

Launch of a coordinated action by CPC Authorities against suspected greenwashing practices by airlines



What this document is about

Following the [alert](#) submitted by European consumer organisations of the BEUC network in June 2023¹, the CPC-Network, under the coordination of the Belgian Directorate General for Economic Inspection, the Netherlands Authority for Consumers and Markets, the Norwegian Consumer Authority and the Spanish Directorate General of Consumer Affairs sent letters to 20 airlines [identifying a list of potentially misleading practices](#) and noting that “*the airlines are yet to clarify whether such claims can be substantiated based on sound scientific evidence*”.² Specifically, the European Commission and the CPC-Network identified the following 6 types of suspected misleading practices:

- “Creating the incorrect impression that paying an additional fee to finance climate projects with less environmental impact or to support the use of alternative aviation fuels can reduce or fully counterbalance the CO2 emissions”.
- “Using the term “sustainable aviation fuels” (SAF) without clearly justifying the environmental impact of such fuels”.
- “Using the terms “green”, “sustainable” or “responsible” in an absolute way or use other implicit green claims”.
- “Claiming that the airline is moving towards net-zero greenhouse gas emissions (GHG) or any future environmental performance, without clear and verifiable commitments, targets and an independent monitoring system”.
- “Presenting consumers with a “calculator” for the CO2 emissions of a specific flight, without providing sufficient scientific proof on whether such calculation is reliable and without the information on the elements used for such calculation”.
- “Presenting consumers with a comparison of flights regarding their CO2 emissions, without providing sufficient and accurate information on the elements the comparison is based on”.

The concerned airlines were expected to bring their responses and clarifications to the CPC-Network within a month (**i.e., by June 2024**). The airlines will likely be responding with alleged substantiation of their claims, referencing factual and scientific evidence. It is possible that the airlines will seek to maintain the gist of the messages in the identified claims, for example through committing to add supplementary information. It is noteworthy that a similar defence was offered by KLM in the recent Court action in the Netherlands in relation to similar advertising claims (*Fossielvrij vs KLM*).³

¹ The alert was submitted by BEUC in cooperation with Arbeiterkammer (Austria), Testachats/Testaankoop (Belgium); Асоциация Активни потребители (Bulgaria); Forbrugerrådet Tænk (Denmark); CLCV and UFC-Que Choisir (France); Kuluttajaliitto – Konsumentförbundet ry (Finland); EKPIZO (Greece); Tudatos Vásárlók Egyesülete (Hungary); Altroconsumo (Italy); Consumentenbond (Netherlands); Forbrukerrådet (Norway); ULC (Luxembourg), Fundacja Konsumentów and Federacja Konsumentów (Poland), DECO (Portugal), Spoločnosť ochrany spotrebiteľov (S.O.S.) (Slovakia), Zveza potrošnikov Slovenije (Slovenia), ASUFIN, CECU and OCU (Spain), Sveriges Konsumenter (Sweden), Fédération romande des consommateurs (Switzerland).

² [Action against 20 airlines for misleading greenwashing practices \(europa.eu\)](#)

³ Paragraph 3.9, [ECLI:NL:RBAMS:2024:1512, District Court of Amsterdam, C/13/719848 / HA ZA 22-524 \(rechtspraak.nl\)](#) All quotations are machine translated into English. See translation here: [Judgment in greenwashing verdict against KLM \(unofficial English translation\) | ClientEarth](#)

The CPC-Network will need to assess the factual and scientific evidence relevant to the claims. It is important that this is done from an independent standpoint, to test the airlines' presentation of evidence, to understand the information that may be omitted, and to compare industry evidence with the independent evidence required under EU Directive 2005/19/EC⁴ (the Unfair Commercial Practices Directive – “UCPD”). For example, in the *Fossilvrij vs KLM* case the evidence before the Court included independent expert reports on the validity of CO2 'compensation' and on KLM's 'net zero by 2050' targets and implementation plan.⁵

This document, produced with the support of ClientEarth, aims to set out the key factual and scientific evidence relating to the claims considered potentially misleading by the CPC Authorities, including a comparison of each type of claim with a hypothetical version of the claim which properly reflects the appropriate factual evidence. It focuses in particular on the topics of 'offsetting' claims, alternative fuels claims, future environmental performance claims and comparative claims. We also rely on the legal argumentation and report that accompanied the alert in June 2023.

Under Article 12 UCPD, airlines must be able to substantiate their claims with clear, robust, independent, and generally recognised scientific evidence. Airlines, selling a highly polluting product, must not be allowed to exploit consumer unfamiliarity with scientific evidence to make promotional green claims as a selling point. We urge the CPC-Network to assess airlines' argumentation carefully against independent factual evidence, and from the standpoint of the average consumer and the environment, both of which are to be accorded a high level of protection under Union law. The law requires that the airline industry is not allowed to make these claims, or similar claims which result in the same consumer understanding, in the future.

⁴ “Traders must be able to substantiate environmental claims with appropriate evidence. Consequently, claims should be based on robust, independent, verifiable and generally recognised evidence which takes into account updated scientific findings and methods [...] If expert studies give rise to significant disagreement or doubt over environmental impacts, the trader should refrain from the claim altogether” Page 82, [Commission Notice – Guidance on the interpretation and application of Directive 2005/29/EC of the European Parliament and of the Council concerning unfair business-to-consumer commercial practices in the internal market \(europa.eu\)](#)

⁵ [KLM, science-based targets, and the Paris Agreement. Expert Report — BUas Research Portal; Expert report by Derik Broekhoff on CO2 compensation | ClientEarth](#)

Table of contents

Keeping the big picture in mind: CO2 and non-CO2 warming effects of aviation 5

#1. “Creating the incorrect impression that paying an additional fee to finance climate projects with less environmental impact or to support the use of alternative aviation fuels can reduce or fully counterbalance the CO2 emissions” 6

#2. “Using the term “sustainable aviation fuels” (SAF) without clearly justifying the environmental impact of such fuels” 8

#3. “Using the terms “green”, “sustainable” or “responsible” in an absolute way or use other implicit green claims” 11

#4. “Claiming that the airline is moving towards net-zero greenhouse gas emissions (GHG) or any future environmental performance, without clear and verifiable commitments, targets and an independent monitoring system” 13

