

WORDS VS ACTIONS



The truth behind fossil
fuel advertising

fossil free
REVOLUTION
GREENPEACE



CONTENTS

EXECUTIVE SUMMARY

In this report based on an investigation by environmental research group DeSmog, Greenpeace Netherlands shows how airline and car company advertising in Europe is helping to stoke the global climate emergency.

The transport sector is responsible for nearly a fifth of global greenhouse gas (GHG) emissions. While governments worldwide have agreed that swift, decisive action is needed to limit global warming to 2 °C and ideally 1.5 °C above pre-industrial levels, the sector is displaying little sense of urgency. Many car companies intend to keep making fossil-fuelled cars for far too long to support the 1.5 °C target. The airline industry has set itself a 2050 'net zero' emissions deadline, but proposes to meet it via a mixture of uncertain techno-fixes and creative carbon accounting.

Following on from 2021's collaborative investigation of fossil fuel company advertising (*Words vs actions: The truth behind fossil fuel advertising*) Greenpeace Netherlands and DeSmog set out to discover to what extent the airline and car industries' European advertising strategies were helping them to evade their climate responsibilities. Earlier studies have shown a direct link between car and airline advertisements and increased GHG emissions (in 2019 car and airline advertising are said to have led to additional emissions greater than those of the Netherlands), but we wanted to look at how companies' messaging helps them to go on selling products that harm the climate and jeopardise the planet's future.

Greenpeace Netherlands selected a representative sample of ten European airlines and car makers, and DeSmog then analysed a year's worth of their advertising content from the Facebook Ad Library, comprising ads posted on both Facebook and Instagram for European audiences. In all, 864 car advertisements and 263 airliner advertisements were analysed. We found that the car companies' advertising of electric vehicles and hybrids was out of all proportion to their European sales of those vehicles: 68% of their ads promoted hybrid and/or purely electric cars, while such vehicles account for just 30% of Renault's sales and 'low emission

vehicles' represent under 13% of sales across the giant Stellantis N.V. group) – suggesting that the companies use such advertising in part to present a deceptively environmentally friendly image (so-called 'greenwashing'). This impression was backed up by some of the companies' significant reliance on imagery suggesting that their cars could facilitate access to nature – most notably Jeep, whose vehicles are all SUVs and thus towards the higher-emission end of the spectrum.

Airlines, meanwhile, seem to be pursuing a very different approach. With one exception (Scandinavian Airlines), the companies whose content DeSmog analysed placed little or no emphasis on supposed solutions to their GHG emissions. Instead their advertising, while also to some extent evoking access to nature, focused overwhelmingly on low-cost flights, deals and promotions, which together accounted for **66%** of all their advertisements. The airlines seem eager to give the impression that things are back to normal after the pandemic and that there is no other reason – such as a global climate emergency – for would-be travellers to hesitate.

Both approaches – exaggerating the corporate response to the climate crisis or pretending there is no crisis – have the dangerous effect of reassuring consumers that they can make choices which in fact increase the likelihood of the earth facing devastating climate impacts. More broadly, the car and airline industries as they stand are causing all humans – living and unborn – immense harm, and as such it is irresponsible to tolerate them advertising their wares. European society came to this realisation over 30 years ago where tobacco was concerned,¹ so why not in the case of these two industries that threaten even direr and longer-lasting consequences?

That is why Greenpeace is calling for an EU-wide ban on all forms of advertising and sponsorship by the car and airline industries, as well as the fossil fuel sector itself. In coalition with the New Weather Institute and 30 other partners, we have launched a European Citizens' Initiative (ECI), a petition recognised and pre-approved by the European Commission (see the Ban Fossil Fuel Ads website, <https://banfossilfuelads.org/>). If an ECI reaches one million verified signatures in one year, then the European Commission is legally obliged to respond, and may consider incorporating our demands into European law.

INTRODUCTION AND CONTEXT

The climate emergency is edging ever closer to a point of no return. The last seven years were globally the hottest on record.² According to a November 2021 analysis, current policies could see warming of 2.7 °C above pre-industrial levels,³ far above the target of 'well below 2 °C', and ideally 1.5 °C, set by the Paris Agreement to 'significantly reduce the risks and impacts of climate change',⁴ including the risk of crossing critical tipping points that could lead to unstoppable multi-metre sea level rise.⁵ Global heating threatens catastrophic biodiversity loss, with one recent study focused on a sample of over 500 terrestrial species worldwide estimating that it could cause as many as 30% to become extinct by 2070.⁶ In human terms, the World Health Organisation (WHO) emphasises that as well as bringing death and illness from heatwaves, storms, floods and increased exposure to disease, climate change is affecting key determinants of public health including clean air, safe drinking water, sufficient food and secure shelter.⁷

And the number one culprit in this crisis is the burning of fossil fuels. According to the International Energy Agency (IEA), energy accounts for around three-quarters of anthropogenic greenhouse gas (GHG) emissions worldwide, with the vast majority of this attributable to fossil fuels.⁸

In addition to their climate impacts, moreover, a 2020 study by Greenpeace Southeast Asia with the Centre for Research on Energy and Clean Air estimated that the health impacts of air pollution from fossil fuels cost the global economy US\$2.9 trillion per year, or around 3.3% of global GDP.⁹ A 2021 study estimated that fine particulate pollution from fossil fuels was responsible for as many as 8.7 million premature deaths a year worldwide as of 2018.¹⁰

According to the IEA, in 2019 fuel burned for transport accounted for roughly 18.5% of all global GHG emissions in CO₂e terms.¹¹ And according to Our World in Data, in 2016 road transport accounted for 73.5% of global transport emissions (or 11.9% of all emissions).¹² In the EU, where fuel burned by transport as a whole contributed 25% of GHG emissions in 2018,¹³ road

transport is said to be responsible for nearly 72% of total transport emissions, with cars alone being responsible for well over half of this (over 44% of total transport emissions, which would have equated to around 11% of total EU emissions in 2018).¹⁴ Aviation, meanwhile, is said to contribute nearly 14% of EU transport emissions (which in 2018 would have made it responsible for 3.5% of total EU emissions).¹⁵ From a slightly different perspective, taking account of emissions from vehicle manufacturing and disposal as well as use, Greenpeace East Asia & Greenpeace Germany have estimated that as of 2018 the world's car manufacturers contributed 9% of annual global GHG emissions from all human activity.¹⁶ According to one study, while aviation contributed around 2.5% of anthropogenic CO₂ emissions in 2018, thanks to its additional heating effects (most notably due to vapour trails) it contributed 3.5% of the net global anthropogenic heating effect as of 2011, and the sector's heating effect increased by a quarter between that date and 2018.¹⁷

Even though they have had decades of warnings about the need to transition away from petrol and diesel, car companies are moving far too slowly towards phasing out fossil fuel-reliant vehicles, appearing in most cases to be committed to selling as many petrol and diesel cars as they can, for as long as they can, and in particular boosting sales of fuel-thirsty but profitable SUVs. A 2018 study commissioned by Greenpeace Belgium calculated that in the context of wider action to ensure a 66% probability of remaining within the Paris Agreement's 1.5 °C global heating target, sales of new conventional fossil-fuelled cars in Europe must cease by 2025 and those of hybrids by 2028.¹⁸ However, major car companies have proposed far later phase-out dates: for example the brand VW (not Volkswagen Group) and Hyundai have announced that they will stop selling cars powered by internal combustion engines (ICEs), including hybrids, in Europe by 2035.¹⁹

In any case, battery electric vehicles (BEVs) are an important part of the solution to decarbonise transport but face challenges, e.g. regarding the CO₂-footprint of the production of batteries. While these excess emissions are much lower in the case of small, light vehicles that require smaller batteries,²⁰ some manufacturers are keen to promote heavyweight electric SUVs.

Meanwhile hybrids (including the supposedly greener plug-in hybrids (PHEVs)) produce in-use GHG emissions not very far below those of comparable non-hybrid fossil-fuelled vehicles and often far higher than the levels claimed from official tests (see page XX).²¹ However, selling PHEVs enables manufacturers to meet EU emissions standards, as they are given additional credits – a regulatory weakness that organisations such as Transport & Environment are urging the EU to remedy.²² Furthermore heavier cars such as hybrid SUVs benefit from less stringent EU emissions targets.²³

Airlines, meanwhile, have no credible alternative business model at all; instead the sector is relying on the chimerical potential of so-called ‘sustainable aviation fuels’ (see page XX) and on apparently exaggerated promises to make their activities carbon-neutral by ‘offsetting’ their emissions against the protection of forests that might otherwise be deforested (see page XX). The International Air Transport Association (IATA) recently resolved to achieve net zero emissions globally by 2050,²⁴ which is the IPCC’s target date for limiting warming to 1.5 °C, but ten years later than the 2040 target identified by Greenpeace Belgium as the basis for a European transport sector decarbonisation scenario, in order ‘to preserve the carbon budget and [give] more time to less advanced regions’.²⁵ In any case, on present trends (see box below) it is hard to see how even IATA’s 2050 goal can possibly be brought about without a massive reduction in its activity. The industry may come under increasing pressure as the existence of practical alternatives to air travel becomes more widely acknowledged. Greenpeace European Unit research has found that despite considerable scope for Europe-wide improvement in rail services, a third of the 150 busiest short-haul air routes in the EU already have viable train alternatives with a journey time under six hours.²⁶ The Covid crisis gave companies worldwide an enforced opportunity to assess the efficacy of online meeting platforms such as Zoom as a low-cost alternative to business air travel – even as governments rushed to insulate the aviation sector from the pandemic’s economic impact (see box).

THE COVID CRISIS – NO MORE THAN A HICCUP FOR THE AIRLINE INDUSTRY?

In the wake of the Covid pandemic, dozens of airlines have received government funding to bail them out after the temporary collapse in passenger numbers – but research shows that in Europe the vast majority of these bailouts have come without any climate conditions.²⁷ Indeed, airlines across Europe may have run over 100,000 ‘ghost flights’ (empty or nearly empty flights) over the duration of the 2021–22 winter schedule in order to retain the rights to their take-off and landing slots as required by EU regulations, needlessly producing emissions equivalent to the annual emissions of 1.4 million cars.²⁸ Meanwhile European air traffic is predicted to return to pre-pandemic levels potentially as early as 2024,²⁹ while IATA expects global numbers to exceed pre-Covid levels by that date.³⁰ Prior to the pandemic, IATA was predicting a doubling in global passenger numbers by 2037.³¹

In the face of such challenges the car and airline industries, like the fossil fuel industry itself, use both advertising and sponsorship of sporting, cultural and other institutions and events (including, shockingly, SUV manufacturer Jaguar Land Rover’s sponsorship of 2021’s COP26 climate conference in Glasgow,³² as well as sponsorship of the rotating EU Council presidency by a number of car manufacturers³³) either to reassure consumers that they are doing all they can to tackle the climate emergency, or else to persuade them that the crisis can simply be ignored. This dual approach enables them to maximise ongoing sales of their fossil fuel-dependent products and services and to delay the urgently needed phase-out of fossil fuels.

A recent study found that a single 2015–17 advertising campaign by Audi resulted in emission of over 5 million tonnes CO₂e as a result of increased sales;³⁴ while another found that UK residents were significantly likelier to own or desire an SUV if they were exposed more frequently to SUV advertising, while exposure to pro-ecological transport messages did nothing to reduce SUV demand.³⁵ In 2019 car and airline advertising together is estimated to have been responsible worldwide for emissions of between

202 and 606 million tonnes CO₂e – equivalent to somewhere between the total GHG emissions of the Netherlands and almost twice the emissions of Spain.³⁶

With fossil fuels driving the climate emergency at the same time as they kill millions through air pollution, it is surely unacceptable that fossil fuel and car companies and airlines should be allowed to go on advertising their emission-heavy products and services and promoting false solutions to the climate emergency in order to greenwash their dangerously slow abandonment of business-as-usual. If tobacco advertising and sponsorship can be banned in the interests of public health, then it surely follows logically that advertising and sponsorship not only by fossil fuel companies, but also by airlines and manufacturers of internal combustion-engined cars, should be banned on the basis of their threat not just to public health but to the whole future of the human species and life on earth.

That is why Greenpeace, in coalition with the New Weather Institute and 30 other partners, has proposed such a ban via a European Citizens' Initiative (ECI), a petition recognised and pre-approved by the European Commission.³⁷ If an ECI reaches one million verified signatures in one year, then the European Commission is legally obliged to respond, and may consider incorporating our demands into European law.

