹² UK, Guidance to help companies comply with the Streamlined Energy and Carbon Reporting regulations, including greenhouse gas (GHG) reporting, March 2019.

<https://www.gov.uk/government/publications/environmental-reporting-guidelines-including-mandatory-greenhouse-gas-emissions-reporting-guidance>

¹³ France, Le rapportage extra-financier des entreprises, <https://www.ecologie.gouv.fr/rapportage-extra-financier-des-entreprises>

¹⁴ Available on: <https://www.transportenvironment.org/discover/benchmarking-global-corporate-flyers-on-leadership-towards-purposeful-travel/>

¹⁵ List of 230 companies included one double count.

To establish the new list, we first removed a limited number of companies from the original ranking because they were either small¹⁶, unlikely to fly a lot or not strictly private sector (e.g. media). We then extended the list to include the biggest companies in terms of employees, the top 10 companies by market capitalisation, as well as the companies with the highest travel emissions in the CDP¹⁷ dataset from the 16 countries part of the analysis (Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Netherlands, Poland, Portugal, Spain, Sweden, Switzerland, United Kingdom, United States of America). Ten companies from India were included in order to reflect the global scope of the campaign, and extend the reach to the continents between which most corporate travelling takes place, namely North America, Europe and Asia. Finally, we included companies which showed leadership or willingness to reduce air business travel, as well as influential companies with a strong presence and impact in their respective countries, both economically and in the public debate.

Country breakdown

Fig. 1 shows the distribution of companies by country of incorporation. We included roughly the same shares of European (75%) and other global (25%) companies as in the previous edition of the ranking. Most other global companies are from the US, which is also the most represented country in the database. The breakdown by country is determined by factors such as representation of major flyers, biggest companies by market capitalisation and employees, and the companies that had targets and/or reporting available for analysis. The UK still has the largest geographic share of any country in Europe, closely followed by France, then Germany. The next countries have significantly less companies, which is explained by their smaller size and/or economic activity. Switzerland and the Netherlands have a remarkably high number of companies for their size, reflecting a higher concentration of multinationals. We ensured all countries included in this ranking were represented by at least 5 companies.

Country	Count	Proportion
United States of America	68	21%
United Kingdom	42	13%
France	35	11%
Germany	31	10%
Spain	18	6%
Switzerland	17	5%

¹⁶ less than 500 employees

¹⁷ <https://www.cdp.net/en>

Netherlands	16	5%
Italy	14	4%
Portugal	13	4%
Ireland	11	3%
Sweden	11	3%
India	10	3%
Austria	9	3%
Belgium	9	3%
Denmark	8	2%
Finland	5	2%
Poland	5	2%
Total	322	100%

Table 1: Country breakdown of companies in the list

Sector breakdown

Compared to 2022, we have added more manufacturing companies because they are companies with a lot of employees or higher market capitalisation. Together with manufacturing, finance is still the sector with most companies represented, followed by technology and retail. Together, these categories account for more than 50% of the companies in the list.

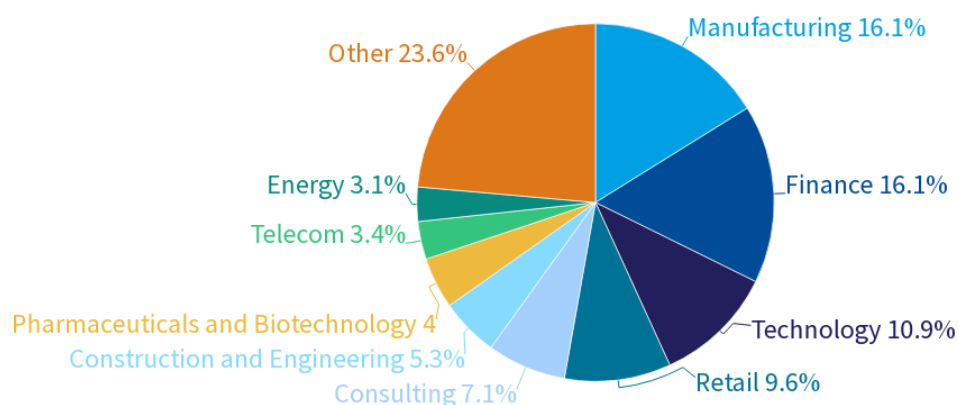


Figure 1: Shares of companies by sector

3.2. Data gathering and treatment

Sources of data

In addition to the data collected by Stand.earth Research Group in 2022, we extracted data relevant to our ranking from the CDP climate change survey datasets 2019 to 2022. These contain environmental impact reporting from more than 8,350 companies around the world for their financial years 2018 to 2021. In the 2022 database, 1,077 companies report having set a target including business travel, 686 of which are incorporated in the 17 countries included in this ranking. We only included in our ranking the companies that had been selected based on the objective set of criteria detailed in section 3.1. Out of the 322 companies selected in our ranking, 276 reported business travel emissions publically to CDP in 2022.

