

**Your airport: your views
a world of opportunities**



Preparing a new Master Plan: Public consultation

November 2017

Contents:

Foreword	4
Introduction	5
Our story: How it all started	6
Our story: Where we are now	8
Our story: Looking ahead	10
Preparing our new Master Plan	14
Our five pillars	17
Design considerations	28
Fitting it all together	34
Example scenarios	36
Have your say	42





A world of opportunities: have your say

Foreword

These are exciting times for our region. The economy is thriving and Bristol Airport is playing its part. We are more connected than ever, with over 120 destinations, and are investing in our facilities to ensure that customers have an amazing journey. Our aim is to be a world-leading regional airport.

This year we celebrated our 60th anniversary. The UK Government is progressing its new Aviation Strategy, and a Joint Spatial Plan for the West of England is under development, providing an ambitious foundation for sustainable growth. So now is the right time for us to consider the next chapter in Bristol Airport's story, up to and beyond our centenary year.

Having a successful international airport is vital for a vibrant region like ours, with world-class universities, major multi-national businesses and some of Britain's most iconic tourist attractions on our doorstep. We want to share our exciting vision for the future, ensuring the airport is a gateway to the South West of England and South Wales, by building on our strong local identity.

We are now preparing our own strategic plan for the coming decades, and this consultation represents the first step. After listening to you we will prepare a Draft Master Plan for further consultation in spring 2018. We aim to publish the final Master Plan in the winter of 2018/19.

Delivering these plans will need the help of others, particularly when it comes to surface access. Despite being one of the largest and busiest outside the South-East, Bristol Airport is without direct rail, motorway or dual carriageway access. This needs to change if the region and our millions of passengers are to reap the full benefits of twenty-first century connections, both here and abroad.

This document invites you to help plan the next stage of your airport's amazing journey.

Please tell us what you think.



Look out for our consultation questions and use the online form, available at www.bristolairport.co.uk/future, to respond.

A handwritten signature in black ink.

Janis Kong
Chairman
Bristol Airport

A handwritten signature in black ink.

Simon Earles
Planning and Sustainability Director
Bristol Airport

Introduction

Bristol Airport is an essential part of the region's transport network, providing national and international connections, supporting businesses and creating jobs for local people.

As the main international gateway for the South West of England and South Wales, we support an estimated 15,000 local jobs and generate £1.3 billion in Gross Value Added (GVA – a measure of economic productivity)¹.

Our airline partners fly around eight million passengers a year to more than 120 destinations across 34 countries, including 18 capital cities, with multiple daily services to hubs like Amsterdam, Brussels, Dublin, Frankfurt, Munich and Paris offering onward connections to the rest of the world. New routes in 2017 included Athens, Cologne and Stockholm.

Planning for the future

To ensure airports like Bristol support their regional economies and keep local stakeholders informed of future intentions, the Government encourages us to publish our plans for long-term development.

These Master Plans help us assess future requirements and also give local councils and businesses information on which to base their own long-term strategies and investment decisions. Our new Master Plan will be particularly important as we look to support the emerging West of England Strategy, and the related Joint Spatial Plan and Joint Transport Study. Our vision will support the ambitions set out in these key regional plans.

Since 2010, our previous Master Plan – and subsequent planning approvals from North Somerset Council – has enabled us to invest more than £160 million to meet a forecast rise in demand to 10 million passengers a year by early in the next decade.

In its emerging Aviation Strategy², the Government recognises there is a growing national need for airport capacity, and that airports across the UK, like Bristol, provide a vital contribution to the economic wellbeing of the whole country.

With increasing demand for air travel and Britain's place in the world changing, we have identified a need for an airport serving circa 20 million passengers a year by the mid 2040s.

About this document

This document is the start of a conversation about our future development. It is a first opportunity for anyone with an interest in the future of Bristol Airport to get involved and have their say. The views we gather will help inform the direction we take.

We would like your opinion on our priorities and initial concepts for developing the airport to serve up to 20 million annual passengers by the mid-2040s, bringing a potential 10,350 extra regional jobs and up to £2.6 billion in GVA³.

Your feedback will help shape our Draft Master Plan, which we will consult on in spring 2018.

¹ Strategic Economic Impact Assessment of Bristol Airport, York Aviation LLP (January 2017)

² Beyond the horizon, the future of UK aviation, a call for evidence on a new strategy, HM Government (July 2017)

³ Strategic Economic Impact Assessment of Bristol Airport, York Aviation LLP (January 2017)

Our story: How it all started

Bristol's aviation heritage

When Bristol Airport opened at Lulsgate Bottom in May 1957 the civil airline industry was in its infancy, but Bristol's place in aviation history was already assured.

The city's previous airport at Whitchurch had just closed, but had an important (and at times glamorous) role ferrying statesmen, spies and film stars during the Second World War.

Meanwhile, on the city's north side, Filton Aerodrome was becoming a centre of aerospace excellence and it was from there in 1969 that one of the first British Concorde's achieved supersonic flight.

Flights from Filton ceased in 2012. It remains a major production site for Airbus and is also home to the Aerospace Bristol attraction.

Bristol's modern airport is born

Unlike its predecessor, the city's new municipal airport was purpose-built to serve Bristol and the surrounding regions.

In the 1960s, more people started to holiday abroad. A new generation of passenger jets meant adding a new control tower, terminal extensions and cargo shed and extending the runway.

In the late 1990s, the liberalisation of Europe's aviation market made air travel accessible to millions more. A new terminal building in 2000 soon heralded the arrival of the airline Go – subsequently acquired by easyJet – bringing low-cost flights to many new destinations.