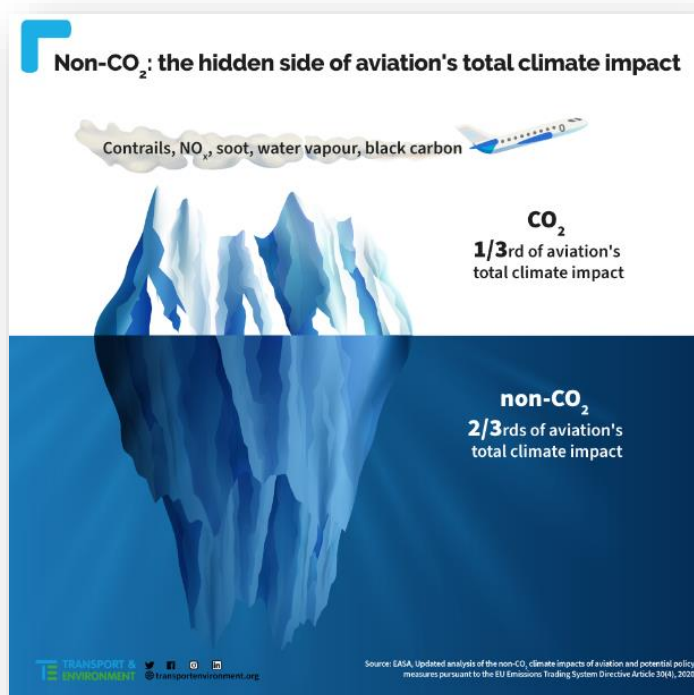
#5. “Presenting consumers with a “calculator” for the CO2 emissions of a specific flight, without providing sufficient scientific proof on whether such calculation is reliable and without the information on the elements used for such calculation” 14

#6. “Presenting consumers with a comparison of flights regarding their CO2 emissions, without providing sufficient and accurate information on the elements the comparison is based on.” 15

Keeping the big picture in mind: CO₂ and non-CO₂ warming effects of aviation

There are significant non-CO₂ warming effects of flying, in addition to CO₂ emissions. The aviation industry is resisting monitoring and disclosure of this part of its climate impact, on the basis that the scale of non-CO₂ warming effects is not measured precisely.⁶ When doing so, the airline industry's argument conflicts with the precautionary principle.⁷ The non-CO₂ warming effects have been well-identified since 1999.⁸ According to the European Union Aviation Safety Agency (EASA), "[t]he significance of non-CO₂ climate impacts from aviation activities, previously estimated to be at least as important in total as those of CO₂ alone is fully confirmed by [an EASA] report."⁹

The up-to-date, well-accepted scientific evidence is that the non-CO₂ warming effects of aviation are **estimated at two or three times the warming effect of the CO₂ emissions.**¹⁰ The Transport & Environment diagram below uses the EASA report data to illustrate the non-CO₂ warming effects:



The ReFuelEU Aviation Regulation observes in a Recital that: *"In order for consumers to be able to make an informed choice, more robust, reliable, independent and harmonised information is needed on the environmental impact of flights."*¹¹

⁶ [Airlines lobby against EU plan to monitor non-CO₂ emissions \(ft.com\)](https://www.ft.com/content/2023/07/27/airlines-lobby-against-eu-plan-to-monitor-non-co2-emissions)

⁷ Art. 191 TFEU; [Precautionary principle - EUR-Lex \(europa.eu\)](https://eur-lex.europa.eu/eli/reg/2015/1815/oj)

⁸ "The first piece of evidence highlighting the importance of aviation's non-CO₂ effects came from the UN's Intergovernmental Panel on Climate Change (IPCC) back in 1999" [Airplane pollution | Transport & Environment \(transportenvironment.org\)](https://transportenvironment.org/airplane-pollution); see [Aviation and the Global Atmosphere — IPCC](https://www.ipcc.ch/report/ar6/wg3/)

⁹ [Updated analysis of the non-CO₂ climate impacts of aviation and potential policy measures pursuant to EU Emissions Trading System Directive Article 30\(4\) - Report from the Commission to the European Parliament and the Council | EASA \(europa.eu\)](https://ec.europa.eu/easas/easa-2020-0010)

¹⁰ "... aviation emissions are currently warming the climate at approximately three times the rate of that associated with aviation CO₂ emissions alone." [The contribution of global aviation to anthropogenic climate forcing for 2000 to 2018 - ScienceDirect](https://www.sciencedirect.com/science/article/pii/S1364815220300000); see also IPCC AR6 Working Group III, Ch. 10, page 10-59. The IPCC constitutes (at least) well-accepted evidence. The IPCC is an intergovernmental organisation established by the World Meteorological Organisation and the United Nations Environment Programme ("UNEP") in 1988 in order to assess the science related to climate change. The IPCC synthesises thousands of scientific papers to provide a summary of the causes, impacts and risks of climate change and how adaptation and mitigation can reduce those risks. After multiple stages of scientific expert and State review, formal acceptance of IPCC reports indicates that States accept that they represent a comprehensive, objective and balanced view of the subject matter. See [IPCC, 'Factsheet: How does the IPCC approve reports?', July 2021](https://www.ipcc.ch/newsroom/press-releases/2021/07-2021-01); [IPCC, 'Factsheet: How does the IPCC review process work?', July 2021](https://www.ipcc.ch/newsroom/press-releases/2021/07-2021-02); and [IPCC, 'About' webpage](https://www.ipcc.ch/newsroom/press-releases/2021/07-2021-03).

¹¹ Recital (27), [Regulation - EU - 2023/2405 - EN - EUR-Lex \(europa.eu\)](https://eur-lex.europa.eu/eli/reg/2023/2405/oj)

Omitting to disclose the impact of non-CO2 warming effects is a material omission, as it means omitting the more significant part of the impact of the product.

