

Position paper

# Making the EU "Fit for 55" reform agenda a success for climate protection in aviation

An analysis of the EU Commission's proposals.  
Additional proposals on how to avoid carbon leakage and distortions of competition

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## 1 BDL wants to make the EU climate protection agenda "Fit for 55" a climate policy success for aviation

**The German aviation industry supports the goals of the Paris Climate Agreement and is making an active and ambitious contribution to achieve these goals.**

With its 2020 "BDL Master plan - climate protection in aviation", the German aviation industry set itself the goal of making flying and airport operations carbon neutral. The master plan identifies the fields where the aviation industry is making progress on climate protection and where it also intends to take further steps together with policymakers:

- (1) Investments in the use of lower-emission aircraft will result in the modernisation of aircraft fleets and a reduction in CO<sub>2</sub> emissions from German aircraft fleets (minus 43% since 1990).
- (2) Substituting fossil jet fuel with sustainable aviation fuels can lead to significant progress towards achieving carbon-neutral flight operations.
- (3) By investing in structural and energy modernisation at airports and utilising the corresponding funding programmes, companies will implement carbon neutral airport operations.
- (4) More efficient air traffic management in European airspace will enable air traffic control service providers to make a further contribution to reducing emissions.
- (5) Aviation industry companies are working together with the German Aerospace Center (DLR) on ways to reduce non-CO<sub>2</sub> effects of flying (e.g. due to contrails).
- (6) The aviation industry is working together with policymakers and rail transport companies to ensure that more traffic can be shifted to rail by expanding rail connections and enhancing rail links to airports.
- (7) The aviation industry supports the instruments of a competitive neutral carbon pricing system which can be used to limit carbon emissions (ETS, CORSIA).

These goals and instruments of the industry's master plan are in line with the agreements reached by an alliance of approximately 20 countries, including Germany, at the recent COP26 UN Climate Change Conference for increased internationally coordinated climate protection in aviation. In addition, the German aviation industry's master plan is aligned with the European aviation sector's sustainability initiative ("Destination 2050"), which was unveiled in February 2021.

**Aviation needs a supportive regulatory framework to effectively meet the challenges of this imminent transformation. In light of this, the German aviation industry expressly supports the EU Commission's "Fit for 55" initiative and wishes it to become an effective contribution to climate protection in aviation.**

However, there are questions to the effectiveness of the package of reforms for climate protection in its current form. This is because the EU Commission's key regulatory proposals for the aviation sector carry the risk of carbon leakage and distortions of competition - this would be counterproductive in terms of climate policy and have negative implications for Europe as a location for business and tourism. Amendments must be made to the draft regulations and directives in order to make the "Fit for 55" initiative a success in terms of climate policy, and to position European companies as competitive pioneers in global aviation. To this end, the German Aviation Association (BDL) presents an impact assessment of the draft regulations and puts forward proposals on how carbon leakage and distortions in competition can be avoided in the "Fit for 55" projects.

## 2 BDL's proposals on how to avoid carbon leakage and distortions in competition in the "Fit for 55" proposals for aviation

Emissions trading and an ambitious blending quota for sustainable aviation fuels are important and appropriate instruments in achieving carbon neutral flight operations. For this reason, we support the proposals presented in the "Fit for 55" package and would like to help ensure that they can be implemented successfully and make an effective contribution to climate protection in aviation.

However, there are questions as to the effectiveness of the package of reforms for climate protection in its current form. This is because the EU Commission's key regulatory proposals for air transport carry the risk of carbon leakage and distortions in competition: they unilaterally increase the cost of travel at the expense of the European airlines via European hubs and, if no amendments are made to the proposals, will result in significant passenger flows shifting to airlines and hubs outside of Europe (carbon leakage). BDL proposes the following measures to avoid carbon leakage and distortions in competition while achieving the objectives of the *Fit for 55* initiative.

### (1) Avoiding carbon leakage by means of a non-competitive approach to the blending obligation

The aviation industry regards a European blending quota as a suitable instrument to ensure the market ramp-up for sustainable fuels and supports the proposal to introduce a mandatory blending obligation. However, in order for the blending quota in the European Union to be effective for climate protection, it must be ensured that the quota does not unilaterally increase the cost of travel via European airports in traffic to and from non-EU countries, thereby generating carbon leakage. There are a number of alternative options:

#### a) Quota for international traffic at UN level:

The most far-reaching solution would be to agree on a global regulation for blending on international flights. In pursuit of this objective, the EU should initially limit its blending obligation to intra-European traffic in order to avoid carbon leakage (and in so doing could also take a much more ambitious approach to ramping up quotas). At the same time, the EU should already call for negotiations to begin on a mandatory quota for global aviation at the ICAO General Assembly in 2022.