From the CDP dataset, we extracted the following company information, directly available as database entries:

- name
- sector
- past four years of reporting (2018 to 2021)
- past four years business travel (BT) emissions
- past four years scope 3 emissions, if BT emissions were not disclosed
- target adoption year (for all targets including BT)
- target scope (can be BT-specific or broader scope)
- target type (absolute emissions or intensity-based)
- target reduction commitment
- target (aimed) achievement year
- base year
- base year emissions
- any explanation provided on the above data

Additionally, we systematically analysed the explanations provided to extract the following information if it was mentioned explicitly:

- air travel (AT) emissions
- non-CO₂ reporting
- non-CO₂ multiplier used

Data correction and treatment

We corrected several types of errors in companies' responses to the CDP questionnaire:

- Obvious errors in encoding, such as misplaced decimal points in emission values, were corrected to our best judgement.
- BT emissions that were copied from one year to the next, or incorrect reporting periods, were treated as if no reporting had been made. Examples include Volkswagen, Tesco, Smurfit Kappa, BHP, Michelin and Lenzing.

- Targets missing in CDP but known to us via other sources (earlier data collection or new research) were added manually.

Additionally, we removed targets including offsets for companies which did not follow CDP's guidance that only direct emission reduction targets should be reported¹⁸. Some companies acknowledge not complying with CDP's guidance, in order to communicate their net-zero goal publicly and to their investors. However, offsetting cannot substitute for reducing emissions. Evidence that the majority of carbon offsets don't work is piling up, and an investigation of nearly 100 million carbon credits recently found that only a fraction of them resulted in real emissions reductions¹⁹. It is thus clear that targets including offsets cannot qualify as proper reduction targets in our ranking.

Overall, the lack of verification on corporate climate data reporting is a significant limitation at this moment. Companies have the choice to have their climate data verified independently or not and they can thus make mistakes or under-report their impact in some cases.

Manual data gathering

For the 46 companies not reporting BT emissions to CDP, we manually checked company websites, press releases, as well as annual and sustainability reports for information related to business (air) travel. If such information wasn't available in these sources, we assumed the company did not report nor commit on business travel.

Outreach to companies

During a four-week period ending in December 2022, all 322 companies were diligently contacted and given the opportunity to submit data relevant to our ranking. 14 of them responded. In February 2023, all companies were again contacted and informed of their score to be published in the 2023 ranking.

4. Update on ranking indicators

For 2023, companies were assessed based on the criteria shown in Table 2. We made the following updates:

- **Stricter definition of "Broad target" commitment:** only targets explicitly including BT are granted 0.5 point or more (see below), as the Travel Smart ranking does not consider other companies' climate-related pledges.

¹⁸ CDP is requesting data on totals emissions targets before any adjustments made to take account of offset credits, avoided emissions, sequestration or transfer of GHGs. CDP Climate Change 2022 Reporting Guidance: <https://guidance.cdp.net/en/tags?cid=30&ctype=theme&gettags=0&idtype=ThemeID&incchild=1µsite=0&otype=Guidance&page=1&tgprompt=TG-124%2CTG-127%2CTG-125>

¹⁹ <https://www.source-material.org/vercompanies-carbon-offsetting-claims-inflated-methodologies-flawed/>

- **Threshold to consider targets as BT-specific:** If BT emissions represent more than 75% of the emissions on which a target is set, it is considered a BT target. For example, if a target is set on BT and employee commuting and BT emissions represent 82% of the total for these categories, this target is considered as “BT target”. If BT emissions represent 50% of emissions, this target is not considered as “BT target”. This is to avoid the adoption of broad targets including BT but not necessarily targeting BT emissions in practice.
- **Update of target adoption timeline:** last year, companies were granted 1 point if they had been committed for at least one year as of 1 January 2022 (i.e. the end of data collection period). To keep rewarding early movers in the same way, the point is still granted if the company has been committed for at least one year as of January 2022, or at least two years as of January 2023 (end of the data collection period for the 2023 ranking). In case a company has improved its original commitment, we use its earliest date of commitment.
- **No points for target achievement dates after 2030:** The UN High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities, in their November 2022 report "Integrity Matters: Net Zero Commitments by Businesses, Financial Institutions, Cities and Regions", recommends that businesses should have short-term targets of five years or less, with the first target set for 2025. We thus consider that companies only setting targets beyond 2030 are not credible.
- **New year of reporting and point cap for companies reporting Scope 3:** with one more year of reporting (2021), the “years of reporting” criterion can now bring 2 points maximum to a company. Additionally, we have decided to cap the number of points granted to companies only reporting Scope 3 emissions to 1 point, because after two years of reporting Scope 3, a company should be able to report BT or AT emissions and improve its mark.
- **New criterion - reporting source:** CDP offers the most comprehensive standard and comparable dataset for company environmental data disclosure. A company reporting to CDP participates in a collective effort to make corporate environment data more transparent and accessible. This is why we have granted 0.5 points to companies reporting to CDP.
- **New criterion - non-CO₂ reporting:** aviation’s non-CO₂ effects are estimated to warm the atmosphere twice as much as its CO₂ effects only²⁰ (more on this in section 5.2). To highlight the need to accurately take into account the full climate warming impacts of business flying and reduce it, we have granted an additional 0.5 points to companies which report non-CO₂ effects as part of their BT or AT emissions, using a multiplier of at least 1.9 (as recommended by UK DEFRA²¹).