#1. “Creating the incorrect impression that paying an additional fee to finance climate projects with less environmental impact or to support the use of alternative aviation fuels can reduce or fully counterbalance the CO2 emissions”

Example claim	What a version based on factual/scientific evidence would look like
<p>“Your payment compensates for / neutralises the CO2 emissions of the flight”</p> <p><i>Examples of airlines making such claims: TAP Portugal, Ryanair, Vueling</i>¹²</p>	<p>“Your payment is a contribution to an environmental project or to our biofuels costs. The payment does not compensate for/neutralise the CO2 or non-CO2 climate impact of your flight”</p>

In the *KLM* case, the claimant submitted an expert report by Derik Broekhoff (Senior Scientist at the Stockholm Environment Institute) summarising the scientific literature relating to the flawed concept of carbon ‘offsetting’.¹³

The Dutch Court in the *Fossielvrij vs KLM* case issued a declaratory judgment that KLM’s “advertisements [...] which suggest that the purchase or contribution to a “compensation” product actually reduces, absorbs or compensates for part of the climate impact of flying [...] are misleading and unlawful and that KLM is thereby acting in violation of the Unfair Commercial Practices Act.”¹⁴

The Swedish Court in the 2023 offsetting claim judgment *Konsumentombudsmannen vs Arla Foods AB*¹⁵ also heard evidence from scientific experts. The Court found that “... the average consumer perceives the marketing as meaning that the products in question have no impact on the climate at all, or at least that the climate impact caused by the product has been fully compensated” but “it is not possible, in the Court’s view, to draw any firm conclusions that the result [of the environmental project] will be achieved after 100 years”, so Arla failed to substantiate the claim.¹⁶

These judgments align with the prohibition on offsetting claims for products (both goods and services such as flying)¹⁷ as laid down in EU Directive 2024/825 (the Empowering consumers for the green transition Directive).¹⁸

¹² As highlighted in the alert of 2023 (www.beuc.eu/enforcement/green-flying#documents).

¹³ [Expert report by Derik Broekhoff on CO2 compensation | ClientEarth](#)

¹⁴ Declaratory judgment at paragraph 4.55 [ECLI:NL:RBAMS:2024:1512](https://ecli.nl:RBAMS:2024:1512), District Court of Amsterdam, C/13/719848 / HA ZA 22-524 (rechtspraak.nl)

¹⁵ *Konsumentombudsmannen vs Arla Foods AB* (February 2023)

¹⁶ (machine translation into English) *Konsumentombudsmannen vs Arla Foods AB* (February 2023)

¹⁷ Article 2(c) of the UCPD (as amended) states “product” means any good or service”. [EUR-Lex - 02005L0029-20220528 - EN - EUR-Lex \(europa.eu\)](https://eur-lex.europa.eu/20220528-EN-EUR-Lex)

¹⁸ [Directive - EU - 2024/825 - EN - EUR-Lex \(europa.eu\)](https://eur-lex.europa.eu/2024/825-EN-EUR-Lex) Recital (12), « examples of such claims are ‘climate neutral’, ‘CO2 neutral certified’, ‘carbon positive’, ‘climate net zero’, ‘climate compensated’, ‘reduced climate impact’ and ‘limited CO2 footprint’. Such claims should only be allowed when they are based on the actual lifecycle impact of the product in question, and not based on the offsetting of greenhouse gas emissions outside the product’s value chain, as the former and the latter are not equivalent”

Today, KLM uses a 'contribution claim' on its website and explains that compensation does not exist: *"Flying is polluting. It emits CO₂ and thus accelerates global warming. [...] Rising temperatures are declining biodiversity and rapidly degrading ecosystems. While nature development doesn't make our flights greener, it is a way to support damaged areas. [...] Compensation through nature development is not possible. Although your contribution to nature development increases biodiversity and strengthens local communities, it does not compensate for the emissions of your flight. If possible, consider a more sustainable choice, such as the bus or train."*¹⁹

However, KLM continues to claim that consumer payments for alternative fuels offsets the climate impact of the flying product. The Austrian Court has already found such a claim ("100% carbon neutral") to be misleading and unlawful, as did the Dutch Court in KLM.²⁰

As explained below (section #2 on 'sustainable aviation fuel' claims), biofuel use is currently of a non-material size. Supply is extremely limited for the foreseeable future, with no more than c.5% of jet fuel considered feasible by 2030. It is not possible for passengers in general to 'compensate' for the environmental impact of their flight by paying for biofuel costs. In fact, only a very small number of passengers could do so – the possibility is even smaller when the purchases which airlines are making anyway is taken into account.

A further fundamental issue is that, as Mr Broekhoff's report explains, **a claim to 'compensate' must evidence 'additionality'**.²¹ **In other words, consumers must be paying for something genuinely 'extra', or they cannot be said to be causing any impact reduction, which is logically necessary to any claim that another impact is compensated for.**

In the case of alternative fuels, airlines cannot demonstrate 'additionality'. Consumer payments are contributions (donations) to airlines' costs of alternative fuels, but they cannot serve as compensation for the impact of the product for the consumer. This is for various reasons:

- Airlines' fuel suppliers are required and airlines are incentivized under EU law (ReFuelEU Aviation²², EU ETS²³) to use more alternative fuels than they are currently using.
- Many airlines have already pledged to purchase even more (10% of such fuels by 2030).²⁴

¹⁹ Automatic translation from the Dutch: [Waarom we natuurontwikkeling steunen en hoe u kunt helpen - KLM Nederland](#)

²⁰ Paragraphs 4.48, 4.51. [ECLI:NL:RBAMS:2024:1512, District Court of Amsterdam, C/13/719848 / HA ZA 22-524 \(rechtspraak.nl\); A carbon-neutral flight? Austrian Airlines guilty of greenwashing \(brusselstimes.com\)](#)

²¹ "To validly claim that a customer's purchase of [alternative fuels] reduces greenhouse gas emissions from flying, such purchases must directly result in increased use of [alternative fuels] on the customer's flight, beyond any quantity of [alternative fuels] that would have been procured and used in the absence of such purchases." [writ-fossilvrij-against-klm-non-official-english-translation.pdf \(clientearth.org\)](#)

²² [Regulation \(EU\) 2023/2405 of the European Parliament and of the Council of 18 October 2023 on ensuring a level playing field for sustainable air transport \(ReFuelEU Aviation\)](#)

²³ [Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a system for greenhouse gas emission allowance trading within the Union and amending Council Directive 96/61/EC](#)

²⁴ [Clean Skies for Tomorrow Leaders: 10% Sustainable Aviation Fuel by 2030 > Press releases | World Economic Forum \(weforum.org\)](#)

- There is no independent verification of the ‘additionality’, which is instead assessed by airlines themselves.
- To demonstrate additionality, the airlines would need to demonstrate that it was not (practically) possible for them to buy the ‘extra’ alternative fuels. This is difficult, because airlines themselves decide how much of their revenue to spend on alternative fuels. For example, airlines could pay for the extra alternative fuels and make a smaller profit, or they could decide to forgo another cost, or raise their pricing.

