



## Public Document Pack

# Uttlesford District Council

Chief Executive: Dawn French

## Cabinet

**Date:** Thursday, 13th June, 2019

**Time:** 7.15 pm

**Venue:** Council Chamber - Council Offices, London Road, Saffron Walden, CB11 4ER

**Leader and Chair:** Councillor J Lodge

**Members:** Councillors A Armstrong, H Asker, D Eke, P Fairhurst, A Gerard, N Hargreaves, P Lees, B Light and L Pepper

**Other attendees:** Councillors S Barker (Conservative Group Leader), A Dean (Liberal Democrat Group Leader) and R Pavitt (Uttlesford Independent Group Leader); Neil Gregory (Chair of Scrutiny Committee) and E Oliver (Chair of Governance, Audit and Performance Committee)

### Public Speaking

At the start of the meeting there will be an opportunity of up to 15 minutes for members of the public to ask questions and make statements subject to having given notice by 12 noon two working days before the meeting. A time limit of 3 minutes is allowed for each speaker. Please refer to further information overleaf.

## AGENDA PART 1

### Open to Public and Press

#### **1 Apologies for Absence and Declarations of Interest**

To receive any apologies for absence and declarations of interest.

#### **2 Minutes of the Previous Meeting**

5 - 10

To consider the minutes of the previous meeting.

**3 Questions or Statements from Non-Executive Members of the Council (standing item)**

To receive questions or statements from non-executive members on matters included on the agenda.

**4 Matters Referred to the Executive by the Scrutiny Committee or by the Council (standing item)**

To consider matters referred to the Executive for reconsideration in accordance with the provisions of the Overview and Scrutiny Procedure Rules or the Budget and Policy Framework Rules.

**5 Consideration of reports from overview and scrutiny committees (standing item)**

To consider any reports from the Scrutiny Committee.

**6 Report of Delegated Decisions taken by Cabinet Members (standing item)**

To receive for information any delegated decisions taken by Cabinet Members since the previous Cabinet meeting.

**7 Report on assets of community value determined by the Assets of Community Value and Local Heritage List Committee (standing item)**

To receive for information any decisions made by the Assets of Community Value and Local Heritage List Committee since the previous Cabinet meeting.

**8 Cabinet Working Groups 11 - 18**

To consider appointments to Cabinet Working Groups.

**9 Appointments to Outside Bodies 19 - 20**

To consider the appointment of representatives to Outside Bodies.

**10 Appointments to North Essex Parking Partnership**

To consider the appointment of Councillor Eke as representative to the North Essex Parking Partnership, and Councillor Armstrong as substitute member.

**11 Appointments to the Assets of Community Value and Local Heritage List Committee**

To consider the appointments of Councillors Gerard, Light and Lees as members of the Assets of Community Value and Local Heritage List Committee.

**12 Appointments to West Essex Wellbeing Joint Committee**

To consider the appointments of Councillors Lees and Tayler as members of the West Essex Wellbeing Joint Committee.

**13 Appointments to the Voluntary Support Grants Committee**

To consider the appointments of Councillors Hargreaves, Lees and Lodge as members of the Voluntary Support Grant Committee.

**14 Aviation 2050: The future of UK aviation. A consultation** 21 - 244

To consider the report 'Aviation 2050: The future of UK aviation. A consultation'.

**15 Land and road at Parkers in Berden** 245 - 250

To consider the 'Land and road at Parkers, Berden' report.

**16 Elmdon Village Design Statement** 251 - 292

To consider the Elmdon Village Design Statement.

**17 Asset of Community Value Nominations in Felsted** 293 - 298

To consider the Asset of Community Value nominations in Felsted.

**18 Garden Communities Delivery Member Governance Board Update September 2018 – May 2019** 299 - 316

To receive an update on the activity of the Garden Communities Delivery Member Governance Board between September 2018 and May 2019.

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The agenda is split into two parts. Most of the business is dealt with in Part I which is open to the public. Part II includes items which may be discussed in the absence of the press or public, as they deal with information which is personal or sensitive for some other reason. You will be asked to leave the meeting before Part II items are discussed.

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# Agenda Item 2

**CABINET held at COUNCIL CHAMBER - COUNCIL OFFICES, LONDON ROAD, SAFFRON WALDEN, CB11 4ER, on THURSDAY, 28 FEBRUARY 2019 at 7.00 pm**

Present: Councillor H Rolfe (Chairman)  
Councillors S Barker, S Howell, V Ranger and H Ryles

Officers in attendance: D French (Chief Executive), B Ferguson (Democratic Services Officer), F Gardiner (Communities Manager), R Harborough (Director - Public Services), A Knight (Assistant Director - Resources), F Marriage (Senior Health Improvement Officer), S Pugh (Assistant Director - Governance and Legal) and A Webb (Director - Finance and Corporate Services)

Also present: J Lodge (Residents for Uttlesford Group Leader)

## CA80 **APOLOGIES FOR ABSENCE AND DECLARATIONS OF INTEREST**

Apologies for absence were received from Councillors Dean and Redfern.

Councillor Barker declared a non-pecuniary interest in relation to item 12 as the land was situated in her ward.

## CA81 **MINUTES OF THE PREVIOUS MEETING**

The minutes of the previous meeting were approved and signed by the Chairman as a correct record.

## CA82 **BUDGET MONITORING QTR 3 - FORECAST OUTTURN 2018/19**

The Portfolio Holder for Finance and Administration summarised the report detailing financial performance relating to the General Fund, Housing Revenue Account (HRA), Capital Programme and Treasury Management for quarter 3 of 2018/19.

The following points were highlighted:

- The General Fund forecasted an £858,000 underspend due to a reduced requirement for capital financing in year and increased Business Rates income.
- The HRA forecasted an overall budget deficit of £132,000.
- The Capital Programme forecasted an actual underspend of £243,000.

In response to a Cabinet member's question relating to the Council's commercial subsidiary, Aspire, the Portfolio Holder for Finance and Administration said the investment at Chesterford Research Park had contributed significantly to the

Council's income, and the return was higher than forecasts had projected. He said Council expenditure could not be maintained without the additional income generated by the investment.

RESOLVED to approve the outturn forecast and the updated reserves position in relation to the General Fund, Housing Revenue Account, Capital Programme and Treasury Management.

**CA83      UTTLIESFORD HEALTH & WELLBEING STRATEGY 2019-2022**

The Portfolio Holder for Communities and Partnerships summarised the report outlining Uttlesford's Health and Wellbeing Strategy 2019-22, a refreshed version of the original Strategy, which had been produced in collaboration with the Local Strategic Partnership (LSP). The primary change incorporated in the refreshed Strategy related to the "planning for healthy communities" objective which dovetailed with the emerging Local Plan and proposed Garden Communities. By updating the Strategy, the Communities Team could interact with planners and developers in order to shape the delivery plans of these developments, and ensure Uttlesford's health and wellbeing priorities had been taken into account.

The Portfolio Holder for Finance and Administration welcomed the Strategy and said it was necessary to be aware of challenges such as those faced by elderly residents of his ward, where trip hazards and fuel poverty were a real concern.

In response to a Member question relating to the data from the 2011 census, the Senior Health Improvement Officer said public health data would be refreshed in cases where it could be, although the majority of data cited in the Strategy was as up-to-date as possible.

The Chairman thanked the Communities team for their work and said that the health and well-being of Uttlesford residents was centric to the Council's agenda.

RESOLVED to endorse and support the Uttlesford Health & Wellbeing Strategy, attached to the report, to be implemented with effect from 1st March 2019.

**CA84      CHANGES TO THE CONSTITUTION OF THE POLICE, FIRE AND CRIME PANEL FOR ESSEX**

The Portfolio Holder for Environmental Services presented the report outlining changes to the Constitution of the Police, Fire and Crime Panel for Essex. The Constitution primarily required updating to include the new functions of the panel regarding the fire service, although arrangements had also been refreshed to reflect best practice learnt over the first six years of its existence. The changes proposed to the Constitution required approval by all fifteen local authorities in the Essex police area.

RESOLVED to:

- i) Agree the Essex Police, Fire and Crime Panel arrangements as stated at Appendix 1 to the report.
- ii) Note that the rules of procedure at Appendix 1 to the report will be adopted by the Panel and do not form part of the Panel Arrangements.

**CA85      AUDIOMINUTES – RECORDING OF MEETINGS**

The Portfolio Holder for Finance and Administration summarised the report that sought the extension in use of Audiominutes, software which allowed the Council to record and broadcast meetings of the Council, to Scrutiny, Governance, Audit and Performance, Standards and the Licensing & Environmental Health Committee, following a request from the Chairman of Scrutiny at Cabinet on 10 January 2019. Meetings which dealt with individual cases, such as Licensing and Standards hearings, and confidential agenda items, would be exempt from broadcasting.

In response to a question from Councillor Lodge, the Director – Finance and Corporate Services said problems regarding the live broadcast ‘dropping out’ were related to the broadband signal, not the use of Audiominutes itself.

Councillor Lodge said the broadband service in the Council’s meeting rooms needed to be improved.

RESOLVED to approve the use of the Audiominutes recording system for meetings of Scrutiny, Governance Audit and Performance, Licensing and Environmental Health and Standards Committee meetings, except where business is of a confidential nature or is exempt from publication.

**CA86      LAND AT THE REAR OF 3 HOLLOWAY CRESCENT, LEADEN RODING**

The Portfolio Holder for Environmental Services summarised the report. The land in question had been sold by the Council under “right to buy” and planning permission had been given to develop part of the plot. As the plot was bounded by a Council-owned strip of land, the landowner had requested the granting of a right of way to enable access to the development site.

RESOLVED that Cabinet gives authority for Officers to negotiate and agree the terms of the proposed easement, subject to prior payment by the owner of the valuation fee.

**CA87      CORPORATE PLAN DELIVERY PLAN 2019/20**

The Chairman presented the Corporate Plan Delivery for 2019/20. As there would be a new council in May 2019, the delivery plan had been updated, but not significantly reworked, to provide continuity into the new municipal year.

He said the Corporate Plan priorities were:

- i) Promote thriving, safe and healthy communities
- ii) Protect and enhance heritage and character
- iii) Support sustainable business growth
- iv) Maintain a financially sound and effective Council

Underpinning these priorities were three themes that were embedded in the way the Council delivered its services:

- i) To manage and minimise the environmental impact of Council activities
- ii) To maximise the use of digital and SMART technology to enhance wellbeing
- iii) To demonstrate the Council's commitment to diversity and inclusion

The Portfolio Holder for Finance and Administration congratulated officers for their work contributing to the Saffron Walden Castle restoration project.

RESOLVED to approve the Corporate Plan Delivery Plan 2019/20 as set out in Appendix A to the report.

**CA88 EXCLUSION OF PRESS AND PUBLIC**

RESOLVED to exclude the press and public on the grounds that the report contained exempt information within the meaning of section 100I and paragraph 3 part 1 Schedule 12A Local Government Act 1972.

**CA89 PURCHASE OF DEVELOPMENT SITE GREAT CHESTERFORD BY THE HOUSING REVENUE ACCOUNT**

The Portfolio Holder for Communities and Partnerships summarised the report. He informed Cabinet that an opportunity had arisen to purchase a development site in Great Chesterford using the HRA which would increase the Council's housing stock. The purchase of the site would be funded from a mixture of Right to Buy receipts, which had to be used within a specific timeframe, and Council borrowing.

RESOLVED to:

- i) Approve the purchase by the HRA of the development site in Great Chesterford for the asking price, subject to satisfactory surveys and an independent valuation confirming this to be a fair price for the site.
- ii) Authorise the Assistant Director of Housing, Health and Communities to settle the final price and terms for the proposed purchase after consultation with the Housing Portfolio Holder.

The meeting ended at 7.35pm.

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## CABINET WORKING GROUPS 2019/20

Name of Group	Terms of reference	No of Members	Lead Officer	Proposed Membership
Community Achievement Panel	To oversee the organisation of the Community Achievement Awards scheme and make recommendations on the recipients of those awards.	5	Sue Hayden	H Asker M Caton P Lees (Chair) M Sutton <b>Vacancy</b>
Garden Communities Delivery Member Governance Board	<p>To act as a 'reference panel' and give advice, views and guidance to Cabinet members and Council officers in progressing the delivery of proposed Garden Communities within the district, including commercial and investment opportunities for the District Council. The Board will act as a panel for enabling contributions, discussion and the sharing of information.</p> <p>An important part of the role of the Board will be to oversee discussions and negotiations with landowners and promoters of the new communities and the Board will meet in private to allow discussion about commercially sensitive information. It will also act as a 'sounding board' for innovative ideas.</p> <p>The Board will not have any decision making powers and will not replace any of the established functions of the standing committees of the Council. The Board will have the power to invite</p>	7 + the Deputy Leader of ECC	Dawn French	C Criscione A Dean J Evans J Lodge A Storah M Sutton R Pavitt

Name of Group	Terms of reference	No of Members	Lead Officer	Proposed Membership
	<p>representatives of other organisations to attend the panel.</p> <p><b>Objectives:</b></p> <p>The objectives of the Board will be:</p> <ul style="list-style-type: none"> <li>• to take a strategic view about the potential delivery of the Garden Communities over and beyond the period of the local plan;</li> <li>• promote the delivery of Garden Communities that will be provided in compliance with the Town and Country Planning Association garden city principles,</li> <li>• to promote the new Garden Communities as exemplars of 21<sup>st</sup> Century living providing well designed and well built homes, high quality employment services; and good quality facilities to meet the needs of residents and business;</li> <li>• to advocate a high quality of place and high quality of life in both the new and existing communities in the district with long term management and stewardship arrangements; and that community engagement forms a central element in the</li> </ul>			

Name of Group	Terms of reference	No of Members	Lead Officer	Proposed Membership
	<p>delivery of the Garden Communities; and</p> <ul style="list-style-type: none"> <li>to help facilitate both environmental and economic sustainability for the new Garden Communities; and to support the economic development objectives of the District Council for the district and the sub region.</li> </ul>			
Highways Panel	<p><b>The LHP is Accountable for:</b>  Recommending the annual LHP programme for submission to the Cabinet Member with responsibility for Local Highway Panels.  Documenting highways issues raised by residents and the community in its area, so that the concerns can be investigated and the possibility of addressing these through engineering solutions can be validated.</p> <p><b>The LHP is Responsible for:</b>  Ensuring that when making recommendations the LHP:  Ensures that the County's Prioritised Road Safety Schemes are included in the annual LHP programme in order to enable the County Council to fulfil its statutory duty.  Ensures that as far as possible</p>	4 + 4 County members	Rissa Long ECC	H Asker G Driscoll R Jones G Sell

Name of Group	Terms of reference	No of Members	Lead Officer	Proposed Membership
	<p>that recommended schemes meet ECC policies, strategies and standards and have due regard to the advice from Officers.</p> <p>Recommending work to be undertaken by the Highway Rangers and receive reports of the minor works to be undertaken by the Highway Rangers.</p> <p>Monitoring the delivery of the annual LHP programme.</p> <p>Considering and respond to any requests referred to the LHP by other council constituted bodies, panels or groups.</p> <p>The membership consists of the four county councillors representing county divisions within Uttlesford and four district councillors.</p> <p>Meetings are held quarterly and the quorum is three as long as either the Chairman or Vice-Chairman is present.</p> <p>Meetings are not open to the public other than by specific invitation of the Chairman, although written questions may be submitted for consideration. The person submitting the question may be invited to attend to receive an answer orally.</p>			

Name of Group	Terms of reference	No of Members	Lead Officer	Proposed Membership
Housing Board	<ol style="list-style-type: none"> <li>1. Inform on and monitor the performance and delivery of all Council housing related strategies and policies</li> <li>2. Monitor housing related performance indicators</li> <li>3. Inform on and monitor the Council's Housing</li> <li>4. Monitor the Council's Housing Revenue Account</li> <li>5. Monitor and inform on the delivery of affordable housing units in the District</li> <li>6. Consider the use of existing housing stock and other housing assets</li> </ol>	10 + 2 tenant reps	Roz Millership	A Armstrong A Coote A Dean A Gerard A Khan P Lees (Chair) M Lemon S Merifield N Reeve <b>Vacancy</b>
Museum Management Working Group	<ol style="list-style-type: none"> <li>1. The Group shall comprise the Cabinet Member with responsibility for the Museum Service and three further members and four directors of the Society.</li> <li>2. The Museum Curator shall attend all meetings of the Group in an advisory capacity and in accordance with the requirements of the national Accreditation Scheme for museums or any replacement thereof.</li> <li>3. Meetings shall normally be held in private and the Council shall meet the costs of all MMWG meetings and be responsible for the taking of minutes at such meetings.</li> <li>4. The Group is to meet a minimum of four times in a year in order to:-               <ol style="list-style-type: none"> <li>i. Receive a quarterly report from the Museum Curator about the Museum Service.</li> </ol> </li> </ol>	5	Richard Auty	P Lavelle B Light G Sell (Chair) <b>Vacancy</b> <b>Vacancy</b>

Name of Group	Terms of reference	No of Members	Lead Officer	Proposed Membership
	<ul style="list-style-type: none"> <li>ii. Agree and recommend to the Council and the Society the provision of the Uttlesford Museum Service and the Museum Service strategic objectives and long term plans</li> <li>iii. Discuss matters and make recommendations to the Council and the Society on matters relating to the management of the Museum Service where a decision needs to be taken or an action needs to be ratified by the Council and/or the Society including the purchase or disposal of objects and the loan of objects to other museums</li> <li>iv. Act as the Museum's governing body for the purpose of the Accreditation scheme and implementation of appropriate codes of practice</li> <li>v. Appoint from the Group the Council's representative to attend at and report on any relevant meetings of other organisations as determined by the Group</li> <li>vi. Invite representatives of other Uttlesford museums and public galleries to attend a meeting of the Group if necessary or appropriate to the matters under discussion</li> <li>vii. Recommend to the Council hours of opening to the public and the admission charges to be levied on all users of the Museum having regard to promoting</li> </ul>			

Name of Group	Terms of reference	No of Members	Lead Officer	Proposed Membership
	<p>accessibility of the Museum and social inclusion and any requirements imposed on the Museum Service by other agencies.</p> <p>viii. Where appropriate make recommendations to the Society and/or the Council concerning alterations to the interior or exterior of the Museum building major projects capital developments and any other significant proposals affecting the Museum</p> <p>ix. Generally promote and act as advocates for the Museum</p>			
Planning Policy Working Group	To give advice and guidance to officers in progressing the Local Plan and other planning guidance and report recommendations to Cabinet. This Working Group will meet in public and include public speaking.	10	Gordon Glenday	C Criscione C Day A Dean J Evans N Hargreaves P Lees J Lodge (Chair) J Loughlin A Storah R Pavitt
Stansted Airport Advisory Panel	<p>1) Form an overview of policy and operational issues in relation to Stansted</p> <p>2) Monitor the activities of the airport in the interests of the people of the district.</p> <p>3) Monitor the implementation of Section 106 agreements and related undertakings by MAG and others</p>	10	Roger Harborough	M Caton A Dean D Eke P Fairhurst M Foley V Isham G LeCount

<b>Name of Group</b>	<b>Terms of reference</b>	<b>No of Members</b>	<b>Lead Officer</b>	<b>Proposed Membership</b>
	4) Review and anticipate future developments at the airport and in aviation policy.			M Lemon S Luck N Reeve
Waste Strategy Panel	To monitor the implementation of the waste strategy and the inter authority agreement between collection and disposal authorities. To consider the need for review of policies and procedures, and enable members to contribute to resolution of recycling and street cleansing service delivery issues.	5	Ben Brown	R Freeman R Jones (Chair) L Pepper E Oliver M Tayler

## PROPOSED REPRESENTATIVES ON OUTSIDE BODIES 2019/20

Organisation	Number	Representative (s)
Armed Forces and Community Covenant	1	Rod Jones
Birchanger Wood Management Committee	1	Melvin Caton
Board of Turpins Indoor Bowling Club	1	Paul Fairhurst
Campaign to Protect Rural Essex	1	Louise Pepper
Committee of the Friends of the Maltings	1	Patrick Lavelle
Cooperation for Sustainable Development Board	1	Sandi Merifield
Council for Voluntary Service – Uttlesford	1	Sandi Merifield
Dunmow Day Centre Management Cttee	1	Alex Armstrong
Dunmow Museum Management Cttee	1	Rod Jones
Dunmow Town Strategy Group/Town Team	1	Colin Day
Essex County Health Overview and Scrutiny Committee	1	Mike Tayler
Essex County Strategic Partnership	1	John Lodge
Essex County Traveller Unit	1	Colin Day
Essex Flood Partnership Board	1	Neil Reeve
Essex Waste Partnership Board	1	Patrick Lavelle
Friends of Bridge End Gardens	1	Richard Freeman
Historic England Heritage Champion	1	Geoffrey Sell
Local Government Association - General Assembly	1	Anthony Gerard
LGA - Rural Community Partnership	1	Maggie Sutton
LGA – SPARSE Rural Assembly		John Evans
London Stansted Cambridge Consortium	1	John Lodge
Parking and Traffic Regulation outside London Adjudication Committee	1	Geof Driscoll
Saffron Walden Arts Trust	1	Paul Fairhurst
Saffron Walden Business Improvement District (SW BID)	1	James de Vries
Saffron Walden Museum Society	1	Barbara Light
Stansted Airport Community Trust	1	Marie Felton
Stansted Airport Consultative Committee	1	Neil Reeve
Stansted Day Centre Management Committee	1	Geoffrey Sell
Strategic Aviation Special Interest Group	1	Neil Reeve
Thaxted Guildhall Management Cttee	1	Mike Tayler
Uttlesford Association of Local Councils	1	Christian Criscione
Uttlesford Carers	1	Petrina Lees
Uttlesford Citizens' Advice Bureau	1	Richard Freeman
Uttlesford Community Travel	1	Geoffrey Sell
Uttlesford Futures	1	John Lodge
Uttlesford Over Sixties Association	1	Neil Hargreaves
Uttlesford Transport Forum	4	Richard Freeman, Deryk Eke, Mark Lemon & Garry LeCount
West Essex Alliance	1	Alex Armstrong
West Essex Transportation Board	1	Geof Driscoll

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<b>Committee:</b>	Cabinet	<b>Date:</b>	Thursday, 13 June 2019
<b>Title:</b>	Aviation 2050: The future of UK aviation. A consultation		
<b>Portfolio Holder:</b>	Councillor Deryk Eke, Infrastructure, Transport and Stansted Airport		
<b>Report Author:</b>	Jeremy Pine, Senior Planning Policy Officer jpine@uttlesford.gov.uk	<b>Key decision:</b>	No

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## Summary

1. This report is about the Council's response to HM Government's (HMG) consultation on the Aviation Strategy Green Paper (ASGP) entitled "Aviation 2050: The future of UK aviation". The report contains some explanatory text and sets out how the consultation is structured. The suggested response is based around the strategic themes set out in the ASGP.
2. The report firstly comments briefly on the latest report from the Committee on Climate Change (CCC) entitled "Net Zero – The UK's contribution to stopping global warming" which was published on 2<sup>nd</sup> May 2019. The reason for commenting on this first is ease of reference later on.

## Recommendations

3. Cabinet considers the response to the ASGP that is set out in the report and suggests any extra points or amendments that it thinks are appropriate.
4. Officers send the Council's response to HMG.

## Financial Implications

5. None

## Background Papers

6. None.

## Impact

- 7.

Communication/Consultation	The consultation is being carried out by HMG, and runs until 20 <sup>th</sup> June, having been
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	<p>extended from 11<sup>th</sup> April, mainly so that respondees can consider the latest report from the CCC.</p> <p>Questions relating to Annex A of the ASGP (Legislation to enforce the development of airspace change proposals) were still subject to the 11<sup>th</sup> April deadline, which was during the pre-election period. An officer-level response to Annex A was sent.</p>
Community Safety	Considered by HMG
Equalities	Considered by HMG
Health and Safety	Considered by HMG
Human Rights/Legal Implications	Considered by HMG
Sustainability	Considered by HMG
Ward-specific impacts	Districtwide, but wards closest to the airport are the most affected by airport and airport related activity.
Workforce/Workplace	Officer and Member time in preparing and considering this report and in formulating the Council's response.

## Situation

### The CCC report of 2<sup>nd</sup> May 2019

8. The CCC is an independent statutory body established under the Climate Change Act 2008. Its purpose is to advise HMG and the devolved administrations on emissions targets and to report to Parliament on progress made in reducing greenhouse gas emissions and preparing for climate change. The CCC report is published against the current legislative background contained in the 2008 Act, which is to reduce economy-wide greenhouse gas emissions in 2050 by at least 80% from 1990 levels. The present planning assumption underpinning the fifth carbon budget (2028-2032) is that UK aviation emissions in 2050 should be around their 2005 level, i.e. 37.5MtCO<sub>2</sub>e with other sectors of the UK economy reducing emissions by 85% from 1990 levels. The 2050 economy-wide target was derived as a contribution to a global emissions path aimed at keeping global temperatures to around 2°C above pre-industrial levels.
9. The Paris Agreement, which the UK ratified in November 2016, went a stage further. It provided for a firm international commitment to restricting global

temperatures to well below 2°C and to pursue efforts to limit it to 1.5°C. To achieve this aim, the Agreement additionally sets a target for net zero global emissions in the second half of the century. The CCC's response at that time was not to recommend that the UK target or budgets be changed because they were already stretching and ambitious compared to those of other countries, but rather to focus on meeting them and open up options to reach net zero emissions.

10. The CCC report takes things to yet a further stage. In its "Further Ambition" scenario, the CCC recommends that HMG should amend UK legislation to commit to net zero greenhouse gas emissions by 2050, including international aviation and shipping. The CCC also recommends that international aviation emissions should be formally included in the sixth carbon budget (2033-2037). This is unlike in earlier budgets where headroom was made for them, but no formal requirement was put on the aviation industry to limit its emissions.
11. A net zero emissions target is proposed by the CCC because some activities such as aviation will still be producing emissions in 2050. The Further Ambition scenario predicts 31MtCO<sup>2</sup> of aviation emissions in 2050 which would need to be removed from the atmosphere by processes such as carbon capture, paid for by the aviation industry. The CCC says that the aim should be to meet the target through UK domestic effort. International carbon units (credits) should not be relied on, and their use should only be as a contingency. In the June 2018 "Beyond the horizon" document (see para 14 of this report), HMG currently predicts 40.8MtCO<sup>2</sup>e in 2050 assuming the third runway at Heathrow is constructed and "best use" is made of other UK airport runways. The 37.5MtCO<sup>2</sup>e planning assumption would be met either by carbon trading in one scenario, or in a carbon capped scenario by such things as more efficient ground movements and use of renewable fuels.
12. The CCC states that the 25% reduction to 31MtCO<sup>2</sup> from 40.8MtCO<sup>2</sup> will require more action on fuels and efficiency, and also measures to manage growth in demand. The Further Ambition scenario allows for a 60% growth in passenger demand by 2050 compared to 2005 (25% from now), but this is reduced from 90% in a business as usual case. New policies will therefore be needed to manage growth in demand, which could include carbon pricing, reforms to Air Passenger Duty (APD) or policies to manage the use of airport capacity. Following recent research by the Department for Transport (DfT), it is not anticipated that demand restraint policies would lead to carbon leakage from the UK to other countries given the relatively small amount of emissions affected.
13. The CCC now intends to write to the Secretary of State to set out the implications of the recommendations in its report on the ASGP. This letter is awaited. It is not clear whether this letter will be issued during the ASGP consultation period. If the implications turn out to be significant, the Council should ask HMG to reconsider the provisions of the ASGP and reopen the consultation.

Background

14. In December of last year, HMG published the ASGP entitled “Aviation 2050: The future of UK aviation”. The ASGP must be read alongside the Airports National Policy Statement (ANPS) which was designated in June 2018 and which provides the primary policy basis for decision making on development consent applications for a third runway at Heathrow. Also in June 2018, HMG published “Beyond the horizon: The future of UK aviation – Making best use of existing runways” policy statement. That document sets out support for airports beyond Heathrow making best use of their existing runways subject to local planning authorities taking careful account of economic and environmental impacts and proposed mitigation when determining planning applications.
15. Alongside the ASGP, a number of background documents have been published. These include a feasibility study into airspace modernisation by National Air Traffic Services (NATS) and a subsequent Civil Aviation Authority (CAA) assurance report. Also published is what HMG describes as the most comprehensive aviation noise forecast ever undertaken in the UK.
16. The Strategic Aviation Special Interest Group (SASIG) will be responding to the ASGP consultation on behalf of the Local Government Association. The Council is a member of SASIG. SASIG is currently working on its response.

#### The ASGP consultation

17. HMG has devised an on-line questionnaire, but there is also a response form which can be emailed or sent by post. Each strategic theme of the ASGP has seven generic questions and some additional questions as well, but there is also the opportunity to add additional evidence / comment.
18. It is suggested that the Council’s response should be mainly based around the second and third strategic themes whilst still acknowledging that the others are important. It is further suggested that the Cabinet concentrates on the points that it wishes to include in the Council’s response, leaving officers to decide upon the best response format.

#### Outline of the ASGP

19. The ASGP is pro-growth, and sets out HMG’s vision for aviation growth to 2050 and its proposals for achieving this. HMG predicts that UK passenger numbers will grow from 284 million in 2017 to 435 million in 2050, and argues that if the UK can take advantage of this growth it will boost the economy.
20. The ASGP is built around six objectives which were defined at an earlier stage, starting with a call for evidence in July 2017 to which the Council responded. The six objectives remain unchanged and are:

- Help the aviation industry work for its customers
- Ensure a safe and secure way to travel
- Build a global and connected Britain
- Encourage competitive markets
- Support growth while tackling environmental impacts
- Develop innovation, technology and skills

21. HMG says that the motivation behind the ASGP is competitiveness, being a leader in the aviation sector and taking advantage of new opportunities whilst managing what it calls *“the potential economic, political and environmental headwinds along the way”* (ASGP Executive Summary). The ASGP contains the following strategic themes which are set out in the first chapter entitled *“the role of aviation in a changing world”*. These themes are:

- Build a global and connected Britain
- Ensure aviation can grow sustainably
- Support regional growth and connectivity
- Enhance the passenger experience
- Ensure a safe and secure way to travel
- Support general aviation
- Encourage innovation and new technology

22. Some issues are covered in more than one strategic theme. Having a set of overarching objectives and a set of strategic themes that are similar is a little confusing. This is perhaps symptomatic of a document that does not seem to be particularly well structured.

### The Council's response

#### *General overview*

23. There will be a need to clarify the relationship between the various policy documents. The ASGP isn't site specific (the subsequent white paper isn't expected to be either) - in contrast to the ANPS, which is Heathrow based. The *“making best use”* policy statement of June 2018 relates to making use of spare capacity at existing airports. If the post-2030 needs review by the NIC is positive, there could well be a fourth document setting out national aviation policy which may or may not be site-specific on the location of further new capacity. At the very least this could be cumbersome.

24. There still seems to be a continued focus on London and SE, and there does not seem to be a proactive approach towards using spare capacity outside the SE for economic rebalancing purposes. Where would the encouragement for rebalancing come from especially if (as is shown in the *“making best use”* policy statement) the third runway at Heathrow exceeds the 2050 emissions planning assumption on its own? Rebalancing would seem to be made even harder if HMG decides to adopt policies to manage airport demand as a result

of the latest CCC report and proceed with the Heathrow third runway. There is an opportunity for UK global connectivity to promote regional rebalancing. This opportunity can be enhanced by the new generation of smaller, more efficient long-range aircraft that can deal with point-to-point demand from passengers at regional airports.

25. Finally, one of the objectives still links growth to tackling environmental impacts. In a way this is not surprising because of HMG's aviation growth agenda, but environmental impacts on local communities are of sufficient importance and significance that tackling these impacts should be an objective in itself irrespective of whether growth is proposed.

*Build a global and connected Britain*

26. This strategic theme is highly consumer based, set against an expanding global air transport network with new emerging markets and destinations. HMG's aim is to ensure air travel is safe, secure and environmentally sustainable and can adapt to new technologies and business models to continue to respond to consumer needs.

27. Improving global connections has three main objectives:

- maintain and improve the UK's connectivity, both to the EU via an ambitious new relationship and, globally, maintaining connectivity with established markets and replacing existing EU-negotiated agreements
- seek more liberalised arrangements focusing on air traffic rights, airline ownership and control and interchange (short-term leasing of aircraft between airlines)
- improve transparency of aviation arrangements so that information is easily accessible to the industry

28. One important aspect highlighted in the ASGP is the UK providing leadership to improve standards. HMG sees the development of common international standards as critical due to the international nature of air travel. Differences in standards may make travelling to some destinations more complex and potentially risky, resulting in significant regulatory burdens and costs for business. Irrespective of the debate about the quantum of air travel that is environmentally sustainable, the Council should support the UK taking a leadership role in improving standards. HMG's priority areas are safety, security and the environment.

*Ensure aviation can grow sustainably*

29. Subject to any review following the CCC's latest report, HMG forecasts continuing aviation growth until 2050, is supportive of growth that is

sustainable and says it will provide the necessary framework (partnership for sustainable growth) for this to happen. It would be a long-term policy framework which would need flexibility to respond to changes over time while providing sufficient long term confidence for the industry and communities. In the ASGP, HMG states that it intends to discuss its modelling approach with stakeholders in the first half of 2019 in order to inform future capacity decisions. It is presumed that in this context, “stakeholders” refers to airport operators.

30. HMG says that framework policies would need to be tailored to local circumstances, such as if an airport is growing within existing planning approvals, was bringing forward a “best use” planning application or was potentially seeking planning permission for a new runway. Until any framework is adopted as government policy, planning applications should continue to be judged against existing policy.
  
31. The Council should give a cautious welcome at this stage to a new partnership approach as there is a lot of detail still to be worked out. It is not clear in the ASGP what these partnerships are or who they are with, although Figure 8 (page 51) defines stakeholders as government, regulators, airports and airlines. Notably, local communities aren’t mentioned as stakeholders, although community engagement is one of the partnership’s proposed strands of work. Para 3.8 of the ASGP refers to the partnership approach being key to ensuring that necessary conditions are met in respect of infrastructure, community investment and environmental measures. Any partnership approach must be able to provide a truly robust outcome that balances the benefits of aviation growth against the effects on local communities, and not just act as a “rubber stamp” for growth. If there is to be a single national partnership it would likely be “top down” in its constitution, probably led by the DfT, whereas if there were a number of local ones they could be more “bottom up”. The latter would seem to fit in better with the new Council administration’s manifesto commitments. To ensure that the partnerships are fit for purpose, it is essential that local communities and local councils are included as stakeholders. Progress in setting up the partnership(s) should be reviewed every six months, and if it is set up there should be a two-year post-implementation review.
  
32. HMG is promoting opportunities for community engagement on issues that have the most direct impact, such as road and rail access, airspace change and noise policy. To do this, it highlights the role of airport consultative committees (ACC) and the role of elected representatives who sit on them. DfT guidelines on ACCs identify them as structured forums that provide an opportunity for the exchange of information between aerodromes and interested parties. They make recommendations to airport management and other bodies where appropriate, and provide the opportunity for common understanding to be reached about the nature of airport operations. Local communities are encouraged to work with airports on bespoke engagement arrangements where complex issues are involved, such as airspace change

proposals.

33. The Council should welcome the acknowledgement that expansion can have significant environmental impacts. HMG sets out that there are significant constraints which require urgent attention. These constraints are identified in the ASGP as:

- airspace modernisation
- surface access links to airports
- new runway capacity.

34. HMG is seeking views on what the decision-making framework should be for **additional runways** post-2030 beyond the third runway at Heathrow “if a needs case is proven and suitable conditions are met in respect of sustainability” (para 3.13). Firstly, HMG proposes to ask the National Infrastructure Commission (NIC) to include airport capacity in future infrastructure assessments to determine whether there is a needs case for further runways. The needs case will need to be informed by the latest CCC report if its recommendations are accepted by HMG. If a need is identified, there are options on how to reach a decision on location, subject to the grant of either planning permission or development consent. HMG’s preferred approach is a further national policy statement “to set out the criteria but not name specific airports, so leaving it to industry to determine whether and when to bring forward applications” (para 3.14). The other options mentioned by HMG are an NIC sector study or an independent commission similar to the Airports Commission which reported in July 2015. Whichever approach is adopted, the Council will expect to be consulted at the evidence gathering and draft report stages.

35. The overall **airspace modernisation** objective (page 52) is “*to deliver quicker, quieter and cleaner journeys and more capacity for the benefit of those who use and are affected by UK airspace*”. This objective is delivered within a number of parameters, one of which is to “*create sufficient airspace capacity to deliver safe and efficient growth of commercial aviation*”, another being to “*progressively reduce the noise of individual flights, through quieter operating procedures and, in situations where planning decisions have enabled growth which may adversely affect noise, require that noise impacts are considered through the airspace design process and clearly communicated*”. In relation to the latter this might be too late and consultation under the CAA’s airspace change process viewed as a fait accompli. Planning and airspace change should be considered concurrently. Presumably, “airspace design” refers here to the airspace change process.

36. The requirement for NATS to work with key stakeholders to develop an airspace change masterplan for the south of the UK should be strongly supported by the Council, provided that local communities can have a meaningful input. This process is now underway, with consultation

requirements being defined with both DfT and CAA. A first draft of the plan is expected in June. The task of coordinating the various consultations on proposals for airspace change from airport operators (<7,000ft) and from NATS (>7,000ft) should not be underestimated in its complexity. In the CAA's Airspace Modernisation Strategy (December 2018), the delivery of airspace change in the south of the UK is flagged up as needing attention to meet the 2024 timeline. What absolutely needs to be avoided is a potential confusion of individual consultations on airspace change proposals – those that are linked should either form a family of consultations undertaken at the same time, or be part of a single wider consultation. In the NATS feasibility study it is a proposal, given the level of co-dependency between the southern airports, that they should consult on their individual airspace change proposals *“concurrently in a highly co-ordinated way”*. Latest information that officers have from NATS is that they are working with the airports towards a single consultation around October 2020. It is essential that local councils are consultees.

37. HMG policy is that decisions over whether modernised airspace leads to concentrated routes avoiding populated areas, or uses multiple routes to provide respite, should be based on local circumstances and informed by consultation with local communities. The Council should support this, and also the proposal that the newly established Independent Commission on Civil Aviation Noise (ICCAN) should help local communities engage with the airspace change process. ICCAN is an advisory non-departmental public body sponsored by the DfT. ICCAN is currently building a programme of works that will be published shortly. This work could include helping local communities understand technical jargon and analysis. Help should also be provided to local communities who wish to suggest, or even perhaps collectively submit their own proposals for airspace change – it should not necessarily be the case that this is left solely to airport operators who invariably will submit an application because there is a prime economic case to do so. It is noted that the Secretary of State could be given powers of direction to require individual airspace change proposals to be brought forward, even when they might not be solely in the airport's economic interests.
38. Community group representatives do recognise that airspace modernisation could deliver noise benefits on a per flight basis. They are concerned with some justification that these benefits could be substantially outweighed by noise from additional flights facilitated by the capacity increase that modernisation will allow. The Council should share this concern. The CAA's general duty under Section 70 of the Transport Act 2000 requires it to exercise its air navigation functions to *“secure”* the most efficient use of airspace consistent with the safe operation of aircraft and the expeditious flow of air traffic, but only to *“take account”* of any guidance on environmental objectives given to it by the Secretary of State for Transport. The NATS feasibility study acknowledges only that there *“may be opportunities to improve noise over the ground of each flight”* and the DfT's comments on NATS' findings include the

statement that *“holding stacks would not need to exist in the same form at present, and would be replaced with contingency stacks at higher altitudes and positioned to minimise impact on local communities”*. This benefit could be small as existing stacks generally terminate at 7,000ft, the height at which HMG policy states that aircraft noise ceases to be a main determining issue.

39. The Council should require HMG to reconsider the CAA’s statutory duty under Section 70 so there is a more balanced outcome between the most efficient use of airspace and environmental objectives. The Council notes that one of the purposes of airspace modernisation is to ensure that airspace is not a constraint on aviation growth, as capacity would be determined through the planning process. In these circumstances there seems to be an argument for airspace being used at less than optimum efficiency if that enables environmental objectives in a particular case to be fully met without compromising safety. There is no question that maintaining a high standard of safety should remain the overriding priority under Section 70.
  
40. The ASGP accepts the CCC’s earlier recommendation that **emissions** from UK-departing flights should be at or below 2005 levels in 2050, which should keep up the pressure on other sectors covered by the Climate Change Act to compensate for the aviation emissions planning assumption of 37.5MtCO<sup>2</sup>. This assumes that the other sectors retain the capacity to do so. The ASGP is, of course, silent on the recommendations in the CCC’s latest report because it predates it.
  
41. HMG continues to recognise that international action is the first priority for tackling international aviation emissions, and will continue with its current policy not to mandate sector specific emissions reduction targets. This is so that reductions can be made *“wherever it is most cost effective across the economy”* (para 3.86). However, HMG will now need to revisit this policy following the recommendations in the CCC’s latest report that aviation sector specific emissions should be included in the sixth carbon budget. The Council should push hard for this to be done.
  
42. One of the measures proposed by HMG to implement its long term vision and pathway for addressing UK aviation’s impact on climate change is to: *“require planning applications for capacity growth to provide a full assessment of emissions, drawing on all feasible, cost-effective measures to limit their climate impact, and demonstrating that their project will not have a material impact on the government’s ability to meet its carbon reduction targets”* (para 3.96). The Council should view this requirement with some cynicism although the intention behind it is fine. To so demonstrate is probably not difficult if individual projects are salami-sliced against national carbon reduction targets and then assessed using “material impact” as the threshold. HMG should look again at the wording of this requirement, especially in view of the CCC’s latest report. Assessments should be made against clear and measurable HMG targets.

43. Prior to publishing its latest report, the CCC wrote to the Secretary of State for Transport on 12<sup>th</sup> February 2019 setting out its views on the ASGP. In summary, the letter says that achieving the legislated targets by 2050 will mainly be reliant upon new technologies and aircraft designs, but also from improved airspace management, airline operations and use of sustainable fuels. The white paper should set out a clear strategy to ensure these technology solutions are developed and brought to market in a timely fashion. There is added urgency to this following the CCC's latest report in which the CCC says that achieving a net zero emissions target by 2050 and at acceptable cost is entirely contingent on the introduction of clear, stable and well-designed policies. The CCC also says that HMG must set the direction and provide the urgency. The Council should support the CCC's views.
44. HMG is committed to ensuring that the Carbon Offsetting and Reduction Scheme for International Aviation (CORSA) is successfully implemented as widely as possible. CORSA, which was agreed by ICAO in 2016, runs from 2021 to 2035 and creates an obligation for carbon-neutral sector growth from 2020. CORSA is voluntary until 2026, the UK participating from 2021. Whilst there are uncertainties around the availability and cost of robust carbon units, the CCC does recognise CORSA as an interim measure but says that the capping of emissions at the 2020 level until 2035 is not compatible with achieving net zero emissions globally.
45. HMG also intends to negotiate in the International Civil Aviation Organisation (ICAO - the UN body responsible for tackling international aviation climate emissions) for a long term goal consistent with the temperature goals of the Paris Agreement, ideally by ICAO's 41st Assembly in 2022. The CCC recommends that CORSA should be aligned with this.
46. HMG recognises that aircraft **noise** has negative impacts on the health and quality of life of people living near airports and under flightpaths. At a more detailed level there is an acknowledgement that noise exposure at some airports has grown over the past five years following a period of sustained growth although a 30-year trend is downwards (para 3.104). There is a further acknowledgment that the benefits of less noisy aircraft can be cancelled out by greater frequency of movements or the effects of concentrated traffic associated with more accurate navigation technology. HMG also accepts that the public is becoming more sensitive to aircraft noise in comparison to noise from other transport sources.
47. The current overarching policy originally set in the 2013 Aviation Policy Framework (APF) is *"to limit and, where possible, reduce the number of people in the UK significantly affected by aircraft noise as part of a policy of sharing benefits of noise reduction with industry in support of sustainable development"* (para 3.114). HMG recognises that there has been uncertainty on how this policy should be interpreted, measured and enforced. "Significantly affected" and "sharing benefits" are being interpreted in different

ways, and the industry points out that reducing the number of people affected is not within its powers when population encroachment into noise contours is beyond its control. HMG wants to put in place a stronger and clearer framework which addresses current policy weaknesses and ensures that industry is sufficiently incentivised to reduce noise, or to put mitigation measures in place where reductions are not possible.

48. Four new measures are proposed (para 3.115):

- set a new objective to limit, and where possible, reduce total adverse effects on health and quality of life from aviation noise
- develop a new national indicator to track the long term performance of the sector in reducing noise
- routinely set noise caps as part of planning approvals (for increase in passengers or flights)
- require all major airports to set out a plan which commits to future noise reduction, and to review this periodically

49. The noise objective is welcome as it attempts to reconcile planning and aviation policy, but its wording could still mean that total effects are increased, retaining the same uncertainty for communities that the current policy has. A more ambitious and quantifiable goal to reduce total effects should be brought forward, perhaps linked to the requirement to produce future noise reduction plans. Local planning authorities are sensitive to criticisms from the industry that the planning process allows population encroachment into noise contours. Land-use planning is a democratic process and any assessment of the total effects would need to be able to compensate in some way for population encroachment or be based on criteria within industry control.

50. HMG explains that the requirement for future noise reduction plans would only apply to airports which do not have a noise cap approved through the planning system, although there does seem to be some confusion over this and clarification should be requested in the Council's response. A noise cap is not a commitment to noise reduction if it is static. Existing Noise Action Plans (NAPs) are an EU requirement, and are produced for airports with over 50,000 aircraft movements / year by the competent authority (the airport operator). NAPs are consulted upon, and submitted to the Department for Environment, Food and Rural Affairs for formal adoption. Stansted's current NAP (2019 – 2023) has as its primary aim *"to limit and where possible reduce the number of people significantly affected by aircraft noise from Stansted operations"*, i.e. linked to the overarching policy originating from the APF. The requirement to "commit to future noise reduction" sounds stronger than a NAP, although in need of more definition at this stage. The Council should ask why the requirement for the roll-out of future noise reduction plans should not be the

same as for NAPs.

51. HMG wants to see better noise monitoring and a mechanism to enforce plan targets as for noise caps. There would be resource implications for local authorities if the responsibility fell on them.
52. The Council should support the setting of noise caps subject to them containing challenging targets which would need to be met as a prerequisite of any “licence to grow”. Progressively tightening noise caps could be one way of ensuring that the benefits of new technology are shared between the industry and local communities. HMG would require noise caps to be subject to periodic review to make sure that they remain balanced.
53. HMG suggests that the new national indicator to track the long term performance of the sector in reducing noise could be defined either as a noise quota or a total contour area based on the largest airports. The use to which such an indicator could be put seems unclear (it could be useful for longer term benchmarking) and it could just be somewhat of a blunt instrument. It might be more meaningful to use indicators relating to airports of the same type as, for instance, local communities near to smaller regional airports may be more tolerant towards aviation noise because of perceived economic benefits.
54. HMG is still considering the recent World Health Organisation (WHO) noise guidelines, but whilst it agrees with the ambition to reduce noise and minimise health effects it says the WHO report did not assess the total cost of action and recent UK specific evidence. This does not indicate a willingness to adopt the guidelines in the short term, although the Council should support them. HMG admits that, given its priority to provide new homes *“it is unrealistic to expect that new homes will not be built in areas affected by aircraft noise to some extent”* (Para 3.116).
55. HMG is proposing to develop tailored guidance for housebuilding in noise sensitive areas near airports (as a replacement for the now defunct PPG24 – Planning and Noise), but this has been the intention for a while now and nothing has been done in spite of industry-wide support for this guidance, including from SASIG. The Council should strongly urge the preparation of this guidance and ask SASIG to continue to press for it as well. It is understood that DfT may lead on this.
56. Preparation of the post PPG24 guidance gives an opportunity to press for a review of permitted development rights (PD rights) for conversion of buildings to dwellinghouses without the need to apply for planning permission. These rights have received recent press coverage for other reasons, principally because of allegations they result in slum houses or flats. PD rights now exist

under the General (Permitted Development) Order for conversion from retail/betting offices, amusement arcades/centres, casinos, offices, storage/distribution and agricultural buildings to dwellinghouses, although there are some restrictions on the amount of floorspace that can be converted in each building. Local planning authorities can only require applications for prior approval on grounds relating to transport/highways impact, contamination, flooding, design/appearance and (in some cases) air quality and noise impacts of the development. There seems to be nothing to indicate that aircraft noise can be taken into account in all instances, and it is difficult to see how these PD rights are compatible with the ASGP's proposed new noise objective (para 47). Using PD rights in a scattergun way to try to promote economic development needs further thought. It is understood that there may already be some dialogue between DfT and the Ministry of Housing, Communities and Local Government (MHCLG).

57. HMG also wants improved flightpath information for prospective home buyers so that they can make better informed decisions. The Council should strongly support this, and it is suggested that ICCAN should be asked to advise on how this guidance should be produced – what metrics ought to be used – how to present the guidance – and who should own it. There could be a role here for ACCs. What is needed is a combination of actual track data and number above contours relating to the maximum sound level of a noise event rather than Leq (average) contours which are difficult to explain. Whilst no single metric is perfect, actual track data is a visual metric and seems to be easy to explain to the public, whilst number above contours can use thresholds that residents can relate to, such as speech disruption.
58. There is currently no national policy on community funds, and HMG is preparing to produce guidance on minimum standards for them. The Council should support this guidance, but HMG does say that the level of funds should be proportionate to the airport growth. However, the funds are regarded as a complementary measure and not a substitute for noise reduction.
59. HMG is also proposing a number of measures relating to aircraft operation, best practice procedures and compliance with mandatory controls. HMG is first seeking voluntary compliance, but ICCAN has been asked to consider compliance and enforcement as a priority work area. ICCAN could have a role of independent verification of airports' noise monitoring work. In the longer term, new statutory enforcement powers for either the CAA or ICCAN could be created. At the moment, and pending its initial two-year review, ICCAN does not have any statutory powers.
60. HMG identifies **noise insulation** as an important element in giving impacted communities a fair deal. Four insulation measures are proposed:
- to extend the noise insulation policy threshold beyond the current 63dB LAeq 16hr contour to 60dB

- to require all airports to review the effectiveness of schemes, including whether the level of contribution affects take-up
- HMG or ICCAN to issue new best practice guidance to ensure consistency
- for airspace changes which lead to significantly increased overflight, confirmation that a 3dB change meaning that a home falls within the 54dB LAeq contour or higher would qualify it for insulation

61. The Council should welcome all of these measures, particularly the fourth, which would deal with a by-product of flight path concentration. The best practice guidance should acknowledge that there is no “one size fits all” solution to insulation, and the best schemes should include a provision for an independent survey to be carried out to inform qualifying residents of their options. For instance, if a house is difficult to insulate, the money could perhaps be better used to improve enjoyment of a garden.
62. Generally there is a lot to welcome in the noise provisions of the ASGP, but it remains to be seen whether the proposed growth in flight numbers will cancel out many of the benefits of the provisions.
63. HM Government recognises that **air pollution** is the top UK environmental risk to health, especially nitrogen oxides. Pollutants come from airborne aircraft, airside operations and mainly surface access (dealt with below). The ASGP recognises ongoing work to introduce cleaner aircraft into service and also cleaner fuels. It also recognises cleaner airside operations such as use of fixed electrical ground power to avoid on-stand aircraft emissions and reduced engine taxiing. Further action is needed and the following is proposed:
- improved monitoring of air pollution to improve the understanding of aviation’s impact on local air quality. This would be done by standardising processes for monitoring and communication
  - ensuring comprehensive information on aviation-related air quality issues is made available to better inform interested parties. This would be done by guidance on the scope and content of reports
  - require all major airports to develop air quality plans to manage emissions within local air quality targets. This would be done by establishing minimum criteria to be included in plans
  - validation of air quality monitoring to ensure consistent and robust monitoring standards that enable the identification of long-term trends. This would be done by either HMG or a third party at the national level
  - support industry in the development of cleaner fuels to reduce the air quality impacts of aviation fuels. This would be done by international action

64. The Council should support all of these measures, subject to sanctions being available in air quality plans for non-compliance with local air quality targets. The Council should ask HMG to consult on the guidance on the scope and content of reports and the minimum criteria to be included as targets in air quality plans.

*Support regional growth and connectivity*

65. HMG recognises the value of domestic air connectivity and the opportunity an expanded Heathrow will give to strengthen and develop links. It will consider ring-fencing slots and imposing Public Service Obligations (PSO) where appropriate, although direct financial support for PSOs into Heathrow following expansion is unlikely to be required. The CCC's latest report does look at the scope for modal shift from aviation to high speed rail, but says this is route distance dependent. Journeys up to 800km offer potential for substitution (domestic and short haul international), but as few journeys are within switching distance the CCC estimates this would only represent between 1-5% of domestic and EU demand. The Council should ask that the NIC fully assesses the scope for modal shift in its future infrastructure assessments which were referred to earlier in this report.

66. The industry is welcome to submit evidence on the impact Air Passenger Duty (APD) has on international competitiveness or route economics. It would be surprising if the industry said anything other than APD has a detrimental impact, but the CC's latest report identifies APD reform as a legitimate measure to manage growth in demand.

67. HMG acknowledges that airports are becoming **regional transport hubs** and their development needs to be planned in that context. It is important that airport operators recognise this role. The APF recommends that airports produce and keep updated master plans and airport surface access strategies (ASAS) – Stansted combines these into its Sustainable Development Plan 2015 which is shortly up for revision. Master plans do not have a statutory basis, but the APF advises that their primary objective is to provide a clear statement of intent on the part of an airport operator to enable future development of the airport to be given due consideration in local planning processes. HMG also advises that airports with more than 1,000 Passenger Air Transport Movements / year should hold airport transport forums (ATFs) which develop and oversee implementation of plans for future surface transport provision. The industry view is that ATFs do not have the authority to hold airports to account – in particular that:

- national and local government should take a more active role in the development of the hubs

- there needs to be a more structured approach to the planning of surface access provision as existing decision making processes are seen as fragmented, complex and poorly understood

- public transport operating hours may not be synchronised with airport operating hours

- there is a perception that public transport operators are generally not fully aware of airport needs

68. These are important criticisms for HMG to take into account. Using the ANPS as an example, Heathrow Airport Limited is charged with preparing an ASAS in conjunction with the ATF that meets the needs of the scheme that will be contained in its application for development consent for the third runway. The ASAS is expected to contain modal targets for public transport, associated actions, policies and performance indicators and a mechanism for the ATF to oversee and monitor implementation. The ATF therefore will become the delivery vehicle for Heathrow's third runway surface access commitments, and it is known that the DfT has already taken an interest in this. What is set out in the ANPS is likely to become the model for future use at other airports.

69. To meet these challenges, HMG is proposing to:

- formalise the position of ATFs, setting a requirement for membership to include relevant local and national transport providers and a duty to co-operate with local government in the development of ASASs

- update guidance to help airports in completing ASASs and master plans, by providing consistency in requirements and structures that align with future regional and national transport strategies. This would include a requirement to reflect the international gateway and transport hub role of an airport

- work with transport service providers to assist ATFs in understanding and working within existing surface transport planning processes and developing an associated manual in partnership with the Airport Operators' Association

70. The Council should support all these measures, especially those aimed at promoting the regional (and local) transport hub function of airports. Whilst Stansted's ATF is well established and is chaired independently, the relationship between airport master plans and the statutory planning process is not well developed or understood, and there is no real sense of wider ownership of the master plan. The experience of officers attending the Stansted ATF is that it would benefit from a duty to co-operate that works all ways (upon the airport, local authorities and transport providers), mostly to ensure continuity of attendance and maximum participation.

71. In its response, the Council should comment briefly on the experience of Stansted's ATF. Whilst the ATF has been successful in promoting local and regional bus / coach travel to and from the airport (including "out of hours" services), growth of rail travel remains hampered by legacy timetables which

do not meet airport peak demand hours, by the need for track repossession for overnight maintenance and by the compromise nature of the West Anglia Main Line itself. There is a continued lack of certainty over longer term investment in four-tracking which would enable a step-change in rail service provision to occur. In paragraphs 4.42 – 4.34 of the ASGP, HMG reaffirms its currently policy position that making infrastructure contributions would only be considered where there would be significant non-airport user benefits, citing onward connectivity as one example.

72. A local impact is the effect of off-airport on-street parking in the vicinity of airports and pressures for use of land for more organised airport related car park operations, often without the benefit of planning permission. Whilst land use related issues can be dealt with by normal planning enforcement procedures, the experience at Stansted is that on-street parking requires a partnership between the airport operator, local communities, the local planning authority, the highway authority and, possibly, Trading Standards. A number of airport localities experience issues with on-street parking, including those around Stansted, Luton and Manchester and common solutions are either the introduction of no-waiting zones or residents' parking schemes, subject to normal consultation procedures. Where there isn't a planning permission to set out the governance of an on-street parking strategy, HMG should require one to be included in an ASAS.

73. Paragraphs 4.47 – 4.48 identify Stansted as one of the three main airports for handling **air freight** in the UK. HMG values the catalytic effect of air freight on the UK economy, and recognises the importance of night flights to the air freight industry. HMG states that industry can support growth within existing night noise limits by using quieter and more environmentally friendly cargo aircraft and encourages their early adoption wherever possible. Whilst these aircraft are a good aim in themselves, this is not a commitment to reducing night noise. Consultation on the next night flights regime for Heathrow, Gatwick and Stansted is due to start in the second half of 2019, and the Council will have the opportunity to take part in that consultation.

74. There is a section in the ASGP entitled “inspiring the next generation” and in that section the Stansted Aerozone and Stansted Airport College are acknowledged for the help they give to young people on career identification and training. The Council should welcome this acknowledgement, the College being a good example of effective partnership working between the public and private sectors.

*Enhance the passenger experience, and  
Ensure a safe and secure way to travel*

75. This report combines these two strategic themes, as they seem to be linked rather more than the others.

76. The UK is recognised as a world leader in aviation safety, but must proactively anticipate and mitigate emerging risk, continue to adapt its regulatory regime, and continue to respond to global variations in safety standards. This will support the UK objective of having no accidents involving commercial air transport that result in serious injuries or fatalities, including to third parties. The ASGP recognises cyber threats and the increase in drone incidents and laser attacks on aircraft, and accepts that a better experience is needed in unplanned situations involving flight delays or airline insolvency. The ASGP also raises issues relating to drunk and disorderly passengers and queues at Border Control.
77. A new passenger charter (one stop shop) is aspired to, which would include addressing the significant challenges in air travel that disabled passengers continue to experience. An aim is to develop a certified airworthy wheelchair standard and docking station system. It is proposed that the role of Transport Focus be extended to represent air passengers. Transport Focus is a watchdog for transport passengers and road users in the United Kingdom, based in London and Manchester. It is an executive non-departmental public body, sponsored by the DfT.
78. The Council should emphasise in its response that it is essential that passengers not only receive timely warning of delays and/or service alterations but also information on what their viable options are, (this should apply as much to surface access as to air travel). The Council should also point out that excessive queueing at Border Control is unacceptable and gives a poor impression of the UK to visitors. Passengers should be free to travel without fear of threat from drunk and disorderly passengers, and a “zero tolerance” attitude should be taken by the relevant authorities. Extending the campaigning role of Transport Focus is a good idea subject to it being adequately resourced. In relation to drawing up the passenger charter, HMG should engage closely with ACCs – Stansted’s has a User Experience Group as a sub-group of the main committee. All these points add to the quality and seamlessness of air and surface travel.

*Support general aviation*

79. Although general aviation has enjoyed a resurgence in recent years, the ASGP identifies that continuing population growth and demand for housing means there are strong economic incentives for aerodrome owners to sell part or all of their land, and more aerodromes may be lost, particularly in the SE. The NPPF requires planners to recognise the importance of maintaining a national network of general aviation airfields.
80. Work done on behalf of HMG recommends that DfT and the MHCLG develop planning practice guidance on how planning authorities can recognise the importance on maintaining airfields that qualify as part of a strategic network. In the longer term, serious consideration should be given to developing mixed

use airfields where general aviation, industry and housing can co-exist.

81. The Council should support the production of any national guidance that assists proper long term planning for general aviation which can be a valuable source of local employment.

*Encourage innovation and technology*

82. The ASGP identifies hybrid and fully-electric aircraft as having the potential to transform aviation, including tackling a number of its environmental impacts as well as reducing fuel costs. HMG sees the UK leading the world in aviation electric technology, exporting to countries that are not large aerospace manufacturing nations. Norway, for instance, has announced an ambition for all-electric short haul flights by 2040.

83. HMG does admit that there is a need to better understand the changing noise impacts of electric aircraft. With conventional aircraft, noise is caused by engines and airframe. On take-off (high thrust) engine noise dominates, whereas on approach (low thrust) engine and airframe noise are roughly in the same range and aircraft are lighter because of fuel burn. Noise from electric aircraft will be caused by the electric propulsors (motor and fan) and the airframe. As there is no fuel burn electric aircraft should land at the same weight as at take-off. As a result, they may well be heavier on landing than conventional equivalents which could have power and noise implications. The Council should share this desire, but this should not be limited to just the one emerging technology.

84. The Council should require some ambition from HMG to do more to bring about the benefits of modern aircraft technology on local communities. This should include challenging emissions and noise targets and timeframes.

85. A return to commercial supersonic flight is being pursued by a number of manufacturers, and whilst HMG recognises the potential benefits it acknowledges there are significant environmental consequences. HMG is negotiating with the ICAO for noise and emission standards that balance environmental benefit with technical feasibility. It is believed that at the moment most of the emphasis is on supersonic business aviation jets and 50-seat commercial aircraft, i.e. much smaller than Concorde.

86. The development of hypersonic aircraft (>Mach 5) could mature in the next 20 – 30 years, cutting flight times to Australia to 5 hours. These offer potentially lower emissions if powered by hydrogen, as no CO, CO<sup>2</sup> or particulate matter is produced during combustion.

*Other issue*

87. At this point, it seems appropriate to raise secondary impacts of airport expansion and their seeming lack of recognition in the ASGP. This has been a wider concern of SASIG for a while now. Secondary impacts include pressures placed on social infrastructure, access to housing for airport employees in overheated markets and the ability of small businesses to recruit and retain employees in areas where an airport is a dominant employer. Often, these are left to local authorities to evaluate without recognition from HMG or the airports themselves. HMG should be asked to look into how these can better be assessed, particularly to inform planning applications and decisions on them.

Summary table of the Council's response

88. A table is attached at the end of this report as an aide-memoire for the Cabinet, setting out in bullet form what officers think the Council's response should include. The Cabinet is welcome to suggest any additions or amendments.

**Risk Analysis**

89.

Risk	Likelihood	Impact	Mitigating actions
The Council's views are not taken into account.	1. The Council will be responding to the ASGP.	2. The ASGP could have a wide ranging impact on the District, depending upon what implications it has for the operation and growth of Stansted Airport.	Respond to the ASGP.

- 1 = Little or no risk or impact
- 2 = Some risk or impact – action may be necessary.
- 3 = Significant risk or impact – action required

4 = Near certainty of risk occurring, catastrophic effect or failure of project.