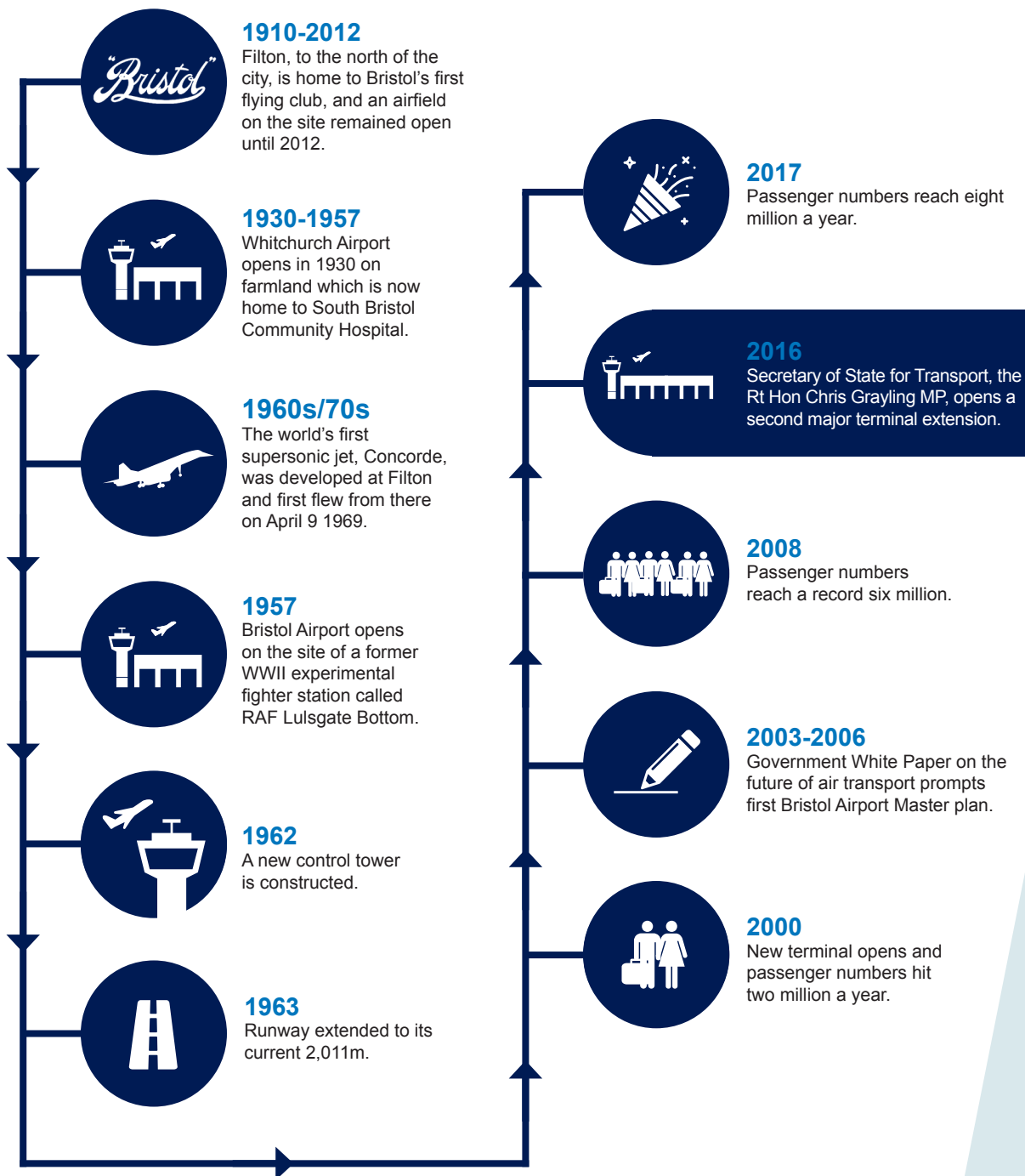
Bristol Airport

Past | Present | Future

Six decades of success

For six decades, Bristol Airport has served passengers travelling to and from the South West of England and South Wales. Today, we handle more than eight million passengers a year, serving almost as many in a single busy day as we did in our first full year of operation back in 1957.





Bristol Airport Past | Present | Future

Celebrating 60 years

In May 2017, we celebrated 60 years on our current site, and two special aircraft showed up for the party. A DC-3 – a mainstay of commercial airline fleets in the fifties – returned to Bristol for the first time since making its final passenger flight nine years ago. The Dakota lined up next to its modern-day equivalent – a new Airbus A319 named *Spirit of Bristol* – to mark the airport's anniversary.

Our story: Where we are now

Bristol Airport in 2017

Today, Bristol is the major airport serving the South West of the UK with more than eight million passengers a year passing through the terminal. We are the ninth busiest airport in the country, and England's third largest regional airport.

A range of low-cost, full-service and charter airlines fly to more than 120 destinations, including multiple daily services to hub airports with easy onward connections across the globe.

Top 10 destinations by passengers in 2016

Amsterdam	408,000	Alicante	311,000
Dublin	391,000	Faro	288,000
Edinburgh	380,000	Glasgow	296,000
Palma	336,000	Belfast	247,000
Malaga	334,000	Geneva	220,000

Ongoing development

In 2006, we published our first Master Plan setting out how the airport should develop. It outlined specific plans to cater for up to nine million passengers a year by 2015 as well as setting out early ideas for a 12.5 million capacity by 2030.

Despite the global financial crisis resulting in a fall in passenger numbers in 2009, the upward trend has continued every year since. In 2011 we obtained planning permission from North Somerset Council to develop facilities for up to ten million passengers.

£160m of investment

Investment of £160 million between 2010 and 2017 has helped to improve the passenger experience and enabled the airport to develop a 'sense of place' linked to the regional identity of Bristol, Bath, Somerset and the wider South West.

Inside the terminal, this funded a new central walkway to ease congestion in a much expanded departure lounge, a state-of-the-art security search area and upgrades to the immigration hall with more passport control points.

Two major extensions have given us hundreds of extra seats, new retail and catering outlets, a second executive lounge, an outdoor rooftop terrace and vastly improved security and baggage reclaim areas.

Elsewhere on the site, there is a new car park reception building, a 201 room hotel and additional aircraft parking stands.

Positive economic impact

This growth is vital for the economy of South West England and South Wales. Today, Bristol Airport supports around 15,000 jobs and adds £1.3 billion to the region's economy. This includes the spend resulting from more than one million journeys made each year by overseas residents.

We expect demand to reach ten million passengers a year by the early 2020s, rising to 20 million passengers a year by the mid-2040s. This is an opportunity for the region to benefit from increased connectivity, reducing reliance on airports in other parts of the UK. A new Master Plan will set out how we can meet this exciting challenge in the best way for our customers, stakeholders and the local community and environment.

Realising our potential

We recognise that a successful future for this or any other airport is not guaranteed. In order to realise this potential, capacity constraints will need to be addressed; these include local roads, operational land, and land-use designations. Some of these will need to be overcome in partnership with others.

“Our customers value the convenience of travelling from their local airport and many make their holiday choices based on destinations available from Bristol. Extending this choice and continuing to enhance the airport’s facilities would further increase the appeal of ‘flying local’, supporting the travel trade in the region.”

Miles Morgan
Owner, Miles Morgan Travel



Our story: Looking ahead

Our ever-changing world

Air travel has helped shape the world we live in. Sights, experiences, opportunities and connections that would have been closed to most only a few decades ago are now accessible for millions of people.

The pace of change in this globalised world is not going to slow. New aircraft technology, automation of passenger processes and digital disruption of established business models will constantly present new demands and opportunities.