Following its initial investigation into advertising by fossil fuel companies (whose findings were published in September 2021³⁸) Greenpeace Netherlands again commissioned environmental research group DeSmog to investigate the extent to which a selection of car companies and airlines across Europe use advertising to distract attention from their fossil fuel-dependent business models, and to determine whether the advertising output of the two sectors could be defined as 'greenwashing'. DeSmog's evidence, highlights of which are set out below, shows car companies predominantly advertising BEVs and hybrids, even while such vehicles remain a small proportion of their output. At the same time some companies are still putting considerable effort into advertising high-emitting SUVs (which represent a much greater proportion of sales³⁹). Airlines, meanwhile, are revealed as largely in denial

about the fundamental unsustainability of their activity, preferring to focus their publicity on cheap flights and deals rather than on the almost certainly inadequate steps that they are taking to reduce their emissions. These findings illustrate perfectly that if fossil fuels are to be phased out anywhere near fast enough to save the world from climate disaster, both car companies and airlines must be banned from using advertising and sponsorship to lull consumers into a false sense of security.

SCOPE, METHODOLOGY AND AIMS

Greenpeace Netherlands selected for investigation five major car brands in the European marketplace (Citroën, Fiat, Jeep, Peugeot and Renault) and five European airlines (Air France, Austrian Airlines, Brussels Airlines, Lufthansa and Scandinavian Airlines (SAS)). A team of DeSmog researchers then used the Facebook Ad Library to analyse Facebook and Instagram advertisements to which European audiences were exposed by the selected companies from 1 January 2021 to 21 January 2022.⁴⁰ The Facebook Ad Library was used because it is the only large-scale database that archives a significant number of advertisements from a large range of companies in one place. It is possible that advertising in other media may present a different balance of themes, but this was beyond the scope of the present research.

In all, 864 car advertisements and 263 airliner advertisements were analysed.⁴¹ Each advertisement with an identifying number in the Facebook Ad Library was counted separately, though some were very similar in content or presented the same content in different languages.

The research aimed to collect and analyse both quantitative and qualitative data on car manufacturers' advertising, along with supporting research on their vehicle output, product ranges and sustainability activities, with a particular focus on providing the following:

- A quantitative analysis of what proportion of car manufacturers' advertisements promote BEVs or hybrid vehicles and whether this is proportionate to the companies' production of such vehicles as a percentage of their total output.



- A quantitative analysis of what proportion of car manufacturers' advertisements advertise SUVs.
- A quantitative analysis of the extent to which car manufacturers' advertisements link the use of their products to a greater ability to experience nature and to ideals of personal freedom and independence.

For airlines, meanwhile, the research similarly aimed to provide the following:

- A quantitative analysis of what proportion of airline advertisements promote supposedly green approaches (specifically including low-carbon flights, so-called green fuels such as biofuels and e-fuels,

and offsetting of emissions) versus the proportion that simply promote conventional, fossil-fuelled flights, and of how this balance compares with companies' investments in technologies and other solutions aimed at reducing GHG emissions, to the extent that information on this is publicly available.

- A quantitative analysis of what proportion of airline adverts promote low-cost flights (to which a category for other deals and promotions was subsequently added).
- A quantitative analysis of the extent to which airlines' advertisements link the use of their services to a greater ability to experience nature and to ideals of personal freedom and independence.

KEY FINDINGS

CAR COMPANIES

Advertisements promoting battery electric vehicles and hybrids – 68%

Stellantis (parent company of Fiat, Citroën, Peugeot and Jeep) aims to be selling 100% BEVs in Europe and 50% in the US by 2030,⁴² while Renault intends over 65% of its European sales to be BEVs and hybrids by 2025 and aims to have 90% BEV models in its European range by 2030.⁴³ In the short term, however, as DeSmog’s additional research showed, pledges from the five companies seem to place considerable stress on the number of models in their product range that are, or are planned to be, BEVs or hybrids (or even merely ‘electrified’ versions of existing models), rather than on the proportion of individual BEVs or hybrids produced or sold.⁴⁴ Recent figures show that the percentages of companies’ sales accounted for by BEVs and hybrids (30% in the case of Renault,⁴⁵ a mere 12.8% of ‘low emission vehicles’ across Stellantis’s brands⁴⁶) are generally far below the percentage of advertising devoted to these vehicle types. Table 1 below illustrates the disparity between the advertising coverage and European sales for each of the brands studied.

The very high proportion of advertisements promoting BEVs and hybrids could therefore be said to present a misleadingly green image of the companies’ current output. They appear to be aimed not just at selling such vehicles, but more broadly as a means of projecting a reassuringly green image for the company as a whole – in a word, greenwashing.

Advertisements promoting battery electric vehicles – 29%

Some, though not all, of these advertisements highlighted the environmental benefits of BEVs. However, while they are a more climate-friendly option than hybrid and wholly ICE-powered vehicles, as noted on p.X BEVs still have environmental and social impacts. These impacts – unsurprisingly not acknowledged in the car adverts DeSmog examined – may potentially be amplified with larger BEVs, which can require more resources to manufacture and more power to run. In this context it is notable that one in ten of the advertisements for BEVs (28 out of 252) were for SUVs – all of them from Peugeot.

Advertisements promoting hybrid vehicles – 39%

Out of BEVs, hybrid vehicles and wholly ICE-powered vehicles, hybrids were the category of vehicle most promoted across the advertisements analysed, though this was largely due to Jeep’s

Table 1: Does car brands’ advertising coverage of battery electric vehicles and hybrids reflect their European sales of these vehicles in proportional terms?

Brand	Ads devoted to BEVs and/or hybrids (%)	2021 European sales of low emission vehicles/ BEVs and hybrids (as % of total car sales)*	Ratio of advertising % to sales %
Citroën	66	[12.8]	5.2 to 1
Fiat	51	[12.8]	4.0 to 1
Jeep	73	[12.8]	5.7 to 1
Peugeot	76	[12.8]	5.9 to 1
Renault	68	30	2.3 to 1

* The figure for the Stellantis brands represents the European sales percentage for the entire Stellantis group and refers to ‘low emission vehicles’ (defined as having emissions of under 50gCO₂/km and thus potentially excluding some higher-emitting hybrids), whereas those for Renault relate to the flagship brand alone and refer specifically to European sales of BEVs and hybrids. The Stellantis figure covers the EU-27 plus the UK, Iceland, Norway and Switzerland; the scope of the Renault figure is not defined but from other company sources appears to be the same. See company profiles, pages XX to XX.

enthusiastic promotion of hybrid SUVs, which accounted for 46% of all hybrid advertisements in the study sample. The potential for hybrids to contribute significantly to emissions reduction is often exaggerated (see p.X), with even PHEVs typically offering lifetime emissions from fuel barely a third less than those of a typical petrol or diesel car.⁴⁷ Given the urgency of the need to decarbonise transport, hybrids can therefore effectively be seen as a misleading solution to the climate crisis.

Advertisements promoting wholly ICE-powered vehicles, including SUVs – 25% (advertisements promoting wholly ICE-powered SUVs alone – 13%)

While a majority of the advertisements analysed promoted BEVs and hybrids, a significant minority continued to promote wholly ICE-powered vehicles, with over half of these being for fuel-thirsty SUVs – promoted by car manufacturers as they bring larger profit margins than other vehicles.⁴⁸ Researchers at the IEA reported in 2021 that growth in SUV sales in 2020 cancelled out the reduction in oil demand attributable to EVs' increased market share.⁴⁹ SUV production also results in higher emissions than that of conventional middle-sized cars because they use much more steel.⁵⁰

A 2021 report by the New Weather Institute noted the tendency for SUV advertising to persuade consumers that buying an SUV will bring them closer to nature.⁵¹ This was borne out by DeSmog's analysis: Jeep, practically all of whose advertisements were promoting wholly ICE-powered and hybrid SUVs, accounted for almost half of all advertisements from the five car manufacturers that used the theme of closeness to nature – representing more than a quarter of all the company's advertisements in the study. However, an even greater proportion of the company's advertisements – nearly half – sought to persuade consumers that driving an SUV would bring them freedom and independence. Renault was the only other brand to make significant use of the theme of closeness to nature, in about 19% of its advertisements – for all categories of vehicles, not just for SUVs (in fact the percentage of its SUV advertisements that used this theme – all of them for hybrid SUVs – was almost the same as the percentage of all its advertisements). None of the other brands relied heavily on the theme of

freedom and independence: Fiat used it most, with 11% of its advertisements referencing the theme (mostly advertising wholly ICE-powered SUVs).

AIRLINES

Advertisements promoting supposedly green approaches – 9%

In stark contrast to the car manufacturers studied, the airlines in our study placed little emphasis on promises of environmental sustainability to promote their services. Only one of the five airlines, SAS, had a significant number of advertisements (about 28%) that referenced supposedly green approaches – none of the others had more than two such advertisements among the Facebook Ad Library sample, while two of them (Lufthansa and Austrian Airlines) had none at all. Biofuels and offsetting each appeared eight times in SAS's advertisements (and not at all in the other airlines'), while new lower-emission aircraft (also referenced by Air France and Brussels Airlines) and the development of electric/zero-emission aircraft each received several mentions. Unlike in the case of the car industry, therefore, the sample airlines' use of green topics in advertising does not appear drastically disproportionate to their efforts to reduce their emissions, inadequate though these may be.

Though not prevalent, such advertising still raises concerns. As noted on page XX, none of the supposedly green solutions proposed is likely in practice to offer a sufficiently wide-scale solution within a rapid enough timeframe to curb aviation's contribution to the climate emergency. Highlighting them in advertising is therefore potentially misleading about the extent and efficacy of the sector's efforts to combat climate change.

Advertisements promoting low-cost flights, deals and promotions – 66%

Far commoner than green-themed advertisements were those that either presented the low cost of a flight directly as a key incentive to book (10%) or else offered flexible booking, package deals or other inducements aimed at making holidays more cost-effective and/or easier to book (58%). None of these advertisements

Table 2: Business as usual? European airlines' advertising messages and the impact of Covid on their operations and greenhouse gas emissions

* Emissions figures for Austrian Airlines, Brussels Airlines and Lufthansa refer to the entire Lufthansa Group. See company profiles, pages XX to XX.

Airline	Ads devoted to low-cost flights, deals or promotions (%)	Ads featuring imagery of natural beauty (%)	Total CO ₂ emissions from flights 2019 (million tonnes)*	Total CO ₂ emissions from flights 2021 (million tonnes)*	Passenger load factor 2019 (%)	Passenger load factor 2021 (%)
Air France	78	36	16.2	8.9	86.9	64.3
Austrian Airlines	23	54	[33.1]	[13.7]	80.8	61.9
Brussels Airlines	74	30	[33.1]	[13.7]	81.5	67.2
Lufthansa	40	40	[33.1]	[13.7]	82.5	60.3
SAS	64	29	4.2	1.2	75.2	47.9

made any reference to green topics.

The prevalence of such advertisements, which along with other non-green advertisements accounted for over 90% of the total, may suggest that the sector does not currently feel under pressure to respond to consumers' concerns about its environmental impact, possibly because it senses that public awareness of that impact is less prevalent than in the case of road transport. Alternatively, it may be that airlines are aware that their proposed green solutions amount to little more than tinkering at the edges of the climate crisis, and have concluded that rather than trying to persuade or reassure consumers with substantive environmental arguments they are better off pretending that there is no crisis and presenting a business-as-usual front. Such an approach may even chime with the frustrations of consumers who have been denied international travel during the Covid pandemic, and whom the airlines are now eager to encourage back on board. As Table 2 below shows, while the interruption of international air travel due to Covid has temporarily reduced airlines' overall

emissions, it has also slashed their occupancy rates (measured as 'passenger load factor' – the average occupancy of their services' available passenger kilometres), incidentally making each individual passenger's air travel even more environmentally damaging.

Advertisements featuring imagery of natural beauty – 35%

The hypothesis that airlines themselves have little confidence in their ability to minimise their climate impact quickly by the measures that they propose is perhaps reinforced by the significant proportion of advertisements analysed that used imagery of natural beauty. Rather than advertising what they are doing to reduce their impact, it may be that airlines prefer simply to associate their brands with beautiful and unspoilt locations. Ironically, some of the locations chosen, such as the Maldives, Mauritius and the Austrian Alps, are highly vulnerable to the effects of climate change.

