# Aviation 2050: the future of UK aviation

## 1. Introduction

Thank you for responding to this consultation on Aviation 2050: the future of UK aviation strategy.

The easiest way to respond to this consultation is via the online form:

https://www.smartsurvey.co.uk/s/aviation2050/

The online form allows you save and continue your response and save or print a final version for your records.

The aviation strategy sets out the government's vision for aviation to 2050 and includes proposals to:

- develop a partnership for sustainable growth which meets rising passenger demand, balanced with action to reduce environmental and community impacts
- enhance the passenger experience
- build on the UK's success to establish new connections across the world and create greater choice for consumers

Your answers will help us to shape the policy proposals within this document to create a final strategy which will support industry to delivering even greater improvements for passengers, the environment and our country.

This consultation has been extended, and now closes at 11:45pm on 20 June 2019. This is with the exception of the questions posed in 'Annex A: Legislation to enforce the development of airspace change proposals', which will still close for responses at 11:45pm on 11 April 2019.

**Confidentiality and data protection**

The Department for Transport (DfT) is carrying out this consultation to gather views and evidence on measures for inclusion within the statutory guidance issued for the aviation strategy. This consultation and the processing of personal data that it entails is necessary for the exercise of our functions as a government department. If your answers contain any information that allows you to be identified, DfT will, under data protection law, be the controller for this information.

As part of this consultation we're asking for your name and email address. This is in case we need to ask you follow-up questions about any of your responses. You do not have to give us this personal information. If you do provide it, we will use it only for the purpose of asking follow-up questions.

We may contract a third party to analyse the responses we receive to the consultation. If you provide your contact details, we may share this information with a contractor in case they need to contact you regarding your consultation response.

DfT's privacy policy has more information about your rights in relation to your personal data, how to complain and how to contact the Data Protection Officer.

Your information will be kept securely and destroyed within 12 months after the consultation has

been completed. Any information provided through the online questionnaire will be moved to our internal systems within 2 months of the consultation end date.

# 2. Personal details

**1. Your name and email address (only used if we need to contact you).**

| | |
|---|---|
| Your name | Estelle Worthington |
| Your email | estelle.worthington@foe.co.uk |

**2. Are you responding as:**

| | |
|---|---|
| | an individual? (Go to section 4. Chapter 2: Build a global and connected Britain) |
| X | on behalf of an organisation? (Go to 3. Organisation details) |

# 3. Organisation details

**3. What organisation do you work for?**

This is a North West regional Friends of the Earth EWNI response endorsed by Liverpool Friends of the Earth and Manchester Friends of the Earth.

**4. What type of organisation is this?**

| | |
|---|---|
| | Airline |
| | Airport |
| | Regulatory body |
| | Interest group |
| | Community group |
| | Industry |
| | Other: Environmental organisation |

# 4. Chapter 2: Build a global and connected Britain

The UK has the largest aviation network in Europe and the third largest in the world, an industry that contributes at least £22 billion to the UK economy, along with over 230,000 jobs. The government supports the growth of the aviation sector, provided that this happens in the most sustainable way, to ensure its continued success.

**Build a global and connected Britain**

Aviation is important for the government's goal of building a global and connected Britain. The UK already plays a prominent role on the world stage with the biggest international aviation network in Europe and currently the third largest in the world. Through the Aviation Strategy the UK will be equipped to build new connections in rapidly growing aviation markets, and to use the leverage we have internationally to pursue our objectives on environmental measures and liberalisation.

The government is working to:

- improve standards globally

- maintain and improve the UK's connectivity

- support UK aviation exports, including overcoming barriers to exporting

**5. This section contains questions on chapter 2 of the consultation document - Build a global and connected Britain. Which of the following topic areas are of interest to you as an individual or to the organisation on behalf of which you are answering? (choose all relevant options)**

| | |
|---|---|
| | Air services agreements |
| | Liberalisation of air traffic rights |
| | Airline ownership and control |
| | Interchange (short term leasing of aircraft between airlines) |
| | International standards |
| | Aviation exports |
| | Global connectivity |
| | Airline competition |

**6. How should the UK use its global leadership and international influence to further the aims of the UK's aviation sector?**

N/a

**7. What should the UK's priorities be for strengthening existing connections and establishing links with emerging markets?**

N/a

**Policy proposals**

The questions in the section below refer to policy proposals contained in chapter 2 of the consultation document - Build a global and connected Britain. As with the rest of this consultation, you are welcome to respond to any, all or none of the questions in this section.

**8. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?**

N/a

**9. How should the proposals described be prioritised, based on their importance and urgency?**

N/a

**10. What implementation issues need to be considered and how should these be approached? (e.g. resourcing challenges, high levels of complexity, process redesign, demanding timelines)**

N/a

**11. What are the financial burdens that need to be managed and how might those be addressed?**

N/a

**12. What are the regulatory burdens that need to be managed and how might these be addressed?**

N/a

**13. Are there any options or policy approaches that have not been included in this chapter that should be considered for inclusion in the Aviation Strategy?**

N/a

**14. Looking ahead to 2050, are there any other long term challenges which need to be addressed?**

N/a

**15. Are you aware of any relevant additional evidence that should be taken into account?**

| | |
|---|---|
| | Yes (see following evidence page) |
| | No (proceed to next section) |

# 5. Global and connected Britain evidence

**16. Please give a brief summary of the additional evidence that you wish to provide.**

Comments:

N/a

# 6. Chapter 3: Ensure aviation can grow sustainably

Demand for aviation has grown significantly since 2010 and the government welcomes growth in the sector, but this growth must be sustainable. Achieving this requires a partnership between the government, the regulator and industry to work within a comprehensive policy framework to better manage the environmental impacts of the sector.

**The Aviation Strategy:**

- outlines the government's preferred approach for developing a framework for sustainable growth and outlines the respective roles for government and industry

- makes the case for making most efficient use of infrastructure, including by reforming the system for slot allocation at airports and continuing to support industry in improving resilience

- describes the approach being taken to airspace modernisation to deliver capacity and environmental benefits

- sets out a robust policy framework and package of measures to reduce the harmful effects of aviation on the environment, such as carbon emissions, air quality and noise

- sets out government's expectations that communities should benefit directly from growth

**17. This section contains questions on chapter 3 of the consultation document - Ensure aviation can grow sustainably. Which of the following topic areas are of interest to you as an individual or to the organisation on behalf of which you are answering? (choose all relevant options)**

|   | A partnership for sustainable growth |
|---|---|
|   | Airspace modernisation |
|   | Resilience |
|   | Slots allocation |
| X | Safeguarding land |
|   | Community engagement |
| X | Carbon emissions |
| X | Non-carbon emissions |
| X | Air quality |
|   | Noise |
|   | Reducing waste |
| X | Sustainable journeys to the airport |

**18. To what extent does the proposed partnership for sustainable growth balance realising the benefits of aviation with addressing environmental and community impacts?**

The approach to dealing with aviation emissions is inadequate. It does not sufficiently address the urgency of tackling climate change. The main problem areas are summarised as follows. Responses to subsequent questions give more detail.