Whether attracting inward investment or doing business in overseas markets, international connectivity is vitally important to our economy. Providing our businesses with better access to markets is a key objective of the Chamber.

Dale Edwards, Chief Executive
Somerset Chamber of Commerce

A changing, more-connected population

Forecasts suggest that in future the world's growing population will include more people who identify as diverse⁵ and global⁶. Driven by these demographic shifts, global air passengers could double in 20 years⁷.

Within three years there could be 50 billion connected devices⁸. The proliferation of data will increasingly personalise our travel experience. And, while you may never be able to 'Uber-hail' a plane, more flexible schedules to meet demand could be possible.

We need to adapt and innovate to meet the challenges of changing technology, competitive new modes of transport in our market and, of course, climate change.



⁵ Future Proof – Britain in the 2020s, IPPR report, (2016)

⁶ BBC World Service poll, (2016)

⁷ Airbus Global Market Forecast, (2016)

⁸ White paper on the Internet of Things, (2011)

⁹ Sustainable Aviation Noise Road-Map

¹⁰ Future fuels from flight and freight competition: feasibility study, Department for Transport 2017

Bristol Airport

Past | Present | Future



51%

of people identifying
as 'global citizens'

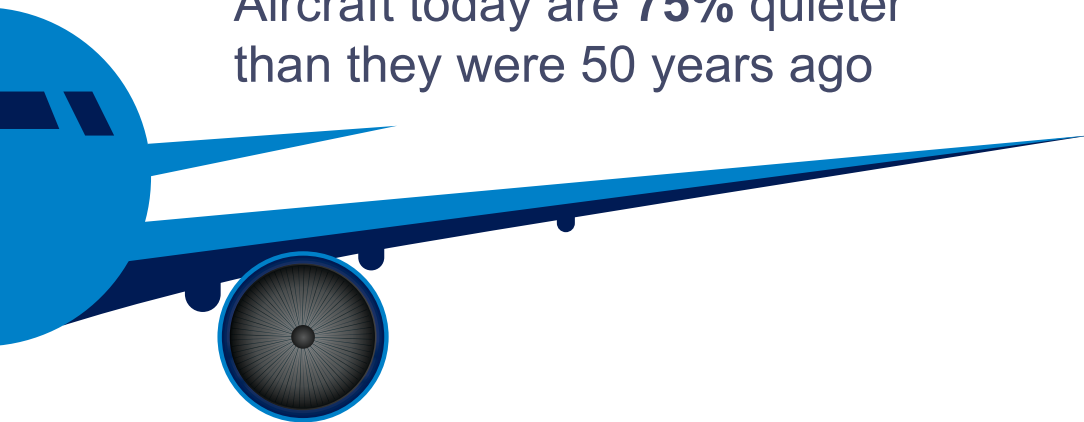
(BBC World Service poll, 2016)



50 billion

connected devices by 2020
(Cisco)

Aircraft today are **75%** quieter
than they were 50 years ago



Quieter and more fuel efficient aircraft

Over the last 50 years, technology has cut individual aircraft noise by 75 per cent⁹. Future advances will reduce emissions and noise, and make airspace more efficient.

New aircraft such as the Airbus A320neo and Boeing 737 MAX are quieter and more fuel efficient. Manufacturers are already considering future concepts to push aircraft performance even further; easyjet has just announced its ambition to move to electric aircraft.

Recently the Government announced plans to encourage the development of low carbon aviation fuel from waste¹⁰.

More choice of destinations

The Boeing 787 Dreamliner operated from Bristol to the USA and Mexico in summer 2017. The latest generation of mid-size passenger aircraft, of which the Dreamliner is an example, could make more long-haul routes possible from Bristol Airport in the future.

Being a gateway to a world beyond Europe will be important for the region in the post-Brexit world, but short-haul flights to our nearest neighbours will also remain at the heart of our network for the foreseeable future.

Passenger forecast (millions per year)

2015 6.8 million

2025 12 million

2035 15 million

2045 19 million

Better connectivity for business

One in five local businesses in the West of England already credit Bristol Airport as being a factor in their choice of location¹¹. In 2015, passengers from the South West of England and South Wales using the London airports faced additional time and surface access costs of £182 million, wasting a total of 512 million minutes in the process¹².

By increasing the range of destinations and frequency of flights available from Bristol Airport, we can help existing businesses make time and cost savings and also attract new investors into the region.

A streamlined passenger service

Customer demand for streamlined products and services which save time will increase as technology develops. There is also emerging competition with new modes of transport like high speed rail for domestic and short-haul European destinations. Innovative techniques and working practices, such as remote security screening, remote check-in and facial recognition will help us adapt and prosper in this brave new world.



Building our regional infrastructure, including access to a wide network of air services from the South West's major airport, is vital in attracting future investment and boosting international visibility and the long-term economic prospects of the region.

David Eccles, Head of Stakeholder Engagement, Hinkley Point C
EDF Energy

Reducing our energy use and increasing renewable energy

Across the country, renewable energy generation has risen from just two per cent of total production in 1990 to more than 50 per cent in 2017¹³. We want to play our part.

Energy efficiency will continue to be an integral element of the design process for any new infrastructure and we will be exploring a range of renewable sources as we develop our Master Plan.

¹¹ Business West: Local Business Survey, (2014)

¹² Analysis of Bristol Airport catchment leakage to London Airports, York Aviation, (December 2016)

¹³ National Grid, as reported by BBC News, <http://www.bbc.co.uk/news/business-40198567>

Connectivity on the ground

A big issue for Bristol is getting to and from the airport itself. In the long-term, we would like to see decision-makers take account of the need for better connections to air transport, and make the airport part of a truly integrated road and rail transport system. In the short-term, we will look closely at our on-site infrastructure and the way we connect with local networks. We also need to consider how advances like connected and autonomous vehicle technology could change the way people access the airport.

“The next generation of passengers, millennials and their children, are multimodal, they choose the best transportation mode based on the trip they are planning to take. Airports must think about multimodal hubs that will integrate rail, bus, car hailing or sharing, driverless vehicles, cycling and walkable travel options.”

Milda Manomaityte
Director, Global AirRail Alliance



Preparing our new Master Plan

Our last Master Plan was published in 2006 and this generated more than 30 initiatives and projects which, when complete, will enable us to serve ten million passengers a year.

At the time we envisaged growing to between ten and twelve million passengers a year by 2030. Our current forecasts put us on track to surpass the higher threshold slightly ahead of schedule, and extending our horizon to 2050 means we now need to consider the potential for annual demand to reach around 20 million passengers in the future.

This further expansion is founded upon a clear and compelling vision for the airport's future which is shared across the region and delivers what customers want in a way which is sensitive to the environment and local communities.