²⁰ Lee et al., ‘The contribution of global aviation to anthropogenic climate forcing for 2000 to 2018’

²¹ <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2021>

Indicator	Verifier	Score
Commitment <i>Do they have a reduction commitment including business travel? Is it a specific business or air travel target?</i>	No target	0
	Broad target (including BT)	0.5
	BT target	1
	AT target	1.5
Target adoption <i>Have they been committed to these targets for more than two years (as of January 2023)?</i>	No target	0
	< 2 years	0.5
	>= 2 years	1
Type of target <i>Is the target an absolute reduction or using an intensity metric (such as tCO₂/employee)?</i>	None	0
	Intensity	0.5
	Absolute	1.5
% Reduction commitment <i>How high is their ambition in reducing their emissions?</i>	No commitment	0
	<25%	0.5
	[25%;-50%[1
	[50;75%[2
	≥75%	3
Timeline to target <i>When do they aim to achieve their target ?</i>	No timeline	0
	>2030	0
	2025-2030	1
	≤2025	2
Reporting source <i>Do they report to CDP ?</i>	Other or no reporting	0
	CDP reporting	0.5
Reporting specificity <i>Do they report their air travel emissions specifically?</i>	Insufficient information	-1
	Scope 3 reporting	0.5
	BT reporting	1
	AT reporting	2
Air travel emissions 2019 <i>Are they a major emitter?</i>	>280,000 tCO ₂	-1

	150,000 tCO ₂ - 280,000 tCO ₂	-0.5
	Other or no reporting	0
Years of reporting <i>How many of the last 3 years has the company reported emissions?</i>	0	0
	1	0.5
	2	1
<i>Note: a company only reporting Scope 3 emissions gets a maximum of 1 point</i>	3	1.5
	4	2
Non-CO₂ reporting <i>Do they report non-CO₂ effects using a multiplier and mention it explicitly?</i>	CO ₂ only	0
	Non-CO ₂ included	0.5

Table 2: 2023 ranking criteria and scores

We divided the range for total score, which goes from -1 to 14 points, in four equal parts corresponding to categories A, B, C or D (see Table 3). Companies were then categorised based on their total score. A maximum score of 14 represents a company who has made a business air travel commitment more than two years ago that includes an absolute (as opposed to intensity) air travel emissions reduction target greater than 75% before 2025. For top marks, a company must also be reporting on their air travel emissions (including non-CO₂) in CDP for the past 4 years. Points are deducted for not disclosing emissions and for being a major emitter (e.g. having emissions above 280,000 tCO₂)²². The minimum score (-1) represents a company which doesn't have emission reporting nor a commitment including business travel.

Category	Score
A	10.5 to 14
B	6.5 to 10
C	3 to 6
D	-1 to 2.5

Table 3: Categories and corresponding point ranges

²² The cut-off at 280,000 tCO₂ was justified in last year's briefing, available on: <https://www.transportenvironment.org/discover/benchmarking-global-corporate-flyers-on-leadership-towards-purposeful-travel/>

5. Results

In this section we analyse companies' business travel reporting and commitment performance and we present the result of the 2023 ranking. We take a deeper look at non-CO₂ emission reporting and the trend in past and future business travel emissions.

5.1. Commitment and reporting analysis

More than three quarters of companies in our ranking (246 companies or 76%) report air or business travel emissions but do not have a BT-specific commitment (see Fig. 2). 26 other companies (8%) haven't set a target either and report Scope 3 emissions at best, meaning 84% of companies do not commit to reducing business travel emissions. Companies are thus interested in reporting business travel emissions but much less in reducing it. This can be explained by several reasons. First, measuring and reporting is relatively easy and can give the impression to the public and shareholders that a company is acting to reduce its climate impact, although it isn't. Secondly, in some cases BT may represent a small share of a companies' emissions and they may decide to focus on the most important sources of emissions first. We argue that this is a mistake because there are easy ways to seize the momentum from experience during the COVID-19 pandemic and reduce business travel now, such as increasing the use of virtual collaboration or switching to rail travel, and a company should not wait for its other emissions to be reduced to enact travel policies. Such policies should be relatively easy to set up for the large number of companies already measuring business travel.

Of the 50 companies (16%) which committed to reducing, 41 have set a BT target and 9 have committed to reducing AT specifically. Only four companies in the ranking have the "gold standard", i.e. report air travel and commit to reducing it 50% or more, by 2025 or sooner: Novo Nordisk (Pharmaceuticals, Denmark), Swiss Re (Finance, Switzerland), Fidelity International (Finance, United Kingdom) and ABN Amro (Finance, Netherlands).