The approach:

- Relies on a very poor international offsetting scheme (CORSIA) which has a weak target that allows gross aviation emissions to grow rather than requiring reductions as is necessary

- Does not cover all climate warming emissions. It keeps non-$CO_2$ emissions under review, rather than including robust mechanisms to deal with them

- Does not introduce measures to constrain aviation

- Allows airport capacity at Heathrow and other airports – including Liverpool John Lennon Airport and Manchester Airport, to increase

- Does not include measures to encourage alternatives to air travel

- Does not encourage institutions or individuals to consider the environmental effects of aviation before deciding to fly

- Relies on future technology improvements, but does not demonstrate their likely contribution


**19. How regularly should reviews of progress in implementing the partnership for sustainable growth take place?**

N/a


**20. Are there any specific 'triggers' (e.g. new information; technology development etc) that should be taken into account when planning a review?**

We believe that triggers should include (but not be limited to):
- **Information on progress with emissions reductions,** particularly with regard to advice from the Committee on Climate Change
- **Scientific information,** for example on the impacts of non-CO2 emissions on the climate
- **Technology developments**
- **Progress with scaling up technologies**
- **Information on climate change impacts on the environment**, particularly on the understanding of climate tipping points and any need for faster global action. For example, if the tipping point for the Greenland ice sheet is identified to be at a lower level of warming than expected, or if the melting permafrost tipping point is assessed to be earlier than

expected. This information should lead to a broader review of total carbon budgets but will be particularly impactful on sectors that cannot switch to renewable electricity.
- **Information on social impacts of climate change** and of measures to deal with it

**Policy proposals**

The questions in the section below refer to policy proposals contained in chapter 3 of the consultation document - Ensure aviation can grow sustainably. As with the rest of this consultation, you are welcome to respond to any, all or none of the questions in this section.

**21. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?**

*Comments on **proposal 3.83** ("negotiate in ICAO...") and **proposal 3.88** ("continue to lead efforts in ICAO to negotiate for robust, environmentally effective emissions reduction measures...")*

- We support the UK taking a leading role in agreeing robust and environmentally effective international measures. However, the currently envisaged scheme (CORSIA) is very poor. It has a weak target that allows gross aviation emissions to grow rather than requiring them to decrease as is necessary for the world as a whole. It does not cover domestic aviation, ignores emissions other than $CO_2$, and its rules do not ensure it has an effective offset mechanism (see the response to question 29 for additional evidence)

- The UK government should formally reject CORSIA. It should also more actively promote an international aviation agreement that: reduces aviation emissions, rules out unsustainable use of biofuels, covers all climate warming emissions, and is consistent with the 1.5°C objective of the Paris Agreement.

*Comment on **proposal 3.95**: "keep nonCO2 emissions under review and reassess the UK's policy position as more evidence becomes available"*

- This does not adequately address the urgency of tackling climate change. The policy should include robust mechanisms for dealing with all climate warming emissions, including emissions other than $CO_2$. Such other emissions include, but are not limited to, emissions such as NOx (nitric oxide and nitrogen dioxide) that contribute to global warming indirectly and air pollution directly. We accept that there are scientific uncertainties, and that more research is needed. (1) However, uncertainty does not justify inaction. UK policy should address non $CO_2$ effects according to the best available scientific understanding consistent with the 1.5°C Paris Agreement objective.

*Comments on **proposal 3.96**: "consider the use of all feasible abatement options..." and **proposal 3.97** "use CCC's reviews..."*

- These proposals are under the heading "Non-CO2 emissions". Our understanding is that they are nonetheless intended to apply to all climate warming emissions, and the following comments apply for all emissions.

- We believe that demand management and behavioural change (mentioned in proposal 3.96) should be used in tackling all climate warming emissions. See the response to question 26 for details.

- The Aviation Strategy should be updated urgently now that the Committee on Climate Change's net zero advice has been published (May 2019). We welcome that advice, but

believe that a more ambitious target is possible and necessary. See the response to question 26 for further details.

- Regarding technological developments and sustainable fuels (mentioned in proposal 3.96), we believe that the approach must be to "support development of new technology, but don't rely on it until it's ready". New technologies may bring new solutions in future. But planning must rely only on developments in technology and sustainable fuels that are known to be workable at large scale and that will be available when we need them. The Aviation Strategy should be based on this principle, and should state the planning assumptions being made regarding the benefits of new technology. This is particularly so because doubts have been cast on the Department for Transport's 2017 $CO_2$ forecasts. The "dramatic and poorly substantiated" reduction in $CO_2$ compared to previous forecasts suggests that "the Government is assuming more advanced technology scenarios towards the upper end of what is likely to materialise". (2)

*Comments on **proposal 3.66***: "Safeguarding of land for growth"

- The land identified for future growth in the Master Plan for Liverpool John Lennon Airport (LJLA) includes areas that are important for wildlife. For the reasons set out above in relation to climate change impacts, we believe expansion plans for capacity increases at UK airports must be urgently stopped. Based on forecasts of 50% growth from current activity by 2030 and 120% growth by 2050 and forecasts of the commencement of long haul services from Liverpool, LJLA's Master Plan makes provision for extension of the runway to accommodate long haul routes. (3)

- LJLA lies adjacent to the Mersey Estuary, part of which is designated as a Site of Special Scientific Interest (SSSI) under the Wildlife and Countryside Act 1981, a Special Protection Area (SPA) under the Birds Directive (79/409/EEC) and a Site of International Importance, especially for waterfowl, under the Ramsar Convention. Breeding birds surveys carried out in preparation for the 2007 Master Plan 'identified the presence of a number of species now identified as of Principal Importance for Biodiversity, as defined by Section 41 of the NERC Act 2006, and/or of local importance.' Expansion proposals include plans to develop farmland known as the Oglet recognised as likely to provide an area of high value for farmland birds, including skylark, linnets and reed bunting. National and local Biodiversity Action Plans have been prepared for a number of these species. Mudflats which aircraft take off over 'are used by a proportion of the passing and wintering waterfowl for which the Estuary is of international importance, there is a potential for an increase in such traffic to impact on the integrity of the SPA/Ramsar site.' Though surveys apparently revealed that the birds were not disturbed by the aircraft flying overhead 'Sporadic disturbance of roosting waterfowl by aircraft has been observed at the eastern (Hale) end of the survey area.' Potential disturbance effects of increased flights are not known. (4)

- If the decision to stop airport expansion which we know is necessary to meet our Paris Agreement targets is not taken soon and urgently communicated to regional airports, we could see entirely unnecessary and irreversible habitat and bio-diversity loss.

*Comments on **Proposal 3.67***: 'Surface access'

- It is vital that there are ambitious targets for reducing emissions from surface-access traffic to and from regional airports. See responses to questions 33 and 38 below for more detail.

- While Greater Manchester's 2038 carbon-neutral target excludes aviation emissions, it has implications for emissions from vehicles traveling to and from the airport.

**22. How should the proposals described be prioritised, based on their importance and urgency?**

The scale of reductions to comply with the Paris Agreement requires an urgent policy response, and the scale of the actual and potential impacts of climate change mean that complying with greenhouse gas reduction requirements must be the top priority for aviation policy. In particular, to achieve the Paris 1.5°C objective, reaching an effective international aviation agreement and putting in UK measures before this comes into effect are the highest priority proposals included in the Aviation Strategy document.

**23. What implementation issues need to be considered and how should these be approached? (e.g. resourcing challenges, high levels of complexity, process redesign, demanding timelines)**

We propose the following measures.