#### b) Funding the additional costs by the aviation tax or a climate levy:

An alternative way of eliminating the effects of carbon leakage would be to compensate for the additional costs incurred in flying to and from third countries via a financing mechanism that has a neutral effect on competition. For example, financing could be provided from the proceeds of the existing aviation tax and the EU ETS, or from a passenger and destination-related climate levy, which would then apply to European and non-European airlines equally. The amount of the passenger-related levy in ex-EU traffic would be based on the final destination, irrespective of which hub the route passes through. Therefore, the proceeds of the levy could be used to cover the additional costs incurred by companies in meeting the blending quota on flights to third countries or to purchase the SAF required to meet the quota. When devising such a levy, additional criteria, such as consumption levels and aircraft load factors, should be applied to reflect the efficiency of the aircraft. In addition, air freight traffic should be included in the same way as passenger traffic.

**c) Implementing a carbon-offsetting mechanism:**

Another option would be to implement a carbon-offsetting mechanism within the blending quota for international aviation that would apply to passengers travelling via non-EU hubs; this would ensure that the quota applicable in the EU could not be circumvented. The amount of the offsetting levy would then have to correspond to the additional costs incurred for carriage via European hubs. This would eliminate their competitive advantage in terms of ticket pricing, thereby avoiding carbon leakage.

Each of these three options would eliminate the negative carbon leakage and displacement effects in air transport to and from third countries without diluting the ambitious targets of the original draft.

As a general principle, the EU and its member states should preclude additional costs that distort competition by subsidising utilisation (OPEX) over and above existing production subsidies. Irrespective of this, a "book and claim" system should ensure that the specified SAF blending quota can be achieved regardless of where in the world SAF is actually refuelled.

**(2) Avoiding carbon leakage by means of non-competitive further development of European emissions trading**

The aviation industry supports emissions trading as a market-based instrument for CO<sub>2</sub> pricing. BDL proposes the following amendments to the proposed directive in order to avoid carbon leakage effects arising when emissions trading is strengthened: Passengers transferring to international connecting flights via European hubs must be accorded the same treatment in the Directive as passengers transferring to flights via hubs outside the EU.

The equal treatment of transferring passengers, irrespective of whether they fly via EU hubs or non-European hubs, would neither compromise the climate effectiveness of the emissions trading instrument nor increase the administrative burden:

- Since the cap remains unaffected even if transferring passengers are accorded equal treatment, there would be no change to the CO<sub>2</sub> reduction targets in the emissions trading system.
- As the airlines already report the relevant data today, there would be no extra administrative burden for authorities or companies.

The emissions trading system would have the greatest effect if the proceeds from it were earmarked to subsidise the production and utilisation of alternative aviation fuels. In this connection, the EU Commission, Parliament and Council should determine that the proceeds from the aviation ETS be earmarked for this purpose.

**(3) Reject the introduction of a European kerosene tax kerosene tax and related carbon leakage.**

Having recognised that a kerosene tax would have the effect of distorting competition, a number of EU member states have made a conscious decision to introduce destination and passenger-based aviation taxes instead. Unlike a European kerosene tax, these ticket taxes exclude the effects of carbon leakage. Against this backdrop, the introduction of a kerosene tax that would distort competition and have a carbon leakage effect should be rejected.

### 3 Why amendments need to be made to the EU Commission's "Fit for 55" proposals

**The EU Commission's proposals are pursuing the right objective and are also generally based on the right measures, i.e. emissions trading and a blending quota for sustainable aviation fuels. However, in their current form, they are not suited to actually achieving the objectives that have been set. In order to the "Fit for 55" initiative to achieve its full effect in terms of climate policy, the EU proposals must ensure that routes via European airports do not become unilaterally more expensive. Otherwise, there would be the risk of evasive action, whereby carbon emissions would not be reduced but instead only shift to airlines and hubs outside Europe, thereby producing significant carbon leakage.**

**The proposals must be supplemented to take into account how international aviation actually works: The main element is that a high percentage of international air traffic is handled via transfer connections.**

Airlines concentrate long-haul passenger flows at major airports such as Frankfurt, Munich, Paris, Amsterdam, Istanbul or Dubai. This makes sense, both ecologically and economically, because it ensures optimal utilization of aircraft and links peripheral regions to the international network.

For purposes of clarification: If you want to fly from Hamburg to Singapore, there is currently no direct connection, but a range of transfer connections provided by different airlines. These consist of connections with airlines from EU countries: Lufthansa via Frankfurt or Munich, Air France via Paris, KLM via Amsterdam, Iberia via Madrid, etc, or connections with airlines from non-EU countries, e.g. with Turkish Airlines via Istanbul, Emirates via Dubai or British Airways via London. Therefore, passengers can choose between several carriers, and their booking behaviour shows that the ticket price is a key criterion for most passengers when planning their journey.

Amid this competition, European airlines and their hubs compete with non-European providers. There are already fewer levies, restrictions and social standards on routes via airports on the Bosphorus and the Middle East, thereby giving the carriers there an advantage in ticket pricing.