Right now, the UK Government and the four unitary authorities in the West of England are making decisions on national and regional transport strategies for the next two decades. A new Master Plan will give decision-makers the information they need to develop this crucial policy framework, although it should be noted that the critical issue of airspace change will be dealt with through a separate process.

Demand for air travel is on the rise, Britain's place in the world is changing and technological advances are revolutionising aviation. The need for more airport capacity nationally is recognised by Government.

Against this backdrop, piecemeal improvements will not deliver the full connectivity and economic potential the South West of England and South Wales need to compete on a national and global scale. We need to meet your future needs for business, holidays, sports and educational trips, and visits to friends and family. Many passengers tell us they like to fly from their local airport.

We need your help

We are still at an early stage in the process and we need your views on what our priorities should be and what you think of our initial development concepts.

Your comments will help us create a Draft Master Plan, which we will consult on in 2018 before publishing a final version later the same year.

These will address the following in more detail:

- Forecasts
- Infrastructure proposals
- Safeguarding and land/property requirements
- People and the natural environment
- Proposals to minimise and mitigate effect

The government recognises that airports across the UK make a vital contribution to the health of the whole country.

Department for Transport, Beyond the horizon: The future of aviation in the UK (July 2017)

The planning process

The scale and type of development proposed in our final Master Plan will influence the planning route we follow.

Development which increases our capacity by ten million or more passengers a year would qualify as a Nationally Significant Infrastructure Project (NSIP). NSIPs require a Development Consent Order, which is determined by the Secretary of State for Transport after a thorough examination of the application by Inspectors appointed by the Secretary of State. This process was introduced by the Planning Act 2008 to create an efficient and more streamlined system for the determination of certain projects serving a national need.

Development which increases our capacity by less than ten million passengers a year would be determined through a planning application to North Somerset Council, the local planning authority.

In order to decide the most appropriate process and mechanism for delivery of the airport's expansion and development, we will be working closely with the local planning authority, North Somerset Council. Irrespective of the planning route taken, Bristol Airport is committed to seeking the views of local people and stakeholders.



Our five pillars

To make sure we get the best possible outcome for our passengers, neighbours and the region as a whole, our new Master Plan will be guided by five pillars.

A world leading regional airport

Delivering easy and convenient access, excellent on-time performance, friendly and efficient customer service, a great range of destinations, state-of-the-art facilities and a distinctive sense of place that reflects the unique part of the world we serve.

Employment and supporting economic growth

Creating employment and supporting economic growth by connecting the South West of England and South Wales to new markets, talent and tourists.

At the heart of an integrated transport network

Making Bristol Airport an integrated transport hub by bringing together different modes of transport, not just for our passengers and staff, but also for people travelling within, to and through the region.

Sustainable approach

Seeking to reduce and mitigate our effect on communities and the environment, locally and globally, as well as finding opportunities to deliver enhancements.

Deliverability

Developing proposals which are flexible enough to be delivered in phases to meet demand, and which represent value for money for passengers, airlines and other stakeholders.



Consultation point

Do you have any comments on our pillars?

A world-leading regional airport

Promising an ‘amazing journey’ demonstrates our commitment to providing a passenger experience as good as at any regional airport in the world.

Bristol Airport recently topped the UK airport passenger satisfaction rankings¹⁴ and, in recent years, our flights have been among the most consistently on-time¹⁵.

Maintaining this performance is at the heart of our future plans. It will encourage more travellers from the South West of England and South Wales to fly from Bristol. It will also put us on the map for more overseas passengers, with knock-on benefits for the region (in 2016, the average international visitor to the South West of England spent £534¹⁶, with those arriving by air the biggest spenders¹⁷).

We need to continue offering passengers a great range of destinations from a well-designed modern airport which is well connected to the South West of England and South Wales. We must also embrace the opportunities presented by rapidly-advancing technology, which has already brought us innovations like online check-in and self-service bag drop.

¹⁴ Airports Council International (ACI) ASQ Survey - an international airport passenger experience benchmarking. Bristol Airport was rated number one in the UK for overall satisfaction in the third and fourth quarters of 2016 and the first quarter of 2017

¹⁵ Bristol Airport was ranked number one in aviation data specialist OAG's punctuality league table measuring on-time performance across 4,000 airports worldwide in 2014, and top in the UK in 2015

¹⁶ Visit Britain (www.visitbritain.org/nation-region-county-data)

¹⁷ Visit Britain (www.visitbritain.org/2016-snapshot)

Progress so far

From just a handful of international destinations at the turn of the millennium we now offer more than 120. Meanwhile, recent terminal extensions have created a modern, accessible space with a strong regional identity. A growing customer service team supplemented by volunteer information patrons – or VIPs – mean passengers get a great experience inspired by passion for the local area.

Bristol Airport was highly commended in the 5-10 million passengers category of the ACI Europe Best Airport Awards 2017, judged by independent experts from organisations including the European Commission, the European Civil Aviation Conference and FlightGlobal.

Ambitions for the future

As passenger demand continues to grow (forecasts suggest we could be serving 15 million passengers a year by the mid-2030s and up to circa twenty million by the mid-2040s) we will continue to invest smartly in our facilities and work with regional and national partners to ensure appropriate transport links and services are in place.

A stylized map of Europe in light blue. From a central point in the southwest of England (representing Bristol), numerous thin black lines radiate outwards to various points across the continent, representing direct flight routes. A few longer, curved lines extend from the same central point to locations in North Africa and the Middle East.

Connecting the world: Bristol Airport's direct route network 2017

“ Increasing regional connectivity boosts growth from tourism domestically and internationally, making it easier for visitors to see more of Britain and spreading the economic benefits of tourism across the nations.

Sally Balcombe
Chief Executive, Visit Britain

A small white speech bubble icon with a tail pointing towards the top left.

Consultation point

What aspects of the airport experience would you like our future plans to focus on?

Employment and supporting economic growth

Modern airports do more than simply load people or goods on to aeroplanes - they are major centres for employment and economic activity in their own right.

Bristol Airport supports the region's economy by creating thousands of jobs, connecting businesses to new markets and knowledge, and drawing tourists to our beautiful part of the world.

Around 7.5 million people live within a two hour drive¹⁸, along with several world-class universities; a host of major international tech, robotic/artificial intelligence, aviation and aerospace businesses; and growing nuclear, marine and agri-tech clusters.

By encouraging greater flows of trade, investment, tourists and knowledge between our region, other parts of the UK and the rest of the world, we will help even more people share in the growth, investment and opportunities these connections bring.