## Summary of the Council's response

Report section	Para No	Issue to be raised
CCC report	13	- UDC should consider and respond to further CCC letter if necessary. HMG to reconsider ASGP provisions and reopen consultation if there are significant implications
General overview	23	- HMG to clarify relationship between aviation policy documents - Issues around regional rebalancing to be considered
	25	- HMG to split objective that links growth to tackling environmental impacts
Build a global and connected Britain	28	- UDC to support UK leadership role in improving standards
Ensure aviation can grow sustainably	29	- HMG to review growth forecasts after latest CCC report
	31	- UDC to give cautious welcome to new partnership approach subject to detailing about involvement of communities. Local communities and local councils to be stakeholders.
	33	- UDC to welcome acknowledgement that expansion can have significant environmental effects
	34	- NIC needs case for additional runways to be informed by latest CCC report - UDC to expect consultation at the evidence gathering and draft report stages
	35	- Consider planning proposals and airspace change concurrently
	36	- UDC to support airspace change masterplan subject to community and local council input and avoiding multiple consultations on airspace change proposals in the SE
	37	- UDC to support locally-based decision-making on flightpaths and ICCAN help - Help (ICCAN?) to be provided for communities wanting to suggest or collectively submit applications for airspace change
	38	- UDC to express concern that noise benefits could be outweighed by extra flights
	39	- HMG to reconsider CAA's statutory duty under S70 of Transport Act 2000
	41	- HMG to revisit policy not to mandate aviation sector emission targets following latest CCC report. UDC to push hard for the policy to be revised.
	42	- HMG to look again at wording of emissions assessment requirement. Assessments to be made against clear and measurable HMG targets.
	43	- UDC to support CCC's view on need for clear, stable and well-designed policies for net-zero emissions
	49	- HMG to provide a more ambitious and quantifiable goal to reduce total effects, but taking account of population encroachment
	50	- HMG to clarify extent of roll-out of noise reduction plans
	52	- UDC to support challenging noise caps + periodic review
	53	- Query to what use the new NI would be put. Use indicators

		based on airport type?
	54	- UDC to support WHO guidelines.
	55	- UDC to urge progress with PPG24 replacement
	56	- HMG be urged to review PD conversion rights
	57	- UDC to support improved flightpath information for residents
	58	- UDC to support guidance on community fund minimum standards
	61	- UDC to support noise insulation measures subject to independent surveys on options for residents
	64	- UDC to support air pollution measures subject to sanctions for non-compliance and consultation on scope and content of reports and minimum criteria for air quality targets
Support regional growth and connectivity	65	- NIC to fully assess scope for modal shift in its future assessments
	68	- UDC to stress importance of HMG acting on industry criticisms of ATFs
	70	- UDC to support measures to strengthen ATFs, ASASs and masterplans - UDC to comment on experience at Stansted
	72	- ASASs to include governance of an on-street parking strategy
	73	- UDC to comment that growth within existing night noise limits is not a commitment to reducing night noise
	74	- UDC to welcome positive acknowledgement of the Stansted Aerozone and Airport College
Enhance the passenger experience Ensure a safe and secure way of travel	78	- UDC to ask for timely warning of travel delays and options. Border Force queues give a poor impression. Travel safety. Extend campaigning role of Transport Focus. Passenger charters to be drawn up in association with ACCs.
Support general aviation	81	- UDC to support production of national guidance on importance of GA network
Encourage innovation and technology	83	- UDC to support research into noise signatures of electric aircraft and other emerging technologies.
	84	- UDC to require HMG ambition to do more to bring about the benefits of modern technology on local communities.
Other issue	87	- UDC to press for national research into secondary impacts of airport expansion

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HM Government

# Aviation 2050

## The future of UK aviation

A consultation







# Aviation 2050

## The future of UK aviation

A consultation

Presented to Parliament by the  
Secretary of State for Transport  
by Command of Her Majesty

December 2018

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## Foreword



Aviation has long been at the heart of the United Kingdom's economic success. From its earliest days, flight has helped forge international trade links and created vital domestic connections enabling our country to flourish.

Today we have 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 industry is also growing at a rapid rate to meet rising demand. Passenger numbers have been increasing for seven consecutive years, and it's estimated that UK passenger traffic could soar from 284 million last year to 435 million by 2050.

As Aviation Minister I have been hugely impressed by the sector's ambition and innovation.

In recent months we've seen the opening of a new terminal building at Luton Airport, the launch of new flights between Manchester and Mumbai, and Birmingham Airport's announcement of a £500 million expansion plan to boost capacity and improve facilities.

In London and the South East our airports are nearly full, and earlier this year we supported the crucial Northwest runway at Heathrow after achieving an overwhelming parliamentary majority for the Airports National Policy Statement.

Clearly this growth benefits the UK. A thriving aviation sector is tangible evidence of economic confidence, growing tourism, increased trade, and business investment. Our regional airports and the connections, jobs and investment they provide spread these benefits across the country.

As we leave the European Union, the UK's future prosperity depends on our ability to reach out to the rest of the world, to forge new trade links, to connect and compete.

However we can't take future success for granted. The aviation sector faces global challenges; rising demand coupled with changing customer expectations, technological change and tight profit margins in a fiercely competitive market.

We need to keep asking some fundamental questions. How can we manage the impact of growth on the environment – particularly carbon emissions, air quality and noise? How can we continue improving the passenger experience? How can we develop a global and connected UK with more trade opportunities? And how can we harness the benefits of innovation and new technology?

We need a long-term plan for sustainable growth to ensure the industry's continued success, to 2050 and beyond. That is the starting point for our new Aviation 2050 strategy.

In developing Aviation 2050 we've worked closely with a wide variety of industry, community and environmental partners, and generated a wealth of information and opinion on almost every aspect of aviation.

This consultation lays out the proposals that will form the next stage of that process as we seek to address the challenges facing the sector over the coming decades.

As this consultation makes clear, the government supports aviation industry growth. However growth must be coupled with steps to mitigate environmental damage such as carbon emissions, noise and air quality. We must also minimise the impact of growth on local areas and make journeys to and from airports cleaner, smarter and quicker.

As the aviation sector grows and changes, so do the needs of passengers.

Airlines and airports have already carried out some impressive work on improving the experience of passengers. However there is more work to do, particularly in the case of passengers with additional needs. Airports face rising numbers of requests for assistive services and six in ten disabled travellers say they find flying and using airports difficult.

The Aviation Strategy includes proposals for a Passenger Charter – a clear set of standards for how airports and airlines treat consumers. These measures clearly set out the level of service that all passengers can expect to receive at all stages of their journey, including a focus on the needs of disabled travellers. The government is examining what more it can do to improve air passengers' journeys, for instance by introducing improvements to reduce delays at the border and dealing with disruptive passengers.

This consultation paper considers a host of other issues – all of which must be tackled to ensure the industry enjoys the same levels of success in future.

These range from how best to seize technological opportunities so we stay at the forefront of aerospace design and manufacture to maintaining our excellent aviation safety and security record.

The development of Aviation 2050 is not a process the government can undertake on its own. We need to listen to what the industry, passengers and communities have to say, and work in partnership to get this right.

This document seeks views on our proposed approach ahead of the publication of the final Aviation 2050 strategy next year.

This is your opportunity to shape the future of aviation in the United Kingdom, so it works for passengers, communities and industry.

I look forward to hearing your views, and to working with you to ensure that aviation continues to benefit our country.



# About this document

## Background

The government is developing a long term Aviation Strategy to 2050 and beyond, the aim of which is to achieve a safe, secure and sustainable aviation sector that meets the needs of consumers and of a global, outward-looking Britain.

The objectives of the strategy are to:

- help the aviation industry work for its customers
- ensure a safe and secure way to travel
- build a global and connected Britain
- encourage competitive markets
- support growth while tackling environmental impacts
- develop innovation, technology and skills

The first step in the process of developing the strategy was the publication of an initial call for evidence in July 2017 on the strategy's aims and objectives.<sup>1</sup> The government then published a 'next steps' document in April 2018 which set out some of the specific issues to be considered as part of the policy development process.<sup>2</sup>

## This document

### Structure

This document forms part of the government's final consultation on the policy proposals for the Aviation Strategy. It is structured around the original objectives of the strategy, updated to reflect the feedback that the government has received to date on their relevance and priority. Each chapter relates to a strategic theme, such as ensuring aviation can grow sustainably, and contains specific policy proposals in bold text. Further detail on some of the policy issues can be found in the annexes.

---

1 Department for Transport (2017): Beyond the horizon – the future of UK aviation. A call for evidence on a new strategy

2 Department for Transport (2018): Beyond the horizon – the future of UK aviation. Next steps towards an Aviation Strategy

## Consultation questions

The government is seeking feedback on the policy proposals in this document and any suggestions for additional proposals that could be considered. The objective of this consultation is to inform the content of the final strategy document by considering proposals based on their:

- strategic case – overall impact and effectiveness
- implementation – how they can be delivered and their feasibility
- burdens – any new or additional regulatory and financial implications
- overall acceptability – to passengers, the public, industry and other stakeholders

There are seven generic consultation questions which relate to the strategic theme addressed by each chapter (chapters 2-8): These are as follows:

- how could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?
- how should the proposals described be prioritised, based on their importance and urgency?
- are you aware of any relevant additional evidence that should be taken into account?
- what implementation issues need to be considered and how should these be approached?
- what burdens, both financial and regulatory, are likely to need to be managed and how might those be addressed?
- 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?
- looking ahead to 2050, are there any other long term challenges which need to be addressed?

Additionally, there are specific questions that relate to one or more specific policy issues at the end of each chapter. There are also specific questions on the government's approach to airspace modernisation and public service obligations at Annex A and Annex D respectively.

## How to respond

### Consultation period

The consultation period will run until 11 April 2019. Please ensure that your response reaches us before the closing date. If you would like further copies of this consultation document, it can be found at <https://www.gov.uk/dft#consultations> or you can contact [AviationStrategy@dft.gov.uk](mailto:AviationStrategy@dft.gov.uk) or telephone 0300 330 3000 if you need alternative formats (Braille, audio CD, etc).

### Responding

Please use the online form at <https://aviationstrategy.campaign.gov.uk> to respond to this consultation. Alternatively, consultation responses can be emailed directly to: [AviationStrategy@dft.gov.uk](mailto:AviationStrategy@dft.gov.uk)

If responding by post please send to:

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

When responding, please state whether you are responding as an individual or representing the views of an organisation. If responding on behalf of a larger organisation, please make it clear who the organisation represents and, where applicable, how the views of members were assembled.

### Consultation principles

The consultation is being conducted in line with the government's consultation principles. Further information is available at <https://www.gov.uk/government/publications/consultation-principles-guidance>

### Guidance

If you have any comments about the consultation process please contact:

Consultation Co-ordinator  
Department for Transport  
Zone 1/29 Great Minster House  
33 Horseferry Road  
London  
SW1P 4DR

Email: [consultation@dft.gsi.gov.uk](mailto:consultation@dft.gsi.gov.uk)

## Confidentiality and data protection

The Department for Transport (DfT) is carrying out this consultation on a range of policies to transform the Aviation sector in the UK. The consultation is being carried out in the public interest to inform the development of policy. DfT is the data controller for your personal information. As part of this consultation DfT is asking for your name and email address. This is in case it needs to ask you follow-up questions about any of your responses. You do not have to provide this personal information. If you do provide it, you consent to DfT using it only for the purpose of asking follow-up questions. DfT may contract a third party to analyse the responses it receives to the consultation. If you provide your contact details, DfT may share this information with a contractor in case they need to contact you regarding your consultation response.

This consultation document has been developed in collaboration with other government departments and partner agencies. Consultation responses may be shared with these other bodies, but will not include personal details on respondents. This will aid in the facilitation of future government policy development and legislation.

You can withdraw your consent to be contacted at any time by emailing:  
AviationStrategy@dft.gov.uk

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. You can view it at:  
<https://www.gov.uk/government/organisations/department-for-transport/about/personal-information-charter>

To receive this information by telephone or post, contact us on 0300 330 3000 or write to Data Protection Officer, Department for Transport, Ashdown House, Sedlescombe Road North, St Leonards-on-Sea, TN37 7GA.

Your personal information will be kept securely on a secure IT system within DfT and destroyed within 12 months after the consultation has been completed.

## Executive summary

**The UK has the largest aviation network in Europe and the third largest in the world. Aviation directly contributes at least £22 billion to the economy and supports around half a million jobs. The government supports the growth of aviation and the benefits this would deliver, provided that growth takes place in a sustainable way, with actions to mitigate the environmental impacts.**

The UK has a rich aviation history and the government recognises the importance of aviation to the whole of the UK. Aviation creates jobs, encourages our economy to grow and connects us with the rest of the world as a dynamic trading nation. It is also important for maintaining social and family ties. This is why the government supports the growth of aviation and the benefits this would deliver, provided that growth takes place in a sustainable way, with actions to mitigate the environmental impacts.

Despite its strengths, UK aviation faces many challenges which it will need to overcome to take advantage of the opportunities the future holds, and to realise the benefits of sustainable growth while remaining at the forefront of innovation.



Challenges include:

- global change and shifting markets
- impact of competition on business models
- increasing passenger demand
- changing expectations of passengers
- effects of international climate change
- making the most of new technology

In order to remain competitive on the global stage, and to safeguard its role as one of the leading aviation and aerospace sectors, the UK must be well positioned to take advantage of new opportunities, while managing the potential economic, political and environmental headwinds along the way. This is the motivation behind a new aviation strategy: Aviation 2050, which will be based around the following strategic themes.

## 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

## 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, the industry and other interested parties to work within a comprehensive policy framework to better manage the environmental impacts of the sector.

The consultation:

- outlines the government's preferred approach for developing a framework for sustainable growth and the respective roles for the government and the industry
- makes the case for making the most efficient use of infrastructure, including by considering the system for slot allocation at airports and continuing to support the industry in improving resilience
- describes the approach being taken to modernise airspace 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 the government's expectations that communities living close to airports should benefit directly from growth

## 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 see, 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 the air freight industry are reduced

The government recognises the importance of rebalancing the UK economy through economic growth of the regions and ensuring that the UK remains competitive after we leave the European Union. 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 consultation focuses on:

- regional connectivity
- regional transport hubs
- supporting freight
- regional employment, training and skills

## 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 is consulting 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 caused by disruptive passengers. It will also consider strengthening the Civil Aviation Authority's range of enforcement powers across the consumer agenda.

This Aviation Strategy consultation:

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

## 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 the industry to make the skies safer for everyone.

In order to maintain the UK's safety record the consultation focuses on:

- addressing the concentration of safety risks
- targeting emerging safety risks
- improving data and reporting
- addressing global variations in safety standards

In addition, through its 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.

## Support General Aviation

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

## 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 consultation:

- 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 the government in its enabling role, working in partnership with the sector
- proposes measures to better align policy and investment



# 1. The role of aviation in a changing world

**Aviation has an important role to play in the future of our country. It is key to helping to build a global Britain that reaches out to the world. It underpins the competitiveness and global reach of our national and our regional economies. There are many challenges that aviation faces, such as meeting rising passenger demand while addressing environmental impacts, and making the most of new technologies. The government supports the growth of aviation, provided that this is done in a sustainable way.**

## Introduction

- 1.1 The UK has a rich aviation history, from being at the forefront of the birth of international air transport in the 1920s and the post-war development of the global aviation framework, to the liberalisation of aviation markets and development of innovative new technologies today. Aviation in the UK has consistently demonstrated the ability to adapt, innovate and lead in a changing world.
- 1.2 The government has been clear about the importance of aviation to the whole of the UK. Aviation creates jobs across the UK, encourages our economy to grow and connects us with the rest of the world as a dynamic trading nation. It also helps maintain international, social and family ties. This is why the government supports the growth of aviation, provided that this is done in a sustainable way and balances growth with the need to address environmental impacts.
- 1.3 The government has, in recent years, taken action to capitalise on the UK aviation sector's record of success and build for the future. It established the Airports Commission to examine the scale and timing of any requirement for additional capacity, designated the Airports National Policy Statement (NPS) for airport expansion in the South East and expressed support for a third runway at Heathrow Airport.<sup>3</sup> The government has also consulted on plans to modernise our airspace. It has stated that it supports airports throughout the UK making best use of their existing runways, subject to environmental issues being addressed. The government also introduced new noise policies in 2017 aimed at helping to manage the impacts of growth on local communities, and led the way in pushing for a historic global climate change deal for international aviation in 2016.<sup>4</sup>

3 Airports Commission (2015): Final Report

4 ICAO Carbon Offsetting and Reduction Scheme for International Aviation

1.4 The government also consulted on the objectives and scope of a new and ambitious Aviation Strategy in 2017, providing a long-term vision for aviation to 2050 and beyond. This strategy must be based on a clear understanding of international and domestic aviation. It is therefore important to understand the global trends that will set the context for what the world will look like in 2050 and the social and economic forces that will shape the future of aviation.

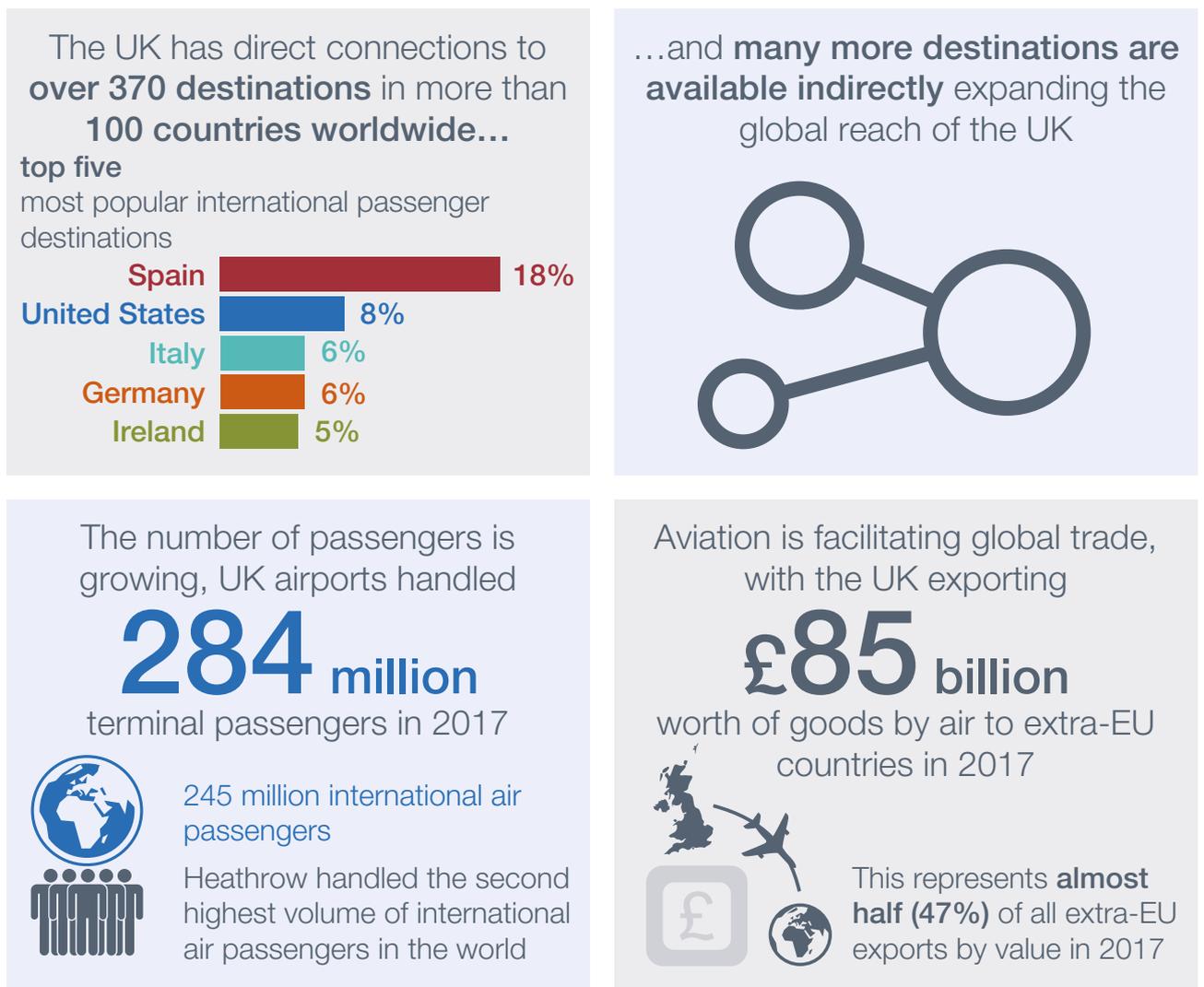


Figure 1 UK aviation in context  
Source: Department for Transport analysis of Civil Aviation Authority (2017): Airport Data, HMRC: Overseas Trade Data 2017

## The value of aviation

### Air travel benefits our lives and opens us up to the world

1.5 Air travel benefits most of us, either directly or indirectly. For many people, it is the means by which they can enjoy a well-earned holiday. It is important for maintaining social and family ties with loved ones who may be based across the world. Business air travel also brings trade and investment to the UK, generating prosperity.

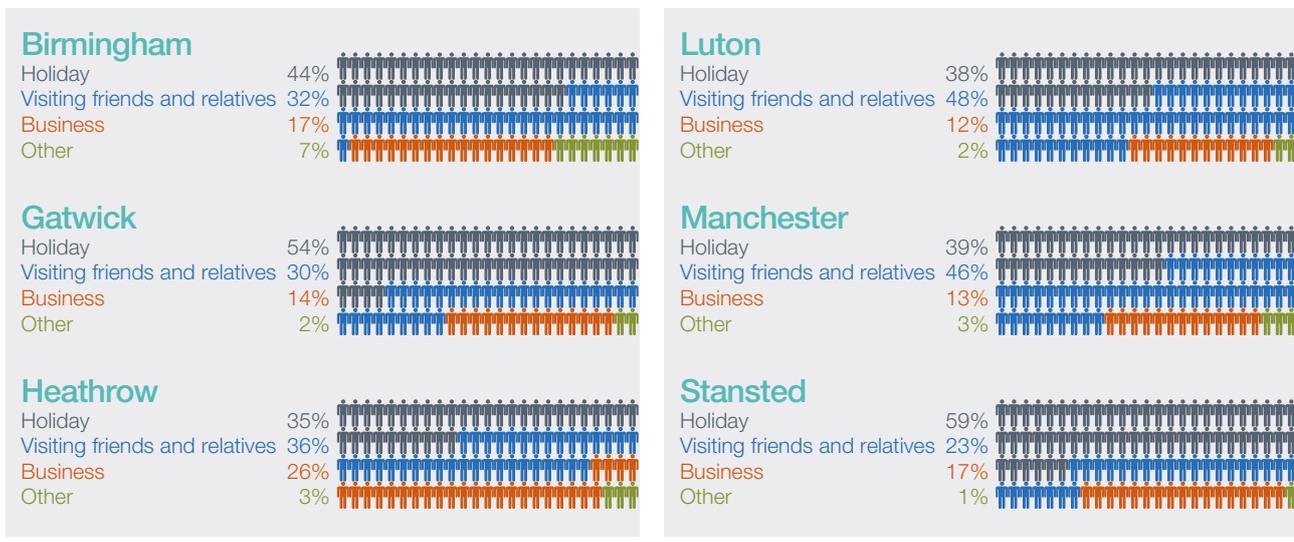


Figure 2 Passenger reasons for travel at selected UK airports  
 Source: Department for Transport analysis of Civil Aviation Authority: Departing Passenger Survey 2017

- 1.6 Aviation is also an increasingly important facilitator of our modern lifestyles and the means by which many of the goods that we buy online are flown in to the country before arriving at our doorsteps, as well as the medicines and other vital products that we rely upon. Aviation is, in its own right, a passion that is enjoyed by many. It is also an industry that is at the cutting edge of the development of new and exciting technology, from drones to electric planes and to the edges of space itself.
- 1.7 Aviation is also vital to how the UK is connected to the global economy. The UK’s aviation network is connected to a vast number of international locations accessible through airports across the country. This helps to maintain important social and cultural links and is vital for facilitating an environment for businesses to engage in international opportunities.

### Economic contribution

1.8 Aviation forms an important part of the global supply chain, the means by which many businesses are able to operate, export and grow. An effective transport system is an important enabler of sustained economic success, with benefits for the wider economy.

**Connectivity:**

- the UK is one of the best connected countries in the world with over 370 direct connections in over 100 countries

**Productivity:**

- aviation directly contributes at least £22 billion to the UK economy each year<sup>5</sup> – with around £14 billion from air transport and £8 billion from aerospace, with the UK having the second largest aerospace industry in the world
- the industries most associated with business travellers generate some of the largest contribution to the UK economy due to the high value of the industries they tend to work in<sup>6</sup>

**Jobs:**

- aviation is estimated to directly provide over 230,000 jobs and consists of around 4,500 businesses;<sup>7</sup> this generates employment right across the country, especially in aircraft manufacture, aircraft maintenance and air freight
- the North West and South West each account for 12% of direct jobs provided by aviation and there are large concentrations of aviation businesses in the Midlands, Wales and Scotland<sup>8</sup>
- airports themselves continue to be a major source of local employment and help to attract related industries in their area, generating employment beyond the proximity of other local industry and businesses

**Tourism:**

- there was both a record number of visits to the UK in 2017 and a record number of visits abroad by UK residents; the most frequent reason for visits to and from the UK is holidays<sup>9</sup>
- tourism contributed £68 billion to the UK economy in 2016<sup>10</sup>
- inbound tourism by air makes up 80% of foreign holiday spending<sup>11</sup>

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5 Department for Transport analysis of Office for National Statistics: GDP low level aggregates

6 Department for Transport (2018): Business passengers, dynamic surveying for aviation

7 Department for Transport analysis of Office for National Statistics: Annual Business Survey (2017)

8 Department for Transport analysis of Office for National Statistics: Annual Business Survey (2015)

9 Office for National Statistics: Travel Trends 2017

10 Office for National Statistics: The UK Tourism Satellite Account (UK-TSA) 2016

11 Office for National Statistics: Travel trends and visits, Overseas visits to the UK 2017

## Challenges and opportunities for the future

- 1.9 Aviation plays a vital role in the economy, but the government and the industry cannot afford to be complacent, or to imagine that without action aviation will continue to bring these benefits. Despite its strengths, UK aviation faces challenges to overcome in order to take advantage of the opportunities of the future. These include how to realise the benefits of sustainable growth and remain at the forefront of innovation.

### Global change and shifting markets

- 1.10 Globally, conflict and instability will always be major risks to economic growth. There remains a significant global terrorist threat, including to the UK and our people and interests overseas. Protectionist economic policies and travel restrictions could also have a potential impact on global passenger numbers and freight movement. The UK is committed to continuing to advance the case for free trade and open access to aviation markets, especially as it leaves the European Union (EU), and it will continue to use its membership of international aviation organisations to do so.
- 1.11 The UK needs to be well positioned to take advantage of the expected changes to the global economy, which could more than double in size between now and 2050.<sup>12</sup> Emerging economies, such as Brazil, India, Indonesia and Mexico are likely to be leading global players by the middle of the century. Europe's share of global GDP is likely to fall as these new economies become even more important. Much of the African market continues to have significant potential, with the African Union considering setting up a single aviation market for the continent. The UK looks set to maintain its place amongst the leading global economies.<sup>13</sup>
- 1.12 Infrastructure development is key to unlocking growth potential. China is rapidly expanding its transport infrastructure and plans to build 66 new airports over the next five years. Beijing's second international airport will have seven runways and will process 72 million passengers a year when it opens in 2019.<sup>14</sup>
- 1.13 China's investment reflects the eastward shift in global aviation markets. The International Air Transport Association (IATA) expects 8.2 billion passengers to travel by air in 2037, more than doubling the 4 billion air travellers in 2017.<sup>15</sup> The biggest source of this demand will be the Asia-Pacific region, which is expected to have more than half of the new passengers over the next 20 years.<sup>16</sup>

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12 PWC (2017): The world in 2050

13 as above

14 CAPA Centre for Aviation: Beijing Daxing International Airport

15 IATA (2018): 20-Year Air Passenger Forecast

16 as above

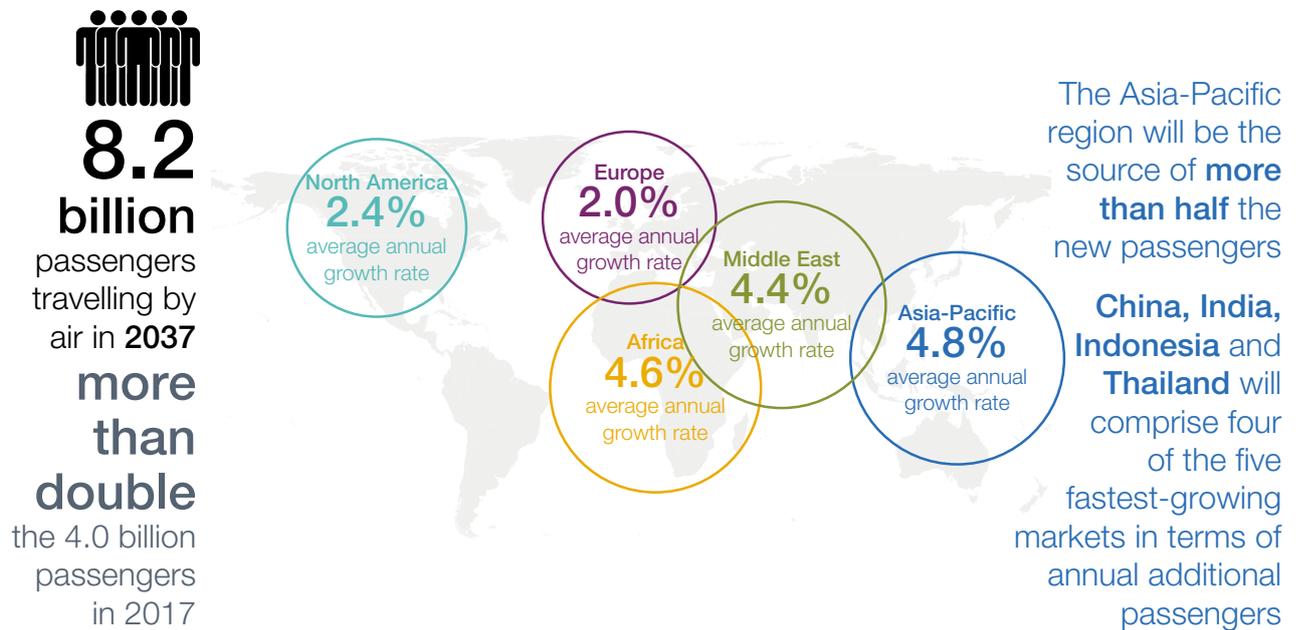


Figure 3 Global shift in aviation markets

Source: International Air Transport Association (2018): 20-Year Air Passenger Forecast

1.14 China now looks set to displace the United States (US) as the world's largest aviation market as early as 2022. India will rise to third place by 2025, with Indonesia fourth by 2030. The last decade has also seen the rise of the major Middle Eastern hubs as the region continues to tap into the potential of its strategically important geographical position. In 2017, Dubai handled the most international passenger traffic in the world, with 87.7 million international passengers, while Doha handled 35.3 million international passengers, both more than double the number of passengers handled a decade ago.<sup>17</sup> The UK is well positioned to consolidate its position as the largest aviation market in Europe supported by the designation of the Airports National Policy Statement for a third runway at Heathrow, and the expected level of growth and extra connectivity this will bring.<sup>18</sup>

### Impact of competition on business models

1.15 Globally, aviation is in a strong position and continues to attract high levels of investment, particularly in the burgeoning aircraft leasing industry. Despite this, aviation remains vulnerable to economic and political headwinds. In a fiercely competitive environment there are risks to airlines from any rising costs, such as those associated with exchange rate fluctuations or volatile oil prices. The effect is likely to be felt by low-cost carriers in particular and those with the tightest margins. In Europe, we have seen Alitalia, Air Berlin, Monarch and most recently Primera Air become insolvent in recent years. There may also be further consolidation and alliances amongst airlines. In the US a wave of consolidation in recent decades has yielded fewer and larger airlines. It is too early to tell whether a similar market consolidation is underway in Europe, but we can expect to see business models continue to evolve.

<sup>17</sup> Department for Transport analysis of ICAO: Airport Traffic

<sup>18</sup> IATA (2018): 20-Year Air Passenger Forecast

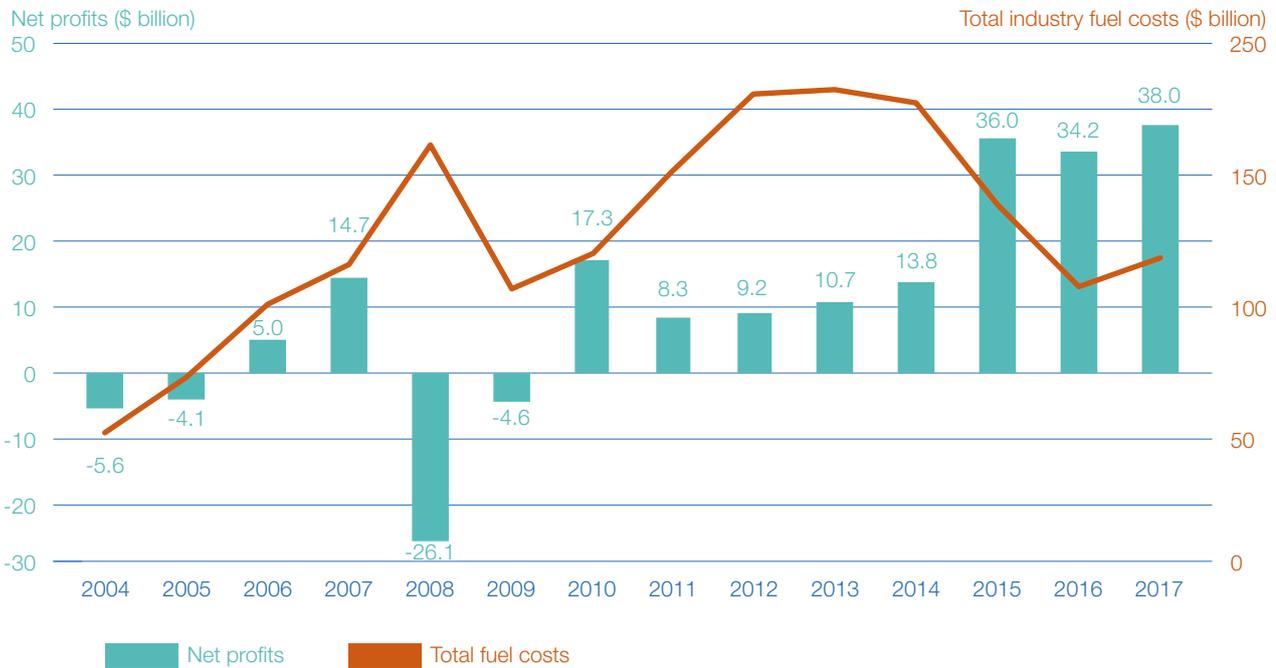


Figure 4 Fuel costs and net profits for global commercial airlines  
Source: IATA (2018): Economic performance of the airline industry

1.16 The emergence of low-cost carriers was arguably the most significant market trend in the last 40 years, helping to drive down prices for passengers and provide greater choice. It is likely that we will continue to see intense competition driving new and innovative business models. This could include more low-cost, short-haul routes but also an extension of the low-cost model to longer routes.



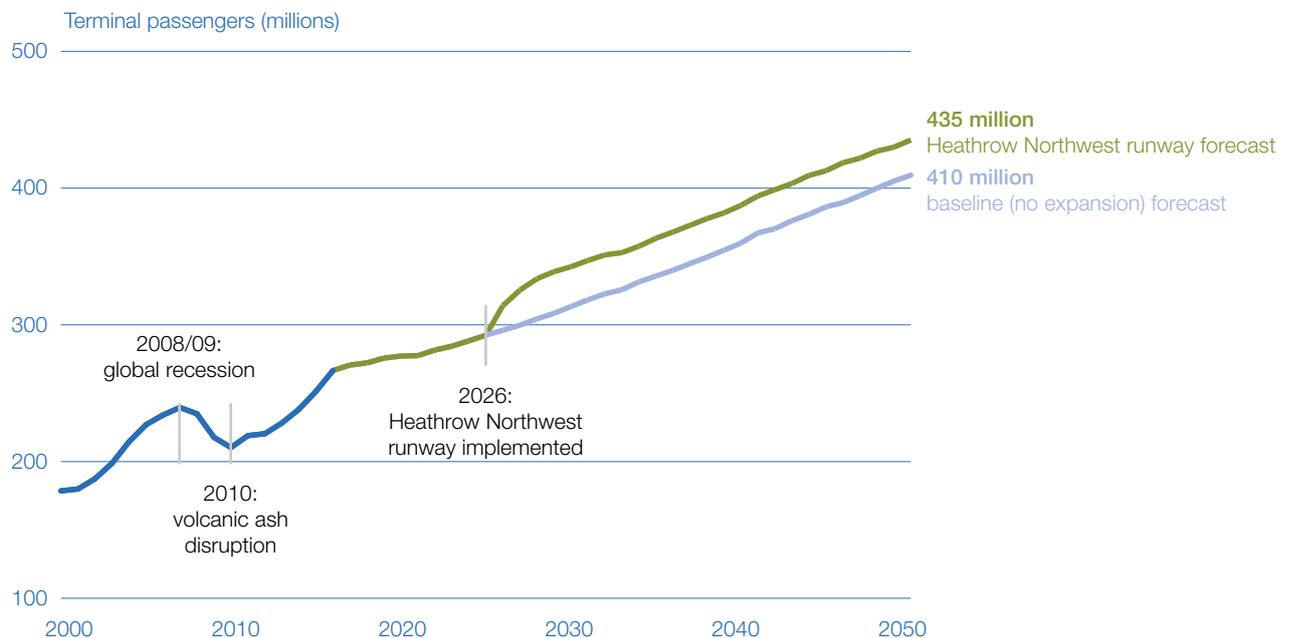


Figure 5 Trends in passenger numbers at UK airports and forecast to 2050

Source: Department for Transport analysis of Civil Aviation Authority: Airport Data, Department for Transport (2017): UK aviation forecasts

## Increasing demand

- 1.17 Globally, over 4 billion passengers flew in 2017. The global demand for air passenger services has grown significantly, with passenger numbers increasing by 7.2% between 2016 and 2017 and an overall increase of 65% in the decade since 2007.<sup>19</sup> This growth has been supported by broad improvements in global economic conditions and by lower airfares, which continue to be a strong driver of passenger demand.
- 1.18 We are continuing to see record numbers of passengers arriving at and departing from UK airports, with 284 million terminal passengers at UK airports in 2017. These numbers have more than doubled since 1997 and continue the steady increase in passenger numbers since 2010, following the global financial crisis in 2008.<sup>20</sup> Government forecasts show that the demand for aviation will continue to rise significantly and annual UK passenger numbers are likely to increase to 435 million by 2050.<sup>21</sup>
- 1.19 There were record quantities of freight handled by UK airports in 2017, highlighting the growing importance of aviation to the transport of freight. Globally, air freight grew more than twice as fast as overall global trade during 2017 – the widest margin of outperformance since 2010.<sup>22</sup> The changing nature of the goods and services we trade means that aviation freight is becoming increasingly significant to the economy, transporting high value, high tech products, medicines and just in time deliveries.

19 ICAO (2018): Air Transport Statistical Report

20 Department for Transport analysis of Civil Aviation Authority: Airport Data

21 Department for Transport (2017): UK aviation forecasts, central forecast under Heathrow Northwest runway

22 IATA (2018): Annual Review

- 1.20 This highlights the need for further capacity – delivered sustainably and in a way that benefits the whole country. The London airport system will be almost entirely full by 2030 without expansion. The Airports Commission estimated that failing to address the need for extra airport capacity could cost passengers £21-23 billion in the form of fare increases and delays, and potentially £30-45 billion to the wider economy.<sup>23</sup>
- 1.21 This is why the government is supportive of the development of a third runway at Heathrow Airport, which could deliver up to £74 billion worth of benefits to passengers and the wider economy.<sup>24</sup> It is also supportive of airports throughout the UK making best use of their existing runways, subject to environmental issues being addressed. However, there is a need for clarity on what the future framework will be for providing additional capacity to meet demand, while managing environmental and community impacts.

### Changing expectations of passengers

- 1.22 It is likely there will be close to 10 billion people in the world by 2050.<sup>25</sup> The UK population is estimated to reach more than 76 million by 2046. We will also be living for longer with close to a quarter of the UK population estimated to be aged 65 or over by the middle of the century.<sup>26</sup> Population growth brings with it increasing demand for transport, including for aviation. It will also bring about demographic changes that the industry will need to respond to. This includes the increase in demand for special assistance services for older passengers and passengers with reduced mobility.
- 1.23 We can expect to see changes in consumer expectations of aviation. A generation that has grown up with low-cost travel is likely to be more receptive to business models providing low-cost, long-haul routes. With more information becoming available, passengers may also be more discerning about their travel choices and may take account of additional factors when making a booking, such as an airline's punctuality and compensation record, and environmental factors. We can also expect to see changes in the way that consumers expect to interact with aviation businesses through the use of technology or social media. Consumers are also likely to have higher expectations of the level of service they should receive.

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23 Airports Commission (2017): Final Report

24 Department for Transport (2017): Updated Appraisal Report, Airport Capacity in the South East

25 United Nations (2017): World Population Prospects

26 Office for National Statistics (2017): Overview of the UK population

## Environmental impacts

- 1.24 The transport sector, including aviation, must do its fair share to tackle the problem of climate change, both domestically and internationally. By 2050 climate change is likely to have had more noticeable effects. By far the most abundant of the greenhouse gases responsible for rising global temperature is carbon dioxide (CO<sub>2</sub>). UK aviation accounts for around 7% of the UK's total greenhouse gas emissions, but its share of emissions is likely to continue to increase as other sectors, such as energy and manufacturing, decarbonise more quickly.<sup>27</sup> This means that aviation could represent a 25% share of the UK's greenhouse gas emissions by 2050.<sup>28</sup>
- 1.25 The 2015 Paris Agreement of the United Nations Framework Convention on Climate Change (UNFCCC) committed to keep the global temperature rise to well below 2°C this century and to pursue efforts to limit the temperature increase to 1.5°C.<sup>29</sup> The Intergovernmental Panel on Climate Change (IPCC) have said that limiting warming to 1.5°C will require rapid, far-reaching and unprecedented changes in all aspects of society, including transport.<sup>30</sup> Efforts to meet the Paris target, or any successor agreement, are therefore expected to include continued efforts to reduce aviation's share of global CO<sub>2</sub> emissions. The recently agreed global carbon offsetting measure for aviation (CORSIA) is the first worldwide scheme to address CO<sub>2</sub> emissions in any single sector and demonstrates the international ambition for aviation to play its part in tackling climate change.
- 1.26 Disturbance from aircraft noise has negative impacts on the health and quality of life of people living near airports and under flightpaths. There is also evidence that the public is becoming more sensitive to aircraft noise, to a greater extent than noise from other transport sources, and that there are health costs associated from exposure to this noise.<sup>31</sup> The government is supporting the industry to deliver airspace modernisation and has also established a new Independent Commission on Civil Aviation Noise (ICCAN), but efforts to reduce and manage noise impacts must continue.

## Making the most of new technology

- 1.27 New technologies will be at the forefront of growth and represent some of the greatest opportunities for the future. There is potential for design-led sectors such as aerospace to be at the forefront of global economic growth for the rest of the 21st century. We could see significant changes in the design and types of aircraft occupying our skies. The development of artificial intelligence (AI) technology and rising levels of automation have the potential to raise productivity and increase the growth of the aerospace sector. AI based innovations are already making an impact throughout the travel journey – from the facilitation of smarter suggestions in search and booking, to the introduction of digital concierge services.

27 Department for Transport analysis of Department for Business, Energy and Industrial Strategy: Final UK Greenhouse Gas Emissions National Statistics 2016

28 Committee on Climate Change (2015): Advice on the fifth carbon budget

29 Paris Agreement under the United Nations Framework Convention on Climate Change, 2015

30 IPCC special report on the impacts of global warming of 1.5 °C

31 Civil Aviation Authority (2017): Survey of noise and quality of life 2014, aircraft

- 1.28 Electrification provides a significant opportunity for aviation to decarbonise, but it remains a significant challenge for aviation, not least the integration of heavy batteries into aircraft. However, the pace of progress in battery technology is enabling new power concepts across all transport modes, including aviation. It is possible that by 2050 we will see some form of hybrid engine technology in use in new aircraft designs that will allow for cruising between destinations using electric power. Hybrid aircraft could potentially start operating on routes of up to 1,000km by 2035, the equivalent of flying from London to Geneva. This could be transformational in the quest to balance growth in aviation with reducing environmental impacts.
- 1.29 Automation could revolutionise transport. Driverless transport is likely to be widespread by the middle of the century. For aviation, this will inevitably mean an element of greater automation even if there is still a human element in the cockpit. The increased automation of aircraft over recent years has had clear safety benefits, reducing the likelihood of accidents caused by human factors. Nevertheless, automation presents a public acceptance challenge which the industry will need to overcome, but the benefits could be significant in helping airlines to maintain their competitiveness.
- 1.30 Digitalisation is already transforming our transport system. In aviation we have seen concepts such as remote digital control towers become a reality, allowing far greater fields of view to improve safety and enable airport growth. Improvements to data sharing are expected to bring billions of pounds' worth of benefits to the transport sector over the next few decades as industries use data to transform passenger services. But this is not without risk. The prospect of cyber-related disruption and attacks on the aviation industry is very real. There have already been serious and sophisticated cyber attacks on airlines. Such attacks are likely to continue and the government will need to work closely with the aviation industry to manage and mitigate these risks.
- 1.31 Commercial spaceflight could be a reality by 2050 and the UK wants to play a key role through the development of horizontal and vertical spaceports. These will provide facilities for lucrative satellite launches, as well as the development of our nascent space tourism industry. This is expected to bring significant crossover benefits between space and aviation, spearheading new aircraft design and aerospace technology. The Space Innovation and Growth Strategy (SIGS) set the goal of growing the UK space sector to £40 billion of annual turnover by 2030, representing 10% of the global market, and to grow UK space-related exports to £25 billion by 2030.<sup>32</sup>
- 1.32 These new technologies and industries will bring about changes in the skills required for successful aviation and aerospace. There will continue to be importance placed on key science, technology, engineering and manufacturing (STEM) roles but we can expect to see an evolution in the nature and types of these jobs as technological advances continue.

## What this means for Aviation 2050

- 1.33 Together, these trends present significant opportunities to be exploited, but also challenges to overcome and manage. Global and domestic trends show that with the right economic conditions, the year-on-year growth in passenger numbers and air freight can be expected to continue. There are also signs of change in the market which could which transform business models and the offer for consumers. Meeting this increased demand will require a new partnership between the government, the industry, the regulator and communities that balances the economic benefits of growth with its impact on communities and the environment.
- 1.34 The eastward shift in aviation markets and the growth in new technologies mean that aviation could look very different to how it does today, both globally and domestically. To remain competitive on the global stage, and to safeguard its role as one of the leaders in both aviation and aerospace, the UK must be well positioned to take advantage of these new opportunities, while managing the potential economic, political and environmental headwinds along the way.
- 1.35 This is the motivation behind a new Aviation Strategy which will:
- **build a global and connected Britain** – further expanding and liberalising our connectivity to new and existing global markets, promoting our successful aviation and aerospace industries, and leading by example on the global stage on open trade, the environment and security
  - **ensure that aviation can grow sustainably** – moving beyond an artificial ‘choice’ between growth and environmental protection by building a new partnership that actively supports sustainable growth with actions taken to mitigate environmental impacts
  - **support regional growth and connectivity** – ensuring aviation enables all regions of the UK to prosper and grow, providing jobs and economic opportunities and a meaningful contribution to the life of communities up and down the country
  - **enhance the passenger experience** – ensuring all passengers have the best possible experience of UK aviation, working with industry to promote the existing and widespread best practice, but also driving up standards and enforcement in areas where improvement is needed
  - **ensure a safe and secure way to travel** – maintaining and further building the UK’s position as one of the safest and most secure aviation systems in the world, and work closely with international partners to support improvements in both safety and security overseas, in order to protect the interests of UK citizens around the world
  - **support General Aviation (GA)** – ensuring that government has appropriate and proportionate policies to build on the success of GA
  - **encourage innovation and new technology** – to be at the forefront of research and development, and exploiting the possibilities of new aviation technologies
- 1.36 The rest of this document sets out the government’s proposed policy approaches to meet these objectives and seeks feedback on the options it has identified.





Build a global and  
connected Britain

## 2. Build a global and connected Britain

**Aviation is vital to the government's goal of building a global and connected Britain. The government wants the UK to be best placed to build new connections in rapidly growing aviation markets, and to use our international influence to lead the way on liberalisation, security and safety standards, and environmental measures including robust, environmentally effective emissions reduction measures.**

### Introduction

- 2.1 Aviation is vital for building a global Britain that is outward looking and is connected to the world. The UK plays a prominent role in aviation on the world stage. We have the biggest aviation network in Europe and currently the third largest in the world. We also have the second largest aerospace industry in the world and manufacture some of the most advanced aviation technology. The UK is a leading provider of components within the global supply chain for aviation products.
- 2.2 Our influence on the world stage has brought clear benefits, both for the UK consumer and consumers around the world. As a founding member of the International Civil Aviation Organisation (ICAO) and a leading voice today, we have played a key role in creating the frameworks that aviation relies upon. The government wants to use that voice to continue to support the development of international standards that are fit for the future, working through international institutions and with international partners.
- 2.3 Aviation makes a significant contribution to the UK economy, and the government believes that continuing to expand our global connectivity through open, liberal arrangements with others will increase that contribution even further.



- 2.4 The goods and services that support aviation are valuable UK exports and the government wants to work with the aviation industry to remove barriers, so that UK companies who want to compete in the global market are able to do so.
- 2.5 This chapter sets out:
- the global leadership role that the UK intends to maintain through working collaboratively through international institutions and partnerships
  - the importance of furthering global connections
  - the potential for expanding the UK's global exporting success in aviation

### Global leadership – working to improve standards

- 2.6 As the global air transport network continues to expand with rapidly growing new markets and new destinations emerging, the UK wants to ensure air travel is safe, secure, and environmentally sustainable and can adopt new technologies and business models to continue to respond effectively to consumers' needs.
- 2.7 The international nature of air travel means that the development and adoption of common international standards is critical. Differences in standards may make travelling to some destinations more complex and potentially risky for consumers and result in significant regulatory burdens and costs for business. The government is committed to fostering the development and convergence of rigorous international standards to facilitate UK and global trade, and to ensure consumers are safe and secure wherever they travel.
- 2.8 Given the scale of its aviation industry and industry expertise, the UK has an important role to play in delivering change but cannot, and should not, deliver this alone. International partnerships and effective engagement in international institutions will be critical to ensure no country is left behind.
- 2.9 The UK is already a global leader in the setting of international standards, particularly in our priority areas of safety, security and the environment. We work closely with individual countries and within international organisations such as ICAO, the European Civil Aviation Conference (ECAC) and EUROCONTROL to achieve this.

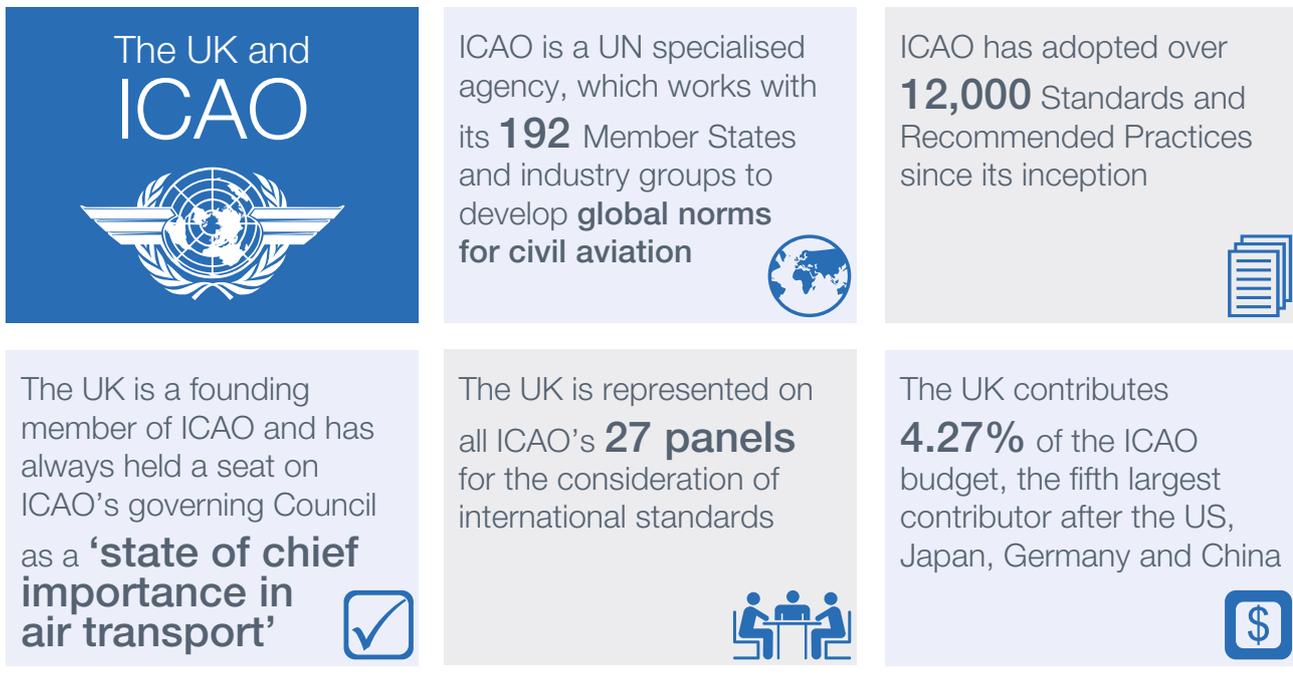


Figure 6 The UK and ICAO

## 2.10 The government will continue to support the development of robust international standards that are aligned to the interests of the UK.

### Environment

2.11 Effective international environmental technology and operational performance standards are essential to ensuring air travel becomes increasingly sustainable (see chapter 3 for further details). The government proposes to work with international partners to:

- **continue to lead efforts to negotiate for robust, environmentally effective emissions reduction measures that minimise market distortions and address aviation's emissions in the most cost-effective way**
- **support and strengthen the Carbon Offsetting and Reduction Scheme for International Aviation (CORSA) and negotiate for a long term goal for international aviation climate emissions, ideally by ICAO's 41st Assembly in 2022, that is consistent with the temperature goals of the Paris Agreement<sup>33</sup>**

### Security

2.12 Given the size of the UK's aviation network and the interconnectedness of global aviation, it is imperative that we ensure all states have robust aviation security frameworks in place, to make the skies safe for everyone. The UK is committed to delivering improvements to global aviation security, and the government believes that ICAO is the best international forum through which to do this.

<sup>33</sup> CORSA is aimed at limiting international aviation emissions to 2020 levels (carbon neutral growth).

2.13 The government proposes to work with international partners to:

- **support the effective implementation of the Global Aviation Security Plan,** which aims to increase cooperation between and within States
- **provide more targeted support and expertise through ICAO to facilitate the universal implementation of agreed international security standards** through the Universal Security Audit Programme
- **lead global action to keep aviation safe from potential threat posed by hostile insider actors**

## Trade

2.14 Liberalisation of air traffic rights provides greater flexibility for airlines in terms of number and frequency of routes and destinations, as well as removing restrictions to business models, such as ‘principal place of business’. Consumers benefit from the removal of restrictions through greater choice and increased competition with lower prices. The government proposes to continue to work with international partners to:

- **work through ICAO to build consensus on the merits of liberalisation and to encourage worldwide liberalisation**
- **ensure that our air services agreements allow commercial flexibility and do not impose unnecessary administrative burdens on industry**

## Technology and innovation

2.15 The government wants the aviation industry to continue taking innovative steps to grow and increase its sustainability, while ensuring passengers and freight fly safely and securely. The government proposes to work with international partners to:

- **develop a more agile international regulatory framework that is based on performance-based standards.** It will not be possible for global standards to keep pace with rapid developments in technology if they are overly prescriptive

2.16 The UK recognises the need to pay due regard to existing governance, but the government believes that the UK can provide additional support to ICAO in encouraging more agile processes for standard-setting, particularly in relation to new and emerging technology. The government proposes to:

- **encourage the efforts of ICAO to embed a greater culture of transparency and accountability. This will be beneficial to the effective delivery of international standards**

2.17 The UK recognises that the industry, rather than regulators or government, is at the forefront of technological developments for aviation. ICAO has proved increasingly receptive in recent years to engaging with industry. The government wants to:

- **encourage ICAO to work on a close and regular basis with industry in order to learn from their expertise and assess the social and environmental impacts of regulation**

## Bilateral leadership

2.18 The UK also takes bilateral action on safety and security issues. A key theme of our bilateral work focuses on the importance of sustainable capacity building and promoting a positive security and safety culture to support the shared objectives of the UK and ICAO's principle of No Country Left Behind (NCLB).<sup>34</sup> Key activities undertaken by the UK include:

- State Safety Partnerships: The UK's State Safety Partnership programme provides targeted safety interventions and support to build capacity within states where UK passengers may be exposed to risk. Over time, this allows the states to build their own capability to manage safety risks effectively
- Security capacity building: Since 2016, the UK has spent over £10 million on our overseas capacity development programme. Our emphasis is on providing expertise, training and support, covering a wide range of subject areas and threats

## Global connections



2.19 The UK has three objectives in improving global connections:

- maintain and improve the UK's connectivity
- seek more liberalised arrangements
- improve transparency of aviation arrangements

34 The No Country Left Behind (NCLB) initiative highlights ICAO's efforts to assist States in implementing ICAO Standards and Recommended Practices (SARPs). The main goal of this work is to help ensure that SARP implementation is better harmonized globally so that all States have access to the significant socio-economic benefits of safe and reliable air transport.

## Maintain and improve the UK's connectivity

2.20 Maintaining and improving air connectivity to Europe, established global trading partners and emerging markets is crucial to supporting UK businesses and passengers. The UK will need to continue to respond to changing political and economic developments over the next 30 years.

## Establishing an ambitious new relationship with the European Union (EU)

2.21 The government seeks an arrangement with the EU that is as liberal as possible, to allow airlines the maximum flexibility to continue to evolve and innovate. In November, the government published the Political Declaration, setting out the framework for the future relationship between the UK and the EU. For aviation, the UK and EU have agreed that passenger and cargo connectivity will be ensured through a Comprehensive Air Transport Agreement, which will provide for market access for UK and EU airlines. It will also include provisions to facilitate cooperation on aviation safety, security and air traffic management, as well as arrangements for investment in airlines.

2.22 The UK remains committed to maintaining high standards of aviation safety and security. To support this, the government has agreed with the EU to make arrangements for close cooperation between UK authorities and the European Aviation Safety Agency (EASA).

2.23 Both the UK and EU have also been clear that arrangements will be put in place to ensure that flights between the UK and the EU can continue regardless of the broader agreement. In its technical notices, published in September, the UK set out the approach that the UK would take in the unlikely event of a no-deal scenario. The EU also published its plans for aviation contingency preparations. These publications make clear that both sides will bring forward measures that will allow UK and EU operators to continue flying to each other's territories on a reciprocal basis, regardless of the outcome of the wider negotiations.

## Extending global connectivity

2.24 Air services largely operate within a framework of bilateral and multilateral agreements which determine the terms under which airlines can operate between countries. The UK's current approach to air services agreements favours as much liberalisation as possible, if it is in the UK's national interest. Where this requires limits or restrictions on freedoms available or the number of flights, the government will work to negotiate the best possible outcome that is acceptable to all parties.

2.25 To date, the UK has updated its air services agreements by identifying opportunities that may arise, or in response to specific requests from industry. These include recently signed air services agreements with China and India.

### Air Services Agreements with China and India

The UK signed updated air services agreements with India in February 2017 and China in December 2017. These agreements allow UK airlines to access more East Asian destinations, more frequently than before.

These agreements have opened up access to markets with 2.5 billion combined residents, providing increased opportunities for trade and travel.<sup>35</sup> The benefits are significant – there were 406,000 inbound visits to Britain from China in 2017, up 32% from the previous year, with total expenditure by Chinese tourists in the UK at around £759 million (up 35% from the previous year).<sup>36</sup>

Since signing these agreements new routes have been announced including Shanghai-London Gatwick and Manchester-Mumbai, by China Eastern and Jet airways respectively, providing greater choice for consumers.

2.26 Most recently, the government has been focusing on rapidly growing markets and emerging economies, including those where there are significant passenger benefits.

### Air Services Agreement with Brazil

The UK signed an updated air services agreement with Brazil in October 2018.

This agreement has opened up access to a market with over 200 million residents, providing increased opportunities for trade and travel.<sup>37</sup> The potential benefits are significant – there were 244,000 inbound visits to Britain from Brazil in 2017, up 31% from the previous year, with total expenditure by Brazilian tourists in the UK at around £263 million (up 34% from the previous year).<sup>38</sup>

2.27 In addition to new agreements, it is also important for the UK to maintain connectivity with established markets. In preparation for its departure from the EU, the UK has successfully concluded new, bilateral, air services arrangements (to replace existing EU-negotiated agreements) with a number of countries, including the US and Canada, to ensure that the UK maintains connectivity with key freight and passenger markets and remains one of the world's leading aviation hubs for both travelers and businesses.

## Seek more liberalised arrangements

2.28 The current framework of bilateral and multilateral agreements can sometimes place limitations on market access. This can then stifle supply, competition and innovation to the detriment of consumers, industry and the economy at large. While there has been a worldwide trend for liberalising air services arrangements, progress is slow, and there are signs that current progress might not continue. The UK has been at the forefront of liberalisation, and we have the opportunity to continue our leadership in this area, shaping the direction of air services arrangements over the coming decades.

35 Central Intelligence Agency: The World Factbook

36 Office for National Statistics: Overseas visits to the UK (2017)

37 Central Intelligence Agency: The World Factbook

38 Office for National Statistics: Overseas visits to the UK (2017)

2.29 Benefits of air transport liberalisation include:

- greater connectivity – liberalisation opens up the possibility of routes to new destinations and increases in frequency
- better services and lower prices – increased competition resulting from liberalisation leads to lower prices and better service for consumers
- increased tourism – for instance, improved access to regional airports allows more tourists to visit those regions, spreading economic benefits across the UK
- increased trade and investment – air services are a catalyst for international trade and investment and liberalisation can only improve matters

2.30 A key objective of the government's negotiation strategy for air services is therefore to continue to seek more liberalised arrangements, both for new agreements and to exploit opportunities to press for the same when an opportunity arises with respect to existing agreements. The government proposes to focus on the following areas:

- air traffic rights
- airline ownership and control
- interchange (short-term leasing of aircraft between airlines)

### Air traffic rights

2.31 The government proposes to:

- **fully liberalise air traffic rights to remove restrictions to freedoms, frequencies, destinations and carriers.** The more liberal the traffic rights, the more flexibility airlines have. Full liberalisation provides the greatest benefits for the UK, as airlines are no longer constrained by arbitrary restrictions to their operations
- **seek multilateral agreements where possible,** allowing for greater liberalisation between those countries

### Airline ownership and control

2.32 The government proposes to:

- **modernise the obsolete restrictions on airline ownership by focusing on a company's primary place of business when determining an airline's access to international traffic rights,** rather than the nationality of the ownership and control of the company. The government believes that international traffic rights available to the UK should be available to any airline that is a UK registered company, is regulated by the CAA and has its principal place of business in the UK

2.33 Traditional airline ownership and control restrictions based on nationality are a notable impediment to international air services. The government believes that such restrictions are obsolete; what matters is that an airline is safe, secure and properly regulated, not the nationality of the owner. The government believes that a new global standard is needed.