In view of the scientifically invalid nature of ‘offsetting’ claims, traders, carbon market businesses and carbon market standards are turning instead to ‘contribution’-type claims.²⁵

#2. “Using the term “sustainable aviation fuels” (SAF) without clearly justifying the environmental impact of such fuels”

Example claim	What a version based on factual/scientific evidence would look like
<p>“We are using more and more Sustainable Aviation Fuels, the industry’s main solution for addressing climate change, which reduce CO2 emissions up to 75% compared to normal jet fuel”.</p> <p>Example of airlines using similar claims: SAS²⁶</p>	<p>“We use a small amount (<1%) of biofuels based on used cooking oil. These biofuels can have reduced CO2 emissions and non-CO2 warming impact compared to normal jet fuel, but there are risks of a higher impact than normal jet fuel. To meet EU legal requirements, we will be using more biofuels, but this will remain a minor step (there won’t be more biofuels available than about 5% by 2030). Greater amounts in the longer term are uncertain at this moment”.</p>

In the KLM case, the Court found as follows:²⁷

“At the moment, the share of SAF in total fuel consumption (and therefore also in the reduction of CO2 emissions) is still very limited for various reasons. A more substantial share is only to be expected in the distant future, and therefore uncertain. [...] [t]he term “sustainable fuel”, which often recurs in the statement, is too absolute. [...] KLM does not make sufficiently clear to consumers what it is investing in SAF and what environmental benefits can be achieved. In essential parts of these expressions, KLM paints too rosy a picture of essential parts of these communications and makes (implicit) claims that are insufficiently substantiated. Such as that “sustainable aviation fuel” reduces CO2 emissions by “at least 75%” compared to fossil fuel.”

²⁵ Many carbon market brokers have moved from selling ‘carbon-neutral’ (or similar) labels to non-offsetting, contribution-type claims, e.g.: [SouthPole](#); [MyClimate](#); [ClimatePartner](#); [Carbon Trust](#); [Gold Standard](#). A number of companies have done the same: e.g. the Dutch bank [ING](#): “Our priority is to reduce CO2 in our operations. We also take accountability for our unabated emissions and look for ways to contribute to impactful projects that can mitigate climate change outside of our value chain. In 2023, we started exploring partnerships with organisations with the goal of donating to concrete projects on carbon removal and natural restoration and developing carbon removal technologies. We intend to continue this approach in the future using a contribution model rather than purchasing carbon credits, a practice we stopped in 2022. Moreover, we will not use the environmental impact of any current or future projects for any claims related to carbon neutrality”; [Klarna](#), [Provamel](#), [Exped](#); [Spotify](#), [Pangaia](#).

²⁶ As highlighted in the alert of 2023 (www.beuc.eu/enforcement/green-flying#documents).

²⁷ Paragraphs 4.41 and 4.53 [ECLI:NL:RBAMS:2024:1512](#), District Court of Amsterdam, C/13/719848 / HA ZA 22-524 ([rechtspraak.nl](#))

The only alternative fuel in commercial use by airlines today is **biofuels**. The evidence demonstrates a **material risk that biofuels can be more damaging for the environment** than fossil fuels. This is because:

- The climate impact of crop-based biofuels (rapeseed, soy, palm oil) is assessed by the EU Commission's Globiom study as worse than fossil fuels, because such biofuels cause direct and indirect land-use change emissions (such as deforestation). This is through new or existing cropland being used for growing biofuels instead of food, while crops are displaced to grasslands and forests, major carbon sinks and source of biodiversity.²⁸
- Waste-based biofuels (used cooking oil) can mean a CO2 reduction compared to fossil fuels of up to 75%. However, they can also mean an impact worse than fossil fuels. Biofuels are mostly imported from outside the EU and have been repeatedly found to be fraudulent (virgin oil claimed to be used cooking oil).²⁹ There is also a risk that (genuine) used cooking oil is used for animal feed or as fuel rather than thrown away as waste in its country of origin.³⁰ This means that its use as jet fuel pushes existing uses to virgin oil, causing land use change emissions. Such 'indirect land use change' was found to be a real risk in a 2023 European Court of Auditors report.³¹

Accordingly, the ReFuelEU Aviation Regulation's³² requirements for airlines' fuel suppliers to blend in small amounts of alternative fuels does not allow the use of food and feed crop-based biofuels for meeting these requirements. The ReFuelEU Aviation Regulation's Recitals provide a detailed explanation of the significant risks from land use change and fraud: "*[t]hose risks are particularly serious in connection with a potentially large expansion of production determined by a significant increase in demand.*"³³

In addition to CO2 emissions, **aviation biofuels also cause non-CO2 warming effects**, although this is estimated to be less than fossil fuels.³⁴

As the Dutch Court found in the *KLM* case, there are very limited amounts of waste-based biofuels available. According to IATA, the aviation industry will use 0.53% biofuels in 2024.³⁵ The best independent estimate of future potential use is from the International Council for Clean Transportation (ICCT), projecting that there is the resource base for **approximately**

²⁸ www.euractiv.com/section/climate-environment/news/biodiesel-worse-for-the-environment-than-fossil-fuels-warn-green-campaigners/

²⁹ [Industry source: one third of used cooking oil in Europe is fraudulent – Euractiv](#); [Biofuel certification schemes slammed for failing to halt fraud – Euractiv](#);

³⁰ "*In China, a large amount of UCO [Used Cooking Oil] is currently used as gutter oil [...] According to NNFCC (2019) UCO that is considered safe for consumption by animals in non EU countries is redirected from the use for animal feed production to biofuel production, because fuel suppliers from the EU are willing to pay more for UCO than for virgin oil [...]. Delzeit et al. (2019) mention that UCO is the major feedstock for biofuel production in China, Japan and Korea, and an important feedstock in India and Canada as well [...] buying up this [UCO] may also indirectly lead to displacement effects.*" Page 43, [CE Delft 200247 UCO as biofuel feedstock in EU FINAL-v5.pdf \(cedelft.eu\)](#)