On the other hand, the theme of freedom and independence was referenced by just a single airline advertisement out of the entire sample.



COMPANY PROFILES

Below we present detailed figures showing the balance of topics and themes in each company's advertising. Greenpeace has contextualised DeSmog's findings with additional information about each company's activities and policies.

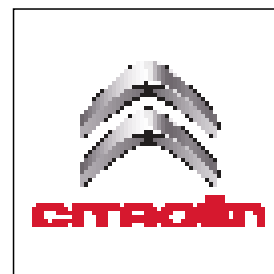
- Where GHG emissions are concerned, the key metric for car companies is the emissions produced by their vehicles over their lifetime. For ICE-powered cars, the most important factor in this is the emissions they produce in use from the combustion of fossil fuels. These, as well as emissions associated with end-of-life disposal, are classed as part of a company's Scope 3 emissions, defined by the Greenhouse Gas Protocol as 'other indirect emissions', including emissions resulting from the activities of the company's suppliers (except for energy suppliers) as well as the use and disposal of its products and other ancillary contributors such as workforce commuting. However, emissions produced during vehicle manufacture are also a significant proportion of the whole, especially for EVs: these emissions are divided between Scope 1 (defined as direct emissions from activities under the company's control) and Scope 2 (indirect emissions from purchased energy) as well as Scope 3.⁵²

In the case of airlines, Scope 1 emissions, overwhelmingly from the engines of the aircraft themselves, account for the vast majority of a company's total. Information concerning the numbers of 'ghost flights' (see page XX) operated by individual airlines is hard to obtain, but figures for the airlines' passenger load factors (the percentage of available passenger kilometres provided by their flights over a given period that are actually occupied by passengers) have been included as a proxy for this.

CITROËN

HEADQUARTERS AND CORPORATE STATUS

Poissy, Yvelines, France.⁵³ Since 2021 Citroën has been a brand of Amsterdam-based⁵⁴ Stellantis N.V.; prior to that, from 1976 it had been a brand of the Paris-based Groupe PSA (formerly known as PSA Peugeot Citroën), and before that an independent company.⁵⁵ Stellantis was formed in 2021 from the merger of PSA and Fiat Chrysler Automobiles (FCA).⁵⁶



ANNUAL REVENUE AND SALES

Citroën's parent Stellantis reported annual net revenue of €152 billion for 2021. It does not report separate revenue figures for its various brands, but for 2020, prior to the merger of PSA and FCA, PSA's net revenue is reported as €47.7 billion, representing approximately 36% of the €134 billion revenue of the combined entity for that year.⁵⁷ Stellantis sold 6.5 million vehicles worldwide in 2021 (representing 8.2% of global light vehicle sales⁵⁸), slightly up on 2020 (6.4 million) but down 19% on 2019's pre-pandemic figure of 8 million.⁵⁹ Again, Stellantis does not provide a breakdown of sales by brand; but according to research by Greenpeace East Asia, in 2020 PSA (of which Citroën was a part) sold around 2.5 million vehicles.⁶⁰

CURRENT SALES OF BEVS AND HYBRIDS AS % OF TOTAL SALES

In 2021 Stellantis sold 388,000 low emission vehicles⁶¹ worldwide, up 160% on 2020⁶² but still representing just 6% of its global sales. Low emission vehicles accounted for 12.8% of Stellantis' total car sales in Europe (the EU-27 plus the UK, Norway, Iceland and Switzerland) and 3.4% of cars and light trucks in the USA.⁶³ Zero emission vehicles (including fuel cell vehicles as well as BEVs) accounted for 8% of European car sales (somewhat lower than the 10.3% figure for all manufacturers that year reported by the European Automobile

Manufacturers Association (ACEA)⁶⁴); such vehicles ‘are expected to be offered in the U.S. during 2022’.⁶⁵

Stellantis offers no global EV sales totals, nor does it provide a breakdown of sales by brand; but according to research by Greenpeace East Asia, in 2020 PSA (of which Citroën was a part) sold 67,446 EVs (BEVs and potentially some fuel cell EVs (FCEVs)) worldwide, accounting for 2.71% of its total sales. This marked a more than tenfold increase in proportional terms on 2019: the same rate of increase projected to 2021 would have seen BEVs and FCEVs represent over a third of the PSA brands’ sales; on the other hand an increase in line with the average increase from 2016 would have resulted in them accounting for just 5.50% of the PSA brands’ sales.⁶⁶

EMISSIONS REDUCTION TARGETS

Stellantis has a group target of net zero emissions by 2038, with an interim target to halve overall emissions from 2021 levels by 2030, including 75% reductions in absolute Scopes 1 and 2 emissions and halving of per-vehicle emissions intensity.⁶⁷ According to the group’s 2021 annual report, more detailed targets are to be announced in its CSR report during 2022.⁶⁸

INVESTMENT IN AND TRANSITION TO EVS

In 2021 Stellantis announced that it ‘plans to invest more than €30 billion through 2025 in electrification [by which it presumably means the development of BEVs and hybrids] and software’.⁶⁹ In March 2022 it announced that it intends 100% of its Europe-wide car sales and 50% of its cars and light-duty trucks sold in the US to be BEVs by 2030.⁷⁰ It is notable however that the company’s 2021 annual report, apparently signed off less than a week before this announcement,⁷¹ presents a much less ambitious target ‘to include a BEV version in all of our passenger cars models marketed in Europe, and all of our passenger cars and light duty trucks models in the U.S.’ by the same date.⁷² Furthermore, the same March 2022 strategy which sets out the new goals also envisages that hybrids and wholly ICE-powered vehicles will still be contributing one-third of the group’s vehicle sales revenue by that date, while sales of its ‘global SUV’ segment are expected to account for a slightly higher proportion of revenue

then than in 2021 (up from 27% to 28%).⁷³

OBSTRUCTING A LOW-EMISSION FUTURE?

In June 2021 French prosecutors charged Citroën with consumer fraud concerning diesel vehicle emissions between 2009 and 2015.⁷⁴

WORDS VS ACTIONS

% of advertisements promoting BEVs or hybrids 66% (39 ads)
% of advertisements promoting BEVs 46% (27 ads)
% of advertisements promoting hybrids: 27% (16 ads)
% of advertisements promoting SUVs (all powertrains) 36% (21 ads)
% of advertisements referencing access to nature 14% (8 ads)

The percentage of Citroën’s advertisements devoted to BEVs or hybrids was 11 times the percentage of Stellantis’ 2021 global sales accounted for by all low-emission vehicles, and over five times the percentage of its 2021 European car sales accounted for by low-emission vehicles. Meanwhile the percentage of its advertisements devoted to BEVs alone was 5.75 times the percentage of Stellantis’ 2021 European car sales accounted for by zero-emission vehicles, and over eight times the projected 2021 global sales of BEVs as a percentage of total sales from the brands of the former PSA, assuming an increase on 2020 sales in line with the average increase from 2016. While it is impossible to be sure in the absence of 2021 sales data for Citroën alone, nonetheless **these figures strongly suggest that the brand’s advertising during this period gave an exaggerated impression of the importance of BEVs and hybrids to its overall sales.**

FIAT

HEADQUARTERS AND CORPORATE STATUS

Turin, Italy. Since 2021 FiatAutomobiles S.p.A. has been a subsidiary of Amsterdam-based⁷⁵ Stellantis N.V.; prior to that, it was a subsidiary of Fiat Chrysler Automobiles N.V. (FCA), also headquartered in Amsterdam, which had been formed in 2014 from a merger of the Italian Fiat S.p.A. and the US-based Chrysler Group.⁷⁶ Stellantis was formed in 2021 from the merger of PSA and FCA.⁷⁷



ANNUAL REVENUE AND SALES

Fiat's parent Stellantis reported annual net revenue of €152 billion for 2021. It does not report separate figures for its various brands, but for 2020, prior to the merger of PSA and FCA, FCA's net revenue is reported as €86.7 billion, representing approximately 65% of the €134 billion revenue of the combined entity for that year.⁷⁸ Stellantis sold 6.5 million vehicles worldwide in 2021 (representing 8.2% of global light vehicle sales⁷⁹), slightly up on 2020 (6.4 million) but down 19% on 2019's pre-pandemic figure of 8 million.⁸⁰ Again, Stellantis does not provide a breakdown of sales by brand; but according to research by Greenpeace East Asia, in 2020 FCA (of which Fiat was a part) sold around 3.6 million vehicles.⁸¹

CURRENT SALES OF BEVS AND HYBRIDS AS % OF TOTAL SALES

In 2021 Stellantis sold 388,000 low emission vehicles⁸² worldwide, up 160% on 2020⁸³ but still representing just 6% of its global sales. Low emission vehicles accounted for 12.8% of Stellantis' total car sales in Europe (the EU-27 plus the UK, Norway, Iceland and Switzerland) and 3.4% of cars and light trucks in the USA.⁸⁴ Zero emission vehicles (including fuel cell vehicles as well as BEVs) accounted for 8% of European car sales (somewhat lower than the 10.3% figure for all manufacturers that year⁸⁵); such vehicles 'are expected to be offered in the U.S. during 2022'.⁸⁶

Stellantis offers no global EV sales totals, nor does it provide a breakdown of sales by brand; but according to research by Greenpeace East Asia, in 2020 FCA (of which Fiat was a part) sold 5,470 BEVs worldwide, accounting for a mere 0.15% of its total sales. This low figure nevertheless marked a considerable increase on 2019, when a negligible 0.04% of vehicles sold were BEVs – exactly half the percentage that they had represented back in 2016. In the five years from 2016 to 2020 FCA sold under 17,000 BEVs. An increase in line with the average increase from 2016 would have resulted in BEVs accounting for just 0.18% of the FCA brands' sales in 2021.⁸⁷

EMISSIONS REDUCTION TARGETS

Stellantis has a group target of net zero emissions by 2038, with an interim target to halve overall emissions from 2021 levels by 2030, including 75% reductions in absolute Scopes 1 and 2 emissions and halving of per-vehicle emissions intensity.⁸⁸ According to the group's 2021 annual report, more detailed targets are to be announced in its CSR report during 2022.⁸⁹

INVESTMENT IN AND TRANSITION TO EVS

In 2021 Stellantis announced that it 'plans to invest more than €30 billion through 2025 in electrification [by which it presumably means the development of BEVs and hybrids] and software'.⁹⁰ In March 2022 it announced that it intends 100% of its Europe-wide car sales and 50% of its cars and light-duty trucks sold in the US to be BEVs by 2030.⁹¹ It is notable however that the company's 2021 annual report, apparently signed off less than a week before this announcement,⁹² presents a much less ambitious target 'to include a BEV version in all of our passenger cars models marketed in Europe, and all of our passenger cars and light duty trucks models in the U.S.' by the same date.⁹³ Furthermore, the same March 2022 strategy which sets out these new goals also envisages that hybrids and wholly ICE-powered vehicles will still be contributing one-third of the group's vehicle sales revenue by that date, while sales of its 'global SUV' segment are expected to account for a slightly higher proportion of revenue than in 2021 (up from 27% to 28%).⁹⁴ Fiat's CEO, however, stated independently in 2021 that the brand intends its whole product range to become electric-only by 2030.⁹⁵

OBSTRUCTING A LOW-EMISSION FUTURE?

FCA was one of a number of car manufacturers that sided with the Trump administration in a lawsuit aimed at preventing California from setting its own zero emission vehicle rules. The companies dropped their support for the action only in February 2021 as a 'gesture of good faith' with President Biden, following Trump's defeat in the 2020 presidential election.⁹⁶

In October 2021 it was announced that FCA was nearing a plea deal worth up to \$300 million to resolve a US Department of Justice investigation, dating back to 2015, into diesel vehicle emissions fraud.⁹⁷ Months earlier, however, in July 2021, another investigation had seen FCA charged with deception in France, again in connection with diesel emissions cheating.⁹⁸

WORDS VS ACTIONS

% of advertisements promoting BEVs or hybrids – 51% (80 ads)

% of advertisements promoting BEVs – 41% (65 ads)

% of advertisements promoting hybrids – 10% (15 ads)

% of advertisements promoting SUVs (all powertrains) – 19% (30 ads)

% of advertisements referencing access to nature – 6% (9 ads)

The percentage of Fiat's advertisements devoted to BEVs or hybrids was 8.5 times the percentage of Stellantis' 2021 global sales accounted for by all low-emission vehicles, and almost four times the percentage of its 2021 European car sales accounted for by low-emission vehicles. Meanwhile the percentage of its advertisements devoted to BEVs alone was over five times the percentage of Stellantis' 2021 European car sales accounted for by zero-emission vehicles, and over 225 times the projected 2021 global sales of BEVs as a percentage of total sales from the brands of the former FCA, assuming an increase on 2020 sales in line with the average increase from 2016. While it is impossible to be sure in the absence of 2021 sales data for Fiat alone,

nonetheless these figures strongly suggest that the brand's advertising during this period gave an exaggerated impression of the importance of BEVs and hybrids to its overall sales, and presented an image of an environmentally conscious brand at odds with its former parent FCA's opposition to legislation aimed at reducing vehicle emissions.