2.34 Ownership and control restrictions constrain airlines' ability to raise capital. Such restrictions are sometimes used tactically by other countries to restrict market access – typically to protect incumbent and/or state-subsidised airlines. In contrast, foreign ownership is commonplace in other sectors, for instance in car manufacturing where foreign investors have helped to revitalise the industry and make it internationally competitive.

### Interchange

2.35 The government proposes to:

- **facilitate the use of interchange arrangements by ensuring a safe regulatory framework** that can be reflected in air services agreements and other relevant agreements

2.36 Interchange – the short-term leasing of aircraft between airlines – offers promising economic and operational benefits, but also needs to be considered carefully from a regulatory perspective, especially when it comes to safety. Airlines are moving to greater flexibility of aircraft fleets and establishing multiple Air Operator Certificates (AOCs) in different jurisdictions. The key question for governments is how to maintain regulatory oversight of aircraft being operated in a mix of jurisdictions from a variety of AOCs and registries.

2.37 The government proposes:

- **to work with the CAA to design a framework that allows UK airlines to put in place interchange arrangements with other airlines, and to operate air services using aircraft on an interchange basis.** This should also allow for foreign airlines operating to/from the UK to do the same.

2.38 To deliver these policies, the government proposes to:

- **continue to work through ICAO to build consensus on the merits of liberalisation and to encourage worldwide liberalisation**
- **liberalise our air services agreements with other countries and explore opportunities to create our own multilateral agreements with like-minded countries to further liberalisation**
- **work with our international partners to ensure that our air services agreements allow commercial flexibility and do not impose unnecessary administrative burdens on industry**
- **systematically review all air services agreements within 10 years of negotiation, with a view to liberalising them further, where appropriate**

## Improving transparency

2.39 The government wishes to support the aviation industry to deliver the benefits of connectivity and liberalisation to UK consumers and businesses. Ensuring that information is easily accessible to the industry and seeking their ongoing feedback on priorities for negotiation is key to achieving this. The government therefore proposes to:

- **publish key aspects of the UK's air services agreements online, such as traffic rights, capacity/frequencies and code-share arrangements**

## Airline competition

2.40 Recent years have seen a growth in airline alliances and joint ventures. Such arrangements can generate efficiency gains, potentially bringing air fares down. Consumers can also benefit through more choice, optimised airport connections and shared frequent flyer programmes (FFPs). Conversely, it could be argued that alliances and joint ventures stifle competition and, for instance, that FFPs can deter consumers from switching between airlines (and therefore pose a barrier to entry for new airlines). The government currently has no real evidence about the impact of alliances and joint ventures on consumers or on other airlines and would welcome views on this point.

## Global industry – supporting exports

2.41 As set out in the government's Exports Strategy, the UK has a global reputation for innovation, a skilled workforce and a well-regulated economy. The UK has strengths in aviation across a number of different activities and should seek to capitalise on its world leading expertise, including in:

- the design, manufacture and assembly of aerospace products (such as wings, engines, aircraft) as well as their maintenance, repair and overhaul
- the operation of an aviation network (such as airport operations, baggage handling, security screening, airspace management, regulation etc.) and its facilitation of further sectors including international trade in goods, global business, and tourism
- the regulatory framework
- delivering services in the design, master planning and construction of airports
- the operation of airports, including cutting-edge initiatives in air traffic control and the movement of people
- autonomous transit systems
- security and specialist equipment supply

2.42 Recent export successes in these areas include security screening systems, baggage handling systems, runway security radar equipment, and ground support vehicles. UK aviation expertise is a key competitive advantage that the government will nurture and invest in over the long-term.

2.43 The government's Industrial Strategy sets out in detail how the government intends to back the aerospace sector and its strengths in productivity and innovation to secure a share of the growing global market

### Industrial Strategy

The Industrial Strategy sets out the government’s commitment to strengthening the foundations of productivity – ideas, people, infrastructure, business environment, and places – and to meeting the Grand Challenges that will position the UK to succeed in the face of world-changing economic trends.

On aviation, it acknowledges the importance of the UK’s aviation network and explains that the government is developing a new Aviation Strategy to build on our strengths to create a safe, secure and sustainable aviation sector for a global, outward looking UK.

2.44 The UK already has a significant share in the global market for aviation exports, in both air transport services and aerospace goods.

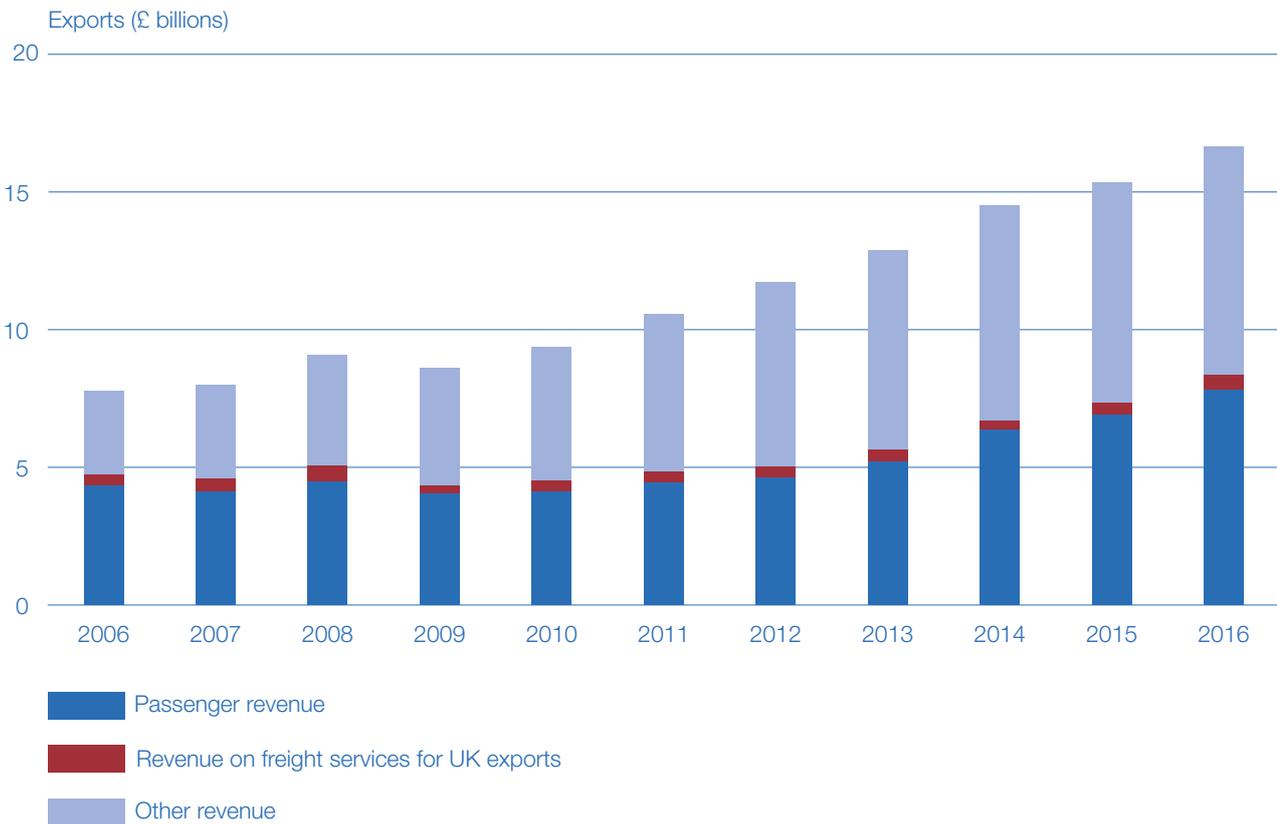


Figure 7 UK air transport services exports  
Office for National Statistics: Pink Book 2018, Chapter 3 Trade in Services

2.45 Given the scale of the UK’s aviation network, the UK has also built a global reputation for innovation and a skilled workforce with specialist knowledge in the activities that support the performance of aviation, across a breadth of diverse activities. These activities include amongst others:

- the operation of airports, including leading-edge initiatives in air traffic control
- architectural and engineering services in the design, master planning and construction of airports

- security and specialist equipment supply and their associated consultancy and training services
- design and production of baggage handling systems and ground support vehicles

2.46 Globally, there is a significant market opportunity within transport infrastructure as a whole. Transport infrastructure is the largest component of planned infrastructure spend globally (around \$5 trillion). There are \$3 trillion of planned infrastructure projects in emerging markets, driven by rapid urbanisation and availability of funding, \$400 billion of which is on airports.<sup>39</sup> Within developed markets, countries have continued to increase expenditure, driven by the need to improve ageing infrastructure.

### Tackling barriers to aviation-related exports

2.47 There are a range of barriers that UK companies may face when considering exporting their goods or services, including maintaining an awareness of global opportunities, understanding the route to market, gaining access to the supply chain of the prime contractor, and the confidence and/or capacity to compete with companies overseas. These issues may be particularly pertinent for small businesses.

2.48 UK companies may also face practical barriers such as customs procedures, so-called 'non-tariff' barriers and local regulations. Abroad, the transport infrastructure sector is competitive, dominated by government-backed multinationals. At home, we have worked to promote an open, liberal UK market for the benefit of consumers, meaning that UK companies face increased international competition. UK companies often participate in consortia when bidding for and undertaking large and complex projects internationally, which helps to mitigate risk and improve competitiveness.

2.49 In August 2018, the government published its Export Strategy, which sets out the four ways the government can help to break down the barriers to export, each supported by a set of resources and initiatives:

- ensure no viable UK export fails for a lack of finance or insurance from the private sector
- connect UK businesses to overseas buyers, international markets, and each other
- help businesses access the right information, advice and practical assistance
- encourage and inspire businesses that can export but have not started or are just beginning

2.50 The Aviation Strategy will support the Industrial Strategy and Export Strategy by considering how the government can best support the specific needs of businesses whose activities are connected to aviation as they consider exporting internationally.

- 2.51 UK firms can build consortia to offer complete supply chain products for international contracts and increase the prospects of UK success. The government can then help by leveraging its networks, relationships and influence to help UK businesses to connect more successfully with international companies, customers, markets, and each other. This UK firm-led consortia approach can be particularly helpful for small and medium-sized enterprises (SMEs), given the additional barriers they face to competing overseas.
- 2.52 The government will continue to work with industry, through Infrastructure Exports:UK (IE:UK) and other fora, to take a strategic approach to UK engagement overseas.

### Case study – Infrastructure Exports:UK

Infrastructure Exports:UK (IE:UK) is an industry led group co-chaired by the Minister of State for Trade and Export Promotion, which aims to increase the UK share of global infrastructure projects by engaging foreign customers and engaging at the pre-competitive stages of projects to shape demand for collaborative UK solutions. The main board is supported by subsector working groups. The aviation working group includes leading strategic advisors, design engineers, contractors and aviation companies and organisations such as the British Aviation Group (BAG), NATS and CAA International (CAAi). To date the group has focused largely on global opportunities related to airport build projects.

- 2.53 The government has been considering the extent to which an even greater ‘Team UK’ approach would add value across the span of business activities connected to aviation, which includes a wide range of products and services not always recognised as airport infrastructure. These products and services, such as aircraft tagging, ground handling, security services and others, are often served by small and medium-sized enterprises (SMEs) which may have limited resource and industry representation to strengthen their ability to export as widely as larger firms.
- 2.54 The government wants to make sure that all parts of this diverse sector, including SMEs, are supported to tackle the barriers they may face when exporting. The government proposes:
- **to work closely with the British Aviation Group to set up a new Aviation Exports Board, which will bring together all relevant parts of the sector**
- 2.55 The board will provide a forum for discussing barriers that companies are experiencing and how the government can help to remove those barriers. The government welcomes views from industry on areas that this new board could focus on.

### Free trade agreements

- 2.56 As set out in the ‘Preparing for our Future UK Trade Policy’ white paper, the government is developing the UK’s independent trade policy to forge new and ambitious trade relationships with our partners around the world. The government has recently conducted four public consultations on potential future trade agreements with the USA, Australia, New Zealand and on the UK’s potential accession to the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP).

2.57 Trade agreements do not apply to air services such as traffic rights or services directly related to traffic rights. However, they can cover a range of auxiliary services, such as aircraft repair and maintenance services, the selling and marketing of air transport services, computer reservation system (CRS) services, ground handling services, and airport operations. Therefore, as we develop our new trading arrangements, international trade agreements will provide a significant opportunity for the UK to address barriers to trade in these areas and to support the industry as a whole.

### Consultation questions

Consider the policy proposals in this chapter and answer the following either for the chapter as a whole; groups of policies within the chapter and/or individual policies:

1. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?
2. How should the proposals described be prioritised, based on their importance and urgency?
3. Are you aware of any relevant additional evidence that should be taken into account?
4. What implementation issues need to be considered and how should these be approached?
5. What burdens, both financial and regulatory, are likely to need to be managed and how might those be addressed?
6. 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?
7. Looking ahead to 2050, are there any other long term challenges which need to be addressed?
8. How should the UK use its global leadership and international influence to further the aims of the UK aviation sector?
9. What should the UK's priorities be for strengthening existing connections and establishing links with emerging markets?





Ensure aviation can  
grow sustainably

### 3. Ensure aviation can grow sustainably

**Aviation provides significant economic and social benefits to the UK. It is an industry that contributes at least £22 billion to our economy, supports half a million jobs, serves 284 million passengers and transports over 2 million tonnes of freight a year. Forecasts show that demand for aviation will continue to rise in the period up to 2050. The government welcomes the industry's future expansion. However, its growth must be sustainable – with affected communities supported and the environment protected. It is therefore vital that the government, the regulator, the industry and other interested parties work in partnership to achieve this shared goal.**

#### Introduction

- 3.1 Demand for aviation has grown significantly since 2010. Passenger numbers have increased by 35%, with a record 284 million passengers passing through UK airports in 2017. Growth in passenger numbers since 2010 in the six London airports<sup>40</sup> is the equivalent of a new airport the size of Gatwick. Some of the highest growth rates are outside the south east at airports such as Manchester (57%), Edinburgh (56%), Doncaster Sheffield (53%), Leeds Bradford (50%) and Bristol (44%).<sup>41</sup>
- 3.2 Industry has responded to this demand. Airlines have sought to fully utilise their existing aircraft and have used larger aircraft, which has meant aircraft movements have only increased by 13% to support 35% growth in passengers.<sup>42</sup> They have also invested in newer, cleaner and quieter aircraft. Airports have invested record amounts in their own infrastructure and have worked with national and local government to improve road and rail access to their airports.
- 3.3 Even with these improvements there are challenges that need to be addressed. Growth can have significant environmental impacts which affect local communities and increase emissions. There are also significant infrastructure constraints which require urgent attention, such as the need to modernise our airspace, improve transport links to airports and consider whether new runways are required. Therefore, while the government supports continued growth in aviation over the next 30 years, it also believes that the UK must be more ambitious on environmental protection to ensure that growth is sustainable.

40 Heathrow, Gatwick, London Luton, London Stansted, London City, London Southend

41 Department for Transport analysis of Civil Aviation Authority: Airport Data

42 Department for Transport analysis of Civil Aviation Authority: Airport Data

### 3.4 This chapter:

- outlines the government's preferred approach for developing a framework for sustainable growth and the respective roles for government and the industry
- makes the case for making most efficient use of the infrastructure available, including by considering the system for slot allocation at airports and continuing to support the industry in improving resilience
- describes the approach being taken to airspace modernisation to deliver additional capacity and environmental benefits
- sets out a robust policy framework and package of measures to address the harmful effects of aviation on the environment, such as carbon emissions, air quality and noise
- sets out the government's expectations that communities should benefit directly from growth

## A partnership for sustainable growth

3.5 The government's forecasts show that demand for aviation will continue to grow in the period to 2050.<sup>43</sup> The government intends to discuss its modelling approach with stakeholders in the first half of 2019, which will inform future decisions on whether there is a case for additional runways.

3.6 The government accepted the independent Airports Commission's conclusion that there is a need to increase capacity in the South East of England by 2030 by constructing one new runway and supports a new Northwest runway at Heathrow Airport, through the designation of the Airports National Policy Statement (NPS).<sup>44,45</sup> This sets out the requirements that an applicant will need to meet in order for development consent to be granted. The government has also expressed support for other airports making best use of their existing runway capacity, subject to economic and environmental issues being addressed.<sup>46</sup>

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43 Department for Transport (2017): UK aviation forecasts

44 Airports Commission (2015): Final Report

45 Department for Transport (2018): Airports National Policy Statement

46 Department for Transport (2018): Making best use of existing runways

## Airports NPS

In June 2018, following a vote in Parliament, won with a significant majority, the Secretary of State designated an Airports NPS, which paves the way for vital new capacity at our major international hub – Heathrow Airport. The designation of the Airports NPS marks a significant step forward. It provides the primary basis for decision making on development consent applications for a Northwest runway at Heathrow Airport. It clarifies what is required to enable the development of much needed additional airport capacity that is essential for trade and economic growth, while setting clear requirements to mitigate the impacts on local communities and the environment. Following an application for development consent and a public examination by the independent Planning Inspectorate, this could see building work start in 2021 and a third runway operational by 2026.

- 3.7 The government is supportive of growth that is sustainable and will provide the necessary framework for this to happen.
- 3.8 This will require a partnership approach between the government, the regulator, the industry and other interested parties to ensure that necessary conditions are met in respect to infrastructure, community investment and environmental measures.
- 3.9 The partnership for sustainable growth which the government is proposing is a long-term policy framework which will need to be flexible enough to respond to new information, developments and changing circumstances, while providing sufficient long-term confidence for the industry and communities.
- 3.10 The government's expectation is that the new framework would apply to all airport and airline operations within the UK, although many policies would need to be tailored to the local circumstances. For example, there could be different policies applied depending on whether an airport was continuing to grow within existing planning approvals, was bringing forward a new planning application to make best use of existing runways, or in future was potentially seeking permission for a new runway. Until any framework is adopted as government policy, planning applications should continue to be considered against existing policy.

Partnership for sustainable growth



Figure 8 Partnership for sustainable growth

Future growth

3.11 The government believes that forecasted aviation demand up to 2030 can be met through a Northwest runway at Heathrow and by airports beyond Heathrow making best use of their existing runways subject to environmental issues being addressed. To ensure that this additional capacity delivers the full benefits for the consumer and industry while minimising the negative impacts on local communities, the government proposes to work in partnership with the industry to deliver on a number of policy areas, as set out in this chapter.

3.12 Additional growth in passenger demand will lead to a number of airports facing capacity constraints. The Airports Commission noted that while there may be a demand case beyond 2030, there is not necessarily a corresponding environmental or commercial case. While the government is not at the point of making a decision on long term need, it wants to seek views on how best to make any future decision, should that be required.

3.13 The government will need to consider whether there is a need for further runways. Based on the current evidence, the government believes that any new framework for growth could accommodate additional runways beyond 2030 if a needs case is proven and suitable conditions are met in respect of sustainability. As part of this, the government proposes to:

- **ask the National Infrastructure Commission (NIC) to include airport capacity in future national infrastructure assessments to determine whether there is a needs case for further runways**

3.14 If a need is identified, the government has options for how to reach a decision on location, subject to the grant of the necessary planning permission or development consent. This could be through a NIC sector study; an independent commission (like the Airports Commission); or an aviation NPS to either set out the criteria any development consent application would need to meet, or by naming airport(s). At this stage the government's preferred approach is an NPS to set out the criteria but not name specific airports, so leaving it to industry to determine whether and when to bring forward applications.

## Modernising our airspace for the future

### Airspace modernisation objective

The overall objective for airspace modernisation is to deliver quicker, quieter and cleaner journeys and more capacity for the benefit of those who use and are affected by UK airspace. This will be determined within the following parameters:

- create sufficient airspace capacity to deliver safe and efficient growth of commercial aviation
- progressively reduce the noise of individual flights, through quieter operating procedures and, in situations where planning decisions have enabled growth which may adversely affect noise, require that noise impacts are considered through the airspace design process and clearly communicated
- use the minimum volume of controlled airspace consistent with safe and efficient air traffic operations
- in aiming for a shared and integrated airspace, facilitate safe and ready access to airspace for all legitimate classes of airspace users, including commercial traffic, General Aviation and the military, and new entrants such as drones and spacecraft
- not in conflict with national security requirements (temporary or permanent)

- 3.15 The UK's airspace is an essential, but invisible, part of our national transport infrastructure, and is also some of the most complex in the world. However it has not undergone significant change since the 1950s, and this outdated infrastructure is struggling to keep pace with the growing demand for aviation, which can lead to delays. The situation will deteriorate further in the coming years as demand for air travel continues to rise, resulting in delays for passengers of 30 minutes on every 1 in 3 flights by 2030 if no action is taken.<sup>47</sup> This would be very damaging for passengers, business, the economy, communities and the environment.
- 3.16 In 2017 the government published the Strategic Case for Airspace Modernisation.<sup>48</sup> Although the government recognises that redesigning airspace will affect different people in different ways, this set out the major benefits that airspace modernisation can deliver, through the introduction of technology enabling more efficient flight paths that can be optimised to reduce noise for local communities, deliver more carbon efficient routes or reduce delay for passengers.
- 3.17 As a result of modernisation, we can also expect to see a large reduction in, or the elimination of, planes queueing in holding stacks over the UK, with any remaining stacks operating at higher altitudes. These changes will bring reductions in carbon emissions and noise benefits to those living underneath the holding stacks and reduce emissions.
- 3.18 The government believes that airspace modernisation is necessary and will provide leadership to support this. The aviation industry must now come together to deliver the benefits through a coordinated modernisation programme. The government and CAA have committed to co-sponsor airspace modernisation and will work collaboratively with the industry, local communities, General Aviation, environmental groups, the Ministry of Defence (MOD) and other key stakeholders to support this delivery in a way that balances the objectives of each stakeholder group.

### Interaction with noise policy

- 3.19 The government recognises that while airspace modernisation will bring noise benefits for many people, it could create increased noise for others. New technology will allow more efficient use of airspace and offer the ability to increase capacity, though at some airports existing conditions limit the number of aircraft or passenger movements. Where an airport has reached that limit, any additional airspace capacity created through modernisation can only be used if and when planning approval is given for the increase.

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47 Department for Transport (2017): Upgrading UK airspace, strategic rationale

48 As above

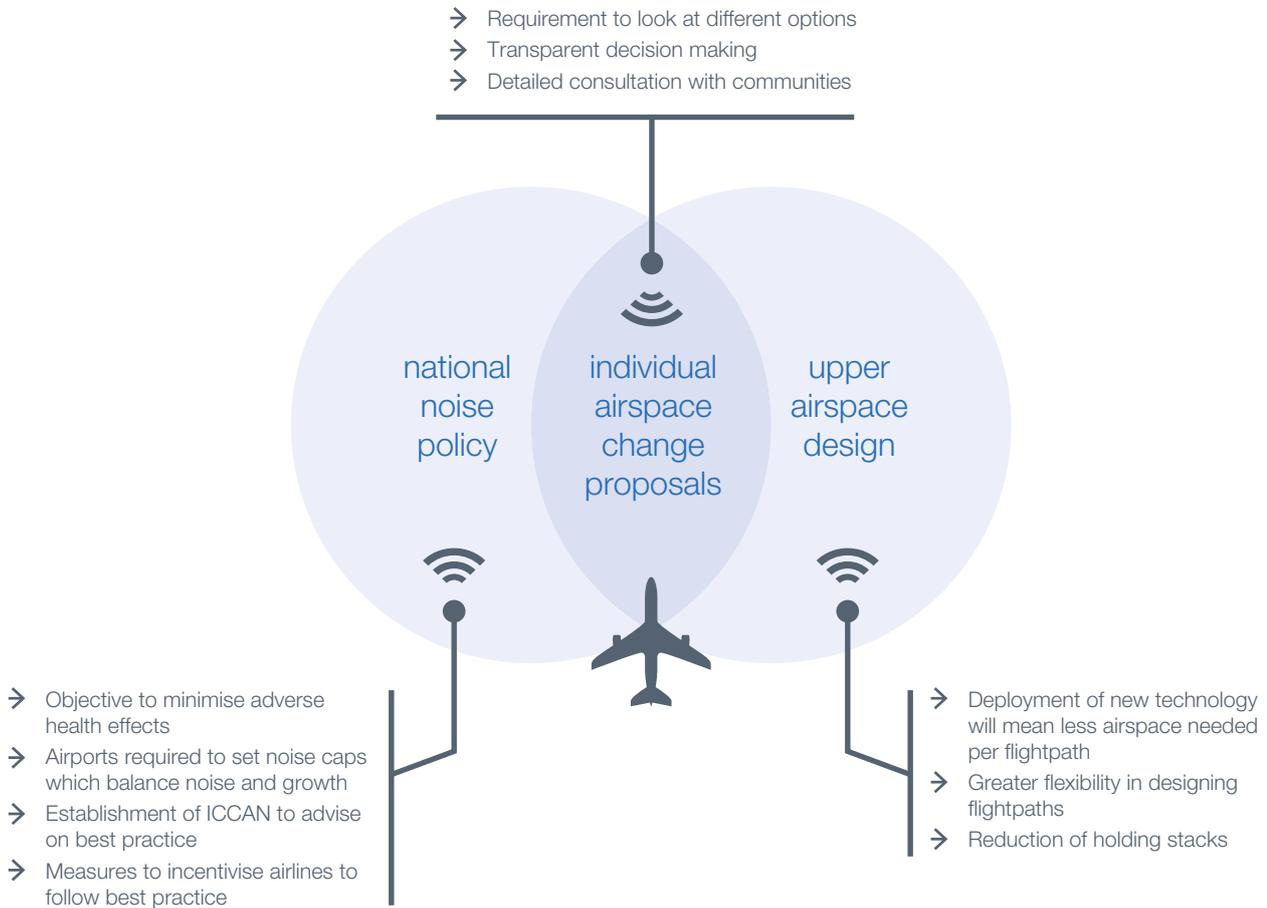


Figure 9 Implementation of noise policies

3.20 Individual airspace change proposals at a lower level (below 7,000ft) are usually brought forward by airports. These individual airspace changes must comply both with national noise policy and be integrated with upper level (above 7,000ft) airspace design, which is led by NATS.

3.21 The introduction of Performance Based Navigation (PBN) is a key technology change needed to achieve the aims of airspace modernisation. PBN improves the accuracy of where aircraft fly and provides opportunities to better avoid noise sensitive areas. This means that while overall noise impacts may reduce, noise may become more concentrated for some. The government’s policy is that decisions over whether modernised airspace leads to concentrated routes avoiding populated areas, or utilises multiple routes to provide respite, should be based on local circumstances and informed by consultation with local communities.

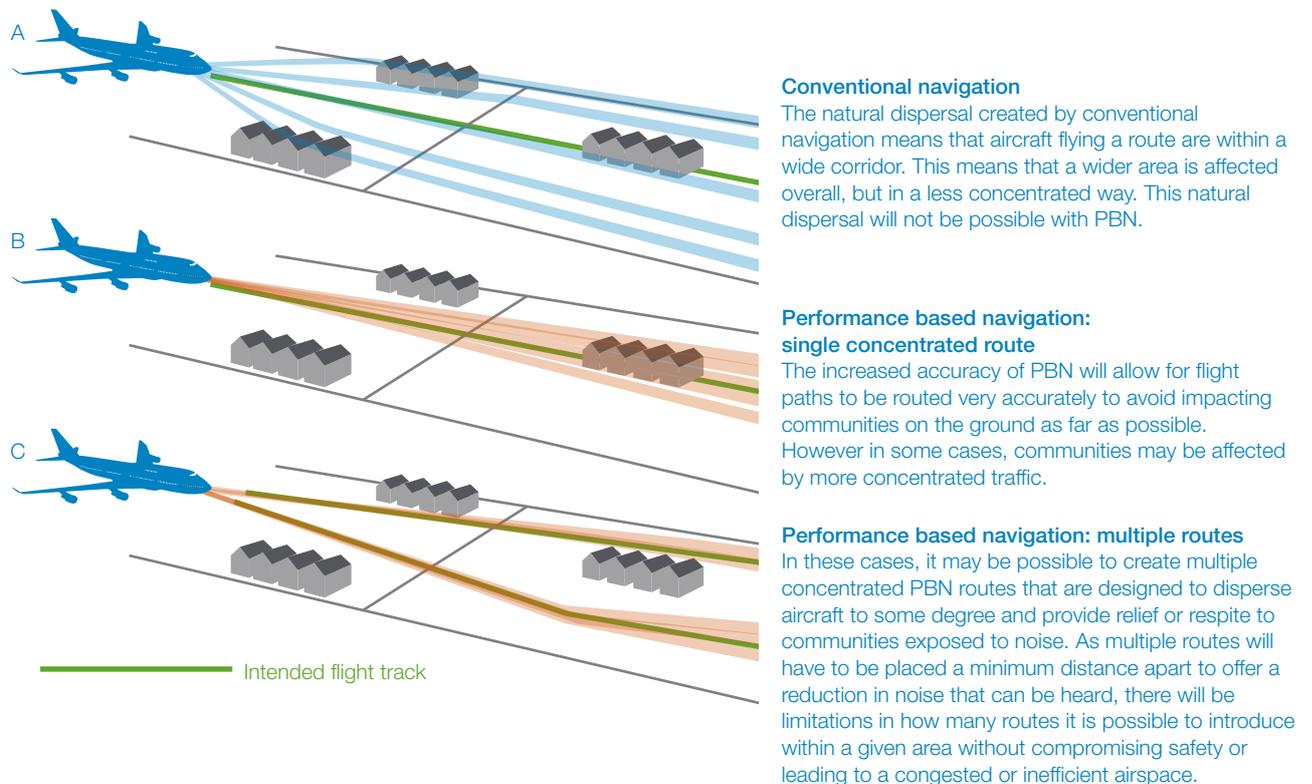


Figure 10 Potential effect of performance based navigation

Source: UK Airport Policy: A framework for balance decisions on the design and use of airspace

## Current regulatory framework for airspace change

3.22 The airspace modernisation programme includes numerous individual airspace changes at both the local and national level. Changes to the design of UK airspace are proposed by an airspace change sponsor, usually an airport (for lower level airspace) or air traffic control (for upper level airspace). The CAA will make a decision on whether to approve the airspace change proposals brought forward following assessment of the sponsor's evidence and consultation through its new airspace change process, introduced in January 2018. The government believes it is essential that communities are able to understand the technical detail contained within airspace change consultations so that they can engage fully with them. The government proposes to:

- **ask ICCAN to consider how they can best support communities in engaging with the airspace change process**

## Coordination of airspace changes in the south of the UK

3.23 Although airspace modernisation is a national programme and there are other drivers for modernisation such as defence requirements, the government recognises that there is a particular and immediate challenge in the south of the UK to coordinate multiple airspace changes across different airports in order to modernise our highly congested airspace. NATS has produced a feasibility report into airspace modernisation in the south of the UK, which has been assured by the CAA. These documents have been published alongside this green paper.

- 3.24 The NATS report advised that there is sufficient airspace to meet airports' potential future demands for airspace subject to the introduction of new technology. NATS also advised that through the implementation of this new technology it can deliver major per flight noise reductions and carbon benefits, as well as radically reducing the need for stacking over the UK.
- 3.25 NATS has also identified a group of at least 8 and up to 15 airports in the south of the UK, who should work closely together and with NATS to develop their airspace change proposals because of the high degree of interdependence of airspace at those airports.
- 3.26 The level of interdependence creates a risk that a single airport, if behind schedule could hold up the entire programme. To address this risk, the government is:
- **consulting on proposed legislation which would give the Secretary of State the power to direct airports or air navigation service providers (ANSPs) to take forward airspace changes where they are unable or unwilling to do so**
- 3.27 Full details of the consultation on the legislation to do this can be found in Annex A. The progression of this will be subject to legislative time in Parliament.

### Airspace Modernisation Strategy

- 3.28 The CAA published a final Airspace Modernisation Strategy (AMS) in December 2018 to replace the existing Future Airspace Strategy. This strategy will then be updated regularly with an annual progress report. The AMS sets out the initiatives that the aviation industry must deliver to modernise UK airspace, such as the introduction of new technologies and the redesign of some areas of airspace. As part of this, DfT and CAA have asked NATS to work with key stakeholders to develop a coordinated implementation plan and timeline for airspace changes (or airspace change masterplan) that will be required in the future in the south of the UK. The masterplan will identify where airspace changes are needed to deliver improvements to: safety, capacity, noise, air quality, fuel efficiency, access to airspace for users including where controlled airspace is no longer justified or should be a different classification, military access, or to introduce new technology.

### Governance, funding and resourcing

- 3.29 In order to deliver modernisation, robust governance and adequate funding and resources must be in place:
- DfT and the CAA have worked with NATS and the Infrastructure Projects Authority to design a new governance structure to oversee airspace modernisation; this includes the Aviation Minister chairing a new Airspace Strategy Board, bringing together a wide range of key stakeholders. Further detail on this will be set out in the CAA's Airspace Modernisation Strategy
  - in line with existing policy, the aviation industry, through revenue from passengers, should fund the cost of upgrading aviation infrastructure, rather than this being subsidised by the general taxpayer; the government believes that the existing funding mechanisms in place are the most effective way to deliver this

- the government recognises there may be instances where a small airport requires financial support to carry out some aspects of an airspace change proposal. It considers that the UK unit rate could be a suitable means of funding for this<sup>49</sup>
- the aviation industry should work together to address existing skills shortages in key areas, such as airspace design, including through considering pooling and sequencing resources to ensure modernisation is delivered, to a high standard and on time

## Efficiency

### Balancing growth and resilience

3.30 Passengers rightly expect the aviation industry to minimise delays and cancellations where possible, provide comprehensive and timely information when they occur, and offer a simple and effective system for claiming compensation. Overall, flight delays, cancellations and lost luggage are the greatest cause of ongoing inconvenience. In qualitative research conducted by the CAA in 2016, a significant number of the consumers interviewed, when shown delay statistics, felt these to be lower than they expected and indicative of good performance. However, participants were very nervous about the possibility of more disruption arising from airports and airspace getting busier in the future.

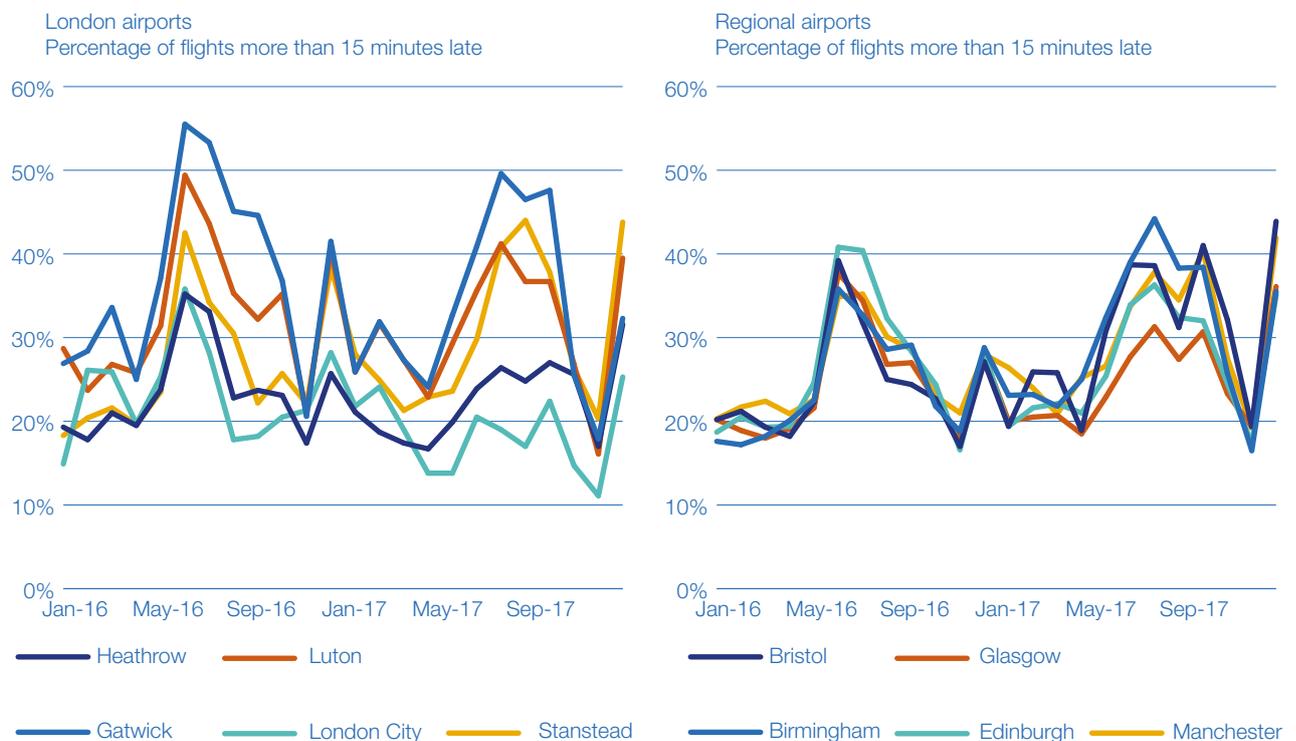


Figure 11 Punctuality at selected UK airports, 2016-2017  
 Department for Transport analysis of Civil Aviation Authority: Punctuality Data

- 3.31 With demand for aviation forecast to grow, this issue will not improve unless action is taken. In the medium term, a Northwest Runway at Heathrow and the modernisation of airspace will help to reduce delays. However, in the short term, there is a need for the government, the regulator and industry to work together to ensure that growth in aviation does not come at the expense of a positive consumer experience in the future.
- 3.32 The CAA's recent resilience report highlighted a lack of collective responsibility for airport resilience in the UK.<sup>50</sup> It recommended the formation of a voluntary Industry Resilience Group (IRG), alongside consideration of the government's own role in resilience, particularly in the process of capacity declaration of air traffic movements at airports. The report also highlighted the need to balance using airports to their capacity – bringing greater competition and choice for consumers – with the benefits of improved punctuality.
- 3.33 The causes for delays and cancellations can be separated into two distinct groups:
- operational issues due to congested systems, such as runway, terminal or airspace capacity constraints. These issues, coupled with a minor disturbance, can exacerbate the effects on consumers due to the lack of flexibility in the schedule to recover
  - individual events that are likely to cause major delays and cancellations, which can be either:
    - localised, such as fire, power cuts and flooding, or
    - international events such as air traffic control industrial action
- 3.34 The government recognises the work that the industry already does and commends the industry on acting swiftly on the CAA's report and forming an IRG. It also recognises that most airports have developed resilience and contingency plans for a number of scenarios.

#### The IRG's current priorities and successes include:

- coordinating cross border weather responses across European airspace
- ensuring airports and airlines have pre-planned actions to implement during weather disruptions
- developing plans for aircraft diversion due to weather disruptions
- ensuring airports across the South East receive live information from each other on specific performance metrics, such as delays, to improve situational awareness and performance
- embedding a culture of realistic airline scheduling using the knowledge of UK and EU demand

50 Civil Aviation Authority (2017): Operating Resilience of the UK's aviation infrastructure and the consumer interest

## Operational issues

- 3.35 Although resilience is primarily an industry responsibility, it is important that the government proactively supports the industry in its efforts to improve resilience, encouraging all partners to work collaboratively towards a common goal of improving the service provided to consumers.
- 3.36 Capacity constrained airports have very little headroom to mitigate minor delays. The IRG has already made significant progress towards its key objective, which is to improve planning and operations in the UK aviation network to improve operating resilience and reduce delays and the associated costs to both industry and passengers.
- 3.37 To support the IRG, the government proposes working with the CAA and the industry to:
- **encourage airlines to plan manageable schedules when disruptive events are forecast (such as snow)**
  - **consider how to support the identification and agreement of airports to accept diversions during disruptive events**
- 3.38 In the longer term, should the government need to play a greater role in improving resilience, it proposes to:
- **work with the industry to consider the circumstances in which government intervention would be appropriate and should be triggered**
  - **agree who should have powers to intervene, such as the CAA, NATS or an independent body**
  - **work with the CAA to consider how airports can be encouraged to consider resilience when declaring their capacity and whether declarations should be independently reviewed**
  - **consider whether future planning approvals should include resilience conditions**

## Individual events

- 3.39 The aviation industry should be identifying and planning for potential disruptive events. These could include disruptive weather, volcanic eruptions, solar weather, communications or IT failures, fire, flooding, power failures and fuel shortages. Gatwick and Heathrow airports have economic licence conditions mandating the preparation of resilience plans and the government is also aware that resilience and contingency plans are in place at some other airports. However, beyond these airports, the government does not have a process to ensure that airports have adequate plans in place for these types of events. Therefore, the government is proposing:
- **to work with the industry to develop resilience and contingency planning guidance that sets minimum standards for the industry**
- 3.40 This guidance will set expectations and encourage the sharing of best practice between airports on both operational issues and on individual events. Collaborating with industry on the scope, proportionality, applicability and assurance of this guidance will be key in ensuring its practical application.

## Ground handling

- 3.41 One area that could have a resilience impact is ground handling. Ground handling covers a wide variety of services required by airlines in order to operate flights. These services include areas such as fuel freight handling, passenger check-in, catering, baggage handling, de-icing and transport within the airport itself. The provision of ground handling services is covered by EU regulations.<sup>51</sup>
- 3.42 Ground handling is either procured by the airline from a third-party or supplied by the airline itself. Over the last few years a focus on price competition and cost reduction may have come at the detriment of service quality at some airports. Airports with a number of airlines and ground handlers operating at them can see significant variation in service quality.
- 3.43 The government's understanding from engagement with the industry is that the ground handling market is competitive and the quality of ground handling is becoming a more important factor in the market rather than price alone, demonstrating the market is correcting itself. Therefore, the government does not believe there is a case to intervene, although it will continue to track developments.
- 3.44 The government considers that continued improvements to the way ground handling operates are within the gift of industry, and there are examples where industry parties are working positively together to drive these improvements. It encourages this best practice to be shared and adopted across the industry.
- 3.45 Concerns have also been expressed about consolidation in the ground-handling market, for example with Menzies Aviation's proposed acquisition of UK-based aircraft de-icing specialist Airline Services Ltd earlier this year. However, it is too early to judge whether any impacts from this acquisition are affecting competition. The government will keep this under review.

### Case study: London Luton Airport

London Luton Airport has developed a 'Safety Stack' Forum which sets out detailed codes of practice and standards which all service providers operating at the airport – including the three ground-handlers – are required to sign up to be considered as stack partners and operate in the airport. The airport believes this work, alongside its proactive approach of sharing ground-handling best practice training, has led to improvements in both safety and performance.

Luton is the first airport to standardise ground-handling procedures and equipment. After working with handlers on requirements and specifications, the airport tendered for an external company to provide the requisite equipment and as a result of this standardisation, Luton believes the number of airside collisions and incidents have reduced.

### Slots allocation

- 3.46 As more airports become constrained, it is even more important that the government considers how best use can be made of existing capacity and how to support fair and competitive growth of the industry in a way that ensures the best outcomes for the consumer.

51 Directive 96/67/EC

3.47 The current slot allocation process is set out in EU and UK legislation based on the guiding principles set out in IATA's Worldwide Slot Guidelines.<sup>52,53</sup> The guidelines were primarily designed for allocating slots at airports that are at, or are reaching, high levels of congestion but have been adapted as airports have become severely constrained. In a situation where significant new capacity is released at a highly constrained airport, such as the once in a generation opportunity presented by Heathrow expansion, it is the government's view that current regulations may not promote fair and competitive growth and are unlikely to produce the best outcome for the consumer.

### **The case for changing the current slot allocation system**

3.48 The process by which slots are allocated can create various issues at a severely constrained airport where new capacity is due to be released:

- slots are not allocated sufficiently far in advance of new capacity opening to allow airlines to scale up their operations
- not all elements of the current system are fully transparent, especially where more than one airline requests a slot
- there are incentives for airlines to obtain and retain as many slots as possible by slot hoarding, and by gaming the allocation system to gain revenue through the secondary market, prevent competition or by obtaining slots from subsidiary airlines
- the new entrant rule can make it challenging for both new entrants or small incumbents to acquire sufficient slots at initial allocation to operate at scale
- granting perpetual grandfather rights to incumbent airlines restricts long-term churn in the market by acting as a barrier to entry
- the secondary trading market may not be sufficiently transparent and liquid to operate as effectively as it could
- if incumbent airlines are given preference to re-time their existing slots, this offers them a competitive advantage over those seeking newly created slots

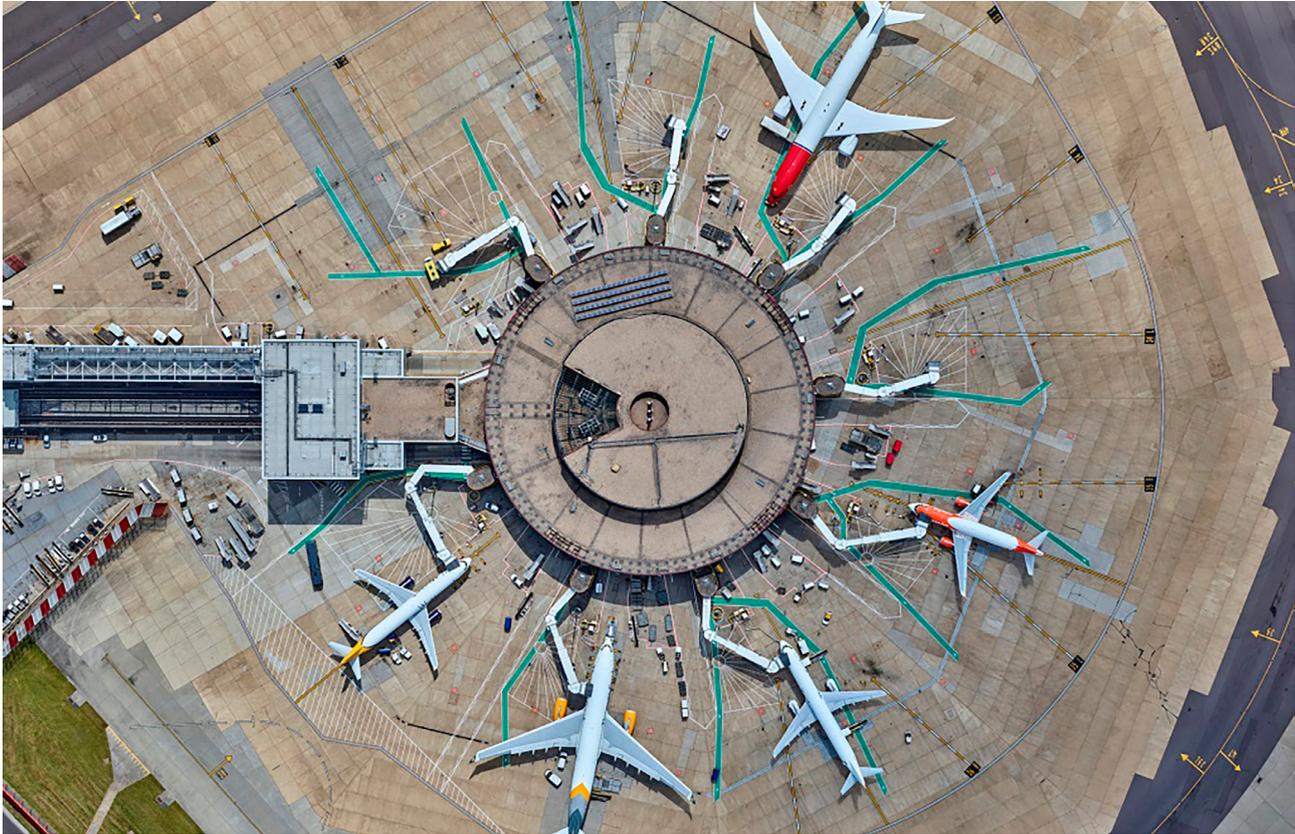
3.49 The current allocation system is not designed to stimulate a competitive market environment and has no means of taking into account broader objectives. Aspects of the allocation process have the potential to adversely impact consumer outcomes and growth at slot-constrained UK airports where new capacity is due to be released. This is particularly important in the context of expansion at Heathrow, but also potentially where significant new capacity is introduced at other congested airports. This is explained further in Annex B.

3.50 The Competition and Markets Authority (CMA) looked into the impact of the current allocation arrangement on competition from a theoretical perspective and found that the existing allocation system could weaken airline competition because new entrants might find it difficult to expand and existing airlines may have incentives to prevent competition by hoarding slots or gaming the system.

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52 Regulation (EC) 95/93

53 IATA (2018), Worldwide slot guidelines



### Opportunity for reform

3.51 Expansion at Heathrow Airport will be the first time a significant number of additional slots have been released at a severely congested airport in the UK. The government's expectation is that demand is likely to outstrip supply, especially at certain times of the day. Therefore it is crucial that the allocation process is right and working to ensure the best outcome for the consumer.

3.52 The government's primary objective for the allocation of newly released slot capacity is to facilitate effective competition between airlines to create efficiency. It also has secondary objectives to:

- improve domestic connectivity, though protecting slots to support at least 14 domestic routes
- improve connectivity to international destinations that are currently unserved or underserved

3.53 There are a variety of potential changes to the slot allocation system that could support these policies. However, there are also some underlying principles that will be common across all measures such as:

- ensuring that the slot allocation system is neutral, transparent and non-discriminatory
- continuing to have slot co-ordination carried out by an independent co-ordinator
- continuing to have slot co-ordination scheduling generally in line with industry standard timetables

3.54 The government proposes to:

- **work constructively with the industry, IATA and the countries the UK has aviation links with, to consider how to develop the existing slot allocation system to deliver the best outcomes for the consumer, in line with the principles above**

#### Developing possible options for reform

3.55 The options that have been developed fall under three headings: administrative system changes (which the government plans to implement in any circumstances); measures to enable effective competition and efficiency, and measures to increase connectivity.

3.56 **Administrative system changes:** To enhance the transparency of the slot allocation system, provide airlines with increased clarity and certainty and to ensure a process which is as legally robust as possible, the government intends to implement the following changes (subject to adherence to existing slot regulations) and invites industry views on how best to achieve this:

- **earlier allocation of slots at a severely constrained airport with new capacity to support operational planning (currently slots are allocated six months in advance)**
- **provide the slot coordinator with guidance on:**
  - **the definition of the ‘airport system’, clarifying which airlines are considered as ‘new entrants’ to facilitate increased competition**
  - **the objectives for allocation of newly-created slots, including competition and domestic and long-haul connectivity**
  - **whether airlines re-timing their existing slots into more desirable newly-created slots should be permitted and, if so, whether they should be given priority over new slots that are allocated**

3.57 **Effective competition:** The government is seeking views on the following measures and welcomes alternative measures from industry to meet its objective of facilitating effective competition and efficiency:

- **issuing guidance on secondary trading to increase transparency and ensure all interested parties are aware of which slots are being made available**
- **changing the existing ‘new entrant’ rule to allow new entrants or smaller incumbents to build presence at constrained airports**
- **considering market-based mechanisms for release of additional capacity.** This could include auctioning all slots or a limited number that would be most sought after. Revenue could be used to fund airport expansion subject to alignment with regulatory requirements. The government recognises that there are concerns relating to this option in the industry. The CMA found there was a strong theoretical case for market-based mechanisms such as well-designed auctions but also noted inherent risks and uncertainties:
- **selling slots for a predetermined price, depending on the time of day**
- **allocating a portion of new slots without ‘grandfather’ rights (or limiting the grandfather period) so that airlines cannot retain them for successive equivalent seasons resulting in slots being made available at the end of each season, or after a given period of time**
- **considering slot ‘renting’ so that more slots are returned to the pool rather than being used inefficiently, creating churn in the system**
- **allocating slots or ‘bundles’ of slots to airlines that will operate cleaner or quieter aircraft**
- **allocating a set of slots in ‘bundles’ designed to enable carriers to optimise operations**

3.58 **Increased connectivity:** The government also welcomes views on measures that improve domestic connectivity and international connectivity such as allocating slots or ‘bundles’ of slots, providing all or a certain proportion of them are used for domestic routes or new international routes (see Chapter 4).

3.59 Once further analysis and stakeholder engagement is complete, the government will:

- **also consider whether there is a need to propose an in-depth review of slot allocation by the competition authorities (CMA, CAA or a combination of both)**

### Single airline dominance at airports

3.60 One airline holding a significant market share at an airport creates opportunities for that airline to exercise market power through, for example, influencing airport decision making, blocking entry to other airlines or increasing air fares. Where a certain route is only available from one airport, this could lead to exploitation of market power. The government proposes to:

- **prioritise competition between airlines as part of reformed slot allocation processes, including allocation of new slots at an expanded Heathrow airport**

3.61 As it stands, the government does not have evidence that warrants government intervention beyond slot reform, although it believes there is a case for more frequent monitoring to ensure airline competition continues to work for the benefit of the consumer.

3.62 The CAA already has concurrent powers with the CMA for airport operation services, although not for airline services or competition between airlines. The government proposes that:

- **the CAA takes on an enhanced role in the monitoring of airline services and competition, giving it the scope to intervene in some way if problems arise in the future, even if there are no current concerns**

3.63 This could take the form of greater cooperation with the CMA on airline services without concurrent powers, with the option of implementing full concurrent powers if the situation worsened in the future.

3.64 Given the importance of slot allocation in facilitating competition between airlines, the government is also interested in a role for the CAA in slot allocation, either in advising the slot coordinator Airport Coordination Limited (ACL) of the competition impacts of allocation, or monitoring allocations as part of its current duties, or in a more formal role compatible with its current duties.

3.65 As the ACL has long held the expertise to perform the slot coordination function for UK airports, the government would put effective guidance in place to ensure that decisions were taken in line with government objectives for slot allocation, including the release of significant new capacity at constrained airports such as Heathrow.

### Safeguarding of land for growth

3.66 Several airports safeguard land for future developments. The safeguarded land can be a mix of airport, council and private ownership, depending on the individual airport's circumstances. It is prudent to continue with a safeguarding policy to maintain a supply of land for future national requirements and to ensure that inappropriate developments do not hinder sustainable aviation growth. The National Planning Policy Framework (NPPF) has restated the government's commitment to "identify and protect, where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice".<sup>54</sup> The government believes that this provides

sufficient guidance for local authorities to consider the future needs of airports and their associated surface access requirements, when developing local plans.

### Surface access

- 3.67 It is important to have good surface access links with airports. All proposed airport developments need to be accompanied by clear surface access proposals which demonstrate how the airport will ensure easy and reliable access for passengers, increase the use of public transport and minimise congestion, emissions and other local impacts.
- 3.68 Further details on surface access policies can be found in the Regional Transport Hubs section in Chapter 4.

### Community engagement and sharing benefits from growth

- 3.69 Growth in aviation can benefit local communities. Airports create jobs for local residents, improve transport links and bring tourism and trade to the region. Airports should therefore create opportunities for communities to engage, particularly on issues which have the most direct impact on them such as road and rail access, airspace change and noise policy. All commercial airports and many larger General Aviation aerodromes are required to provide processes for consultation and engagement with those affected by their operations as well as users of the airport. In practice, this requirement is usually fulfilled through the existence of an airport consultative committee.
- 3.70 The government has produced guidance on how such committees should operate and it will continue to work closely with those committees to consider the scope for supplementary guidance. Communities should use those existing statutory mechanisms to engage with airports, noting that locally elected representatives sit on the committees. Representatives from residents' groups or amenity societies may also participate. In some cases, additional bespoke solutions tailored to the local circumstances may be needed to address noise management issues, such as those which have been created at Heathrow, Gatwick and Edinburgh airports. Such solutions may be particularly useful where there are major airspace changes under discussion and where local communities would benefit from help to understand the complex proposals. Local communities are encouraged to work with airports to discuss and develop such solutions where necessary.
- 3.71 In recognition of their impact on local communities and as a matter of good corporate social responsibility, a number of airports have community funds which exist to provide funding for local community projects. There is currently no national policy on such funds. In relation to the proposed Heathrow Northwest runway, the Airports NPS expects ongoing community compensation will be proportionate to environmental impacts.
- 3.72 The government believes all major airports should establish and maintain community funds, to invest sufficiently in these so that they are able to make a difference in the communities impacted and to raise the profile of these funds. The levels of investment should be proportionate to the growth at the airport. Community funds are complementary measures to ensure communities get a fair deal and do not substitute for noise reduction. The government proposes to:

- **produce guidance on minimum standards for community funds**

## Reducing waste

- 3.73 The government has committed to achieving zero avoidable plastic waste by the end of 2042 and the aviation sector will need to play its part in achieving this.<sup>55</sup> The government has confirmed that it will introduce a deposit return scheme for drinks containers in England, aimed at boosting recycling rates and reducing littering, subject to consultation. It also supports the water industry's refill work which includes funding the upscaling of the City to Sea refill app, enabling the public to find their nearest free water refill point. There are around 14,000 refill locations across the UK.
- 3.74 Recycling is now part of many airlines and airports company policies and recycling is increasingly expected by passengers. Recycling also helps to reduce the industry's costs of waste disposal. Around half of the UK's international airports have water fountains enabling customers to refill their own water containers, with both Birmingham and Luton Airports promoting the use of their water fountains on Twitter.



3.75 Other examples of good practice adopted by airports:

- Bristol Airport has a liquid disposal point located before its security search area, encouraging passengers to dispose of liquids and take their empty bottles through security and re-fill at one of the airport's three airside water refill stations
- Heathrow Airport has publically committed to recycle all 13.5 million coffee cups used at the airport annually by the end of 2018. It is also working on an innovative project to find more environmentally friendly liquid and gel bags used at security screening
- Gatwick Airport has a biomass plant to treat waste from aircraft and converts this into energy to heat the airport's waste management site and power its water recovery system. This waste would otherwise be sent to landfill

3.76 The government is aware of the regulatory and other barriers hindering more widespread take-up of alternatives and reducing single-use plastics on flights, including the weight implications of non-plastic aircraft cutlery and waste regulations limiting aircraft recycling.

### Thomas Cook noplacementorplastic campaign

Thomas Cook has launched the **noplacementorplastic** campaign to eliminate single-use plastic wherever possible throughout its supply chain. Focusing on its own hotels and airline, the company will substitute existing plastic items for sustainable alternatives.

By 2020 it will have:

- removed 70 million single use plastic items from across its business in the UK, on its aircraft and at its holiday destinations. This equates to 70 tonnes of plastic
- where possible, substituted disposable items with those made from recycled plastic, biodegradable or compostable options
- ensured when plastic is used it is recycled, where the facilities exist. It will work collaboratively with suppliers, governments and the wider travel industry to improve recycling and waste capabilities across its destinations
- worked to influence its customers, employees, suppliers and the wider travel industry to raise awareness of the issue

## Tackling aviation's impact on climate change

3.77 UK aviation accounts for around 7% of the UK's total greenhouse gas emissions, an increase from around 5% in 2005.<sup>56</sup> International aviation's carbon emissions currently account for less than 2% of total global emissions, but these could increase by two to four times between now and 2050.<sup>57</sup> Aviation's share of emissions is likely to continue to increase as other sectors, such as energy and manufacturing, decarbonise more quickly. This means that aviation could represent 25% of the UK's greenhouse gas emissions by 2050.<sup>58</sup>

3.78 The government welcomes the sector's positive progress in responding to the challenge of addressing its impact on climate change. The government recognises the UK aviation industry's success in taking steps to de-couple the growth in emissions from the continued demand for air services. Between 2010 and 2016, international air transport movements within the UK grew by 20%, but international greenhouse gas emissions increased by only 7%.<sup>59</sup>

56 Department for Transport analysis of Department for Business, Energy and Industrial Strategy: Final UK Greenhouse Gas Emissions National Statistics 2016

57 European Commission (2017): Emission Database for Global Atmospheric Research (EDGAR), CO<sub>2</sub> Time Series 1990 – 2015 per region/country

58 Committee on Climate Change (2015): Advice on the fifth carbon budget

59 Department for Transport analysis of Civil Aviation Authority: Airport Data, Department for Business, Energy and Industrial Strategy: Final UK Greenhouse Gas Emissions National Statistics 2016

3.79 This achievement has been attributed to higher load factors (more passengers per flight), increased fuel efficiency and the greater demand for short haul flights as opposed to long haul. However, much more needs to be done, especially in the context of the continued strong growth in demand for air services.

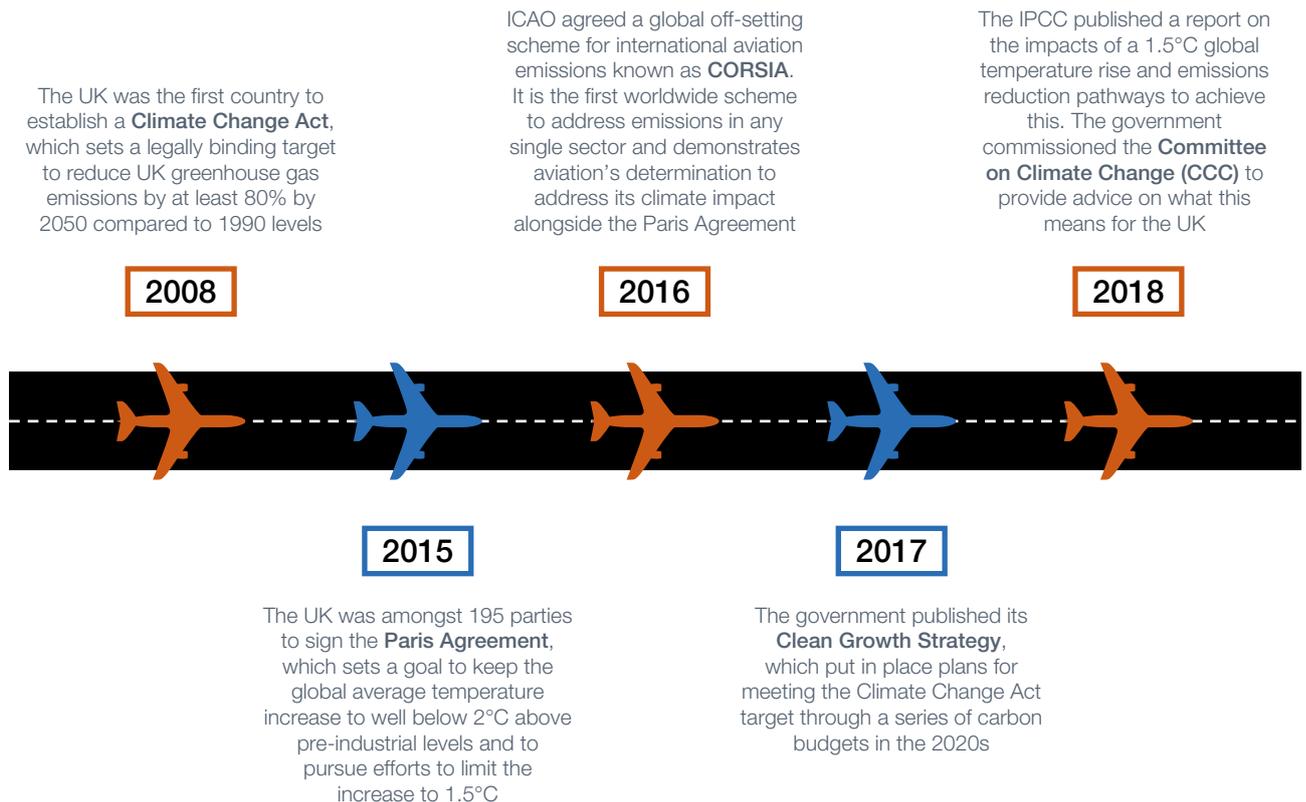


Figure 12 Reducing carbon emissions

3.80 The UK has played a key role in providing international leadership on tackling climate change through its domestic action, climate diplomacy and financial support and is among the most successful countries in the developed world for growing our economy while reducing emissions.<sup>60</sup>

3.81 The government aims to maintain this position as a world leader in aviation, aerospace and climate change policy. It is proposing a long term vision for UK aviation carbon emissions reduction and a pathway to achieve this by 2050. In developing this vision and pathway, the government recognises the following challenges:

- concerted global action requires consensus and takes time to achieve
- unilateral, national level action could put UK airlines at a competitive disadvantage compared to their global competitors and lead to carbon leakage (when emissions are moved elsewhere rather than reducing them), with no environmental gain<sup>61</sup>

60 Department for Business, Energy and Industrial Strategy (2017): The Clean Growth Strategy

61 Carbon leakage occurs when policies to reduce CO<sub>2</sub> emissions in a particular country or geographical area, leads to an increase in other countries or geographical area

- aviation, along with shipping, is a ‘harder to reach sector’ due to the nature of its assets, operations and likely long term reliance on liquid fossil fuel
- aircraft have a long life span and new technologies can take decades to develop, commercialise and be adopted through fleet development
- some operational and technological improvements have trade-offs with the sector’s other environmental impacts, including noise and air quality

### A 2050 vision for tackling emissions

3.82 The government is committed to setting a clear and appropriate level of ambition for the sector. In doing so, the government recognises that international action is the first priority for tackling international aviation emissions.