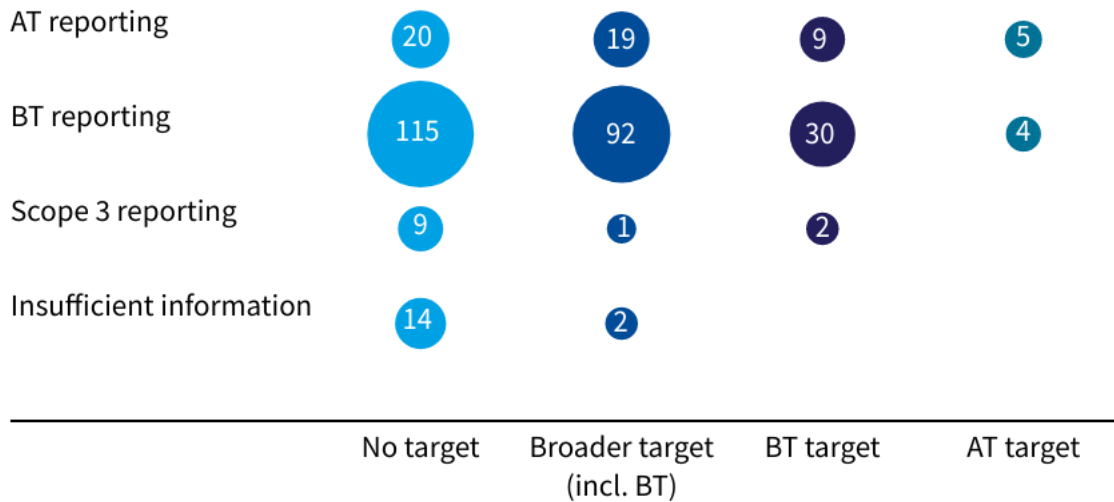


Figure 2: Number of companies by their business travel emissions commitment and reporting

As explained above, most companies (241 companies or 75%) report BT emissions. Only 16% of companies provide air travel emissions. In a lot of cases, companies calculate emissions from each mode of transport separately and then add them up, so reporting air travel emissions separately should not be an additional burden and would enhance transparency. The most likely reason why air travel emissions reporting is not more common is that the CDP questionnaire only asks for business travel emissions and not explicitly for air travel emissions. Since most companies mainly report emissions through CDP, there is little incentive for companies to separately report their air travel emissions. However, these emissions are very relevant as they are estimated to account for about 15-20% of air travel emissions globally²³ and 25-30% at European level²⁴. The reporting framework proposed to companies should thus be improved to allow monitoring of air travel emissions in the future.

5.2. Non-CO2 reporting

When an aircraft burns jet fuel, it releases carbon dioxide (CO₂), but it also produces emissions which change the chemical composition of the atmosphere and contribute to global warming. These are named non-CO₂ effects. Aviation’s main non-CO₂ effect is caused by contrails, the long cloudy strips that usually form at high altitude and through cold and humid air, where moisture in ice-saturated air freezes around soot particles released when jet fuel is burned. Nitrogen oxides (NO_x) create ozone (O₃) that traps heat radiation from lower altitudes and warms the air. NO_x also leads to the destruction of ambient methane (CH₄), which has a cooling effect, but NO_x remains a net positive warming agent overall. The largest aviation non-CO₂ impacts are those from net-NO_x and contrail

²³ McKinsey & Company, The Travel Industry Turned Upside Down Report, September 2020, <https://www.mckinsey.com>

²⁴ In-house estimation, Transport & Environment, *Roadmap to climate neutral aviation in Europe*.

cirrus. Overall, non-CO₂ effects from aviation are estimated to warm the climate twice as much as its CO₂ effects²⁵.

Although scientific understanding of non-CO₂ effects must still be improved, it is possible and crucial to start taking action towards resolving one of aviation's biggest climate problems. Transport & Environment has identified no-regrets policies to be pursued, such as reducing flights, using Sustainable Aviation Fuel (SAF) to reduce contrail formation and persistence, and improving traditional jet fuel quality. Other solutions, such as smart contrail avoidance and non-CO₂ pricing can also play an important role in mitigating these impacts. In the meantime, non-CO₂ reporting should be made part of standard climate reporting to measure the true climate warming impact of air travel.

We found that within our list, 40 leading companies report non-CO₂ with their BT or AT emissions, following UK DEFRA reporting guidance or other GHG methodologies²⁶. However, this represents only 12% of companies, which tend to be those with fewer emissions (8% of estimated air travel CO₂ emissions in 2021). In the same way as for air travel reporting, the absence of non-CO₂ reporting can be explained by the lack of a requirement to report non-CO₂ emissions, as well as the lack of public awareness about the subject.

5.3. Company ranking

Distribution by categories A, B, C and D

In Fig. 3 we show the distribution of companies by category in our ranking. For the 2023 edition, we increased our list from 229 to 322 companies and introduced several new ranking criteria to better account for the various aspects of company business travel reporting and target setting. For a complete list of companies, their score and more details on their performance, please visit our website²⁷.

²⁵ Lee et al., 'The contribution of global aviation to anthropogenic climate forcing for 2000 to 2018'.

²⁶ We counted companies explicitly mentioning non-CO₂ in their reporting. Other companies might have included non-CO₂ emissions without mentioning it.