**Include aviation in Net Zero target:** The UK Government should accept the CCC recommendation that international aviation (and shipping) emissions should be part of Net Zero target, and should in future be formally included within the UK carbon budget, and commit the government to developing and supporting the necessary aviation carbon reduction framework that will therefore be required.

**Carbon reduction policy framework:** The UK Government should develop, commit to and then implement a carbon reduction policy framework for aviation as an integral part of a wider reduction policy framework for UK transport as a whole. This is what the Aviation Strategy should deliver.

**Cap aviation emissions:** UK aviation emissions should be capped at their existing levels, and then reduced as quickly as possible towards an ambitious target.

**The UK Government should set tougher emissions reduction targets, including for aviation:** These must be legally binding and consistent with the Paris objective to limit temperature increase to 1.5°C. Aviation targets must be achieved without the use of offsets, and the focus must be on the aviation sector reducing its own emissions. They must include all climate warming emissions, and must be reviewed / updated from time to time (see response to question 20 for examples of review triggers).

The Committee on Climate Change's current planning assumption for a 2°C objective is that by 2050 gross UK aviation emissions should be around 2005 levels. In the light of the Paris Agreement and the Special Report of the Intergovernmental Panel on Climate Change (IPCC) in October 2018, they have advised that a more ambitious overall UK target is needed: net zero emissions by 2050. We welcome this, but believe that net zero by 2045 or earlier is possible and necessary.

We are calling for an aviation target that is more stringent than the 22 $MtCO_2e$ in the CCC's ambitious 'speculative' demand constraint option. This is because that option ignores most non-$CO_2$ emissions (those that are not included within the basket of gases covered by the Paris Agreement).

Our target is to reduce aviation emissions by 2045 (including non-$CO_2$) to a level that is expected to have the same long term (100 years) effect that a reduction to 22 $MtCO_2e$ by 2045 would have. The actual numeric emission level(s) should be set according to the best scientific understanding of the warming effects of all emissions (including non-$CO_2$).

It is important for Department for Transport to take account of local and regional carbon-reduction targets that have been set. In recent months we have seen local authorities up and down the country passing Climate Emergency Motions as public awareness of the threat of climate breakdown grows and more local councils commit to taking action to reduce emissions. Local action plans, carbon reduction strategies and carbon budgets are in some places already in place, while elsewhere in the North West Region they are being prepared. (5)

Local authorities lack the powers to take action to reduce many of the climate impacts of aviation and are looking for leadership from national government on this front. Metro Mayor for Greater Manchester, Andy Burnham, has said any attempts to cut air travel should be made by Westminster. He commented: 'I am all in favour of tough decisions at a national level. I don't believe there should be a third runway at Heathrow, for instance. But I think those are decisions for national government.' (6) Department for Transport must show strong leadership and take the bold action to curb greenhouse gas emissions from aviation that local authorities and other regional bodies - who have expressed their desire to see this happen - Lack the powers to deliver.

Greater Manchester has committed to an ambitious target of becoming carbon-neutral by 2038. Last year, the University of Manchester's Tyndall Centre worked with the GM Combined Authority to produce a science-based carbon budget for Greater Manchester. It sets out the amount of greenhouse gases that is GM's fair share of the total amount that can be emitted globally to have a two thirds chance of keeping within 2 degrees of average warming above pre-industrial levels. Under the Tyndall Centre's methodology, aviation (and shipping) emissions were deducted from the UK's national carbon budget before it was apportioned to GM, and this was calculated on the assumption that flight emissions from UK airports remain at current levels to 2030 and then reduce to zero by 2075. The GM carbon budget is therefore entirely dependent on national policy interventions to constrain growth in aviation - and even under this constrained pathway, aviation emissions will take up 37% of the UK's carbon budget to 2100. (7) Manchester airport wants to increase passenger numbers from more than 25 million to 45 million by 2040, and has potential to double passenger throughput to 55 million passengers per year. (8) We need to see decisive action from national government and a new Aviation Strategy that abandons plans for airport capacity increases. See responses to questions 33 and 38 below for further detail on the relationship between national and local carbon budgets and alternative policy proposals.

**Demand management and behavioural change:** Proposal 3.96 (bullet 2, "consider the use of all feasible abatement options..."), mentions policies on demand management and behavioural change that may evolve over the long term. These are important elements of an effective approach to dealing with aviation emissions. We believe that such measures should be put in place urgently, and make the following policy proposals:

- **Reject airport capacity increases:** A number of airports across the UK are seeking to expand. But we need reduced emissions, and as above, with current aviation technology that means fewer flights. We must stop plans to expand airport capacity, and the decision to grant Heathrow permission to build an additional runway must be reversed.

  Manchester Airport claim they could potentially double passenger throughput to 55 million passengers per year if their two runways are used to their full potential. (9)

  Expansion plans at LJLA are directly based on Department for Transport aviation forecasts. As the LJLA Master Plan to 2050 notes 'The DfT central forecast from 2013 projected passenger traffic at LJLA at 5.3 – 6.7 million ppa by 2030 growing to 6.8 – 15.4 million ppa by 2050. This Master Plan includes proposals to enhance services and meet the levels of passenger traffic envisaged within these national forecasts.' Future expansion proposals at LJLA also reflect the Draft Airport National Policy Statement which includes the addition of a direct flight link between Heathrow and LJLA. These forecasts, when adopted locally, set in motion a series of development plans and

planning proposals that would be difficult and costly to reverse. While Master Plans do not have statutory status, Government policy is clear that they should inform the development of statutory local plans and policies, to provide transparency and to inform the plans of other agencies. (10) As such, DfT must urgently revise its position and advise regional airports to halt expansion plans.

- **Constrain aviation:** We need to reduce emissions from air travel to and from UK airports. With current aviation technology that means fewer flights. This will require measures such as a frequent flier levy, removal of tax breaks on aviation fuel, and limiting numbers of flights at airports. Taxes should be fair and based on the polluter pays principle, for example with higher payments for longer distances.

  Such a levy could provide an investment fund to help rapidly de-carbonise other parts of the economy and at a regional level, help turn pledges like that of Greater Manchester to become carbon neutral by 2038 into a reality.

  While Friends of the Earth's target is an exacting target it is not punitive. For illustration, taking into account the direct and indirect climate impacts from aviation, and sharing out aviation fairly, it would still allow for every person in the UK to take just over two return economy class trips to Rome every three years, or one economy-class return flight to Australia every 17 years. (11)

- **Ensure fairness in access to (constrained) aviation:** A frequent flyer levy would be a step in this direction. Flying shouldn't become a luxury reserved for the wealthy. Alternative approaches, such as rationing of flying may be worthy of exploration.

- **Encourage alternatives to air travel**: We need to develop alternatives to air travel. For example, long distance train travel (which has much lower emissions per passenger mile), and improved wifi and videoconferencing facilities.

- **Encourage institutional responsibility:** Businesses and other institutions should be encouraged to limit their use of aviation and to consider the environmental effects before deciding to fly. A requirement for organisations to report on air travel should be considered. Individuals should also be encouraged to use alternatives to flying.