3.83 The government proposes to:

- **negotiate in ICAO (the UN body responsible for tackling international aviation climate emissions) for a long term goal for international aviation that is consistent with the temperature goals of the Paris Agreement, ideally by ICAO’s 41st Assembly in 2022**

3.84 The government plans to negotiate for any long term goal to be set and reviewed in light of aviation’s full climate impact, taking into account evolving evidence on non-CO<sub>2</sub> effects. In setting a global goal consistent with the Paris Agreement, ICAO should consider whether the IATA goal of a 50% reduction in net aviation emissions by 2050, relative to 2005 levels, is suitable, in light of latest scientific evidence.<sup>62</sup>

3.85 The government recognises that international action takes time, so will also consider appropriate domestic action to support international progress. The UK’s trajectory to meeting its Climate Change Act 2050 target is set out in five-yearly carbon budgets that currently exclude emissions from international aviation. However, the Committee on Climate Change (CCC), established by the Climate Change Act as the independent advisory body on climate change, recommends that international aviation should be included by 2050.<sup>63</sup>

3.86 In order to implement the government’s long term vision for addressing UK aviation emissions, the government will maintain its current policy not to mandate sector specific emissions reduction targets to ensure reductions are made wherever it is most cost effective across the economy.<sup>64</sup>

3.87 The government agrees with the current CCC advice that international aviation emissions should, for now, continue to be formally excluded from carbon budgets. The government proposes therefore, to continue using the CCC advice and leave ‘headroom’ for international aviation when setting carbon budgets so that the economy as a whole is

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62 IATA: climate change

63 Committee on Climate Change (2009): Meeting the UK aviation target – options for reducing emissions to 2050

64 Department for Business, Energy and Industrial Strategy (2017): Clean Growth Strategy

on a trajectory to meeting the 2050 Climate Change Act target (including international aviation). To set a clear level of ambition for the sector, the government proposes to:

- **accept the CCC's recommendation that emissions from UK-departing flights should be at or below 2005 levels in 2050**



### Pathway to 2050

3.88 The UK has played a leading role in the aviation sector's action to address its impact on climate change and will continue to do so. At the international level, the UK was instrumental in reaching agreement in ICAO, on a global market-based measure for international aviation, known as Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), and the introduction of the first global commercial aircraft CO<sub>2</sub> standard. The government is committed to ensuring that CORSIA is successfully implemented as widely as possible and has volunteered to participate in the scheme from 2021. It proposes to:

- **continue to lead efforts in ICAO to negotiate for robust, environmentally effective emissions reduction measures that minimise market distortions and address the sector's emissions in the most cost-effective way<sup>65</sup>**

3.89 The UK aviation sector currently participates in the EU Emissions Trading System (EU ETS).<sup>66</sup> This 'cap and trade' system requires aircraft operators on routes within the

65 ICAO has defined a basket of measures to address aviation's climate impact, namely technological improvements, operational efficiencies, sustainable alternative fuels and market-based measures.

66 European Commission: Reducing emissions from aviation

European Economic Area to surrender enough allowances to equal the number of tonnes of CO<sub>2</sub> they emitted in the previous year. The government is:

- considering a range of options to manage emissions for these flights, including continuing to participate in the EU ETS after 2020 or a UK approach which is at least as ambitious as the current system

3.90 Domestically, industry continues to make use of operational measures to reduce emissions, such as reduced engine taxiing, reducing cabin weight and continuous ascent and descent together with technological improvements, such as more efficient engines. The government recognises the significance of sustainable fuels. It has introduced policies for and will continue to:

- support the development of sustainable aviation fuel through its inclusion in the Renewable Transport Fuel Obligation (RTFO) and £22 million funding in its Future Fuels for Flight and Freight completion<sup>67</sup>

### The UK's first commercial scale waste-to-jet fuel project



A collaboration between the renewable fuels business Velocys, British Airways and Shell is developing the UK's first commercial scale waste-to-renewable jet fuels plant. The plant would convert hundreds of thousands of tonnes of residual waste per year into clean-burning, sustainable aviation fuel.

The jet fuel produced is expected to deliver over 70% greenhouse gas reduction and 90% reduction in particulate matter compared with conventional jet fuel. In June 2018, almost £5 million of funding was committed to deliver the first plant in the UK which included over £0.4 million government funding. The plant could be operational in the next few years and would be the first of many in the UK. It could attract several hundred million pounds of private sector investment and create hundreds of construction and long term skilled jobs.

- 3.91 The aviation industry's investment in technology is primarily driven by the desire for greater fuel efficiency, which is resulting in emissions reductions. While this is embedded in the evolution of the sector, the government continues to provide support through joint investment with industry for research and development of £3.9 billion to 2026.<sup>68</sup> See Chapter 8 for further detail of the government's proposed approach to technology and innovation.
- 3.92 To gain a better understanding of available carbon abatement measures, the government has commissioned research into which measures are most likely to be viable in the period to 2050 and the possible carbon leakage and market distortion impacts of unilateral policy action. This research will assist in understanding the most cost-effective mix of measures that the government will expect to see industry adopting. The government proposes to monitor progress and will intervene through regulation if insufficient progress is made towards achieving the 2050 vision. The measures the government considers feasible in the next 10 to 15 years are presented in Annex C.
- 3.93 The government will expect a strengthening of existing good practice and the development and adoption of new technologies and measures from industry to show demonstrable progress to reducing emissions. This will be required to demonstrate that applications for future growth can be taken forward in line with the UK's climate change commitments. If progress is too slow, the government may need to consider further intervention at a later date.

### Non-CO<sub>2</sub> emissions

- 3.94 Aviation also produces non-CO<sub>2</sub> emissions which have climate impacts, including gases and aerosol particles. The government has commissioned scientific advice on these non-CO<sub>2</sub> effects which shows that large scientific uncertainties remain and new effects have been identified. Uncertainties include the scale and impact of these effects and their warming effect relative to CO<sub>2</sub>. Challenges include the feasibility of measures designed to mitigate these effects and the calculation of trade-offs with fuel burn.
- 3.95 The government continues to support work on non-CO<sub>2</sub> emissions, their trade-offs with CO<sub>2</sub> and possible mitigation measures, none of which are yet well enough understood to be able to form policy with confidence that aviation's total climate impact would be reduced. The UK will continue working through ICAO on measures to regulate aircraft non-CO<sub>2</sub> emissions and ICAO is shortly expected to agree the first regulatory standard for aircraft non-volatile particulate (soot) emissions. The government proposes:
- **to keep non CO<sub>2</sub> emissions under review and reassess the UK's policy position as more evidence becomes available**

68 Department for Business, Energy and Industrial Strategy press release: New aerospace technologies to get £365 million funding

3.96 To implement the government's long term vision and pathway for addressing UK aviation's impact on climate change, the government also proposes to:

- **negotiate in ICAO for standards for all engine emissions with climate effects. As scientific understanding improves, the government will expect ICAO to issue best practice guidance on operational mitigations for non-CO<sub>2</sub> effects**
- **consider the use of all feasible abatement options, particularly in-sector measures, to ensure effective action is taken at the national and international level.** This includes policies that may evolve over the long term such as technological developments, operational efficiencies, sustainable fuels, market-based measures, demand management and behavioural change
- **require planning applications for capacity growth to provide a full assessment of emissions, drawing on all feasible, cost-effective measures to limit their climate impact, and demonstrating that their project will not have a material impact on the government's ability to meet its carbon reduction targets**

3.97 The government will review the CCC's revised aviation advice due in spring 2019 (the first advice was published in 2009) and its advice on the implications of the Paris Agreement for the UK's long term emissions reduction targets, due to be published at the same time. Regular reviews thereafter will broadly align with the setting of carbon budgets. The reviews will ensure that government and industry action utilises evolving research and technological advancements and remains aligned to policy developments. The government also proposes to:

- **use CCC's reviews to monitor the sector's progress at the national and international level and to adjust its mix of policy measures and overall approach accordingly**

### Sustainable journeys to the airport

3.98 The government's ambition is to put the UK at the forefront of the design and manufacture of zero emission vehicles, and for all new cars and vans to be effectively zero emission by 2040. To achieve this, the government is investing nearly £1.5 billion between April 2015 and March 2021, with grants available for plug-in vehicles and schemes to support charge point infrastructure. Along with the measures in the Road to Zero strategy, published in July 2018, this adds up to one of the most comprehensive support packages in the world for the transition to zero emission vehicles.

3.99 The government's expectation is that airports, through their surface access strategies, set targets for sustainable passenger and staff travel to the airport which meet, where possible, the ambitions set by the government and for these to be monitored by their respective Airport Transport Forums.

3.100 The government's analysis shows that by 2050, although there are expected to be 70% more surface access journeys as a result of increased aviation demand, developments already in the pipeline such as cleaner engine technology, electrification of cars, and

decarbonisation of rail electricity, could keep surface transport carbon emissions at similar levels to today unless airports also deliver more ambitious mode share targets.<sup>69</sup>

3.101 The government expects airports to make the most of their regional influence to provide innovative solutions and incentives against ambitious targets which reduce carbon and congestion and improve air quality.

## Managing noise

### The impact of aviation noise

3.102 The growth of the aviation sector brings many benefits but the government recognises that disturbance from aircraft noise has negative impacts on the health and quality of life of people living near airports and under flightpaths.<sup>70</sup>

3.103 There have been welcome improvements in aircraft noise performance. In 2016, despite a 13% growth in traffic, 20% fewer people experienced more than 10 daytime aircraft movements above 65 decibels compared to 2006, even though aircraft movement numbers fell only slightly over that period.<sup>71</sup>

3.104 The government commissioned the CAA to produce an analysis of noise at major UK airports. Over the last 30 years there has been a significant reduction in noise exposure around virtually all UK airports. However, a period of sustained growth following the recession of 2009, has meant that noise exposure has grown over the past five years at several airports. The results show that from 2006 to 2016, noise emission and noise area exposure have decreased, although in some cases, the number of people affected by noise has increased due to the growth in population within the noise contours. These forecasts are the most comprehensive ever undertaken in the UK. They show that by 2050, noise emission and noise area exposure are expected to reduce compared to today, even with anticipated growth and a new Northwest runway at Heathrow.

3.105 However, the government recognises that statistics showing past and future improvements in noise do not necessarily match the experience of some people living under flightpaths, for whom the benefits of quieter aircraft can be cancelled out by greater frequency of movements or the effects of concentrated traffic associated with more accurate navigation technology (see paragraph 3.19). The CAA's report also shows that the number of people affected will be higher as a result of population increases.

3.106 There is also evidence that the public is becoming more sensitive to aircraft noise, to a greater extent than noise from other transport sources, and that there are health costs associated from exposure to this noise.<sup>72</sup> The government is considering the recent new environmental noise guidelines for the European region published by the World Health Organisation (WHO).<sup>73</sup> It agrees with the ambition to reduce noise and to minimise

69 Department for Transport (2017): UK aviation forecasts

70 Civil Aviation Authority (2018): Noise Limits

71 Civil Aviation Authority (2018): Noise Limits

72 Civil Aviation Authority (2014): Survey of Noise Attitudes 2014, aircraft

73 Environmental Noise Guidelines for the European Region (2018)

adverse health effects, but it wants policy to be underpinned by the most robust evidence on these effects, including the total cost of action and recent UK specific evidence which the WHO report did not assess.

### Current action

3.107 The government is supporting industry to deliver airspace modernisation (discussed above), which has the potential to deliver noise reduction through steeper departure angles, and much reduced use of holding stacks in southern England. More accurate navigation technology will give more choice in flightpath design, which can deliver noise benefits, although it will also mean changes to flightpaths.

3.108 Many people will benefit from this but any change to flightpaths will be challenging to deliver and have negative impacts on some, which is why the government has put in place a new airspace and noise policy to ensure the decision making process is fair and transparent. This includes:

- more transparent assessment of noise across a wider area
- assessment of different options, including multiple routes so that concentrated flightpaths are no longer the default option when designing airspace
- closing an existing loophole which allowed changes to air traffic control procedures which have impacts on noise to proceed without consultation with affected communities or CAA approval<sup>74</sup>

### ICCAN

The government has established a new Independent Commission on Civil Aviation Noise. ICCAN will begin its work in January 2019 and will advise the government on best practice on noise mitigation, and how the needs of affected communities can best be served in the airspace modernisation programme. The government has committed to review ICCAN's powers within two years and this will include the possibility of putting it on a statutory footing.

3.109 The CAA has launched a new service which allows people to follow individual airspace change proposals at a postcode level.<sup>75</sup>

3.110 People find night flights the most disturbing and for many years the government has placed restrictions on these flights at Heathrow, Gatwick and Stansted airports. Many other airports have similar restrictions in place which have been agreed locally. The current night flights regime at these three airports expires in October 2022 and the government expects to begin the process to review the rules in the second half of 2019. In the Airports NPS the government has set out its expectation for a ban of six and a half hours on scheduled night flights at an expanded Heathrow.

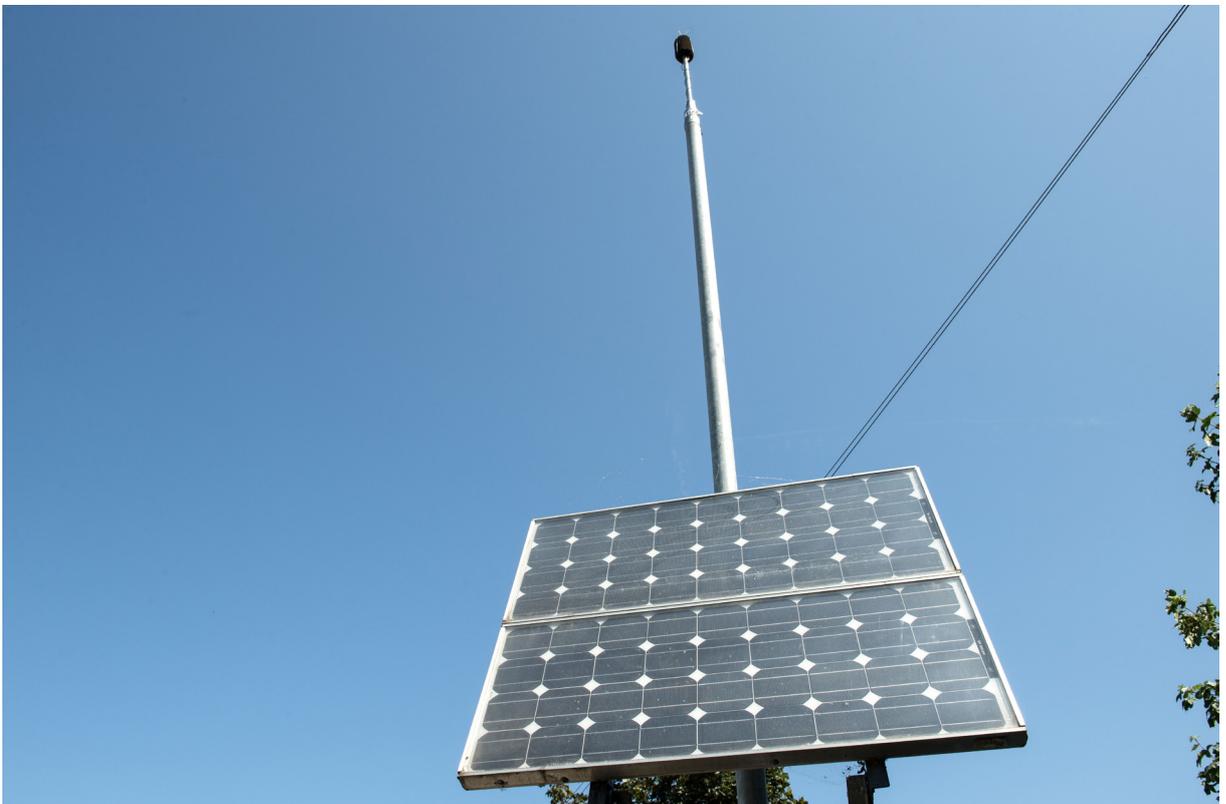
74 Department for Transport (2017): Consultation Response on UK Airspace Policy: A framework for balanced decisions on the design and use of airspace

75 CAA airspace change portal

3.111 There are already examples of good practice in noise management across the industry:

- Heathrow has been trialling the use of steeper approaches and departures, and publishes a quarterly league table of airlines' environmental performance
- Gatwick has structured its landing charges to incentivise quieter aircraft and encourage the modification of the A320 family of aircraft to fix the so-called whine problem
- Birmingham Airport carried out a trial in 2016 to raise the height of noise preferential routes to reduce the overflight of communities
- London City has introduced new more stringent fines for breaches of noise limits and will be producing an annual league table of airline performance

3.112 The government expects the industry to show continuing commitment to noise reduction and mitigation as part of its contribution to the partnership for sustainable growth. The government has shown that it is committed to this by setting out in the Airports NPS its expectations that the developer put in place a comprehensive mitigations package. The proposals in this consultation are aligned with the principles in the NPS, but the implementation of those document principles must be proportionate to the local situation (recognising that the scale of the noise impacts at Heathrow is much greater than at other airports due to the number of movements and local population density). The picture below shows a noise monitor at Heathrow Airport.



## Towards a stronger noise policy framework

- 3.113 The government sets the high level policy framework on aviation noise and also sets noise controls at Heathrow, Gatwick and Stansted. The current overarching policy, originally set out in the 2013 Aviation Policy Framework, is “to limit and, where possible, reduce the number of people in the UK significantly affected by aircraft noise as part of a policy of sharing benefits of noise reduction with industry in support of sustainable development.”<sup>76</sup>
- 3.114 The government recognises that there has been uncertainty on how this policy should be interpreted, measured and enforced. The government intends to put in place a stronger and clearer framework which addresses the weaknesses in current policy and ensures industry is sufficiently incentivised to reduce noise, or to put mitigation measures in place where reductions are not possible.
- 3.115 The proposed new measures are:
- **setting a new objective to limit, and where possible, reduce total adverse effects on health and quality of life from aviation noise.** This brings national aviation noise policy in line with airspace policy updated in 2017
  - **developing a new national indicator to track the long term performance of the sector in reducing noise.** This could be defined either as a noise quota or a total contour area based on the largest airports
  - **routinely setting noise caps as part of planning approvals (for increase in passengers or flights).**<sup>77</sup> The aim is to balance noise and growth and to provide future certainty over noise levels to communities. It is important that caps are subject to periodic review to ensure they remain relevant and continue to strike a fair balance by taking account of actual growth and the introduction of new aircraft technology. It is equally important that there are appropriate compliance mechanisms in case such caps are breached and the government wants to explore mechanisms by which airports could ‘pay for’ additional growth by means of local compensation as an alternative to the current sanctions available
  - **requiring all major airports to set out a plan which commits to future noise reduction, and to review this periodically.** This would only apply to airports which do not have a noise cap approved through the planning system and would provide similar certainty to communities on future noise levels. The government wants to see better noise monitoring and a mechanism to enforce these targets as for noise caps. The noise action planning process could potentially be developed to provide the basis for such reviews, backed up by additional powers as necessary for either central or local government or the CAA

<sup>76</sup> Department for Transport (2013): Aviation Policy Framework

<sup>77</sup> A noise cap (also known as a noise envelope) is any measure which restricts noise. In its crudest form this could be a simple movement cap, but the government proposes advocating caps which are based on setting maximum noise exposure levels (such as contour area or noise quota). Noise caps should also consider the effect of night flights, given the health costs associated with sleep disturbance. These costs need to balance the benefits of night flights and any restrictions should be proportionate to local circumstances.

3.116 Avoiding people being exposed to aircraft noise in the first place is preferable to taking action through mitigation. The CAA's forecasts show that the number of people exposed to levels of noise with potential health costs will continue to grow despite aircraft noise reducing. However, given the government's priority to provide new homes, it is unrealistic to expect that new homes will not be built in areas affected by aircraft noise to some extent.<sup>78</sup>

3.117 There is clear evidence that a factor in annoyance is the extent to which people expected aircraft noise prior to moving to the area. It is therefore important that people have access to suitable information when making decisions about moving.

3.118 The government is therefore proposing new measures for people moving near to airports:

- **developing tailored guidance for housebuilding in noise sensitive areas near airports**
- **improving flight path information for prospective home buyers so that they can make better informed decisions**

3.119 The government is also:

- **proposing new measures to ensure better noise outcomes from the way aircraft operate, by increasing uptake of best practice operating procedures and improving compliance with mandatory controls:**
  - extend CAA's information duties to allow CAA to require additional information, for example the use of 'low power-low drag' procedures (which delay the lowering of landing gear to reduce noise on approach to an airport)
  - introduce a new power to direct airports to publish information, such as league tables of airline noise performance
  - create minimum standards for noise monitoring around airports
  - define better targeted maximum departure noise limits which incentivise quietest performance across different aircraft types rather than a 'one size fits all' limit
  - require airports to make more use of sanctions available to them for breaches of noise controls, for example when airlines have poor track-keeping performance
  - hold 'coding-house' companies to account for airlines' performance where their programming of flight management systems is a cause of poor track-keeping
  - monitor and enforce the analysis and reporting on noticeable changes to volumes of traffic by flightpath in accordance with future guidance issued by the CAA on transparency and engagement, and consider limiting the extent of these changes

3.120 There is already reasonable compliance with noise controls at many airports and, in the first instance, the government proposes to seek voluntary compliance with these new measures. ICCAN has been asked to consider compliance and enforcement as a priority work area and in the longer term the government proposes to:

- **look into creating new statutory enforcement powers for ICCAN or CAA if other measures prove insufficient to drive the outcomes it wants**

3.121 The government is also:

- **proposing new measures to improve noise insulation schemes for existing properties, particularly where noise exposure may increase in the short term or to mitigate against sleep disturbance**

3.122 Such schemes, while imposing costs on the industry, are an important element in giving impacted communities a fair deal. The government therefore proposes the following noise insulation measures:

- **to extend the noise insulation policy threshold beyond the current 63dB LAeq 16hr contour to 60dB LAeq 16hr**
- **to require all airports to review the effectiveness of existing schemes. This should include how effective the insulation is and whether other factors (such as ventilation) need to be considered, and also whether levels of contributions are affecting take-up**
- **the government or ICCAN to issue new guidance to airports on best practice for noise insulation schemes, to improve consistency**
- **for airspace changes which lead to significantly increased overflight, to set a new minimum threshold of an increase of 3dB LAeq, which leaves a household in the 54dB LAeq 16hr contour or above as a new eligibility criterion for assistance with noise insulation**

## Air quality

3.123 The government recognises that air pollution is the top environmental risk to health in the UK and it remains determined to improve air quality. A cleaner, healthier environment benefits people and the economy. The UK is compliant with ambient air quality legislation for most pollutants, but nitrogen oxides are an exception. Emissions of nitrogen oxides have fallen by almost 27% between 2010 and 2016.<sup>79</sup> However, much work remains to be done which is why the government created the Air Quality Plan to help achieve compliance as swiftly as possible.<sup>80</sup> The draft Clean Air Strategy also sets out the ambition to reduce the harm to health from air pollution by half.<sup>81</sup>

79 Defra (2018): Clean Air Strategy

80 Department for Business, Energy and Industrial Strategy press release: New aerospace technologies to get £365 million funding

81 Sustainable Aviation (2018): UK aviation and Page 126

3.124 Pollutants associated with aviation come from airborne aircraft, from 'airside' operations such as taxiing and airside equipment, and from passengers and staff (and other airport users) travelling to and from airports. The latter, referred to as surface access, is the largest source and has the most significant effect on local air quality. Action to tackle such emissions from surface access transport modes is discussed in the section of this document on improving surface access to airports.

### Airborne aircraft

3.125 Technological solutions to reduce exhaust emissions exist and airports and airlines are already implementing these in the UK. New aircraft are entering service which emit less, and current aerospace research and technology goals remain ambitious. For example, a Sustainable Aviation report refers to future goals targeting a 90% reduction in emissions of nitrogen oxides from new aircraft by 2050 (compared with 2000).<sup>82</sup> Work is ongoing to introduce sustainable and cleaner fuels which provide further air quality benefits. Sustainable fuels not only reduce lifecycle carbon dioxide emissions but also burn more cleanly with lower sulphur oxide and PM emissions. They can also reduce NOx emissions as they tend to burn at slightly lower temperatures.

### Airside operations

3.126 More immediately, airports are introducing cleaner or zero-emission airside equipment to replace diesel versions. Heathrow Airport, for example, has invested £20 million installing fixed electrical ground power and pre-conditioned air at over two-thirds of gates so that aircraft do not need to run their on-board generators, avoiding on-stand aircraft emissions. In addition, more aircraft are now taxiing to and from runways without using all of their engines, reducing both emissions and noise. Manchester Airport has been exploring the feasibility of new electric, specialist equipment for loading and towing aircraft.

## Proposed measures

3.127 The government recognises the need to take further action to ensure aviation's contribution to local air quality issues is properly understood and addressed and is proposing the following measures:

- **improving the monitoring of air pollution, including ultrafine particles (UFP), in order to improve understanding of aviation's impact on local air quality.**<sup>83</sup> This will be achieved by standardising processes for airport air pollution monitoring and communication
- **ensuring comprehensive information on aviation-related air quality issues is made available to better inform interested parties.** This will be achieved through government guidance on the scope and content of airport air quality reports
- **requiring all major airports to develop air quality plans to manage emissions within local air quality targets.** This will be achieved through establishing minimum criteria to be included in the plans
- **validation of air quality monitoring to ensure consistent and robust monitoring standards that enable the identification of long-term trends.** This could be achieved by the government or a third party being given responsibility for overseeing aviation-related air quality monitoring at the national level
- **supporting industry in the development of cleaner fuels to reduce the air quality impacts of aviation fuels.** This will be achieved by international action to develop cleaner fuel standards and reviewing progress towards Renewable Transport Fuel Obligations by 2032

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83 Ultrafine particles (UFP) are the smallest group of particles in the atmosphere and comprise a minor component of PM<sub>2.5</sub> and PM<sub>10</sub>. UFPs are believed to contribute to the toxicity of airborne particulate matter but the magnitude of their contribution is currently unclear.

### Consultation questions

Consider the policy proposals in this chapter and answer the following either for the chapter as a whole; groups of policies within the chapter and/or individual policies:

1. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?
2. How should the proposals described be prioritised, based on their importance and urgency?
3. Are you aware of any relevant additional evidence that should be taken into account?
4. What implementation issues need to be considered and how should these be approached?
5. What burdens, both financial and regulatory, are likely to need to be managed and how might those be addressed?
6. 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?
7. Looking ahead to 2050, are there any other long term challenges which need to be addressed?

The partnership for sustainable growth is a long-term policy framework and will need to be flexible enough to respond to new information, developments and changing circumstances, while providing sufficient long-term confidence for the industry and communities.

8. To what extent does the proposed partnership for sustainable growth balance realising the benefits of aviation with addressing environmental and community impacts?
9. How regularly should reviews of progress in implementing the partnership for sustainable growth take place and are there any specific triggers (for example, new information or technological development) that should be taken into account?





# Support regional growth and connectivity

## 4. Support regional growth and connectivity

**Airports are vital for local economies, providing domestic and global connectivity, employment opportunities, and a hub for local transport. The government wants to maximise these benefits through markets that operate for consumers and local communities. It wants to support airports that deliver the connectivity regions need, an industry that provides high quality training and employment opportunities to all, and a freight sector unburdened by unnecessary barriers.**

### Introduction

- 4.1 Airports can directly support thousands of jobs and generate economic benefits beyond the airport fence. Core and specialist aviation services, freight companies, logistics hubs and aerospace investment are often located close to airports, creating jobs in the local area. Regional airports also act as wider magnets attracting non-aviation businesses due to the air connections the airport offers but also the strong road and rail access links that support the airport. They act as a gateway to international opportunities for the regions of the UK.
- 4.2 The government recognises the importance of rebalancing the UK economy through the economic growth of the regions and ensuring that the UK remains competitive after we leave the EU. Through the Industrial Strategy, the government has set out its ambition to create a geographically-balanced economy that works for everyone.<sup>84</sup> This will be supported by local enterprise partnerships, mayoral combined authorities, the Northern Powerhouse, the Midlands Engine and the devolved administrations.
- 4.3 The government has also confirmed that it is supportive of airports beyond Heathrow making best use of their existing runways, subject to proposals being assessed in light of environmental and economic impacts.<sup>85</sup>
- 4.4 Airports have a crucial role to play in their regions. They are hubs for growth within and beyond the region in which they are situated. Local airports, such as Newquay, Norwich and Prestwick serve their immediate catchment area, offering domestic and short-haul destinations. Regional airports, such as Bristol, Belfast International, Newcastle and Glasgow, serve larger catchments and offer extensive short-haul network and some key long-haul routes, providing their regions with access to global markets. National airports, to which passengers are willing to travel further, offer an extensive range of short and long-haul destinations.

84 Department for Business, Energy and Industrial Strategy (2018): Industrial Strategy

85 Department for Transport (2018): Airports National Policy Statement

- 4.5 The UK is served by a number of national airports that have influence well beyond their local catchment area, such as Edinburgh and Manchester. These airports are offering an increasing number of direct long-haul flights which can benefit a wide geographic area through more choice for passengers and encouraging more exports.

Manchester Airport directly provided around 23,000 jobs and £1.4 billion to the North West economy in 2016, with more than 500 destination cities served, directly or indirectly, on at least a weekly basis. It is the only airport outside of the South East with direct flights to Singapore, Washington and Mumbai.<sup>86</sup> The introduction of long-haul flights can have significant benefits to the surrounding region. Evidence commissioned by the Greater Manchester Combined Authority estimates that the introduction of the Manchester to Beijing service in 2016 has increased export values from Manchester Airport to China to £1.29 billion, with 115 jobs also created through 11 inward investment projects from China, and a 38% increase in inbound tourism.<sup>87</sup>

## Regional connectivity

- 4.6 The UK aviation market operates predominately in the private sector. Airports invest in their infrastructure to attract passengers and airlines, while airlines are well placed to deliver services to their customers by responding to demand for different routes.
- 4.7 A study on regional air connectivity has demonstrated that domestic and international air connectivity is strong across the UK. Analysis showed that 97% of the population of the UK is within two hours of an airport offering a direct connection to one or more major destinations on a daily basis.<sup>88</sup>
- 4.8 Heathrow Airport acts as an important hub for regional airports to facilitate connections onto long-haul destinations. However, there has been a fall in domestic air connectivity into Heathrow in recent years due to the lack of capacity, with more profitable routes squeezing out domestic connections.<sup>89</sup> This has partly been offset by improvements in rail and road connectivity throughout the UK and increased direct connectivity from regions to overseas destinations, including foreign hub airports.
- 4.9 The government recognises the value of domestic air connectivity and an expanded Heathrow will provide an unprecedented opportunity to strengthen and develop these links, enabling all UK regions to develop new business, tourism and cultural links across the globe.<sup>90</sup>

86 Greater Manchester Combined Authority (2018): a strategic economic asset for Greater Manchester

87 The Manchester China Forum (2018): The China Dividend Two Years In

88 York Aviation (2018): Regional Connectivity Review

89 Department for Transport analysis of Civil Aviation Authority: Airport Data

90 Heathrow Airport Limited (2018)

- 4.10 It is important that government intervention is driven by evidence to ensure market distortion is kept to a minimum as supporting regional air routes can have unintended negative effects on the market as a whole. These include distorting competition between airports which are close together or subsidised routes replacing commercially viable routes. Moreover, it is important that road and rail links throughout the UK are properly accounted for in any assessment of total domestic connectivity. Air connectivity is just one facet of the overall connectivity package on offer, and should act as a supplement to, instead of a substitute for, other modes.
- 4.11 The Airports NPS requires Heathrow to demonstrate it has worked constructively with airlines to protect and strengthen existing domestic routes and to develop new domestic connections currently unserved, to ensure 14 UK airports have links to an expanded Heathrow.<sup>91</sup> The government anticipates that around 15% of additional capacity will be used to serve domestic connections.
- 4.12 To help deliver this, Heathrow has announced a 50% increase in the discount for domestic passengers and has committed to a £10 million Route Development Fund to support the introduction of new routes.<sup>92</sup> Alongside the large increase in slots that expansion will deliver, these measures will create the commercial opportunities for airlines to provide enhanced domestic connectivity.
- 4.13 Airlines have responded positively to these commitments, and both easyJet and Flybe have published indicative routes that they would expect to serve from an expanded Heathrow.
- 4.14 If new capacity coupled with the commercial incentives offered by Heathrow do not deliver on these expectations, then the government proposes to consider ring-fencing slots at appropriate times of day, and where appropriate, support routes through Public Service Obligations (PSO).

### Ring-fencing slots

- 4.15 The expansion of Heathrow is arguably a special case as it will be the first time a significant number of new slots become available at a severely constrained UK airport. Chapter 3 makes the case for change in the allocation process for slots and sets an objective to improve domestic connections where there is large scale airport expansion, such as the new runway at Heathrow. To achieve this, the government is seeking views on:
- **providing guidance to the independent slot coordinator, ACL, on how allocation of this limited pool should be handled.** This could include priority for new routes over existing routes, relative improvements in capacity, load factors, or lower fares
  - **ring-fencing suitable time slots to ensure that at least 14 UK airports can have routes to an expanded Heathrow**

91 Department for Transport (2018): Airports National Policy Statement, new runway capacity and infrastructure at airports in the South East of England

92 Heathrow Airport Limited (2018) press release: Heathrow offers bigger discount for UK fliers

## Public service obligations (PSOs)

4.16 There can be both economic and social reasons for the government to support regional air connectivity. In some cases a regional air route may be the only viable way for a community to access the wider country, such as those connecting the islands of Scotland with the mainland. The government proposes to:

- **continue to provide policy support for lifeline services that connect regions**

4.17 Existing government interventions in regional air connectivity, primarily through PSOs, have had mixed results. By and large the cases put to the government have been poor value for money – the fact that no airline is willing to run the route implies that demand is low and therefore conventional economic benefits are minimal. New research has found limited evidence for wider economic impacts improving the value for money of PSOs under the current appraisal framework.<sup>93</sup> The exception is where capacity constraints at hub airports lead to an inability for commercially viable domestic services to expand to meet demand. There is a stronger case for the government to intervene in such cases. Enhancing an existing domestic route into a hub airport or fostering new routes can improve productivity across the UK, contributing to a rebalancing of the economy.

4.18 The government believes that reserving slots at appropriate times at Heathrow will secure hub connectivity for the UK's nations and regions for the long term. This will deliver economic benefits across the country, without the distortionary effects of PSOs.

4.19 However, to ensure that there is a complementary policy to support the government's overall objectives until a new runway at Heathrow is delivered, the government proposes that it should update its current interpretation of the EU regulations to:

- **continue to support PSOs to London for routes vital for social or economic development that are in danger of being lost, but that funding contributions should increasingly be provided locally**
- **expand the scope of PSOs to support routes into airports, such as Manchester or Edinburgh, where this is justified through evidence of onward connectivity benefits that open up long-haul opportunities for international trade and tourism. These will be assessed on an 'airport to airport' basis, with a preference for routes without a government funding requirement**

The UK government supports three PSO air routes to London that would have been lost without direct financial support. The first two were established in 2014 and supported air routes from Dundee to Stansted and Newquay to Gatwick. On the latter, DfT has recently agreed a four year extension and to move the route to Heathrow from April 2019. This will give passengers a choice of more than 200 destinations across 85 countries.

The third was established in 2017 to support two daily return flights between City of Derry Airport in Northern Ireland and Stansted. Thus allowing, for the first time in a number of years, daily return trips to be made from Londonderry to the capital.

Without the government's financial support, all three routes would have been unable to operate financially and would therefore reduce the connectivity to these regions, which is needed for local growth.

4.20 Once Heathrow is expanded, if ring-fencing slots and the commercial incentives offered by Heathrow do not support at least fourteen domestic routes, the government proposes to:

- **consider imposing PSOs into Heathrow where this is justified through evidence of onward connectivity benefits. These will be assessed on an 'airport to airport' basis**

4.21 The government expects that significant direct financial support for PSOs into Heathrow following expansion is unlikely to be required, due to the commercial incentives in place for airlines to run routes into the UK's primary hub airport.

4.22 One of the key challenges of the current PSO process is that it does not include a robust, transparent methodology for assessing applications including incorporating the non-monetised impacts of PSOs, such as the strategic benefits of these routes and unintended impacts on the rest of the transport network. As a consequence the government is:

- **proposing a new two-stage process for assessing applications in order to improve transparency and effectiveness**

4.23 In the first stage, applications will be judged against a number of pre-requisite criteria, designed to assess their compliance with regulatory requirements set out in Article 16 of Regulation (EC) No 1008/2008. Passing all of these criteria will move the application to stage 2.

4.24 Stage 2 will then assess the application against a range of criteria, set out at Annex D, enabling the government to make more nuanced assessments on a case-by-case basis. This could include consideration of proposals that do not require government funding, and a thorough examination of cross-model alternatives to the proposed air route. Stage two will not be judged on a pass/fail basis but will instead inform the strategic case to support the traditional economic appraisal. A review and evaluation process, to monitor benefits realisation and value for money considerations, will also be introduced.

## Start-up aid

- 4.25 The government is considering how the previous round of 'start up aid' has performed. Start-up aid was aimed to help address market failure by providing a limited, time-bound subsidy for routes that appear to have commercial opportunity but are not viable under current conditions. This has some benefits compared to PSOs, with a short-term financial boost providing the market with information it needs on route characteristics, and builds up passenger demand to a commercially sustainable level.
- 4.26 An internal review of the previous start-up aid scheme found limited success. The government considers that greater success could have been achieved from a different application and assessment process. Therefore, while the government is unwilling to commit further funding support for Start-up aid at this stage, it would welcome views on how both the process and assessment could be improved, to maximise the successful outcomes.

## Air Passenger Duty (APD)

- 4.27 The government recognises that the aviation industry has expressed concerns about the impact of APD on the commercial viability of some flights within the UK, particularly for airports outside the South East of England. However, passenger growth at UK airports across the regions is strong, with total terminal passenger numbers handled by UK airports increasing by 35% between 2010 and 2017.<sup>94</sup>
- 4.28 In line with ICAO rules, the UK does not tax fuel used for international or domestic flights and no VAT is imposed on ticket prices. Without APD, aviation would be relatively under-taxed compared to other sectors, with a £3.4 billion loss to the public purse.<sup>95</sup>
- 4.29 APD is the policy responsibility of HM Treasury and, like all taxes, it remains under review. The government is establishing a technical working group to consider the practical and legal challenges to changing short-haul APD in Northern Ireland but there are no plans to formally consult wider on APD.
- 4.30 The economic competitiveness of the UK's regions and nations remains a priority for the government, which recognises the benefits which new air routes can bring, both in terms of better connecting UK regions to each other and providing connections to the rest of the world.
- 4.31 Industry is welcome to submit evidence which shows the impact APD may have, for example on international competitiveness or route economics, as part of this green paper consultation.

94 Department for Transport analysis of Civil Aviation Authority: Airport Data

95 Office for National Statistics: Central government receipts – air passenger duty 2017



## Regional transport hubs

- 4.32 Increasingly airports are becoming regional transport hubs which support multiple businesses, labour markets, and population centres. Their development needs to be planned in that context and included in relevant regional, spatial, and economic development strategies.
- 4.33 The government already recognises the economic benefits that airports can have on the local area with both Manchester and Luton Airports, and Newquay Aerohub being designated Enterprise Zones, to act as catalysts to encourage economic growth and development in the region.
- 4.34 Existing government policy states that airports are recommended to produce and keep updated master plans and airport surface access strategies.<sup>96</sup> Airports with more than 1,000 passenger air transport movements a year are also advised to hold airport transport forums (ATFs) which develop and oversee implementation of plans for future surface transport provision.
- 4.35 Over half of airport surface access strategies have not been updated in the last five years, and government does not currently have a role in monitoring or enforcing the appropriateness, effectiveness, or environmental impact of airports' plans through ATFs. The industry's view is that ATFs do not have the authority to hold airports to account.

4.36 The call for evidence and subsequent industry engagement has highlighted:

- that airports are ‘unique’ multi-modal transport hubs and should be recognised and treated as such. The government and local bodies should take a more active role in their development and exploiting the benefits they can deliver
- the need for a more structured approach to the planning of surface transport provision to airports as both national and local decision making processes are currently seen to be fragmented, complex, and poorly understood
- public transport operating hours may not be synchronised with airport operating hours. This can create difficulties in attracting and retaining staff and providing passengers with a range of transport options
- a perception that surface transport providers and operators are, generally, not fully aware of airport needs and do not respond as effectively as they could. There is a need for a more visible and cohesive approach

4.37 To meet these challenges the government is proposing a number of measures:

- **formalise the position of ATFs, setting a requirement for membership to include relevant local and national transport providers, and a duty to co-operate with local government in the development of surface access strategies.** These strategies should enable the ATFs to contribute to the delivery and monitoring of the mode share and environmental targets contained within them. In addition, emerging innovative transport service providers should be actively encouraged to participate
- **update the 2013 Aviation Policy Framework Guidance to help airports in completing surface access strategies and master plans, by providing consistency in requirements and structures that align with future regional and national transport strategies.** There would also be a requirement to reflect the international gateway and transport hub role of an airport
- **work with our transport service providers to assist ATFs in understanding and working within existing surface transport planning processes and develop an associated manual in partnership with the Airport Operators Association (AOA).** This will include setting out clearly the relevant infrastructure investment and franchise timetables, to ensure that aviation stakeholders are clear when, and with whom, they need to engage. This will help to ensure their views are considered by the government, Network Rail and Highways England when decisions are made. The manual would be held by DfT and updated annually

4.38 Airports are also in a unique position to be integrated transport information and ticketing hubs, developing online, app and face to face facilities that integrate information and ticketing processes for passengers. Integrated ticketing can refer to a ticket for the whole journey or encompass multiple tickets.

- 4.39 As part of its terminal development project, Luton Airport is developing a ‘travel hub’ as part of its arrivals area where passengers can easily be assisted by surface transport providers to make the best choices for their onward journeys. Manchester Airport are planning a similar approach to their Ground Transport Interchange.
- 4.40 The government encourages airports to lead in the development of integrating service offerings with surface transport providers – with regular engagement forming part of the remit of ATFs, and consideration of ticketing solutions included as part of their surface access strategies.

## Funding

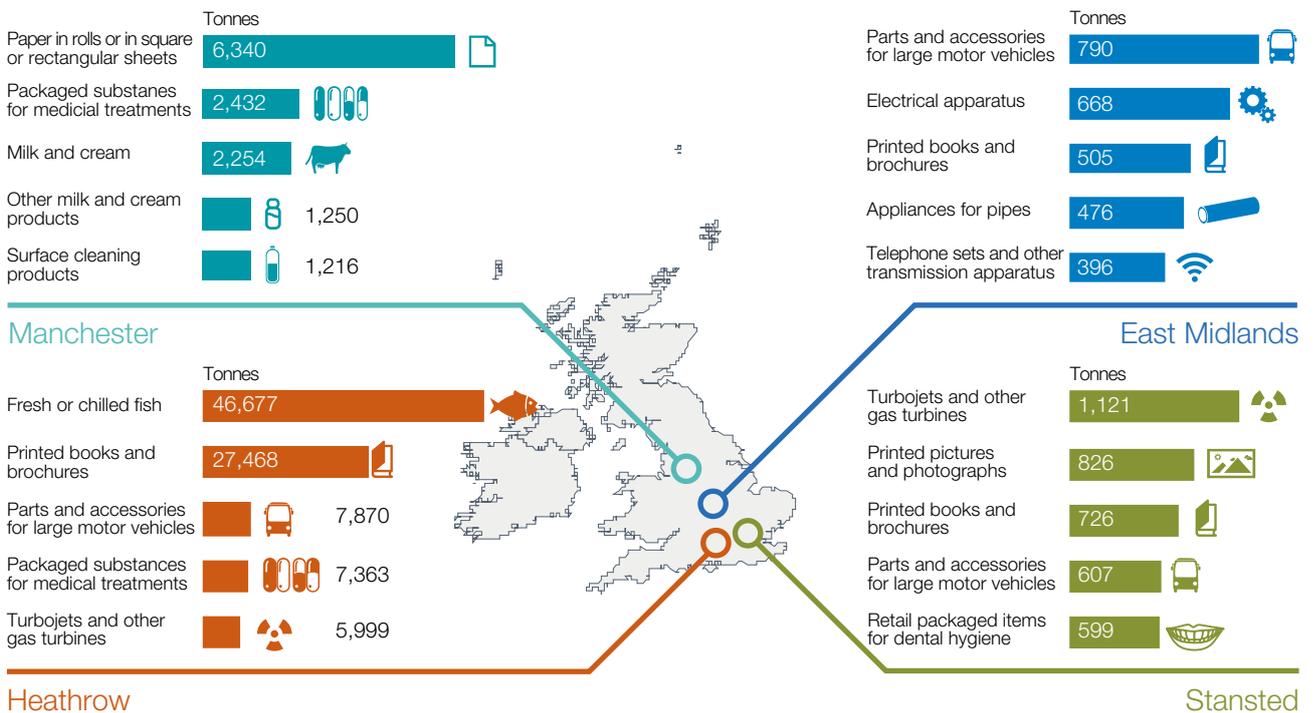
- 4.41 Funding of airport surface transport investment decisions should be taken on a case-by-case basis as they can impact on an airport’s competitive position by giving the airport an unfair advantage over its nearby competitors, such as through the reduction of journey times or increased catchment areas. The government needs to ensure decisions are undertaken in a proportionate manner and include State Aid implications, while recognising the potential to exploit the benefits of such investments and the improvements they have to offer.
- 4.42 The government’s current policy position, set out in the 2013 APF, is that ‘the provision and funding of surface access infrastructure and services to airports is primarily the responsibility of the airport operator but where there are significant non-airport user benefits from changes and enhancements to the infrastructure and services government would consider making a funding contribution to reflect these’.
- 4.43 The government’s view is that there is no clear evidence it should change this position. However, it will continue to review and update the current appraisal methodology to enable ongoing assessment of the validity of its funding policy, for instance in taking into account shared strategic benefits, such as onward connectivity.
- 4.44 Through the current Roads Investment Strategy (RIS) the government has already committed to improving road access to several airports. Going forward, RIS will review the boundaries of the strategic road network, with the intention of providing a consistent regime. Other infrastructure programmes such as the Transforming Cities Fund will also play an important part. Similarly, rail market-led proposals, as set out in the Department’s new guidance, provides an opportunity for schemes not necessarily identified by the government to be progressed by third parties.<sup>97</sup> This may provide opportunities for airports to invest more flexibly in their infrastructure and improve services. The market-led proposals guidance should be read in conjunction with the Rail Network Enhancements Pipeline<sup>98</sup> (RNEP), which sets out the department’s new approach to rail enhancements.

97 Department for Transport (2018): Rail market-led proposals

98 Department for Transport (2018): Rail Network Enhancements Pipeline

## Supporting freight

- 4.45 Air freight is a major part of aviation. It connects UK exporters to new markets across the world, and benefits consumers who increasingly have access to a range of globally sourced goods which can be delivered within days of ordering. Air freight facilitates trade that otherwise may not be viable, for example for goods with a short shelf life.
- 4.46 Air freight and those businesses that support it deliver over 46,000 jobs and contributes over £1.4 billion to the UK economy. The UK ships a greater proportion of its extra-EU exports by air than most other European economies.<sup>99</sup>
- 4.47 The three main airports for handling air freight in the UK are Heathrow, East Midlands and Stansted. Collectively they account for around 85% of the total amount of freight handled at UK airports.<sup>100</sup> The benefits of air freight to the UK, however, are not restricted solely to the areas around those airports. It has a catalytic effect on the UK economy – for example, it has been estimated that 8.6% of the gross value added (GVA) of the Welsh economy is dependent on air freight, despite Wales having no major air freight traffic at its airports.<sup>101</sup>



**Figure 13 Tonnage of non-EU exports at Heathrow, East Midlands, Stansted and Manchester, 2017**  
 Source: HMRC: Overseas Trade Data (2017)

99 Airlines UK (2018): Assessment of the value of air freight services to the UK economy

100 Department for Transport analysis of Civil Aviation Authority: Airport Data 2017

101 Airlines UK (2018): Assessment of the value of air freight services to the UK economy

- 4.48 The government recognises the importance of night flights to the air freight industry particularly for the express freight market which allows UK consumers to receive products from around the world in ever shorter timescales. For example, around 50% of freight at East Midlands Airport arrives before 7.00am.<sup>102</sup> Industry can support growth within existing night noise limits by using quieter and more environmentally friendly cargo aircraft and the government encourages their early adoption wherever possible.
- 4.49 The government supports continued growth of the air freight sector particularly making best use of existing capacity at airports, to continue to facilitate global trade for UK businesses and consumers. It has already taken action by supporting the Northwest Runway scheme at Heathrow, which has been estimated to nearly double the capacity for freight at the airport to 3 million tonnes per year.<sup>103</sup>
- 4.50 Since the call for evidence, the government has worked with the industry to examine the potential barriers to the air freight industry and how it can help reduce them. This work will continue; the government is committed to removing or reducing any unnecessary barriers to air freight and the global trade that it supports, including in non-aviation areas of policy.



One area where the government is already working to remove barriers to trade is in supporting increased digitisation of the air freight sector. Working alongside industry, it has set up the Digital Cargo UK board to facilitate work to improve the digitisation of the sector, for example with increased uptake of electronic Air Way Bills (eAWB); the documents that cover the carriage of cargo from origin airport to destination airport.

**The government aims to promote digitisation as a more efficient and effective way to do business and to remove barriers that are preventing more widespread use of eAWBs in the UK.**

<sup>102</sup> Department for Transport analysis of Civil Aviation Authority: Airport Data 2017

<sup>103</sup> Heathrow Airport Limited (2016): Heathrow's Page 142

## Regional employment, training and skills

4.51 The UK is able to maintain its global presence and competitiveness by having a strong workforce and demonstrating an ongoing commitment to investing in home-grown talent and skills. The UK aviation industry is estimated to directly provide over 230,000 jobs with many more supported indirectly, in every region across the country.<sup>104</sup>

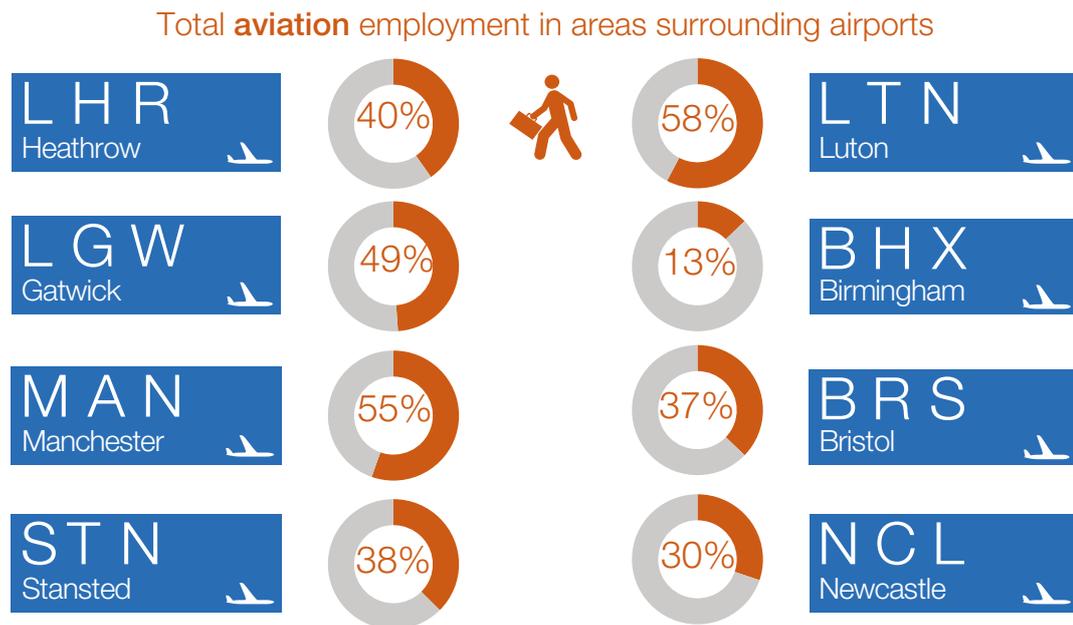


Figure 14 Aviation sector employment in the regions<sup>105</sup>

Source: Independent Transport Commission (2017): The strategic challenges facing UK aviation

4.52 The government wants to ensure that the industry continues to deliver a world class, safe, secure and sustainable aviation industry that meets the needs of consumers. In part this means working with the industry to ensure that it has at its disposal a ready supply of talent to meet both current demand and future need.

### Workforce challenges

4.53 The 2018 Boeing Pilot and Technician Outlook forecast that globally an additional 790,000 civil aviation pilots, 754,000 maintenance technicians and 890,000 cabin crew will be needed over the next 20 years.<sup>106</sup> The forecast includes the commercial aviation, business aviation and civil helicopter industries. Airbus has separately estimated a global need for 540,000 new pilots in the next 20 years.<sup>107</sup>

<sup>104</sup> Department for Transport analysis of Office for National Statistics: Annual Business Survey (2017)

<sup>105</sup> Analysis based on the Middle Super Output Area (MSOA) in which the airport is based

<sup>106</sup> Boeing (2018): Pilot, Technician and Cabin Crew Outlook

<sup>107</sup> Airbus: Global Services Forecast

- 4.54 The aviation industry in the UK will need to address a number of challenges in the years ahead to ensure that it has the skills it needs to succeed. These include:
- continuing to address the current science, technology, engineering and mathematics (STEM) skills shortage
  - keeping pace with technological developments and the changing nature of aviation jobs
  - an ageing workforce and inspiring the next generation of young people to consider careers in aviation
  - realising aviation's potential to deliver social mobility, including through maximising the benefits of apprenticeships
  - improving diversity and inclusion in the industry
- 4.55 A stronger, and sustained, focus on attracting currently underrepresented groups to seek employment in aviation is likely to be a key component of addressing these challenges.

### STEM shortages

- 4.56 Addressing STEM shortages is a key part of the government's policy agenda. The government has two initiatives to tackle this:
- the Industrial Strategy, which is aimed at boosting productivity by backing businesses to create good jobs and increase the earning power of people throughout the UK with investment in skills, industries and infrastructure. There are five key strands to this strategy, one of which is centred on people, ensuring good jobs and greater earning power for all. The government is investing an additional £406 million in education and skills, including boosting spending on maths, digital and technical education to ensure the continued growth of the STEM skills pipeline<sup>108</sup>
  - the Aerospace Sector Deal, which provides a unique opportunity for the government and industry to work together to deliver a skills agenda that equips the aerospace sector to meet the challenges and opportunities of the future
- 4.57 The Aerospace Growth Partnership Skills Working Group, comprising the government and the industry representatives, is currently undertaking work to review skills in the aerospace sector. This is looking at current and future STEM skill gaps, which impact the aviation and aerospace sectors. The government proposes to:
- **work with the Aviation Industry Skills Board to create a careers map for the aviation industry.** It will explore how the current skills gaps will evolve over time, and where the industry sees future demand

### **New technology and the changing nature of aviation jobs**

- 4.58 New and emerging technologies are likely to have a significant impact on the jobs available in aviation. New employment opportunities are likely to be created but current jobs may be replaced or become obsolete with the adoption of new technologies. It is essential that the industry understands how these are likely to affect it as an employer and, in turn, how it delivers for its customers.
- 4.59 To support the workforce in adapting to advances in technology, the government, led by the Department for Education, has committed to a new adult digital skills entitlement to full funding for basic digital courses from 2020. This will provide adults the opportunity to undertake improved digital courses, based on new national standards, free of charge.
- 4.60 The government has also committed to a new National Retraining Scheme which will help people re-skill and up-skill as the economy changes, including as a result of automation. While this scheme is developed, the government is also funding additional projects including £30 million to test the use of Artificial Intelligence (AI) and innovative educational technology (Edtech), as well as providing £34 million for construction skills funding.

### **Increasing the diversity of the workforce**

- 4.61 The aviation industry has a significant opportunity to address its future skills needs by increasing the diversity of its workforce to deliver a greater potential pool of employees now and in the future. In particular, the industry needs to increase the diversity of the workforce in terms of age, socio-economic background, gender, people from minority groups and disabled employees.

### **Inspiring the next generation**

- 4.62 A further workforce challenge for the future is the ageing workforce. Of those pilots who hold an EASA Air Transport Pilot Licence (ATPL), 20% are found to be over the age of 55 and 55% are over the age of 45. Similarly for aerospace, 24% of the workforce is over 55, with 53% over 45.<sup>109</sup> These figures highlight the importance of engaging the next generation of aviation workers.

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109 Department for Transport analysis of Office for National Statistics: Annual Population Survey 2017. Based on the following Standard Industrial Classification (SIC) codes: Manufacture of aircraft and spacecraft and related machinery (SIC 30.3), Repair and maintenance of aircraft and spacecraft (SIC 33.16)



4.63 The aviation industry is already leading the way in using innovative methods to train, recruit and retain a resilient labour force.<sup>110</sup> It has many good examples of providing training and employment opportunities for local communities, for instance:

- Manchester Airport Group's academies help people into work at the airport, by providing support and work experience for those who have been out of work for a long time or want to switch sectors, as well as offering specific programmes for people with learning difficulties
- London Stansted and East Midlands have developed aerozones where they demonstrate options for a viable, long term career in aviation to local school children and young adults
- the creation of Stansted Airport College and the International Aviation Academy in Norwich has increased opportunities for young people to pursue a career in aviation, with apprenticeships and training opportunities on offer
- Craven College's Aviation School, based at Leeds Bradford Airport, offers aviation-specific apprenticeships and degree courses to support the growth of aviation skills in the region. Those newly skilled people are then available to fill a range of jobs in aviation, including airline customer service managers, ground operations managers and pilots. In 2016 the college was recognised as a Swissport (the global airline service company) Academy, which further enhanced the standard of teaching provided and opportunities available to help young people take their first step towards a career in aviation.

### RAF Managed Path scheme

The Royal Air Force (RAF) has recently opened a scheme with British Airways (BA) called Managed Path, which streamlines the process for RAF Multi engine pilots transferring into commercial piloting. It seeks to agree a point in RAF careers where BA will facilitate a transfer for those wishing to leave. This provides a source of well-qualified pilots for BA and promotes retention to a certain critical point in the RAF, which means the RAF achieves a good return on its training costs. The programme seeks to provide further career opportunities to those approaching the end of their RAF careers.

### Socio economic background

4.64 The government is committed to tackling the social mobility barriers which may be preventing people from entering aviation as employees. A 2018 Organisation for Economic Co-operation and Development (OECD) report revealed that students from lower socio economic backgrounds in the UK are almost three years behind their peers academically.<sup>111</sup> The industry, supported by the government, needs to take action to ensure that opportunities in aviation are open to everyone, irrespective of socio economic status or background.

### Apprenticeships

- 4.65 One way of achieving this, and encouraging young people into STEM subjects, is through the development of new English apprenticeships, work-based training programmes that lead to nationally recognised qualifications. The government introduced the Apprenticeship Levy in April 2017 - employers with an annual wage bill over £3 million a year must contribute 0.5 per cent of their payroll towards the levy and receive an allowance of £15,000 to offset against their levy payment. The levy provided the impetus for the aviation industry to work together to develop apprenticeship standards which qualify for levy funding.
- 4.66 The Institute for Apprenticeships (IfA) and industry have worked in collaboration to develop a pilot apprenticeship standard. The standard has been approved and is awaiting the final funding band recommendation.
- 4.67 It can cost up to £120,000 to train a pilot, but the maximum an employer can contribute to the cost of training an apprentice via levy funding is £27,000. The disparity between the cost and the government contribution means that airlines can be discouraged from recruiting apprentices.
- 4.68 The government has announced a package of reforms to ensure the Apprenticeship Levy continues to provide people with the skills they need to succeed. These reforms mean that from April 2019 businesses paying the levy will be able to transfer up to 25% (up from 10%) of their levy payments each year to other employers (including smaller employers in their supply chain) to support specific apprenticeships. Reforms also include an extra £90 million of government funding to reduce the contributions that non-levy paying employers make, from 10% to 5% of the cost, and a further £5 million for the IfA to introduce new standards and updating existing ones. The government will

be seeking views from employers on the operation of the levy after 2020 to ensure it supports the development and growth of the skilled workforce.

- 4.69 The government wants to encourage the aviation industry to increase the number of apprenticeships and ensure training opportunities within the industry are widely available. This is particularly important in relation to commercial piloting as the industry has highlighted the high cost of training as a barrier to entry.
- 4.70 The IfA and the aviation industry trailblazer group have worked together to create an array of apprenticeships standards for a range of low, medium and high skill jobs, including ground operatives, operation managers and cabin crew.
- 4.71 The reforms of the levy discussed above may provide further support for First Officer-Pilot and Air Traffic Controller apprenticeship standards. The standards for these apprenticeships have been approved, but the end-point assessments are still being developed. The IfA will make a final funding band recommendation when the end-point assessment plans are agreed.
- 4.72 The government is:
- encouraging the industry to continue to contribute to the creation of current and future aviation standards, as part of the trailblazer group process

The government welcomes Heathrow Airport Limited's commitment to providing an additional 5,000 apprenticeships when the airport is expanded, doubling the current number of apprenticeships to 10,000 and increasing opportunities for the UK. The Heathrow Employment and Skills Academy designs and delivers tailored programmes to provide opportunities for development, enabling individuals to perform to their full potential.