JEEP

HEADQUARTERS AND CORPORATE STATUS

Toledo, Ohio, USA.⁹⁹

Since 2021 Jeep has been a brand of Amsterdam-based¹⁰⁰ Stellantis N.V.; prior to that, having been owned by Chrysler – the latest in a series of corporate owners

– since 1987,¹⁰¹ it had most recently been a subsidiary of Fiat Chrysler Automobiles N.V. (FCA), also headquartered in Amsterdam, which had been formed in 2014 from a merger of the Italian Fiat S.p.A. and the US-based Chrysler Group.¹⁰² Stellantis was formed in 2021 from the merger of PSA and Fiat FCA.¹⁰³



ANNUAL REVENUE AND SALES

Jeep's parent Stellantis reported annual net revenue of €152 billion for 2021. It does not report separate figures for its various brands, but for 2020, prior to the merger of PSA and FCA, FCA's net revenue is reported as €86.7 billion, representing approximately 65% of the €134 billion revenue of the combined entity for that year.¹⁰⁴ Jeep is described by one source as having 'provided the lion's share of profit for Fiat Chrysler'.¹⁰⁵ Stellantis sold 6.5 million vehicles worldwide in 2021 (representing 8.2% of global light vehicle sales¹⁰⁶), slightly up on 2020 (6.4 million) but down 19% on 2019's pre-pandemic figure of 8 million.¹⁰⁷ Again, Stellantis does not provide a breakdown of sales by brand; but according to research by Greenpeace East Asia, in 2020 FCA (of which Jeep was a part) sold around 3.6 million vehicles.¹⁰⁸

CURRENT SALES OF BEVS AND HYBRIDS AS % OF TOTAL SALES

In 2021 Stellantis sold 388,000 low emission vehicles¹⁰⁹ worldwide, up 160% on 2020¹¹⁰ but still representing just 6% of its global sales. Low emission vehicles accounted for 12.8% of Stellantis' total car sales in Europe (the EU-27 plus the UK, Norway, Iceland and Switzerland) and 3.4% of cars and light trucks in the USA.¹¹¹ Zero emission vehicles (including fuel cell vehicles as well as BEVs) accounted for 8% of European car sales (somewhat lower than the 10.3% figure for all manufacturers that year¹¹²); such vehicles 'are expected to be offered in the U.S. during 2022'.¹¹³ However, Stellantis revealed images of the first BEV Jeep model only in March 2022: it is expected to be launched early in 2023.¹¹⁴

EMISSIONS REDUCTION TARGETS

Stellantis has a group target of net zero emissions by 2038, with an interim target to halve overall emissions from 2021 levels by 2030, including 75% reductions in absolute Scopes 1 and 2 emissions and halving of per-vehicle emissions intensity.¹¹⁵ According to the group's 2021 annual report, more detailed targets are to be announced in its CSR report during 2022.¹¹⁶

INVESTMENT IN AND TRANSITION TO EVS

In 2021 Stellantis announced that it 'plans to invest more than €30 billion through 2025 in electrification [by which it presumably means the development of BEVs and hybrids] and software'.¹¹⁷ In March 2022 it announced that it intends 100% of its Europe-wide car sales and 50% of its cars and light-duty trucks sold in the US to be BEVs by 2030.¹¹⁸ It is notable however that the company's 2021 annual report, apparently signed off less than a week before this announcement,¹¹⁹ presents a much less ambitious target 'to include a BEV version in all of our passenger cars models marketed in Europe, and all of our passenger cars and light duty trucks models in the U.S.' by the same date.¹²⁰ Furthermore, the same March 2022 strategy which sets out these new goals also envisages that hybrids and wholly ICE-powered vehicles will still be contributing one-third of the group's vehicle sales revenue by that date, while sales of its 'global SUV' segment are expected to account for a slightly higher proportion of revenue

then than in 2021 (up from 27% to 28%).¹²¹

OBSTRUCTING A LOW-EMISSION FUTURE?

FCA was one of a number of car manufacturers that sided with the Trump administration in a lawsuit aimed at preventing California from setting its own zero emission vehicle rules. The companies dropped their support for the lawsuit only in February 2021 as a 'gesture of good faith' with President Biden, following Trump's defeat in the 2020 presidential election.¹²²

In October 2021 it was announced that FCA was nearing a plea deal worth up to \$300 million to resolve a US Department of Justice investigation, dating back to 2015, into diesel vehicle emissions fraud involving Jeep-branded vehicles among others.¹²³ Months earlier, however, in July 2021, another investigation had seen FCA charged with deception in France, again in connection with diesel emissions cheating.¹²⁴

WORDS VS ACTIONS

% of advertisements promoting BEVs or hybrids – 73% (156 ads)

% of advertisements promoting BEVs – 0% (0 ads)

% of advertisements promoting hybrids – 73% (156 ads)

% of advertisements promoting SUVs (all powertrains) – 99% (212 ads)

% of advertisements referencing access to nature – 27% (57 ads)

While Jeep did not advertise any BEVs, the percentage of its advertisements devoted to hybrids was over 12 times the percentage of Stellantis' 2021 global sales accounted for by all low-emission vehicles, nearly six times the percentage of its 2021 European car sales accounted for by low-emission vehicles, and potentially as much as 15 times the percentage of its 2021 European car sales accounted for by hybrids alone. While it is impossible to be sure in the absence of 2021 sales data for Jeep alone, these figures nonetheless strongly suggest that the brand's advertising during this period gave an exaggerated impression of the importance

of hybrids to its overall sales. It is also notable that Jeep, a brand devoted exclusively to the sale of SUVs,¹²⁵ had the highest percentage of nature-themed advertisements of any of the brands analysed. These factors together helped to present **an image of an environmentally conscious brand at odds with its former parent FCA's opposition to legislation aimed at reducing vehicle emissions.**

PEUGEOT

HEADQUARTERS AND CORPORATE STATUS

Poissy, Yvelines, France.¹²⁶ Since 2021 Peugeot has been a brand of Amsterdam-based¹²⁷ Stellantis N.V.; prior to that, from 1976 it had been a brand of Paris-based Groupe PSA (formerly known as PSA Peugeot Citroën), and before that an independent company.¹²⁸ Stellantis was formed in 2021 from the merger of PSA and Fiat Chrysler Automobiles (FCA).¹²⁹



ANNUAL REVENUE AND SALES

Peugeot's parent Stellantis reported annual net revenue of €152 billion for 2021. It does not report separate figures for its various brands, but for 2020, prior to the merger of PSA and FCA, PSA's net revenue is reported as €47.7 billion, representing approximately 36% of the €134 billion revenue of the combined entity for that year.¹³⁰ Stellantis sold 6.5 million vehicles worldwide in 2021 (representing 8.2% of global light vehicle sales¹³¹), slightly up on 2020 (6.4 million) but down 19% on 2019's pre-pandemic figure of 8 million.¹³² Again, Stellantis does not provide a breakdown of sales by brand; but according to research by Greenpeace East Asia, in 2020 PSA (of which Peugeot was a part) sold around 2.5 million vehicles.¹³³

CURRENT SALES OF BEVS AND HYBRIDS AS % OF TOTAL SALES

In 2021 Stellantis sold 388,000 low emission vehicles¹³⁴ worldwide, up 160% on 2020¹³⁵ but

still representing just 6% of its global sales. Low emission vehicles accounted for 12.8% of Stellantis' total car sales in Europe (the EU-27 plus the UK, Norway, Iceland and Switzerland) and 3.4% of cars and light trucks in the USA.¹³⁶ Zero emission vehicles (including fuel cell vehicles as well as BEVs) accounted for 8% of European car sales (somewhat lower than the 10.3% figure for all manufacturers that year¹³⁷); such vehicles 'are expected to be offered in the U.S. during 2022'.¹³⁸

Stellantis offers no global EV sales totals, nor does it provide a breakdown of sales by brand; but according to research by Greenpeace East Asia, in 2020 PSA (of which Peugeot was a part) sold 67,446 EVs (BEVs and potentially some FCEVs) worldwide, accounting for 2.71% of its total sales. This marked a more than tenfold increase in proportional terms on 2019: the same rate of increase projected to 2021 would have seen BEVs and FCEVs represent over a third of the PSA brands' sales; on the other hand an increase in line with the average increase from 2016 would have resulted in them accounting for just 5.50% of the PSA brands' sales.¹³⁹

EMISSIONS REDUCTION TARGETS

Stellantis has a group target of net zero emissions by 2038, with an interim target to halve overall emissions from 2021 levels by 2030, including 75% reductions in absolute Scopes 1 and 2 emissions and halving of per-vehicle emissions intensity.¹⁴⁰ According to the group's 2021 annual report, more detailed targets are to be announced in its CSR report during 2022.¹⁴¹

INVESTMENT IN AND TRANSITION TO EVS

In 2021 Stellantis announced that it 'plans to invest more than €30 billion through 2025 in electrification [by which it presumably means the development of EVs and hybrids] and software'.¹⁴² In March 2022 it announced that it intends 100% of its Europe-wide car sales and 50% of its cars and light-duty trucks sold in the US to be BEVs by 2030.¹⁴³ It is notable however that the company's 2021 annual report, apparently signed off less than a week before this announcement,¹⁴⁴ presents a much less ambitious target 'to include a BEV version in all of our passenger cars models marketed in Europe, and all of our passenger cars and light duty trucks models in the U.S.' by

the same date.¹⁴⁵ Furthermore, the same March 2022 strategy which sets out these new goals also envisages that hybrids and wholly ICE-powered vehicles will still be contributing one-third of the group's vehicle sales revenue by that date, while sales of its 'global SUV' segment are expected to account for a slightly higher proportion of revenue than in 2021 (up from 27% to 28%).¹⁴⁶

Peugeot's brand CEO had independently announced in December 2021 that all Peugeot models on sale in Europe would be pure EVs by 2030, with the full product range to be electrified (BEV or PHEV) by 2024, though she conceded that ICE-powered vehicles would continue to be produced for other markets after 2030 and gave no date for a global phase-out.¹⁴⁷

OBSTRUCTING A LOW-EMISSION FUTURE?

In June 2021 a French court charged Peugeot with consumer fraud over alleged diesel vehicle emissions test cheating between 2009 and 2015. The investigation is reported to have found that some of the cars emitted over 10 times the regulatory limit for on-the-road nitrogen oxide (NOx) emissions.¹⁴⁸ Between 2013 and 2014 Peugeot allegedly posted videos on YouTube appearing to challenge World Health Organisation guidance on NOx emissions, as well as producing a video claiming that modern diesel engines do not emit noxious particles.¹⁴⁹

WORDS VS ACTIONS

% of advertisements promoting BEVs or hybrids – 76% (144 ads)

% of advertisements promoting BEVs – 41% (77 ads)

% of advertisements promoting hybrids – 37% (69 ads)

% of advertisements promoting SUVs (all powertrains) – 28% (52 ads)

% of advertisements referencing access to nature – 1% (2 ads)

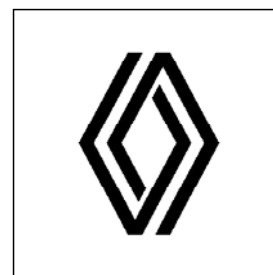
The percentage of Peugeot's advertisements devoted to BEVs or hybrids was over 12.5 times the percentage of Stellantis' 2021 global sales accounted for by all low-emission vehicles,

and nearly six times the percentage of its 2021 European car sales accounted for by low-emission vehicles. Meanwhile the percentage of its advertisements devoted to BEVs alone was over five times the percentage of Stellantis' 2021 European car sales accounted for by zero-emission vehicles, and nearly 7.5 times the projected 2021 global sales of BEVs as a percentage of total sales from the brands of the former PSA, assuming an increase on 2020 sales in line with the average increase from 2016. While it is impossible to be sure in the absence of 2021 sales data for Peugeot alone, these figures nonetheless **strongly suggest that the brand's advertising during this period gave an exaggerated impression of the importance of BEVs and hybrids to its overall sales.**

RENAULT

HEADQUARTERS AND CORPORATE STATUS

Boulogne-Billancourt, Paris, France.¹⁵⁰ Groupe Renault is part of the Renault–Nissan–Mitsubishi Alliance, a strategic partnership within which it remains an independent company.¹⁵¹ Renault's



subsidiaries include the Romanian Dacia and the Russian AVTOVAZ (Lada),¹⁵² but the present report focuses on advertising for its flagship brand.