**24. What are the financial burdens that need to be managed and how might those be addressed?**

N/a

**25. What are the regulatory burdens that need to be managed and how might these be addressed?**

N/a

**26. Are there any options or policy approaches that have not been included in this chapter that should be considered for inclusion in the Aviation Strategy?**

N/a

**27. Looking ahead to 2050, are there any other long term challenges which need to be addressed?**

Post 2050 the UK will need to be net negative emissions as we drawdown GHGs from the atmosphere to return to 1.5 degrees (if it has been exceeded) or indeed aim for a much lower level of GHG in the atmosphere (e.g. the 350ppm $CO_2$ upper limit promoted by leading climate scientists including James Hansen). This means aviation emissions will need as a minimum to be kept low after 2050 (e.g. well below the CCC's 'speculative' demand constraint level – see response 26) but may need to reach zero emissions by that date or soon after, depending on the UK's potential and willingness to drawdown GHGs through natural climate solutions or other means. The industry needs to plan and innovate accordingly.

**28. Are you aware of any relevant additional evidence that should be taken into account?**

| X | Yes (see following evidence page) |
|---|---|
|   | No (proceed to next section) |

# 7. Sustainable growth evidence

**29. Please give a brief summary of the additional evidence that you wish to provide.**

Comments:

- **Effective action on climate change is urgent:** "If we do not change course by 2020, we risk missing the point where we can avoid runaway climate change, with disastrous consequences for people and all the natural systems that sustain us." António Guterres, Secretary-General of the United Nations, 2018. This sense of urgency should be at the heart of UK government policy, including aviation.

- **Aviation's current goals are inconsistent with the Paris Agreement** (12)**:** This fact emphasises the need for more ambitious aviation targets.

- **Most air travel is for leisure:** In 2016, 72% of passengers to/from UK airports were traveling for leisure. (13) In most cases more climate friendly holidays could be taken closer to home. This has implications for demand management.

- **The majority of plane trips are made by relatively few people:** UK government statistics in 2014 showed that 70% of plane trips were made by 15% of people. (14) This has implications for fairness of access to aviation.

- **Technology developments are not able to keep up with the growth of passenger numbers.** Planes are becoming gradually more efficient and will continue to do so, but not at the pace necessary to allow for unconstrained growth in flights and passenger numbers. This means that aviation needs to be constrained.

- **CORSIA offsets:** Many CORSIA offsets are likely to be based on the United Nations' Clean Development Mechanism (CDM). Evidence shows that such offsetting often does not work in practice. In 2016 a report for the European Commission found that only 2% of projects under the CDM had a high likelihood of being effective. (15)

- **Biofuels**: The aviation industry is banking on biofuels as a future fuel. (16) This would require industrial scale cultivation of biomass — things like maize, palm oil or woody crops. It would compete for land with food production and nature protection, as well as risk displacement of local communities overseas. Clearance of forests to make way for plantations can itself lead to massive greenhouse gas emissions. Use of waste and newer biofuel production methods might help, but there is currently no sustainable way to produce aviation biofuel at scale. In addition, biofuels do not eliminate all climate warming emissions. For example, reductions in emissions of indirectly acting NOx are small or insignificant. (17) The Committee on Climate Change envisages a limited role for biofuels as aviation fuel (up to 10% in 2050).

References:

- (1) The scale of the uncertainty is illustrated by the very large error bars in Figure 1 of a report by David S. Lee in the Aviation Strategy supporting documents showing 'Radiative Forcing', and by the fact that there are difficulties even in identifying a suitable metric for Non-CO2 effects. See "The current state of scientific understanding of the non-CO2 effects of aviation on climate", https://www.gov.uk/government/publications/aviation-2050-the-future-of-uk-aviation-consultation-sustainable-growth-carbon-reports

- (2) See AEF response to draft airports NPS (2017): https://www.aef.org.uk/uploads/2017/12/AEF-comments-on-NPS-reconsultation.pdf

- (3)(4) Liverpool John Lennon Airport Master Plan to 2050: https://www.liverpoolairport.com/about-ljla/liverpool-john-lennon-airport-master-plan-to-2050 N.B. In October 2017, the DfT issued a revised set of aviation forecasts. These forecasts superseded the 2013 forecasts; however the longer term growth rates for airports outside of London continued to be within the 1% to 3% range as in the 2013 forecasts. Given that there is minimal change in long term growth rate, and the recognition by the DfT that forecasts at individual airports will differ from their own, there is no change to the forecasts utilised within the Master Plan.

- (5) Declare a Climate Emergency: https://climateemergency.uk/

- (6) Andy Burnham reveals 2038 carbon target for Greater Manchester. The Guardian. 13 June 2019: https://www.theguardian.com/uk-news/2019/jun/13/andy-burham-reveals-2038-carbon-target-for-greater-manchester-airport-new-roads-mayor

- (7) What climate targets have been set in Manchester? Zero Carbon Manchester.13 June 2019. https://www.manchesterfoe.org.uk/blog/2019/05/19/what-climate-targets-have-been-set-in-manchester/

- (8) (9) Sustainable Development Plan: Setting out the context for the growth and development of Manchester Airport: https://www.manchesterairport.co.uk/about-us/manchester-airport-masterplan/

- (10) Liverpool John Lennon Airport Master Plan to 2050: https://www.liverpoolairport.com/about-ljla/liverpool-john-lennon-airport-master-plan-to-2050

- (11) Aviation and Climate Change, Our Position. Friends of the Earth. May 2019: https://policy.friendsoftheearth.uk/policy-positions/aviation-and-climate-change-our-position

- (12) See the report "International aviation and the Paris Agreement temperature goals" in the Aviation Strategy supporting documentation at https://www.gov.uk/government/publications/aviation-2050-the-future-of-uk-aviation-consultation-sustainable-growth-carbon-reports

- (13) UK aviation forecasts 2017 – report page 60. https://www.gov.uk/government/publications/uk-aviation-forecasts-2017

- (14) This statistic has been verified by Full Fact. https://fullfact.org/economy/do-15-people-take-70-flights/

- (15) How additional is the Clean Development Mechanism? Pages 10 and 11. https://ec.europa.eu/clima/sites/clima/files/ets/docs/clean_dev_mechanism_en.pdf

- (16) The IATA Factsheet "Sustainable Aviation Fuels" says: "In the medium term, SAF [Sustainable Aviation Fuels] will be the only energy solution to mitigate the emissions growth of the industry". The term "Sustainable Aviation Fuels" includes biofuels. https://www.iata.org/pressroom/facts_figures/fact_sheets/Documents/fact-sheet-alternative-fuels.pdf

- (17) See section 2 of FAA document Swedish Biofuel Performance Evaluation, 2016, https://www.faa.gov/about/office_org/headquarters_offices/apl/research/aircraft_te

chnology/cleen/reports/media/swedish_biofuel_report.pdf  . See also sections 2.1 and
2.6 in 'Impact of Alternative Fuels On Aircraft Engine Emissions', presented by the
International Coordinating Council of Aerospace Industries Associations in
2009. https://www.icao.int/Meetings/caaf2009/Documents/CAAF-09_IP011_en.pdf

# 8. Chapter 4: Support regional growth and connectivity

Airports are vital hubs for local economies, providing connectivity, employment, and a hub for local transport schemes. The government wants to ensure, through the Aviation Strategy, that these benefits are maximised, by ensuring that:

- markets are functioning effectively for consumers and local communities

- airports are delivering the connectivity that regions need to maximise their potential