²⁷ <https://travelsmartcampaign.org/ranking/>

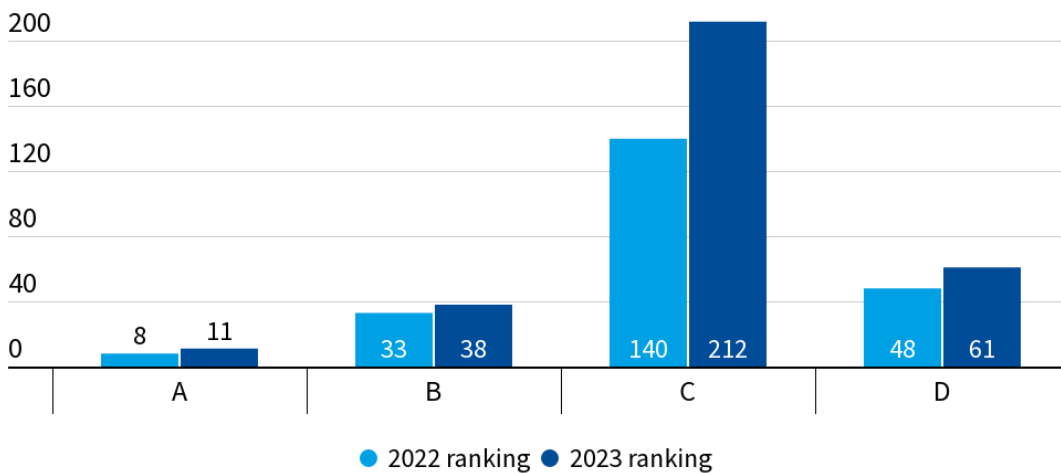


Figure 3: Companies per category in the 2022 and 2023 ranking versions

There are 11 companies (3%) in category A, three more than last year. Novo Nordisk, Swiss Re, Zurich Insurance Group, Fidelity International, Lloyds Banking Group and Crédit Agricole keep their place and are joined by ABN Amro, AstraZeneca, ABRDN, Pfizer Inc and HSBC. Legal & General Group moved from A to C because its target is a “net-zero” commitment, whereas we only recognise actual emission reduction targets. Ernst & Young UK used to be in category A as it was reporting AT emissions. However, as we are aiming to evaluate company-wide travel policies, we evaluated Ernst & Young Global, which belongs to category B because it only reports BT emissions publicly and because of the higher level of its global emissions.

Despite the increase in the number of companies, category B grew by only 5 entities and now represents 12% of companies. This reflects the fact that few companies have set targets, something that is necessary to reach category B. Major consulting companies Ernst & Young, PricewaterhouseCoopers, McKinsey and Deloitte are in this category. They are major emitters and they thus have the potential to set an example in reducing the business travel emissions of this sector.

Two thirds of companies (66%) in the ranking still belong to category C. These do not have BT-specific targets and various degrees of reporting. As shown before, most companies do report BT so there is no essential barrier to setting business travel reduction targets. The biggest flyers in this category are KPMG, Johnson & Johnson, Accenture, Siemens and Microsoft. Instead of setting net-zero targets unlikely to deliver the claimed emission savings, companies such as Microsoft should commit to real reductions in emissions.

Finally, 61 companies (19%) have no or little public BT reporting, no target and belong to category D. In Table 4 we show more information about the ten biggest flyers reporting business travel emissions but having no plan to reduce them. These ten companies represent 3.5 MtCO₂, or 20% of 2019 emissions from companies in our ranking. Three of them have no plan to reduce Scope 3 emissions whatsoever, while the 7 others only have broad targets including business travel without detailing specific goals to reduce it. And yet major emitting companies have a bigger share of the responsibility, and the resources, to set ambitious travel emissions reduction targets and policies.

Company	Country	Reporting	Estimated 2019 (or 2018 ²⁸) CO ₂ emissions (t)	Ranking score	Commitment type
Volkswagen	Germany	BT reporting	522,523	2.0	Broader target (incl. BT)
KPMG International	United Kingdom	AT reporting	465,000	3.0	Broader target (incl. BT)
Johnson & Johnson	United States of America	BT reporting	463,088	3.0	Broader target (incl. BT)
Accenture	Ireland	AT reporting	368,711	4.0	Broader target (incl. BT)
Siemens	Germany	AT reporting	309,838	4.0	Broader target (incl. BT)
IBM	United States of America	BT reporting	302,842	2.5	No target
Microsoft	United States of America	BT reporting	302,156	3.0	Broader target (incl. BT)
Alphabet, Inc.	United States of America	BT reporting	284,024	2.5	No target
Merck & Co.	United States of America	BT reporting	262,010	3.5	Broader target (incl. BT)
SAP	Germany	BT reporting	262,010	3.0	No target

Table 4: Major emitters without specific business or air travel reduction target

Distribution by sectors and countries

Fig. 4 shows the distribution of companies within categories for the most represented sectors in our ranking. The financial, consulting and pharmaceutical sectors have the best score distribution with

²⁸ If 2019 emissions weren't reported

several companies ranked A and B. The most represented sector, manufacturing, has almost only C and D scores, similarly to retail and construction. Finally, the technology sector has a few B's but no top marks. Though our ranking represents only a subset of global companies, this analysis seems to suggest that companies from different sectors have different levels of sensitivity to the climate impact of business travel and different dispositions to reduce it.