³¹ [Auditors question potential of biofuels to tackle transport emissions | Euronews](#)

³² [Regulation \(EU\) 2023/2405 of the European Parliament and of the Council of 18 October 2023 on ensuring a level playing field for sustainable air transport \(ReFuelEU Aviation\)](#)

³³ See Recitals (23) and (24). [pdf \(europa.eu\)](#); [RefuelEU aviation initiative: Council adopts new law to decarbonise the aviation sector - Consilium \(europa.eu\)](#)

³⁴ Recital (30). [RefuelEU aviation initiative: Council adopts new law to decarbonise the aviation sector - Consilium \(europa.eu\)](#); [Cleaner burning aviation fuels can reduce contrail cloudiness | Communications Earth & Environment \(nature.com\)](#)

³⁵ [IATA - SAF Volumes Growing but Still Missing Opportunities](#)

5.5% of EU aviation fuel demand to be met by 2030, provided other forms of waste (forestry, municipal, industrial waste) can be turned into commercial-scale fuel in the future (which is uncertain).³⁶ If not, biofuels can only supply 1.9% of 2030 aviation fuel demand.³⁷ Air traffic growth, typically at around 3% per year, will cancel out such minor gains.³⁸ If airlines buy aviation biofuels above these limits, it will likely mean using harmful crop-based fuels, and diverting biofuels from the road sector.³⁹ Therefore, alternative fuels “*alone cannot decarbonize aviation in the EU and will only have a limited impact through 2030*”.⁴⁰ This conclusion has been echoed by aviation industry figures.⁴¹

Biofuels offer a potential reduction in CO₂ emissions but come with a material risk of a greater environmental impact than fossil fuels. Biofuels are not “*aspects which are significant for the environment*” in relation to aviation, because they can only provide a very marginal environmental benefit in the foreseeable future, which is liable to be cancelled out by air traffic growth.⁴²

If making green advertising claims about biofuels, companies should not omit the risks of linked major environmental impacts such as deforestation and biodiversity loss. According to the Commission’s guidance on the implementation and application of the UCPD⁴³:

- When companies make a claim, the benefit claimed should not result in an undue transfer of impacts;⁴⁴
- Companies should not distort claims about the composition of goods and services (including raw materials) by unduly emphasizing the importance of positive aspects, when the overall environmental impact resulting from the lifecycle may be negative.⁴⁵
- Unsubstantiated vague and general statements are likely to convey the impression that products do not have a negative impact on the environment, and therefore when

³⁶ Used cooking oil costs around twice the price of fossil jet fuel, but other forms of waste fuel (if commercialised) will cost more, estimated to be as much as 8x the price. Page 3-4, [Estimating sustainable aviation fuel feedstock availability to meet growing European Union demand \(theicct.org\)](#)

³⁷ [Estimating sustainable aviation fuel feedstock availability to meet growing European Union demand \(theicct.org\)](#)

³⁸ [Boeing Company - Boeing Forecasts Demand for 42,600 New Commercial Jets Over Next 20 Years](#)

³⁹ Recital (23). [RefuelEU aviation initiative: Council adopts new law to decarbonise the aviation sector - Consilium \(europa.eu\)](#);

⁴⁰ [Estimating sustainable aviation fuel feedstock availability to meet growing European Union demand \(theicct.org\)](#)

⁴¹ According to the CEO of Qatar Airways: “*I don't think that we will be able to achieve net-zero emissions by 2050. Everybody's talking about it, but let us be realistic - there is not enough production of sustainable aviation fuel*” [Qatar Airways CEO suggests 2050 net-zero goal beyond reach | Reuters](#)

⁴² “*Zalando committed to: [...] ensuring that Zalando's environmental claims are based on aspects which are significant for the environment.*” [Zalando commits to remove misleading environmental claims \(europa.eu\)](#)

⁴³ 2021/C 526/01)

⁴⁴ “*The benefit claimed should not result in an undue transfer of impacts, i.e. the creation or increase of other negative environmental impacts at other stages of the product's life cycle should be avoided, unless the total net environmental benefit has been significantly improved, for example according to a life-cycle assessment and recognised or generally accepted methods applicable to the relevant product type and should be third-party verified.*” Page 78, [Commission Notice – Guidance on the interpretation and application of Directive 2005/29/EC of the European Parliament and of the Council concerning unfair business-to-consumer commercial practices in the internal market \(europa.eu\)](#)

⁴⁵ Page 78, [Commission Notice – Guidance on the interpretation and application of Directive 2005/29/EC of the European Parliament and of the Council concerning unfair business-to-consumer commercial practices in the internal market \(europa.eu\)](#)

assessing the claim the main environmental impacts of the product over its life cycle should be addressed.⁴⁶

In line with the UCPD guidance, the Dutch Authority for Consumers and Markets (ACM) has issued guidelines regarding sustainability claims according to which the term sustainable is **an “absolute claim” which should only be used if it can be substantiated with a life cycle assessment showing that the product “does not have a negative effect on humans, animals and the environment”**.⁴⁷

Airlines must not present biofuels as a distinctive feature of their business or product when the increasing use of biofuels is imposed by the ReFuelEU Aviation Regulation and incentivized by EU ETS rules. Claims should avoid the industry-invented term ‘sustainable aviation fuel’, which is used in these technical regulations,⁴⁸ but is prohibited in a consumer-facing context by the Dutch Court in the *KLM* case (in order to ensure a high level of consumer protection).⁴⁹

“SAF is presented here as “sustainable” aviation fuel. Although SAF can contribute to reducing the harmful environmental aspects of flying, the term “sustainable” here is too absolute and not concrete enough.” (Para. 4.41)

Claims should not omit either the risk of harmful consequences or the non-material scale of environmental benefit.