- the industry continues to provide high quality training and employment opportunities

- barriers to freight are reduced

The government recognises the importance of rebalancing the UK through economic growth of the regions and ensuring that the UK remains competitive after we leave the EU. Airports have a crucial role to play as hubs for growth within and beyond the region in which they are situated. The government is committed to working with the industry to develop appropriate and practical policies that support the industry's ambitions. The Aviation Strategy focuses on:

- regional connectivity

- regional transport hubs

- supporting freight

- regional employment, training and skills

**30. This section contains questions on chapter 4 of the consultation document - Support regional growth and connectivity. Which of the following topic areas are of interest to you as an individual or to the organisation on behalf of which you are answering? (choose all relevant options)**

|   | |
|---|---|
|   | Regional connectivity |
|   | Public service obligations (PSOs) |
|   | Start up aid |
|   | Air passenger duty |
| X | Surface access to airports |
|   | Supporting freight |
|   | Regional employment and skills |

**31. To what extent do these proposals provide the right approach to support the complex and varied role that airports play in their regions?**

N/a

**32. To what extent are the proposals on skills the right approach to ensuring the aviation sector is able to train and retain the next generation of aviation professionals?**

N/a

**Policy proposals**

The questions in the section below refer to policy proposals contained in chapter 4 of the consultation document - Support regional growth and connectivity. As with the rest of this consultation, you are welcome to respond to any, all or none of the questions in this section.

**33. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?**

*Comments on **Proposals 4.32 – 4.44:** 'Regional transport hubs'*

**A stronger emphasis should be placed on reducing emissions from surface access to airports through cutting road journeys throughout these policy proposals.** The UK Government should regard the Aviation Strategy as an integral part of a wider carbon reduction policy framework for UK transport as a whole, which would include measures to reduce demand for car travel alongside speeding up the switch-over to electric vehicles. (1)

- Achieving the necessary reductions in road traffic and carbon while meeting people's travel needs will require a realignment of funding priorities and the right institutional structures and governance. Unfortunately many elements of good governance are lacking in the current system of transport governance: in particular clear goals and vision; leadership; accountability; effectiveness; and transparency.

- Unfortunately since 2010 there has been a shift in UK transport policy goals away from reducing carbon. Currently, enhancing economic development and reducing congestion are primary goals of transport policy. (2)

- There has been a move back to a policy of building more road infrastructure, in the belief that this will deliver on current goals. (3) This belief persists despite scant evidence of benefit to local economies (4) and a wealth of evidence stretching back nearly one hundred years that building more roads increases traffic. (5) Key national and sub-national road transport policies and strategies in England that purportedly prioritise economic growth and congestion, while failing to address carbon reduction, include the Transport Investment Strategy, National Policy Statement (NPS) for national networks, Strategic Transport Plans of the Sub-national Transport Bodies (STBs) and Major Road Networks (MRN) guidance.

- Where transport carbon is mentioned or addressed directly by government, as in the Road Investment Strategy (RIS) (6) (7), Clean Growth Strategy and Road to Zero Strategy, it is asserted or assumed that a shift to electric vehicles will enable carbon goals for surface transport to be met. There is little recognition that the Road Investment Strategy will in fact generate more road traffic and increase carbon emissions. Nor is there acknowledgement that even with quicker take-up of electric cars than currently proposed, carbon budgets cannot be met unless traffic volumes fall.

- A multitude of national, regional and local bodies have responsibility for transport policies that will affect carbon emissions but with no guide to how much they need to achieve, or by when (8). This fuzzy accountability means that, in effect, nobody is responsible. (9)

- A growing number of towns and cities have adopted zero carbon pledges and plans, spurred on by the Paris Climate Agreement. Greater Manchester Combined Authority and Manchester City Council have both pledged to become carbon neutral by 2038 with annual cuts in $CO_2$ of 15% and 13% respectively (10). Both are developing action plans detailing how they can stay within their Paris-aligned carbon budgets which they consider will make the city more attractive, liveable and prosperous (11) (12).

- Manchester Airport's commitment to 'manage the growth in road traffic by improved sustainable travel choices for passengers, employees and local people' is to be welcomed. They propose to do this through schemes such as the Northern Hub scheme which will is expected to unlock capacity within the rail network. The airport has been identified as a station location for the second phase of High Speed 2 and a key destination in the emerging 'HS3' trans-northern rail concept. (13) However HS2 Ltd's own analysis says it will increase carbon pollution, and these plans may never be realised or not completed in the timeframe necessary to achieve rapid carbon reduction, so other options for reducing road traffic must also be explored.

- Meanwhile, while the airport's Surface Access Plan seeks to 'manage the growth in airport-related road traffic in a responsible and sustainable way,' in reality we have witnessed road-building to improve access to the airport on a massive scale in recent years with the A6 to Manchester Airport Relief Road Scheme, the A556 Knutsford to Bowdon Improvement and the M60 Smarter Motorway schemes.

- Manchester Airport has set a target to reduce the percentage of passengers using the car to around 50% by 45 million passengers per annum with the remaining 50% using public transport. However, it is difficult to see how a 50% reduction on present levels of road traffic will be achieved amid plans to double passenger throughput. The 2017 Passenger Survey report showed that 81% of passengers who fly in/out of Manchester Airport still travelled to the Airport by private car or taxi. (14) This was only a small reduction from 2014, when it was reported that 83.5% of passengers travelled to/from the Airport by private vehicle. (15) The planned introduction of another 9,600 space car park at Manchester Airport is unlikely to help reduce surface transport climate and air pollution emissions. (16)

- Analysis commissioned by Friends of the Earth (17) highlights how there is no overarching assessment showing how all transport carbon emissions (from surface transport and domestic and international aviation and shipping) will be cut in order to meet current climate targets, let alone Paris-aligned ones. At national level, the Department for Transport (DfT) has only vague commitments in its strategic objectives to make sure transport is sustainable. (18) Highways England (HE) has no accountability for the carbon impact of traffic on the Strategic Road Network (SRN) (19) and other departments whose policies affect transport carbon also have no accountability. (20) The situation is no better at a local level. Mechanisms to measure local action in England against national carbon targets were removed in 2011. There are no longer agreements between government and local authorities to reduce carbon emissions in local areas (22). While some authorities have developed their own targets, there is no way for them to know if the chosen target is too high (or too low), and no way to allocate transport emissions between local and strategic roads. Instead, local contributions "are left to be defined or divined". (22)

**34. How should the proposals described be prioritised, based on their importance and urgency?**

**35. What implementation issues need to be considered and how should these be approached? (e.g. resourcing challenges, high levels of complexity, process redesign, demanding timelines)**

**36. What are the financial burdens that need to be managed and how might those be addressed?**

**37. What are the regulatory burdens that need to be managed and how might these be addressed?**

**38. Are there any options or policy approaches that have not been included in this chapter that should be considered for inclusion in the Aviation Strategy?**

**Reduce emissions from surface-access:** The Aviation Strategy should set ambitious and binding targets for reducing emissions from surface-access traffic to and from regional airports as part of a wider Department for Transport effort to reduce carbon emissions and reduce demand for car travel.