ANNUAL REVENUE AND SALES

Group revenue for 2021 was €46.2 billion, up 6% on 2020. Of this total, revenue from the 'automotive excluding AVTOVAZ' segment (thus including the Alpine, Samsung and Dacia brands as well as Renault) was €40.4 billion, up 7% on 2020.¹⁵³ In 2021 Renault Group as a whole sold a total of 2.70 million light vehicles (representing 3.4% of global vehicle sales¹⁵⁴), down 4.5% on 2020 and down 28% on 2019. Renault itself was responsible for 1.69 million sales (down 5.3% on 2020 and 28% on 2019), of which 1.32 million were cars (down 10.5% on 2020 and 32% on 2019) and the remainder light commercial vehicles.¹⁵⁵ 687,000 of these cars were sold in Europe (down

17% on 2020 and 35% on 2019).¹⁵⁶

CURRENT SALES OF BEVS AND HYBRIDS AS % OF TOTAL SALES

In 2021 BEVs and hybrids accounted for 30% of Renault car sales in Europe, up from 17% in 2020¹⁵⁷ (but significantly lower than the 39.7% figure for all manufacturers in 2021¹⁵⁸). According to research by Greenpeace East Asia BEVs alone represented 4.37% of the wider group's global sales (114,008 vehicles) in 2020. An increase in line with the average increase from 2016 would have resulted in BEVs accounting for 6.66% of the group's global sales in 2021.¹⁵⁹

EMISSIONS REDUCTION TARGETS

Renault Group aims to be carbon-neutral across the entire product lifecycle by 2040 in Europe and 2050 worldwide.¹⁶⁰ The Group has a target to reduce its average per-vehicle downstream Scope 3 emissions (the use-related emissions of new vehicles, measured on a 'well-to-wheel' basis) by 65% in Europe and by 35% worldwide by 2030, measured from a 2019 baseline.¹⁶¹

INVESTMENT IN AND TRANSITION TO EVS

Renault Group, along with its alliance partners Nissan and Mitsubishi, aims to invest €23 billion in electrification over the five years from 2022, with the aim that 'the Renault brand' should become '100% electric by 2030 for passenger cars in Europe'.¹⁶² The group does not appear to have an equivalent group-wide global target (for example its April 2021 climate report has no such targets, even though it does mention an earlier, less ambitious version of the Renault brand-specific European target¹⁶³). Indeed, Renault Group has been lobbying for a delay to the proposed 2035 EU ban on new ICE-powered vehicles in order to ensure that its Dacia brand can go on selling hybrids (see below). Dacia's output is expected to be only 10% BEV by 2030.

OBSTRUCTING A LOW-EMISSION FUTURE?

Renault's stated commitments to reduce vehicle emissions and achieve group-wide carbon neutrality have not prevented it from seeking to weaken key emissions legislation. In September

2021 Renault Group's Executive Vice President for engineering stated that it would seek a postponement of the EU's proposed 2035 ban on ICE-powered vehicle sales until around 2040. Its stance is aimed at ensuring continuing sales of hybrids under its Dacia brand, whose output is expected to be only 10% BEV by 2030.¹⁶⁴ In June 2021 Renault was charged by French prosecutors with deception over its diesel vehicles' emissions, following investigators' claims that senior managers had been falsifying emissions test results for up to 25 years.¹⁶⁵ The investigation is reported to have found that some of the cars emitted over 10 times the regulatory limit for on-the-road nitrogen oxide (NOx) emissions.¹⁶⁶

WORDS VS ACTIONS

% of advertisements promoting BEVs or hybrids – 68% (166 ads)

% of advertisements promoting BEVs – 34% (83 ads)

% of advertisements promoting hybrids – 34% (83 ads)

% of advertisements promoting SUVs (all powertrains) – 27% (67 ads)

% of advertisements referencing access to nature – 21% (51 ads)

The percentage of Renault's advertisements devoted to BEVs or hybrids was over 2.25 times the percentage of its 2021 European car sales accounted for by such vehicles. Meanwhile the percentage of its advertisements devoted to BEVs alone was over five times the wider Renault Group's projected 2021 global sales of BEVs as a percentage of total sales, assuming an increase on 2020 sales in line with the average increase from 2016. While not as strongly as for the other companies studied, these figures do nonetheless suggest that the brand's advertising during this period gave a somewhat exaggerated impression of the importance of EVs and hybrids to its overall sales.

Renault also recorded the second-highest percentage of nature-themed advertisements of the car brands analysed, though the percentage of these advertising SUVs (all hybrid) was slightly lower than the overall percentage of the brand's advertisements that were for SUVs.

Nevertheless, this high percentage of nature-themed advertisements (predominantly – 75% – for BEVs or hybrids) is notable in view of the Renault Group’s lobbying for a postponement of the proposed EU ban on ICE-powered vehicle sales.

AIR FRANCE

HEADQUARTERS AND CORPORATE STATUS



Tremblay-en-France, Paris, France.¹⁶⁷ Air France is the flag carrier of France;¹⁶⁸ since a 2004 merger with Dutch national carrier KLM, it has been a subsidiary of the Air France–KLM Group, also headquartered at Tremblay-en-France.¹⁶⁹ Prior to that it was an independent company, state-owned since nationalisation in 1945, but partly privatised in 1999.¹⁷⁰ As of 2020 the French state reportedly owned a 14.3% stake in the Air France–KLM Group, with the Netherlands owning 14%;¹⁷¹ however, in the context of its Covid bailout of Air France (see below), by February 2022 the French government’s stake in the group had increased to nearly 29% while the Dutch holding fell to 9%.¹⁷²

ANNUAL REVENUE

2021 revenue: €8,744 million (up 36% on 2020 but still down 47% on 2019)¹⁷³

ANNUAL PASSENGER NUMBERS

21.82 million passengers carried (up 24% on 2020 but still down 58% on 2019); 60,180 million passenger kilometres flown (up 27% on 2020 but still down 61% on 2019)¹⁷⁴

PASSENGER LOAD FACTOR

Air France’s passenger load factor for 2021 was 64.3%, meaning that when adjusted for length of journey, less than two-thirds of the seats on its flights were filled. This figure was down 0.2 percentage points on 2020 (64.6%)¹⁷⁵ and 22.6 percentage points below the figure for 2019 (86.9%).¹⁷⁶ In other words, since the start

of the pandemic the proportion of Air France passenger kilometres that are unoccupied has nearly trebled.

ANNUAL GHG EMISSIONS

Air France Group (including the subsidiaries HOP and Transavia France) had total 2021 GHG emissions of 10.9 million tonnes of CO₂, of which Scope 1 emissions (almost entirely from aircraft) accounted for 8.9 million tonnes (up 22% on 2020, but still 45% below the pre-Covid 2019 figure of 16.2 million tonnes). It had CO₂ emissions per passenger kilometre of 95.2 grammes (down 7% on 2020 but still 16% higher than 2019’s figure of 82 grammes).¹⁷⁷

OFFSETTING

According to a press release, Air France began offsetting all domestic flights in 2020 via projects in South America, Africa and Asia, focusing on ‘reforestation, forest preservation and biodiversity, along with the development of renewable energies’.¹⁷⁸ However, according to Air France–KLM Group’s environmental reporting, Air France Group’s mandatory and voluntary offsetting earned just 989,000 tonnes of CO₂ credits in 2021 – equating to around 9% of the group’s total emissions.¹⁷⁹ Air France also runs a scheme for individual and corporate customers to offset the emissions resulting from their travel,¹⁸⁰ though zero credits are attributed to this for 2021.¹⁸¹

EMISSION REDUCTION TARGETS

Air France has a target to halve its emissions per passenger kilometre by 2030 from a 2005 baseline. This is acknowledged to be partly reliant on offsetting projects as well as on its mandatory participation in the EU-ETS and global CORSIA emissions trading schemes,¹⁸² in addition to use of so-called sustainable aviation fuel and various measures to reduce fuel consumption.¹⁸³ According to Air France–KLM Group’s environmental reporting, in 2021 Air France Group’s use of sustainable aviation fuel saved just 20 tonnes of CO₂ emissions.¹⁸⁴

COVID BAILOUT RECEIVED

In May 2020 the European Commission approved a €7 billion French government aid package for Air

France consisting of a state guarantee on loans to a maximum of €4 billion, with the balance in the form of a subordinated shareholder loan from the state.¹⁸⁵ The following April the Commission approved a €4 billion state recapitalisation of the company, including conversion of the previously agreed €3 billion loan into a capital instrument and a further capital injection up to €1 billion. At this point the Commission stipulated that Air France must give up a number of take-off and landing slots as a condition of the assistance.¹⁸⁶ In December 2021 the Commission approved a two-year extension of the guarantee to May 2025 in view of the sector's slow recovery.¹⁸⁷ However, in February 2022 it was reported that the group intended to start repaying its state aid.¹⁸⁸

OBSTRUCTING A LOW-EMISSION FUTURE?

According to the lobbying watchdog InfluenceMap, Air France-KLM has lobbied extensively against airline climate regulation in the EU, France and the Netherlands, including opposing measures to strengthen the EU ETS for aviation. It has reportedly opposed a reduction in free emissions allowances for aviation under the EU ETS and supported exemption of intra-EU feeder flights from the scheme, while suggesting that participation in CORSIA should exempt the sector from EU climate policies including the EU ETS. It has argued to the EU Commission that European climate action on aviation has a negative effect on competitiveness. Furthermore it 'has actively advocated against various ... jet fuel and ticket taxes across Europe'.¹⁸⁹ In 2021 Air France-KLM was alleged to have lobbied policymakers to use EU green stimulus funds to subsidise aircraft sales, on the basis that sales of new, more efficient aircraft would lead to reduced emissions.¹⁹⁰ In January 2022 it was reported to be among an alliance of airlines rejecting the EU's proposed aviation fuel tax and calling for other measures to be watered down.¹⁹¹

Air France-KLM is also a member of Airlines for Europe, an industry group that has lobbied extensively against EU policies aimed at decarbonising aviation.¹⁹² It is also a member of the Airline Coordination Platform, a Brussels-focused lobbying organisation that has recently begun to lobby against tighter EU climate regulation of aviation (see under SAS).¹⁹³

WORDS VS ACTIONS

% of advertisements featuring low-cost flights, deals or promotions – 78% (89 ads)

% of advertisements highlighting supposed environmental actions – 2% (2 ads)

% of advertisements referencing access to nature – 36% (41 ads)

A strikingly high percentage of Air France's advertisements focused on deals and promotions, while just two of its advertisements featured environmental actions (both claiming to reduce the company's environmental footprint by means of new aircrafts). Such figures suggest that Air France has decided to make little of its 2030 emissions reduction target, perhaps unsurprisingly in view of its extensive lobbying against regulation of airline emissions. The significant proportion of the company's advertisements that referenced access to nature suggests that it may view the use of such imagery as a more effective means of greenwashing than calling attention to its decarbonisation plans and ambitions.