### Pilot training

- 4.73 The industry has raised concerns about the high cost of pilot training as a potential barrier for new entrants wishing to become commercial pilots. It can cost up to £120,000 to gain a commercial pilot license. Unless an individual is successful in securing a full scholarship, this cost needs to be self-funded. A 2015 survey found that for over half of trainees, the cost of training would exceed £100,000 but only 12% had any kind of sponsorship, 45% had taken out a loan and 42% were aided by their parents.<sup>112</sup>
- 4.74 The industry is of the view that more needs to be done to drive down the cost of pilot training and increase mobility within the industry and it identified three possible funding options for reducing the cost of pilot training:
- Higher Education student support, which is not available for the practical elements of pilot training
  - a tri-payment arrangement whereby the levy, the employer (separate from the levy) and the individual contribute to the cost of training
  - a relief on the VAT charge

- 4.75 The provision of Higher Education student support is governed by legislation. In accordance with the Education (Student Support) Regulations, eligible students can apply for student loans for the academic elements of designated degree programmes for pilot training. This does not extend to the practical elements of gaining a pilot licence. However, students may be eligible to apply for a maintenance loan to contribute towards their living costs while at University. There are some higher education providers in the UK, such as Brunel University and Buckinghamshire New University, which offer a range of degrees linked to the aviation industry, including commercial piloting. The creation of aviation colleges and university degree programmes are a positive step forward in supporting the next generation of commercial pilots.
- 4.76 Current government policy prohibits tri-payment arrangements whereby apprentices contribute to the cost of their training. This policy of not allowing the costs of pilot training and assessment to be passed on to apprentices is intended to protect them and ensure that employers meet their responsibilities. Employers who pay the levy can already use the funds in their account to fund training on any apprenticeship standard. More generally employers who do not pay the levy can access government funding to support their training.
- 4.77 If the government were to consider VAT relief, the industry would need to provide viable industry-led solutions that would work in conjunction with that relief, to further reduce the cost of training to an attainable level. In addition, any VAT exemption for pilot training would need to be implemented alongside a suitable regulatory framework for providers in order to comply with existing VAT rules for education and training. It is important to highlight that a VAT exemption for flight training could result in increased input VAT costs for training providers, potentially increasing the overall cost of provision. Careful modelling would be required in order to understand the impact on trainees, providers and airlines.
- 4.78 **The government would like suggestions for possible industry-led initiatives which would help drive down the cost of pilot training to an attainable level. This could be in conjunction with a VAT exemption for flight training if a suitable regulatory framework were in place for providers.**

## Gender

- 4.79 In 2017, only 6% of pilots and co-pilots employed by UK airlines worldwide were female.<sup>113</sup>

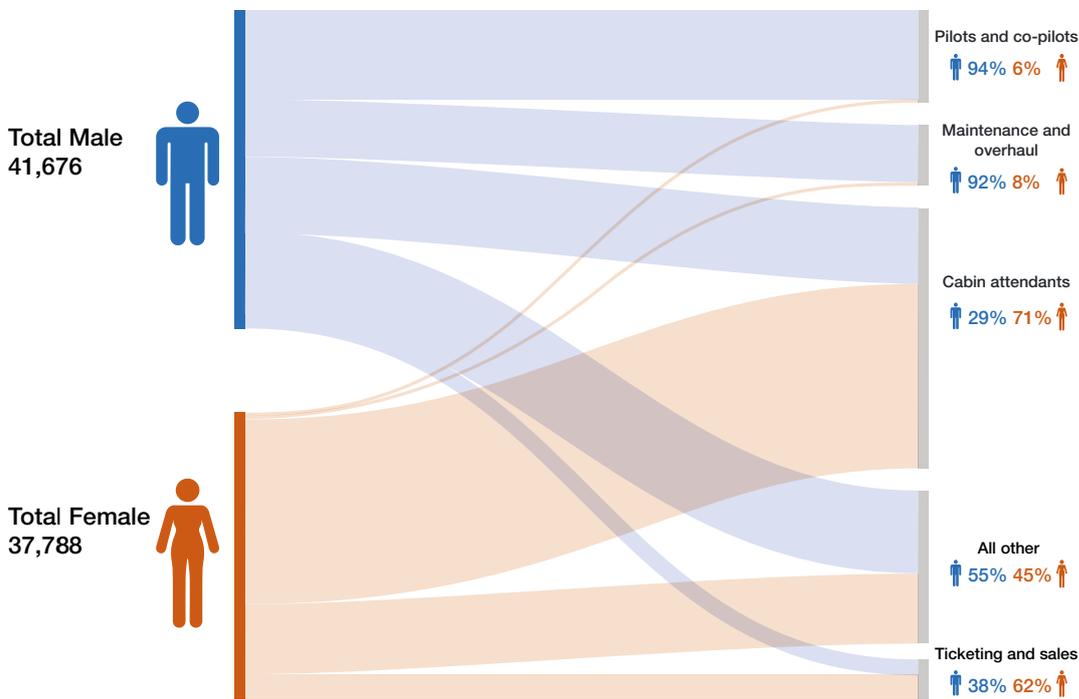


Figure 15 Worldwide employment by UK airlines, 2017  
Source: Civil Aviation Authority: Airline Data (2017)

4.80 Gender based stereotypes can act as a deterrent to young women and girls. More needs to be done to tackle the gender associations that have arisen around jobs such as engineering and commercial piloting.

### Brownies Aviation Badge

Earlier this year it was announced that easyJet and Girlguiding have created a partnership to engage more girls in aviation by introducing a new ‘aviation badge’ for Brownies. The partnership has the potential to introduce 200,000 girls aged seven to ten to aviation and it is estimated that tens of thousands of girls will earn this badge in its first year.



4.81 The government welcomes the establishment of the Women in Aviation and Aerospace Charter earlier this year as a positive collaboration with the industry to improve the gender balance of people working in aviation.<sup>114</sup> The Charter includes a number of commitments, including supporting the progression of women into senior roles, and requires organisations to publicly report on progress. The government proposes to:

- **encourage more of the industry to sign up to the Women in Aviation and Aerospace Charter**



Figure 16 Women in Aviation and Aerospace Charter, as at end November 2018

4.82 The government is also encouraged by industry led initiatives which take positive action to increase the number of women in aviation. For example, easyJet's 'Amy Johnson' initiative, focusing on female pilots, has set an ambitious target that 20% of new entrant cadet pilots recruited by easyJet in 2020 will be female, after the airline successfully achieved its 2015 target of 12% by 2017. In addition, FlyBe's 'FlyShe' campaign is aimed at drawing attention to the current gender biases that exist and inspiring the next generation of young women to consider careers in aviation.

### Black, asian and minority ethnic (BAME)

4.83 There is currently a lack of data on whether there is fair and proportionate BAME representation in the aviation workforce. It is currently not mandatory to report on this and the industry does not voluntarily report. The government has announced that

employers could be obliged to release their race pay gap statistics, following on from the move to release gender pay gap statistics. The government:

- **encourages industry to consider the value in utilising this data to ensure fair representation across the industry**

### Disabilities and hidden disabilities

4.84 13.9 million people in the UK have a disability, which is approximately 1 in 5 people.<sup>115</sup> It is estimated that a 10 percentage point rise in the employment rate for disabled people would, by 2030, contribute an extra £45 billion to the UK economy.<sup>116</sup> The government wants to:

- **encourage more organisations to sign up to the Disability Confident scheme to become Disabled Friendly Employers. It also wants the industry to utilise and work closely with the Department for Work and Pensions' disability sector champion.**

### Consultation questions

Consider the policy proposals in each chapter and answer the following either for the chapter as a whole; groups of policies within the chapter and/or individual policies:

1. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?
2. How should the proposals described be prioritised, based on their importance and urgency?
3. Are you aware of any relevant additional evidence that should be taken into account?
4. What implementation issues need to be considered and how should these be approached?
5. What burdens, both financial and regulatory, are likely to need to be managed and how might those be addressed?
6. 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?
7. Looking ahead to 2050, are there any other long term challenges which need to be addressed?
8. To what extent do these proposals provide the right approach to support the complex and varied role that airports play in their regions?
9. 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?

<sup>115</sup> Department for Work and Pensions: Family Resources Survey 2016/17

<sup>116</sup> Scope (2015): Enabling work: disabled people, employers and the UK economy



# Enhance the passenger experience

## 5. Enhance the passenger experience

**All passengers should have the confidence to fly. Airlines and airports are generally responsive to the needs of their customers but improvements should be made for passengers with additional needs and when things go wrong. The government is committed to making flying a more positive experience for everyone. The proposed Passenger Charter aims to promote best practice and create a shared understanding of the required service levels for passengers.**

### Introduction

- 5.1 The government wants to ensure that the aviation industry works for everyone and that consumers have equal access to services and to the opportunities that air travel brings. It also wants to ensure that the airline industry is equipped for the demographic challenges of the future.
- 5.2 The competitiveness of the aviation industry means that it already delivers good choice, service and value to consumers in the majority of circumstances. Survey data shows that 83% of recent flyers were satisfied with the overall travel experience during their last flight.<sup>117</sup> It is also clear that the aviation industry has a strong customer focus and is increasingly making use of new technologies to offer an enhanced travel experience.

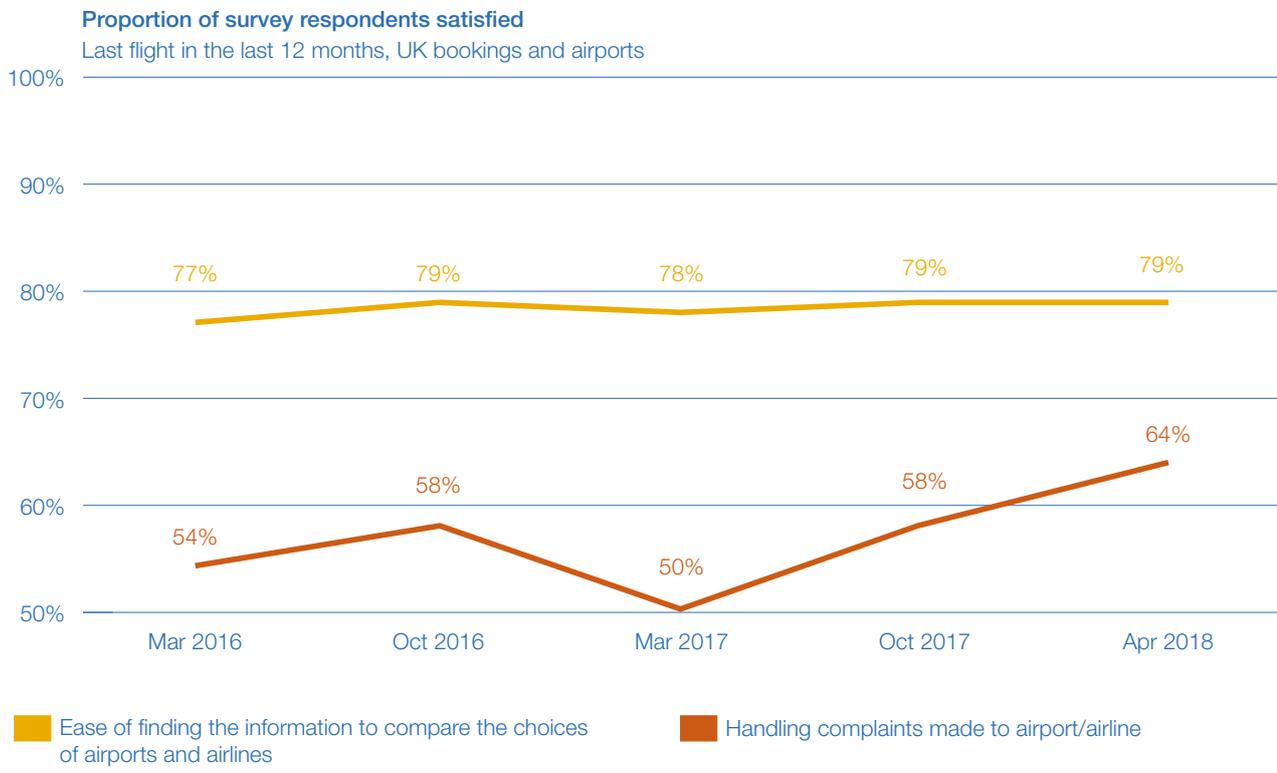
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<sup>117</sup> Civil Aviation Authority (2018): UK Aviation Consumer Survey, Wave 5, respondents that have flown within the last 12 months



**Figure 17a Overall satisfaction with travel experience**  
Source: Civil Aviation Authority (2018): UK Aviation Consumer Survey, Wave 5

5.3 However, engagement with the industry, passengers and others has shown that more could be done to improve the experience for some passengers, particularly when things go wrong. There is evidence to show that their experience when unplanned situations occur, such as flight delays or airline insolvency, could be improved. While passenger numbers continue to grow, there remain barriers for people with additional needs, such as disabilities, reduced mobility and those suffering from allergies. These can mean that they are less likely to choose to fly or find the experience more difficult when they do.



**Figure 17b Satisfaction with elements of the journey**  
 Source: Civil Aviation Authority (2018): UK Aviation Consumer Survey, Wave 5

5.4 This chapter:

- sets out the scope of a new Passenger Charter for aviation
- sets out a range of new measures for passengers with reduced mobility and 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

## Responding to future challenges

- 5.5 It is difficult to predict the characteristics and preferences of passengers in 2050 and beyond. As new generations begin to travel and the passenger base further diversifies, we do not know with certainty how attitudes and expectations will change, nor how the market might respond or innovate.
- 5.6 However, while the future is unpredictable, we can assume that passengers will want more flexibility, convenience and connectivity in their travel choices supported by personalised real-time information, surface transport options and faster passage through airports. We can also anticipate different service models entering the market, as new technologies, such as passenger drones, become commercialised and digitalisation and automation further penetrate the market. These changes create opportunities for businesses that can respond and innovate, including new entrants to the market.
- 5.7 We can also foresee challenges for additional support service delivery, as demographic changes continue. In 2017 over 3 million requests were made for special assistance at UK airports and requests for assistance are increasing at a rate of around double that of general growth in passenger numbers.<sup>118</sup>

## Roles and responsibilities

### Government and the regulator

- 5.8 The aviation industry has an excellent track record at responding to changing consumer demands. The government's role is to continue to provide a regulatory and policy framework that facilitates innovation, while ensuring that consumers' needs are met, even in more difficult circumstances. The CAA protects consumers by enforcing civil aviation rules and the government keeps its powers under review. The government and the CAA also need to be clear on expected outcomes and to develop performance frameworks so that performance standards can be measured and reported upon, to challenge industry as appropriate.

### Airlines and airports

- 5.9 Airlines and airports already respond well to changing customer needs but as new technology develops the government will look to the industry to continue to be innovative, collaborative and responsive in order to accommodate the needs and expectations of a more diverse customer base. The industry also needs to provide greater confidence to all passengers about the standards of service that will be delivered.



## Ensuring all passengers share the benefits of growth – a new Passenger Charter

- 5.10 The government's objective for aviation is for overall satisfaction rates to be at least 90% – in line with targets across other transport modes.
- 5.11 Meeting this objective will require close collaboration with the industry and better co-ordination to further improve the quality of experience for passengers. There are a number of common challenges in delivering quality customer service that appear across a range of different consumer groups and services. These include:
- growing volumes of passengers, with increasingly complex needs such as reduced mobility, hidden disabilities and allergies
  - lack of clarity about roles and responsibilities across airlines, airports and airside services, including accountability for the quality delivery of passenger assistance services
  - variation of clarity, quality and timeliness of information and service that is provided to consumers such as hidden charges, notification of delays and complaints and compensation processes
- 5.12 In order to drive up overall satisfaction for consumers, it is proposed that the government, CAA, industry and consumer groups will:
- **work collaboratively to develop and adopt a new Passenger Charter that clearly sets out what passengers can expect through their journey to deliver improvements in service for all passengers**

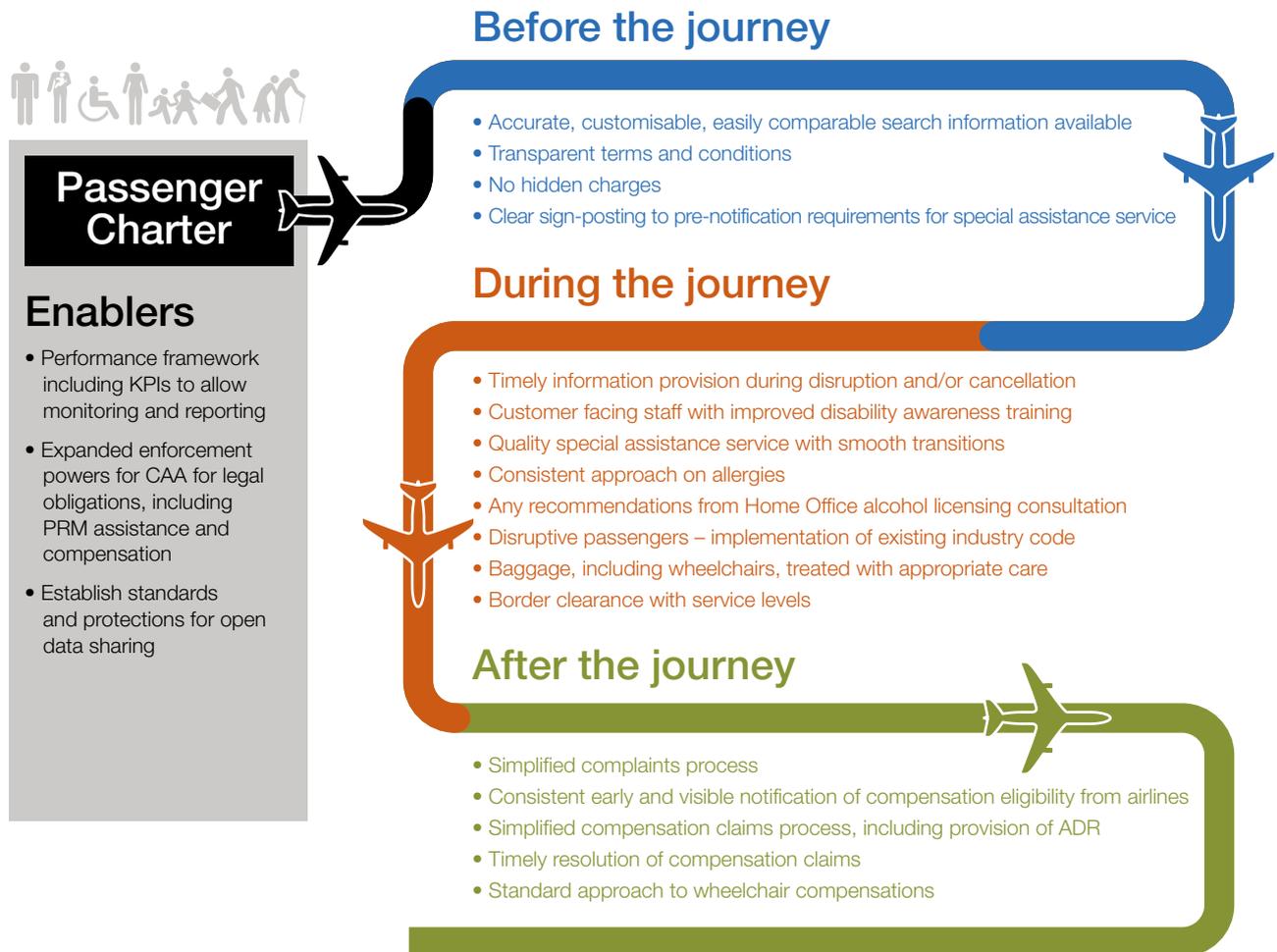


Figure 18 Passenger Charter

- 5.13 The government is committed to improving the standards of service and passenger experience for all passengers. The government wishes to see the aviation sector voluntarily improve its standards through the Charter, while also delivering on its legal obligations. If standards do not improve, the government may need to consider regulating for improved outcomes.
- 5.14 A Charter would help to promote good practice, create a shared understanding of levels of service, and communicate roles and accountabilities clearly to drive service improvement. It would draw on existing guidance and codes of practice and develop new standards where these do not currently exist.
- 5.15 Such a Charter would also provide an opportunity for airlines and airports to communicate the good work that they are already doing and share best practice in a clear and accessible way for passengers. It would also address the significant challenges in air travel that disabled passengers continue to experience. The Charter would be an easy to find, one-stop shop for information for disabled passengers.

- 5.16 The Charter would be supported by an improved performance framework and expanded enforcement powers for the CAA for legal obligations under the Charter.
- 5.17 It is proposed that the Charter would set out clear standards for a range of passenger issues including, but not limited, to:
- **accessibility standards for disabled passengers and passengers with reduced mobility (PRMs)**
  - **service standards for consumers with hidden disabilities and/or allergies**
  - **expectations around the management of disruptive passengers**
  - **service levels for processing people at the border**
  - **standards for notification of delays, complaint handling and compensation claims**
  - **expectations and obligations on compensation and repatriation for when an airline becomes insolvent**
  - **standards for booking information and clear terms and conditions**
- 5.18 The Charter would be supported by:
- **a performance framework with clear Key Performance Indicators (KPIs) to allow monitoring, reporting and ongoing improvement**
  - **expanded enforcement powers for the CAA with respect to legal obligations for passengers with reduced mobility and compensation claims**
  - **new standards for open data, data sharing and data protection**
  - **improved border performance standards through changes to business and delivery models and funding arrangements**
  - **enhanced passenger representation**
- 5.19 Some of these measures would require legislative change to be implemented. In the longer term, the government proposes to consider how to provide a clear indication of which companies have delivered an expected level of service under the Charter, to give consumers greater confidence in the standards they can expect to receive.

## Passengers with additional needs

### Passengers with reduced mobility or disabilities

5.20 Everyone should be able to fly. Airlines and airports have worked to support passengers with additional needs but the government is aware of the need for improvements to be made. The government wants to improve accessibility not only at airports, but at every stage of the journey, including working with industry to deliver changes in aircraft design in the longer term. Regulation is in place to protect the rights of disabled people and passengers with reduced mobility while travelling by air.<sup>119</sup> This ensures that passengers receive special assistance services free of charge, from their designated point of arrival until the point of disembarkation. Use of such services has increased by over two thirds in less than a decade and demand for these services is likely to continue to rise. Requests for assistance at UK airports are increasing at a rate of around double that of general passenger growth.



- 5.21 The Regulation ensures that disabled passengers and those with reduced mobility receive assistance particular to their needs at the airport, as well as on board aircraft, by ensuring airports and airlines employ the necessary staff and provide appropriate equipment. More than 70% of passengers that have flown within the last 12 months and requested assistance are happy with the service provided. The government wants to ensure that service standards continue to improve and that there is greater awareness of the assistance available by working with health professionals and disability organisations.<sup>120</sup> To achieve improved standards, the government will consider how to address the challenges in delivering a service that needs to respond respectfully to a range of individual needs throughout the journey, including the transitions from airport to airline.
- 5.22 One in five UK adults has a limiting disability or health condition and over half of those with such conditions say they find accessing or using airports difficult and/or find flying difficult in general.<sup>121</sup> In addition to being the right thing to do, there is a clear commercial case for the industry to do more to make it easier for disabled people to fly.
- 5.23 Wheelchairs can cost thousands of pounds and are often customised to the specific needs of the person using them. When carried on flights, wheelchairs are currently covered by the same legislation (the 1999 Montreal Convention) as baggage, limiting compensation to around £1000. A number of airlines, including EasyJet and Thomas Cook voluntarily waive this financial limit for wheelchairs. Wheelchairs can be damaged in transit, whether through incorrect stowage, poor handling or a lack of standardised tether points for safe stowage in the hold. Damaged wheelchairs directly impact on the quality of life of their users, as well as creating a significant, unplanned, financial cost.
- 5.24 The government intends to continue working with specialists in aviation accessibility, designers, manufacturers, disability groups and airlines to consider how further improvements can be made. The long-term goal is to enable wheelchair users to travel in their own air-worthy wheelchair on a plane.
- 5.25 The proposed Passenger Charter will aim to promote best practice for assistance services and the government will consider what further measures are needed for passengers with reduced mobility or disabilities. Details of specific measures under the Charter are set out later in this chapter.

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120 Civil Aviation Authority (2018): UK Aviation Consumer Survey, Wave 5

121 As above

5.26 The CAA introduced guidance and airport accessibility reporting in 2015 – the first of its kind in Europe. Good and poor performers are identified in the annual report, incentivising targeted investment from airports to improve their rankings. Airports classified as good, amongst other things ensure that waiting times meet monthly performance targets and that users are satisfied with the service provided. They also engage with local disability organisations to better design their assistance to meet the needs of disabled passengers. Poor performers have failed to meet the required standards or have not taken the necessary steps to address those failings. The CAA is planning to consult shortly on the existing reporting measures.

### The Inclusive Transport Strategy

The Strategy sets out the government's plans to make the transport system across all modes work better for disabled people, through:

- awareness and enforcement of passenger rights – raising awareness of the obligations on transport operators, the processes for raising concerns or complaints and working with regulators to hold operators to account
- staff training – ensuring that transport staff (frontline and managerial) understand the needs of disabled people with physical, mental, cognitive or sensory impairments, and can provide better assistance
- improving information – ensuring that transport operators provide travel information in formats that all passengers can easily access and understand, before and during a journey
- improving physical infrastructure – ensuring that vehicles, stations and streetscapes are designed, built and operated so that they are easy to use for all
- the future of inclusive transport – ensuring that technological advances and new business models provide opportunities for all, and that disabled people are involved from the outset in their design

### Hidden disabilities

5.27 The existing regulation not only covers physical disabilities, but also neurodiversity. As a result, in 2016, the CAA was the first regulator in the world to set out guidance and reporting in airports to cover passengers with hidden disabilities, such as dementia, autism, learning disabilities, anxiety issues, mental health impairments and hearing loss.

5.28 A year after the guidance was introduced, the CAA reviewed airport performance and a first report was published in June 2018 highlighting progress airports have made in improving their environments for passengers with hidden disabilities.<sup>122</sup> This has been followed by the extension of guidance to airlines which was published in October 2018.<sup>123</sup>

<sup>122</sup> Civil Aviation Authority (2018): Supporting people with hidden disabilities at UK airports

<sup>123</sup> Civil Aviation Authority (2018): Guidance for airlines assisting people with hidden disabilities

5.29 The revised guidance sets out that airlines should:

- have a clear and accessible pre-notification system in place allowing passengers to request special assistance at the point of booking
- share information about a passenger's assistance needs within their own organisation and with the airport and ground handling agents.
- ensure a passenger with a hidden disability is seated with a travelling companion at no extra cost
- invest in quality training for staff so hidden disabilities can be identified and passengers assisted accordingly
- ensure passengers with hidden disabilities are looked after in the event of flight delays and cancellations

5.30 When providing assistance to passengers, it is important that the specific needs of the passenger are considered and their preferences taken into account, where appropriate.

### Case study: Aviation sector's initiatives to support passengers

Virgin Atlantic has designed a special symbol that will alert any Virgin Atlantic staff that a passenger needs some extra assistance. Any passenger with a hidden disability can simply download a hidden disability alert symbol; including a bookmark that can be slipped into a passport, or pick up a badge to wear at the airport.

Staff have been specially trained to recognise the symbol and assist customers with hidden disabilities at airports where Virgin Atlantic fly to across the globe.

There are already innovative approaches and good practice to build on.

Gatwick Airport was the first UK airport to introduce a 'lanyard scheme' so that airport staff can easily identify vulnerable passengers who may not wish to publicly share details of their disability. This has been adopted by airports across the UK and overseas, and was recently taken up by a major supermarket chain

Gatwick has also introduced the first ever sensory room at a UK airport for passengers with autism, dementia, cognitive impairment or other special needs who could benefit from a designated place to help them feel at ease before their flight



## Allergies

- 5.31 Passengers with nut allergies can face potentially life-threatening challenges when travelling through a lack of clarity and consistency in airline policies in relation to the serving of nuts as snacks or as an ingredient in food served on the plane. Airlines take the health and welfare of their passengers extremely seriously and want to ensure all passengers have an enjoyable and safe flight. Most airlines already have processes in place to enable passengers to notify them in advance of their flight of any allergies to reduce risk and mitigate against potential exposure. Some airlines have stopped serving nuts on flights, which provides some reassurance but the possibility of exposure cannot be fully ruled out. Allergy UK research has highlighted a lack of clarity around airlines' policies, with over 70% of respondents feeling that policies are not clear.<sup>124</sup> Travelling with nut allergies, especially for families with children, can cause significant stress and anxiety. The government wants to see improved clarity and consistency in how the sector deals with nut allergies and will consider providing clear guidelines for airlines.
- 5.32 The CAA has undertaken an evidence review of passenger exposure to peanuts and tree nut allergens on airlines to establish the scientific evidence for the perceived risk and to identify what mitigation measures, if any, would be appropriate on the basis of the evidence. The report is due to be published before the end of the year.

### Proposed measures for the Passenger Charter

- 5.33 The Passenger Charter should improve passenger service and promote best practice in the air transport sector. As part of the commitment to help the aviation industry work for all of its customers, all of the time, the new Charter would help to increase awareness of consumer rights across a range of areas. The Charter will be an easy to find, one-stop shop for information for passengers with additional needs. The government proposes including the following measures in the Charter for passengers with reduced mobility or additional needs:
- **review and strengthen accessibility performance standards for airports and introduce standards for airlines**
  - **raise awareness of special assistance services** – including how to access them and ensure that passengers have the information they need to give them the confidence to travel by air; considering formats, language, appropriate illustrations or videos and sources of information provision such as health centres

- **improve the pre-notification process** – to capture and transmit all relevant information, particularly around wheelchairs and batteries, in an accurate and timely manner so that the special assistance service provided can be tailored to the customer needs, and ground handlers can prepare for wheelchair loading
- **strengthen standards around waiting times, handover instances and requirements for critical infrastructure** – to provide a quality assistance service
- **improve the storage standards for wheelchairs in the hold** – through improving knowledge of wheelchairs and batteries for ground handlers, creating safe stowage areas in the hold, and considering wheelchair standards, such as universal tether points, for robust securement
- **adopt the recommendations and provisions in European Civil Aviation Conference (ECAC) Document Number 30 in Section 5 on Facilitation of the Transport of Persons with Disabilities and Persons with Reduced Mobility**
- **remove limits to payments for damage caused to wheelchairs during flight** – so that realistic replacement or repair costs are remunerated by airlines
- **increase uptake of training programmes to improve disability awareness for customer-facing staff** – including security and border staff, and for ground handlers to minimise damage to wheelchairs when loading
- **expand the range of enforcement powers available to the CAA to provide for fines for breaches of Regulation [EC] 1107/2006 (accessibility requirements)**
- **provide consistent, standards for allergy sufferers to make certain that consumers know what to expect when they fly**

5.34 In addition to the measures included in the Passenger Charter, the government intends to support a working group of industry, wheelchair manufacturers, disability representatives and the CAA to:

- **develop a certified air-worthy wheelchair standard and docking station system** – to achieve the longer term goal of enabling disabled passengers to travel safely in their own wheelchairs in the aircraft cabin

### European Civil Aviation Conference (ECAC) Document Number 30

Standards in ECAC Doc. No 30 include, but are not limited to:

- in the plans for building or renovating airports, the accessibility standards for disabled persons and PRMs should be considered at the outset
- parking spaces should be reserved for disabled persons and PRMs, as close as possible to the terminal
- set down and pick up points to include forecourts, public car parks, taxi ranks, coach and rail stations or other interchanges (where these exist within airport boundaries)
- a seamless assistance service with 'handover' procedures being avoided where possible
- regular refresher training sessions for staff assisting disabled persons and PRMs
- airlines should make all reasonable efforts to arrange seating to meet the needs of disabled passengers (subject to safety requirements and availability)
- air carriers should be encouraged to offer discounts for the carriage of an accompanying person for disabled persons when they are required for safety reasons
- new and refurbished aircraft (certain to specific criteria) should have:
  - moveable armrests
  - at least one lavatory for PRMs catering for all kinds of disabilities
  - at least one on-board wheelchair
  - a priority space in the cabin, designated for storage of at least one vertically folding personal wheelchair

## Disruptive passengers and alcohol

- 5.35 All passengers should have the right to feel safe while travelling and all passengers should take personal responsibility for managing their behaviour while travelling. Passengers who behave in a disruptive manner can affect the journeys of other travellers both airside and on aircraft and, at its most extreme, disruptive behaviour can threaten the safety of an aircraft. Industry information suggests that disruptive incidents are on the increase but concentrated on particular routes.
- 5.36 The sale of alcohol airside at all but one international airport in England and Wales is currently exempt from the Licensing Act 2003, which governs the sale and control of alcohol. The House of Lords Select Committee on the Licensing Act 2003 recommended that the exemption be revoked due to an increased number of alcohol-related incidents in recent years. The Home Office published a call for evidence on 1 November 2018 to gather more information about the scale of the problem and the impact that airside alcohol licensing could have on reducing it.<sup>125</sup> Any potential extension of the Act would allow for targeted action to be taken against problem premises or for relevant conditions to be attached to how they operate.

The Home Office call for evidence is examining:

- the present scale of the problem of drunk and disorderly airline passengers and its recent trends
- the use, effectiveness and limitations of the current statutory powers; as well as industry-led measures to tackle the problem
- the strengths and limitations of using licensing laws airside to tackle the issue of drunk and disorderly passengers
- the prospective economic implications of applying the Licensing Act airside, as well as maintaining the current exemption
- the suitability and practicalities of applying the current licensing regime to airside: to establish practical implications of extending the Licensing Act in its current form to airside premises

- 5.37 Every person must obey all lawful commands given by the pilot in command of an aircraft. In practice, this means the captain has the ultimate right to prohibit the consumption of alcohol on board a flight. In addition, there are clear criminal penalties in place for drunken behaviour on board an aircraft. The Air Navigation Order (ANO) 2016 makes it an offence to be drunk on board an aircraft, or to board an aircraft while drunk, with maximum penalties being an unlimited fine and 2 years in prison. However, prosecution rates are low.

- 5.38 The government currently believes that the existing penalty regime for disorderly behaviour on airlines and airlines' powers to manage disruptive passengers are sufficiently robust and that increased penalties would do little to change passengers' behaviour. Drunken passengers risk being denied boarding, having their plane diverted (and the associated costs), potential fines, up to two years imprisonment, an airline ban and a diversion fee up to £80,000 for the most serious in-flight incidents.
- 5.39 The government therefore supports providing greater awareness of the consequences of disruptive behaviour and increased use of existing powers by industry.
- 5.40 Industry initiatives to raise awareness of the consequences of disruptive behaviour already exist. In 2015, a selection of industry representatives developed the UK Aviation Industry Code of Practice on Disruptive Passengers. The code creates a common, consistent approach that co-ordinates and enhances existing efforts to prevent and minimise disruptive passenger behaviour where alcohol is a contributing factor. In addition to the code, airports and airlines have introduced a number of new initiatives to tackle this issue including information campaigns such as the One Too Many campaign run over peak summer periods.

#### Case study: One Too Many campaign

The UK Travel Retail Forum (UKTRF), AOA, IATA and Airlines UK representing travel retailers, airports and airlines joined forces over summer 2018 to launch a passenger awareness campaign to encourage people to fly responsibly.



Building on the UK Aviation Industry Code of Practice on Disruptive Passengers, the campaign was the first-of-its-kind to bring all facets of the industry together under one banner.

The campaign reminded passengers of the costs of drinking to excess and it was rolled out via a national Facebook and Instagram social media campaign and in ten pilot airports across the UK.

Since its launch the campaign has reached over 1 million people on Instagram and Facebook. Signage and displays are prominent in airports around the UK on digital boards, point of sale, retailer notices and through a dedicated police leaflet.

5.41 The government believes that with its continued support, a combined approach from airports and airlines is the most effective way to tackle the issue and proposes to include the following measures in the Charter:

- **demonstrate zero tolerance for disruptive behaviour from passengers caused by excessive consumption of alcohol by encouraging best practice across airports and airlines** through initiatives such as the introduction of tamper-proof bags for duty free, and awareness raising campaigns
- **raise passengers' awareness of penalties, encourage greater use of existing sanctions and support staff in enforcement actions**
- **adopt any relevant measures adopted in response to the findings of the call for evidence on airside alcohol licensing**

#### Improving the experience at the border

5.42 The border plays an essential part in securing the UK against a wide range of current and evolving threats. The government is committed to delivering a world-leading border service, which protects the public and ensures the UK remains a welcome destination for legitimate business and passengers.

5.43 Border control at the airport is most people's first experience of the UK, yet some passengers can still experience long queues and inconvenience at border control points at certain ports at peak times. Border Force currently meets many of its key targets. But increasing demand at the border is creating wait times significantly above Service Level Agreements (SLAs) at peak times at some airports causing the service not to be of the standard desired by either airports or passengers.<sup>126</sup> This is particularly the case for non-EEA passengers, where we have seen an increase in the number of passengers of over 20% between 2016 and 2017 to 20 million.

5.44 In 2017, around 137 million passengers crossed the UK border, primarily through airports. Currently, all arriving passengers are processed at the border by Border Force.<sup>127</sup> The volume of passengers is likely to grow, as the demand for aviation in the UK is forecasted to rise.<sup>128</sup>

5.45 In continuing to deliver a world-leading yet secure border there needs to be a drive for service improvements which meet the expectations of passengers and has the flexibility to respond to the growth expected in passenger numbers. This should include making better use of data, biometrics, analytics and automation to improve both security and fluidity across the border.

<sup>126</sup> The British public expect UK and EEA passport holders to wait no more than 12 minutes at passport control in airports and 25 minutes for non-EU citizens (ComRes; The Airport Operators Association (2018): Public Border Attitudes)

<sup>127</sup> Home Office (2018): Immigration statistics, passenger arrivals

<sup>128</sup> Department for Transport (2017): UK aviation prospects

- 5.46 Fundamental to achieving this is ensuring strong alignment between different agencies of the government and with airlines and airports. The Future Borders Programme is already looking at the design of border services for 2025 – central to which are a set of design principles based on a more targeted and risk-based approach to managing the flow of passengers across the border, while ensuring that security remains paramount.
- 5.47 Airline and airports are key partners for the government in determining what the future operating model should look like and how decisions about investment in supporting architecture, such as airport layout, can best facilitate this. Exploring the potential for new technologies will be a critical component of this, and we know international competitors, such as Dubai, are embracing innovative technology for border crossings.

#### Case study: International technological innovation

The Australian Department of Immigration and Border Protection (DIBP) has started to deliver a new and integrated border clearance traveller platform. The DIBP announced that by 2020, international travellers entering the country will be processed via a completely unmanned biometric system based on fingerprints, iris scanning, and facial recognition.

The Dubai Immigration and Visa department are testing a ‘gateless borders technology’ which combines biometric verification and Blockchain technology. Once launched, passengers travelling to Dubai will walk straight from the plane to baggage reclaim via a short tunnel in which a facial recognition system will conduct a three dimensional scan of the passenger’s face to instantly verify their identity against a digital passport. The tunnel will be linked into the central traveller platform, integrating the various identity components of a passenger coming into Dubai. The digital passport, which will be linked to a passenger’s identity on the platform, also protects the privacy of the individual through the creation of a ‘self-sovereign identity’, which ensures that the holder alone has full control of the data. Using Blockchain technology, the solution ensures that the information stored on the digital passport can only be viewed by the passenger alone and anyone specifically permitted by the passenger.

- 5.48 Many of these technological improvements will rely on open and secure sharing of data and passenger information.
- 5.49 This has the potential to enhance the process by which individual travellers’ identity and permissions are gained, shared and validated; enabling a more seamless journey for those not requiring targeted intervention, while improving border security and safety for all. Border Force has already begun to embrace automation. There are now 259 ePassport Gates (eGates) operational and they are processing more passengers on arrival than any other country, with a sizable increase in the number of gates and locations over the past five years.
- 5.50 To continue to harness the opportunities delivered through automation, the government intends to:
- **increase the number of travellers who are eligible to use eGates by summer 2019.** Eligible travellers from Australia, Canada, Japan, New Zealand, Singapore, South Korea and the United States will be able to use eGates at all ports which have them. The government has recently laid the Statutory Instrument to allow this to happen

5.51 This will maintain the security of our border while improving the experience for individuals from those countries, and will also help relieve pressure on non-EEA queues as the number of travellers coming to the UK continues to grow.

5.52 Delivering the border of the future requires input and expertise from all those involved.



5.53 In looking to improve the service at the border, while maintaining the security of the UK, the government proposes to:

- **work with industry to consider a new operating model between the government and the industry, enhancing collaboration and considering options to encourage innovation and new technology**
- **ensure the sustainability of funding through a new funding model**
- **review the current SLA level and process to ensure it is robust, and appropriately balances security and service at the border**
- **support innovation and technology through collaborative working across government and with industry**

## Complaints and compensation

5.54 When a journey is disrupted, passenger levels of satisfaction for their overall journey decrease.<sup>129</sup> A number of factors contribute to lower satisfaction rates:

- lack of communication from the airport or airline giving a reason for a flight delay, or insufficient updates regarding the status of the flight
- lack of information about the progress or resolution of complaints
- delays in responding to complaints and the nature of redress offered create a perception of being unfairly treated
- lack of awareness of consumer rights when a flight is delayed or cancelled, or when passengers are denied boarding
- where compensation may be payable, passengers feel the system is complex and their entitlements are unclear

5.55 Complaints are an important way for airlines and airports to understand and meet their passengers' expectations, especially when things go wrong. The existing complaints process is complex and fragmented. There are multiple steps to make a complaint, starting with the airline or airport, and different resolution or appeal routes if the consumer is not satisfied with the redress offered. The introduction of Alternative Dispute Resolution (ADR) on a voluntary basis to airlines has provided the majority of consumers with an alternative mechanism to court action and has a binding outcome in most cases. An initial review demonstrates high levels of passenger satisfaction and those that have used an approved ADR provider have found the process easy to navigate.<sup>130</sup> However, ADR is not currently available to all passengers.

5.56 There are common rules on compensation and assistance to passengers in the event of long delay, cancellation or denied boarding.<sup>131</sup> This includes the provision of refreshments or accommodation, levels of compensation, and expectations around notifying consumers of their rights.

5.57 The government believes that the Passenger Charter can contribute to increasing overall passenger satisfaction with their journey by ensuring customers are aware of their rights, and through improving the responsiveness of the industry when things have gone wrong during a journey.

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129 Civil Aviation Authority (2017): Consumer Tracker Survey, Wave 4

130 Civil Aviation Authority (2017): ADR in the aviation sector – a first review

131 Regulation (EC) No 261/2004

5.58 The government proposes to include the following measures in the Charter:

- **set standards for timely notification to passengers of flight delays or cancellation**
- **set standards for quality response to complaints**
- **simplify the compensation process and speed up the payment of claims**
- **improve standards for timely and consistent notification to passengers of their eligibility for compensation**
- **review ADR to ensure it is working in the best interests of consumers**
- **encourage the industry to offer ADR to all passengers. If insufficient progress is made on a voluntary basis the government will consider mandating it in the future**
- **develop a performance framework including KPIs to monitor performance of the standards**
- **expand the range of enforcement powers available to the CAA by providing for fines for breaches of Regulation [EC] 261/2004 (compensation and other enforcement measures)**

### Airline failure

5.59 Growth in demand for air travel has been driven by the competitive responses of both new entrant and incumbent carriers to the liberalisation of global aviation markets in more recent years. These developments have brought large and widespread consumer benefits. But they have also led to growing financial pressures in the travel industry which have resulted in clear risks to the consumer, including airline insolvency.

5.60 The Air Travel Organisers' Licence (ATOL) scheme provides important protection for holiday makers booking flight-inclusive holidays, ensuring they are refunded or repatriated if their travel provider collapses. But this consumer protection does not reflect the growing proportion of purchases that are not covered by the ATOL scheme, such as most flight only bookings.

5.61 In October 2017, Monarch Airlines ceased trading, resulting in 750,000 customers losing their advanced bookings. The government launched the biggest ever peacetime repatriation to bring 110,000 passengers stranded overseas home.<sup>132</sup>

5.62 Following this, the Secretary of State for Transport commissioned an independent Airline Insolvency Review. The review is considering how airlines that become insolvent can wind down with minimum impact on passengers and taxpayers. An interim report was published in July 2018, outlining the initial conclusions.<sup>133</sup> The Review is expected to report by spring 2019 and the government will consider its recommendations at that point.

<sup>132</sup> Airline Insolvency Review (2018): Interim Report

<sup>133</sup> As above

5.63 The government is considering the following measures for the Passenger Charter:

- **expanding the range of enforcement powers available to the CAA under the ATOL regulations.**<sup>134</sup> The existing sanctions available to the CAA can be disproportionately severe for the majority of the non-compliance issues. This can lead to a lack of a credible threat of intervention by the CAA and can make it difficult for it to tackle breaches when they are identified. They also fail to provide an adequate deterrent to stop poor practice arising in the first place. A broader range of civil sanctions could prove fairer to compliant ATOL holders, and may provide a more stable travel market, which in turn could feed into the government's wider aim of taking a more market based approach to consumer protection
- **considering the recommendations of the Airline Insolvency Review**

#### Booking information and terms and conditions

5.64 The government wants consumers to be able to access accurate, reliable journey information that is easy to understand and available when consumers need it. If passengers have the right information, in the right format and at the right time, this can help them make the best possible choices and can respond to unforeseen circumstances such as delay.

5.65 The CAA's report on airline seating policies found that price partitioning, where elements such as allocated seating or priority boarding can be charged as separate add-ons to the basic ticket, may have benefits for some consumers who prefer to pay less for their ticket. However, this issue will also be looked at by the new Centre for Data Ethics and Innovation.<sup>135</sup>

5.66 Many companies are already responding innovatively to passenger preferences by providing additional information at different stages of the booking process and journey. These are well received by users and help to improve the consumer experience. The government wants to challenge industry to continue to enhance consumer information and ensure that innovation in this area continues to grow, while also ensuring that resilience is built into the latest technologies as consumers' and industry's dependency on them grows.

5.67 The government proposes the following measures for the Passenger Charter:

- **establishing open data standards to support innovation for consumers –** set aspirations and minimum standards on open data use, storage and protection so that information for consumers is freely available for the industry and the government to use to meet consumer needs. This is a key enabler of many of the elements of the Charter

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134 Civil Aviation (Air Travel Organisers' Licensing) Regulations 2012 (ATOL Regulations)

135 Civil Aviation Authority (2018): Paid-for allocated seating in aviation: an update

- **ensuring transparency in relation to airline terms and conditions.** The CAA is engaging with industry to ensure that their terms and conditions are transparent, prominent and, ultimately, fair. It intends to report on its work shortly and any recommendations may be adopted as part of the Charter
- **ensuring that consumers can make informed decisions in relation to allocated seating.** The CAA has recently reported on the first phase of its work on allocated seating. It intends to follow up on the findings with individual airlines to ensure that consumers are given the information they need to make an informed decision over whether to purchase an allocated seat. Any recommendations may be adopted as part of the Charter
- **extending the role of Transport Focus to act as a representative body for air passengers.** Transport Focus would work closely with the CAA to boost the voice of air passengers and inform understanding of passengers' wants and needs which will help identify priorities for more targeted improvement. This would be important in developing many of the elements of the Charter

### Consultation questions

Consider the policy proposals in this chapter and answer the following either for the chapter as a whole; groups of policies within the chapter and/or individual policies:

1. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?
2. How should the proposals described be prioritised, based on their importance and urgency?
3. Are you aware of any relevant additional evidence that should be taken into account?
4. What implementation issues need to be considered and how should these be approached?
5. What burdens, both financial and regulatory, are likely to need to be managed and how might those be addressed?
6. 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?
7. Looking ahead to 2050, are there any other long term challenges which need to be addressed?
8. To what extent does the proposed Passenger Charter adequately address the issues that are most important to passengers?
9. How should the operating model for border service be designed to improve the passenger experience?



Ensure a safe and secure  
way to travel

## 6. Ensure a safe and secure way to travel

**The UK is a global leader in aviation security and safety, with one of the safest and most secure 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.**

### Safety

#### Introduction

- 6.1 The UK is recognised as a world leader in aviation safety. There has not been a fatality on a commercial airline in the UK since 1989. This exemplary record ensures consumer confidence and international trust in the UK's regulatory regime allowing the UK's aviation industry to flourish. In order to maintain the UK's safety record the government must focus on:
- addressing concentrations of safety risks
  - targeting emerging safety risks
  - improving data and reporting
  - addressing global variations in safety standards
- 6.2 As a signatory state of the Convention on International Civil Aviation (the 1944 Chicago Convention), the UK implements the international standards established by the International Civil Aviation Organisation (ICAO). The UK's policy and legislative framework on safety is currently determined by the EU through EASA, and the UK government through DfT. The UK plays a key role in determining EASA's rules and regulations, through the European Regulatory Process, and our membership of the EASA Committee. The CAA is responsible for safety regulation within this legislative framework.
- 6.3 To maintain and improve upon its exemplary record, the UK must pro-actively anticipate and mitigate emerging risk, continue to adapt its regulatory regime, and continue to respond to global variations in safety standards. This will support the UK's objective that there are no accidents involving commercial air transport that result in serious injuries or fatalities, as well as no serious injuries or fatalities to third parties as a result of any aviation activities.

## Concentration of safety risks

6.4 The UK's rate of 0 fatalities per million commercial flights compares well against Europe's 0.2, and the World average of 0.4.<sup>136</sup>

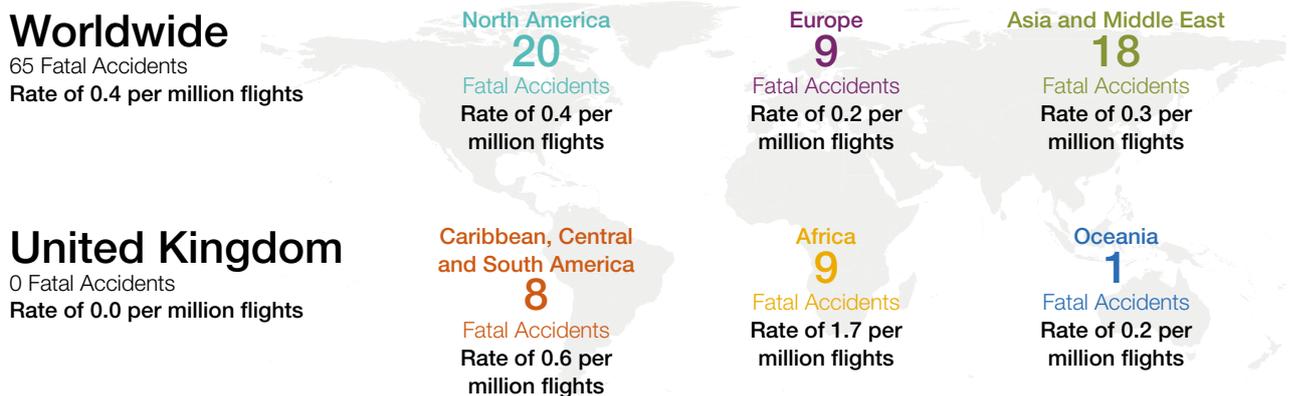


Figure 19 Fatal accidents shown in the ICAO region the operator is registered, January 2013 to December 2017  
Source: Civil Aviation Authority analysis of Accident Analysis Group (AAG) database and Official Airlines Group (OAG) database

6.5 However, while the UK's safety record is excellent, risk is unduly concentrated in specific geographical areas, particular causes and particular sub-sectors of the aviation industry.

## Human and cultural factors

- 6.6 The UK can be proud of its existing safety record across all areas of the aviation system but cannot be complacent. Risks to aviation safety are complex and influenced by many factors but key amongst these factors is human error which is a contributory factor in as many as 70% of air accidents.<sup>137</sup> To maintain and further improve safety outcomes, human and cultural factors must be included as explicit variables in the risk management process. The use of new technologies to anticipate and influence pilot behaviour, and using behavioural insights to understand and to influence people's choices can all contribute to maintaining the UK's exemplary safety record.
- 6.7 Pilot performance/error is the leading cause of accidents in both commercial and General Aviation and the industry has voluntarily invested in human factors expertise to improve safety. The CAA and Air Accident Investigation Branch (AAIB) have each recruited experts in human factors to understand how people actually behave in an operational environment. In recognition of this, the CAA's new Human Factors strategy establishes human factors as a focus during routine oversight activities, and encourages a more proactive approach towards supporting and developing human performance in aviation. It seeks to understand people's limitations and how their capabilities can enhance safety, and to develop the internal capabilities and competencies of CAA inspection staff.

<sup>136</sup> Civil Aviation Authority analysis of Accident Analysis Group (AAG) database and Official Airlines Group (OAG) database: January 2013 to December 2017, scheduled passenger and cargo services

- 6.8 The government and the CAA will continue to invest in human factors expertise and to use new technology to anticipate and mitigate human error, increase situational awareness, and enhance safety.
- 6.9 EASA regulation obliges airlines to put peer support arrangements in place for pilots and industry is responding accordingly. These programmes aim to give pilots a facility to contact a trained peer on a confidential basis to discuss a developing social, personal or health related issue in a trusted environment, thereby addressing issues around stress and self-management. This aims to provide increased resilience to staff and reduce human errors.
- 6.10 New technologies such as augmented reality head-sets and pilot assistance programs also have a critical part to play. For example automatic information retrieval and processing reduces the number of tasks a pilot needs to perform and thereby improves situational awareness. The government will continue to work in partnership with industry to understand the potential and limitations of new technologies such as these to influence human factors.
- 6.11 Aircraft are already partially automated, and industry continues to move in this direction with systems such as autopilot routinely used to assist pilots during flight. Increasingly automated, and potentially fully automated, systems could enable safer operations through diminishing or eliminating human error.
- 6.12 The government proposes to:
- **mandate peer support programmes across all safety critical elements of aviation, building on the EASA-regulated pilot schemes by extending schemes to all safety critical roles including engineers and air traffic controllers.** Some in industry have already established such schemes, and the CAA and the government will monitor its results closely to understand the value it could add and share best practice
  - **incentivise take up of existing technology and new innovation by working with industry to set out common specifications to facilitate greater interoperability, reduce cost, and to mitigate safety risks.** A number of emerging aviation apps provide details about individual flights and operating restrictions which could enable pilots to be better informed and less distracted

### General Aviation (GA)

- 6.13 The UK is proud of its current safety record across all areas of the aviation system, but risk remains concentrated outside of scheduled commercial passenger flights in both fixed wing aircraft and helicopters. 78% of accidents, serious incidents (including near misses with scheduled aircraft) or high severity occurrences involved GA aircraft, in some cases having an impact on third parties.<sup>138</sup>

- safety in the air: There were 21 fatalities and 244 accidents or serious injuries in General Aviation (non-scheduled civil aviation) in 2016 alone, with 19 people, on average, killed each year between 2012 and 2016<sup>139</sup>
- safety on the ground: On 22 August 2015, a Hawker Hunter G-BXFI crashed on to the A27, Shoreham Bypass, while performing at the Shoreham Airshow, fatally injuring eleven road users and bystanders. A further 13 people, including the pilot, sustained injuries



Figure 20 UK aviation safety in context  
 Source: Civil Aviation Authority (2016): UK Aviation Safety Review for 2016

6.14 Given the accident rate in GA compared to the rest of the aviation system, the government is committed to continually seeking new and innovative ways to improve the UK’s safety record across the entire aviation system. The development of emerging technologies such as electronic conspicuity devices, and our greater understanding of behavioural insights can be exploited to ensure that an acceptable level of safety is maintained.

6.15 The government proposes to:

- **review the UK approach to General Aviation safety to re-evaluate the risk picture and risk appetite**

6.16 The review would:

- assess the current level of risk to all parties (pilots, passengers and third parties)
- map out the current regulatory system
- assess the theoretical coherence of the current regulatory system and how it operates in practice

- compare this with other international regulatory systems for General Aviation and regulatory systems in other sectors with similar safety risks and other sport and recreational activity
- make recommendations that ensure the regulatory system is fit for purpose and proportionate

### Emerging risks

- 6.17 The development of new technologies and business models, increased aviation activity and an increase in available data sources has changed both the aviation environment and our ability to anticipate and mitigate safety risks.
- 6.18 Since the publication of the next steps document, the government has been working with the CAA to ensure that it has an accurate UK risk picture and that our regulatory regime keeps pace with a changing aviation environment. The government wants consumers to remain confident in the level of safety in the aviation system. Confidence in the regulatory system will facilitate the introduction of new technologies and business models to the market.

### New business models

- 6.19 The last decade has seen increasingly diversified business models, with new business models moving away from the 'all activity in-house' approach that has traditionally characterised legacy carriers. These developments have brought greater choice (more routes, capacity, and frequency), and value (lower fares and unbundled products), increased efficiency to industry and airport infrastructure. However, diversified business models, where the regulated elements may be geographically split between and provided by third parties, raise the challenge of whether current regulation sufficiently covers such structures. For example:
- Norwegian Air Shuttle owns five separate subsidiary airlines in Argentina, Norway, Ireland, and the UK, contracts operational services from third party providers, and hires its crew through a Norwegian/Swedish/Thai employment company, its aircraft from an Irish leasing company, and has computer services based in the Ukraine and Poland
  - IAG has developed a concept where all the airlines in the Group (Aer Lingus, BA, Cityflyer, Iberia, Iberia Express, and Vueling) operate as individual entities across different geographies, but the majority of support services are centralised across the business. For example, procurement of spares and fuel is done at group level. This structure creates potential oversight difficulties as a number of different regulators are involved (in this case the UK, Irish, and Spanish authorities). The risk is of regulatory imbalance, with regulatory authorities taking different interpretations or approaches with regard to the application of licensing legislation and guidance, such as in relation to Flight Time Limitation, financial adequacy or ownership and control

6.20 The government proposes to:

- **develop a partnership model with European and international regulators to facilitate flexible and effective oversight of new global business models.**  
This approach would allow regulators to give a common consistent view/decision to a licence holder(s) and to more effectively leverage resources across different jurisdictions

### New technologies

6.21 The government is facilitating the introduction of new technologies to the market through pro-actively working in partnership with industry to understand the safety impacts of technological innovation and the required regulatory framework. The CAA's 2018 Enabling Innovation in Aviation conference brought together leaders from across aviation and other allied sectors to consider and discuss opportunities to develop and adapt its regulatory engagement strategy to keep pace with future trends.

6.22 The CAA has worked in partnership with companies including Amazon Prime Air, uAvionix (electronic surveillance devices), Rolls-Royce (on additive layer manufacturing) and Reaction Engines to understand potential safety issues. This ongoing engagement has supported the development of UK regulatory frameworks which have been ahead of many other states.

6.23 The government and CAA will continue to engage with industry and use horizon scanning techniques to identify and prepare for risks in future technologies such as autonomous vehicles and supersonic technology. This will provide a visible and evolving presentation of future aviation risk based on industry intelligence, and will facilitate innovation.

6.24 New technologies can bring significant economic benefits, including new aviation services. However, they can also present new safety risks to other aircraft and people on the ground. For example, there has been a year on year increase in drone incidents with 71 in 2016 rising to 93 in 2017, and an increase in the number of laser attacks on aircraft in recent years.<sup>140</sup>

6.25 The government and regulator have introduced measures to deal with specific risks to the safety of aircraft, arising from new technologies:

- there has been a significant increase in the number of commercial permissions<sup>141</sup> issued by the CAA in the last year. The number of active commercial licenses increased from 2,500 to 3,800 in 2017, an increase of 52%<sup>142</sup>
- the government introduced legislation in 2018 setting out tougher penalties and providing the police with greater powers to investigate laser attacks on aircraft

<sup>140</sup> UK Airprox Board: Airprox reports involving drones and other objects

<sup>141</sup> Applications for new commercial activities, such as using drones for building inspections etc.

<sup>142</sup> Civil Aviation Authority (2017)

## Drones

Drones have the potential to bring great benefits to the UK, including improved productivity and jobs. However, following fast growth in the numbers of drones being used and a year on year increase in drone incidents where they have come into unsafe proximity with airliners or helicopters (71 in 2016, rising to 93 in 2017), the government has introduced new laws to protect the travelling public.

As of 30 July 2018, new laws have restricted small drones from flying above 400 feet and within 1 kilometre of airport boundaries. In addition, new laws will also require owners of drones weighing 250 grams or more to register with the CAA and drone pilots will have to take an online safety test to ensure the UK's skies are safe from irresponsible flyers. These requirements will come into force on 30 November 2019.

In July 2018 the government launched a new consultation on drones. The consultation covered a variety of measures, including whether the airports restriction measure needs to be extended and what powers the police might require to enforce the law. The consultation responses are currently being analysed and the government will set out its plan for action shortly.



## Lasers

Lasers have become a growing concern, particularly near airports where they can dazzle and distract both pilots and air traffic controllers with serious and potentially fatal consequences.

In 2003 there had been no reported cases of lasers being shone at an aircraft. In 2017, UK airports reported 989 laser incidents to the CAA.

To tackle this issue the government brought forward the Laser Misuse (Vehicles) Act 2018, which created a specific offence for a person shining a laser at a vehicle including aircraft. The legislation introduced tough penalties for people who target aircraft and strengthened police powers to catch and prosecute offenders.

6.26 New technologies have brought significantly increased numbers of operators into aviation. All aircraft must be safely accommodated, including scheduled flights, General Aviation and new technologies such as drones, in some of the world's most congested airspace.

### Electronic conspicuity

6.27 Aircraft equipped with e-conspicuity equipment can actively signal their presence to other airspace users. Such devices also receive signals which alert the pilot to other aircraft in the vicinity thus enabling the pilot see that aircraft and take action to avoid it.

6.28 UK Airprox data indicates that late sighting or no sighting is a significant factor in risk bearing airproxes. Using e-conspicuity could help to reduce the number of mid-air collisions through increasing both the quantity and quality of information for pilots, increasing their situational awareness.

6.29 The CAA has taken forward the Electronic Conspicuity Working Group's work and recently published a technical guide setting out key outcomes to develop a new industry standard for a low cost conspicuity device for light aircraft that is non-technology specific and interoperable.<sup>143</sup>

6.30 The benefits of electronic conspicuity are apparent: reduction in the likelihood of mid-air collision, reduction in the number of airspace infringements (leading to reduced safety separation), increased ability to re-grade airspace to enable greater sharing, and integration of new users, such as unmanned vehicles. The government will work with the CAA and other stakeholders to balance costs and simplicity with the safety benefits electronic conspicuity can bring.

6.31 The government proposes that:

- **there should be mandatory identification of all aircraft in UK airspace**

6.32 It will work with the CAA and other stakeholders (including international partners) on the best way to achieve this. This form of electronic conspicuity is likely to be a key foundation in developing an effective traffic management system for all airspace users, including manned and unmanned aircraft, within and outside what is currently understood to be 'Controlled Airspace' and enable safely shared airspace.

### Improving data and reporting

6.33 The aviation industry has a very strong collaborative and open approach to safety, demonstrated through voluntarily sharing data with the CAA and AAIB. To maintain and encourage more collaboration it is crucial to retain the current confidential and no-blame nature of collecting and investigating incident reports. The government and the CAA need to continue to have an accurate understanding of the risks facing the UK to ensure the regulatory regime keeps pace with a changing aviation environment. This relies on robust data, the technical support to analyse data and a culture that supports reporting and operates with a high level of trust.