We need to reduce demand for car travel significantly, in addition to making a rapid transition to electric vehicles, if we are to limit global warming to 1.5°C above pre-industrial levels. The estimated car mileage will need to be reduced in the order of 20-60% by 2030 compared with 2016 levels, depending on a range of factors such as the rate of uptake of electric cars, improvements in conventional car emissions, and rate of decarbonisation of the power grid.

However even if 100% new cars are electric by 2030 there will need to be significant reductions in mileage of all cars before then. (23)

We would draw DFT's attention to the following recommendations from a paper commissioned by Friends of the Earth on the transport policies that are needed to cut carbon emissions in line with the Paris Agreement entitled 'Getting the Department for Transport on the right track' (24)

- **Carbon reduction should be a key policy requirement:** Because the consequences of climate change are so serious, we need the government to make it a top priority to reduce carbon emissions. This is especially important for transport because it is the largest single contributor to emissions and there is a large and growing gap between emissions and targets. Radical, Paris-aligned carbon reduction should therefore be a primary requirement of transport policies and plans at all levels.

- **Accountability: carbon budgets:** Once there is a policy requirement at national level to reduce transport carbon, the next step is to establish a coherent framework of accountability for its delivery. UK carbon reduction targets and budgets should be translated into targets and budgets for government departments and regional and local bodies. This should include:
  **Binding budgets:** The introduction of binding departmental, regional and local carbon budgets would provide an essential link between national carbon targets and implementation at all levels.
  **Local and regional carbon budgets:** It follows that DfT should work with regional and local transport bodies to agree how to allocate carbon budgets at regional and local level. There would also need to be some form of sanction for failing to comply with budgets. At regional level, new statutory bodies (eg Energy for the North), could be set up to take overall responsibility for regional carbon budgets. Alternatively the existing STBs in England (eg Transport for the North) or Combined Authorities could be given a transport carbon budget.

- **Collaboration:** Having carbon targets that are aligned at all levels would foster a culture of collaboration, which in turn would encourage more ambitious climate strategies.

- **Effectiveness: strategies and plans should have a carbon audit:** All transport strategies and plans, including the RIS, Road to Zero Strategy, and NPS for National Networks, should be subject to a carbon test. This would check (a) whether they include a carbon reduction target and pathway and (b) whether their carbon impacts have been audited to confirm they are consistent with this target and pathway.

- **Replace the current appraisal system** for transport schemes with an unbiased and transparent one that enables compliance with carbon targets and budgets.

- **Align transport funding with accountability** for local carbon budgets by returning funding for transport infrastructure from LEPs back to Unitary / County Councils, Combined Authorities, and STBs led by local authorities.

**39. Looking ahead to 2050, are there any other long term challenges which need to be addressed?**

**40. Are you aware of any relevant additional evidence that should be taken into account?**

| X | Yes (see following evidence page) |
|---|---|
|   | No (proceed to next section) |

# 9. Regional growth evidence

**41. Please give a brief summary of the additional evidence that you wish to provide.**

Comments:

- (1) 'Getting the Department for Transport on the right track'. Lisa Hopkinson and Lynn Sloman, Transport for Quality of Life. 24 May 2019: https://policy.friendsoftheearth.uk/insight/getting-department-transport-right-track

- (2) 'More than Electric Cars: Why we need to reduce traffic to reach carbon targets.' Briefing for Friends of the Earth. February 2019. Hopkinson L. and Sloman L. (2018)

- (3) The government's Transport Investment Strategy states 'Expanding existing capacity to ease congestion: In many cases we need to invest to upgrade and enhance the existing network, making it better able to cope with demand by adding capacity to reduce congestion and crowding.' Department for Transport (2017) Transport Investment Strategy. July 2017.

- (4) In his evidence to the M4 public inquiry, Professor John Whitelegg produced a list of 17 independent scientific sources on the economic impacts of major transport infrastructure, which showed that there is either no proven link or in some cases a negative link. Whitelegg J. (2017) Proof of Evidence In the matter of: Public Local Inquiry into the M4 relief road around Newport: The Economic case: jobs, inward investment and regeneration. On behalf of Gwent Wildlife Trust. February 2017.

- (5) Professor Phil Goodwin has pointed out that it has been known since 1925, and demonstrated in multiple subsequent reports, that new roads generate traffic. Goodwin P. (2006) Induced Traffic Again. And Again. And Again. Local Transport Today, 450, 24 August 2006.

- (6) The Road Investment Strategy (RIS1) for 2015-2020 does include an aspiration for 'major reductions in carbon emissions across the network' but assumes these will be achieved by electrification of the fleet. Department for Transport (2015) Road Investment Strategy: for the 2015/16 – 2019/20 Road Period. March 2015.

- (7) The draft Road Investment Strategy 2 (RIS2) for 2020-2025 refers to other government documents such as the 25 Year Environment Plan, Clean Air Strategy and Road to Zero strategy but has no specific carbon reduction requirements. Department for Transport.

- (8) At national level this includes government departments, non-departmental public bodies, arms-length agencies, boards, commissions and quasi government organisations. Bache I. et al. (2015) Blame Games and Climate Change: Accountability, Multi-Level Governance and Carbon Management.British Journal of Politics and International Relations,17, pp. 64–88.

- (9) Bache I. et al. (2015) Blame Games and Climate Change: Accountability, Multi-Level Governance and Carbon Management. British Journal of Politics and International Relations,17, pp. 64–88.

- (10) The targets were developed by the Tyndall Centre for Climate Research using science based evidence of how Greater Manchester and the City of Manchester can make a 'fair' contribution towards the commitment enshrined in the Paris Agreement.

Kuriakose J. et al. (2018) Quantifying the implications of the Paris Agreement for Greater Manchester. Report by the Tyndall Centre, March 2018; and Kuriakose J. et al. (2018) Quantifying the implications of the Paris Agreement for the City of Manchester. Appendix 2. Report by the Tyndall Centre, July 2018.

- (11) The City of Manchester's draft city-wide 2020-2038 framework was adopted in March 2019. A final plan is due by 2020. Manchester City Council (2019) Manchester Zero Carbon 2038 – Manchester City Council's Commitment. Head of City Policy Report for Resolution. March 2019.

- (12) Greater Manchester adopted a 5 year environment plan 2019-2014 at a Mayoral Green Summit in March 2019. Transport proposals include doubling the number of electric vehicle charging points; moving to an emissions-free bus fleet; and investing up to £50m per year for three years to transform cycling and walking in the city-region.

- (13) Sustainable Development Plan: Setting out the context for the growth and development of Manchester Airport: https://www.manchesterairport.co.uk/about-us/manchester-airport-masterplan/

- (14) 'Mode of transport used figures'. Page 40: https://www.caa.co.uk/uploadedFiles/CAA/Content/Standard_Content/Data_and_analysis/Datasets/Passenger_survey/2017CAAPaxSurveyReport.pdf
Manchester Airport
Private car    55.9%
Taxis          25.1%
Total          81%

- (15) 83.5% private vehicles. Source: Mode of transport used at the 2014 survey airports. Source: CAA Passenger Survey Report 2014, tables 7.1 and 7.2) https://publications.parliament.uk/pa/cm201516/cmselect/cmtrans/516/516.pdf

- (16) Airport Technology, 'Councils plan new multi-storey car park at Manchester Airport'. 11 February 2019: https://www.airport-technology.com/news/car-park-manchester-airport/

- (17) 'Getting the Department for Transport on the right track'. Lisa Hopkinson and Lynn Sloman, Transport for Quality of Life. 24 May 2019: https://policy.friendsoftheearth.uk/insight/getting-department-transport-right-track

- (18) The only objective in the 2018 DfT single departmental plan relevant to reducing carbon from road transport is: "(4.2) Ensure sustainability underpins future transport investment including promoting new technologies to reduce emissions." Department for Transport (2018) Single departmental plan. May 2018.