Progress so far

A record 7.5 million passengers in 2016¹⁹ helped to deliver an estimated £1.3 billion boost to the region's economy and support 15,000 full time equivalent jobs. This includes more than 3,000²⁰ jobs on site, with the remainder in our supply chain resulting from our wider impact on the economy.

Business and international travellers are particularly valuable to the wider economy²¹. Just under 17 per cent²² of passengers flying to and from Bristol Airport are travelling on business. And more than one million journeys are made by overseas residents²³, contributing millions of pounds to the local tourism industry.

“...over 20% of our business comes from overseas and, in particular, from the USA and other European countries. The successful development of Bristol Airport and its route network to key markets has made a significant contribution to this growth...”

Peter Rollins
Director of Marketing & Communications
Thermae Bath Spa

Ambitions for the future

Demand is expected to increase to around 15 million passengers a year by 2036, and up to circa 20 million a decade later. Our plans will seek to develop the number and range of jobs delivered by the operational airport and associated development.

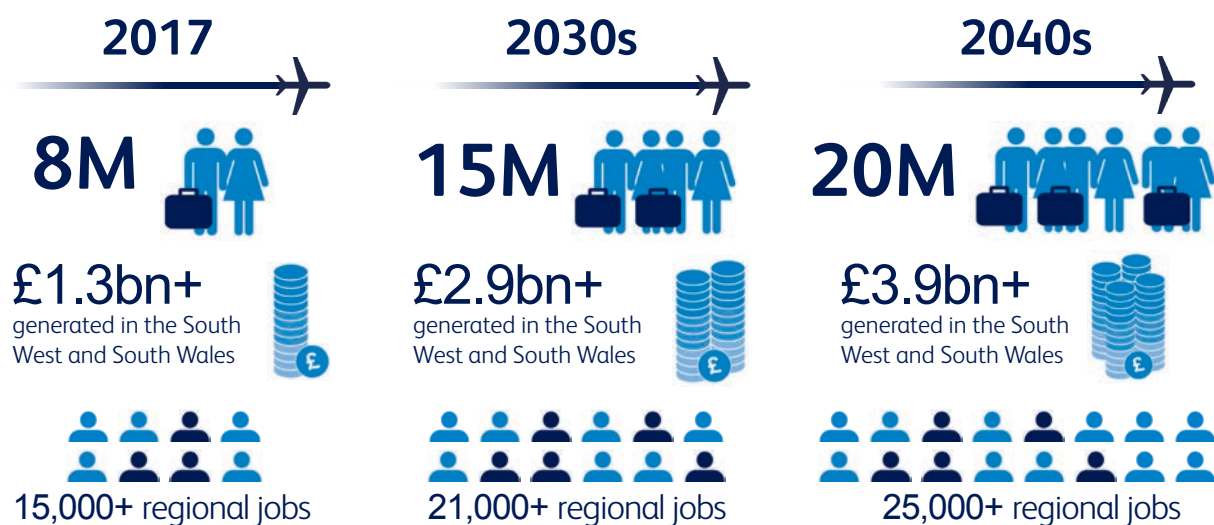
By offering more passengers greater choice from a modern, convenient and welcoming airport, we have an important part to play in delivering a prosperous future for all. Our Master Plan will support the ambitious growth being planned for in the Joint Spatial Plan and other West of England strategic documents and Local Plans.



Consultation point

How important is a successful airport to the regional economy?

Estimated present and future economic impact of Bristol Airport²⁴



¹⁸ Strategic Economic Impact Assessment of Bristol Airport, York Aviation LLP (January 2017)

¹⁹ Civil Aviation Authority: UK Airport Data

²⁰ Bristol Airport: Operations Monitoring Report 2016

²¹ Strategic Economic Impact Assessment of Bristol Airport, York Aviation LLP (January 2017)

²² CAA passenger survey 2015

²³ CAA passenger survey 2015

²⁴ Strategic Economic Impact Assessment of Bristol Airport, York Aviation LLP (January 2017)

At the heart of an integrated transport network

Despite being well placed to serve most of the South West of England and South Wales, poor surface transport links from some parts of the region can make Bristol Airport difficult to get to. We are the largest airport without either a direct rail link, motorway or dual carriageway access.

Where our passengers come from

West of England	35%	Gloucestershire	7%
South Wales	20%	Wiltshire	7%
Devon	14%	Cornwall	5%
Somerset	10%	Dorset	2%

This is one reason why, every year, millions of journeys are made by passengers from the South West of England and South Wales using London airports, despite costing on average £67 extra in time and travel²⁵.

As we expand our destinations and passenger numbers increase, better connections to improved road and rail networks would streamline journeys for our visitors, keep us competitive and help improve accessibility, not just for the airport but for local communities as well. Improving access for cyclists will also be important, reflecting Bristol's status as a Cycling City.

²⁵ York Aviation: Analysis of Bristol Airport leakage to the London airports (December 2016)

Progress so far

We continue to encourage a growing range of bus and coach services to towns and cities across the region. Public transport connections now operate between the airport and Bristol, Bath, Weston-super-Mare, Plymouth, Exeter, Taunton, Cardiff and Newport.

Beyond the airport boundary, we contributed over £4 million towards the new South Bristol Link, which opened in January 2017 and has improved road access from the north, east and west. We are currently joint-funding a study with North Somerset Council and other stakeholders, which considers what road and public transport improvements could be brought forward to address current and future transport issues between Bristol, the airport, the M5 and Weston-super-Mare. We are also keen to explore whether Bristol Airport could be directly connected to the national rail network.

Ambitions for the future

Capacity constraints at major London airports mean regional airports like Bristol have a great opportunity to provide a more convenient alternative for local passengers.

Our key role in the region's economy has been highlighted in the West of England Local Enterprise Partnership (LEP) Strategy and the North Somerset Core Strategy. We now need to set out sustainable plans for the airport's future which will strengthen the region's case for new transport infrastructure.

Our Draft Master Plan will include our plans to enhance surface access to Bristol Airport and include stretching targets for us to encourage more public transport use and other sustainable travel.



Consultation point

How could access to Bristol Airport be improved?

The international gateways...also create wider travel demands. Bristol Airport has a catchment that extends across the South West and into South Wales... a comprehensive package is proposed to improve access to the airport both by public transport and by road.

There is a focus in national roads policy on effective access to airports as international gateways. Most major airports are also served by direct heavy or light rail links, which play an important role in meeting connectivity needs. To meet the future needs of the Airport it will be necessary to both improve road capacity on the A38 and transform the quality of public transport connections to the Airport.

West of England Draft Joint Transport Study
(September 2017)

A sustainable approach

We pride ourselves on being a considerate neighbour and limiting our effect on the environment. That's why we are aiming to be a carbon neutral airport by 2030.

