



A WORD ON AEROSPACE AND TAXONOMY

DOES INTEGRATING THE AEROSPACE SECTOR INTO THE EUROPEAN TAXONOMY MAKE SENSE?

A coalition of asset managers has come together to officially ask the European Commission to pull the aviation sector out of the taxonomy to keep it from seriously undermining the credibility of this sustainable finance tool.

Some insight from Sining Zhang, ESG analyst at Ofi Invest Asset Management.

On 11 April 2023, the European Commission opened the consultation period on the new version of its delegated act, which includes the aerospace sector. To oppose this inclusion, Acteurs de la Finance Responsable, a professional sustainable finance association rallied eight asset management companies with more than 280 billion euros under management⁽¹⁾ including Ofi Invest Asset Management. They fear that including aviation in the taxonomy will serve as a pretext for the sector to continue its “business-as-usual” approach, rather than developing alternatives.

Ofi Invest Asset Management has committed itself to finance that is sustainable and consistent with the Paris Agreements. The European Union has set a highly ambitious goal in response to the Paris Agreements – to reduce greenhouse gas (GHG) emissions by 55% between 1990 and 2030. This means that between 2020 and 2030, it would have to lower its GHG emissions three times more rapidly than on average over the past 30 years. The European taxonomy is one source of leverage for doing so, particularly its tool for classifying “green” activities. **The taxonomy must therefore maintain high standards to safeguard the credibility of sustainable finance. That’s why we are opposed to integrating the aerospace sector in the taxonomy,** because, in our view:

- A sector that does not make a positive contribution to carbon neutrality should not be in the taxonomy;
- In aviation, except in the expansion of aircraft fleets, the taxonomy’s technical criteria have no requirements regarding the market’s current situation.

Remember that aviation falls under the category of “transitional activities”, which are defined as follows by the European taxonomy⁽²⁾ as:

*“those activities for which there is no technologically and economically feasible low-carbon alternative. They shall be considered **to contribute substantially to climate change mitigation objective where the activity promotes the transition towards a climate-neutral economy that is compatible with a trajectory aiming to limit the rise in temperatures to 1.5°C compared to pre-industrial levels, including by gradually eliminating greenhouse gas emissions, particularly emissions from solid fossil fuels and when this activity:***

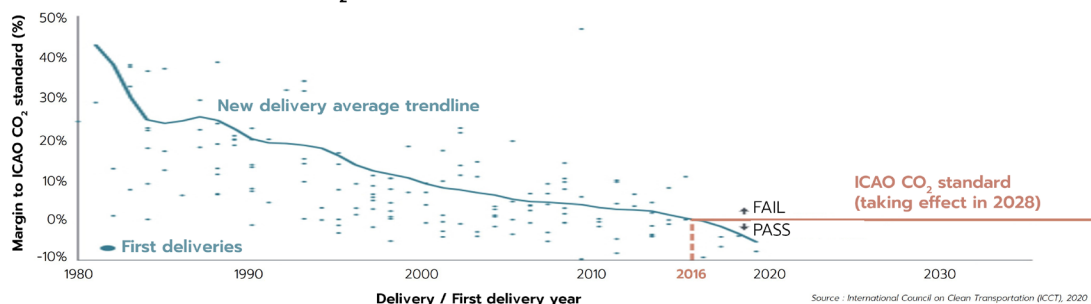
- a) has greenhouse gas emission levels that correspond to the best performance in the sector or industry;*
- (b) does not hamper the development and deployment of low-carbon alternatives; and*
- (c) does not lead to a lock-in of carbon-intensive assets considering the economic lifetime of those assets.”*

Let's look at how these three requirements apply to aviation:

a) **The first requirement applies to a sector dominated by a duopoly, Boeing and Airbus⁽³⁾.** Obviously, the carbon performance of aircraft built by these two manufacturers will be in line with the sector's highest standards. Between 90% and 99% of Airbus's order book already adheres to this principle, according to a study by Transport & Environment, an NGO⁽⁴⁾. Zero-emission aircraft (electric or hydrogen-fuelled) will be eligible but not available for about another 15 years and will not be able to replace long-haul aircraft. There are currently two main technical criteria:

1 - Aircraft must be 1.5% to 2.0% better than the standards of the International Civil Aviation Organisation (ICAO). In fact, this is no real requirement, as current new aircraft already meet these standards by far. Aircraft delivered in 2019 achieved, on average, energy efficiency that was 6% better than the standards that will come into effect in 2028; this percentage is even higher for the latest models. ICAO standards are 10 years behind the performances of aircraft currently being delivered.