- (19) Highways England's aims and objectives are set for it by the Government in the Highways England Licence, which requires HE to 'calculate and consider the carbon impact of road projects and factor carbon into design decisions, and seek to minimise carbon Getting the Department for Transport on the right track - Friends of the Earth emissions and other greenhouse gases from its operations' but makes no reference to the need to reduce carbon emissions from traffic on the Strategic Road Network in order to meet the carbon budgets set by the Committee on Climate Change. Department for Transport (2015) Highways England: Licence. April 2015.

- (20) Despite contributing to increased car use and carbon emissions through planning, the Ministry of Housing, Communities and Local Government has nothing in its Single departmental plan about transport carbon.

- (21) Between 2008-2010 Local Authorities, as part of Local Strategic Partnerships (LSPs) were required to report on performance via national indicators, including three on climate change. These indicators included 'N186: per capita emissions of CO2 in a local area', which included emissions from surface transport. Two thirds of LSPs signed up to N186 and set targets to reduce emissions by 2011. Under the 2011 Localism Act indicators were abolished. Bache I. et al. (2015) Blame Games and Climate Change: Accountability, Multi-Level Governance and Carbon Management. British Journal of Politics and International Relations, 17, pp. 64–88.

- (22) Marsden G. and Groer S. (2016) Do institutional structures matter? A comparative analysis of urban carbon management policies in the UK and Germany, Journal of Transport Geography, 51, pp. 170-179.

- (23) More than Electric Cars: Why we need to reduce traffic to reach carbon targets. Briefing for Friends of the Earth. February 2019. Hopkinson L. and Sloman L. (2018)

- (24) 'Getting the Department for Transport on the right track'. Lisa Hopkinson and Lynn Sloman, Transport for Quality of Life. 24 May 2019: https://policy.friendsoftheearth.uk/insight/getting-department-transport-right-track

# 10. Chapter 5: Enhance the passenger experience

All passengers should have a positive experience of flying. The industry is responsive to the needs of consumers but improvements can be made for passengers with additional needs and when things go wrong. The government proposes to consult on a new Passenger Charter to promote good practice in the sector, create a shared understanding of the level of service that passengers should expect, and communicate roles and accountabilities clearly. The government proposes to take necessary action to improve the experience at the border and tackle problems cause disruptive passengers. It will also consider strengthening the Civil Aviation Authority's range of enforcement powers across the consumer agenda.

**The Aviation Strategy:**

- sets out the proposed standards that could be included as part of a new Passenger Charter for aviation

- sets out a range of new measures for passengers with additional needs

- outlines measures to tackle the problem of disruptive passengers associated with alcohol

- describes the government's approach to improving the operating model at the border to enhance the passenger experience

- details proposals for simplifying and improving complaints and compensation procedures

- sets out government proposals for ensuring that consumers have timely access to the information they need to make informed choices

**42. This section contains questions on chapter 5 of the consultation document - Enhance the passenger experience. Which of the following topic areas are of interest to you as an individual or to the organisation on behalf of which you are answering? (choose all relevant options)**

|  | Passenger charter |
|--|-------------------|
|  | Passengers with additional needs |
|  | Disruptive passengers and alcohol |
|  | Experience at the border |
|  | Delays, complaints and compensation |
|  | Airline failure |
|  | Booking information |

**43. To what extent does the proposed Passenger Charter adequately address the issues that are most important to passengers?**

**44. How should the operating model for border service be designed to improve the passenger experience?**

**Policy proposals**

The questions in the section below refer to policy proposals contained in chapter 5 of the consultation document - Enhance the passenger experience. As with the rest of this consultation, you are welcome to respond to any, all or none of the questions in this section.

**45. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?**

**46. How should the proposals described be prioritised, based on their importance and urgency?**

**47. What implementation issues need to be considered and how should these be approached? (e.g. resourcing challenges, high levels of complexity, process redesign, demanding timelines)**

**48. What are the financial burdens that need to be managed and how might those be addressed?**

**49. What are the regulatory burdens that need to be managed and how might these be addressed?**

**50. Are there any options or policy approaches that have not been included in this chapter that should be considered for inclusion in the Aviation Strategy?**

**51. Looking ahead to 2050, are there any other long term challenges which need to be addressed?**

**52. Are you aware of any relevant additional evidence that should be taken into account?**

|  | Yes (see following evidence page) |
|--|-----------------------------------|
|  | No (proceed to next section)      |

# 11. Enhance the passenger experience evidence

**53. Please give a brief summary of the additional evidence that you wish to provide.**

Comments:

# 12. Chapter 6: Ensure a safe and secure way to travel

The UK is a global leader in aviation security and safety, with one of the best and safest aviation systems in the world. The government and the CAA share knowledge and expertise with other nations, encouraging them to adhere to international standards and implement improvements with industry to make the skies safer for everyone.
In order to maintain the UK's safety record the Aviation Strategy focuses on:

- addressing concentrations of safety risks

- targeting emerging safety risks

- improving data and reporting

- addressing global variations in safety standards

In addition, through our Aviation Security Strategy, the government has committed to a major programme of work in partnership with industry to get ahead of the threat to aviation.

**54. This section contains questions on chapter 6 of the consultation document - Ensure a safe and secure way to travel. Which of the following topic areas are of interest to you as an individual or to the organisation on behalf of which you are answering? (choose all relevant options)**

|   | |
|---|---|
|   | General aviation safety |
|   | New business models |
|   | New technologies |
|   | Improving data and reporting |
|   | Responding to global variations in safety standards |
|   | UK driving global action on security |
|   | Cyber threat to aviation |
|   | Regulatory burden |
|   | Electronic conspicuity |

**55. To what extent do these proposals sufficiently address existing and emerging safety and security risks in order to maintain the business and passenger confidence in the UK industry and as a destination?**

**Policy proposals**

The questions in the section below refer to policy proposals contained in chapter 6 of the consultation document - Ensure a safe and secure way to travel. As with the rest of this consultation, you are welcome to respond to any, all or none of the questions in this section.