**If measures that are actually intended to protect the climate, unilaterally increase the cost of travelling with European airlines via European hub airports and thereby intensify the competitive disadvantage for European companies, then these measures include the risk of being useless in terms of climate and economic policy.**

In this case, an increasing number of passengers would choose to travel via non-European hubs on the Bosphorus and the Middle East. This poses two problems:

- **Carbon leakage:**  
Emissions are not avoided, but only shifted to foreign competitors. Depending on the route, this could even have the opposite effect of more emissions if incentives are set for journeys with very long detours.
- **Loss of added value and jobs:**  
The shift of passenger flows and the loss of market share to non-European competitors would also have negative economic repercussions for European companies: If passenger flows shift, this would put air transport locations and jobs in Germany and Europe at risk and also weaken connectivity within Europe as a business location.

In principle, the problem is the same for all three proposals (European blending quota, strengthening of European emissions trading, fuel tax): At present, they are arranged in such a way that they unilaterally make travel via European hubs more expensive and do not balance out the disadvantage. In fact, the scale of the negative effect is greatest in the medium term under the current proposal for the blending quota.

The situation for the individual EU proposals is as follows:

### **(1) Mandatory quota for the blending of sustainable fuels (ReFuelEU Aviation)**

*With the ReFuelEU Aviation legal instrument, the EU Commission proposes setting mandatory quotas for the blending of sustainable fuels. The quota is aimed at companies that supply fuels to the market, such as mineral oil companies. The blending rate is to increase gradually until it reaches 63 per cent in 2050. A sub-quota would apply to electricity-based power-to-liquid fuels, which would also increase until it reaches 28 per cent in 2050. The Commission's draft states that it would be possible to go beyond these minimum quotas.*

BDL regards the system change towards alternative aviation fuels as the most important lever in achieving carbon-neutral flights. In principle, a mandatory blending quota is a particularly suitable instrument to ensure the necessary market ramp-up for alternative fuels.

The challenge in setting blending quotas is the large price difference between sustainable aviation fuel and jet fuel. Alternative fuels, such as power-based fuels from the power-to-liquid process, are several times more expensive. With fuel costs accounting for around 30 per cent of the total operating costs of a flight, the additional costs of refuelling with alternative fuels are enormous: Even with a 10 per cent quota, the total operating costs of a flight increase by 10 to 15 per cent, while with a 50 per cent quota the increase is as high as 50 to 100 per cent. This will inevitably have an impact on future ticket prices.

In strictly intra-European air traffic (origin and destination are within the EU), which accounts for 75 per cent of passenger volume and 50 per cent of traffic capacity, this would not be a problem in terms of competition. Since all market participants are subject to the same quota, ticket prices will rise, but there will be no competitive disadvantages and consequently no carbon leakage that would be counterproductive in terms of climate policy. The situation is quite different for traffic to and from third countries, which accounts for 25 per cent of passenger volume and 50 per cent of traffic capacity. This poses a risk of huge distortions in competition to the detriment of European airlines and hubs, and therefore of significant carbon leakage.

Example Hamburg to Singapore: An EU airline operating a flight involving a transfer via its European hub would have to fuel both the feeder flight and the long-haul flight with fuel subject to the EU quota, incurring the corresponding additional costs. A non-EU airline would not be subject to the EU quota for the onward flight from its hub. And when flying into its hub, there is no legal guarantee that it will meet the mandatory blending requirement, since it can carry as much fuel on entering the EU that there is little or no need to refuel at the respective EU airport.





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In view of the immense additional costs that would be incurred unilaterally by European airlines, the logical consequence would be an exodus of passengers to non-EU airlines and therefore significant carbon leakage.