We have been working hard to make existing facilities more energy efficient, for instance by introducing low energy lighting and replacing apron floodlights with LEDs.

In recognition of efforts to map our carbon output and reduce its effect, we were awarded Airport Carbon Accreditation²⁶ in 2015. Looking to the future, our focus will be on limiting the impact of more flights on our neighbours by harnessing innovation and advances in technology alongside smarter working practices.

²⁶Airport Carbon Accreditation is an independently administered, institutionally-endorsed voluntary programme supported by Airports Council International (ACI) Europe

Progress so far

As well as participating in an industry-wide initiative called Sustainable Aviation, we work in close partnership with airlines at a local level, monitor adherence to noise preferential routes and use continuous descent approaches which are quieter and encourage the use of less fuel.

We also manage and mitigate noise through our Noise Action Plan and have developed an online tracker tool available so local people can plot radar tracks of aircraft against their location on the ground. Since 2012 our Environmental Improvement Fund has donated more than £500,000 to the local communities most affected by our operations, including over £200,000 in noise insulation grants.



Consultation point

How might we use emerging technologies to reduce our impact on local communities and the environment?

Ambitions for the future

By operating efficiently, promoting procedures which reduce energy use and investing in renewable technology we will be net carbon neutral by 2030.

We will also look to enhance natural habitats for wildlife and local green infrastructure, and improve the visual appearance of the airport from beyond our boundary through thoughtful use of landscaping.

New aircraft and air navigation technology will help reduce individual flight noise and emissions. For instance, the new performance based navigation routes we have introduced on approaches from the south may in future keep aircraft on narrower and more consistent tracks, allowing us to develop better routings and potentially offer periods of respite.

We are focused on finding collaborative ways of improving our environmental performance and creating a balanced debate to ensure sustainable growth of our industry, which is crucial to the health of the UK's island trading economy.

Sustainable Aviation

Climate change: a global approach

Since our previous Master Plan the global aviation industry has committed to achieving carbon-neutral growth by 2020 and the International Civil Aviation Authority has reached an agreement on a global Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

In the UK, Sustainable Aviation published a CO₂ roadmap in 2012 setting out how an expected 150 per cent rise in air traffic between 2010 and 2050 could be met with only a limited increase in emissions. A progress report in 2016 showed the roadmap to be on track and in line with the UK Committee on Climate Change recommendations.

Deliverability

Like most UK airports, we are privately owned. That means the money for infrastructure on site has to come from operating profits and shareholder investment, and needs to deliver a return. It is crucial that these investments also deliver the facilities our passengers want, at a competitive price, and help our airlines and business partners operate more efficiently.

Flexibility is absolutely critical. Our infrastructure has to respond to a changing industry, and to the aspirations of our customers. We must ensure that the Master Plan's vision can be delivered in phases, so that your airport is developed in step with demand.

Beyond our boundary, we will need support from Government and local stakeholders in delivering the surface access improvements that the local area and wider region need. In time, we will also be looking for positive decisions in the planning of future airspace above the airport.

Progress so far

Bristol Airport has benefited from private capital investment of £160 million since 2010, delivering a significant proportion of the facilities approved by North Somerset Council in 2011. We have also supported surface access improvements outside the airport, including the payment of over £4.5 million to the South Bristol Link road and Metrobus infrastructure.

We are currently exploring what road and public transport improvements are needed to help relieve current and future road congestion. A major study is being conducted in partnership with North Somerset Council, with the airport making a significant financial contribution, and this technical work will help inform future investment decisions.

Ambitions for the future


Investment will continue in the next few years as we deliver the remaining elements of our existing planning consent. This will provide more aircraft stands, coaching gates and multi-storey car parking, and a new fire station.

As we develop our new Master Plan, assessing the deliverability of future schemes will be an essential consideration. A sound business case - how and when development is delivered, and securing support from key stakeholders - will be vital.



Consultation point

Is there a case for increased public and private investment in and around the airport?



“ While the majority of our ports and airports are owned and operated in the private sector, government has a responsibility for ensuring that they are connected up to the existing national networks and that those networks are able to handle the road and rail traffic they generate. ”

Transport Investment Strategy – Department for Transport (July 2017)

Design considerations: supporting the five pillars

Key land use issues influencing airport layout

Forecasting the future can never be 100 per cent accurate but we know we have to be ready for the decades ahead, and that flexibility will be essential. We need to adapt and deliver, and provide Bristol and the South West of England with the airport it deserves.

This poses challenges but also huge opportunities. Our pillars will guide us as we develop a Master Plan which sets out a clear vision for future development.

Our new Master Plan must also take into consideration many factors which will ultimately influence the physical design:

- We have a complex site of almost 200 hectares, used by eight million passengers a year
- We are in the countryside, yet serve one of the UK's largest cities
- We rely on public roads and transport systems, and these can only be improved through partnerships with the public and private sectors
- We are closely connected to the local community and their interests, by providing jobs and as a neighbour.

There are also several key issues outside our direct control and others which are likely to be influenced by unforeseen technological, economic or social change.

All this must be taken into account.

In the following pages, we take a look at ten factors that will have a direct bearing on the look and feel of the airport. Currently, there is a degree of uncertainty about each, but they will help determine the airport's layout and how it functions.

Access off the A38

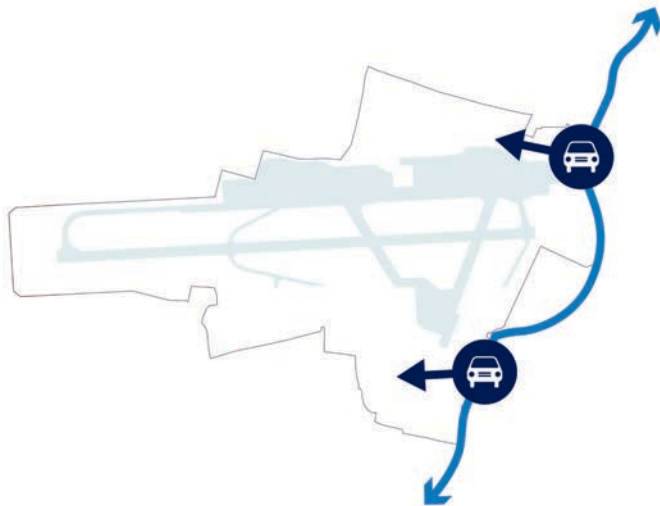
The A38 is the main road route to Bristol Airport, linking us to Bristol in the north and the M5 to the south. But, as a single carriageway road, it is frequently congested at peak times and can be a major headache for passengers, our staff, local people and other road users. Slow-moving traffic makes journeys unreliable and increases pollution.