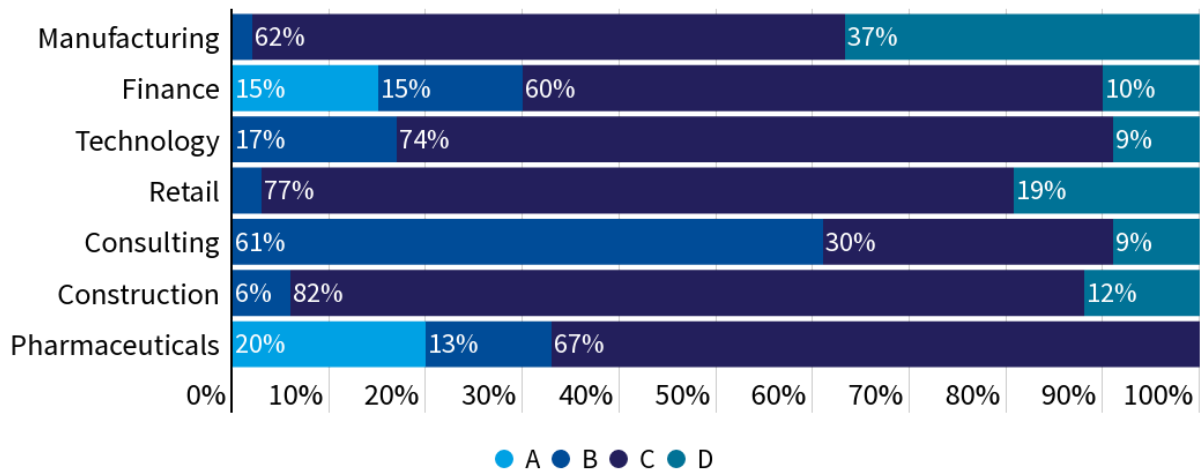


Figure 4: Distribution of companies by category in the most represented sectors

We also looked at differences in performance between the main countries, presented in Fig. 5. Companies from the three most represented countries, the US, the UK and France, rank similarly although the UK has a higher share of A companies. This can be explained by the fact that the UK has a third of companies from the financial sector. The UK²⁹ and France³⁰ both have legal frameworks requiring large businesses to report annually on their greenhouse gas emissions. Many U.S. businesses annually report emissions to some degree, but there has not yet been a legal obligation with a defined standard. The Securities Exchange Commission has made a proposal in this direction, which is expected to be finalised in 2023³¹. Germany, on the other hand, does not have any A or B companies. Its high share (32%) of poorly ranked manufacturing companies partially explains it, but clearly German companies from other sectors do not rank well either. A national policy would be welcome to fix this lack of transparency and commitment to reduce business travel emissions.

²⁹ UK, Guidance to help companies comply with the Streamlined Energy and Carbon Reporting regulations, including greenhouse gas (GHG) reporting, March 2019. <https://www.gov.uk/government/publications/environmental-reporting-guidelines-including-mandatory-greenhouse-gas-emissions-reporting-guidance>

³⁰ France, Le rapportage extra-financier des entreprises, <https://www.ecologie.gouv.fr/rapportage-extra-financier-des-entreprises>

³¹ <https://www.reuters.com/legal/legalindustry/upcoming-sec-climate-disclosure-rules-bring-urgency-esg-data-strategy-planning-2023-01-30/>

The European Union’s Corporate Sustainability Reporting Directive, set to come into effect starting in 2025 for financial year 2024, will extend reporting requirements, including on business travel emissions, to 50,000 companies with operations in the European Union³². While emissions reporting should improve, the legal requirements for companies to define climate transition plans and emissions reduction targets are still in the starting blocks, which partly explains the lack of business air travel targets. The UK’s Transition Plan Taskforce is the most advanced, with a proposal to disclose policies regarding business travel³³. Its disclosure framework is expected to be integrated into a regulatory update that could mandate climate transition plans for a set of companies as from 2026. The European Union’s Corporate Sustainability Due Diligence Directive, to be finalised this year, similarly contains an obligation for large companies to adopt a transition plan, but with few details³⁴. In light of the minority of companies defining air travel emissions reduction targets, a faster and more specific deployment of target setting requirements will be necessary.

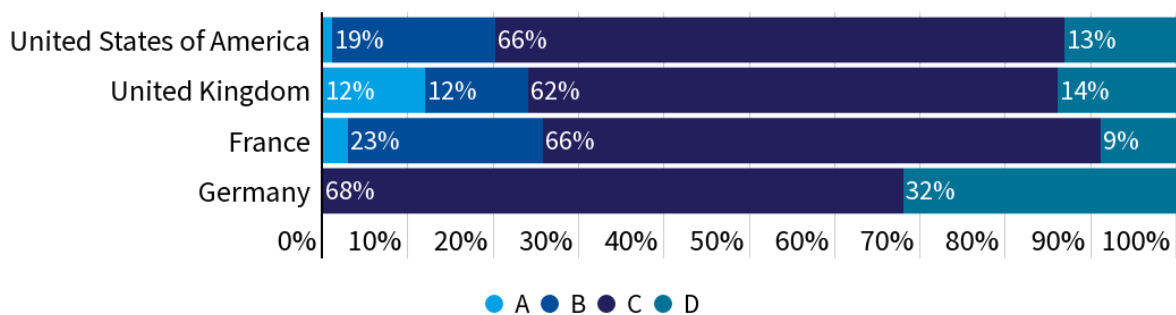


Figure 5: Distribution of companies by category in the most represented countries

5.4. Analysis of companies’ air travel emissions

Our estimation of companies’ air travel emissions allows us to quantify the change in emissions from 2019 to 2021, and to compare current reduction commitments to the target of -50% emissions by 2025 compared to 2019, needed if the aviation sector is to maintain an emissions trajectory in line with 1.5°C of global warming. In Fig. 6 we show companies’ 2020 and 2021 emissions compared to 2019 (taken as base 100). We also use current commitment information to forecast emissions, assuming companies achieve their targets. We compare this trajectory to past and future EU27+UK commercial aviation emissions³⁵ and to the target of -50% emissions by 2025.