#3. “Using the terms “green”, “sustainable” or “responsible” in an absolute way or use other implicit green claims”

Example claims	What a version based on factual/scientific evidence would look like
<p>“Travel in a more sustainable way”, “fly green”</p> <p>Example: Air Baltic, Austrian</p>	<p>“If you travel with us, you are making use of a very highly polluting product. Only very minor improvements to its environmental impact are possible today and for the foreseeable future”</p>

⁴⁶ Page 76, [Commission Notice – Guidance on the interpretation and application of Directive 2005/29/EC of the European Parliament and of the Council concerning unfair business-to-consumer commercial practices in the internal market \(europa.eu\)](#)

⁴⁷ Authority for Consumers and Markets (2023), Guidelines for regarding Sustainability Claims: https://www.acm.nl/system/files/documents/guidelines-sustainability-claims_1.pdf

⁴⁸ Neither the ReFuelEU Aviation Regulation nor the ETS rules require the use of the term ‘Sustainable Aviation Fuel’ in consumer marketing or set out how the UCPD is to be interpreted to this term. The Recitals to the ReFuelEU Regulation do mention the need for accurate information for consumers about the true sustainability characteristics of alternative fuels: “*In order to promote consumer confidence and ensure transparency and traceability, aviation fuel suppliers should be responsible to provide the correct information with regards to the characteristics of the SAF supplied, its sustainability characteristics and the origin of the feedstock used in the production of SAF*”. Recital (24), Regulation - EU - 2023/2405 - EN - EUR-Lex (europa.eu) This is in contrast to the rules regarding ‘guarantees of origin’, where the Renewable Energy Directive explicitly envisages the consumer marketing term ‘renewable energy’ based on supply side measures. Art. 19, [EUR-Lex - 02018L2001-20231120 - EN - EUR-Lex \(europa.eu\)](#)

⁴⁹ [ECLI:NL:RBAMS:2024:1512, District Court of Amsterdam, C/13/719848 / HA ZA 22-524 \(rechtspraak.nl\)](#)

As highlighted in the [report](#) accompanying the alert of June 2023 (pp.30 *and seq*), claims that air travel is or could be “sustainable, “green” or “responsible”, in either absolute or relative terms, **are factually incorrect or otherwise misleading**. Air travel cannot be described as “sustainable” or through similar absolute terms because it burns fossil fuels, causing significant CO2 emissions and producing even greater non-CO2 warming effects, which is unsustainable. The use of relative terms associating an environmental benefit with air travel is highly misleading, primarily because marginally less polluting air travel remains an extremely highly polluting product from a consumer standpoint, and relative claims obscure the fact that the only effective and available strategy to decarbonize the aviation sector is to fly less. Such relative claims omit material information about the overall significance of minor (potential) reductions.

In the *KLM* case, the Dutch Court states that KLM’s decarbonisation “*measures only marginally reduce negative environmental aspects and falsely create the impression that flying with KLM is sustainable*”, so it found that “*advertisements [...] suggesting that flying can be or become sustainable) [...] are misleading and unlawful*” (para. 4.55)⁵⁰

According to the Commission UCPD Guidance, **highly polluting industries must “make it clear to the consumer in their environmental claims that the product has an overall negative impact on the environment.”** Promoting air travel as “more sustainable”, “more responsible” or having “lower CO2 emissions” deceives consumers about the fact that CO2 emissions and non-CO2 warming effects from the aviation sector are far more significant than other consumer choices and can only be reduced in a meaningful manner by reducing air travel.

Statements by business leaders from the aviation and travel industry recognise that **“sustainable” air travel is factually impossible**, and that the only available strategy to reduce emissions from the aviation sector is to reduce air travel. The CEO of the Dutch travel company Sunweb and ex-CEO of airline Transavia Mattijs ten Brink stated: “We are at a turning point. And if I'm wrong, that turning point should come as soon as possible. I say that both as Mattijs and as the boss of Sunweb. The number of kilometers flown has to come down no matter what,”⁵¹ And “My generation will not live to see completely clean flying. Initiatives with biofuel and electric flying are incredibly important but not the big answer. The only solution is to fly less.”⁵² The CEO of Schiphol Airport has made similar statements.⁵³

⁵⁰ [ECLI:NL:RBAMS:2024:1512, District Court of Amsterdam, C/13/719848 / HA ZA 22-524 \(rechtspraak.nl\)](#)

⁵¹ Topman van Vakantiegigant Sunweb Ziet Maar Één Toekomst: Minder Vliegen' (n 124).

⁵² *idem*

⁵³ “*We need to do something. And if that’s a standstill [in air travel growth] for the time being, OK, is that such a big fuss,*” [Aviation industry likely to miss net zero target, warns former Schiphol boss \(ft.com\)](#)

#4. “Claiming that the airline is moving towards net-zero greenhouse gas emissions (GHG) or any future environmental performance, without clear and verifiable commitments, targets and an independent monitoring system”

<i>Example claim</i>	<i>What a version based on factual/scientific evidence would look like</i>
<p>“We are aiming for net zero by 2050, on the path to more sustainable aviation and future. We target at least -35% CO2 intensity reduction by 2030.</p> <p>Our plan consists of several measures: more efficient planes, Sustainable Aviation Fuels and new technology for hydrogen and electric planes”</p> <p>Examples of airlines making similar claims: Norwegian, Finnair, Volotea⁵⁴.</p>	<p>“We target -10% total CO2 reduction by 2030, which is not aligned with net zero by 2050 and is not aligned with the international goal to limit dangerous climate change to 1.5C. Our targets do not include the non-CO2 warming effects of flying, which are assessed to be larger than the impact of the CO2.</p> <p>Our plan consists of several measures, which are presently either very limited (biofuels, more efficient planes) or uncertain (future technology).</p> <p>To be aligned with net zero by 2050 (1.5C), we would need to alter our plans to grow air traffic”</p>

In the *KLM* case, the Court found that the airline’s claims promoting its ‘net-zero by 2050’ plan were not substantiated, **because the targets and measures were too marginal or speculative.**⁵⁵ The Court found that the validation of KLM’s carbon intensity target by the Science-based Target Initiative was not decisive.⁵⁶ An independent expert report by Professor Paul Peeters et al. (Breda University of Applied Sciences) was submitted to the Court, examining whether KLM’s plans align with 1.5°C pathways (net zero by 2050). The report found, in summary, that “*KLM’s targets are insufficient in multiple ways*” and that “*the actions that KLM proposes in its climate action plan are insufficient to meet the stated [targets]*”.⁵⁷

The scientific evidence, and EU corporate sustainability reporting standards (the ESRS), show that there are several minimum requirements for aviation ‘net zero by 2050’ targets and plans to be credible and feasible. This includes:

- *Intensity targets* – a ‘carbon intensity’ reduction would reduce the CO2 emissions per passenger/km. But this translates to a smaller reduction (or no reduction) in the total emissions, with continued growth in flying. Accordingly, the ESRS requires the disclosure of targets to reduce total GHG emissions.⁵⁸

⁵⁴ As highlighted in the alert of 2023 (www.beuc.eu/enforcement/green-flying#documents).