The airport is working on a strategy with partners to improve the A38, but a reliance on Government funding means any major improvement schemes are unlikely to be delivered before 2025 at the earliest.

We need to anticipate when and how the A38 will be transformed, and how this will impact upon the layout and design of an improved airport.

By the early 2030s for example, it is possible that the site could be accessible by dual-carriageway incorporating mass transit from Bristol. At some point, roads of the future will also need to adapt to automated and 'connected' cars.

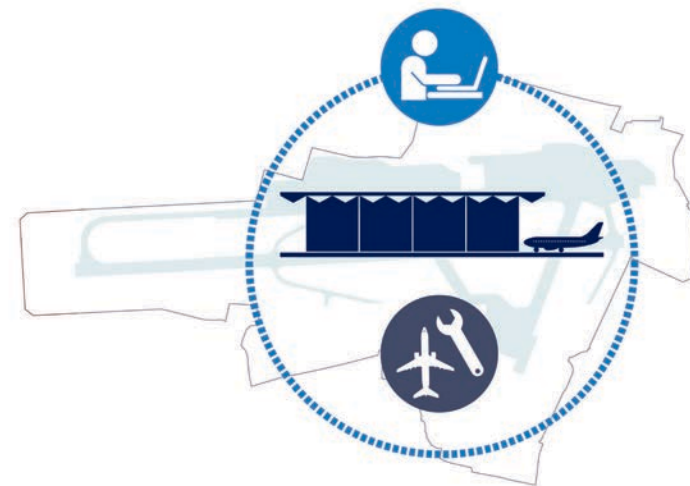
Any improved layout must allow for an upgraded primary junction, and we also need to consider the extent of land likely to be required, the impact of topography on design, and the implications for the local road network, including Downside Road.



Employment and related development

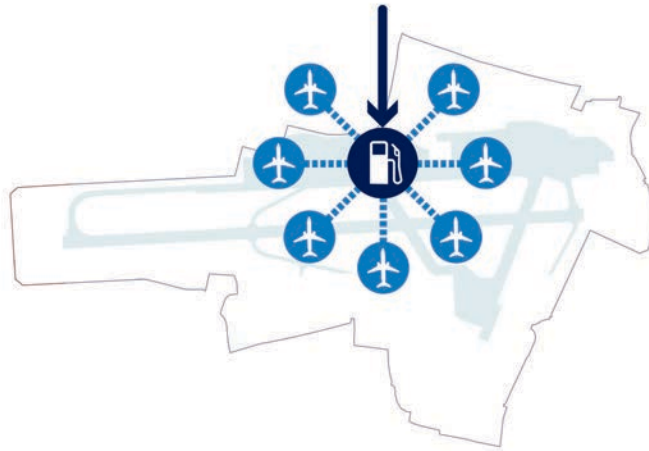
The airport has grown organically over six decades. Some of our buildings need to be replaced, our aircraft maintenance and associated facilities are limited, and we are not currently able to offer wider development opportunities for inward investment.

Our new Master Plan provides an opportunity to address these issues and develop our vision for an airport that is also a public transport and employment hub.



A phased increase in passengers would bring new jobs in an expanded or new terminal, hotels and transportation. There would also be benefits from improved airfield infrastructure, aircraft maintenance hangars, engineering facilities and other related development.

We believe we can also deliver additional land for employment that will contribute to the sustainable development of North Somerset and the West of England, although its precise location and scale will need to be determined through the strategic incorporating planning process.



Fuel provision

Modern airports have complex logistics, with a strong focus on time and cost efficiency. Our fuel operations need to be reliable every hour of every day, with the highest possible environmental and security standards on and off site. Unlike many other major UK airports, Bristol Airport currently relies on all of its fuel being delivered by road.

The supply, storage and distribution of aviation fuel needs a lot of room. The facility has to be accessible 'airside' to allow for runway distribution by tanker, and also from the public highway and the airport's internal road system.

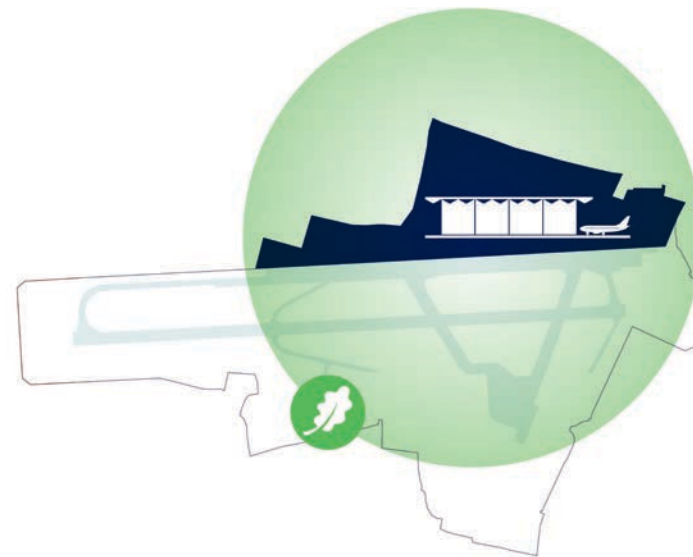
Our current 'fuel farm' is centrally located, with four ground storage tanks and a total capacity of 1,430 cubic metres. In the future, the amount of fuel we need will depend on the volume of our air traffic, changes to aviation technology and the transition to new sustainable fuels. Predicting how much we will need by 2040 and beyond is difficult, but we know it is likely to significantly increase, and we need to start thinking about options. These include increasing ground storage capacity, relocating the 'fuel farm' within a re-configured site layout to improve access to the runway and the road network, or shifting to the delivery of fuel by pipeline.

Green Belt

The Bristol and Bath Green Belt was designated in the mid-1950s, around the time Lulsgate Bottom was chosen as a location for Bristol Airport. As we look ahead to 2050 we believe it is time for a fresh assessment of the Green Belt boundary and the airport's relationship with the surrounding area.

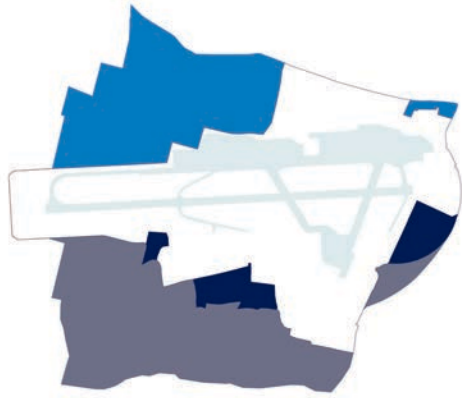
Our unique circumstances led to part of our site being removed from the Green Belt in 2007. The land and buildings north of the airfield are now in what is called a Green Belt Inset, but the runway and Silver Zone to the south, with its car parks and buildings, remain in the Green Belt. This has led to higher density development to the north of the airport and a focus on car parking to the south.