³²<https://www.businesstravelnews.com/Management/European-Council-Approves-New-Sustainability-Reporting-Requirements>

³³ <https://transitiontaskforce.net/wp-content/uploads/2022/11/TPT-Implementation-Guidance.pdf>

³⁴ <https://www.clientearth.org/media/qgcfpgvt/factsheet-environment-climate-csddd-june-2022-final.pdf>

³⁵ Past emission calculated using our in-house model based on OAG Schedule Analyzer flight data and EuroControl aviation master emission calculator. Forecast based on EuroControl’s paper “European Aviation

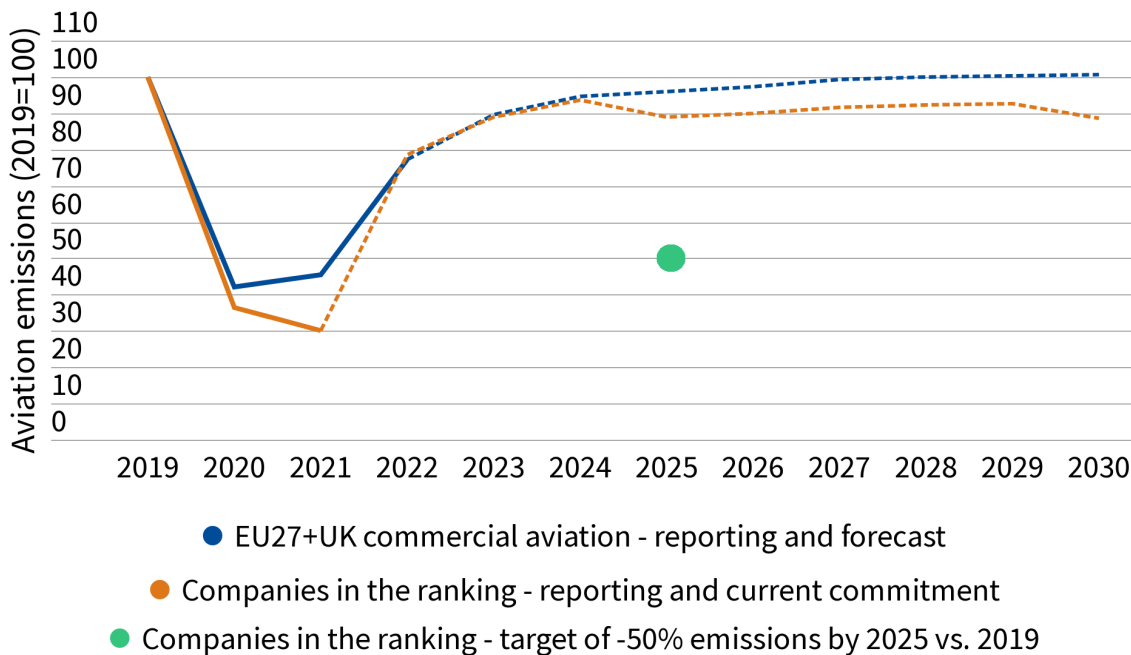


Figure 6: Evolution of company air travel emissions based on reporting and current commitment, and comparison with EU commercial aviation emissions and the target of -50% emissions by 2025.

In 2020 and 2021, companies' air travel emissions have decreased by 64% and 70%, respectively. Most of this is due to travel restrictions as a result of the COVID-19 pandemic, but we note that companies' emissions have not rebounded in the same way as commercial aviation emissions did. This may be a sign that companies have put into place sustained ways to conduct business while flying less. Future years' reporting will be key to confirm this trend.

Fig. 6 clearly shows that current emission reduction commitments are far from sufficient to reach a total of -50% emissions by 2025 compared to 2019 across all companies of the ranking. Instead, current targets correspond to an overall reduction of 9% of 2025 and 11% by 2030, which represents 2.3 MtCO₂. By comparison, in 2020 and 2021 companies reduced emissions by 9.8 MtCO₂ and 12.6 MtCO₂ respectively. This is equivalent to saving 24 million barrels and 31 million barrels of oil in these two years. Our ranking, however, only includes a small share of companies travelling by air. In earlier work, we estimated that around 27% of 2019 EU27+UK aviation emissions came from business travel³⁶. Compared to business-as-usual (i.e. growth), halving business travel traffic compared to 2019 levels would save the equivalent of 125 million barrels of oil per year and the emission of 51 MtCO₂ by 2050. This would have obvious climate benefits and reduce Europe's oil consumption in a

Environmental Report 2022" (2022), available on:
<https://www.eurocontrol.int/publication/european-aviation-environmental-report-2022>

³⁶ Transport & Environment, *Roadmap to climate neutral aviation in Europe*, (2022).

context of energy security concerns. The kerosene saved corresponds to 9.2% of total crude and refined oil imports from Russia in 2019³⁷.