## (2) Further development of European emissions trading (EU-ETS)

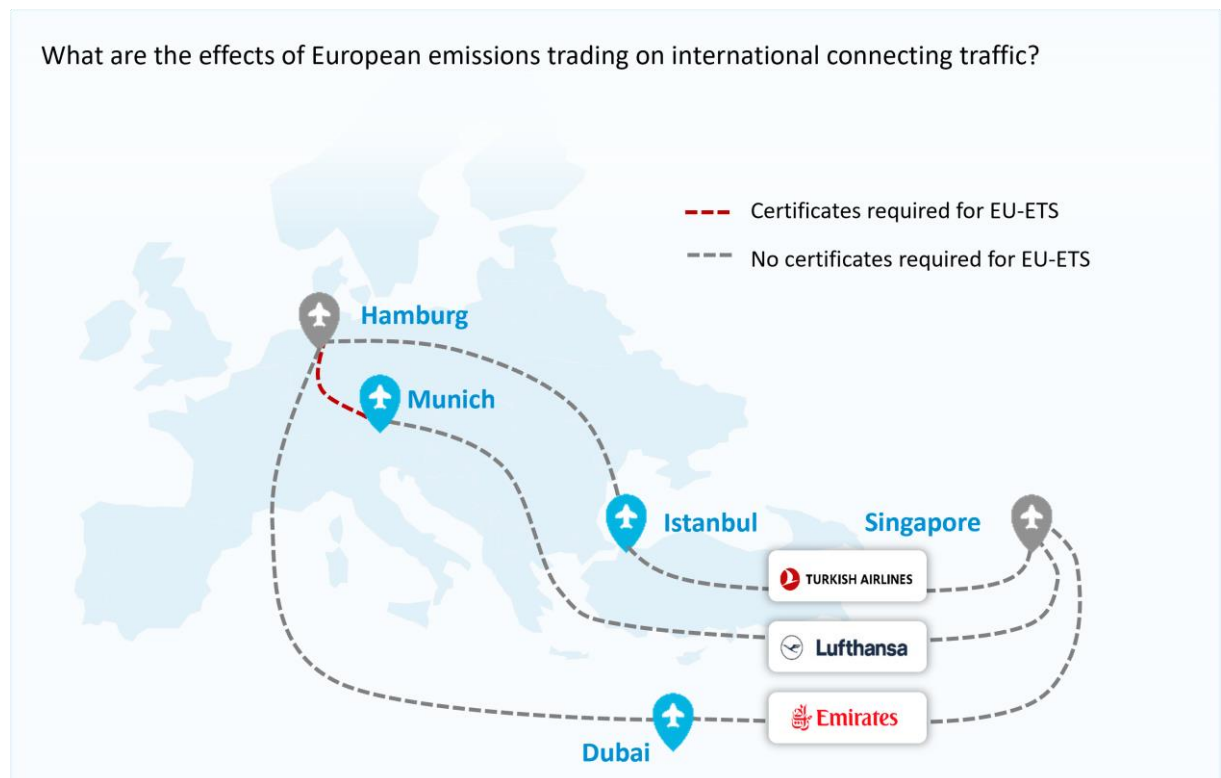
*With the revision of the ETS Directive, the EU Commission proposes strengthening the European Emissions Trading System. The cap, i.e. the upper limit on all carbon emissions in the sectors covered, is to be lowered further. The percentage of certificates that is still allocated free of charge today will continue to decline in the years ahead. 100 per cent of these certificates will have to be purchased from 2027 onwards. In addition, the revision is intended to define the relationship between the European Emissions Trading System and the international climate protection instrument CORSIA.*

BDL supports the inclusion of aviation in emissions trading as a suitable instrument for CO<sub>2</sub> pricing. Intra-European, and therefore also domestic German air traffic has been included in the European Emissions Trading System (EU-ETS) since 2012. This means that airlines must purchase corresponding certificates for their carbon emissions produced there if they exceed the permitted emissions cap. The emissions trading system ensures that overall carbon emissions from the economic sectors covered (energy, manufacturing, intra-European aviation) are reduced by 43 per cent by 2030 relative to 2005 levels, and by as much as 61 per cent under the new EU proposal.

It was not possible to impose the inclusion of global air transport in emissions trading within the international community, which is why emissions trading has been confined regionally to the EU. To ensure that global air traffic is also subject to CO<sub>2</sub> pricing, the international community agreed on the international climate protection instrument CORSIA under the umbrella of the UN civil aviation organisation in 2016. This offset growth-related emissions in international air traffic.

Even in its current form, the emissions trading system has inherent competitive distortions that result from being limited to intra-European traffic: This is because European airlines are required to purchase certificates for feeder flights to their domestic hubs, while the EU-ETS does not apply to feeder flights to non-European hubs such as Istanbul or Dubai. With prices for certificates increasing in emissions trading, distortion in competition is growing and with it the danger that passengers will drift away because non-European carriers can offer their tickets at a much lower price.

The strengthening of emissions trading now proposed by the EU Commission makes sense for purely intra-European traffic and is supported by the German aviation industry. However, in connecting traffic, where European airlines and their hubs compete with non-European carriers, the systemic distortion in competition in the EU-ETS will be further exacerbated, thus making modal shift and carbon leakage inevitable.



### (3) Kerosene tax in European aviation

*With the revision of the Energy Tax Directive, the EU Commission proposes to end the exemption for aviation and waterborne transport. This would make aviation fuel on flights within the European Union subject to an energy tax.*

The pricing of CO<sub>2</sub> in aviation has already been comprehensively implemented: Carbon emissions in intra-European and domestic German air traffic are covered by the European Emissions Trading System, and air traffic to and from third countries is covered by the international climate protection instrument CORSIA. In both systems, airlines pay for the carbon emissions they cause.