6.34 Changes in European regulation made in November 2015 (EU 376/2014) have encouraged more reporting, with a 50% increase in the number of occurrence reports (the reporting of any safety-related event which endangers or which, if not corrected or addressed, could endanger an aircraft, its occupants or any other person) received by the CAA in 2016 compared to 2015. Of these, 99% were not considered high severity, yet still provide valuable information. This is a strong indicator of the positive reporting culture in the UK.<sup>144</sup>

6.35 The UK recently released its redeveloped State Safety Programme which provides the basis through which aviation safety is managed in the UK, including in its Overseas Territories and Crown Dependencies.<sup>145</sup> This new web-based edition is designed to be a living, flexible tool (in accordance with International Civil Aviation Organisation Annex 19 requirements) which demonstrates how the UK is managing aviation safety and aims to provide trust and confidence in the system.

6.36 The programme is based on identifying and prioritising the highest safety risks in a changing aviation environment through a series of Safety Performance Indicators (SPIs). To support the development of the SPIs, the CAA is investing in a 'big data' programme to deliver a technical platform that facilitates information sharing and enables the automation of reporting and application of advanced analytics across a wide range of sources. SPIs will be used as a pro-active means to help identify and prioritise both the highest safety risks and emerging safety risks. This will allow smarter, more targeted and timely interventions to be taken by industry and the regulator to prevent future accidents.

6.37 The aviation industry already has a good record of promoting and maintaining a no blame safety culture (where staff feel confident to report incidents without fear of being castigated), as seen in its high levels of reporting of safety-related incidents. The government wants to build on this, to ensure it is replicated throughout aviation.

<sup>144</sup> Civil Aviation Authority (2017): UK Aviation Safety Review for 2016

<sup>145</sup> Civil Aviation Authority: State Safety Programme

- 6.38 Specific measures including collaborating with British Air Line Pilots' Association and the London School of Economics to look at the reporting culture of pilots to the Mandatory Occurrence Reporting scheme to inform future work on safety reporting, to review pilot training, and commission research to better understand how to measure fatigue and to develop robust, yet simple, fatigue self-assessment tools. These measures aim to understand human error as a variable which can be reduced, and so decrease the incidence of aviation accidents.
- 6.39 A just reporting culture is equally important on the ground. The CAA-led Ground Handling Operations Safety Team (GHOST) works as a partnership between more than 200 industry members and safety regulators to promote a no blame culture and enhance safety on the ground. Initiatives have included an aircraft loading safety film (Safety in the Balance), a guide to ground safety incident reporting and promotional materials. The CAA is also investigating developing a user friendly app which would enhance reporting, particularly in the ground handling and General Aviation sectors.
- 6.40 The government proposes to:
- **continue to implement the State Safety Programme, through development of the Safety Performance Indicators, supported by appropriate technical tools**
  - **encourage more transparent reporting of international data collected by ICAO. A vast amount of safety data is available including through ICAO which undertakes Universal Safety Oversight Audit Programme (USOAP) audits which inform the public about the safety performance of 192 States. To be effective, this information must be transparent and easy to understand**
  - **continue to support a no-blame reporting culture across industry, including on the ground, as well as the air**

### Responding to global variations in safety standards

- 6.41 The UK consumer relies on a global aviation system largely outside of the UK's regulatory jurisdiction and with varying safety standards. The UK's objective is to improve safety for UK passengers overseas.
- 6.42 Information from ICAO safety audits and the EU Air Safety Committee highlight that certain states and operators have poorer safety records. The government also receives occurrence reports from UK operators overseas which highlight areas of concern. Using that data, engagement with UK operators and EU Safety Assessment of Foreign Aircraft (SAFA) scores<sup>146</sup> the government can identify risk areas across the globe.
- 6.43 The UK has shared its experience through increasing its international capacity building activities in a strategic and sustainable way. Through building relationships and enhancing the UK's global safety reputation, the government will be able to influence decision making at an individual state level and through international organisations.

<sup>146</sup> EU inspection programme of aircraft used by operators from outside the EU.

6.44 The UK's State Safety Partnership programme provides targeted safety interventions and support to states of interest to UK passengers, often in collaboration with UK industry. It is essential to build strong and trusted relationships to encourage and facilitate better data sharing to overcome limits in access to formal data on risk in other states. This also helps to strengthen the UK's reputation as a trusted partner across the globe.

6.45 CAAi and the State Safety Partnership programme have a proven track record of success.

### State Safety Partnership – Case study 1

In 2009 the CAA noted several serious Mandatory Occurrence Reports (MORs) filed by NATS for carriers from the same State, which is a popular holiday destination for British passengers.

Over several months, a relationship was developed between the UK CAA State Safety Partnership team and the state's regulator and main airline. Workshops and meetings were held to address the issues identified.

In 2009, carriers from this state featured in the top 5 of foreign MORs. In 2018 they no longer feature in the top 20 of foreign MORs. A very positive working partnership still exists and a paper was presented at the 39th ICAO General Assembly in 2019 to highlight the success of a state-to-state partnership approach based on this case.

### State Safety Partnership – Case study 2

In 2016, a UK airline approached the State Safety Partnership team with serious concerns about the lack of wildlife hazard management at a foreign airport. A serious birdstrike had recently occurred and the airline's internal safety management system had raised concerns about further operation into this airport if the situation could not be mitigated.

Although the exposure to UK passengers was low (UK passenger numbers to this state for 2017 were fewer than fifty thousand), there would not have been any direct flights between this state and the UK if the airline pulled out of the route. A State Safety Partnership was established through the Department and the local Consulate. This enabled the UK government to hold workshops on safety management, aerodrome infrastructure, and wildlife hazard management with local airport staff. On-the-job training and shadowing were organised for six of the airport staff at a UK airport with a mature wildlife hazard management programme.

The airport has since established a medium-long term wildlife hazard management plan and flights from the UK have continued.

6.46 The government proposes to:

- **significantly scale up the state safety partnership programme by establishing more safety partnerships to improve safety overseas and also facilitate greater sharing of data**
- **diversify funding of safety partnerships to enable long term planning and sustainable growth**

- **establish a strategy and set of criteria for prioritising particular State Safety Partnership projects.** These criteria will be based on the safety risk and UK passenger exposure using the CAA's existing risk matrix so this can be compared with other CAA priorities. This will be assessed alongside value for money, sustainability international priorities as well as long term and wider benefits for the UK
- **facilitate greater cooperation with industry and other states, either in the form of direct funding, data sharing or through shared resource and secondments**
- **take a more targeted approach to ICAO and EASA initiatives including working groups and panels in establishing future standards.** The UK has a large presence on ICAO panels but could be better coordinated and prioritised so that we target particular issues that are of interest to the UK and where our presence and contribution can have the greatest impact
- **increase UK consumers' awareness by publicising the safety record of foreign airlines.** This could be achieved through signposting consumers to publically available information such as the list of airlines banned from flying in the EU
- **encourage ICAO to make their data and assessments of countries more accessible and transparent, highlighting countries with Significant Safety Concerns.** This would allow consumers to make informed decisions as to the risk levels of air travel outside of the UK's regulatory system and outside of EASA's regulatory jurisdiction

## Security

### Introduction

6.47 The UK is a global leader in aviation security, with one of the best and safest aviation security systems in the world. Highly trained staff oversee a whole range of security procedures, including many that are not visible to the public, creating a formidable, integrated system that is hard to overcome. We also share knowledge and expertise with other countries, encouraging them to adhere to international standards and implement improvements to make the skies safer for everyone.

6.48 However, the UK is not complacent. The government is working hard to ensure that aviation security remains extremely effective, while also prioritising a smooth experience for passengers and operational efficiency. It will keep the UK at the forefront of aviation security globally, and set the benchmark to which others aspire.

### Customer experience

6.49 The government has worked hard with UK airports to deliver a high-quality experience at security for passengers, while maintaining robust and proportionate security standards to deter and detect those who would look to do harm. The industry's investment in modern equipment and focus on staff recruitment and training staff have had a significant positive impact on the customer experience.

6.50 This is borne out by feedback from passengers. In 2017 the majority (85%) of air passengers surveyed said they were very satisfied or satisfied with their experiences of security screening. Only 3% said they were very dissatisfied or dissatisfied.<sup>147</sup>

6.51 The average queuing time in 2017, based on passengers’ estimates of how long they queued, was 7.1 minutes. The majority (63%) of passengers surveyed said they queued for 5 minutes or less. The majority of passengers (93%) strongly agreed or agreed that any inconvenience caused by the security screening was acceptable.<sup>148</sup>

6.52 As it maintains and enhances its strong aviation security system, the government will work with airports to further improve its already high-quality experience for passengers, including making the most of new technology to make it quicker and easier to move through security at airports.

**Threat to aviation**

6.53 The threat to commercial civil aviation has developed over recent years, and some terrorists have the intent and capability to carry out complex attacks. Attacks and attempts by terrorists over recent decades, including Daesh’s attempt to target a passenger aircraft flying from Australia in July 2017, show that the global aviation system remains a symbolic target for terrorists worldwide. The threat to aviation will continue to evolve and diversify, and the UK’s approach to aviation security needs to develop and adapt accordingly.



Figure 21 Threats to aviation timeline

147 Department for Transport: Air passenger experience of security screening 2017 (revised). Passenger survey conducted at Heathrow, Gatwick, Manchester, Stansted and Luton

148 As above

## Driving global action

- 6.54 The threat to aviation is truly global, so improving the standard of aviation security around the world is essential to make the skies safer for everyone. The UK has made one of the largest contributions to driving up global aviation security standards. We led the work on UN Security Council Resolution (UNSCR) 23091 to raise the profile of aviation security in the multilateral system. The UK pushed for the first ever Global Aviation Security Plan (GASeP), produced by ICAO and now being implemented around the world.
- 6.55 But raising standards in global aviation security is not something the UK can achieve alone. The government will continue to work closely with industry and international partners to deliver a step change in aviation security to get ahead of the threat and keep UK citizens safe and secure, both at home and overseas. The UK has made a significant contribution across Europe, including the establishment of the Air Cargo or Mail Carrier operating into the Union from a Third Country Airport (ACC3) cargo regime to enhance standards of cargo screening from third countries.
- 6.56 Since November 2015, the government has invested over £20m to develop its Aviation Security Liaison Officer (ASLO) network, significantly expanding its overseas capability to work with host states to improve aviation security standards. The government has undertaken over 300 technical aviation security assessments across over 60 airports in over 30 countries. Working with host states, it has delivered over 200 training courses, enhancing the skills of over 3000 security staff at overseas airports including screening staff, specialist operators and security managers. In addition, the government has provided security screening and detection equipment to increase the capability of other countries to detect threats at airports with flights to the UK. The UK's new aviation security capability is among the best in the world, securing unprecedented access to overseas airports through a network of aviation security experts and a cooperative approach to working with host states.

## World leader

- 6.57 The UK is a global leader in aviation security within the UK. This is underpinned by a world class intelligence capability, a multi-agency approach within government, a strong and well-established regulator, cutting edge policy capability and a dynamic industry willing to innovate and invest private capital in security.
- 6.58 The government has acted to ensure that the UK has one of the strongest aviation security frameworks in the world. It has adopted More Stringent Measures (MSMs) over and above the EU standard, to provide even greater assurance against attacks on flights leaving the UK. The UK continues to be at the forefront of technology development and deployment, trialling the very latest 3-Dimensional Computed Tomography (CT) screening equipment for cabin baggage and rolling out the new Standard 3 (HBS3) screening for hold baggage.
- 6.59 But there remains more to do. The UK Aviation Security Strategy sets out a proactive approach to getting ahead of threats to aviation. While the detail of the strategy is necessarily highly sensitive, the work focuses around six core themes:

- confident: collective confidence in aviation security, ensuring a shared understanding of risk and proactively testing the system
- comprehensive: an aviation system that is a hard target, where we take an end-to-end view of our options to deter, detect and disrupt terrorist activities that target aviation
- concentrated: a data-driven approach to identify and target higher risk people and goods
- collaborative: a collaborative approach to information sharing, policy making and regulation
- co-operative: increased quality and full implementation of international aviation security standards, driven by co-operation with international partners, multilateral bodies and industry, and underpinned by a greater understanding of host state capabilities
- capable: building capability and culture, a new focus on the human element to drive capability, skills, morale and resilience

6.60 Science and technology is critical to the delivery of the government's strategy and underpins all of aviation security. The strategy aims to focus across all aspects of science and technology, such as innovative solutions and new and improved ways of working that can be applied across the whole aviation system. The government is supporting future technology development through £25 million of funding in the Future Aviation Security Solutions (FASS) Programme, to drive innovation in aviation security science and technology and proposes to:

- **provide access to new and improved ways of achieving security outcomes, including development of solutions for future security challenges.** Science and technology will have an impact across the whole end-to-end aviation security system

### Cyber threat to aviation

6.61 As the aviation system embraces new technology, there will be new operational ideas, more products developed using open standards, and increased sharing of data and networking of systems. These newly evolved systems are not without risks, including from cyber threats.

6.62 The government will ensure that the UK's transport sector remains safe, secure and resilient in the face of cyber threats, and is able to thrive in an increasingly interconnected, digital world.

6.63 The government published an Aviation Cyber Security Strategy in 2018 to help industry protect civil aviation from malicious and unintended interference. It focuses on:

- understanding the risks posed by cyber threats to, and vulnerabilities within, the transport sector, and their potential consequences
- managing cyber risks and taking appropriate and proportionate action to protect key assets

- responding to, and recovering from, cyber incidents effectively and ensuring that lessons are learnt
- promoting cultural change, raising awareness and building cyber capability

6.64 The government is working with the National Cyber Security Centre (NCSC), industry and key stakeholders to gain a fuller understanding of the sector, the systems used and how best to support industry, in line with implementation of the Network and Information Systems Directive. It has already worked with the NCSC to produce key guidance to help the aviation industry to mitigate cyber risk. It is working with industry to ensure cyber security is built into new technology from the design phase. This includes impeding hardware interference, agreeing international standards for security, and providing guidance, to reduce the avenues through which cyber-attacks can be conducted.

### Regulatory burden

6.65 All airports in the UK, regardless of their size, are required to conform to the same safety and security regulations required by the regulator and the government. The safety and security of the travelling public is always of the utmost importance, and the UK is a world leader in aviation security and safety.

6.66 Domestically, the government and the aviation industry invest to ensure that the very latest technology is in place to keep passenger and cargo safe and secure, and the government is committed to further improving the passenger and cargo experience, using better, faster equipment to provide an increasingly seamless passenger journey.

6.67 However, the government recognises that for smaller airports the costs per passenger of achieving these objectives are often significantly higher than their larger counterparts and it is sometimes harder for them to pass costs on to airlines due to the comparative power of the airline.

6.68 Many security and safety regulations are integrated into the airport license set out by the CAA, and maintaining these standards is paramount when considering any policy changes. The Regional and Business Airports Group (RABA) recently published a briefing paper investigating the regulatory and policy challenges for smaller airports and the government encourages industry to submit evidence of any disproportionate regulatory burden as part of the Aviation Strategy consultation process.

### Commitments

6.69 Through the 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. While much of this is highly sensitive, major commitments include:

- proactively challenging the aviation security system, conducting exercises and tests to identify potential vulnerabilities and close them before they are targeted by terrorists
- understanding and identifying sources and data that could be used to support aviation security, and to target increased security screening on passengers and cargo based on risk

- supporting wider activities at the UK border to deliver advances in passports, visas and using biometric data for identification
- working with international partners to help support skills and capacity development, alongside the implementation of international standards, building ever safer and more secure international aviation, particularly with countries where the threat is highest
- restricting access to information and resources that may aid those planning to attack aviation, as well as developing integrated solutions to tackle emerging challenges, such as cyber
- working with industry to support the development and implementation of new and innovative technological solutions, such as the next generation of cabin baggage screening equipment, to build upon the already high-quality technology and deliver a better experience for passengers
- finally, recognising the vital role of those who work in aviation security roles by supporting industry to develop career pathways and accreditation, recognising, respecting and rewarding the skills and professionalism within the industry

### Consultation questions

Consider the policy proposals in this chapter and answer the following either for the chapter as a whole; groups of policies within the chapter and/or individual policies:

1. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?
2. How should the proposals described be prioritised, based on their importance and urgency?
3. Are you aware of any relevant additional evidence that should be taken into account?
4. What implementation issues need to be considered and how should these be approached?
5. What burdens, both financial and regulatory, are likely to need to be managed and how might those be addressed?
6. 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?
7. Looking ahead to 2050, are there any other long term challenges which need to be addressed?
8. To what extent do these proposals sufficiently address existing and emerging safety and security risks in order to maintain business and passenger confidence in the UK aviation industry and in the UK as a destination?



# Support General Aviation

## 7. Support General Aviation

**The government aims to ensure that there are appropriate and proportionate policies in place to protect and support General Aviation (GA) and its contribution to GDP and jobs. The government recognises that the needs of GA have to be seen in the wider context of civil and military aviation. In areas such as the use of airspace and the allocation of slots it is important to balance the needs of private flying, commercial GA and scheduled aviation, so that all classes of aviation are properly and proportionately considered and the benefits GA can be supported.**

### Introduction

- 7.1 The GA sector covers all kinds of 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. GA activity falls into two main types – commercial aviation, predominantly represented by business aviation and non-commercial activity, predominantly covering sport, recreational and personal transport aviation. The GA community is a diverse group and different sections within it may have differing, sometimes conflicting, priorities.
- 7.2 In 2014 the CAA set up its General Aviation Unit to support and encourage a dynamic GA sector in the UK, and encourage the European Aviation Safety Agency (EASA) to take the same approach. In 2015 the government published the first GA Strategy, outlining its vision for UK GA and recognising its potential as a wealth generating, and job producing sector of the economy. The core of the 2015 GA Strategy remains government policy.<sup>149</sup>
- 7.3 The development of the Aviation Strategy gives the government an opportunity to reflect on the needs and priorities in the sector, listen to feedback from the GA community and refresh the 2015 Strategy as appropriate.
- 7.4 The research that underpinned the 2015 GA Strategy identified that GA directly supports almost 10,000 jobs and indirectly nearly 30,000 more. Many are skilled careers, including aerospace engineers, those involved in advanced avionics and those training the next generation of pilots. Other jobs include a wide range of activities from airfield and operations management to catering and building/office support.

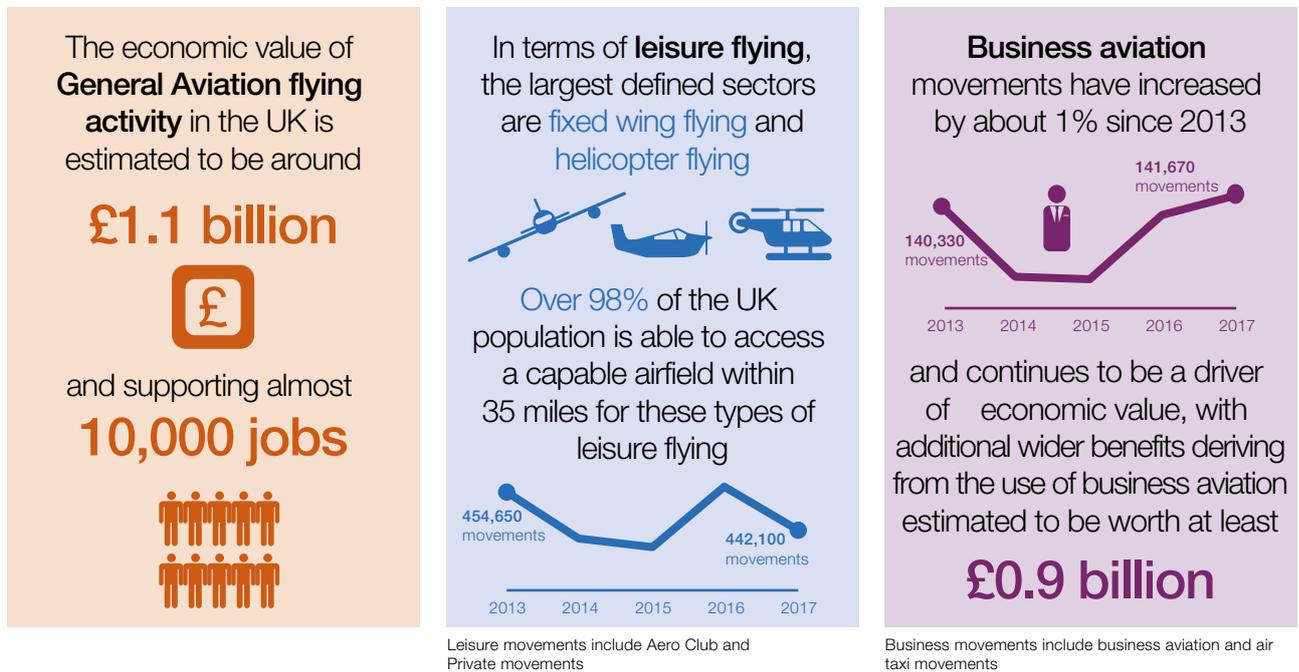


Figure 22 General Aviation in context

Source: : York Aviation (2018): Research into a strategic network of General Aviation aerodromes; Department for Transport analysis of Civil Aviation Authority: Airport data

- 7.6 New research commissioned by the government has confirmed that the economic benefits of GA come from a range of activities such as business aviation operations, flying schools, air displays, and support services and some additional value from the purchase of aircraft and services by private flyers.<sup>150</sup>
- 7.7 The government recognises the contribution of GA to the wider aviation sector. GA still represents the entry point into aviation for many that go on to have full careers in commercial aviation. Despite the deregulatory approach outlined in the 2015 Strategy, and the creation of a dedicated GA Unit at the CAA, overall GA activity in the UK has not increased and private GA has reduced in recent years.
- 7.8 This chapter sets out how the government proposes to enable, facilitate and encourage growth in GA, and indicate where it thinks that the GA sector itself should seize the initiative and capitalise on opportunities. The chapter covers:
- reducing regulation
  - General Aviation Strategic Network
  - supporting commercial activities
  - airspace
  - safety
  - training
  - skills
  - environmental impacts of GA

## Reduce regulatory burden on GA

- 7.9 The government's objective is to continue to reduce regulatory burdens for businesses and to continue to help support high standards of GA safety across Europe.
- 7.10 The regulation of GA, mostly governed by European Aviation Safety Regulations (EASA), is as varied as the sector itself. This includes requirements relating to noise, to licensing and to safety. Much business GA regulation depends on distinctions based on aircraft weight, engine type, passengers and pilot numbers.
- 7.11 For private flying there is a range of licence types, together with ratings for the types of aircraft flown.
- 7.12 Pilots need a valid and appropriate class or type rating in order to do any flying other than receive flight instruction or carry out a skill test or proficiency check for the renewal of type or class rating.
- 7.13 The sector plays a critical partnership role for the government in suggesting where there is potential for deregulation and more proportionate rules and by actively supporting and reviewing the development of the rules and associated impact assessments. For example:
- new and proportionate regulations for balloons have now been introduced, with lighter regulations for sailplanes (gliders) to follow
  - the industry has proposed further liberalisation to allow all types of training to be conducted in appropriate Permit to Fly aircraft, following on from changes to the legislation to allow some types of training to be conducted in such aircraft. The CAA is now working with industry to introduce this change
- 7.14 The government proposes to:
- **continue working with EASA to develop a proportionate regulatory framework for GA and reduce burdens including the development of the EASA GA Road Map and an aim of simpler, lighter, better regulation for GA; this was a commitment under the 2015 GA Strategy**
  - **continue to identify opportunities to reduce regulatory burdens by rigorously assessing and minimising the impact of new and existing regulation**

## GA Strategic Network and planning

- 7.15 GA activity takes place at almost all aerodromes. Commercial GA is located at many larger aerodromes and much private flying at smaller aerodromes. Some types of GA, such as paragliding and model flying, do not always use aerodromes.
- 7.16 GA aerodromes vary in how successful they are at meeting the challenges of changes in aviation. Some are growing, others are losing business and a few have closed, the land being used for other purposes. Continuing population growth and demand for housing development means there are strong economic incentives for aerodrome owners to sell part or all of their land and more aerodromes may be lost to development, with particular pressures in the South East.

- 7.17 The government's new National Planning Policy Framework was published in July 2018. It requires planners to "recognise the importance of maintaining a national network of GA airfields, and their need to adapt and change over time – taking into account their economic value in serving business, leisure, training and emergency service needs, and the government's General Aviation Strategy."<sup>151</sup>
- 7.18 To provide recommendations for how to give effect to this, the government appointed a GA Champion, Byron Davies, to recommend a methodology to identify the contribution of GA aerodromes to inform the development of a General Aviation Strategic Network (GASN) of aerodromes. The intention of the GASN is to ensure an appropriate balance between transport and housing development priorities, protecting the GA sector's contribution to the UK economy.
- 7.19 The government is grateful to the GA Champion for his extensive engagement with the GA community on the issue of defining a GASN and welcomes his report, published alongside this document.<sup>152</sup> The government is considering its recommendations and welcomes feedback on the report's recommendations through this Aviation Strategy consultation process, particularly those related to the GA Strategic Network.
- 7.20 The GA Champion sought the views of numerous individuals, groups and organisations to inform his report, and visited numerous airfields. A full list is included in the Champion's report. Groups included:
- Aircraft Owners and Pilots Association
  - British Business and General Aviation Association
  - British Helicopter Association
  - General Aviation Alliance
  - Light Aircraft Association
- 7.21 The GA Champion's report concluded that the GA sector is losing airfields to property developers and that there is a risk to the long-term viability of UK airfields. He made several recommendations, including that:
- the Department for Transport and the Ministry of Housing, Communities and Local Government (MHCLG) develop planning practice guidance to provide further detail on how planning authorities can recognise the importance of maintaining airfields that qualify as part of a strategic network
  - the Department for Transport to consider whether safeguarding (discussed further below) should be made obligatory by Statutory Direction
  - in the longer term, serious consideration should be given to developing mixed use airfields, where GA, industry and housing can co-exist

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151 Ministry of Housing, Communities and Local Government (2018): National Planning Policy Framework

152 Byron Davies, GA Champion (2018): General Aviation Strategic Network Recommendations

7.22 To support the GA Champion's important work, the government commissioned York Aviation to carry out supporting research to identify airfields of strategic significance. This research is also published alongside this consultation document. As part of its research, York Aviation considered a number of broad issues including identifying specialist sites, in relation to :

- business GA
- helicopters
- gliding
- microlights
- parachuting
- hang gliding and parascending

7.23 Aerodromes in the GASN could be identified in two ways:

- publication of a set of criteria that, if met, would enable an airfield to identify itself as being part of the strategic network. Under this approach, individual aerodromes or their users could bid for the aerodrome to be identified as part of the GASN and local authorities would have to take this into consideration when planning applications are made
- production by the government of a list of airfields that comprise the network, based on the criteria identified by the GA Champion and York Aviation. The list could be periodically updated

#### **Strategic network – proposed criteria** (source: GA Champion; York Aviation)

##### Quantitative considerations

- the economic value of GA and GA airfields
- different GA user groups
- future needs of the network
- role of commercial airports
- role of military airfields
- competitive environment in which airfields operate

##### Qualitative considerations

- financial viability
- scale of facilities and investment in hanger facilities and, specialised engineering facilities
- emergency services use
- heritage value
- community engagement and education

7.24 The government believes that there are potential advantages and disadvantages to identifying and protecting a GASN which identifies a subset of airfields and the government would welcome views. Advantages include:

- a subset of aerodromes that make a particularly significant contribution to the value of GA is identified, of which planners will need to recognise the importance
- increased certainty is provided to aerodromes and communities of the status of aerodromes in the local area and region
- the methodology used to identify airfields could act as an incentive to aerodromes to increase the facilities that they offer their customers and their educational and community work
- the presence of an aerodrome on the GASN could provide a level of prominence and would give greater weighting to an aerodrome

7.25 There are corresponding disadvantages:

- an aerodrome owner might consider that designation as part of the GASN could reduce the value of the site for some other purpose such as housing. They could also appeal for the aerodrome to be removed from the network
- aerodromes that are not in the network might be more exposed to development and the consequent negative impacts on the GA sector could outweigh the benefits that those that are part of the network benefit from
- parts of the GA community feel that the network is a crude tool and that there should be separate networks for all of the different kinds of business and leisure users. Others feel that all aerodromes should be protected rather than a selected few

## Supporting new and existing commercial activities

7.26 The government proposes to support new and promote existing business in the GA sector, such as through:

- **continuing to allow paid for flights in historic aircraft that cannot meet the safety criteria for commercial air transport operations where participants have the risks explained to them and accept them** under the CAA's Safety Standards and Acknowledgement and Consent process (such as flights in two seat Spitfire aircraft)
- **enabling new activities of skytyping and skywriting by consulting on changes to the secondary legislation that regulates aerial advertising.**<sup>153</sup> Skytyping is an aerial activity that delivers a line of text in the sky visible from the ground. Skywriting is the formation of letters and symbols visible from the ground from a smoke trail made by an aircraft manoeuvring in the sky. This separate, statutory, consultation will take place once parliamentary time permits.

- **consulting next year on the principles for the next night flight regime for the period beyond the current regime, which ends in 2022.** The government is aware that night flight restrictions at some London airports are having an impact on the business GA sector, resulting in difficulties in operators obtaining slots for ad-hoc movements at short notice during the night quota period.

## Airspace

- 7.27 Just as aerodromes are essential to allow GA to operate, so to is access to airspace. Historically, the majority of airspace change requests have seen unrestricted airspace change to airspace where there are restrictions to certain classes of aircraft. This can limit the access to that airspace for certain sections of the GA community.
- 7.28 As set out in Chapter 3, the overall objective for airspace modernisation is to deliver quicker, quieter and cleaner journeys and more capacity for the benefit of those who use and are affected by UK airspace. This is defined within a set of parameters, and importantly for GA, this includes the use of the minimum volume of controlled airspace consistent with safe and efficient air traffic operations. The government and CAA have committed to co-sponsor airspace modernisation and will work collaboratively with all key stakeholders, including GA, to support delivery in a way that balances the objectives of each stakeholder group.
- 7.29 As part of this work, the government and CAA have asked NATS to work with key stakeholders to develop a coordinated implementation plan and timeline for airspace changes (or airspace change masterplan) that will be required in the future in the south of the UK. The masterplan will identify where airspace changes are needed to deliver safety, capacity, noise reduction, air quality, fuel efficiency, access to airspace for users (including where controlled airspace is no longer justified or should be a different classification), military access, or to introduce new technology.
- 7.30 Airspace modernisation is expected to improve access to airspace for GA, by enabling greater integration, rather than segregation of different airspace user groups. To assure the safety of commercial air transport flights, GA is constrained to an extent by the segregation between controlled and uncontrolled airspace. However, the forecast growth in traffic and technological advancements will require access to the finite volume of UK airspace. To facilitate access by all airspace users to the greatest extent possible, there must be a transition towards greater integration of air traffic, where it is safe to do so. Achieving this will require a consideration of new airspace designs, operating procedures, technologies and equipment. A key facilitator to achieving greater airspace sharing will be greater electronic conspicuity.



## Safety

- 7.31 In its response to the Aviation Strategy call for evidence, the government committed to review the proportionality of the safety regime, bearing in mind the safety record of GA, in relation to both other types of aviation and other activities. The government proposes to:
- **review the UK's approach to GA safety to re-evaluate the risk picture and risk appetite, with the review to be led by an independent chair.** Chapter 6 sets out further details of the review.
- 7.32 The UK is proud of its current safety record across all areas of the aviation system, but risk remains concentrated outside of scheduled commercial passenger flights in both fixed wing aircraft and helicopters. 80% of accidents, serious incidents (including near misses with scheduled aircraft) or high severity occurrences involved GA aircraft, in some cases having an impact on third parties.<sup>154</sup>
- 7.33 The delegation of certain safety and oversight activities in aviation has been successful, for example in the case of gliding and certain tasks undertaken by the Light Aircraft Association and British Microlight Aircraft Association under CAA Approvals. As part of the safety review, the government proposes that the reviewer should:

- **work with the CAA to consider the delegation of responsibility to the GA sector where it is appropriate, and where there are no adverse safety implications and where an accountable and proficient body is able to assume responsibility**

7.34 The UK must safely accommodate an increasing number of users in some of the world's most congested airspace. As set out in Chapter 6, **the government proposes that there should be mandatory identification of all aircraft in UK airspace.**

7.35 Electronic conspicuity devices allow an aircraft to determine its own position and then broadcast that information to other aircraft in its vicinity, and receiving stations on the ground, providing greater situational awareness. Mandating such technology would mitigate the significant risks of mid-air collisions, and increase the ability to regrade airspace to enable greater sharing of airspace.

7.36 In addition, the government proposes to:

- **introduce civil sanctions for Air Navigation Order offences**

7.37 Expanded options would widen the CAA's powers to include directions to rectify the situation; require binding undertakings or to fine offenders. At present the CAA has no enforcement options between a warning letter on the one hand and court action or the removal of licenses and permissions on the other. This proposal would provide a more proportionate focus on corrective responses rather than punitive measures for more minor offences. The government will look for an appropriate legislative opportunity to take this proposal forward.

7.38 The AAIB's report of the 22 August 2015 Shoreham Airshow accident recommended that Department for Transport (DfT) commission an independent review of the governance of flying display activity in the UK. The independent review, completed by Helios, was published in July 2017. The government proposes to:

- **work with the CAA and air display community to take the report's recommendations forward**<sup>155</sup>



### Review of UK Civil Flying Display and Special Event Governance

The review concluded that no alternative form of governance that would lead to further improvements within UK flying display activity has been identified, and that a transition towards greater self-governance by the display industry would not be an appropriate course of action.

It found that the CAA is strongly independent, including from industry, and it has improved in openness and transparency.

It recommended that the CAA:

- could provide greater guidance and advice
- could have a greater clarity of purpose
- should work to increase understanding of safety risks with industry and the flying display community

The CAA has accepted these recommendations and is implementing them.

## Safeguarding for safe development

7.39 Safeguarding is intended to monitor and arbitrate developments in the vicinity of aerodromes that could interfere with their safe operation. Unofficial safeguarding will be appropriate to the majority of aerodromes.

7.40 Safeguarding in the context of aerodromes refers to a requirement for local authorities to consult with aerodromes when planning permission for buildings that may interfere with the operation of the airport is being considered. Two different safeguarding options are available:

- official safeguarding gives a role to the CAA with regards to planning applications in the vicinity of the aerodrome in question; currently 42 aerodromes are officially safeguarded

- unofficial safeguarding does not require the CAA to be involved but allows for a consultative process between the aerodrome and the local authority

7.41 The government proposes that:

- **every aerodrome should adopt either official or unofficial safeguarding and does not propose mandatory official safeguarding**

## Training and skills

7.42 Chapter 4 explores a range of issues within aviation that are affecting the UK's pool of talent and skills, issues such as including barriers to training, diversity, retention, and resourcing of skilled staff. The government understands that some of these issues have particular implications for GA.

7.43 As outlined in Chapter 4, if the government were to consider VAT relief, the industry would need to provide viable industry-led solutions that would work in conjunction with that relief, to further reduce the cost of training to an attainable level. In addition, any VAT exemption for pilot training would need to be implemented alongside a suitable regulatory framework for providers in order to comply with existing VAT rules for education and training. It is important to highlight that a VAT exemption for flight training could result in increased input VAT costs for training providers, potentially increasing the overall cost of provision. Careful modelling would be required in order to understand the impact on trainees, providers and airlines.

7.44 The government is aware of concerns that have been raised around the process for approving apprenticeship standards with the Institute for Apprenticeships (IfA), such as standards for engineering skills relevant to GA. At the beginning of 2018, the IfA published details of reforms to streamline the way it works with employers in developing new standards. The Institute's Faster and Better programme aims to simplify aspects of the standards development process. Furthermore in October of this year, further funding was pledged to the IfA. The government proposes to discontinue the old frameworks so that all new apprenticeships will be on the same higher-quality standards by the start of the 2020/21 academic year.

7.45 The changes to the IfA processes are aimed at providing flexibility for businesses so they can take full advantage of the benefits of employing apprentices, and to help as many people as possible find the right training to equip them for the new economy. The government encourages the GA community to:

- continue to contribute to the creation of standards as part of the trailblazer group process. The government remains committed to promoting GA training and understands the challenges the community faces.

7.46 In addition, as set out in Chapter 4, the government proposes to:

- **work with the CAA and industry to investigate the potential for reducing the costs of pilot training through greater use of technological alternatives, such as simulators and virtual reality, to the extent this would not compromise safety**

## Environmental impact of GA

7.47 The environmental impacts of aviation come primarily from the commercial sector in terms of noise, mileage and fuel consumption, and the government's policy proposals on noise and air quality in chapter 3 therefore apply only to larger commercial airports and airlines. However, the GA sector also has a responsibility to follow and promote good practice in terms of their environmental impacts.

7.48 Many who fly in light aircraft note that it increases their appreciation of the UK's natural and heritage environment. Some modes of GA such as balloons and gliders are noted for their quietness compared to other transport modes. However, GA can also have adverse noise and other environmental impacts.

7.49 This is particularly the case where arrivals, departures and circular flights can lead to periods of intense or consistent activity at aerodromes, including at weekends, that can be disturbing for some local residents. Helicopter activity can also be particularly intrusive due to the fact that helicopters tend to fly at low altitudes and can hover for some time at a single location.

7.50 For many aerodromes the only constraints in terms of noise are those imposed by the planning process, which have effect when major infrastructure is created. Some General Aviation activity takes place under the 28-day planning threshold which permits land to be used for purposes other than those for which planning permission has been given for a period no longer than 28 days.

7.51 A number of codes of practice have been established:

- Code of Practice on Noise from Model Aircraft<sup>156</sup>
- British Helicopter Association Pilots Code of Conduct in 2008<sup>157</sup>
- CAA's Noise Considerations at GA Aerodromes<sup>158</sup>

7.52 The government proposes that the GA sector should:

- **develop and review its codes of practice and would be interested to know how useful and effective these codes of practice have been**

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156 Department for Transport (1982): Code of practice on noise from model aircraft

157 Civil Helicopter Association (2008): The Civil Helicopter In The Community

158 CAA (2012): Noise Considerations at General Aviation (GA) Aerodromes

## Refreshing the 2015 GA Strategy

- 7.53 The 2015 GA Strategy contained 20 actions for the government to take forward. Ministers have reviewed progress against these annually with the General and Business Aviation Strategic Forum. The government has concluded that nine of these have been achieved, three have been overtaken by changes in government policy and eight are still active.
- 7.54 The eight active actions form a core part of the government's ongoing work programme and will continue to be progressed and can be summarised in the following nine points:
- effective engagement with the GA communities and ministerial support for GA initiatives
  - support the CAA in delivering the principles for the regulation of GA developed from its response to the GA Red Tape Challenge process to:
    - only regulate directly when necessary and do so proportionately
    - deregulate where possible
    - delegate where it is safe to do so
    - do not gold plate regulation
  - bring forward legislative reform to introduce civil sanctions for ANO offences
  - provide an appropriate GA perspective to government policy on apprenticeships and aviation skills
  - influence the EASA GA Road Map
- 7.55 The government will continue to monitor these with the General and Business Aviation Strategic Forum.

## Towards the future

- 7.56 In the longer term, the GA sector will face further pressures from the growth of commercial aviation and on environmental issues; and challenges, as well as opportunities, from innovative and emerging technologies. The distinction between model aircraft and drones is already becoming blurred but it is recognised the intent and operation of each is very different. The nature of personal air transport will change as air taxis and further technological innovation develops. If GA is to continue to encompass all types of non-scheduled civil flying, it will need to expand and embrace some fundamentally different types of flying and operations than those that it has traditionally encompassed.

### Consultation questions

Consider the policy proposals in each chapter and answer the following either for the chapter as a whole; groups of policies within the chapter and/or individual policies:

1. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?
2. How should the proposals described be prioritised, based on their importance and urgency?
3. Are you aware of any relevant additional evidence that should be taken into account?
4. What implementation issues need to be considered and how should these be approached?
5. What burdens, both financial and regulatory, are likely to need to be managed and how might those be addressed?
6. 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?
7. Looking ahead to 2050, are there any other long term challenges which need to be addressed?
8. To what extent do these proposals strike the right balance between the needs of General Aviation and the rest of the aviation sector?





# Encourage innovation and new technology

## 8. Encourage innovation and new technology

**Promoting the development of innovation and technology will be a core part of the Aviation Strategy. The government wants the sector to make the best use of new technology for the benefit of consumers and to build on the aviation sector's track record of success in encouraging innovation.**

### Introduction

- 8.1 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 aviation and aerospace sectors have a record of historic success, from the pioneering development of the jet engine in the 20th century to the cutting edge development of new technologies. It has demonstrated its capability to lead these changes independently of government, but the government recognises that it has a crucial role in removing barriers and creating the right environment for innovation to flourish.
- 8.2 The so-called 'Fourth Industrial Revolution' is building on the digital revolution of recent years with rapid technological changes which have the potential to fundamentally alter the way we live, work and move around. A mobility revolution is also underway, driven by innovation in automation, electrification and digitalisation. The government wants to capture the benefits this will bring for:
- consumers – by unlocking mobility and offering new options on how people and goods can move around
  - the aerospace and aviation sectors – to maintain the UK's global leadership, help support jobs, increase productivity, and boost our trade and export capabilities
- 8.3 Aviation and aerospace are already a source of significant research and development (R&D) investment in the UK. The Industrial Strategy set out the commitment to reach 2.4% of GDP investment in R&D by 2027 and 3% of GDP in the longer term, recognising the critical importance of R&D investment for driving productivity and establishing the UK's leadership in global markets.<sup>159</sup> Increasing levels of R&D investment will create opportunities to build on aviation's track record of success in encouraging innovation, and the government is committed to using its full range of policy levers to support this.
- 8.4 This chapter:
- 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 the government in its enabling role, working in partnership with the sector
- proposes measures to better align policy and investment

## Opportunities for Innovation

### Automation

8.5 Aircraft are already automated to some degree, with systems like autopilot used to assist pilots during flight. Human factors were one of the main causes for accidents in the aviation sector in the 1950s and 1960s. This drove the development of technological solutions to support pilots in managing factors that could result in the loss of an aircraft, such as the impact of fatigue. This led to the introduction of automated systems such as autopilot and the auto-throttle, following which the number of aviation accidents fell sharply after the mid-1950s. Human error is reported to be a primary contributor to more than 70% of commercial airplane hull-loss accidents.<sup>160</sup>

- 8.6 The aviation industry is continuing to shift towards greater automation of flight and associated ground infrastructure. Increasingly automated, and potentially fully autonomous, processes will likely play an important role in shaping the dynamic between the aircrew and on-board systems, enabling safer operations. New opportunities and challenges could arise from increasing automation in aviation which the government will need to be fully prepared for.
- 8.7 Automated systems offer a range of opportunities for the aviation industry, aiding in improvements to safety, potential environmental benefits and consumer benefits. The Aerospace Technology Institute (ATI) has published a technology strategy for the UK, which includes developing more advanced systems, such as sensing and avoiding other aircraft. Working with the government and Innovate UK, ATI seeks to support world leading aerospace technologies in the UK. This includes elements of automation, such as approaches to factory automation and robotics for manufacturing and assembly, as well as R&D that explores key factors to move towards single crew operations in future aircraft.
- 8.8 The rapid expansion of the drones market in the UK, alongside an increasing volume of other air traffic, means that traditional air traffic management methods and systems need to evolve. If we are to fully realise the social and economic benefits presented by unmanned aircraft, while maintaining public safety and confidence, we need a highly automated system capable of tracking and coordinating the unmanned portion of air traffic. Without the capability to integrate unmanned systems with manned aviation in congested areas, it is unlikely the full potential of drones will be realised in the UK.
- 8.9 The government has funded a development programme, led by the Transport Systems Catapult, on the requirements of an Unmanned Traffic Management (UTM). The results of this work will feed into future policy development. The government proposes to:
- **work with the CAA and industry to determine the next steps for UTM technology and regulation in the UK, and more widely consider the impact that UTM will have on the aviation sector as a whole**
- 8.10 The government wants to maximise the benefits that greater automation and autonomy can bring, while minimising the risks that can arise (see Chapter 6 for further details). The government proposes that:
- **there should be mandatory identification of all aircraft in our airspace**
- 8.11 This form of electronic conspicuity is a key foundation in developing the next generation of traffic management system for all airspace users, both for manned and unmanned aircraft. The government will work with the CAA on the best way to achieve the right level of conspicuity for all airspace users.

## Electrification

8.12 Hybrid and fully-electric aircraft have the potential to transform aviation through:

- new air mobility solutions which open up new electric regional routes and urban/city air services, providing greater options on how people and goods can move around and bringing higher national productivity and mobility
- offering new markets for the UK aerospace industry globally
- tackling a number of the environmental impacts of aviation, including reducing carbon dioxide and NOx emissions. As part of this, there is a need to better understand the changing noise impacts of electric aircraft. The electrification of existing technologies is primarily being driven by the combination of fuel costs and environmental requirements

8.13 In a global race to exploit the potential of new ways of travelling, there is intense competition from industry to develop these technologies, as demonstrated by the increasing number of electric, hybrid-electric, autonomous and VTOL (vertical take-off and lift) concepts being developed. These aircraft could transform how people travel between places, with some business models offering regional connectivity which will improve mobility, while other models focus on urban air mobility solutions. The government is working with industry and academia to understand whether there is a potential commercial market for these platforms before it can examine the role of government and how best to support this emerging sector.

8.14 Electrification could present significant opportunities for the UK. The market for conventional aircraft will continue to represent significant value to the UK economy, generating estimated global revenues of around £5.6 trillion in the period up to 2050. As conventional aircraft decline in sales volume throughout this period, hybrid-electric aircraft and all-electric aircraft will enter the market. Hybrid-electric aircraft could generate up to £4 trillion in revenue over the same period and overtake the value of conventional aircraft.<sup>161</sup>

8.15 Other countries are already beginning to move towards electric and hybrid flights. For example, Norway has already announced its ambitions for all-electric short-haul flights by 2040. There is significant potential for the UK to export to countries that are not large aerospace manufacturing nations. If we can move quickly, there is an opportunity for the UK to lead the world in these areas, capturing a segment of the growing global aerospace market. This could see the delivery of greater mobility within the UK through new air mobility solutions and business models improving connectivity, greater productivity, as well as high export potential contributing to the overall economy.

## Investment

8.16 The government is investing £1.95 billion in aerospace R&D from 2013 to 2026. The industry has committed match funding which will bring the overall 'pot' to £3.9 billion. In July at the Farnborough International Airshow, the Prime Minister announced that, together with the industry, it has:

- committed £343 million of investment for research and development projects and to boost productivity – from developing the most technologically advanced aircraft and creating newer more efficient engines, to the manufacture of cleaner, quieter aircraft that will help cut emissions

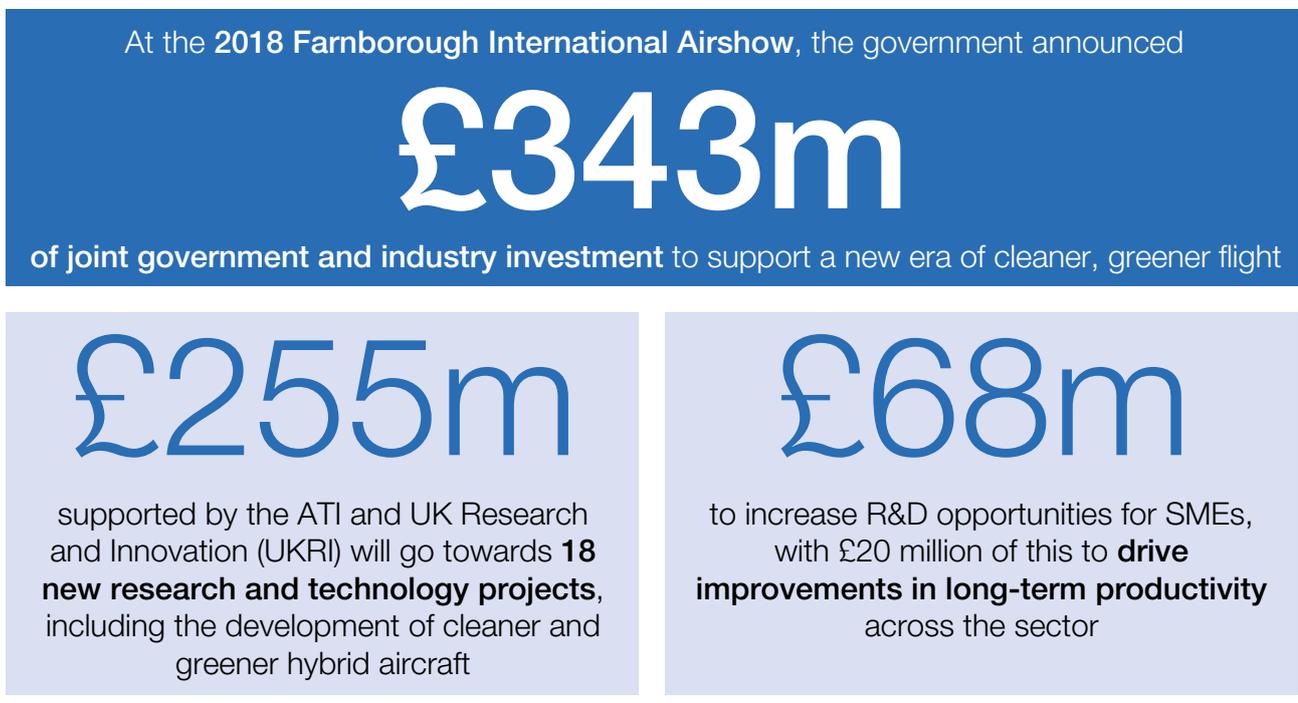


Figure 23 Investment to support development of cleaner and greener flight

## Digitalisation and data sharing

8.17 The development of digital systems and the better use of data is transforming transport systems and bringing benefits for consumers. The sharing of data, with the appropriate security and privacy arrangements, can catalyse innovation and improve user experience. The use of data is already transforming passenger choice and journeys. The use of platforms such as Skyscanner and TripAdvisor allows passengers to access a wealth of flight information in an instant, providing the ability to compare options on a range of criteria such as price and flight times, and combine it with other information such as hotel options and ongoing travel connections.

## Digitalisation

8.18 There are many other examples of where the government and the industry are making progress towards greater digitalisation in the aviation industry. The UK is already leading the way in some areas of digital innovation with the development of pioneering digital towers at major airports like London City Airport, which are expected to become operational in the next couple of years. The use of technology to provide a 360-degree view of the airfield at a greater level of detail than the human eye and new viewing tools will modernise and improve air traffic management. The creation of centres like DARTeC at Cranfield University also position the UK as a leader in digital aviation technology.

## Data

8.19 In some respects, the sector is behind other transport industries when it comes to making data more open, and the government wants to work with the UK aviation sector to improve its offer. For example, the rail industry has opened substantial amounts of its core datasets which has led to the development of many applications that deliver benefits to passengers. Some examples include operational and performance data, real-time running information, platform numbers, delay estimates, and timetable data.

8.20 Challenges still remain, which is why the government published the Joint Rail Data Action Plan earlier this year which sets out how the government and rail industry will work together to improve the quality and openness of rail data and to increase collaboration between the rail and tech sectors, for the benefit of passengers, the railway, and the UK economy.<sup>162</sup> The plan details key actions including: improving standardisation of how data is collected, stored and published; improving clarity over which data is commercially sensitive; and what data can be used for what purposes. This will ensure that the information currently available is used to its maximum potential, for example by encouraging industry bodies to improve their digital capability, find innovative solutions to problems and go a step further in providing more tailored information to passengers. The rail industry has established a taskforce to drive the action plan forward.

8.21 The government is seeking views on what else can be done to resolve barriers to data sharing and use in the aviation sector while protecting privacy and security. The government proposes to:

- **work with industry to improve the quality and the openness of data and create an Aviation Data Action Plan, similar in concept to the data action plan for rail.** This will include working with industry to develop a common definition of 'commercial data' and standards for publishing data in a standardised, readable format

## Overcoming barriers to innovation

8.22 There are a number of barriers to innovation, particularly regulation, communication and investment, which need to be addressed by the Aviation Strategy. Addressing these barriers will require some action by the government to support industry to develop and commercialise innovation. This requires close collaboration across a number of industries and authorities and the government is well placed to facilitate this in its role as an enabler.

### The importance of agile regulation

8.23 The government wants to provide an agile regulatory landscape which not only keeps pace with technological development, but enables and supports new opportunities, helping to bring innovations to market where benefits can be realised sooner. This has to be done in line with maintaining a safe aviation sector and protecting the environment. This is true both for increasing automation and electrification in the sector, but also for emerging areas such as artificial intelligence.

8.24 Manufacturers are already developing technologies for increasingly automated flight. For example:

- Boeing is developing a portfolio of technologies that enable safe and reliable autonomous flight alongside working on technology that would remove the need for two pilots in the cockpits of passenger planes
- Airbus has developed a roadmap for the safe integration of autonomous aircraft within our skies

8.25 Industry is also progressing with the design of electric aircraft, though regulations to enable electric aircraft to fly in our skies safely and securely do not yet exist. There are also questions surrounding the infrastructure that will be needed to support such vehicles, as airports have been designed for conventional aircraft (such as fixed wing) where designs have remained largely the same over the past decades.

8.26 The UK's regulatory frameworks are some of the most progressive when it comes to supporting innovation. For example, Amazon chose to carry out innovative drone trials in the UK rather than elsewhere because of our agile approach to regulating innovation in a safe and controlled way. But there are opportunities for improvement. The UK's regulatory environment needs to evolve with the times to support innovation whether in the form of disruptive, new technologies or new business models.

- 8.27 As part of the Regulatory Review under the Future of Mobility Grand Challenge, the government is looking at how regulation can enable and support technological solutions. This includes setting a strategic direction for the CAA to continue shifting towards a more agile approach to regulating new technologies and business models.
- 8.28 The CAA's current approach is to engage with innovators once they have reached a relatively mature stage in the development phase. However, by this stage, industry will have heavily invested in their proposition and this can be particularly challenging for SMEs.
- 8.29 The government is taking important steps to address this. The CAA has successfully secured funding from the government's Regulators' Pioneer Fund to transform how the CAA engages with innovation in the aviation sector through three work streams:
- an innovation gateway, allowing anyone to submit ideas for the aviation sector and receive an initial response from the CAA on whether they need regulatory input or approval
  - a regulatory lab, developing test cases for issues such as automation and urban air mobility. This will bring together everyone with an interest in the area including other regulators, academia and the public, to develop potential regulatory models and avoid duplication between agencies
  - a regulatory 'sandbox' where the CAA can give initial guidance to innovators on the development and potential approval of their ideas
- 8.30 These initiatives will allow the CAA to convene innovators, other regulators and stakeholders, to work together to identify specific legislative and regulatory barriers to innovation, map routes for change, and develop best practice. This will also provide opportunities to create blueprints for entirely new regulatory frameworks in an interdisciplinary and cross-sectoral way.

### Meeting the public acceptance challenge

- 8.31 Technology is affecting people's attitudes to travel. Public trust in new transport technologies and services will be important in determining the extent and rate of their deployment. A frequent comment from industry is that they are developing new technologies, such as systems which are more automated, including systems that could have the potential to eventually support single-pilot flight. However, industry often cites that public acceptance to new technologies can be a barrier and that there is a role for the government in informing the public's understanding. A possible example of this is the noise impact of new forms of VTOL aircraft, which could operate in lower altitude airspace over urban areas.
- 8.32 The government is seeking views on the role it should play in understanding, shaping and responding to public attitudes to emerging technologies and services in the aviation sector. It is proposing to:
- **support industry with the early safe demonstration and piloting of new technologies and support to enable business models**

- **where appropriate, use public awareness campaigns and information jointly with industry to articulate the benefits of new technologies, as it has done on the Go Ultra Low electric vehicles campaign**



### Anticipating future developments

- 8.33 There will be other technologies, some of which are already in development and some of which are yet to come, which could bring benefits to the UK and consumers. The government will need to work with industry and regulators to manage uncertainty around these technologies, some of which may not ultimately commercialise or realise the promised benefits.
- 8.34 A return to commercial supersonic flight is being pursued by a number of potential manufacturers and could become a reality in the near future. While the government recognises that there are potential benefits to supersonic civil flight, there are potentially significant environmental consequences. The government is therefore negotiating in the International Civil Aviation Organisation (ICAO) for supersonic noise and emission standards that balance environmental benefit with technical feasibility.
- 8.35 In the longer term, hypersonic flight, which operates at speeds in excess of supersonic flight (more than five times the speed of sound) offers potentially lower emission transport solution, both to international destinations and destinations in space. This is because Hypersonic Engines will use cleaner fuels, like hydrogen, which do not produce harmful pollutants like carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), or particulate matter during the combustion process. Development is gathering pace, and the use of such technology could be available in the next 20 to 30 years. This could reduce flight time from the UK to Australia to less than five hours – opening up significant business, trade and economic opportunities.

### Case study: Reaction Engines

In the UK, Reaction Engines have already proven an innovative pre-cooling system which does not require the development of new materials to handle the heat of hypersonic flight speeds.

Significant government investment has helped the company develop a new revolutionary engine, Synergetic Air-Breathing Rocket Engine (SABRE), that the government anticipates will revolutionise the fields of propulsion and launcher technology, and significantly reduce the costs of accessing space to transform future air and space travel.

SABRE engines will enable aircraft to fly much faster than traditional jet engines (more than five times the speed of sound). Unlike jet engines, they can also operate in a rocket mode, allowing the next generation of truly reusable space launch vehicles.

- 8.36 The UK is at the forefront of developing a new sustainable operating model for commercial spaceflight in the UK. This is being driven by an increasing global need for new satellites, which in turn provides downstream applications for the aviation sector and supports new digital innovations, such as cloud-based black box capabilities. In particular, the government's Space Industry Act offers the UK's world-leading small satellite companies new options for competitive, reliable access to space on their doorstep, closing the gap in the UK space value chain.
- 8.37 The UK's early work in the development of new commercial space regulations, coupled with our first experiences of commercial spaceflight activities launched from the UK mean we will be better placed to work with new innovative aerospace and space companies to ensure that the UK can capitalise on the potential of future horizontal launched spacecraft and hypersonic transport systems. The government will continue to work with the industry to ensure that the UK has the right infrastructure, including supporting the development of horizontal spaceports, to maximise new growth opportunities in the horizontal launch and hypersonic markets in the UK.
- 8.38 These new technologies have the potential to give rise to different business models and infrastructure requirements but the challenge for the government and the industry is understanding what the demand for these services could be and the potential benefits, as well as their impacts. The government recognises that more work needs to be carried out in these areas.

## Aligning policy and investment

### Aerospace Sector Deal

8.39 The government has delivered on the Prime Minister's announcement at Farnborough Airshow 2018 to:

- **agree an Aerospace Sector Deal with industry building on the existing successful relationship developed through the Aerospace Growth Partnership**

8.40 The Sector Deal positions the industry to secure the once in a lifetime opportunity presented by a foundational shift in technologies from jet powered aircraft to more electric/ hybrid/ autonomous aircraft, including drones and Urban Air Mobility. It will enable the UK aerospace sector to respond to intensifying global competition, environmental challenges and technological disruptions and maintain its place in the global market. Achieving this will require a boost in UK competitiveness and in the productivity of the UK supply chain, including investing in engineering excellence and leveraging the country's world-class technology base, to ensure it positions itself as a world leader in the move to electric and autonomous aircraft. The Sector Deal will support several Grand Challenges: Future of Mobility, Clean Growth, Artificial Intelligence and Data Economy.

### The Aerospace Sector Deal

The Aerospace Sector Deal will put in place activities that:

- enable delivery of more electric and autonomous air vehicles through the Future Flight Challenge supported by Industrial Strategy Challenge Fund funding
- enable productivity improvement activities (subject to business case) for supply chain companies
- increase the diversity of the aviation and aerospace sector through the implementation of the Women in Aviation and Aerospace Charter and work with education providers to ensure appropriate educational standards and apprenticeships are in place to deliver the skilled workforce needed for today's demands and tomorrow's future technologies

8.41 The Sector Deal includes funding from the Industrial Strategy Challenge Fund for the industry-led Future Flight Challenge. The funding will unlock new aviation markets through demonstration of aviation systems incorporating low environmental impact, autonomous air vehicles and airspace management, by 2025. It will transform connectivity, boost UK exports and productivity and benefit passengers through higher mobility. Ultimately it will lead to transformational electrically powered passenger aircraft and the supporting infrastructure and systems.

8.42 Through the Future Flight Challenge funding, the Sector Deal will provide the integration, direction and critical research funding for UK industry, agencies and academia to position the UK at the forefront of the pending electrified air transport revolution by 2025. It will explore the potential societal, environmental and sustainability impacts of this new transport system and engage the public to build broader understanding of the benefits and to address concerns.

8.43 The shift towards electric and autonomous aircraft is potentially very disruptive and will enable new entrants to enter the market. The Sector Deal supports all parts of the UK's aerospace sector that will lead the charge towards electrification and autonomy.

### Enhancing cross-government working

8.44 The aviation sector provides at least £22 billion to the economy each year with around £14 billion contributed from the air transport sector and £8 billion from the aerospace sector.<sup>163</sup> These are both successful in their own rights, generating lots of benefits for the economy and decisions in one sector will drive incentives for the other, giving rise to opportunities.

8.45 The government recognises that, sometimes, the objectives of these sectors need to be better aligned. It wants to create the right environment, aligning incentives to support the development and adoption of new aviation technologies. The government will continue to improve cross-government partnership working and coordination between sector players, including the Aerospace Growth Partnership and other cross-government and sector bodies, to drive the UK's ambitions for more electric and automated aircraft, and to encourage greater digitalisation and data sharing to bring forward benefits for consumers.

8.46 The government proposes to:

- **consider the current arrangement of working across government in response to specific challenges** and whether this is sufficient to deliver on specific areas of innovation, such as driving forward the electrification agenda for the aviation sector

8.47 It will consider how it can work in partnership with both the aviation and the aerospace industries, looking to other sectors for examples of how to do this effectively for significant or disruptive technological step changes. The government wants to ensure that such technological developments are supported by the right policies and investments to deliver its industrial strategy and Future of Mobility objectives.

<sup>163</sup> Department for Transport analysis of Office for National Statistics: GDP low level aggregates

### Consultation questions

Consider the policy proposals in this chapter and answer the following either for the chapter as a whole; groups of policies within the chapter and/or individual policies:

1. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?
2. How should the proposals described be prioritised, based on their importance and urgency?
3. Are you aware of any relevant additional evidence that should be taken into account?
4. What implementation issues need to be considered and how should these be approached?
5. What burdens, both financial and regulatory, are likely to need to be managed and how might those be addressed?
6. 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?
7. Looking ahead to 2050, are there any other long term challenges which need to be addressed?
8. 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?
9. Do the proposals in this chapter sufficiently address the barriers to innovation?