⁵⁵ See para. 4.37-4.42, 4.45. [ECLI:NL:RBAMS:2024:1512](https://ecli.nl:RBAMS:2024:1512), [Rechtbank Amsterdam, C/13/719848 / HA ZA 22-524](https://rechtbank.amsterdam.nl/13/719848) (rechtspraak.nl)

⁵⁶ KLM’s (intensity) target was validated by SBTi by the time of the hearing in the case. Para. 4.39, [ECLI:NL:RBAMS:2024:1512](https://ecli.nl:RBAMS:2024:1512), [Rechtbank Amsterdam, C/13/719848 / HA ZA 22-524](https://rechtbank.amsterdam.nl/13/719848) (rechtspraak.nl)

⁵⁷ Breda University. Peeters has also provided analysis to the Dutch Parliament on the topic of aviation and sustainability. [Peeters Buijtendijk Eijgelaar ExpertReport_v4_Final.pdf \(buas.nl\)](https://buas.nl); [Paul Peeters — BUas Research Portal](https://buas.nl). See also; [T&E aviation decarbonisation roadmap - DRAFT - clean copy Proofread.docx \(te-cdn.ams3.digitaloceanspaces.com\)](https://cdn.ams3.digitaloceanspaces.com)

⁵⁸ “GHG emission reduction targets shall be disclosed in absolute value” Disclosure Requirement E1-4, para. 34 [Delegated regulation - EU - 2023/2772 - EN - EUR-Lex \(europa.eu\)](https://eur-lex.europa.eu/DELEGATED-REGULATION-EU-2023-2772-EN)

- *Sufficient 2030 reduction* – to be compatible with limiting global warming to 1.5°C (i.e. global net zero by 2050) and with EU climate targets, GHG reduction targets must include a target for 2030 which is sufficiently aligned with reductions of c.-50% vs the baseline year.⁵⁹
- *Non-CO2 warming effects* – targets must include the non-CO2 warming effects of aviation, to avoid excluding the larger part of airlines’ climate impacts (see section above on non-CO2 warming effects).
- *Detailed and realistic measures* – reliance on unrealistic alternative fuels scale-up and/or speculative technologies cannot form the basis of advertising claims about future environmental performance (see section above on alternative fuels).⁶⁰

It is unlikely that most airlines can meet these minimum requirements, for example because airlines generally intend continued (fossil-fuelled) growth.⁶¹ However, not all aviation businesses take this approach. Schiphol Airport has called for a standstill in air traffic growth.⁶² The recent study Schiphol Airport commissioned concludes that demand management is necessary to meet the CO2 reduction in the range of -32% to -66% by 2030 vs. 2019, in order to align with 1.5C global warming and net zero by 2050.⁶³

#5. “Presenting consumers with a “calculator” for the CO2 emissions of a specific flight, without providing sufficient scientific proof on whether such calculation is reliable and without the information on the elements used for such calculation”

Example claim	What a version based on factual/scientific evidence would look like
“A flight from LHR to JFK is [x] CO2 emissions”.	“A flight from LHR to JFK is [x] CO2 emissions and additional non-CO2 warming effects the equivalent to approximately [x] CO2 emissions.

⁵⁹ “Cumulative carbon emissions until the time of reaching net-zero CO2 emissions and the level of greenhouse gas emission reductions this decade largely determine whether warming can be limited to 1.5°C or 2°C (high confidence). [...] All global modelled pathways that limit warming to 1.5°C (>50%) with no or limited overshoot, and those that limit warming to 2°C (>67%), involve rapid and deep and, in most cases, immediate greenhouse gas emissions reductions in all sectors this decade. Global net zero CO2 emissions are reached for these pathway categories, in the early 2050s and around the early 2070s, respectively. (high confidence)” B5 and B.6 <https://www.ipcc.ch/report/ar6/syr/resources/spm-headline-statements/> Disclosure Requirement E1-4, para. 34 [Delegated regulation - EU - 2023/2772 - EN - EUR-Lex \(europa.eu\)](https://eur-lex.europa.eu/eli/reg/2023/2772/oj)

⁵⁹ Disclosure Requirement E1-4, para. 34 [Delegated regulation - EU - 2023/2772 - EN - EUR-Lex \(europa.eu\)](https://eur-lex.europa.eu/eli/reg/2023/2772/oj)

⁶⁰ For more information on speculative technology (e-fuels, hydrogen, electric), see: [Peeters Buijtendijk Eijgelaar ExpertReport v4 Final.pdf \(buas.nl\)](#); [T&E aviation decarbonisation roadmap - DRAFT - clean copy Proofread.docx \(te-cdn.ams3.digitaloceanspaces.com\)](#)

⁶¹ “Science gives several examples of scenarios that show the incompatibility of significant aviation growth and a sustainable and equitable pathway to zero-emissions by 2050 as required by the IPCC 1.5°C pathway” [Peeters Buijtendijk Eijgelaar ExpertReport v4 Final.pdf \(buas.nl\)](#); Air traffic growth projection from the International Air Transport Association, page 12 [iata.org/en/iata-repository/publications/economic-reports/global-outlook-for-air-transport---december-2023---report/](https://www.iata.org/en/iata-repository/publications/economic-reports/global-outlook-for-air-transport---december-2023---report/)

⁶² “We need to do something. And if that’s a standstill [in air travel growth] for the time being, OK, is that such a big fuss,” [Aviation industry likely to miss net zero target, warns former Schiphol boss \(ft.com\)](#)

⁶³ [Schiphol | Accelerated CO2 reduction necessary; CO2 and resulting flight restrictions for Amsterdam Airport Schiphol based on remaining IPCC CO2 budgets up to 2050 \(ctfassets.net\)](#)

**Examples of airlines making similar claims:
Wizzair, KLM⁶⁴**

This is calculated by adding up the CO2 and methane (CH4) emissions from producing the oil for the jet fuel and from burning the jet fuel, and from estimating the various non-CO2 warming effects from contrails, nitrous oxides (NOx), sulfur dioxide (SO2), water (H2O) and particulate matter (soot). A full specification of the calculation and assumptions used is [here](#).