In addition, national aviation taxes apply in Germany as well as in a number of other EU member states, which also contribute to CO<sub>2</sub> pricing. In Germany, as in other member states, these ticket taxes were deliberately introduced as an alternative to a tax on jet fuel. The aviation tax in Germany was raised significantly in April 2020 and is now the highest ticket tax in the entire EU.



Unlike the proposal for a kerosene tax, ticket or aviation taxes such as the German aviation tax have a distinct advantage: They are passenger and final destination related and cannot be circumvented by means of a specific route. An aviation tax of 58.73 euros applies to a flight from Hamburg to Singapore, via Munich. The same amount is due for a flight from Hamburg to Singapore via Istanbul or Dubai, because the tax is based on the final destination Singapore and not on the route taken.

The kerosene tax is different: It is due on all flights operated within the European Union. It is not permissible to apply this tax to flights to third countries due to international agreements that exclude a kerosene tax. Instead, these regulations provide for the financing of international air traffic via fees and charges within the context of user-based financing. A kerosene tax on connecting traffic would therefore only be imposed on feeder flights from European airlines to their European hubs, but not on feeder flights to non-European hubs.

Apart from the distortion in competition in connecting traffic, a kerosene tax would be disproportionate, since it would constitute huge multiple taxation or multiple CO<sub>2</sub> pricing. With the aviation tax, emissions trading and CORSIA, aviation is comprehensively incorporated in CO<sub>2</sub> pricing. In addition, airlines pay several billion euros every year to use airport infrastructure, for flight security and aviation security checks within the context of user-based financing. Moreover, a tax on jet fuel, which, by its function does not aid sustainability, would reduce the financial scope of companies to change to sustainable types of aircraft.

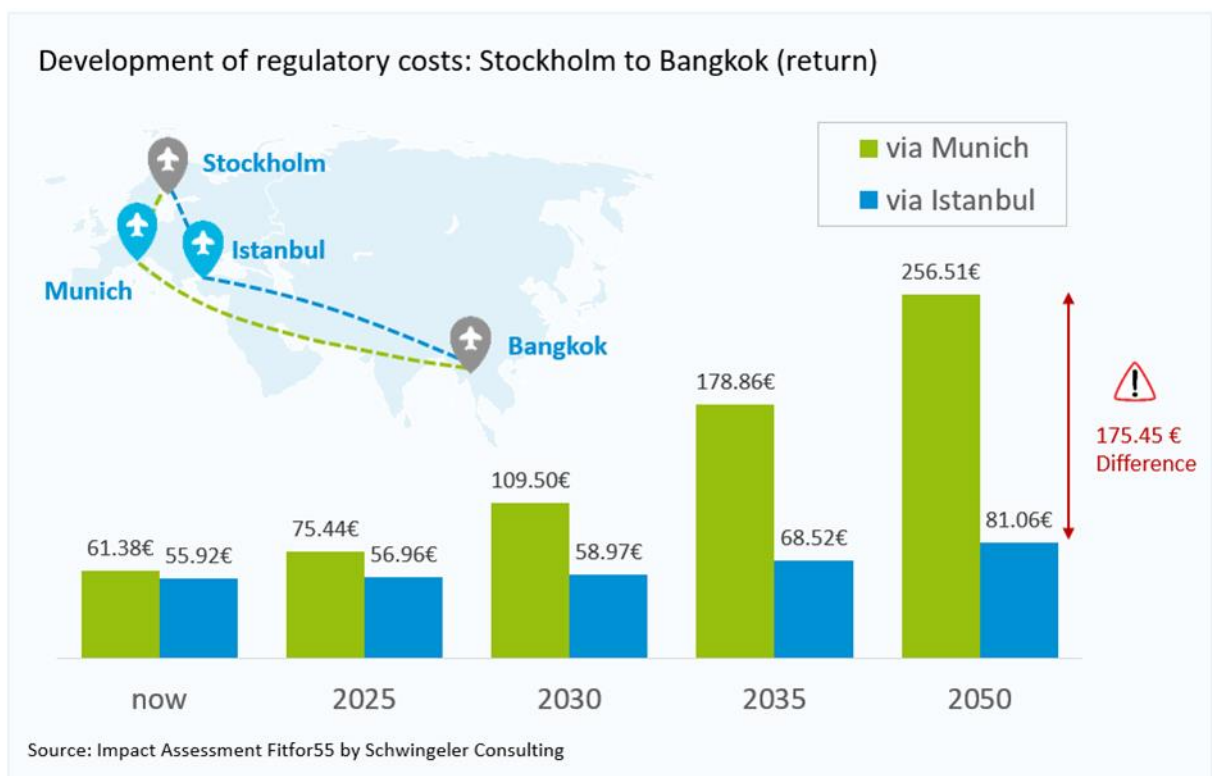


## 4 Impact of EU proposals on passenger flows and carbon leakage

The effects of the EU proposals are illustrated below using example routes. They compare travel routes via EU hubs and travel routes via non-EU hubs:

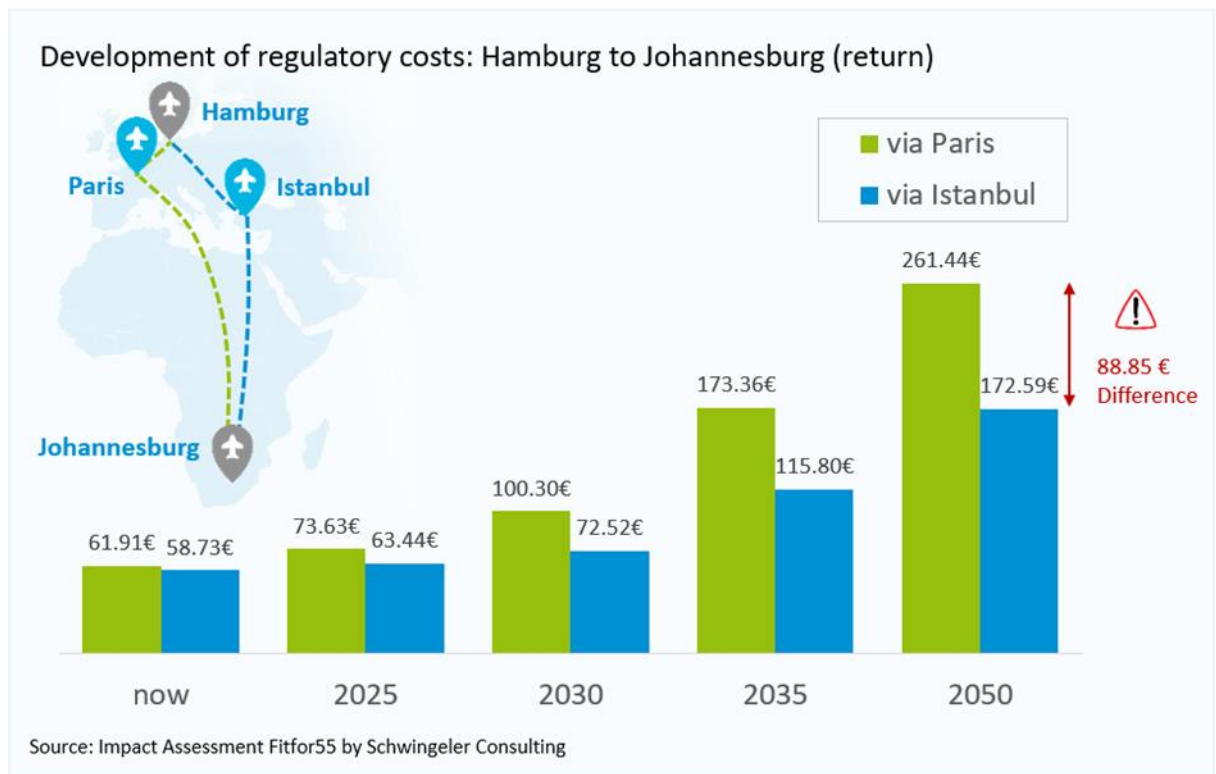
- **Transfer in Munich vs. transfer in Istanbul:**

On the Stockholm-Bangkok route (return), different rules apply depending on whether the passenger is transferring at a European hub or a non-European hub. This is because for journeys via non-European airports, the EU regulation applies at most to feeder flights. At present, the regulatory costs for the connection via Munich are around 5 euros higher than the regulatory costs for a transfer at an airport in a third country. However, if the EU "Fit for 55" proposals are implemented without any amendments, the difference in regulatory costs will increase significantly to a cost difference of 175 euros by 2050. The increase in operating costs will inevitably be reflected in significantly higher ticket prices for European carriers. This will result in a shift in passenger flows and carbon leakage. The bulk of this is accounted for by the current proposal for the blending quota, which applies to the entire journey when flying with a European airline via a European hub and accounts for 70 per cent of the additional regulatory costs.