## 9. Next steps in developing an Aviation Strategy

- 9.1 This consultation document marks the beginning of a 16-week consultation on the proposals that the government has put forward under each of the seven strategic themes:
- **build a global and connected Britain**
  - **ensure aviation can grow sustainably**
  - **support regional growth and connectivity**
  - **enhance the passenger experience**
  - **ensure a safe and secure way to travel**
  - **support General Aviation**
  - **encourage innovation and new technology**
- 9.2 Throughout the development of this document, engagement with industry and other stakeholders has been an integral part of the process, and the government is keen to see that collaboration continue. As the strategy moves into the next phase of development, the focus of this engagement will change from shaping potential policy options to examining the impact and feasibility of those options in greater detail.
- 9.3 Over the coming months the government will be working with the aviation industry, the General Aviation community, businesses in the wider economy, business groups, community groups, environmental groups, and passenger representatives to finalise the government's policy positions and develop a series of clear plans and roadmaps for how it intends to make the vision for Aviation 2050 a reality.
- 9.4 You can make your views heard on the proposals contained in this document, and get involved in the work going forward through a number of channels. The government plans to undertake a programme of engagement across the UK, including meetings, events, focus groups and workshops. However to ensure that your views are fully recorded, you should respond to the consultation questions contained in this document, either online at [aviationstrategy.campaign.gov.uk](https://aviationstrategy.campaign.gov.uk), or by emailing [AviationStrategy@dft.gov.uk](mailto:AviationStrategy@dft.gov.uk).
- 9.5 In the next steps document published in April 2018 the government set out its intention that the final strategy – in the form of a white paper – would be published by the middle of 2019.<sup>164</sup> This remains its intention. The consultation period will close on 11 April 2019.

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<sup>164</sup> Department for Transport (2018): Beyond the Horizon – the future of UK aviation. Next steps towards an Aviation Strategy

- 9.6 You can keep up to date with work to develop the Aviation Strategy by visiting the website at: [aviationstrategy.campaign.gov.uk](http://aviationstrategy.campaign.gov.uk). The government will also be keeping stakeholders up to date through regular communication channels.
- 9.7 It will also be sharing Aviation 2050 content through the Department for Transport twitter channel @DfTgovuk. To find out more about engagement plans and how to get involved with the consultation, email the aviation strategy team at: [AviationStrategy@dft.gov.uk](mailto:AviationStrategy@dft.gov.uk).

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

The government recognises that there is a major challenge in coordinating multiple airspace changes across different airports and by NATS (En Route) plc (NERL) in the coming years to modernise the UK's airspace. The feasibility work conducted by NATS into airspace modernisation in the south of the UK shows that there is a high level of interdependence between different airports demands over airspace, especially in the South East.

Given this, airspace change sponsors – usually airports or Air Navigation Service Providers (ANSP) – will need to develop their airspace change proposals (ACPs) in close collaboration with each other and ensure that they develop and consult on these in a coordinated way. If they do not, a scenario could be created whereby airports consult separately on, and then submit to the CAA for decision, conflicting design options. This would be inefficient and could cause major issues and delays to the modernisation programme.

Neither the government nor the CAA currently have effective levers or powers to guarantee that airspace change as part of a wider modernisation programme is taken forward by airports or ANSPs. This means that, where airspace change proposals are interdependent, one airport could hold up several others. The government has therefore worked with key stakeholders to develop policies to address this risk.

The government's lead policy option (set out below) would allow the Secretary of State (SoS) for Transport to direct an airport or ANSP to bring forward an airspace change. This is subject to new primary legislation, which the Department for Transport is currently bidding for in a cross-government prioritisation exercise.

The information and questions in this section are detailed as the government is seeking stakeholder views on how the proposed legislation would work in practice.

### **Existing powers that will be used to require NERL to develop a masterplan**

DfT and CAA have asked NATS to work with key stakeholders to develop a coordinated implementation plan and timeline for airspace changes (or airspace change masterplan) that will be required in the future in the South of the UK. The masterplan will identify where airspace changes are needed to deliver: safety, capacity, noise reduction, improvements to air quality, fuel efficiency, improved access to airspace for users including where controlled airspace is no longer justified or should be a different classification, military access, or to introduce new technology. These are all the factors that the CAA consider when undertaking their airspace functions, under section 70 of the Transport Act 2000.

The CAA intends to place an obligation on NERL to develop a masterplan of all airspace changes that will deliver modernisation, as part of the licence modifications implementing the UK Performance Plan for Reference Period 3 (RP3), which runs from January 2020 to December 2024.

Once the masterplan is produced, the CAA will provide assurance. The masterplan will also need to be refreshed periodically.

The new powers requiring ACPs to be developed to deliver the masterplan will also be applicable to ACPs which benefit a wide range of airspace users, including General Aviation (GA), and those affected by aircraft noise.

The powers are intended to be used only where airports or ANSPs do not voluntarily take forward key ACPs, and to provide assurance to all parties that the masterplan can be delivered.

#### **Q1. Should the government legislate for powers to direct individual ACPs identified as necessary in a masterplan to be taken forward?**

##### **Proposed legislative powers**

The proposal is for new legislative powers in the following two areas:

##### **a. Secretary of State to direct airports/ANSPs to develop ACPs identified within a masterplan of changes**

Airports and ANSPs would be directed to develop airspace change proposals in accordance with the CAA's CAP1616 airspace change process. The ACPs would be identified through a new masterplan of ACPs. Further detail on the masterplan and what NERL will be expected to deliver will be set out in the CAA's Airspace Modernisation Strategy and will be included in the CAA's consultation on a draft performance plan for RP3. Once the masterplan is assured and a delivery plan is in place, the CAA will monitor delivery; if delivery falters, the power may be used (see 'triggers for use of the powers', below).

##### **b. Secretary of State to direct airports/ANSPs to cooperate with NERL to put forward ACPs identified as necessary within a masterplan of changes on the airport's behalf**

Airports/ANSPs would be directed to hand over their ACP and any work to date to NERL who would take forward the changes on the airport/ANSPs behalf in accordance with the CAA's CAP1616 airspace change process. This option would require significant changes to the way that NERL operates and significant interaction with local communities, which is currently the responsibility of airports. This option would be implemented by:

- The Secretary of State directing the CAA (under S.66 of the Transport Act 2000) in relation to the development of ACPs
- CAA amending NERL's licence to make it mandatory that NERL carry out this work (see text below on updates to NERL's licensing framework)

Additionally, the government is considering whether other third parties could be asked to take forward ACPs on behalf of airports/ANSPs.

The government's proposal is that both of the above powers are taken, but option a. is the lead option as it would be preferable for the ACP to remain with the initial sponsor of the ACP.

The Secretary of State will also consider whether it is appropriate to delegate these powers to an appropriate authority such as the CAA.

**Q2. What are your views on the above two proposals?**

**Q3. Do you agree that option a) should be the lead option?**

**Scope of powers**

The government proposes that the powers should be used to ensure that the changes identified within the masterplan are delivered. The masterplan which the CAA will require NERL to develop will be designed around several policy considerations (changes to deliver safety, capacity, noise reductions, improvements to air quality, fuel efficiency, access to airspace for users including GA, military access, or to introduce new technology). It would therefore appear appropriate that the powers to direct an ACP would apply to all these factors.

**Q4. What are your views on the scope for the use of the powers?**

**Triggers for use of the powers**

The government proposes that before any formal action is taken to direct a change under the proposed legislation, the new Airspace Modernisation Strategy Delivery Monitoring and Oversight (DMO) team, (currently being set up within the CAA) would provide support and engage with the airport/ANSP to consider the circumstances and what other measures could be used to assist in bringing forward an airspace change. Where technical issues arose, or something exceptional, unforeseeable and outside the sponsor's control occurred, the government's preference would be to use alternative approaches rather than the powers.

The government considers that there could be at least two triggers for the activation of the powers:

**1. Initiation: failure to initiate an ACP identified as necessary**

Where an airspace change is not already in progress, the masterplan would be used to identify which ones are critical and should be directed, when a sponsor is not forthcoming.

**2. Progress: failure to adhere to the proposed timeline for a necessary ACP**

Sponsors agree a timeline for the airspace change with the CAA at an early stage of the CAP 1616 airspace change process. This timeline takes into account the dates of any gateways (stages of the airspace change process) the sponsor intends to meet, and when the CAA will make a decision, and will be aligned with the overall masterplan. This trigger could be used where a sponsor falls behind schedule because they have not passed their gateways on time (either because they have failed to submit materials to the gateway assessment, or the quality of those materials is rejected by the CAA at the gateway assessment, for example for failing to adhere to the objectives of a necessary ACP) to the extent that the overall masterplan delivery is called into question.

**Q5. What are your views on the use of the triggers for using the legislative powers?**

## Sanctions and penalty regime

In order to ensure that the powers can be effectively enforced, the government proposes that these are accompanied by appropriate sanctions for non-compliance.

One option is that similar enforcement tools available to the CAA under the Civil Aviation Act 2012 for enforcing the economic licences of airports are used. Under that option the government would also propose that these additional tools are accompanied by appeal rights for airports/ANSPs, as is the case for airports regulated under the Civil Aviation Act 2012.

The proposed tools would include powers to:

- **Issue a contravention notice for failing to comply with the direction to take forward an ACP.** This would confer on the Secretary of State the power to issue a notice if the government considered that there was a contravention of the direction to take forward an ACP. The serving of a contravention notice would have no immediate consequences, but would be the first step before an enforcement order and penalty were imposed. This would also give the airport/ANSP further opportunity to take forward an ACP before a formal enforcement order was issued.
- **Make an enforcement order.** This would confer on the Secretary of State the power to impose fines of up to 10% turnover and/or a daily amount up to 0.1% of turnover until the direction to take forward an ACP was carried out by the company.

This proposal aims to give flexibility to enforce a direction to take forward an ACP, and the government considers that the threat of a financial penalty should act as an appropriate deterrent for non-compliance. A maximum fine of 10% turnover is already in place for the regulation of airports under the Civil Aviation Act 2012, and is also consistent with enforcement penalties issued in other regulated sectors such as water and energy. As is the case for those sectors and in line with HM Treasury policy, all proceeds from financial penalties would go into the Consolidated Fund.

### Q6. What are your views on the proposed sanctions and penalties regime?

#### Appeal rights

In line with regulatory best practice, the government proposes that the tools to enforce a direction to take forward an ACP be accompanied by the introduction of additional safeguards for the airport/ANSP. The government believes the grounds for appeal should be set out in legislation to provide clarity on the scope that an appeal may have. It therefore proposes that the grounds for appeal are the same as those in the Civil Aviation Act 2012.

The government proposes that the appropriate destination for the handling of appeals under the proposed new legislation would be for a suitable tribunal chamber in the Unified Tribunal system, or the Competition and Appeals Tribunal (CAT), as is the case for enforcement appeals considered under the Civil Aviation Act 2012. The latter option would ensure consistency of appeals within the aviation sector and provide certainty to airports/ANSPs, in line with government recommendations following its review into Streamlining Regulatory and Competition Appeals.<sup>165</sup>

<sup>165</sup> Department for Business, Energy and Industrial Strategy (2017): Streamlining Regulatory and Competition Appeals

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

### **Q7. What are your views on the grounds for appeals?**

#### **Funding**

It is a well-established principle that air passengers should fund the cost of their travel, rather than for this to be subsidised by the general taxpayer. The government continues to believe that this should be the case and that the existing funding mechanisms in place are the most effective way of delivering airspace changes.

The government's expectation is that where an airport or ANSP is directed to take forward an ACP (under option a) above), the airport or ANSP will fund this.

The government also expects that, under option b) where NERL or another third party takes forward an ACP on behalf of an airport, they will be eligible to recover its efficient costs from airspace users. It will also consider new funding mechanisms for this purpose if necessary.

However, the government recognises that for small airports where airspace change is required but where the airport may be in need of financial support to carry out some aspects of the airspace change process, there may be a justification to consider whether the ACP should be funded from other sources in order to avoid delays to the modernisation programme. If this is required, the government considers that the UK unit rate could be a suitable means of funding. It will also consider new industry funding mechanisms for this purpose if necessary. This could be applied before an airport, NERL or other ANSP was directed to develop the change proposal, or after.

### **Q8. What are your views on the best approach to funding an airspace change where a small airport may need financial support to do so?**

#### **Updates to the NERL Air Traffic Services Licensing Framework**

Subject to new primary legislation, the government also intends to progress proposals to modernise the licensing framework for air traffic services. These measures have already been consulted on and were previously taken forward in the Vehicle, Technology and Aviation Bill in the last Parliament, but were subsequently put on hold following the calling of the June 2017 election.

The measures include:

- amendments to the air traffic services licence modification process to enable the CAA to modify licence conditions without the licence-holder's prior consent, such as conditions relating to the delivery of airspace modernisation. The process includes implementation of appeals mechanisms for licence holders, airspace users and some airport operators

- introduction of new enforcement tools to enable the CAA to enforce the licence proportionately
- amendments to modify terms of the licence, such as the licence notice period, to enable the licence holder to access competitive finance and therefore continue to invest in improving the service it provides

The government considers these measures important for the airspace modernisation programme as they will enable the CAA to regulate NERL more effectively in order to deliver change.

## Annex B: Slot allocation – the case for change

The government believes that the current process for slot allocation can create issues at highly constrained airports. The existing process can limit competition in the market and is unlikely to produce the best outcomes for consumers. Where there is significant new capacity being made available at a highly constrained airport, such as Heathrow, some of these issues can be heightened and prevent the efficient allocation of scarce capacity. The government has identified the following specific issues that may impact on efficient allocation:

- **allocation timing** – Slots are allocated six months before the start of a season. Where there is potential new capacity available, this may not allow airlines, particularly smaller carriers which have more limited access to capital, sufficient time to plan and invest. The availability of aircraft is a particular bottleneck
- **transparency of the allocation system** – Certain aspects of the system used by the UK's designated slot coordinator Airport Coordination Limited (ACL), including how it deals with competing bids and the independence of airline members that sit on its board, are opaque to the public. Transparency of the allocation process, particularly in the context of highly sought after capacity, is central to the government's aims in reforming slot allocation
- **slot hoarding and gaming** – At airports where the demand for slots exceeds the available supply, there may be incentives for airlines to bid for, and hold, slots regardless of whether they are able to operate them efficiently or profitably, for example, to stop competitors entering the market or for speculative future route development. Airlines can also sell slots which are initially allocated for free, on the secondary market, potentially obtaining slots under the new entrant rule (see below) with the sole purpose of later transferring these to an incumbent or affiliate airline
- **new entrant rule** – The regulations require 50% of available slots to be made available to new entrants and the remaining 50% to be allocated to incumbents. While the intention of the rule is to encourage competition, it has the unintended consequence of acting as a barrier to smaller incumbent airlines expanding because they are unable to build sufficient scale to operate competitively against airlines with larger slot holdings
- **historic grandfather rights (the 80-20 rule)** – The current regulations provide that as long as 80% of slots are used ('use-it-or-lose-it rule'), within a scheduling season, airlines have a right to retain them in perpetuity ('grandfather rights'). However, in practice rights can be retained even where the 80% usage requirement has not been met. This is because airlines are also permitted to hand back up to 20% of slots without losing ongoing rights to that 20%

- **secondary trading market** – While slot trading has benefitted consumers in increasing competition and choice at airports, those exchanges often favour incumbent carriers with the deepest pockets. The high value of slots, especially at very congested airports, may serve as a barrier to entry for smaller airlines, limiting their ability to participate in the secondary market. At a highly constrained airport such as Heathrow, where demand is expected to exceed supply even after expansion it is likely slot value will remain high
- **re-timing of existing slots** – Existing slot holders hold priority rights in re-timing their existing slot holdings, before the remaining pool is allocated. This gives existing slot holders a competitive advantage by giving them first access to the most lucrative slots upon their release, preventing those slots being available to new entrants

## Annex C: Potential carbon abatement measures

### Research

Research was commissioned by the government to understand the emissions abatement potential from technological, operational and air traffic management measures.

This research estimated the reduction in CO<sub>2</sub> emissions that is possible as a result of technology, operational and air traffic management improvements for a number of different aircraft types in both the 2030 to 2035 and 2045 to 2050 periods.<sup>166,167,168</sup>

As an example of this, the graph below shows the low, central and high percentage reductions in CO<sub>2</sub> when the improvements are applied hypothetically to a Boeing 777-200ER flying 3,000 nautical miles. This represents a mid-size aircraft holding around 300 passengers, flying roughly the distance from London to Dubai.

For full details on the measures assessed and the analytical approach taken to produce these estimates, please see the research report 'Understanding the potential and costs for reducing UK aviation emissions' published alongside this consultation document.<sup>169</sup>

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166 The technology category includes: ultra-high by-pass ratio turbofan, boundary layer ingestion, hybrid laminar flow, 15 aspect ratio wing, hybrid electric propulsion, composite materials and riblets.

167 The operational category sums improvement as a result of: long range to maximum range cruise speed, aircraft design for 0.06 lower cruise, mach number, engine inoperative taxi, E-tug and E-taxi.

168 Air traffic management totals savings from: reduced taxi time, cruise climb, optimum track, continuous descent, and reduced diversion hold.

169 Department for Transport (2018): Understanding the potential and costs for reducing UK aviation emissions

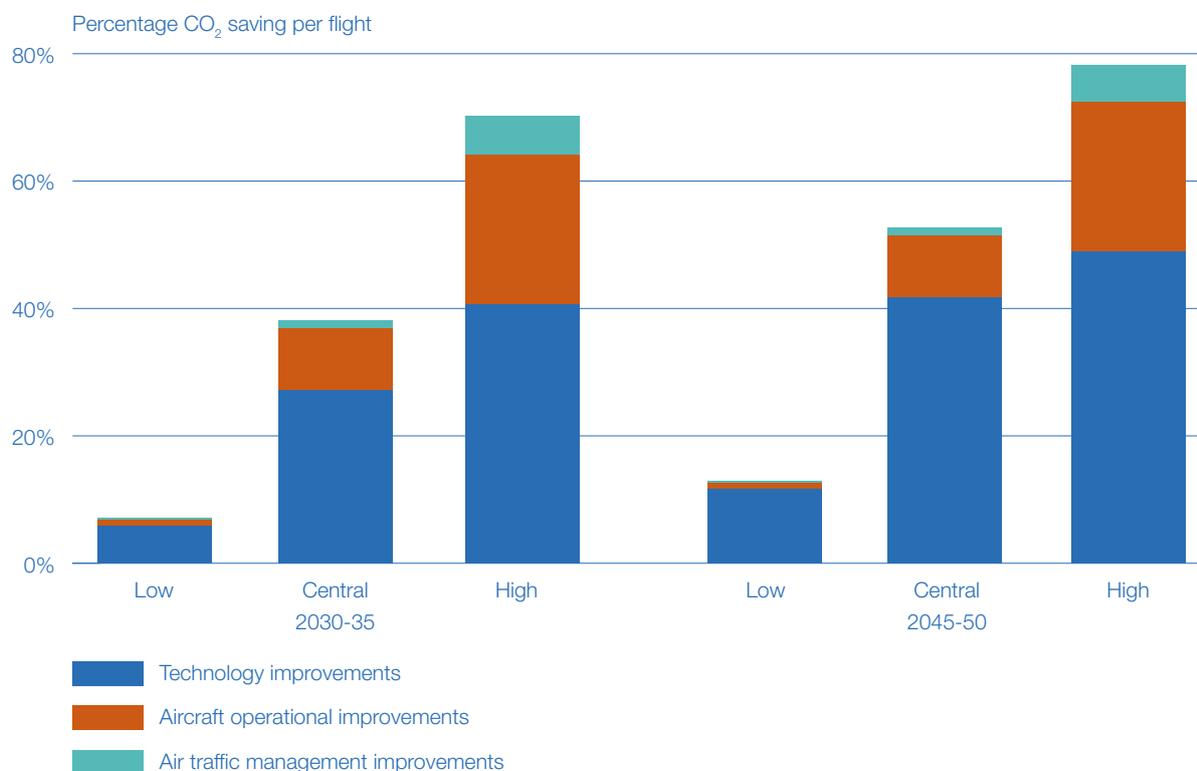


Figure 24 Illustration of the hypothetical application of improvement measures to a Boeing 777-200ER flying 3,000 nautical miles  
Source: Air Transport Analytics Ltd and Ellondee Ltd (2018): Understanding the potential and costs for reducing UK aviation emissions

## Policy measures

There are a wide range of policy measures available, not all of which are viable or feasible at this point in time. The following measures are currently under consideration by the government as those that are expected to be viable within approximately the next 10 to 15 years. It would be for the industry to determine which measures to adopt, within the overall policy framework established by the government, as set out in Chapter 3.

### Operational and Air Traffic Management:

- draft or revise, airline and airport Codes of Practice and Standard Operating Procedures to increase uptake of measures such as e-taxiing, reduced taxi times, Fixed Electrical Ground Power, Pre-Conditioned Air, electric airside vehicles, continuous ascent and descent, reduced stacking and holding
- airports and airlines to report on compliance with the emissions reduction measures in airport and airline Codes of Practice and Standard Operating Procedures
- airports to install infrastructure to support the uptake of improved operations such as e-taxiing, Fixed Electrical Ground Power, Pre-Conditioned Air, electric airside vehicles
- airports to publish league tables on environmental efficiency of airport and airline operations
- all major UK airports encouraged to gain ACI (Airports Council International) carbon neutral airport accreditation<sup>170</sup>

- introduce emissions criteria within landing based charging schemes at the UK's major airports
- work in ICAO to produce guidance for improving and measuring the efficiency of operations including considering publishing worldwide fuel efficiency performance or setting targets

#### **New technology – engine and airframe:**

- investigate how the government's Industrial Strategy aerospace funding can provide greater support for progression of the UK's environmental objectives through new aerospace technologies
- negotiate in ICAO for a strengthened CO<sub>2</sub> standard

#### **Sustainable aviation fuels:**

- continue to work closely with industry to maximise the opportunities for the development of sustainable aviation fuels
- assess options to further promote sustainable aviation fuels. This includes continuing to monitor progress towards the development fuel sub-target in the RTFO as part of the wider carbon budget process<sup>171</sup>
- analyse the potential of low carbon fossil fuels from wastes to help decarbonise transport, including aviation
- work in ICAO towards a global target and market for sustainable aviation fuels, accompanied by robust sustainability criteria covering environmental, social and economic issues

#### **Market based measures:**

- work with international partners to ensure that CORSIA is implemented as widely as possible and enforced effectively
- negotiate for strengthening of CORSIA through regular reviews from 2022, in line with the long term goal agreed at ICAO
- negotiate for CORSIA to be continued beyond 2035 in line with an agreed international goal, to maintain carbon pricing in the international aviation sector
- work to ensure that any post-EU exit approach to carbon pricing meets the commitments made in the Clean Growth Strategy and works for the aviation industry

#### **Non-CO<sub>2</sub>:**

- pursue ICAO standards for all engine emissions with climate effects
- negotiate for ICAO guidance on mitigation measures for non-CO<sub>2</sub> effects as scientific understanding improves
- negotiate in ICAO for a long term goal that considers aviation's non-CO<sub>2</sub> climate effects and for reviews of the goal as scientific understanding improves

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

The government is proposing a new two-stage process for assessing PSO applications

### Stage 1 – Prerequisite criteria

The government proposes that the following should be included in the PSO prerequisites:

- evidence showing that the route would not run to certain standards on continuity, frequency, pricing or minimum capacity, either now or in the future, if carriers were solely to consider their commercial interests
- support will only be offered to protect existing routes to national and London airports
- evidence that the PSO will only secure an adequate minimum level of service
- existing journey time between the urban centres served by the origin and destination airports must be over three hours
- evidence shows that a route is vital to the economic and social development of the region
- that no air route exists between two airports that serves the same urban areas as both of those proposed
- that no air route exists to the proposed destination airport from an origin airport that is less than one hour, by road or rail, from the origin airport's urban centre

The government recognises the importance of onward connectivity in helping regions access more long-haul destinations. Therefore, subject to provision of robust evidence it also proposes to allow the following alternative interpretations of the prerequisites, where connectivity into the national airport is not possible through reserved slots:

- new and existing routes to national airports where justified through onward connectivity benefits
- routes can be tendered for a specific airport in an airport system, even if a current route into a different airport in that system exists
- there is demand for significant onward connectivity
- can be a higher minimum service level, compared with a standard PSO (which has two rotations a day as a minimum to enable a day's business)
- journey times to be judged from airport to airport, as connectivity into the hub supersedes connection to the city or urban area

### Stage 2 – Proposed full criteria

Upon passing the prerequisites, applicants would be invited to submit their evidence in full, showing the extent to which the proposed route meets the full criteria – these would likely be assessed using a RAG system.

The proposed criteria broadly fall within three categories:

- a. Regulatory considerations: are these PSOs benefiting those from the most peripheral regions, without placing an undue burden on the taxpayer?
- b. Strategic benefits: how well would the imposition of the PSO further the strategic objectives of DfT and the wider government?
- c. Market distortion: are there negative second-order impacts of the PSO, and if so, how will these be avoided?

Regulatory Considerations	Strategic Benefits	Distortional (undesirable) effects that the PSO might induce
Assessment of subsidy required per passenger (either direct or indirect)	Strategic fit (how does the PSO help to rebalance the UK economy)	Degree of impact on existing air route(s) from the origin airport (either to foreign hubs or other domestic airports)
Degree of peripherality (<3, <4, <5 hours)	Does it improve domestic connectivity to the region, relative to connectivity today by any other mode of transport	Degree of impact on existing air route(s) from a nearby airport to the same destination airport (for example Liverpool and Manchester)
Peripherality to alternative airport in the same region	Does it improve long haul connections for the region, either directly from regional airport or through a hub airport	Degree of impact on other route(s) from the destination airport (long haul)
	Does it improve long haul connections for the region, either directly from regional airport or through a hub airport	Distortion of existing market for rail and other surface public transport connectivity
		Distortion of existing market for road connectivity

Figure 25 PSO proposed criteria

### Q1: Are these the right criteria to judge PSO proposals against?

## Annex E: Glossary

Aerospace	the branch of technology and industry concerned with both aviation and space flight
Air services agreement	an agreement which two nations sign to allow international commercial air transport services between their territories
Air transport sector	industries that provide air transportation of passengers and/or cargo using aircraft, such as airplanes and helicopters
Airside	the areas of an airport terminal beyond passport and customs control
Airspace	the air available for aircraft to fly in, especially the part subject to the jurisdiction of a particular country
Automation	use of control systems and information technologies reducing the need for human intervention
Blockchain technology	a growing list of records, called blocks, which are linked together and that can record transactions between two parties efficiently and in a verifiable and permanent way
Carbon abatement	reduction of carbon emissions
Carbon leakage	the increase in CO <sub>2</sub> emissions outside the countries taking domestic mitigation action
Electronic conspicuity	an umbrella term for a range of technologies that can help airspace users to be more aware of other aircraft in the same airspace. It includes transponders and radios
European Union emissions trading system	the European Union's policy to combat climate change and its key tool for reducing greenhouse gas emissions cost-effectively
Grandfather rights	the control that airlines exert over slots
Greenhouse gas	any gaseous compound in the atmosphere that is capable of absorbing infrared radiation, thereby trapping and holding heat in the atmosphere

Hidden disabilities	disabilities that are not immediately apparent to other individuals
Holding stacks	manoeuvres of aircraft waiting to land
Microlights	a very small, light, one- or two-seater aircraft
New entrant rule	regulation that requires 50% of available slots to be made available to new entrants
NOx	oxides of nitrogen, especially as atmospheric pollutants
Performance Based Navigation	improving the accuracy of where aircraft fly
Public service obligations	an obligation imposed on an organisation by legislation or contract to provide a service
Route development fund	programme to encourage the development of additional regional aviation routes
Safeguarding	process used to ensure the safety of aircraft while taking off and landing, or flying in the vicinity of aerodromes
Slot	right granted by an airport owner which allows the slot holder to schedule a landing or departure during a specific time period
SMEs	small and medium-sized enterprises
State aid	any advantage granted by public authorities through state resources on a selective basis to any organisations that could potentially distort competition and trade in the European Union (EU)
Surface access	surface access refers to all the ways in which passengers, visitors, employees and commercial traffic travel to and from an airport when they are not in an aircraft
Traffic rights	allow commercial international services between, through and in some cases within the countries that are parties to air services agreements or other treaties
Ultrafine particles	particulate matter of nanoscale size
Unmanned traffic management	air traffic management ecosystem under development for autonomously controlled operations of unmanned aerial systems

## Annex F: Photo credits

<b>Page</b>	<b>Picture description</b>	<b>Photo credit</b>
Cover	Child at airport	Heathrow Airport
12	Aircraft waiting for take-off in sunset	Civil Aviation Authority
24	British Airways Boeing 787 at Edinburgh Airport	British Airways
32	International and domestic flightpaths in the UK	NATS
36	Aircraft flies over skyscrapers	Unsplash
62	Aircraft parked at Gatwick Airport	Gatwick Airport
70	TUI Boeing 787 Dreamliner	TUI
77	Noise monitor at Heathrow Airport	Heathrow Airport
81	Recycling bin at Heathrow Airport	Heathrow Airport
92	Airport departure board	Unsplash
96	Two DHL aircraft at East Midlands Airport	DHL
101	School girl at STEM event using a mixed reality device	London City Airport
112	Passengers boarding plane at sunset	Shutterstock
115	Disabled passenger in a waiting area at London City Airport	Ralph Spiegel
126	Row of e-gates at border	Bristol Airport
138	Drone above runway	Unsplash
157	Row of helicopters	Civil Aviation Authority
159	Microlight	Civil Aviation Authority
167	Aircraft cockpit	Civil Aviation Authority
174	Wright Electric design for an all-electric easyJet commercial passenger aircraft	easyJet



<b>Committee:</b>	Cabinet	<b>Date:</b>	Thursday, 13 June 2019
<b>Title:</b>	Land and road at Parkers in Berden		
<b>Portfolio Holder:</b>	Councillor Petrina Lees, Portfolio Holder for Housing; Health and Wellbeing		
<b>Report Author:</b>	Roz Millership, Assistant Director - Housing, Health and Communities rmillership@uttlesford.gov.uk	<b>Key decision:</b>	No

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## Summary

1. This report seeks Members' approval for the amendment of a restrictive covenant in respect of a recreation ground at the rear of Parkers in Berden that was imposed when the land was transferred to the Parish Council, and for the acquisition of the access road to the Council owned properties at Parkers.

## Recommendations

2. That Cabinet approves:
  - a. To vary the restrictive covenant to remove the reference to a croquet pitch or bowling green requirement so that the Parish Council can use the grounds for any recreational activity of their choice without first seeking the Council's approval
  - b. The acquisition of the access road at Parkers, Berden for £1 so that the Council is placed in the position it had intended when the recreation ground was sold to the Parish Council in 1997
  - c. To pay the Parish Council's legal/valuation costs which will be capped at £1,500 including VAT

## Financial Implications

3. If the Council acquires the road at the nominal value of £1 there is no large financial outlay in respect of the purchase and it would enable the Council to take control of the road which provides the only vehicular access to the properties.
4. The financial implications will relate to the maintenance responsibilities for the repair and upkeep of the road but the adjoining owners at Parkers are liable to contribute toward the cost of this and in any future transfers of the remaining properties, the owners will also be liable to contribute towards the cost.

5. The Parish Council will require their legal/valuation costs to be paid up to £1,500 including VAT.
6. The Council has already assumed maintenance liabilities for the road as it has continued to carry out maintenance and repairs.

### Background Papers

7. The following papers were referred to by the author in the preparation of this report and are available for inspection from the author of the report.
  - Plan showing the access road edged red
  - Correspondence from Berden Parish Council
  - Official Copies showing current ownership
  - A copy of the transfer of 4 July 1997

### Impact

8.

Communication/Consultation	Berden Parish Council
Community Safety	N/A
Equalities	N/A
Health and Safety	N/A
Human Rights/Legal Implications	A Transfer will need to be completed for the transfer of the land to the Council The Council is under a statutory duty under Section 123 Local Government Act 1972 to obtain best value in respect of disposals of land.
Sustainability	N/A
Ward-specific impacts	Berden
Workforce/Workplace	Legal

### Situation

9. In 1997 the Council transferred an area of land to the rear of Parkers in Berden to the Parish Council for £3,000. The value was based on the then current open market value of the land for its use as a recreation ground and the transfer included a covenant restricting its use.
10. The Council has a duty under Section 123 of the Local Government Act 1972 to obtain best value for any disposal of land and therefore the restrictive covenant was included to reflect the consideration paid at the time of the transfer to the Parish Council and to ensure that the land was used for recreation purposes in the future.

### Restrictive Covenant

11. The Council have been approached by Berden Parish Council requesting an amendment of the restrictive covenant in respect of the use of the recreation

ground that was included in the 1997 transfer. The terms of the covenant are as follows:

(a) Not to use the land hereby conveyed other than for the purposes of a croquet pitch and bowling green or for such other recreational purposes as the District Council may approve in writing (such approval not to be unreasonably withheld or delayed)

(b) not to erect any buildings or other structures on the land hereby conveyed other than a shed or other similar building which shall not be used other than for the storage of play equipment and/or grounds maintenance equipment or machinery ancillary to the uses set out in sub-paragraph (a) of this Clause”.

12. The Parish Council have requested that the restrictive covenant be amended as follows:

(a) Not to use the land hereby conveyed other than for recreational, social and ecological purposes

(b) not to erect any buildings or other structures on the land hereby conveyed other than a shed or other similar building which shall not be used other than for the storage of play equipment and/or grounds maintenance equipment or machinery ancillary to the uses set out in sub-paragraph (a) of this Clause”

13. The amendment removes the reference to a croquet pitch or bowling green requirement so that the Parish Council can use the ground for any recreational activity of their choice without first seeking the Council’s approval.

14. It should be noted that the amendment of the covenant will not enhance the value of the land and will ensure that the land is continued to be used for recreation purposes as intended.

### **Access to Parkers**

15. The Council have also been approached by Berden Parish Council in respect of ownership of the road that provides the vehicular access to the council houses at Berden. The road is shown outlined in red on the attached plan.

16. It would appear that when the Council transferred the recreation ground to Berden Parish Council in 1997, the adjoining road to Parkers was inadvertently included in the transfer.

17. It is believed that this was not the intention of the Council, as the road provides the only access to the houses at Parkers, and no right of way for the benefit of those houses was expressly retained in the transfer.

18. As it stands the Council do not own the land that provides the only vehicular access to its council houses at Parkers.

19. Berden Parish Council initially contacted the Council as there was concern over future maintenance liabilities for the road, as the road is within their legal title.
20. Correspondence on the original legal file from 1996 shows the road was not included in the original proposal. However, the plan referred to in the 1997 transfer included the road and the Land Registry will not deal with this as a rectification as no error has been made by the Land Registry. If the parties agree that the road was included in the transfer in error, the Land Registry will require a formal transfer of the land back to the Council.
21. Berden Parish Council has agreed to formally transfer the road back to the Council for £1.00 but have requested to retain ownership of the hedge at the end of Parkers.
22. The Council is under no obligation to take a transfer of the road back although to do so will put the Council in the position it had intended when transferring the recreation ground to the Parish Council.
23. It is proposed for the Council to take transfer of the road at a nominal sum (£1) and relieve the Parish Council of any maintenance responsibilities for the road and services.
24. The Council has in fact continued to maintain the road since the 1997 transfer.

## Risk Analysis

Risk	Likelihood	Impact	Mitigating actions
The Council do not own the access road to its properties and currently exercise rights that are not formally documented. The lack of ownership or formal rights of way could affect the future use / sale of the properties	1. The Council could claim a prescriptive right of way as rights of way have been exercised for at least 20 years, and an implied right to maintain the road or there may be a case for a claim for an easement of necessity if the properties cannot be accessed without using	2. It will make the sale of the properties harder to deal with, along with issues of maintenance and other users	Agree to the transfer of the road to the Council

	the road		
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- 1 = Little or no risk or impact
- 2 = Some risk or impact – action may be necessary.
- 3 = Significant risk or impact – action required
- 4 = Near certainty of risk occurring, catastrophic effect or failure of project.

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<b>Committee:</b>	Cabinet	<b>Date:</b>	Thursday, 13 June 2019
<b>Title:</b>	Elmdon Village Design Statement		
<b>Portfolio Holder:</b>	Councillor John Lodge, Leader of the Council; Lead for Planning and the Local Plan		
<b>Report Author:</b>	Sarah Nicholas, Senior Planning Officer snicholas@uttlesford.gov.uk	<b>Key decision:</b>	No

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## Summary

1. A Village Design Statement (VDS) is an advisory document for planners, designers, developers and local people. A VDS gives a detailed description of the existing character and main design feature of design in a village and guidelines for how this should be respected in any new development. Having been produced with wide community involvement the finished VDS should represent the views of the village as a whole. If it meets the requirements of the local authority, it can be suitable use as a material consideration in the determination of planning applications.
2. Elmdon Parish Council have prepared and approved a Village Design Statement (VDS) which covers Elmdon, Duddenhoe End, Wendens Lofts and Pond Street. The aims and objectives of the VDS are
  - To identify the special characteristics of the built and natural environment;
  - Identify elements that should be retained or enhanced;
  - Identify any detracting elements;
  - Put forward practical enhancement proposals that represent the views of the majority of the community; and
  - Provide guidance for residents/landowners to be taken into account when undertraining work which does not require planning permission.
3. The Council and the Rural Community Council of Essex have provided advice and guidance to the Steering Group.
4. The Parish Council have requested that the VDS be adopted by the Council.

## Recommendations

5. That the Cabinet adopt the Elmdon Village Design Statement as Council Approved Guidance for the purposes of Development Management and Planning Policy.

## Financial Implications

6. None

## Background Papers

7. The following papers were referred to by the author in the preparation of this report and are available for inspection from the author of the report.

Elmdon Village Design Statement 2019

## Impact

- 8.

Communication/Consultation	Extensive consultation was undertaken by the steering group in preparing the VDS
Community Safety	The VDS considers issues which affect the community safety of the parish
Equalities	The VDS will affect all equally
Health and Safety	The VDS considers issues which affect the health and safety within the parish
Human Rights/Legal Implications	The development of a VDS is compatible with Convention rights.
Sustainability	The VDS considers sustainable development
Ward-specific impacts	Littlebury, Chesterford and Wenden Lofts
Workforce/Workplace	No impact

## Situation

9. Following the decision of the Parish Council to prepare a VDS, a steering group was formed. In October 2017 the group obtained the views and opinions of residents through a questionnaire sent to all residences in the Parish. They received 150 responses from a total of 269 households. An analysis of the results was presented to residents through exhibitions at Elmdon and at Duddenhoe End
10. The VDS provides a detailed description of the history, landscape and ecology of the parish.
11. The VDS considers the topics of Housing, Environment, Transport, Agriculture and Business. For each topic the Statement describes the current characteristics and concludes with guidelines for the Council and residents. The guidelines for each topic reflect the findings of the residents'

questionnaire. The statement also refers to adopted and draft UDC planning policy for each topic. The guidelines are not contrary to adopted or emerging planning policy.

## Risk Analysis

12.

Risk	Likelihood	Impact	Mitigating actions
That the VDS is not taken into account in planning decisions	low	Little impact. The guidelines reflect Council policy.	<p>Planning officers to refer to the VDS when considering development within the parish.</p> <p>For the Parish Council to taken evidence from the VDS when responding to planning consultations.</p> <p>For residents to consider the VDS when considering works to their property.</p>

1 = Little or no risk or impact

2 = Some risk or impact – action may be necessary.

3 = Significant risk or impact – action required

4 = Near certainty of risk occurring, catastrophic effect or failure of project.

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*Elmdon in its rural aspect.*



## Introduction **Purpose**

In 2016 the Elmdon and Wenden Lofts Parish Council took a decision to support the implementation of a Village Design Statement (VDS) for the Parish to include Elmdon, Duddenhoe End, Wenden Lofts and Pond Street. For the purpose of this document, any reference to Elmdon will include Wenden Lofts, and any reference to Duddenhoe End will include Pond Street.

A VDS is a document which gives a community the opportunity to describe the distinctive qualities and characteristics of their locality and to provide design guidance that may help to influence future development. It is an advisory document for planners, designers, developers and local people.

It will not stop change from happening - a VDS is about managing change, not preventing it. However, it can affect how any change will fit into the environment and it can try to ensure that any development is sympathetic to the character of the villages and to the surrounding countryside, for example by considering the current infrastructure, the use of compatible materials, designs and colours and to maintaining the rural landscape. The VDS also provides an insight into what really matters to local people, how they feel about the physical character of their parish and how it may be enhanced.

## **Process**

A request was made for volunteers and ultimately a VDS steering group was formed.

Information on the members of the steering group is contained in Appendix 1.

The steering group sought advice and guidance from both the Rural Community Council for Essex (RCCE) and Uttlesford District Council (UDC), and a roadmap was drawn up to show the various stages and steps that needed to take place in order to produce a VDS that has the approval of the community as a whole. It also considered the Uttlesford draft Local Plan with its overall objective of protecting the rural character of Uttlesford District.

The first step was to obtain the views and opinions of the residents and a questionnaire was produced and circulated to every residence in the parish. The response was much higher than anticipated with over 150 responses from a total of 269 households. The results were analysed in detail by the steering group and the results were presented to the villagers at two exhibitions; one in Elmdon and one in Duddenhoe End.



*Second consultation. Duddenhoe End Village Hall. February, 2019.*



**"I really hope UDC take note in their planning process."**

**"Great to have the opportunity for the community to have a say."**

**"It looks to be a well thought out and constructed document with input from all within the village. Thank you."**

**"Excellent service, good presentation, very informative."**

Photographs were widely used to help to illustrate the various points raised. Again, the response was very good with over 90 villagers attending over the two days and further comments were obtained by means of a further short questionnaire. From this information a draft VDS document was distributed for comment by villagers, the RCCE and Uttlesford District Council which ultimately led to the production of the final VDS. Over 100 people attended the public exhibitions to see the VDS and their feedback was extremely positive. The VDS covers the landscape and historical background of the parish and draws on the questionnaire results to produce a set of guidelines.

It is hoped that these guidelines will be used by planners, developers and local residents to ensure that any development is sympathetic to the local environment and enhances what is important to the villagers. These guidelines cover housing, transport, business and the local environment.

## **Aims and objectives**

for the Steering Group were as follows:-

- 1.** Identify the special characteristics of the built and natural environment.
- 2.** Identify elements that should be retained or enhanced.
- 3.** Identify any detracting elements.
- 4.** Put forward practical enhancement proposals that represent the views of the majority of the community.
- 5.** Provide guidance for residents/landowners to be taken into account when undertaking work which does not require planning permission.



Map showing the Parishes of Elmdon and Wenden Lofts.

**General information about the villages of Elmdon and Duddenhoe End**

This chapter gives an introduction to the location and identity of the two main centres of population within the parish. The parish of Elmdon with Wenden Lofts contains a number of population centres. Elmdon is the largest village containing approximately 150 households with Duddenhoe End including the hamlets surrounding it having just over 100.



*Elmdon – showing open spaces and farmland.*

## **Elmdon**

Elmdon is relatively isolated despite its proximity to larger centres of population and transport links. Most importantly it still retains its rural characteristics. In the main it is a quintessentially attractive English village of considerable charm. Trees and hedgerows play an important part in contributing to the quality of the area and the views into the settlement along the three main routes are the most important. Open spaces and gaps between houses contribute to the feel of the village. The churchyard and two small greens, one centrally located and the other on the Ickleton Road to the east of the church, together with water features in the Elmdonbury area represent landscape features that materially contribute to the village's character and appearance and must be protected.



*Woodman's Lane, Duddenhoe End.*

## **Duddenhoe End**

Finding Duddenhoe End is always a challenge for non-residents. It is not on a through route and has 5 points of entry, 4 of which have protected lane status (UDC 2012). There are 3 roads in off the B1039, only 2 of these are sign-posted. The most used road comes in from the north via the hamlets of Upper and Lower Pond Street, passes by the west end of the village street and goes on to Langley to the south west of the village. This is the main school bus route and the only road gritted when the weather is bad. It is the only access route that does not reach the threshold for protected lane status. There are 2 other roads in from the B1039, one unsigned, sunken, narrow single-track road which comes in from the north east of the village coming to the hamlet of Lofts Green before turning along School Lane towards Upper Pond Street, or south through an extremely narrow road to Bridge Green. A second access road comes in from the east towards Bridge Green. This is also a narrow, sunken road with a steep hill on a bend which is treacherous in bad weather. These roads all have old hedges and large mature trees with little verge to speak of. Outside peak times, the roads are quiet, and the village and hamlets are a haven of peace and quiet.

## **Residents**

The residents of Elmdon and Duddenhoe End have played a considerable role in contributing their views to this document, so it seems helpful to put the recommendations of this VDS in context of the make-up of the parish.

We have selected information from the 2011 National Census as reported by the Office for National Statistics to give a snap-shot, albeit from data that is 7 years old. In 2011 there were 269 households in the parish. It seems unlikely that there have been major changes to the nature of the parish since the last census.

- There were 610 usual residents on Census day 2011 (50.7% female, 49.3% male). Of these, 100% lived in households.
- The average age (mean) of residents was 43.7 years. 19% were under 16, 9% aged 17 to 29, 16% aged 30 – 44, 26% 45 – 59 and 30% 60 and over.
- In the age group 16 to 74 there were 437 people of whom 300 were employed, 8 unemployed and 115 economically inactive: 29% were either retired or looking after family. 29% of households had dependent children.
- Of the 69% employed, 33% were employed part-time, working less than 30 hours per week.
- 252 households had a car – 29% had 1 car, 43% 2 cars, 14% 3 cars and 7.5% 4 or more cars.
- 64% of household types were detached houses or bungalows, 36% semi-detached or terraced. 73% were privately owned and 23% rented. The average household size was 2.4 persons.

These figures hint at reasons for the high level of concern for the speed of traffic, on-street parking, and the desire to maintain the rural setting of the parish as expressed in the survey and at the village meetings. Unemployment is very low, house ownership is high, and a high percentage are economically inactive being either retired or caring for family. Car ownership is high and consequently there is considerable movement in and out of the parish by car. The large number economically inactive and the high percentage of residents choosing the parish for its rural setting could explain the high value placed on the rural environment. Nearly one third of households having dependent children may also indicate why the residents think small family homes and starter homes should be built rather than more large homes.

Over half of the population are aged over 55 years which helps to explain the high percentage questionnaire response from those aged between 41 and 80.

*Duddenhoe End Village Hall.*



## Landscape Description

*This chapter describes the characteristics of the landscape surrounding the villages. The detail is taken from Section 7 Landscape Character of Uttlesford District, section (H1) Elmdon Chalk Upland p328<sup>1</sup>.*

Elmdon and Duddenhoe End are within an area defined as Elmdon Chalk Upland. Both settlements are south of the fens in the hills with the highest point in East Anglia just below 500ft above MSL. The Elmdon church which is the tallest building is virtually on the Greenwich meridian and 52 degrees N latitude.

Lying a little over a mile to the North of Duddenhoe End, Elmdon is comprised of two main roads: the High Street running roughly North/South joined at the village green by Ickleton Road running East/West with which it forms a "T" adjacent to St. Nicholas Church. Both are through roads.

The Ickleton Road runs down a small valley (Don in old English) where most of the houses are located. There are "outlying" houses, the occupiers of which regard themselves as being part of the village. There are three large cattle, arable farming and horse breeding enterprises which surround the village. There are woods nearby and some Elm trees after which the village was named still grow precariously having survived the Dutch Elm Disease epidemic. The woods are home to a magnificent annual show of bluebells.



The cricket ground which is regarded as one of the finest village grounds in the County of Essex lies adjacent, at the southern approach. St. Nicholas and its surrounding churchyard is well kept at the focal point of the village. The Public House has been closed for many years but is expected to reopen in 2019. The sewerage disposal works for surrounding villages is discreetly located off the Ickleton Road, happily downwind.

<sup>1</sup> Braintree, Chelmsford, Maldon and Uttlesford landscape Character Assessment Sept 2006 Appraisal by Chris Blandford Associates.

Unlike Elmdon, Duddenhoe End is more spread out. There is a main road where most of the houses are, with a large, well-appointed Village Hall at the Western end. Many houses are situated away from the centre. Lower Pond Street, for example, is a good half mile from the main street and the Church is well away from the main areas of housing. The main residential area is on the top of a well wooded ridge.

As in Elmdon, farm land surrounds the component parts of the residential areas. Because of its spread-out nature farmland is integral to the various residential areas. It has many more trees and woods in its immediate vicinity than Elmdon. One of the adjacent farms which is almost integral to the village hosts a commercial fishing lake. The surrounding countryside is beautiful, and the woods are also home to swathes of bluebells.

Miles of public footpaths and bridleways are a great asset to the area in general. Neither village has permanent streams but there are a number of drainage ditches which run after rain and empty into the Cam some five miles distant.

*Green lane to Chrishall Byway No.3.*



## **Characteristics**

The "Elmdon Chalk Upland" area encompasses part of the East Anglian Chalk Ridge. It includes the village of Elmdon, located below the chalk scarp in the high country in the north of the area. The character area also extends westwards to Chrishall and just west of Littlebury in the Cam Valley. It is a landscape of big sky and seemingly continuous views on the higher ground, but it is also a landscape of transition, where undulating chalklands meet the claylands. Isolated white farmhouses on the hilltops north of Elmdon can be seen from the open roads that cross the slopes and the overall impression is one of openness, with few trees and little visible settlement

A sewage works just outside Elmdon is well integrated with linear windbreak trees. Mature trees line the winding lanes, and remnant elms in hedgerow boundaries can be seen. There are many blocks of ancient woodland. Drainage ditches, grassy tracks and broken hedgerows define field boundaries, which are usually straight. Sometimes post and wire or post and rail fences define the fields. The pattern is more organic and irregular on the lower slopes and around settlements. Land is used mainly for arable farming, although there is some pasture near villages, particularly near houses.



*Beards Lane, Rockells Farm.*

Vehicular access around this area is limited to the B1039 and a few lanes. There is also a network of public footpaths that link villages. This countryside has a rich cultural heritage, and villages like Elmdon have exemplary historic buildings.

Pale colour-washed and timber-framed houses with thatched roofs are a feature of the whole area. There is an unusual thatched-roof church between Pond Street and Duddenhoe End. The texture of this countryside is varied, from the smooth pale chalk slopes to the patchwork of darker woodlands and varied colourful historic buildings scattered across the landscape. This is a landscape well cared for, with a strong sense of place. There is a strong sense of tranquility away from the B roads.

### **Historic land use**

Evidence of historic land use is dominated by large common-fields developed here, of the Cambridgeshire and Midland type, a field-type that is rare in the rest of Essex. Some of these were enclosed by agreement in the early post-medieval period, the remainder being enclosed in the 18th and 19th centuries, partially as a function of the parliamentary enclosure acts. On the higher land the landscape is more typical of Essex than Cambridgeshire with winding lanes, dispersed hamlets and greens and ancient woodlands. Medieval parklands are also a notable historic feature of the landscape.

### **Ecological features**

This area is dominated by intensive and widespread arable agriculture with narrow bands of woodland. The area contains the following sites of nature conservation value:

Local Wildlife Sites (LoWS's) comprising small areas of scattered ancient woodland including High Wood (481 ha), Freewood, Strethall Wood, Lee Wood North and South, Daw's Grove, Rockell's Wood.

LoWS's comprising road verges and pasture including roads from B1039 to Coopers End and Beards Lane in Duddenhoe End; and Hertford Lane and Quickset Road in Elmdon.



*Byway No.7 to Strethall.*

### Protected lanes (2012)

UTTLANE1 Elmdon - Hertford Lane.  
UTTLANE2 Elmdon - Royston Lane.  
UTTLANE3 Elmdon - Quickset Road.  
UTTLANE14 Elmdon/Littlebury –  
Littlebury Green to B1039  
UTTLANE15 Elmdon - Duddenhoe End  
(B1039 - Coopers End).  
UTTLANE18 Wenden Lofts - School  
Lane, Upper Pond Street.  
UTTLANE19 Wenden Lofts - Cogmore,  
Upper Pond Street.  
UTTLANE22 Elmdon/Arkesden – Beards  
Lane.

Ref: *Protected Lanes Assessment*.  
Essex County Council. March 2012.



Protected lane No.15 from B1039  
towards Bridge Green.

## History of Elmdon and Duddenhoe End

### Protected lanes within the parish

There are 8 lanes with protected status within the parishes of Elmdon and Wenden Lofts. The threshold for this status is defined in *ECC's Protected Lanes Assessment*. Features assessed include: diversity of form, archeological features, the potential for archeological evidence, biodiversity and aesthetic value. With the ever-increasing rise in number, size and diversity of motorized vehicles using minor rural roads, Protected Lane Status may not in itself be enough to secure their long-term future. Protection of these lanes is key to retaining the rural aspects of these villages.

### Sensitivities to change

Sensitive key characteristics and landscape elements include winding sunken lanes, blocks of ancient woodland and remnant elms, drainage ditches and grassy tracks, which are sensitive to changes in land management. The open nature of the skyline on the ridges of this upland landscape is visually sensitive to new development, which may be visible within panoramic views across the fields. The overall sense of tranquility within the character area is also sensitive to change and potential new development. There is also a strong sense of historic integrity, resulting in several visible historic buildings and medieval parklands. The area also contains several patches of ancient woodland, which are sensitive to changes in land management. Several important habitats for wildlife and biodiversity are scattered throughout the area (including several LoWS's). Overall this character area has relatively high sensitivity to change.

### Guidelines for the landscape

*The following guidelines reflect those in the Uttlesford Landscape Assessment and recognise residents' responses to the 2017 questionnaire.*

- Conserve the rural character of the area.
- Conserve the narrow winding lanes.
- Ensure that any new development responds to historic settlement pattern, especially scale and density, and that use of materials, and especially colour, is appropriate to the local landscape character; such development should be well integrated with the surrounding landscape.
- Encourage the appropriate use of colour as well as tree planting to mitigate the visually intrusive effects of large modern buildings.
- Small scale development should be carefully sited in relation to existing buildings.

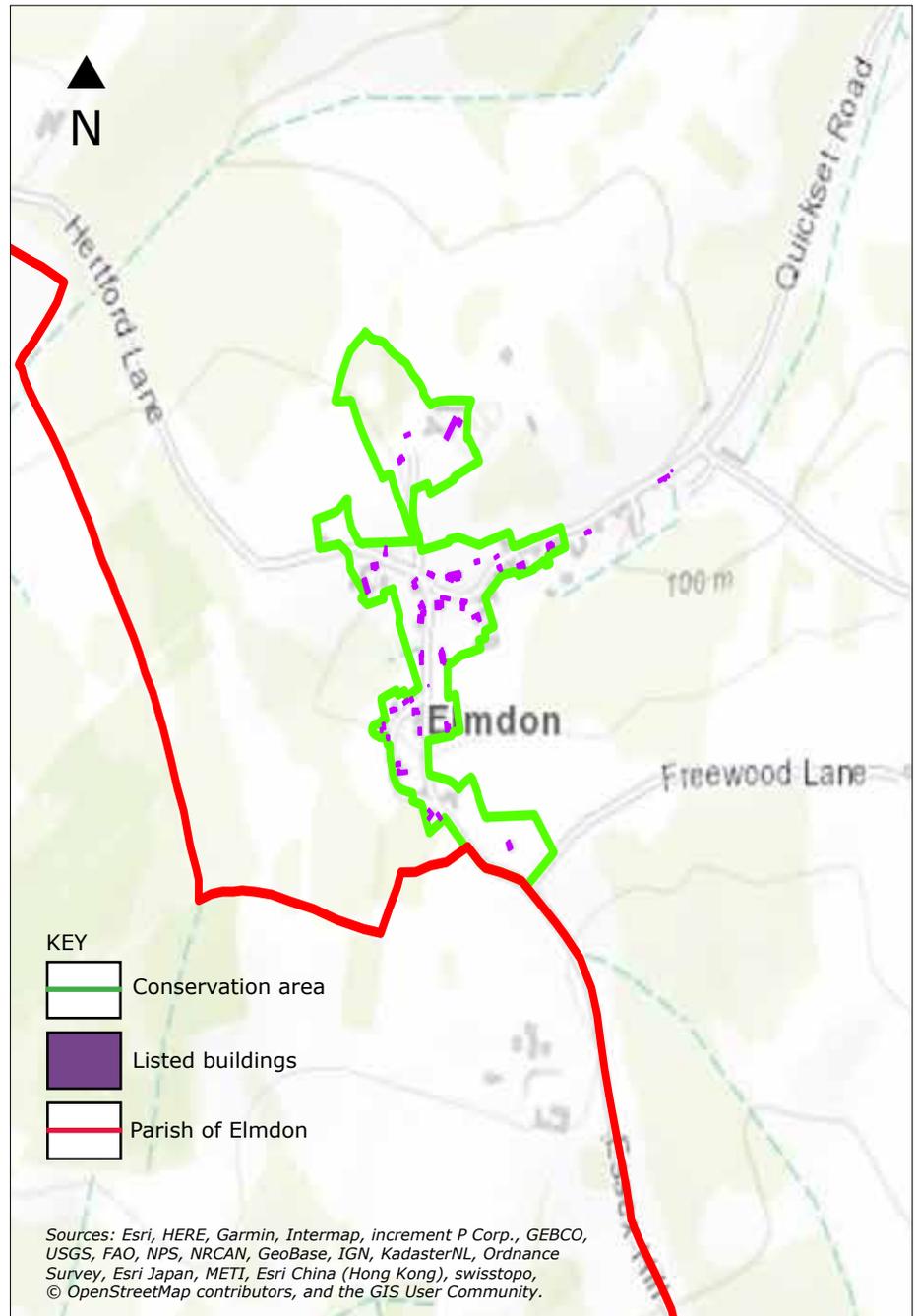
*This chapter is a summary of developments in the parish of Elmdon with Wenden Lofts which have resulted in the main settlements of Elmdon and Duddenhoe End and surrounding hamlets which are the subject of this VDS. Information is taken from the History & Antiquities of the County of Essex<sup>2</sup> and Elmdon Village Policy Statement<sup>3</sup>.*

The village and hamlets within the parish of Elmdon and Wenden Lofts follow broadly the medieval settlement pattern described in the Uttlesford District Historic Environment Characterisation Report of 2009 as consisting of small nucleated settlements at Elmdon, with the remainder being widely dispersed comprising church/hall complexes, moats, farms, and manors set alongside Greens and Ends.

<sup>2</sup>Marant, Philip. *History and Antiquities of the County of Essex Volume II*.

<sup>3</sup>Rural Areas Local Plan, Elmdon Village Policy Statement.

Parish of Elmdon showing the conservation area.



Elmdon is mentioned in the Domesday book as Elmerduna (based on the mound of Roger de Sommers' castle), and Wenden Lofts and Duddenhoe End were part of Wenden with its red-bricked Norman church.

In the 16th century the villages of Elmdon and Duddenhoe End, along with surrounding hamlets, were under the ownership of large landowners. By the 18th Century both villages and the surrounding hamlets were under the sole ownership of the Wilkes family who were resident at Lofts Hall. The estate continued to grow and by 1927 when the estate was first put up for sale, there were virtually no smallholders left. Tenants resided in the farmhouses and thatched and slate roofed cottages housed farm employees.

Elmdon was a church village with most of the dwellings tenanted from the squire with a significant majority employed by him. Duddenhoe End villagers were expected to walk to St. Nicholas, Elmdon. In 1859, the Squire Parson of Lofts Hall, Rev. Robert Wilkes donated a barn close to the village of Duddenhoe End and had it converted into a church, thereby removing the need for residents to walk across to Elmdon each Sunday. This event was probably significant in seeing the development of Duddenhoe End as a separate population centre within the parish.

## Historical development in Elmdon

Building was sparse during the war period and during the depression that followed. Farms and cottages were gradually sold into private ownership when the Wilkes' estate was broken up but the first group of houses to be built were the bungalows along Ickleton Road in 1957. New houses on Hollow Road were built in 1961 and since then most new buildings in the village have been outside the conservation area along this road towards Ickleton. These buildings have been set back from the road with green verges or a pavement separating them from the road. They have been built alongside the road in a single row and benefit from extensive views across farmland to the back of the houses. Other building has been conversion of old farm buildings such as those at Elmdon Lodge which were converted in the early 1990's. These buildings tend to be closer together than in the rest of the village but retain the farmyard appearance, respecting their heritage.



*Lofts Hall before the fire in 1934.*

Houses within the conservation area were predominantly thatched cottages with lath and plaster walls. 17th Century additions were often brick built with slate roofs and more recent buildings are plastered with slate or tiled roofs. All of the houses are unique in design but retain similarity through the space between them and the farmland views when looking from the gardens at the backs of the houses.



*Cottages in King's Lane, Elmdon.*



*Centre of Elmdon as featured in "Essex Countryside" magazine, April 1967.*



*Barn conversion next to Elmdon Lodge.*



*Housing on Ickleton Road built about 1961.*

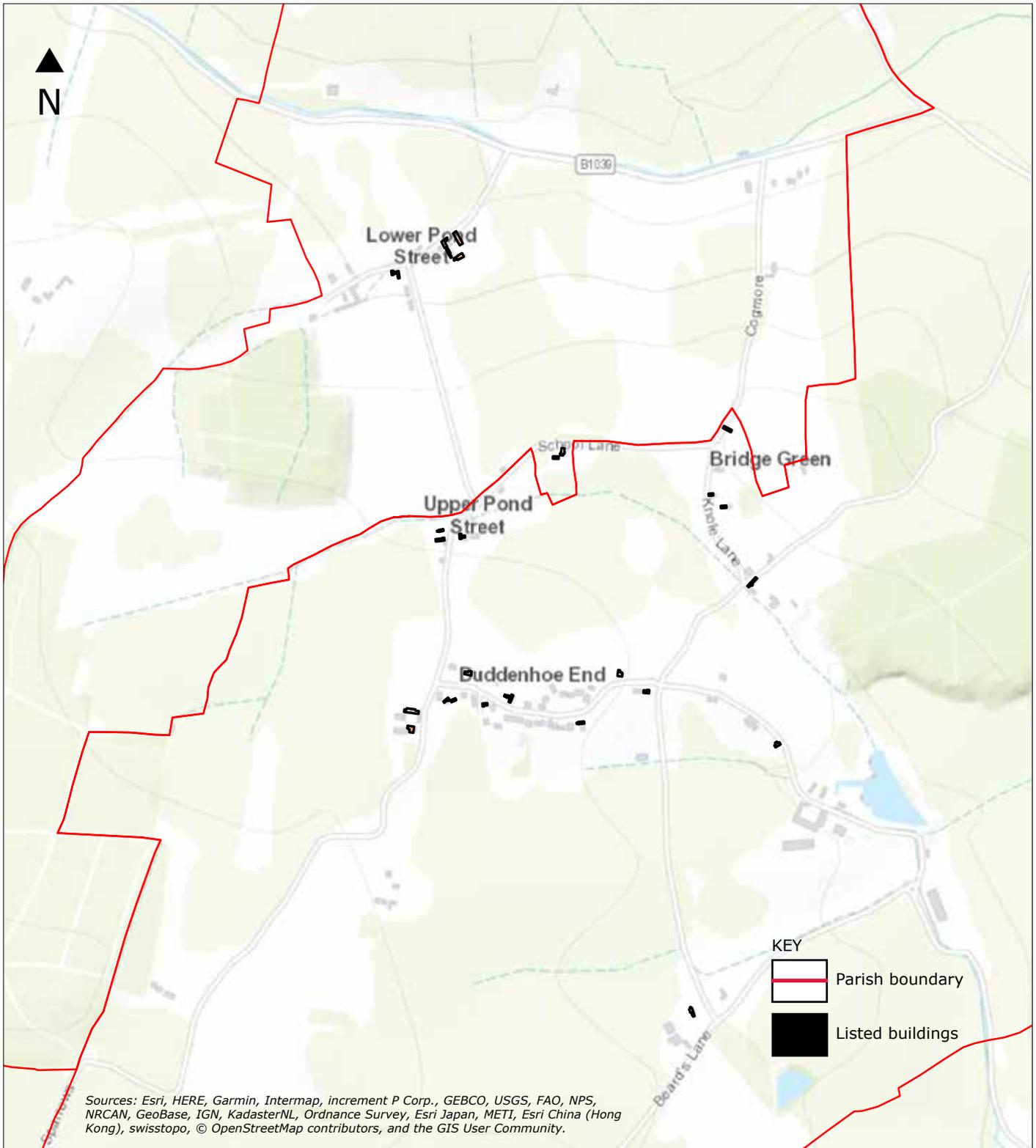
### **Historical development in Duddenhoe End**

Houses and cottages were owned by the Estate of Lofts Hall until the 1930's. The village at that time was a series of small hamlets of thatched cottages with outside privies situated close to farmhouses which were either of lath and plaster construction, or brick. These were separated by expanses of farmland. It took until 1930 for the final sale of 6 farms in Duddenhoe End and Wenden Lofts and 36 cottages to be sold to private individuals to complete the disintegration of the estate and the beginning of the development of Duddenhoe End as a village of owner/occupiers. No new dwellings were built in the village until the 1960's when the bungalows were built at Brooksies and then the bungalows on the south side of the village street. These houses filled in gaps between the small groups of thatched cottages and were sited back from the road, often behind an original hedge. They created the very clear linear layout of the village as it is today.