AUSTRIAN AIRLINES

HEADQUARTERS AND CORPORATE STATUS

Austrian 

Vienna International Airport, Schwechat, Austria. Since 2009 Austrian Airlines, the flag carrier of Austria, has been a wholly owned subsidiary of the Lufthansa Group,¹⁹⁴ headquartered in Cologne, Germany,¹⁹⁵ which as of October 2021 was 14.09%-owned by the German state through its *Wirtschaftsstabilisierungsfonds* (Economic Stabilisation Fund)¹⁹⁶ set up in response to the Covid pandemic¹⁹⁷ (though it intends to sell its stake by October 2023¹⁹⁸). Prior to this, 42% of Austrian Airlines was owned by the Austrian state, the rest by various financial institutions and private investors.¹⁹⁹

ANNUAL REVENUE

2021 revenue: €743 million (up 62% on 2020 but still down 65% on 2019)²⁰⁰

ANNUAL PASSENGER NUMBERS

5.01 million passengers carried (up 61% on 2020 but still down 66% on 2019); 7,011 million passenger kilometres flown (up 59% on 2020 but still down 70% on 2019)²⁰¹

PASSENGER LOAD FACTOR

Austrian Airlines' passenger load factor for 2021 was 61.9%, the same as in 2020²⁰² but still down 18.9 percentage points on 2019,²⁰³ meaning that compared with 2019 almost twice the proportion of the airline's passenger kilometres were unoccupied.

ANNUAL GHG EMISSIONS

Lufthansa Group's 2021 CO₂ emissions from its aircraft totalled 13.7 million tonnes (up 20% on 2020 (11.4 million tonnes) but still down 59% on 2019 (33.1 million tonnes). 2021 CO₂ emissions per passenger kilometre were down 3% on 2020 (105 grammes) at 102 grammes, but still 10% higher than in 2019 (92 grammes).²⁰⁴ No breakdown for individual airlines within the group is provided.

OFFSETTING

According to its 2021 annual report, Lufthansa Group's mandatory participation in the EU ETS was expected to result in the issuing of emissions certificates corresponding to 3.87 million tonnes of CO₂ emitted in 2021. The group's mandatory participation in the global CORSIA scheme was not expected to result in any CO₂ compensation payments being payable because of the decline in air traffic due to Covid. Beyond these compulsory schemes the group is said to be 'continuously expanding the possibilities for offsetting carbon emissions', but the only schemes mentioned involve its offsetting of its own employees' business flights (amounting to just 25,000 tonnes of CO₂ emissions in 2021) and its provision for voluntary offsetting by individual and corporate customers,²⁰⁵ via an offset provider or by 'purchasing' sustainable aviation fuel.²⁰⁶

Some of Austrian Airlines' receipts from

customers' voluntary offsetting are used by national offset projects certified by the Austrian Environment Ministry.²⁰⁷

EMISSION REDUCTION TARGETS

Lufthansa Group aims to have net zero emissions by 2050 (in line with IATA's October 2021 resolution) and has an interim target to halve its net emissions by 2030 against a 2019 baseline. It aims to achieve this through a 'four pillar approach', adopted from IATA and involving technological measures (reducing fuel consumption and developing so-called sustainable aviation fuel), improved infrastructure, operational measures (including improved load factors) and mandatory and voluntary offsetting.²⁰⁸

COVID BAILOUT RECEIVED

In June 2020 Austrian Airlines' parent Lufthansa Group received a Covid bail-out from the German state, which provided €9 billion (including recapitalisation of €6 billion and a state guarantee on a €3 billion loan) in return for a 20% stake in the company.²⁰⁹ While the company was required to give up a number of take-off and landing slots to other airlines as a condition of the assistance,²¹⁰ no environmental conditions appear to have been imposed. By October 2021 the state holding had reduced to 14.09%.²¹¹ The following month Lufthansa repaid the last of the bailout ahead of schedule, leaving the government free to dispose of its remaining holding, which it intends to do by October 2023, with predictions that it could make a sizeable profit.²¹²

In July 2020 the European Commission approved a €150 million Austrian government loan (convertible into a grant) for Austrian Airlines to compensate it for losses incurred as a result of Covid between March and June 2020. This was said to be in addition to a €150 million equity contribution from Deutsche Lufthansa AG (potentially to be drawn from the €6 billion German recapitalisation of Deutsche Lufthansa AG), and a €300 million state-guaranteed loan by a consortium of commercial banks, both already approved under the same EU assistance framework.²¹³ According to a report the following month, Austria's €450m assistance was to be deducted from the €9 billion Lufthansa bailout package originally agreed by the German government.²¹⁴ That April, Austria's environment

minister had said that any state aid package should be subject to environmental conditions, with options reportedly including ‘a pledge to reduce short-haul flights, increased cooperation with rail companies, heavier use of eco-friendly fuels and bigger tax contributions’.²¹⁵

OBSTRUCTING A LOW-EMISSION FUTURE?

A 2021 report by InfluenceMap alleges that Lufthansa Group privately lobbied EU Commission officials against an ambitious EU mandate on incorporation of sustainable aviation fuels into fuel blends used by airlines, just months after it had publicly supported such a policy. The report also finds that the group has advocated against an EU tax on aviation fuel, supported exclusion of feeder flights from the EU ETS and lobbied for planned reductions in free EU ETS emissions allowances to be postponed until after the end of the Covid crisis.²¹⁶ In January 2022 Lufthansa Group was reported to be among an alliance of airlines rejecting the EU’s proposed aviation fuel tax and calling for other measures to be watered down.²¹⁷

Lufthansa Group is also a member of Airlines for Europe, an industry group that has lobbied extensively against EU policies aimed at decarbonising aviation.²¹⁸ Austrian Airlines is also a member²¹⁹ of the Airline Coordination Platform, a Brussels-focused lobbying organisation that has recently begun to lobby against tighter EU climate regulation of aviation (see under SAS).²²⁰

WORDS VS ACTIONS

% of advertisements featuring low-cost flights, deals or promotions – 23% (6 ads)

% of advertisements highlighting supposed environmental actions – 0% (0 ads)

% of advertisements referencing access to nature – 54% (14 ads)

While none of its advertisements focused on environmental actions, Austrian Airlines recorded both the lowest percentage of advertisements focusing on low-cost flights, deals or promotions and the highest percentage using imagery of access to nature of any of the airlines analysed. The company’s enthusiastic contribution to the image

of air travel as bringing people close to nature is ironic in view of its parent Lufthansa Group’s (and more recently its own) role in lobbying against tighter EU climate regulation of aviation.

BRUSSELS AIRLINES

HEADQUARTERS AND CORPORATE STATUS



Brussels Airport.²²¹ Brussels Airlines is the flag carrier of Belgium;²²² since 2017 Brussels Airlines has been a wholly owned subsidiary of Lufthansa Group,²²³ headquartered in Cologne, Germany,²²⁴ which as of October 2021 was 14.09%-owned by the German state through its *Wirtschaftsstabilisierungsfonds* (Economic Stabilisation Fund)²²⁵ set up in response to the Covid pandemic²²⁶ (though it intends to sell its stake by October 2023²²⁷). Lufthansa had previously acquired a 45% stake in Brussels Airlines in 2009,²²⁸ three years after the company was formed from a merger between Virgin Express and SN Brussels Airlines,²²⁹ the latter being the public/private successor to the former national carrier Sabena, which collapsed in 2001.²³⁰

ANNUAL REVENUE

2021 revenue: €560 million (up 35% on 2020 but still down 62% on 2019)²³¹

ANNUAL PASSENGER NUMBERS

3.48 million passengers carried (up 47% on 2020 but still down 66% on 2019); 7,073 million passenger kilometres flown (up 60% on 2020 but still down 61% on 2019)²³²

PASSENGER LOAD FACTOR

Brussels Airlines’ passenger load factor for 2021 was 67.2%, down 1.1 percentage points on 2020²³³ and 14.3 percentage points below the figure for 2019,²³⁴ meaning that the proportion of the airline’s passenger kilometres unoccupied was nearly 70% higher than in 2019.

ANNUAL GHG EMISSIONS

Lufthansa Group's 2021 CO₂ emissions from its aircraft totalled 13.7 million tonnes (up 20% on 2020 (11.4 million tonnes) but still down 59% on 2019 (33.1 million tonnes)). 2021 CO₂ emissions per passenger kilometre were down 3% on 2020 (105 grammes) at 102 grammes, but still 10% higher than in 2019 (92 grammes).²³⁵ No breakdown for individual airlines within the group is provided.

OFFSETTING

According to its 2021 annual report, Lufthansa Group's mandatory participation in the EU ETS was expected to result in the issuing of emissions certificates corresponding to 3.87 million tonnes of CO₂ emitted in 2021. The group's mandatory participation in the global CORSIA scheme was not expected to result in any CO₂ compensation payments being payable because of the decline in air traffic due to Covid. Beyond these compulsory schemes the group is said to be 'continuously expanding the possibilities for offsetting carbon emissions', but the only schemes mentioned involve its offsetting of its own employees' business flights (amounting to just 25,000 tonnes of CO₂ emissions in 2021) and its provision for voluntary offsetting by individual and corporate customers,²³⁶ via an offset provider or by 'purchasing' sustainable aviation fuel.²³⁷

EMISSION REDUCTION TARGETS

Lufthansa Group aims to have net zero emissions by 2050 (in line with IATA's October 2021 resolution) and has an interim target to halve its net emissions by 2030 against a 2019 baseline. It aims to achieve this through a 'four pillar approach', adopted from IATA and involving technological measures (reducing fuel consumption and developing so-called sustainable aviation fuel), improved infrastructure, operational measures (including improved load factors) and mandatory and voluntary offsetting.²³⁸

COVID BAILOUT RECEIVED

In June 2020 Brussels Airlines' parent Lufthansa Group received a Covid bail-out from the German state, which provided €9 billion (including recapitalisation of €6 billion and a state guarantee on a €3 billion loan) in return for

a 20% stake in the company.²³⁹ While the company was required to give up a number of take-off and landing slots to other airlines as a condition of the assistance,²⁴⁰ no environmental conditions appear to have been imposed. By October 2021 the state holding had reduced to 14.09%.²⁴¹ The following month Lufthansa repaid the last of the bailout ahead of schedule, leaving the government free to dispose of its remaining holding, which it intends to do by October 2023, with predictions that it could make a sizeable profit.²⁴²

In August 2020 the European Commission approved a €290 million Belgian government Covid aid package for Brussels Airlines, consisting of a loan of €287 million and an equity injection of €3 million. This replaced an equivalent sum from the aid previously announced for the wider Lufthansa Group by the German government.²⁴³ There is no evidence of any climate-related conditions being attached to the aid.

OBSTRUCTING A LOW-EMISSION FUTURE?

A 2021 report by InfluenceMap alleges that Lufthansa Group privately lobbied EU Commission officials against an ambitious EU mandate on incorporation of sustainable aviation fuels into fuel blends used by airlines, just months after it had publicly supported such a policy. The report also finds that the group has advocated against an EU tax on aviation fuel, supported exclusion of feeder flights from the EU ETS and lobbied for planned reductions in free EU ETS emissions allowances to be postponed until after the end of the Covid crisis.²⁴⁴ In January 2022 Lufthansa Group was reported to be among an alliance of airlines rejecting the EU's proposed aviation fuel tax and calling for other measures to be watered down.²⁴⁵

Lufthansa Group is also a member of Airlines for Europe, an industry group that has lobbied extensively against EU policies aimed at decarbonising aviation.²⁴⁶ Brussels Airlines is also a member²⁴⁷ of the Airline Coordination Platform, a Brussels-focused lobbying organisation that has recently begun to lobby against tighter EU climate regulation of aviation (see under SAS).²⁴⁸

WORDS VS ACTIONS

% of advertisements featuring low-cost flights, deals or promotions – 74% (34 ads)

% of advertisements highlighting supposed environmental actions – 2% (1 ad)

% of advertisements referencing access to nature – 30% (14 ads)

Brussels Airlines' advertisements were far more focused on low-cost flights, deals and promotions than its fellow Lufthansa subsidiary Austrian Airlines, coming behind only Air France in this category. This was matched by a near-complete avoidance of advertisements referencing environmental actions. Nevertheless, the company placed some reliance on imagery of closeness to nature – again ironically in view of Lufthansa Group's (and more recently its own) role in lobbying against tighter EU climate regulation of aviation.

LUFTHANSA

HEADQUARTERS AND CORPORATE STATUS



Cologne, Germany.²⁴⁹ Lufthansa German Airlines (the flag carrier of Germany²⁵⁰) is the airline business of Deutsche Lufthansa AG, the parent company of Lufthansa Group, which also owns Austrian Airlines, Brussels Airlines and Swiss International Air Lines, among others.²⁵¹ As of October 2021 Lufthansa Group was 14.09%-owned by the German state through its *Wirtschaftsstabilisierungsfonds* (Economic Stabilisation Fund)²⁵² set up in response to the Covid pandemic²⁵³ (though the state intends to sell its stake by October 2023²⁵⁴).