○ **Transfer in Munich vs. transfer in Dubai:**

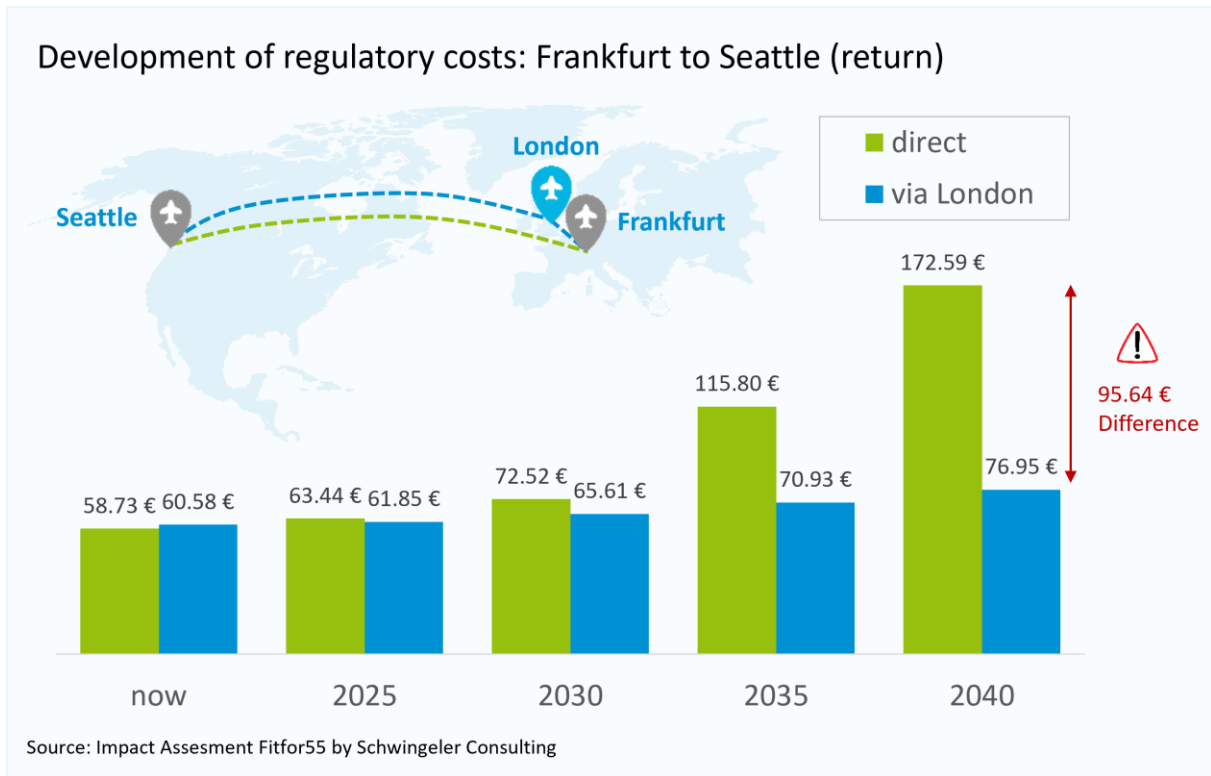
On the Amsterdam-Singapore route (return), regulatory costs are now about 10 euros when passengers use Munich as a connecting airport. When changing flights in Dubai, regulatory costs are only slightly lower at around 8 euros. If the "Fit for 55" proposals are implemented without any amendments, the difference between the regulatory costs in Munich and Dubai will grow from around 3 euros to 87 euros. The widening difference in costs will lead to an exodus of passengers to non-European carriers and hence to counterproductive carbon leakage. In this example, too, it is primarily the current EU proposal for the blending quota that accounts for the enormous difference in costs. The quota alone increases regulatory costs by around 140 euros for the route via Munich airport, which corresponds to 83 per cent of the total cost increase.



○ **Direct flight vs. transfer in London:**

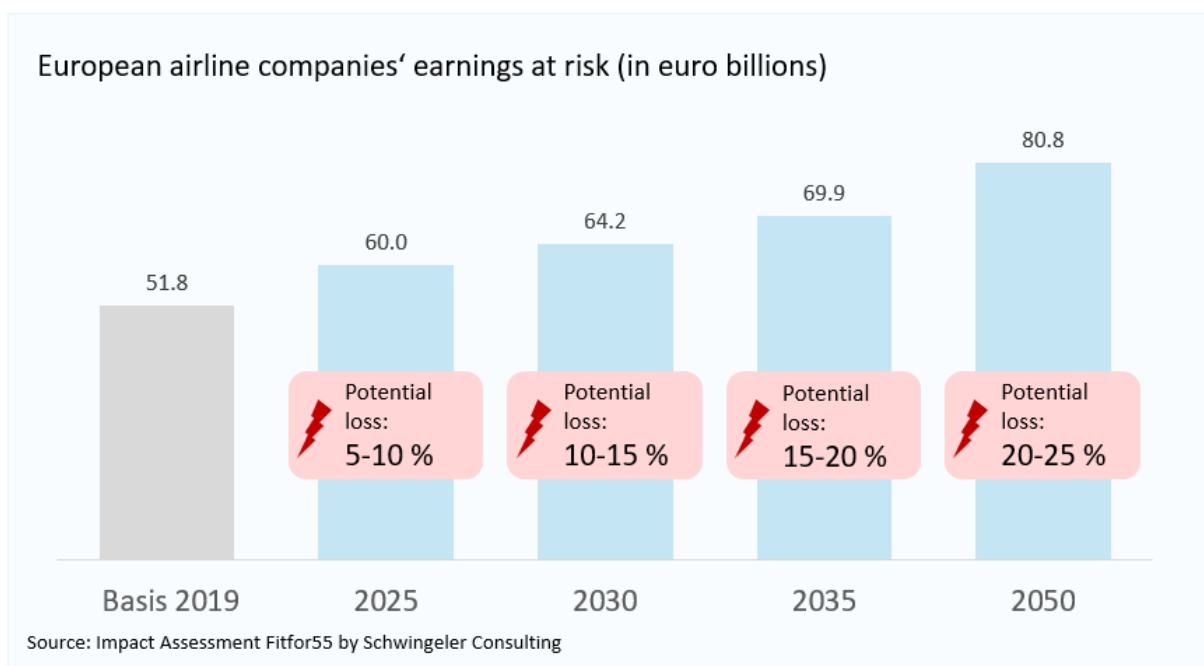
The unequal handling of journeys via hubs within and outside the EU can also mean that, on long-haul routes, direct flights are at a significant disadvantage compared to connecting flights. On the Frankfurt-Seattle route, passengers can choose between a direct flight and a number of connecting flights. At present, regulatory costs are approximately the same for both options: A connection with a transfer in London would incur regulatory costs of 2 euros more than a direct flight. If non-EU member state United Kingdom does not impose the same mandatory blending quota, the EU proposal would lead to a difference in regulatory costs of 95 euros per passenger. This would result in distortions in competition to the detriment of European airlines as well as carbon leakage.