Average margin compared to the International Civil Aviation Organization (ICAO) CO₂ standard for new aircraft, 1980 to 2019



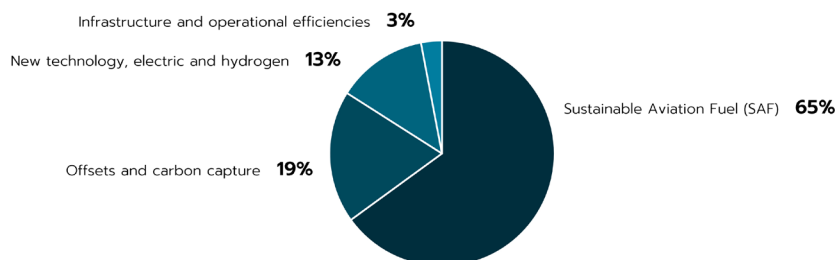
2 - This requirement says that new aircraft must be meant to replace existing aircraft and not to expand fleets. While that looks good at first glance, enforcement practices remain fuzzy and ultimately raise the question of how to reduce the climate impact, as replacing an older aircraft with a newer one is mere "business as usual".

b) **The second requirement stresses the obligation to improve the industrial offering.** But, if current aircraft are already considered "green" as they meet the technical criteria, that means that the taxonomy has not imposed any strong incentives that could promote the rapid development of low-carbon aircraft, either electric and/or powered by "green hydrogen".

c) As for the requirement on locking in carbon-intensive assets, given the average 22-year service life of an aircraft and the fact that order books currently extend to 2035, that means concretely that planes now being delivered, and that are therefore powered with fossil fuels, will continue to constitute the majority of planes in the sky even beyond 2050. The aviation sector's main source of leverage in achieving carbon neutrality – even more than technological innovations – is the use of sustainable aviation fuel (SAF).

Strategy of the International Air Transport Association (IATA) towards net zero

Achieving net zero by 2050 will require a combination of maximum elimination of emissions at the source, offsetting and carbon capture technologies



Source: IATA, 2023

⁽³⁾ Companies are mentioned herein solely for informational purposes, and not as an offer to sell, nor as a solicitation to buy, financial securities.

⁽⁴⁾ <https://www.transportenvironment.org/wp-content/uploads/2023/02/TE-analysis-aviation-taxonomy-February-2023-2.pdf>

But SAF currently accounts for just 0.1% of fuel used; the EU aims to raise this to 6% in 2030. On top of the heavy investment required, making SAF widely available will still be a challenge.

There are two main types of SAF:

1 - Agro-fuels from biomass such as used cooking oil, animal fat, farm residue, etc. But these inputs are far from being enough to replace jet fuel. For example, in Europe, used cooking oil is the main input for manufacturing SAFs, but in 2022 while more than 60 Mt of jet fuel was consumed, less than 1.5 Mt of used cooking oil was collected in Europe; moreover, used cooking oil is also used as an input in biodiesel for road vehicles. As for first-generation agro-fuels, such as rapeseed oil or corn ethanol, they are not eligible in Europe, unlike in the US, as they compete with food crops and can also cause deforestation, which would be at odds with the decarbonisation effect being sought out.

2 - E-fuels from thermochemical process based on CO₂, hydrogen and lots of energy. The process for producing e-fuels is quite energy-intensive. Energy is needed to capture CO₂ (even more if it is captured in the air rather than in concentrated form from a factory) and then to produce hydrogen from renewable energy, particularly via water electrolysis. The low-carbon energies that we are installing to decarbonate our economy will have other priorities than passenger aircraft. For example, in France in 2050, to produce the 6 Mt of SAF (via e-fuel) that aviation will need, 222 TWh of electricity⁽⁵⁾ would be needed, or one third of total French power output in 2050⁽⁶⁾! Would we be willing to deprive one third of all French people of electricity in order to fly on low-carbon fuel in 2050? In September 2023, Carsten Spohr Lufthansa's CEO, has hinted that his airline would have to consume half of Germany's electricity production for its entire fleet to fly on e-fuels. As it is not possible, the solution would be to import e-fuels from countries where wind and solar energy are available in virtually unlimited quantities. But most of these countries have currently high carbon electricity, or lack of electricity access for all, or lack water to make hydrogen, it would be difficult to solve these issues AND to produce large quantities of e-fuel.