ANNUAL REVENUE

2021 revenue: €5,061 million (up 23% on 2020 but still down 70% on 2019)²⁵⁵

ANNUAL PASSENGER NUMBERS

23.54 million passengers carried (up 31% on 2020 but still down 68% on 2019); 50,067 million passenger kilometres flown (up 25% on 2020 but still down 72% on 2019)²⁵⁶

PASSENGER LOAD FACTOR

Lufthansa's passenger load factor for 2021 was 60.3%, down 1.8 percentage points on 2020²⁵⁷ and 22.2 percentage points below the figure for 2019,²⁵⁸ meaning that compared with 2019 well over twice the proportion of the airline's passenger kilometres were unoccupied.

ANNUAL GHG EMISSIONS

Lufthansa Group's 2021 CO₂ emissions from its aircraft totalled 13.7 million tonnes (up 20% on 2020 (11.4 million tonnes) but still down 59% on 2019 (33.1 million tonnes)). 2021 CO₂ emissions per passenger kilometre were down 3% on 2020 (105 grammes) at 102 grammes, but still 10% higher than in 2019 (92 grammes).²⁵⁹ No breakdown for individual airlines within the group is provided.

OFFSETTING

According to its 2021 annual report, Lufthansa Group's mandatory participation in the EU ETS was expected to result in the issuing of emissions certificates corresponding to 3.87 million tonnes of CO₂ emitted in 2021. The group's mandatory participation in the global CORSIA scheme was not expected to result in any CO₂ compensation payments being payable because of the decline in air traffic due to Covid. Beyond these compulsory schemes the group is said to be 'continuously expanding the possibilities for offsetting carbon emissions', but the only schemes mentioned involve its offsetting of its own employees' business flights (amounting to just 25,000 tonnes of CO₂ emissions in 2021) and its provision for voluntary offsetting by individual and corporate customers,²⁶⁰ via an offset provider or by 'purchasing' sustainable aviation fuel.²⁶¹

EMISSION REDUCTION TARGETS

Lufthansa Group aims to have net zero emissions by 2050 (in line with IATA's October 2021 resolution) and has an interim target to halve its net emissions by 2030 against a 2019 baseline. It aims

to achieve this through a ‘four pillar approach’, adopted from IATA and involving technological measures (reducing fuel consumption and developing so-called sustainable aviation fuel), improved infrastructure, operational measures (including improved load factors) and mandatory and voluntary offsetting.²⁶²

COVID BAILOUT RECEIVED

In June 2020 the Lufthansa Group was bailed out by the German state, which used its *Wirtschaftsstabilisierungsfonds* (Economic Stabilisation Fund) set up in response to the Covid pandemic.²⁶³ to provide €9 billion (including recapitalisation of €6 billion and a state guarantee on a €3 billion loan) in return for a 20% stake in the company.²⁶⁴ While the company was required to give up a number of take-off and landing slots to other airlines as a condition of the assistance,²⁶⁵ no environmental conditions appear to have been imposed. By October 2021 the state holding had reduced to 14.09%.²⁶⁶ The following month Lufthansa repaid the last of the bailout ahead of schedule, leaving the government free to dispose of its remaining holding, which it intends to do by October 2023, with predictions that it could make a sizeable profit.²⁶⁷

OBSTRUCTING A LOW-EMISSION FUTURE?

A 2021 report by InfluenceMap alleges that Lufthansa Group privately lobbied EU Commission officials against an ambitious EU mandate on incorporation of sustainable aviation fuels into fuel blends used by airlines, just months after it had publicly supported such a policy. The report also finds that the group has advocated against an EU tax on aviation fuel, supported exclusion of feeder flights from the EU ETS and lobbied for planned reductions in free EU ETS emissions allowances to be postponed until after the end of the Covid crisis.²⁶⁸ In January 2022 Lufthansa Group was reported to be among an alliance of airlines rejecting the EU’s proposed aviation fuel tax and calling for other measures to be watered down.²⁶⁹

Lufthansa Group is a member of Airlines for Europe, an industry group that has lobbied extensively against EU policies aimed at decarbonising aviation.²⁷⁰ Lufthansa is also a member²⁷¹ of the Airline Coordination Platform, a

Brussels-focused lobbying organisation that has recently begun to lobby against tighter EU climate regulation of aviation (see under SAS).²⁷²

WORDS VS ACTIONS

% of advertisements featuring low-cost flights, deals or promotions – 40% (2 ads)

% of advertisements highlighting supposed environmental actions – 0% (0 ads)

% of advertisements referencing access to nature – 40% (2 ads)

The Facebook Ad Library contained too few Lufthansa advertisements to form statistically meaningful conclusions about its advertising policy. However, it does seem possible that like Lufthansa Group subsidiaries Austrian Airlines and Brussels Airlines, Lufthansa itself may place some reliance on nature imagery to distract attention from the group’s energetic opposition to tighter EU climate regulation of aviation.

SCANDINAVIAN AIRLINES

HEADQUARTERS AND CORPORATE STATUS

Solna, Stockholm, Sweden.²⁷³ Scandinavian Airlines, in full Scandinavian Airlines System (SAS), is the flag carrier of Denmark, Norway and Sweden.²⁷⁴

Its holding company SAS Group is partly owned by the governments of Denmark and Sweden (each holding 21.8% as of 28 February 2022).²⁷⁵



ANNUAL REVENUE

2021 revenue: SEK 13,958 million (down 32% on 2020 and 70% on 2019)²⁷⁶

ANNUAL PASSENGER NUMBERS

7.59 million passengers carried (down 40% on 2020 and 75% on 2019); 8,256 million

passenger kilometres flown (down 42% on 2020 and 79% on 2019)²⁷⁷

PASSENGER LOAD FACTOR

SAS's passenger load factor for 2021 was 47.9%, down 12.6 percentage points on 2020 and down 27.3 percentage points on 2019,²⁷⁸ meaning that compared with 2019 over twice the proportion of the airline's passenger kilometres were unoccupied.

ANNUAL GHG EMISSIONS

SAS's 2021 CO₂ emissions from its aircraft totalled 1.19 million tonnes (down 34% on 2020 (1.80 million tonnes) and down 72% on 2019 (4.21 million tonnes)). 2021 CO₂ emissions per passenger kilometre were up 6% on 2020 (111 grammes) and up 24% on 2019 (95 grammes) at 118 grammes.²⁷⁹ SAS conceded that the vast majority of the fall in both years was attributable to reduced traffic as a consequence of the pandemic, though it also claimed modest increases in aircraft energy efficiency.

OFFSETTING

SAS offers offsetting options for customers and undertakes to offset 'all ... tickets for EuroBonus members, Youth travel with SAS and our own staff tickets'. In 2021 it claims that these offsets accounted for 0.5 million tonnes of CO₂, equivalent to 52% of its emissions attributable to passengers.²⁸⁰ In addition, SAS participates in the EU Emissions Trading Scheme, though in 2021 its expenses under the scheme were zero, thanks to 'significantly lower production [apparently referring to the reduced level of operations] and emissions'.²⁸¹

EMISSION REDUCTION TARGETS

SAS aims to achieve a 25% reduction in its 'absolute' CO₂ emissions (from 2005 levels) by 2025, and 'net zero carbon emissions by 2050' in line with the IATA target.²⁸² As part of the 2025 goal, SAS has a target to use at least 10% of so-called sustainable aviation fuel by that date.²⁸³

COVID BAILOUT RECEIVED

In March 2020 the Norwegian Government approved an NOK 1.5 billion (€157 million)²⁸⁴

loan guarantee for SAS in response to the Covid pandemic, alongside similar assistance for other Norway-registered airlines.²⁸⁵ In August 2020 the European Commission approved a recapitalisation of SAS by the Swedish and Danish governments to assist in the company's recovery from the pandemic. The approval allowed recapitalisation totalling up to SEK 11 billion (approximately €1.07 billion²⁸⁶), including the subscription and underwriting of new shares and the issuing of state equity. This was to take the place of revolving credit facilities previously agreed by the two countries.²⁸⁷ Neither measure appears to include any climate-related conditions.

OBSTRUCTING A LOW-EMISSION FUTURE?

A 2021 report by InfluenceMap reports that the Airline Coordination Platform, a Brussels-focused lobbying organisation of which SAS is a member, has increasingly turned its attention to EU climate policy since the start of the Covid pandemic. Policies for which it has advocated are said to include an increased allowance of free EU ETS credits for airlines operating feeder flights or the complete exemption of such flights from the EU ETS. Meanwhile it is said to have opposed a sustainable aviation fuel blending mandate (while again arguing for feeder flights to be exempted from any such mandate) and argued against EU-wide and national taxes on aviation fuel as well as a ban on short-haul flights.²⁸⁸ On its own account, SAS has also opposed flight taxes in Sweden and Norway on the basis that their failure to distinguish between higher- and lower-emission aircraft means that they offer no incentive to reduce emissions.²⁸⁹

WORDS VS ACTIONS

% of advertisements featuring low-cost flights, deals or promotions – 64% (46 ads)

% of advertisements highlighting supposed environmental actions – 26% (19 ads)

% of advertisements referencing access to nature – 29% (21 ads)

SAS was the only airline analysed that made significant use of advertisements focused on its supposedly pro-environmental actions –

with the topics covered being a fairly even mix of offsetting, sustainable aviation fuels, new lower-emission aircraft and the development of zero-emission aircraft. Unlike the other airlines included in the study, SAS saw its business continue to shrink rapidly in 2021. Although on the key metrics of revenue, passenger numbers and passenger kilometres its performance was only moderately worse than that of the Lufthansa Group airlines, the fact that these figures were in the context of ongoing rapid falls rather than the apparent beginnings of recovery may have encouraged it to develop a somewhat different advertising approach to its competitors, signalling its supposedly green credentials to a greater degree. However, without data on its and its competitors' advertising mix in previous years (and indeed some insight into corporate decision-making) this remains sheer speculation. SAS did also post a high percentage of advertisements focused on deals and promotions (it placed third in this category) and while it had the lowest percentage of advertisements evoking access to nature, this was by only the narrowest of margins, with the theme still present in a significant proportion of its advertisements.

FALSE AND INCOMPLETE SOLUTIONS

Both car manufacturers and airlines place heavy reliance on a range of supposed solutions, technological and otherwise, to the massive GHG emissions for which their sectors are responsible. For car companies, while decarbonisation of supply chains and production processes plays a significant part in their published policies to cut emissions, the most important factor is identified as the switch to electric and hybrid vehicles.²⁹⁰ As we have seen, such vehicles dominate car companies' advertising out of all proportion to their current sales. As sellers of a service rather than a product, airlines' emission solutions are unsurprisingly less intrinsic to their advertising. Nevertheless they too have a range of solutions which they highlight in their published decarbonisation policies – notably including offsetting and low-emission fuels. Yet none of these so-called solutions offers such a neat answer as their proponents would like the public to believe.