○



### Carbon leakage and distortions in competition will be reflected in significantly reduced earnings for European companies

The extent of the distortion in competition and shifting of passenger flows illustrated above can also be seen in the anticipated reduction in earnings for European hub carriers: The total earnings that European airlines generate on such routes, which could in principle be affected by carbon leakage, are estimated to amount to around 80 billion euros in 2050. If the EU proposals are implemented as they stand, 20 to 25 per cent of these earnings (16-20 billion euros) are at risk from carbon leakage and a shift in passenger flows.



## Appendix: Assumptions of the Impact Assessment

The results of the impact assessment are based on the following assumptions for further development:

- **Capacity development:**

The assumptions on capacity development in air traffic to/from/in Germany are based on current data supplied by SRS Analyzer. Assumptions on future development are in step with the climate path study by the Confederation of German Industry (BDI) and Boston Consulting Group.

- **Sustainable aviation fuel (SAF) quota:**

The calculation of the example routes was based on the following quotas for the blending of sustainable aviation fuels which are currently under discussion. In this context, there is the general SAF quota, which applies to all alternative fuels, and the power-to-liquid sub-quota, which is intended specifically to stimulate the market ramp-up for power-based fuels:

	2025	2030	2035	2040	2045	2050
General SAF quota	2%	5%	20%	32%	38%	63%
Power-to-liquid sub-quota	-	0.7%	5%	8%	11%	28%

- **Sustainable aviation fuels (SAF) price:**

Future SAF price projections were used in the calculation model. The estimate allows for the fact that as the production process is scaled up, the price per litre will decrease. The average value incorporates both biological SAFs (cooking oil, biomass, etc.) and more expensive electricity-based power-to-liquid fuels in accordance with the respective quota.

	2025-29	2030-34	2035-39	2040-49	2050-
SAF price	€1.49	€1.66	€1.70	€1.49	€1.26

- **European Emissions Trading System (EU ETS):**

The calculation model assumes that the certificates allocated free of charge to airlines will be reduced in the years ahead, as envisaged in the draft, and that all certificates will be auctioned from 2027 onwards. The price of the certificates is forecast to increase gradually from 56 euros in 2021 to 200 euros in 2050.

- **European kerosene tax:**

The calculation model was based on the EU Commission's current energy taxation proposal. The draft Directive provides for the gradual inclusion of aviation in the energy tax scheme starting in 2023. Starting at 0 per cent of the current energy tax, this factor will increase by 10 percentage points each year until the full tax rate is reached in 2033. The calculation model estimates an energy tax rate of 0.37 euros per litre, which for aviation would mean that 0.037 euros per litre (10 per cent) would be incurred initially in 2024 and this would increase to the full 0.37 euros per litre by 2033 (100 per cent).

- **Aviation tax:**

The calculation model assumes that the German aviation tax rates would remain unchanged. The respective applicable tax rates were taken into account for the example routes (category 1-3 depending on the distance to the destination).

- **International climate protection instrument CORSIA:**

The calculation model does not reflect the effects of CORSIA on regulatory costs. Firstly, this is because no reliable information on the development of certificate prices is currently available, and secondly, it is unlikely that the instrument will lead to carbon leakage because of CORSIA's internationally coordinated, non-competitive structure.

## Contact

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*The German Aviation Association (Bundesverband der Deutschen Luftverkehrswirtschaft, BDL) was founded in 2010 to represent the interests of the German aviation industry. Its members include airlines, airports, DFS Deutsche Flugsicherung (German air traffic control) and other service providers in German air traffic.*