To bridge the gap to a 50% emission reduction target by 2025, targeting big emitters should be a priority. Our calculation shows that if the 10% biggest emitters of our ranking set 50% reduction targets, they would reduce emissions by all companies by 24%. In other words, 10% of companies committing to -50% targets can go half the way in achieving the global target³⁸.

6. Conclusion and recommendations

This edition of the ranking and its analysis have highlighted the following elements:

- Initiatives such as CDP provide a good framework for climate data reporting but can be improved. On the one hand, CDP has built a rigorous standard for company reporting that makes the extraction and comparison of data easier than going through company sustainability data on websites and reports. However, the lack of entries to report air travel CO₂ and non-CO₂ is an issue. On the other hand, CDP is not truly public as full access to their data remains behind a paywall. Moreover, independent verification of company reporting is currently optional, which constitutes an important limitation since in the absence of verification there is no way to check that the data provided correspond to reality.
- Most companies included in this ranking (76%) report business travel but do not commit to reducing it. There is a clear opportunity, and necessity, for these companies to set or improve their climate commitments by including ambitious air travel reduction targets and reporting, especially because many of these already calculate AT emissions to derive BT emissions.
- A minority of companies (16%) report air travel emissions, even less (12%) include non-CO₂ effects in their reporting. This can partly be attributed to the lack of specificity in the reporting framework, and partly to the lack of sensitivity about aviation's full climate impacts including non-CO₂.
- Only 11 out of 322 companies are ranked in category A, with AT or BT reporting for most years and ambitious targets to be achieved before 2025. Two thirds of companies belong to category C because they do not have BT-specific targets.
- There are differences in performance between companies from different countries, for example German companies performing worse than US, UK and French companies. This may in part be due to manufacturing companies being less involved in BT reporting and reduction than companies of the pharmaceuticals, finance and consulting sectors.

³⁷ Transport & Environment, *How Russian oil flows to Europe*, (2022).

³⁸ This calculation takes into account the 262 companies for which baseline (i.e. 2019 or 2018) business travel emissions are available.

- Companies' emissions have decreased by 64% in 2020 and have not rebounded in the same way as commercial aviation emissions did in 2021, suggesting that companies have found durable ways to conduct business with less flying.
- Current company targets correspond to an overall reduction of 9% of BT emissions by 2025 compared to 2019, far from the -50% target needed and far from sufficient to reduce greenhouse gas emissions in line with 1.5°C warming scenarios.
- If the 10% biggest flyers in our ranking set -50% targets by 2025, it would achieve half of the global target of 50% reduction across all companies.

Considering this, we recommend that:

- Governments should extend current climate impact reporting frameworks for companies to include air travel CO₂ and non-CO₂ emissions, make them mandatory, publicly accessible, freely available, and verified independently.
- Governments should accelerate and specify requirements for company climate transition plans and target setting to include air travel emissions reduction targets.
- Companies should improve transparency and consistency in reporting by:
 - providing their most recent and specific targets,
 - only including in their responses targets that meaningfully impact business travel policies and
 - avoiding reliance on offsets.
- Companies that only report business travel should enhance their transparency by reporting air travel CO₂ and non-CO₂ emissions as separate entries, and set reduction targets.
- Major emitting companies without targets should marshal the will and resources to set ambitious travel emissions reduction targets and policies to lead the way towards reduced corporate flying emissions.

Transport & Environment

Published: March 2023

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7. Annex I - Additional methodological notes

7.1. Calculating air travel emissions from business travel emissions

Most companies in the ranking report their business travel emissions, but not specifically their air travel emissions. To estimate these, we use the scaling factors derived by Stand.Earth Research Group in 2022 to estimate AT emissions from BT emissions, i.e. 72% for European-based companies and 77% for US-based companies. More detail on how these factors were calculated can be found in the 2022 briefing³⁹. We could not find sufficient data to calculate a similar ratio for Indian companies, so we used the same value as for US companies.

7.2. Emissions calculation with different companies' reporting periods

The companies included in the ranking usually report their climate data for the period corresponding to their financial year, which means that not all of them follow calendar year reporting. We decided to only include companies with calendar year reporting in the calculations made for Fig. 6 as it is more suitable for comparison with (calendar year) commercial aviation emissions. This corresponds to 190 companies and 10.8 MtCO₂ baseline emissions. To calculate absolute 2020 and 2021 emissions reductions, we included all companies irrespective of their reporting period, as this gives a better representation of the savings made during that period. This corresponds to 253 companies reporting both baseline and 2020 emissions, amounting to 17.0 MtCO₂ baseline emissions, and 247 companies reporting both baseline and 2021 emissions, amounting to 16.8 MtCO₂ baseline emissions.

³⁹ Available on:

<https://www.transportenvironment.org/discover/benchmarking-global-corporate-flyers-on-leadership-towards-purposeful-travel/>