Moreover, the preamble to these three requirements states that a transitional activity must "promote the transition towards a climate-neutral economy that is compatible with a trajectory aiming to limit the rise in temperatures to 1.5°C", which means, at the very least, achieving carbon neutrality by 2050. And based on the assumption that air traffic will triple by 2050⁽⁷⁾, per-passenger emissions would have to be lowered by 90% within 30 years. Moving from one generation of conventional engine to the next, which takes 20 to 30 years, results in a reduction in carbon emissions of only about 20%. So, the 2050 objective is clearly incompatible with the technical feasibility of meeting that objective by then.

Including the civil aviation sector in the European taxonomy based on current criteria is therefore tantamount to mere greenwashing. Many other sectors are providing real paths toward carbon neutrality, sectors towards which investments should be steered as a priority⁽⁸⁾. Any new aircraft arriving on the market today is an example of "locked-in emissions"⁽⁹⁾ over a period of two decades. In the short term, it would make more sense to reduce aircraft use by promoting other types of mobility, as aviation remains a highly inequitable means of transport, in which 1% of the population is responsible for more than half of emissions⁽¹⁰⁾.

Aviation cannot be considered a sector that makes a positive contribution to carbon neutrality and even less to a fair transition.

In providing the various aviation sectors access to facilitated and special financing terms, we are allowing the sector to continue, and even expand, its current activities in conditions that are not compatible with the European Union's climate objectives, and we are depriving other priority transition sectors of necessary investments.

Despite our open letter to the European Commission, the 13 June delegated act includes aviation as a transitional activity.

⁽⁵⁾ <https://www.academie-technologies.fr/wp-content/uploads/2023/03/Rapport-decarbonation-secteur-aerien-production-carburants-durables-AT-Mars-2023.pdf>

⁽⁶⁾ https://assets.rte-france.com/prod/public/2021-10/Futurs-Energetiques-2050-principaux-resultats_0.pdf

⁽⁷⁾ <https://www.icao.int/Meetings/STA11/Documents/STA11%20-%20WP.004%20-%20ICAO%20LONG-TERM%20TRAFFIC%20FORECASTS%20AND%20POST-COVID-19%20SCENARIOS.pdf#search=traffic%20forecast%202050>

⁽⁸⁾ Energy efficiency, mobility via rail, renewable energies and their networks, building insulation, circular economy, regenerative agriculture, etc.

⁽⁹⁾ "Locked-in emissions": future emissions from the use of a product throughout its service life due to a current decision. Such emissions are often hard to reduce, due to the initial technological choice

⁽¹⁰⁾ Stefan Gössling, Andreas Humpe, The global scale, distribution and growth of aviation: Implications for climate change, *Global Environmental Change*, Volume 65, 2020, 102194

The Taxonomy must remain a tool for classifying green economic activities; exclusion from it would not mean exclusion from the managers' portfolios

At Ofi Invest Asset Management, we invest in the aerospace sector through both our mandates and our open-ended funds. We do not exclude any aviation companies⁽¹⁾.

However, if we were to promote a fund actively committed to carbon neutrality, particularly via the European Taxonomy, we would not give precedence to aviation sector companies.

For several years now, our climate analysis has been based on companies' carbon footprint and their transition policies and has ranked companies based on their degree of opportunity or risk in terms of investing in the transition. This climate analysis has deemed that companies in the aviation value chain cannot constitute an opportunity in transitioning towards a carbon-neutral world.

While investing in aviation sector companies, equipment makers in particular, may make sense in many ways, such an investment cannot be regarded as contributing to carbon neutrality and must not be included in the European Taxonomy. With this decision, the European Commission has undermined the original thinking behind the Taxonomy, which encompassed only science-approved technologies.



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⁽¹⁾ With the exception of a few, very specific defence companies implicated in non-conventional weapons

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