ELECTRIC VEHICLES (INCLUDING HYBRIDS)

As a solution to GHG emissions, the most obviously unsatisfactory EVs are those that are still fully or partly reliant on fossil fuels – hybrids. Most hybrids sold are not even PHEVs²⁹¹ – they cannot be charged at a charging point but instead use their internal combustion engines to charge their batteries, often assisted by 'regenerative braking' (in which the electric motor temporarily functions as a generator driven by the kinetic energy of the slowing vehicle). Their average lifetime use emissions have been estimated at around 85% those of a typical petrol car.²⁹² So-called 'mild hybrids', whose electric motor is insufficiently powerful to propel the car but is instead used merely to allow the internal combustion engine to be turned off when the vehicle is coasting or stationary, and then restarted quickly, are even less effective at reducing emissions.²⁹³

Even PHEVs, which can be fully charged at a charging point, still have lifetime use emissions estimated at around 72% those of a petrol car.²⁹⁴ Moreover, many have been shown to emit far more CO₂ than their manufacturers claim. In tests commissioned by Transport & Environment, three models newly released in 2020 emitted between 28% and 89% more than advertised when operating with a fully charged battery in optimal conditions, between three and eight times more with an empty battery, and between three and 12 times more when driving in battery-charging mode.²⁹⁵

Fully battery-electric vehicles of course emit no CO₂ directly while in use. But even these are reliant on charging with electricity that may have been fossil-generated – their lifetime emissions in UK use have been estimated at around 10% those of a petrol car.²⁹⁶ Moreover, because of the highly emission-intensive nature of battery production, manufacture of EVs can involve emissions more than double those for an equivalent fossil-fuelled vehicle. These extra emissions can be reduced, but not entirely avoided, by using fully renewable energy in the production process; the excess emissions are also lower in the case of small, light vehicles that require smaller batteries. In the case of a premium BEV such as Tesla's Model S 'Long Range', battery production is estimated to add 14.5 tonnes CO₂e,²⁹⁷ which is

over a third of the lifetime use emissions of an average petrol car.²⁹⁸ The mining of lithium for EV batteries also has serious environmental and human rights impacts.²⁹⁹

All the impacts related to batteries could be reduced if they were to be recycled; however, recycling of lithium batteries poses a technological challenge, especially thanks to the volatile, toxic and flammable fluorine-containing electrolyte.³⁰⁰ There is a need to increase research and development both in battery recycling and in alternative, greener battery technologies such as those using sodium or magnesium.³⁰¹

BEVs clearly have a place in the decarbonisation of road transport, but there is also a need for a major shift away from car use and onto public transport and bicycles, especially (but not only) in urban areas. The EU Transport Roadmap 2040, commissioned by Greenpeace Belgium to explore pathways to a 2040 decarbonisation of Europe-wide transport in order ‘to preserve the carbon budget and [give] more time to less advanced regions’, calls for the light vehicle fleet size to be reduced by 27% by 2030 and by 47% by 2040, compared with 2015 levels, and the use of private vehicles to be reduced from 62% of transport in large urban areas to 42% (with even larger cuts for urban centres) and from 79% to 68% in non-urban areas by 2040.³⁰²

LOW-EMISSION FUELS

Having formerly been widely touted as the answer to road vehicle emissions until their place was taken by the promise of electric power, low-emission fuels (typically derived from crops, crop residues or waste oils and fats³⁰³) are now, under the catch-all name of ‘sustainable aviation fuel’, the main plank of the airline industry’s emissions reduction strategy. IATA expects sustainable aviation fuel to deliver 65% of the reductions needed to achieve its 2050 net zero plan,³⁰⁴ and airlines are eager to be seen to be on board, as witness public statements by all five airlines covered in this report (at group level in the case of Austrian Airlines, Brussels Airlines and Lufthansa).

IATA does not expect electric and hydrogen-fuelled airliners to enter service until 2035, and even then only for what it calls the ‘regional market’ (50–100 seats, flights of 30–90 minutes), with suitable craft for the ‘short-haul market’ (100–150 seats, flights

of 45–120 minutes) not becoming available until 2040 and no dates specified for longer-haul aircraft. The association expects electric and hydrogen-fuelled airliners to deliver just 13% of its sector’s 2050 net zero savings.³⁰⁵ IATA director general Willie Walsh believes that airlines will go on buying conventional jetliners – which have a 20-year-plus service life – for another 15 years,³⁰⁶ potentially meaning that many will still be in service at the industry’s ‘net-zero’ deadline of 2050. Faced with that reality, airlines are desperate for a strategy that will enable them to continue business as usual while appearing to do their bit to confront the climate emergency – and sustainable aviation fuel seems to provide the answer.

But sustainable aviation fuel is also in its infancy. Current production is estimated at under 0.1% of global jet fuel consumption and is predicted to increase to just 3% by 2030, according to Bloomberg,³⁰⁷ and to 19% by 2040, according to the IEA’s more optimistic Sustainable Development Scenario.³⁰⁸ These predictions are well below IATA’s own projected figures of 5.2% and 39% respectively,³⁰⁹ calling into question its 2050 target of a 65% emissions saving – particularly as this seems to rely on a 65% *consumption share* at the same date,³¹⁰ implying that IATA expects this fuel to be on average carbon-neutral, which is unlikely to be the case (see below). Moreover, at a cost three or four times that of kerosene,³¹¹ there is currently little incentive for demand to increase and so drive up production. The European Commission has proposed to introduce a blending mandate for sustainable aviation fuels increasing every five years to 63% by 2050,³¹² but even with a worldwide legal obligation the achievement of IATA’s target would face enormous hurdles.

No sustainable aviation fuel currently licensed can be used to replace fossil fuel entirely – they can merely be blended with regular fossil kerosene up to a maximum percentage which ranges from 10% to 50%.³¹³ Moreover, in some cases the very contribution of these fuels to emissions reduction is open to question. A study by the International Council on Clean Transportation found that fuel made from municipal waste with a high plastic content can produce around twice the life-cycle CO₂ emissions of normal jet fuel.³¹⁴ Fuels made from oil crops (which have the greatest potential to be available at scale in the short term) also have life-cycle emissions in most cases close to or even higher than those of fossil fuel when emissions

associated with land-use change for agriculture are taken into account³¹⁵ – to say nothing of the potential impacts on ecosystems, food supplies and land rights that large-scale demand for such feedstocks might entail.

So-called ‘electrofuels’ made from hydrogen (obtained by electrolysis) and CO₂ can have very low life-cycle emissions, provided that they use CO₂ taken from the atmosphere or captured from an existing emission source without indirectly increasing emissions – but only if they are synthesised using renewable energy. If made using electricity involving the present European grid-average mix of sources, their lifecycle GHG emissions exceed those of fossil fuels³¹⁶ and they are at the same time contributing to the risks posed by nuclear power. The danger is that large-scale demand for renewably synthesised electrofuels could simply displace other uses of renewably generated electricity.³¹⁷ A few other sustainable fuel types (principally those made from agricultural and forestry residues and biogenic municipal waste) do offer very significant emissions reductions on fossil fuel use,³¹⁸ but as with electrofuels their likely availability at a scale sufficient to make a real and timely difference to the sector’s emissions is doubtful. One airline CEO is on record as saying that expenditure on sustainable aviation fuels would be better invested in accelerating the introduction of hydrogen and electric propulsion.³¹⁹

OFFSETTING

Carbon offsetting – paying someone to sequester carbon or prevent emissions elsewhere so as to compensate for one’s own – has become a popular way for airlines to convince their customers that they (the airlines) are on course to do their bit to avert climate disaster and that they (the customers) can go on taking flights with a clear conscience. IATA expects offsetting to deliver 8% of the reductions needed to achieve its net zero plan.³²⁰ Many airlines, including British Airways, EasyJet, Iberia, Delta, United and Qantas³²¹ as well as those featured in this report (and many companies in other sectors), are involved to a greater or lesser extent in offsetting projects, typically purporting to protect tropical forests from deforestation, though they can also involve large-scale tree-planting or renewable energy projects. In some schemes airlines claim to offset the emissions of all their flights within a specified

region, whereas others simply offer individual or corporate customers the option of paying extra to do so.

However, a 2021 investigation of 10 avoided deforestation schemes used by airlines revealed fundamental flaws in the methodology they use to justify their claimed emission savings. The schemes sell credits based on the amount of deforestation they claim to prevent, estimated according to deforestation rates in adjoining forest. But satellite analysis of these reference areas found no evidence of the predicted levels of deforestation, suggesting that the schemes’ claimed emissions benefits may be exaggerated.³²² A 2020 scientific study of 12 avoided deforestation schemes in the Brazilian Amazon found ‘no significant evidence’ that the projects had mitigated forest loss.³²³ In any case the projects are typically planned to be of short duration – sometimes just 20 years – so that claimed emissions savings, even if achieved, are not guaranteed long-term. Meanwhile the IPCC typically assesses the global warming potential of GHGs over a 100-year period, while some of the CO₂ emitted by airliners may stay in the atmosphere for far longer.³²⁴

Schemes based on afforestation or renewable energy may avoid this pitfall and be easier to quantify, but have other drawbacks. Badly planned afforestation schemes may do enormous environmental damage and may displace communities or deprive them of ecosystem services;³²⁵ and just as with avoided deforestation schemes there is no guarantee that the trees planted will not be felled in due course – indeed some schemes appear to be simply commercial plantation forestry operations, raising doubts over their potential for long-term carbon sequestration if trees end up being burned as firewood or charcoal.³²⁶ More broadly all offsetting schemes, even those promoting renewable energy projects, rest on the flawed assumption that funding of action to reduce emissions elsewhere can absolve airlines, car companies or other high-emission sectors of the responsibility genuinely to reduce their own emissions. The urgency of the climate crisis is such that it is simply unjustifiable to use emissions saved in one place as an excuse to continue or increase emissions in another. Emissions in all sectors need to be reduced worldwide, as fast as possible and by all possible means.

CONCLUSIONS

With the chances of containing global warming within a 1.5 °C limit dwindling and the likelihood of catastrophic consequences increasing, the time is overdue for the world to recognise that airliners and private cars (even electric ones) are intrinsically energy-intensive modes of transport whose present levels of use are incompatible with a solution to the unfolding climate emergency. Policymakers, planners, employers and others need to be encouraging a large-scale shift to cleaner modes of transport such as trains, buses, cycling and walking.

Advertising that aims to convince the public that car companies are nowadays mainly focused on low-emission vehicles, or that driving a massive SUV will somehow bring them closer to nature, poses a clear obstacle to this future. So, conversely, do advertisements that pretend that air travel has no downside, encouraging people to fly through cheap deals and promotions while simply ignoring the climate impacts of aviation and giving the impression that there is no crisis to address. Yet as DeSmog's research shows, these are the prevailing messages conveyed over a whole year by the advertising content of the companies it investigated. Meanwhile, sponsorship of cultural events and scientific bodies, as well as of political institutions and processes such as the EU Council presidency and UN climate change conferences, cements airlines' and car and fossil fuel companies' position at the heart of our establishment and strengthens their ability to influence policy in their favour.

Greenpeace believes that if the world is to kick its fossil fuel habit anywhere near fast enough to avert climate disaster, both car companies and airlines – along with the fossil fuel industry itself – must be banned from using advertising and sponsorship to lull consumers into a false sense of security. That is why Greenpeace, in coalition with the New Weather Institute and 30 other partners, is proposing such a ban via a European Citizens' Initiative – a petition pre-approved by the European Commission.³²⁷

The initiative calls for EU-wide legal prohibition of all advertising and promotion, including sporting, cultural and other sponsorship deals, by companies involved in the fossil fuel sector

or promoting the use of fossil-fuelled air, road or waterborne transport, and by subsidiaries and associates of those companies. Crucially, the ban would include advertising by these companies that promoted alleged solutions to the climate crisis or to other environmental problems – regardless of whether those solutions were contentious (such as offsetting) or generally accepted as desirable (such as solar power). The only exception would be for public transport services deemed to be of what the EU calls 'general economic interest' – which would include air and ferry services to otherwise inaccessible locations, as well as buses and scheduled coaches.

If our initiative obtains a million verified signatures by 4 October 2022, then the European Commission is obliged to respond and to hear a presentation on the proposal at a public hearing in the European Parliament. It may also decide to debate the issue in a plenary session and ultimately to adopt a resolution on it, potentially culminating in our demands being incorporated into European law.³²⁸

For too long governments have indulged the car and airline industries and shown themselves too willing to accept grandiose promises of decarbonisation that seem unlikely to be realised in time to save the world from climate disaster. Such promises are a distraction and are increasingly an obstacle to the necessary climate action. Instead disincentives to car use, improvements in public transport (including both trains and buses), a ban on short-haul flights and limits to unnecessary long-haul air travel are needed, so that cars and airlines cease to be the default option and are relied on only where there is no practical alternative. It is time to halt the car and airline industries' misleading publicity and for the European Commission to impose an advertising and sponsorship ban on both sectors.



ENDNOTES

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- 11 IEA (2021) Greenhouse gas emissions from energy data explorer, 10 November. <https://www.iea.org/articles/greenhouse-gas-emissions-from-energy-data-explorer> As noted above, energy is said to account for around 75% of total global anthropogenic GHG emissions. Total global GHG emissions for 2019 from fuel combustion are given by IEA as 34,233.9MTCO₂e, while emissions from energy (including fugitive emissions from production) are given as 37,629.7MTCO₂e. The transport sector is said to account for 27% of global emissions from fuel combustion. Accordingly 27% of emissions from fuel combustion equates to 24.6% of emissions from energy (27% x 34,233.9/37,629.7) and 18.4% of total emissions (24.6% x 0.75). Of course this percentage omits whatever proportion of fugitive emissions can be attributed to the transport sector (IEA does not offer an estimate for this).
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