**56. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?**

**57. How should the proposals described be prioritised, based on their importance and urgency?**

**58. What implementation issues need to be considered and how should these be approached? (e.g. resourcing challenges, high levels of complexity, process redesign, demanding timelines)**

**59. What are the financial burdens that need to be managed and how might those be addressed?**

**60. What are the regulatory burdens that need to be managed and how might these be addressed?**

**61. Are there any options or policy approaches that have not been included in this chapter that should be considered for inclusion in the Aviation Strategy?**

[ ]

**62. Looking ahead to 2050, are there any other long term challenges which need to be addressed?**

[ ]

**63. Are you aware of any relevant additional evidence that should be taken into account?**

|   | Yes (see following evidence page) |
|---|---|
|   | No (proceed to next section) |

# 13. Safety and security evidence

**64. Please give a brief summary of the additional evidence that you wish to provide.**

Comments:

# 14. Chapter 7: Support general aviation

The General Aviation (GA) sector covers non-scheduled civil aviation. It includes, amongst other things, business jets, aerial photography, pilot training, emergency service flights and air displays as well as private flying. The aircraft involved include single and multi-engine fixed wing aeroplanes, helicopters, gliders, balloons, microlights, paragliders and model aircraft. The Aviation Strategy sets out how the government proposes to enable, facilitate and encourage growth in GA, and indicates where it thinks that the GA sector itself should seize the initiative and capitalise on those opportunities. It focuses on:

- how the government proposes to reduce regulation

- the government's proposals for a strategic network

- support for new and existing commercial activities

- airspace

- safety

- safeguarding of aerodromes

65. This section contains questions on chapter 7 of the consultation document - Support general aviation. Which of the following topic areas are of interest to you as an individual or to the organisation on behalf of which you are answering? (choose all relevant options)

| | |
|---|---|
| | Reducing regulatory burden |
| | General aviation (GA) strategic network |
| | Airspace |
| | Safety |
| | Training and skills |
| | Safeguarding |
| | Environmental impact |
| | Refreshing the GA strategy |

**66. To what extent do these proposals strike the right balance between the needs of general aviation and the rest of the aviation sector?**

**Policy proposals**

The questions in the section below refer to policy proposals contained in chapter 7 of the consultation document - Support general aviation. As with the rest of this consultation, you are welcome to respond to any, all or none of the questions in this section.

**67. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?**

**68. How should the proposals described be prioritised, based on their importance and urgency?**

**69. What implementation issues need to be considered and how should these be approached? (e.g. resourcing challenges, high levels of complexity, process redesign, demanding timelines)**

**70. What are the financial burdens that need to be managed and how might those be addressed?**

**71. What are the regulatory burdens that need to be managed and how might these be addressed?**

**72. Are there any options or policy approaches that have not been included in this chapter that should be considered for inclusion in the Aviation Strategy?**

**73. Looking ahead to 2050, are there any other long term challenges which need to be addressed?**

**74. Are you aware of any relevant additional evidence that should be taken into account?**

| | |
|---|---|
| | Yes (see following evidence page) |
| | No (proceed to next section) |

# 15. General aviation evidence

**75. Please give a brief summary of the additional evidence that you wish to provide.**

Comments:

# 16. Chapter 8: Encourage innovation and new technology

Innovation is key to delivering the outcomes of the Aviation Strategy. The government recognises the important role that technological advances and new business models play in economic growth, especially in industries such as aviation and aerospace.

The government wants to capture the benefits of innovation for consumers, by unlocking mobility and offering new options on how people and goods can move around; and for the aerospace and aviation sectors, to maintain the UK's global leadership, help support jobs, increase productivity, and boost our trade and export capabilities.

**The Aviation Strategy:**

- sets out some of the main areas of opportunity for innovation in aviation automation, electrification and digitalisation and data sharing

- identifies some of the barriers to innovation and how these can be addressed by government in its enabling role, working in partnership with the sector

- proposes measures to better align policy and investment

76. This section contains questions on chapter 8 of the consultation document - Encourage innovation and new technology. Which of the following topic areas are of interest to you as an individual or to the organisation on behalf of which you are answering? (choose all relevant options)

|  | Automation |
|---|---|
|  | Electrification |
|  | Digitalisation and data sharing |
|  | Agile regulation |
|  | Public acceptance of emerging technology |
|  | Anticipating future developments |
|  | Aerospace sector deal |
|  | Improving cross government working |

**77. To what extent are the government's proposals for supporting innovation in the aviation sector the right approach for capturing the potential benefits for the industry and consumers?**

**78. Do the proposals in this chapter sufficiently address the barriers to innovation?**

**Policy proposals**

The questions in the section below refer to policy proposals contained in chapter 8 of the consultation document - Encourage innovation and new technology. As with the rest of this consultation, you are welcome to respond to any, all or none of the questions in this section.

**79. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?**

**80. How should the proposals described be prioritised, based on their importance and urgency?**

**81. What implementation issues need to be considered and how should these be approached? (e.g. resourcing challenges, high levels of complexity, process redesign, demanding timelines)**

**82. What are the financial burdens that need to be managed and how might those be addressed?**

**83. What are the regulatory burdens that need to be managed and how might those be addressed?**

**84. Are there any options or policy approaches that have not been included in this chapter that should be considered for inclusion in the Aviation Strategy?**

**85. Looking ahead to 2050, are there any other long term challenges which need to be addressed?**

**86. Are you aware of any relevant additional evidence that should be taken into account?**

| | Yes (see following evidence page) |
|---|---|
| | No (proceed to next section) |

# 17. Technology evidence

**87. Please give a brief summary of the additional evidence that you wish to provide.**

Comments:

# 18. Technical annexes

**Thank you for completing the response to the consultation.**

**There are some additional questions on technical aspects of the strategy:**

Annex A: Legislation to enforce the development of airspace change proposals

Annex D: Proposed Public Service Obligation (PSO) assessment criteria

**Anyone can respond to these questions, however due to their technical nature, they are likely to only be of interest to subject matter experts.**

**88. Do you want to answer the questions on the technical annexes?**

| | |
|---|---|
| | Yes (Go to Annexe A) |
| | No (you have finished the questionnaire) |

# 19. Annex A: Legislation to enforce the development of airspace change proposals

This section contains questions on Annex A of the aviation strategy - Legislation to enforce the development of airspace change proposals.

You will need to download a copy of the annexe from GOV.UK in order to respond to these questions.

You can find the annexe on this page - https://www.gov.uk//government/consultations/aviation-2050-the-future-of-uk-aviation

**89. Should government legislate for powers to direct individual ACPs identified as necessary in a masterplan to be taken forward?**

**90. What are your views on the above two proposals?**

**91. Do you agree that option a) should be the lead option?**

- [ ] Yes
- [ ] No
- [ ] Don't know

Comments:

**92. What are your views on the scope for the use of the powers?**

**93. What are your views on the use of the triggers for using the legislative powers?**

**94. What are your views on the proposed sanctions and penalties regime?**

**95. The government proposes that the airport/ANSP would be able to appeal in relation to the following matters: the validity or terms of an enforcement order the imposition of a financial penalty the timing of the payment of a penalty the amount of the penalty What are your views on the grounds for appeals?**

**96. What are your views on the best approach to funding an airspace change where a small airport may need financial support to do so?**

# 20. Annex D: Proposed Public Service Obligation (PSO) assessment criteria

This section contains a question on Annex D of the aviation strategy - Proposed Public Service Obligation (PSO) assessment criteria.

You will need to download a copy of the annexe from GOV.UK in order to respond to these questions.

You can find the annexe on this page - https://www.gov.uk//government/consultations/aviation-2050-the-future-of-uk-aviation

**97. The government is proposing a new two-stage process for assessing PSO applications:\* stage 1 – prerequisite criteria\* stage 2 – proposed full criteriaPlease review the details of these criteria in the Annex D document, and state below if you think they are the right criteria to judge PSO proposals against.**

# Return this questionnaire

Email to:

AviationStrategy@dft.gov.uk

Post it to:


Aviation Strategy,
Department for Transport,
33 Horseferry Road,
London,
SW1P 4DR