*Thatched cottages in Duddenhoe End on the register of listed properties: Bakers Cottage with Mays Cottage behind.*



The council houses in Lower Pond Street were also built in the 1960's. These were set back with a hedge alongside the road, filling in a gap between two farmsteads. A small number of new homes have been built in the village over the past 50 years, protected by planning policies preventing new builds in rural areas. As a result the linear feature of the village has remained, houses are set back from the road and most retain hedges and old trees between them and the road. The linear layout with space between properties, green hedges and verges is viewed as strongly important by the current residents of the village.



Map showing the listed buildings around Duddenhoe End.

## Buildings of note within the villages

The conservation area in Elmdon contains 37 listed buildings or groups of buildings. Of the above 37 listed buildings/groups of buildings identified on the English Heritage list, most are designated Grade II. However, there are two which are designated Grade II\* namely the church of St. Nicholas and Pigots. Most listed buildings in the conservation area date from the 17th century (40%) followed by over 30% being from the 18th century. Earlier buildings from the 15th and 16th centuries together represent about 20% of the total. There are also several representatives from 19th and 20th centuries, the latter being two telephone kiosks. The remainder of the parish, including Pond Street and Duddenhoe End contains 26 listed buildings sited in small groups of thatched cottages around farmhouses.



*Pigots, Elmdon.*



*The Hoops, Elmdon.*

*Church of St. Nicholas, Elmdon.*



*Crawley House, Elmdon. Formerly  
The Guildhall.*



## Housing

*This chapter summarizes the characteristics of the built environment of Elmdon and Duddenhoe End. It ends with guidelines for planners and residents when considering extensions or new buildings within either of the main village settlements of the Parish.*

### Housing in Elmdon

Elmdon is listed as a category B village in the Uttlesford Local Plan, one that is "suitable for a scale of development that would reinforce its role as a provider of services mainly to its own community". Elmdon is typical of a traditional English village with two-storey housing built of a range of local materials. In this part of Essex traditional housing is timber-framed plastered, thatch, flint and brick. Every house in Elmdon has its own plot and most are set back from the road. Hedges and front gardens mark the boundaries of most of the properties. It is a linear village with its buildings along the three main roads, with many picturesque cottages.

*The Old School, Elmdon (closed 1972).*



*Previously "The Elmdon Dial"  
re-opening as "The Maltings" in 2019.*



The central point is Cross Hill with a small triangular green, where the war memorial is sited. Nearby is the former "Elmdon Dial" pub, soon to be re-named "The Maltings". King's Lane is particularly attractive and retains many lovely houses. The conservation area is centred on the parish church and extends south to Pigots – a beautiful Grade II\* manor house, to the east up to the Old School House on the north side of the road, and to Wheelwrights on the south side. To the west properties up to Whitehall Cottages and Frondirion are included. Properties within the conservation area date from the medieval period through until the Victorian era.

*(Robin 1964)<sup>4</sup>*

## Housing in Duddenhoe End

Duddenhoe End is in a particularly rural situation with a core settlement and several hamlets of about 3 houses, dotted along the lanes approaching the village. The core settlement is a linear design along the village street, bounded to the west by the village hall, and at the eastern side by the road running from Bridge Green towards Arkesden.

The hamlets are separated from the main settlement by narrow roads bounded by tall ancient hedges and mature trees. All but one of these roads has exceeded the threshold of protected lane status in Uttlesford. When approaching Duddenhoe End on one of these lanes the visitor will be under no illusion that it is part of a very rural, historic and bio-diverse environment.



*Barn conversions at Lower Pond Street.*



*Janesfield, Duddenhoe End.*

Duddenhoe End is not listed as a B village but is categorized in the local plan as "other hamlets". The village now has small pockets of two-storey thatched cottages with linear infill of buildings from the 1960's to the present day, predominantly constructed of brick but some now wood frame. The earlier dwellings were one-storey bungalows with rooflines at or below that of the early thatched cottages. More recently two-storey dwellings have been given permission and the roofline of the village street has become more varied. All the dwellings are set back from the road with hedges and trees forming a boundary with the road. Houses sit within their plot with space between buildings and glimpses of farmland behind. Until recently most of the building in Duddenhoe End has been either replacement dwellings or new dwellings in gardens. This has maintained the linear development of the village and the predominantly rural environment with natural hedges, old trees and the absence of pavements.



*Aerial view of Duddenhoe End showing linear development.*

Arable land backs onto the houses on both sides of the main street and surrounds all of the outlying small hamlets. This environment is cherished by residents and should be protected.

### **Residents' views on housing throughout the villages**

Elmdon and Duddenhoe End have different characteristics, but the consultation showed that residents in both settlements valued the same aspects and guidance is therefore provided to reflect this.

The villages have maintained low density housing with houses, regardless of age, retaining spacious gardens, open aspects and rural views. It is not surprising that residents want to maintain this and whilst the questionnaire results show that about 50% of the current community considers that the amount of building in the parish has been "about right", there is an understanding that some new development is needed in the villages. A number of comments suggest there is a nervousness about too much infill with clear support for maintaining the low-density housing and open views of the surrounding countryside from behind and between houses.



*Lower Pond Street towards Elmdon.*

**"Any additional housing should be proportionate to what is already there and should not change the character of the village."**

**"Affordable housing is needed so that younger people can have a chance of living here. If not, average age will continue to increase."**

*Listed cottages in Duddenhoe End by the village green.*



Rural view from back gardens in Duddenhoe End.



**“We feel that the village would benefit from some new development to encourage a more diverse age range to enhance the community feel.”**

**“We need to remember that houses (existing and new) need to be suitable for modern living. This needs to be a living, thriving village (albeit a very pretty one) rather than old and out of touch ”**

**“There is room in the village for well-considered innovative and modern design, not simply more of what we already have. Good new architecture will complement the existing period buildings and be an asset.”**

**“We should encourage all types of housing including modern if done to a high spec with eco credentials. These are the thatched cottages of the future.”**

There is limited support for building on green sites and for infill or backland development. Opinion suggests that new building should be on previously developed sites. The re-use of traditional buildings is supported, with 90% supporting the idea of converting redundant buildings into houses. New buildings should not impact on the rural setting nor on the views of surrounding farmland.

The overwhelming message from the community was to consider building what was needed and residents see this as being small 2 or 3 bed homes (74%). The residents feel strongly that only smaller houses will contribute to maintaining the diverse age range needed for enhancing the community feel.

The overall impression from the questionnaire to residents was that new housing should be sympathetic with that which already exists. There was a preference for reflecting traditional materials by the use of modern, sustainable alternatives.

Roofs are predominantly pitched with slate or clay tiles. Flat roofs do not feature in this rural area. Walls are mainly rendered and painted in a wide range of soft colours, there are also yellow and red brick dwellings and

Farthing Green with clay tiled roof, green verge and flint wall.





*The Old Forge, Duddenhoe End, with boundary hedge.*



*More recent development set back from the road with boundary hedge.*

Elmdon has some examples of brick and flint. Windows in the conservation area in Elmdon, and older buildings in Duddenhoe End, are timber and either traditional sash windows, or casement windows with small panes in keeping with their age. Buildings since the 1960's tend to have larger expanses of glass.

Front gardens and boundaries are an important visual contribution to what is unique about Elmdon and Duddenhoe End. Elmdon is typified by green spaces in front of dwellings with hedges, flint walls or wooden fences dividing the properties from the roads. In Duddenhoe End dwellings are set well back from the road, with green hedges typical boundary treatments.

The most appropriate front boundary feature in Duddenhoe End is the hedge, using native species such as hawthorn, hornbeam and field maple.

Parking within boundaries can present a problem if not sensitively designed, particularly in small gardens. Materials are very important in this rural environment, as the use of large areas of concrete, tarmac, or even block paving, can lead to an urban character that is inappropriate to this rural setting. Gravel and stone work well in this environment.

There were strong views that historical buildings and those of architectural value should be maintained. Those in Elmdon are protected by the conservation area, but those small pockets of older buildings in Duddenhoe End should have the same consideration.

**“Infill development okay but overall care must be taken to ensure that the overall character of a small rural village AND adjacent dwellings are not adversely affected or overlooked”**

**“The character of the village is being lost. Huge houses are being built on tiny plots, just feet apart. Small cottages are being overshadowed by large family houses”**

When extending existing homes, it is hoped that residents will give due consideration to these guidelines regarding new development with note to design and building materials. In the context of Elmdon and Duddenhoe End current residents agree that it is important that any extensions reflect the size and scale of the host building and the immediate surroundings, in terms of the character of adjacent development and its setting within the wider rural landscape. Extensions should not unduly affect adjoining residents and should not remove entirely, or unacceptably reduce, the green spaces between buildings and the glimpses of the countryside that can be seen from the road frontage.

### Uttlesford planning guidelines

The Uttlesford Local Plan adopted in 2005 states that *“The rural nature of the District is recognised for its intrinsic character and beauty, its value for agricultural production and its biodiversity. The strategy is to conserve and enhance the local distinctiveness and historic character of these rural settlements and support this character and the thriving rural communities within it”*. The following guidelines are provided to inform future planning in the Parish. These are very rural villages and we support sympathetic developments and support the following policies in relation to housing and the built environment:

<b>Policy Number</b>	<b>Policy in Adopted 2005 Local Plan</b>	<b>Equivalent policies in the emerging local plan – Regulation 19 Pre-Submission Local Plan 2018</b>	<b>Policy title</b>
ENV1	Design of development within Conservation Areas	EN2	Design of development within Conservation Areas
ENV2	Development affecting Listed Buildings	EN4	Development affecting Listed Buildings
GEN8	Vehicle Parking Standards	TA4	Vehicle Parking Standards
H3	New Houses within Development Limits	H5	Residential development in Settlements without Development Limits
		D1	High Quality Design
H7	High Quality Design	H4	House Extensions and Replacement Dwellings beyond Development Limits
H8	Home Extensions		
H5	Subdivision of Dwellings	H3	Sub-division of Dwellings & Dwellings in Multiple Occupancy
H9	Affordable Housing	H6	Affordable Housing
E5	Re-use of Rural Buildings	C2	Re-Use of Rural Buildings
H12	Agricultural Workers’ Dwellings	H12	Agricultural / Rural Workers’ Dwellings
H13	Removal of Agricultural Occupancy Conditions		
ENV6	Change of Use of Agricultural Land to Domestic Garden	C3	Change of Use of Agricultural Domestic Garden

## Guidelines for housing

The following guidelines have been produced as a summary of the responses to the residents' questionnaire October 2017.

- Maintain the low-density character of the villages and favour small 2 or 3 bed family homes.
- Future development of more than one dwelling should prioritise previously developed sites and not be on new greenfield sites.
- Development of redundant rural buildings is supported.
- Development should be sympathetic to the rural nature of the villages.
- New dwellings should not impact on the views of the countryside from the rear or between dwellings
- Extensions should be consistent in scale to the existing plot and should not dominate.
- Building materials used should be compatible with the range of materials seen throughout the villages.
- New development should seek to avoid harm to historic buildings and their setting.
- Existing hedges should be retained wherever possible. High boundary walls, the unsympathetic use of close board fencing in front gardens and tall railings and gates are more urban in origin and do not reflect the essentially rural character of the villages. Fences and gates should be of traditional materials.

## Environment

*This chapter summarises the natural environment in and around the villages of Elmdon and Duddenhoe End. Whilst the villages have slightly different characteristics in their built environment the natural environment is very similar. Areas for special protection are identified and the guidelines include practical enhancement proposals that represent the views of the whole community.*

With its undulating landscape and rural views this part of Essex is affectionally known by some as the Essex highlands. The area is relatively isolated despite its proximity to larger centres of population and transport links, and most importantly still retains its historic rural characteristics.

Habitats of principal importance in the villages have been identified as priorities for conservation under the Post 2010 Biodiversity Framework<sup>1</sup>. These include traditional orchard at Lofts Green, Duddenhoe End, woodpasture and parkland at Lofts Hall and ancient semi-natural woodland such as Freewood, and Rockells Wood. These habitats contribute to the presence of notable species within the area particularly the rare Crested Cow-wheat recorded at Coopers End, and numerous Veteran trees, notably a veteran Black Poplar tree in the hedgerow near Upper Pond Street Farm, Duddenhoe End<sup>2</sup>. There have been 166 reports of at least 8 species of bat which benefit from the wooded, agricultural and rural nature of the villages. Approximately 35 ponds provide an integrated patchwork of habitat for amphibians including 27 formal reports of Great crested newts, Common toads and numerous other common species. Red kites (designated Near Threatened status) benefit from the open grass, scrub and tall trees of woodland areas and Barn owls make use of hollow trees and tree cavities for nesting and are often seen in the villages. The area also provides habitat for an important assemblage of farmland birds including Corn bunting, Grey partridge, Lapwing, and Snipe<sup>3</sup>.



Veteran black poplar tree in hedgerow at Upper Pond Street, Duddenhoe End.

<sup>1</sup>JNCC and Defra, "UK Post-2010 Biodiversity Framework," Four Countries' Biodiversity Group, 2012.

<sup>2</sup>Grid reference TL459943708.

<sup>3</sup>Ecology of Elmdon, Duddenhoe End and Wenden Lofts. C. Tancell 2019.



*Fields surrounding Elmdon.*

“The geology of the zone largely comprises boulder clay plateau ... Within the zone there are considerable areas of surviving ancient woodland... The fieldscape consists of irregular fields of ancient origin, probably of medieval in date and some maybe even older ...”<sup>5</sup>



*Hamlet church from the graveyard.*

The importance to residents of maintaining the rural environment was underlined in the survey when residents were asked if agricultural land provides important local character and views should be retained. 95% agreed with 70% strongly agreeing. Equally there was strong support for maintaining the green spaces, the fields, hedges, trees, ponds and woodland. It is clear from the questionnaire that the villagers would like to protect these elements and by doing so the rural nature of the villages. The questionnaire also invited villagers to comment on green areas of the villages that they think should be protected as well as attributes and features of the villages that merit protection.

**Duddenhoe End** is characterised by small hamlets separated by agricultural land and other green spaces. The rural setting is highly valued by the residents and there is particular mention for protecting the area around the village hall. There are already managed verges in Duddenhoe End alongside the protected lanes.

Other features the villagers seek to cherish in Duddenhoe End are the Hamlet Church, cemetery, village hall, Rockells Wood and the finger posts.

In **Elmdon** the areas of significant importance listed in the questionnaire are the church and churchyard, Todds Green, the cricket ground, the war memorial, both lanes up to Freewood Farm, the bluebell woods and the natural ponds.



Church Cottage, Elmdon, by Todds Green.

**"All mature trees and old orchards should be protected. These are important habitats for many species. This does not necessarily have to mean no building. Bat and bird houses can be incorporated into new builds and renovations. For example bird bricks can be purchased or made for the purpose of a particular species and can be built into the structure."**

"Uttlesford District Council has a commitment to the environment and its Local Plan Policies. Uttlesford's policies protect conservation areas by only permitting development that preserves or enhances their quality and by preventing the demolition of structures that positively contribute to their character and appearance."

*"The Conservation Area at Elmdon covers the historic part of the village stretching along selected lengths of the radial roads which converge at the central village green and area around the church. Conservation Areas are environments which are considered worthy of protection as a result of a combination of factors such as the quality of design and setting of the buildings or their historic significance. In addition to the individual qualities of the buildings themselves, there are other factors such as the relationship of the buildings with each other, the quality of the spaces between them and the vistas and views that unite or disrupt them. The interaction with adjoining areas and landscape, the quality of trees, boundary treatments, advertisements, road signage, street furniture and hard surfaces, are also important features which can add to or detract from the Conservation Area."*<sup>6</sup>

### **Residents' views on protecting and enhancing the environment surrounding Elmdon and Duddenhoe End**

The questionnaire revealed that 85% agreed that the design of front gardens including driveways and their surfacing should reflect the rural nature of the parish. Future development should consider off-road parking and native planting along the road frontage. Furthermore, 90% agreed that mature trees contribute to the visual appearance of the village, and over 90% that native species should be preserved.

Positioned in the Essex countryside some distance from significant built-up areas, the environment surrounding Elmdon and Duddenhoe End offers its residents considerable opportunity to enjoy the outdoors beyond the

<sup>6</sup>Elmdon Conservation Area Appraisal and Management Proposals, Approved December 2014.

Rockells Wood looking towards  
Elmdon Lee.



Rural finger post.

settlements themselves. This is facilitated by an extensive network of footpaths and bridleways, which are considered an asset by residents and are well used.

Elmdon is a village blessed with numerous footpaths and bridleways, all leading through extensive fields and woods and interconnected with each other. Riding is a pleasure (some people even bring their horses by trailer to ride round through the countryside). Two bridleways or green lanes (No's 7 and 3) link Elmdon with two other villages, and before cars and even bicycles came along, they were the quickest way to both villages. Now it is further, but quicker, by car. Bridleway No 7 leads through a farmyard containing Jersey cows and a bull. Byway No 3 leads to the church in the neighbouring village of Chrishall. This was a plague village where the surviving villagers moved half a mile away to build new houses in safety. Chrishall Church remains in the site of the old village and this green lane still leads to the church, which indicates the antiquity of the lane.

In Duddenhoe End, the Chestnuts (Footpath 16) is popular and the bridleway around Rockells Wood (No 23) is used extensively by riders and walkers. The views from this path are especially valued. The footpaths and bridleways are, overall, well maintained but paths through the middle of the field are sometimes partially ploughed or cultivated over and there is a delay before reinstatement. The Blacksmiths (No 33) and The Cosh (No 31) are byways significantly damaged by motorcyclists and 4 x 4's with very deep ruts that are usually water filled and make walking difficult.

These rights of way should be maintained and restricting vehicular access during the winter months would help to protect these ancient rights-of-way from further deterioration.

Clearly it is paramount that any future development should be sympathetic to the rural setting.

## Uttlesford planning guidelines

Policy Number	Policy in Adopted 2005 Local Plan	Equivalent policies in the emerging local plan Regulation 19 Pre-Submission Local Plan 2018	Policy title
GEN7	Nature Conservation	EN8	Protecting the Natural Environment
ENV7	The Protection of the Natural Environment Designated Sites	EN9	Protecting and Enhancing the Natural Environment
ENV3	Open Spaces and Trees	EN10	Open Spaces
		EN11	Ancient Woodlands & Protected Trees

## Guidelines for the environment

The following guidelines have been produced as a summary of the responses to the residents' questionnaire October 2017.

- Protect the open landscape and landscape views around the villages.
- Conserve the character and appearance of the conservation area in Elmdon and the open spaces in Elmdon and Duddenhoe End.
- The rural nature of the villages should be kept by protecting, retaining and maintaining green spaces, ditches, verges, footpaths, bridleways, mature woodland areas and native hedgerows.

## Transport

*This chapter summarises the nature of transport in the area and gives guidelines for planning purposes.*

Elmdon, Wenden Lofts and Duddenhoe End are situated less than 17 miles from Cambridge, Royston, Saffron Walden and Bishop's Stortford and only 5 miles from Audley End station. Despite their prime location the villages have retained their rural character and have immense charm. The villages are divided by the B1039 with the smaller local roads through the villages carrying local traffic as well as through traffic heading north and south.

The importance of cars for residents is indicated by the 2011 census which found that of the 252 households in Elmdon, Duddenhoe End and Wenden Lofts 94% owned one or more cars, and 64% owned two or more vehicles. This is in part due to infrequent public transport. The reliance of cars in the villages is also reflected in the high number of comments about traffic calming and roads in general. Traffic calming is a contentious issue with 53% in favour and a good number (56) of comments suggesting places and ways of slowing the traffic.

The questionnaire revealed a strong support for preserving the rural feel of the villages with over 70% citing the rural setting as one of the reasons for moving here. Green verges were thought to add to this rural feel, with the majority showing support for road signage in keeping with a rural setting, and maintaining old-fashioned post and telephone boxes.

Residents wish to protect the rural nature. Tractors and buses are a necessary part of rural life but the growing size and number of vehicles make the narrow lanes difficult to navigate safely. Any future planning should take measures to keep the lanes safe and protect the rural nature.



*School bus causing potential bottleneck in Elmdon.*



Narrow lane towards Duddenhoe End.

There was very little support for street lighting or more pavements. Perhaps this is indicative of lighting and pavements being thought to be less rural and more urban. In general, highway signage is minimal throughout the village and this is consistent with residents' wishes. Introduction of any further signage, except for safety reasons, should be discouraged.

Road markings are limited to hazard lines at the principal junctions and white lines at the carriageway edges. Generally, the residents do not want more street markings and consider that the existing white lines are sufficient to show the carriageway edges at night.

The bridlepath and footpath signs are mounted on wooden posts; blending well with the rural environment. New or replacement highway signage should be designed for the rural character of the village and mounted on existing timber posts, as far as is reasonably possible.

### Uttlesford planning guidelines

Policy Number	Policy in Adopted 2005 Local Plan	Equivalent policies in the emerging local plan – Regulation 19 Pre-Submission Local Plan 2018	Policy title
GEN1	Access	TA1	Accessible Development
LC1	Loss of Sports Fields & Recreational Facilities	INF2	Protection & Provision of Open Space, Sports Facilities & Playing Pitches

### Guidelines for transport

- Work with Essex County Council to reduce the speeding in the villages in response to the increasing volume of traffic.
- New housing of 2 bedrooms or more should include the provision for adequate off-road parking based on two cars per household in accordance with the Uttlesford Residential Car Parking Standards (February 2013).
- Ensure approach roads to the villages have signage marking the entrance. Further road signage should be kept to a minimum.
- New pavements are not necessary and do not add to rural feel.
- Street lighting and external lighting should be kept to a minimum.

## Agriculture and business

*This chapter summarises the business and employment opportunities in the villages. The area is predominantly agricultural but there are a number of small rural businesses within the area.*

The majority of Elmdon and Wenden Lofts is farmland and has been since the general Enclosure Act of 1801.



Autumn ploughing.

Changes to farming practices over the years mean that in addition to family run farms, a large percentage of farmland is now managed by agricultural contractors. Recent governments have encouraged farmers to support the environment through a number of different schemes, and various diversification grants over the last 20 years have encouraged farmers to develop their businesses within the countryside. The numbers employed in agriculture have reduced over the last 50 years but employment in new rural businesses has increased in the last 10.

The crops now grown are predominantly wheat, barley, beans, oil seed rape, grass and maize with other minority crops appearing dependent on market demand; canary grass, sugar beet, linseed and alfalfa are recent examples. Wheat is grown for animal feed and for milling, barley for malting or for animal feed and oil seed rape and linseed provide oil for industrial use and human consumption. Beans are grown for animal



*Farming in Elmdon before the Second World War.*

feed but also benefit the soil. Cover crops such as oil radish, phacelia and black oats are now sometimes used between crops to benefit the soils. These are cultivated as green fertilizer. Wild flower field margins, pollen and nectar mixes, lapwing plots and beetle banks are all features of the rural landscape provided by farmers to protect wildlife and enhance the environment.



*Jersey cows at Freewood Farm, Elmdon.*

There is one dairy farm in the parish, with a herd of beautiful Jersey cows, one commercial free-range egg producer and several small-holders have both rare breed and commercial sheep. These aspects all contribute to the rural scene which is valued so highly by residents.



*Oil seed rape in flower.*

Farm diversification has led to small businesses springing up in redundant farm buildings. Holiday cottages bringing in tourists who support the local economy, coarse fishing for recreation, heavy machinery mechanics and plant hire to support farming and local building companies and gardening services to support the local population. Many make use of the local milkman who, while coming from out of the parish, is based on a farm and is supported by customers in Elmdon and Duddenhoe End.



*Elmdon surrounded by agricultural land bounded by ancient thick hedges and mature trees.*

The visual impact of agriculture is clear in photographs of the area: fields divided by thick hedges, surrounded by bands of wild flowers with ancient oak trees apparent. Small clusters of buildings at farmsteads are surrounded by hedges – there are no obvious industrial sites as all are well screened. These views are important to most of the residents in the villages, with 95% agreeing that these views should be maintained. Farmers and contractors are farming much larger acreage than in the past. Machinery is increasing in size and fills the narrow lanes around the villages. Grain lorries and large tractors will be seen regularly on these narrow, rural lanes. On-street parking in narrow roads can cause difficulties when these large vehicles need to get through.

There are an increasing number of service providers such as graphic design, and other IT reliant businesses in the villages. Poor internet connection has limited development so far but with the introduction of superfast broadband in the next couple of years this may well change. The Royal Mail and other delivery companies provide an essential service for these businesses.



Home delivery has been significantly increasing in the last few years. Van drivers were mentioned by residents as culprits of fast driving, but a significant number of us make use of supermarket and other deliveries from online companies. These deliveries compensate for the lack of services in these villages but are also contributing to the amount of traffic on our rural lanes.

## Uttlesford planning guidelines

Policy Number	Policy in Adopted 2005 Local Plan	Equivalent policies in the emerging local plan – Regulation 19 Pre-Submission Local Plan 2018	Policy title
E4	Farm Diversification	EMP4	Rural Economy Alternative use of Farmland
ENV3	Open Spaces & Trees	EN10	Open Spaces
		EN11	Ancient Woodlands & Protected Trees
E5	Re-Use of Rural Buildings	C2	Re-Use of Rural Buildings
H12	Agricultural Workers’ Dwellings	H12	Agricultural/Rural Workers’ Dwellings
H13	Removal of Agricultural Occupancy Conditions		
RS3	Retention of Retail and other Services in Rural Areas	RET4	Loss of Shops and Other Facilities
GEN8	Vehicle Parking Standards	TA4	Vehicle Parking Standards

## **Guidelines for business and agriculture**

- Do not allow development to diminish the countryside surrounding the village and the features which form the rural character of the landscape.
- Protect the open landscape and landscape views around the villages.
- Development should be sympathetic to the rural nature of the villages.
- Development should consider the limitations of the narrow road network.
- Local businesses providing service to the community should be encouraged.
- Work with Essex County Council to reduce the speeding in the villages in response to the increasing volume of traffic.
- Any future development should include the provision for adequate off-road parking to ensure roads are kept clear.

## **Conclusion**

It is clear from the public meetings and the survey questionnaire that the people of Elmdon and Duddenhoe End are aware of the pressure for new housing in Uttlesford. They also have a realistic view that some development is necessary.

There is an awareness that future development involving more than a few houses could only be accommodated by developing green spaces or along the roads in the villages that are already inadequate for existing traffic. There is concern that the established rural scene would begin to deteriorate. The views, the quality of the spaces between properties, the footpaths, hedges, trees and wildlife could gradually disappear.

The Uttlesford Local Plan adopted in 2005 states that "The rural nature of the District is recognised for its intrinsic character and beauty, its value for agricultural production and its biodiversity. The strategy is to conserve and enhance the local district versus a historic character of the rural settlements and support this character and the thriving communities within it".

The residents of Elmdon and Duddenhoe End, have concerns about the design and placement of future development in and around their villages. The Design Statement has set out to describe those concerns and provide guidance as to how they may be addressed as a material consideration in the determination of planning applications and by residents when designing developments that do not require planning permission. In summary those guidance points are as follows:

### **Guidelines for development in Elmdon and Duddenhoe End.**

- Conserve the rural character of the area.
- Conserve the narrow winding lanes.
- Ensure that any new development responds to historic settlement pattern, especially scale and density, and that use of materials, and especially colour, is appropriate to the local landscape character; such development should be well integrated with the surrounding landscape.
- Encourage the appropriate use of colour as well as tree planting to mitigate the visually intrusive effects of large modern buildings.
- Small scale development should be carefully sited in relation to existing buildings.
- Maintain the low-density character of the villages and favour small 2 or 3 bed family homes.

- Future development of more than one dwelling should prioritise previously developed sites and not be on green sites.
- Development of redundant and rural buildings is supported.
- Development should be sympathetic to the rural nature of the villages.
- New dwellings should not impact on the views of the countryside from the rear or between dwellings.
- Extensions should be consistent in scale to the existing plot and should not dominate.
- Building materials used should be compatible with the range of materials seen throughout the villages.
- New development should seek to avoid harm to historic buildings and their setting.
- Existing hedges should be retained wherever possible. High boundary walls, the unsympathetic use of close-board fencing in front gardens and tall railings and gates are more urban in origin and do not reflect the essentially rural character of the village. Fences and gates should be of traditional materials.
- Protect the open landscape and landscape views around the villages. Development should be sympathetic to the rural nature of the villages.
- Maintain the conservation area in Elmdon and the open spaces in Elmdon and Duddenhoe End.
- The rural nature of the villages should be kept by protecting, retaining and maintaining green spaces, ditches, verges, footpaths, bridleways, mature woodland areas and native hedgerows.
- Work with Essex County Council to reduce the speeding in the villages in response to the increasing volume of traffic.
- New housing of 2 bedrooms or more should include the provision for adequate off-road parking based on two cars per household in accordance with the Uttlesford Residential Car Parking Standards (February 2013).
- Ensure approach roads to the villages have signage marking the entrance. Further road signage and street lighting should be kept to a minimum.
- New pavements are not necessary and do not add to the rural feel.
- Street lighting and external lighting should be kept to a minimum.
- Do not allow development to diminish the countryside surrounding the village and the features which form the rural character of the landscape.
- Protect the open landscape and landscape views around the villages.
- Development should be sympathetic to the rural nature of the villages.
- Development should consider the limitations of the narrow road network.
- Local businesses providing service to the community should be encouraged.
- Any future development should include the provision for adequate off-road parking to ensure roads are kept clear.

## **APPENDIX 1 Steering Group, Consultees and Acknowledgements**

### **Steering Group**

Peter Syfret	Elmdon	Chair
Penelope Gaine	Elmdon	Parish Council representative 2016 onwards
Ian Donaldson	Duddenhoe End	Parish Council representative 2016 onwards
Bob Woods	Elmdon	member 2016 onwards (Parish Council 2018 onwards)
Ali Porritt	Elmdon	member 2016 onwards
Sarah Westerhuis	Duddenhoe End	member 2016 onwards
Suzanne Reich	Duddenhoe End	member 2016 – 2018

### **Consultees**

Sarah Nicholas	Uttlesford District Council	Senior Planning Officer
Michelle Gardiner	Rural Community Council of Essex	Community Engagement Officer

### **Acknowledgements**

In addition, we need to single out those who have provided specialist services to enable us to get this far.

Phil Kay for taking responsibility for the design and layout of the document and for providing most of the photographs.

Graham Knight and Martin Bach in respect of the two village web sites.

Claire Tancell for liaising with the Essex Wildlife Trust.

Archivist at the Gibson Library, Saffron Walden.

Essex Wildlife Trust.

Many thanks must go to all the residents who contributed to this document through their response to the questionnaire and presentations.

Photographs by Phil Kay (except for pages 1, 5(bottom), 9(top), 10, 12(top), 16(bottom), 20(top & centre), 28, 29(top), 30(top).

## APPENDIX 2 Summary of process

### Village Design Statement (VDS) Process Timeline

Time Line	Stages of the Project	Consultations
March 2016	Steering Group formed	Parish Council (PC)
May 2016		Meeting with RCCE (Rural Community Council of Essex)
June 2016	Formed Working Agreement for Village Design Statement (VDS)	
June 2016		Informed villages about proposed VDS through flyers door to door and article in Gazette magazine
August 2016		Discussed VDS at PC meeting
January – July 2017	Drafting of questionnaire	RCCE comments on draft questionnaire
August 2017	Trial questionnaire	
September 2017	Questionnaire circulated	Notice to villagers in Gazette magazine
October 2017	Analysis of response to questionnaire	
November 2017	Exhibition of results and comments	Duddenhoe End Village Hall and Elmdon Village Hall
January – December 2018	Drafting of VDS	Consultation with Uttlesford District Council (UDC)
January 2019	Proposed publication draft	Sent to Parish Council for comment
February & March 2019	Exhibition of proposed publication draft of VDS	Duddenhoe End Village Hall and Elmdon Village Hall
March 2019	Review of comments	Review with RCCE and UDC
May 14 2019	Approved by Parish Council	
June 2019	Approved by UDC	

## **APPENDIX 3 Summary of results of the questionnaire**

1. The response was better than anticipated – some 150 questionnaires were returned from 269 households but about 6 missed the deadline. Many were a joint return from households and some were from individuals.
2. A few were against any development, but most were relaxed about more houses being built. The majority want new housing to be on previously used sites, infill, back land etc.
3. There was overwhelming support, for maintaining the rural feel by managing woods, mature and ancient trees and the green buffer zone, views, hedges and ponds.
4. All types of homes were acceptable the majority being in favour of small family and starter homes, but a minority mentioned large family homes. Some older respondents liked the idea of bungalows. There were a few comments about the need for affordable and local authority housing.
5. The density, scale, roof lines, and design of new houses should be sympathetic with the existing. There was a preference for traditional materials, but many recommended the use of modern environmentally friendly materials which could blend in. Light pollution should be kept to a minimum.
6. There was virtually no objection to converting outbuildings and redundant farm buildings into housing but the character of historical and buildings of interest and architectural value should be maintained.
7. Having minimal signage on the roads and keeping the post and telephone boxes was approved.
8. There was little desire for more pavements rather maintaining the existing “so that a pram could be safely used”. There was support for traffic calming measures in specific places but many thought that the street parking acted as such. Generally street lighting did not find favour. Overhead electric cables were unsightly, but it was accepted that not much would be done about them. New cables should be underground. Respondents were generally happy with the rubbish collection service.
9. The surrounding woods, fauna and flora, ditches, ponds, hedgerows, pathways should be managed and protected maintaining the countryside views. In some places vegetation should be trimmed to improve driver visibility.

## APPENDIX 4 References

### Books:

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### Maps:

Maps – by Uttlesford District Council mapping department. Sources as on maps.

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<b>Committee:</b>	Cabinet	<b>Date:</b>	Thursday, 13 June 2019
<b>Title:</b>	Asset of Community Value Nominations in Felsted		
<b>Portfolio Holder:</b>	Councillor Anthony Gerard Portfolio Holder for Residents and Community Partnerships; Police and Emergency Services		
<b>Report Author:</b>	Sarah Nicholas, Senior Planning Officer snicholas@uttlesford.gov.uk	<b>Key decision:</b>	No

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## Summary

1. The Localism Act 2011 introduces a concept of an 'Asset of Community Value'. Section 87 of the Localism Act places a duty of Local Authorities to 'maintain a list of land in its area that is land of community value'.
2. An Asset is of community value if (in the opinion of the local authority) either:
  - an actual current use of the building or other land that is not an ancillary use furthers the social wellbeing or social interests of the local community, and
  - it is realistic to think that there can continue to be non-ancillary use of the building or other land which will further (whether or not in the same way) the social wellbeing or social interests of the local community.or
  - there is a time in the recent past when an actual use of the building or other land that was not an ancillary use furthered the social wellbeing or interests of the local community, and
  - it is realistic to think that there is a time in the next five years when there could be non-ancillary use of the building or other land that would further (whether or not in the same way as before) the social wellbeing or social interests of the local community.
3. The Act states that "social interest" "includes (in particular) each of the following – (a) cultural interest, (b) recreation interest and (c) sporting interests.
4. Assets of community value are buildings or land which involve the physical use by the community and include for example a village shop, pub, community centre, allotment or recreation ground.
5. The purpose of this report is to enable members to determine:

- a) Whether there is a valid nomination;
- b) Whether the use of the building (current or recent past) furthers the social wellbeing or interests of the community;
- c) Whether it is realistic to think that in the next 5 years the building could be used to further the social wellbeing or interests of the community.
- d) In considering these questions, members need to consider principal, rather than ancillary, uses of the building.
- e) If members conclude that the answers to these questions are “yes”, the building should be included in the list of assets of community value.

## **Recommendations**

6. Recommended for Listing: On the basis that there is a valid nomination and the current use of, or there is a time in the recent past when,
  - a. The Swan Inn, Station Road, Felsted
  - b. The Chequers Public House Braintree Road, Felsted

furthered the interests of the community, and it is realistic to think that in the next 5 years the building/land could further the interest of the community, officers would recommend that the sites be listed as an Asset of Community Value.

7. The nomination form in full, maps and representations can be viewed on the website under [currently nominated assets](#).

## **Financial Implications**

8. There are direct financial implications arising at this stage which relate to the formal process of identifying and contacting asset owners and, if relevant, registering an asset as a Land Charge. These costs can be met from existing budget and staff resources.
9. There is also an unquantifiable financial risk to the Council, if there was a claim for compensation. This needs to be kept under review and at an appropriate time consideration should be given to establishing a contingency reserve to mitigate the risk to the Council’s budget. However, the potential liability should not be taken into account in deciding whether or not this is an asset of community value.

## **Background Papers**

10. The following papers were referred to by the author in the preparation of this report and are available for inspection from the author of the report.
11. The submission for consideration as Assets of Community Value and any representations are available on the website at [currently nominated assets](#).

## Impact

12.

Communication/Consultation	In line with paragraph 8 of The Assets of Community Value (England) Regulations 2012 the Council have taken all practicable steps to give information that it is considering listing the land to the owner of the land, freeholder and occupant. This has taken the form of letters.
Community Safety	No impact.
Equalities	The duty will affect all equally.
Health and Safety	No impact.
Human Rights/Legal Implications	Pursuant to s.19 Human Rights Act 1998 the Secretary of State has certified that in his opinion the Localism Act is compatible with the Convention rights.
Sustainability	If the land is included on the list of Community Assets it will form a Land Charge.
Ward-specific impacts	Felsted and Stebbing
Workforce/Workplace	No impact

## Situation

### a) Are these valid nomination?

13. S89 of the Act states that land in a local authority area which is of community value may be included in its list of assets of community value only in response to a “community nomination”, or where permitted by regulation made by the Secretary of State. A community nomination means a nomination by a parish council in respect of land in the parish council’s area or “by a person that is a voluntary or community body with a local connection”.

14. The nominations have been made Felsted Parish Council and the nominated properties are within the parish.

15. A nomination must also include:

- i. A description of the nominated land including its proposed boundaries.
- ii. Any information the nominator has about the freeholders, leaseholders and current occupants of the site.

- iii. The reasons for nominating the asset, explaining why the nominator believes the asset meets the definition in the Act.
- iv. The nominator's eligibility to make the nomination.

16. If it meets these requirements it is a valid nomination under S89(2)(i). The nomination being considered is validly made.

**b) Does the use of the building (current or recent past) further the social wellbeing or interests of the community**

17. The Swan Inn: The Parish Council in their nomination state that this property has operated as a public house for centuries and today provides an important place for local people to meet and to socialise.

- It is a vibrant place and has recently expanded with rooms for paying guests. It is one of only two pubs in the Village (the third one having already been lost!) The pub has special value to local heritage and culture which should be protected. The pub's heritage forms an important part of the Felsted's historic and cultural identity. This furthers the cultural interest of the community.
- The pub is in the heart of Felsted meaning that it is a social hub easily and safely accessible for a great many local people.
- Local people are able to enjoy a range of drinks and great food in a pleasant, convivial atmosphere, which furthers their individual well-being.
- Dog walkers are welcomed furthering the health and wellbeing of the community.
- There is a garden terrace and patio attached to the pub which is used and enjoyed by local people including families. This is particularly enjoyed in the summer months and brings different groups of people together.
- The pub hosts a regular quiz night which brings people together from a variety of different backgrounds; furthering the recreational interests of the community.
- There is a big screen television screening sporting events enjoyed by patrons. This allows people in the community to come together to enjoy specific sporting events in a safe and sociable environment.
- Free wifi is available for customers which allows people to access the internet that otherwise would not be able to do so. The pub therefore provides a vital facility for people wanting to use the pub for more than just a social event.
- There are no other facilities in the area that provide the array of activities that The Swan does. The Swan enables local people to meet and socialise in a welcoming environment which, individually, they find rewarding and enjoyable. Such social interaction is in the interests of Felsted as a whole as it encourages community cohesion and a collective sense of well-being.

18. The Chequers Public House: The Parish Council in their nomination state that The Chequers is a traditional village local pub.

- It offers traditional pub entertainment by way of a pool table and a dart board.
- A small room is available for functions and there is a rear patio especially enjoyed by the local community in the Summer months.
- It is one of only two pubs in the village (the third one having already been lost!).
- Located in the heart of Felsted it is a great place for locals to meet for a drink, a chat and a game without the pressure to spend significant sums of money. As such it furthers the social well-being of the community by providing social interaction and community cohesion.
- Sporting Events are shown on the Pub's TV and this provides a way for members of the community to come together. This helps prevent loneliness and social isolation and the benefits of this to the local community cannot be under estimated.

**c) Is it realistic to think that in the next 5 years the use of the building could further the social wellbeing of interests of the community?**

19. The Swan Inn and The Chequers PH: In the event that either property came up for sale, the Parish Council in their nominations state that it is highly likely that villagers and community groups would wish to come together and purchase the property and run it as a community led social enterprise for the continuing benefit of the community. Various ways to do this include social co-operative ownership, applying for various grants and business loans
20. Within the last 5 years there have been no planning applications on the Chequers PH. The Swan Inn has recently been granted retrospective permission for change of use of existing cart shed to garden room.

**Representations**

21. No representations have been received. Any received after publication of this report will be reported at the meeting.

**Conclusion**

22. Valid nominations have been made to the Council.
23. Members need to consider whether the evidence provided shows that the properties, current or in the recent past, furthers the social wellbeing or interests of the community.
24. Members need to consider whether it is realistic to think that the properties can continue to be used in a manner that furthers the social wellbeing and interests of the local community.
25. Consideration of these issues will lead the Committee to determine whether the Swan Inn and the Chequers PH should be listed as assets of community value for a period of five years.

## Risk Analysis

26.

Risk	Likelihood	Impact	Mitigating actions
The nominating body or the owner is unhappy with the decision reached.	High risk that one of the bodies will be unhappy with the decision.	<p>The owner has rights of internal review and appeal and can claim for compensation.</p> <p>The nominating body does not have rights of review or appeal. A new nomination can be made with additional information.</p> <p>If it felt the Council had acted unlawfully, it could seek to challenge by way of judicial review.</p>	Carefully scrutinise submissions for inclusion on the Asset List so as to ensure only those which comply with the criteria are included.

1 = Little or no risk or impact

2 = Some risk or impact – action may be necessary.

3 = Significant risk or impact – action required

4 = Near certainty of risk occurring, catastrophic effect or failure of project.

<b>Committee:</b>	Cabinet	<b>Date:</b>	Thursday, 13 June 2019
<b>Title:</b>	Update on Garden Communities Delivery Member Governance Board Update September 2018 – May 2019		
<b>Portfolio Holder:</b>	Councillor John Lodge, Leader of the Council		
<b>Report Author</b>	Adrian Webb, Director of Finance and Corporate Services 01799 510421	<b>Key decision:</b>	No

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## Summary

1. This report describes the work of the Garden Communities Delivery Member Governance Board, the progress made over the last eight months and identifies the current work programme.

## Recommendations

2. To note the update for meetings of the Garden Communities Delivery Member Governance Board between September 2018 and May 2019.

## Financial Implications

3. All financial implications arising from the work of the Governance Board are reflected in the approved budgets of the Council

## Background Papers

4. No papers were referred to by the author in the preparation of this report.

## Impact

Communication/Consultation	No impact to date. Future work programme will address consultation and stakeholder programme.
Community Safety	No impact
Equalities	No impact
Health and Safety	No impact

Human Rights/Legal Implications	No impact
Sustainability	Linked directly to the local plan.
Ward-specific impacts	Indirect link to all wards in conjunction with the emerging local plan,
Workforce/Workplace	No impact

## Situation

5. The Member Governance Board has been set up as a “reference panel” to give advice and guidance to Cabinet members and Council officers. The objectives of the Board are:
  - to take a strategic view about the potential delivery of the Garden Communities over and beyond the period of the local plan;
  - promote the delivery of Garden Communities that will be provided in compliance with the Town and Country Planning Association garden city principles,
  - to promote the new Garden Communities as exemplars of 21<sup>st</sup> Century living providing well designed and well built homes, high quality employment services; and good quality facilities to meet the needs of residents and business;
  - to advocate a high quality of place and high quality of life in both the new and existing communities in the district with long term management and stewardship arrangements; and that community engagement forms a central element in the delivery of the Garden Communities; and
  - to help facilitate both environmental and economic sustainability for the new Garden Communities; and to support the economic development objectives of the District Council for the district and the sub region.
6. There is a twelve month work plan in place to manage and co-ordinate the work of the Board and the latest version is attached (Appendix 1). Since the last update there have been nine meetings of the Board and a Study Tour.
7. The Member Governance Board includes senior member and officer involvement from Essex County Council which is especially important given that

the new Garden Communities will have a significant impact on public services with investment in public infrastructure totalling many £100millions.

### **Key Themes**

8. There are a range of themes that are being pursued by the Board and since the last report the following topics have been discussed:
  - Bidding for Resources and Government Liaison – the Garden Prospectus Bid
  - Securing Agreement with Promoters on the Principles
  - Governance Structure & Community Engagement
  - Affordable Housing
  - Sustainable Transport Links
  - Education Provision
  - Affordable Housing
  - SMART Garden Communities
  - Garden Communities and the Arts
  - Programme of Study Visits
  - Strategic Community Infrastructure Levy
  - Garden Communities Economic Strategies

### Bidding for Resources and Government Liaison

9. The District Council and Essex County Council submitted a joint bid to join the National Programme of 23 Garden Communities and to secure funding to supplement provision in the Council's approved budget. The bid was £1.1million per annum for each of the next five years.
10. The joint bid was successful and one of only five new Garden Communities bids to be accepted on the National Programme out of a total of 100 applications. A one off sum of £750,000 was secured for 2019/20. The Government has not set out future years funding but it has been made clear that whilst the one off sum is not 'ring fenced' it would be important to spend this money on Garden Community related work if a case is to be successfully made for funding in future years.
11. Acceptance on the National Programme not only assists in relation to future bids for funding, but also in providing direct access to expertise and networking that represents best practice in Garden Community provision both within

Government, amongst other exemplar authorities, and public agencies like Homes England.

#### Securing Agreement with Promoters on the Principles

12. Discussions with promoters continued throughout the period. The discussions have been led by an expert negotiating team and there are two main strands that are being explored. Firstly the specification of each Garden Community to ensure that there is clarity about the level and timing of provision and infrastructure. Secondly, the opportunity for a formal 'Quality and Collaboration Partnership' between the Council and each promoter.
13. On specification, it is vitally important that the Garden Communities reflect the Council's priorities in all matters especially quality of design, affordable housing provision, impact on existing residents, environmental quality, community engagement and employment opportunities for young people. The Council has reserved its position on the appropriate delivery mechanism to secure these objectives, with making the case to Government for the establishment of a locally led development corporation being an option if direct public intervention is required. Each promoter has been asked to enter into a 'Quality and Collaboration Partnership' which comprises clear commitments at each stage of the planning and delivery process to ensure that the chosen delivery mechanism does achieve the Council's priorities.

#### Garden Communities Governance Structure & Community Engagement

14. The Board endorsed a structure for engaging with the community, promoters and landowners and this is set out in Appendix 2. In the case of the Garden Communities at North Uttlesford (NUGC) and Easton Park (EPGC) it was agreed that a Local Delivery Board be established for each Garden Community. The Local Delivery Boards are to be made up of elected members and the promoters as set out in Appendix 3 (there was a minor variation between the two Garden Communities due to NUGC being close to the county boundary). A preliminary officer and promoter meeting has taken place in respect of the NUGC Delivery Board. These Local Delivery Boards provide an important opportunity for elected members and the promoters to meet and oversee the preparation of Garden Community Development Plan Documents.
15. The Board also endorsed the establishment of a Community Forum for NUGC and EPGC. These Forums are charged with the responsibility to support the Local Delivery Boards and to act as a voice, not only for the needs of existing local communities, but also the future residents. It was agreed that each Forum would be chaired by an experienced independent person with strong local connections. The membership of these Forums is being finalised so that the first meetings can take place shortly in accordance with the approach set out in Appendix 3.
16. A further area which has been a priority of the Board has been engagement with young people. The Board has been briefed on a housing workshop organised by Uttlesford Youth Council. Work is underway to develop a smartphone app to establish a Digital Youth Council that can help inform future work on the

Member Governance Board, the Local Delivery Boards and the Community Forums.

### Affordable Housing

18. The Board has received regular updates on progress with a review of the Council's Housing and Allocations policy. Specialist advice is being commissioned to consider widening the affordable housing allocations policy to support all local workers in full time employment (subject to household income limits) as well as existing residents in housing need. This approach will both support the local economy as well as reduce the need to travel with the environmental benefits that will follow.

### Sustainable Transport Links

19. The Board has received presentations and reports on both Stansted Bus Rapid Transit proposals and Mass Rapid Transit opportunities at North Uttlesford. The discussion at the Board has emphasised the importance of widening the benefit of such proposals beyond the proposed Garden Communities. Further work on these proposals is being undertaken.

### Education Provision

20. Presentations have been made on the importance of good quality educational provision in each Garden Community and the need to ensure that timing of primary and secondary schooling matches the phasing of the new communities. Discussions also include the potential to link up school provision with businesses, for instance in North Uttlesford with the Life Sciences Sector.

### Garden Communities and the Arts

21. A presentation was given by Angela Dixon, Chief Executive of Saffron Hall, about the importance of the Arts in the new communities. The Board recognised the importance of the provision being shaped by the community itself and also the role of shared provision with education and it was agreed that work should be done on preparing an Arts and Culture Strategy for the district.

### SMART Garden Communities

22. The Board discussed the need for real time information for transport. The technology for this is here now and that it is important not to leave existing communities behind. There are issues in the district with cable and mobile connectivity. Smart technology need to be available outside of the Garden Communities as well as within.
23. The Board discussed thinking a whole generation ahead. When one compared technological advances from the same timeframe looking back there was no way that accurate predictions could have been made as to the technologies required in 30 years' time. Therefore the specific solutions would be implemented at a later date. However focus was needed now to ensure that the

foundation is in place which will make it easier for solutions to be added at the appropriate time.

#### Programme of Study Visits

24. Following previous visits to Barton Park and Ebbsfleet a third study visit was made to Eddington, near Cambridge. The Board was accompanied by two members of the Youth Council. The Board recognised that visiting and seeing development is a powerful means to see best practice in action and also to learn how to avoid mistakes. Both Barton Park (Grosvenor/Oxford City Council) and Eddington (University of Cambridge/Cambridge City Council) demonstrated the potential for an effective partnership. For instance Eddington demonstrated how a good quality primary school provided at the very start of the development acts as a significant draw for parents with young children.

#### Community Infrastructure Levy

25. Presentations and a report have been provided on Community Infrastructure Levy as a means to secure development funding and work is being commissioned to consider the introduction of a charge for the district.

#### Garden Communities Economic Strategies

26. In April the Council commenced work on the Garden Communities Economic Strategies. It is recognised that a sustainable community needs to ensure that housing and employment policies work together to avoid creating commuter settlements which add to transport and environmental pressures. Further work is underway to consider how the new Garden Communities can develop a strong local economy which also complements existing business activity in the district.

### **Conclusions**

27. Over the last fourteen months the Member Governance Board has established an effective work programme that guides and informs work on the proposed Garden Communities and assists co-ordination across the District Council and, through the involvement of Councillor Bentley, the Deputy Leader at Essex County Council, the County Council too.
28. The role of the Board is very important in helping to ensure that the Garden Communities are planned and delivered in line with the Council's priorities. The work plan for the next six months includes further work on community engagement, affordable housing, sustainable transport, safe and secure issues, urban design and quality panels and overseeing negotiations with the Garden Communities promoters.

### **Risk Analysis**

Risk	Likelihood	Impact	Mitigating actions
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<p>The proposed Garden Communities are not delivered in accordance with the TCPA principles</p>	<p>Medium risk given that not all of these principles are normally secured through the planning process</p>	<p>The impact would be high given that the Council is committed to create Garden Communities that are in accordance with the TCPA principles</p>	<p>Establishment of an effective negotiation strategy and careful monitoring of the progress of the negotiations to inform appropriate delivery arrangements</p>
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1 = Little or no risk or impact

2 = Some risk or impact – action may be necessary.

3 = Significant risk or impact – action required

4 = Near certainty of risk occurring, catastrophic effect or failure of project.

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## APPENDIX 1

### GARDEN COMMUNITIES DELIVERY MEMBER GOVERNANCE BOARD

#### WORK PROGRAMME JANUARY – DECEMBER 2019

(Suggested issues – the actual work plan will vary as required)

##### 8 January 2019 (am)

- Presentation: Garden Communities and the Arts
- Report back Stage Two EPGC and NUGC Promoter Negotiations
- Report on Feasibility Study for NUGC Mass Transit solutions
- Update on Communications and Community Engagement

##### 12 February 2019 (am)

- Update on work with promoters
- Garden Communities Strategic CIL
- Stansted Bus Rapid Transit Study
- Garden Communities Governance Structure
- Update on Communications and Community Engagement

##### 19 March 2019 (am)

- Update on work with promoters: Quality & Collaboration
- Smart Garden Communities Seminar Feedback
- Report back on Arts & Culture Strategy Issues
- Update on Communications and Community Engagement

##### 16 April 2019 (am)

- Briefing on Quality & Collaboration Partnership
- Update on work with promoters
- Update on Garden Communities Programme Bid
- Brief for Local Economic Development Strategies
- Presentation on Community Involvement at Gilston Park Estate in Harlow
- Update on Communications and Community Engagement

##### 1 July 2019 (am)

- Update on work with promoters
- Report on Garden Communities Programme
- Report from the Local Delivery Boards and Community Forums
- Presentation on the Safe and Secure Agenda
- Update on Communications and Community Engagement

##### 1 August 2019 (am)

- Update on work with promoters
- Update on Long Term Strategic Infrastructure Provision

- Briefing on the Changing High Street
- Report from the Local Delivery Boards and Community Forums
- Strategic Transport Update
- Update on Communications and Community Engagement
- Update on WOBGC and NEA progress
- Housing Strategy Issues

**20<sup>th</sup> August 2019 (am)**

- Update on work with promoters
- Update on Communications and Community Engagement
- Briefing on Safe and Secure Issues
- Presentation: 'Lessons from Poundbury'
- Stewardship Models for the Garden Communities
- Update on WOBGC and NEA progress
- Report from the Local Delivery Boards and Community Forums

**24<sup>th</sup> September 2019 (am)**

- Update on work with promoters
- Update on Communications and Community Engagement
- Urban Design and Quality Design Panels
- Update on WOBGC and NEA progress
- Report from the Local Delivery Boards and Community Forums
- Study Visit to Beaulieu Park

**29<sup>th</sup> October 2019 (am)**

- Update on work with promoters
- Report from the Local Delivery Boards and Community Forums
- Smart Garden Communities Project
- Update on Communications and Community Engagement
- Update on WOBGC and NEA progress

**26<sup>th</sup> November 2019 (am)**

- Update on work with promoters
- Report from the Local Delivery Boards and Community Forums
- Update on Communications and Community Engagement
- Update on WOBGC and NEA progress

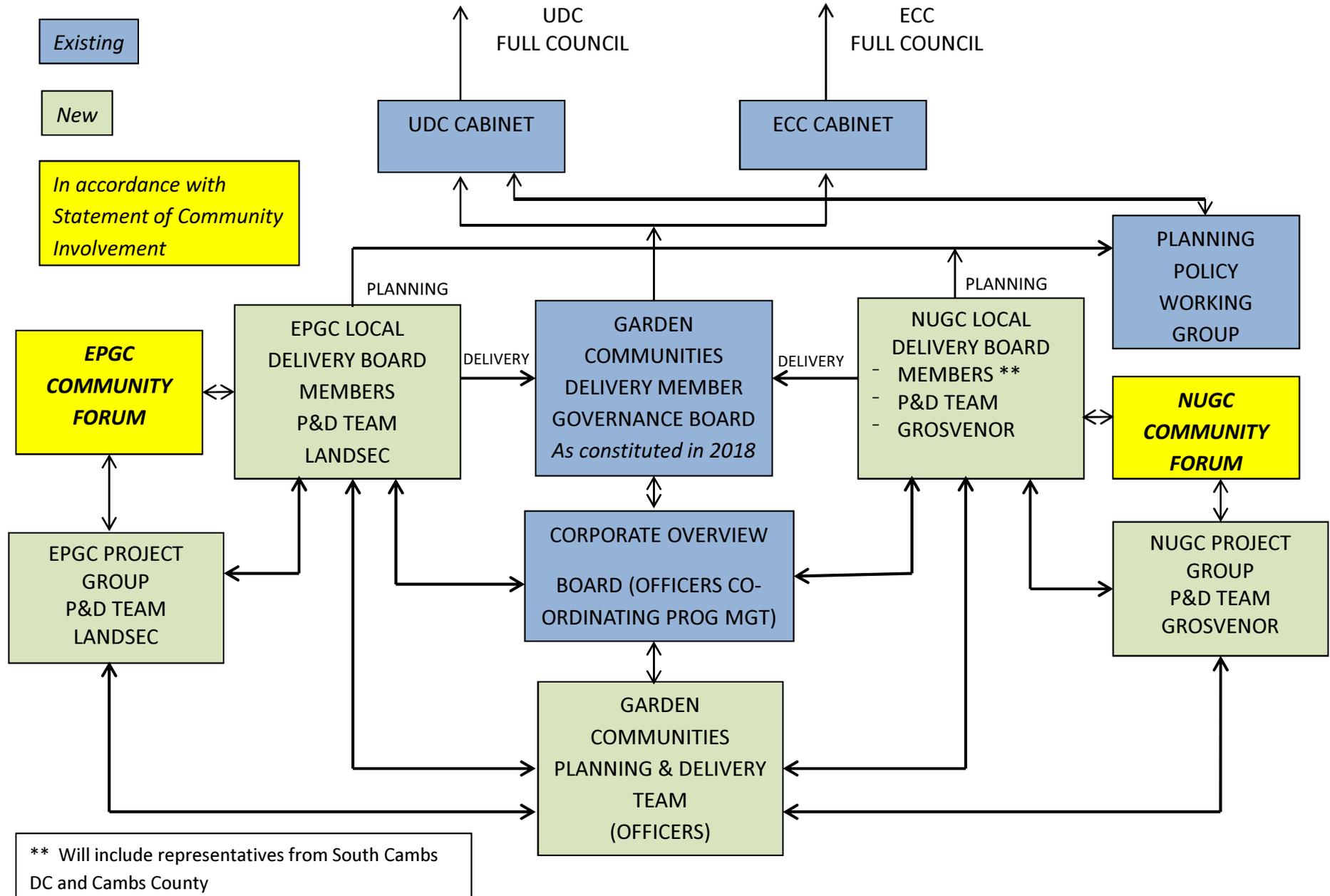
**17<sup>th</sup> December 2019 (am)**

- Update on work with promoters
- Report from the Local Delivery Boards and Community Forums
- Update on Communications and Community Engagement
- Update on WOBGC and NEA progress

Simon Payne  
Uttlesford District Council  
22.5.19

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**APPENDIX 2:  
GOVERNANCE OF PLANNING AND DELIVERY FOR GARDEN COMMUNITIES AT NORTH UTTLESFORD AND EASTON PARK**



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## APPENDIX 3

### SUMMARY UTTLESFORD GARDEN COMMUNITIES GOVERNANCE STRUCTURE

#### 1. The Purpose of this Note

- 1.1 This note sets out the remit and make-up of the proposed North Uttlesford and Easton Park Garden Communities Local Delivery Boards (LDB) and associated Community Forums.

#### 2. Proposed Garden Communities Local Delivery Boards

- 2.1 The diagram attached as an Appendix sets out the proposed structure. The LDB would deal with both plan making and also delivery matters for each Garden Community. In the case of the former reporting would be directly to the Uttlesford Planning Policy Working Group, and in the case of the latter, reporting would be directly to this Member Governance Board. Decision making powers would remain within the District and County Councils.

- 2.2 It is proposed that each LDB would have the following remit :

*‘To act as a discussion group to guide the creation of North Uttlesford/Easton Park Garden Community that will be a healthy, safe and vibrant place for living and working offering the opportunity of a high quality of life for all. The Local Delivery Board will oversee the plan making, delivery and implementation of the proposed Garden Community in full compliance with the objectives and policies set out in the Uttlesford Local Plan. Decision making powers will continue to exist within the constituent Councils’*

- 2.3 Each LDB would be chaired by a senior member of Uttlesford District or Essex County Councils and the following membership (subject to the same substitution rules as the existing Member Governance Board) is proposed:

Local Delivery Board Membership		
	North Uttlesford Garden Community	Easton Park Garden Community
UDC Members	3	3
ECC Members	1	1
South Cambs Member	1	N/A
Cambs County Member	1	N/A
Grosvenor Master Developer Representatives	3	N/A
Landsec Master Developer Representatives	N/A	3

Representative of Homes England	1	1
Total Membership	10	8
Note: Officer representation from each Council will include match the Member involvement.		

### 3. Proposed Garden Communities Local Community Forums

- 3.1 It is proposed that each Local Delivery Board would be advised by a Local Community Forum with the following remit:

*‘To act as a consultative group to support the work of the North Uttlesford/Easton Park Garden Community Delivery Board, in accordance with the Uttlesford Statement of Community Involvement, and to provide advice in full compliance with the objectives and policies set out in the Uttlesford Local Plan.’*

- 3.2 Each Garden Community Forum would be chaired by an independent facilitator skilled in community development and appointed by Uttlesford District Council. The following initial membership is proposed (actual membership will change over time – for instance once residents have started to move in then representatives may wish to become involved):

Local Community Forum Membership		
	North Uttlesford Garden Community	Easton Park Garden Community
Independent Facilitator (chair)	✓	✓
UDC Communities Manager	✓	✓
ECC Head of Wellbeing and Public Health	✓	✓
Local Councils Rep (* one from South Cambs area)	3*	2
Voluntary Sector	✓	✓
Uttlesford Youth Council rep	✓	✓
Faith Group rep	✓	✓
Youth Services rep	✓	✓
Small Business rep	✓	✓
Cycling & Walking rep	✓	✓
Arts & Culture rep	✓	✓
Head of Active Essex	✓	✓

Community Liaison Officer	Local Science Park	Stansted Airport
Total Membership	15	14
Note: Other officer/Master Developer involvement by invitation		

25.3.19

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