The environmental impact of other modes of transport are significantly lower (for example, a train journey to London to Barcelona is (approximately [z]/kgCO2 / pax)”)

Information on the CO2 emissions of a specific flight must provide scientific proof for the reliability of the calculation and information on the elements used for the calculation. For example, such information should include the upstream emissions of the oil used to produce the fuel.

As explained below, it is also imperative that information on the CO2 emissions does not mislead by omission. This requires including information on the (larger) non-CO2 warming effects, as consumers will not be aware of this material part of the environmental impact of aviation, or of reductions which airlines may be achieving in that impact (see the section above on non-CO2 warming effects)⁶⁵.

Information on CO2 emissions (and non-CO2 warming effects) must also include a comparison to other modes of travel, to avoid misleading a consumer as to the relative significance of flights with lesser environmental impact compared to other flights.

#6. “Presenting consumers with a comparison of flights regarding their CO2 emissions, without providing sufficient and accurate information on the elements the comparison is based on.”

Example Claim	What a version based on factual/scientific evidence would look like
<p>“Our flight is the lowest CO2 emissions per passenger (approximately [x]/kgCO2 / pax) of all the airlines on this route”</p>	<p>“Our flight is the lowest CO2 emissions per passenger of all the airlines on this route (approximately [x]/kgCO2 / pax). For the larger non-CO2 warming effects of flying, our flight is likely to be the same as other airlines.⁶⁷”</p>

⁶⁴ As highlighted in the alert of 2023 (www.beuc.eu/enforcement/green-flying#documents).

⁶⁵ See ASA Ruling on London Luton Airport concluding that not including non-CO2 emissions of air traffic is omitting significant information and therefore misleading to consumers.

⁶⁷ Regarding potential measures (see footnote below), this could for example instead say: *For the larger non-CO2 warming effects of flying, our flight is lower than other airlines because we apply a special ‘hydrotreating’ process to our fuel and use special routing for flights which reduces the non-CO2 warming effects substantially.*

Example of airlines making similar claims:
*Wizzair.*⁶⁶

The environmental impact of other modes of transport are significantly lower than all flights on this route (for example, a train journey to [y] is (approximately [z]/kgCO₂ / pax)”

Airlines are not transparent in the methodology that they use to compare emissions and how they chose comparison benchmarks. The Directive on empowering the consumer for the green transition has clarified obligation for traders providing services which compare products and provides consumer with information on environmental aspects comparing products and providing environmental information. The information about the method of comparison is regarded as material information.

The Commission guidance on the application of the UCPD refers to airline comparative claims of CO₂ emissions per passenger-km. It clarifies such claims can be misleading if the emissions compared are not calculated in the same way, if the airline's total emissions are higher than other airlines and if emissions have increased significantly over past years in absolute terms.

Comparisons of the climate impact of flying must include the non-CO₂ warming effects in addition to the CO₂ emissions (see the section above on non-CO₂ warming effects). Apart from ensuring that consumers have information on the product's main environmental impacts (as required by Commission guidance, see above), this incentivizes traders to compete on non-CO₂ warming effect mitigation measures, and inform consumers about which routes are most liable to produce more non-CO₂ warming effects.⁶⁸

Comparisons of the environmental impact of flying (a highly polluting product) must also include a comparison to a non-flying travel alternative, so the consumer can understand the relative impact of the highly polluting flying product. For example, many intra-EU flights are completable by train and leisure destinations reachable by train compete with leisure destinations only reachable by long-haul flights.⁶⁹ As the diagram by below shows, deciding to use train for leisure travel instead of flying (particularly long-haul) has a significant effect on an individual's carbon footprint in comparison to other commonly considered consumer purchasing decisions.⁷⁰ The need to provide comparison across all relevant transport modes is highlighted in the guidance on the application of the UCPD.

⁶⁶ As highlighted in the alert of 2023 (www.beuc.eu/enforcement/green-flying#documents).

⁶⁸ Measures include hydrotreating fuel and avoiding 'Ice Super Saturated Regions'. [Time to address aviation's full climate... | Transport & Environment \(transportenvironment.org\)](#)

⁶⁹ [Editable Layout Trains vs Planes Price Analysis \(greenpeace.at\)](#)

⁷⁰ [Get Information. - Stay Grounded \(stay-grounded.org\)](#)

How Does Not Flying Compare to Other Sustainable Lifestyle Changes

It is impossible to calculate the exact greenhouse gas emissions of an individual person and the potential emissions reduction. All figures are approximations. However, it is clear that flights make a substantial impact on one's personal climate footprint.

Sources:

Flight and car emissions – Atmosfair (2020): <https://tinyurl.com/swcqvgtg>
 Rest – Milieu Centraal (2020): <https://tinyurl.com/uceedm5d>

stay-grounded.org



Under Article 12 UCPD, airlines must be able to substantiate their claims with clear, robust, independent, and generally recognised scientific evidence. Airlines, selling a highly polluting product, must not be allowed to exploit consumer unfamiliarity with scientific evidence to make promotional green claims as a selling point. We urge the CPC network to assess airlines' argumentation carefully against independent factual evidence, and from the standpoint of the average consumer and the environment, both of which are to be accorded a high level of protection under Union law. The law requires that the airline industry is not allowed to make these claims, or similar claims which result in the same consumer understanding, in the future.

Useful links:

- www.beuc.eu/enforcement/green-flying#documents
- www.transportenvironment.org/articles/non-co2-effects-of-aviation-time-to-finally-address-aviations-full-climate-impact
- www.transportenvironment.org/topics/planes/airplane-pollution
- www.clientearth.org/latest/documents/judgment-in-greenwashing-lawsuit-against-klm-unofficial-english-translation/
- www.clientearth.org/latest/press-office/press/historic-win-against-greenwashing-as-klm-s-advertising-ruled-illegal/
- <https://stay-grounded.org/get-information/#offsetting>

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