Whilst there are examples of national important infrastructure in the Green Belt, we believe there is a strong case to reconsider the Green Belt designation of the current and future airport site.



Land acquisition

Bristol Airport is one of the UK's ten busiest airports, but with a site area of just 196 hectares, it is dwarfed by most of its peers, many of which occupy sites two or three times larger. By using highly efficient design and operations, we have become a popular and successful airport broadly within the boundary of our original 1957 site. But when we reach ten million passengers a year our site will be operating at full capacity in terms of the space available for aviation operations and supporting infrastructure.



The airport's continued success is therefore likely to require a larger site to serve the public need for greater connectivity and expanded airport capacity. However, an extended runway is not currently in our plans, with the existing A38 expected to remain a well-defined eastern boundary.

Land is precious, in terms of economic and productive value, habitat, and as a shared cultural and visual resource. Any proposal to expand the extent of the site would need to be fully justified, and any land acquisition must be necessary, feasible and viable. As part of this consultation exercise, we will seek to engage with all landowners whose interests are potentially affected by any proposed revision to the airport's boundary. The Master Plan will only be finalised after this and further consultation next year, after taking into account all representations received.



Mass transit and car parking

Significantly improved public transport links to the airport would bring substantial benefits to passengers, communities, the economy and the environment. We believe that 'mass transit' - such as rail, light rail or tram systems - would contribute hugely to delivering on our five pillars.

There is growing support across the West of England for a strategic approach to reducing congestion and improving accessibility. Regional bus and rail networks are being upgraded, but despite further exciting developments over the horizon, decisions on mode, route and funding will not be made by the airport alone. We will continue to engage with decision-makers.

As with the A38, we need to anticipate when and how provision should be made for direct rail and/or tram services, including the form and location of a transport interchange. By the 2030s, for example, an airport railway station could form part of modern integrated terminal complex. Potential transport routes into and through the airport will also need to be identified.

Major advances in mass transit, shared, and automated vehicle technologies will have the potential to reduce our future demand for passenger and employee parking. This requires us to build flexibility into our future plans to ensure that passengers continue to have convenient access to our airport.

Place and locality

We like our corner of North Somerset, and we're very proud to serve as a gateway to this part of the world. Good design and a distinctive regional character will be at the heart of our future plans. The world is changing rapidly, and a successful airport needs to adapt to emerging social and technological trends, by responding to the way people interact with buildings and space.

Our design aesthetic is based on a strong 'sense of place', with a twist of Somerset heritage, ensuring that our airport is attractive and vibrant. Architecture, interior design, signage, lighting and landscaping all combine to provide a warm welcome and an enjoyable travel experience. Anticipating the future scale and shape of the airport gives us the opportunity for an exciting transformation, where buildings and public spaces truly inspire.

And the digital revolution is transforming the relationship between buildings' form and function. Passengers and staff are likely to see radical changes over the coming decades, as technological innovations affect aviation, transport, work, rest and play. New ways of doing things, from check-in and passport control, to waiting and relaxing, will change for the better how we design and build the layout of the airport.



Sustainability and green infrastructure

The opportunity to re-shape and modernise the airport's estate is also the chance to use the best in sustainable development practice, from energy production and efficiency, to the transportation of people and goods, noise reduction, water use, and ecology.

The potential for innovative building design and land use is exciting. Infrastructure for the generation, storage, and distribution of energy; energy efficient structures; noise attenuation measures; facilities for improved water conservation and waste collection; and the protection and enhancement of habitats - all these will shape the future function and appearance of the airport. There are important implications beyond our boundary too, not least in the way the airport and its immediate surroundings can contribute to the existing network of green spaces, woodland, habitats and wildlife corridors. Using the site's topography imaginatively and adopting cutting-edge technologies in areas such as sustainable travel will ensure we're a good neighbour.

All sustainable development options have implications for land-use and visual impact, and will need to be assessed alongside operational and viability considerations. A truly sustainable approach will ensure that flexibility and resilience are the keystones of the airport's future development.

Terminals

Our terminal opened in 2000, and has since been enlarged to give travellers more comfort and choice. It represents a step-change from the 1957 terminal, and by the 2030s and '40s the way terminal buildings look, feel and work will be very different again.

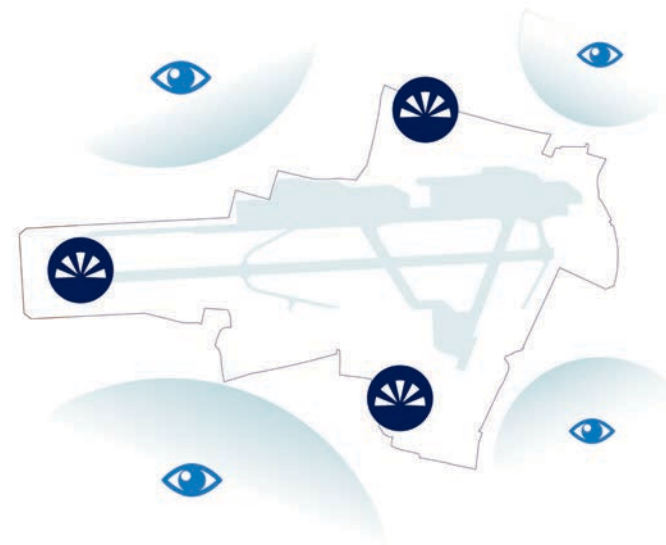
We all know what we want from an airport terminal - quick and easy movement to and from the aircraft, space to meet or wait in relaxing surroundings, and somewhere to eat, drink, and shop. Security is paramount, but none of us appreciates congestion or delays. Our current facilities and levels of service are ranked highly by our passengers and we are driven by the need to keep making things better.



Providing an airport fit for 2050 could involve enhancing and extending the existing terminal, with phased delivery to take account of future passenger forecasts. Or a still more sustainable approach could be to start afresh with a second or even a replacement terminal; the optimum site for which could be either north or south of the runway. A new building would be better placed to adopt global best practice in terms of design and security, and could use the site's sloping topography to good effect, providing an iconic gateway to North Somerset, Bristol and the South West.

Topography and visibility

Bristol Airport is on a plateau, high within the rolling landscape south of Bristol. There are villages and hamlets in each direction, and the Mendip Hills Area of Outstanding Beauty is located to the south. The visual impact of the airport has a more immediate bearing on the residential properties along Downside Road and the busy A38. These will need to be carefully considered in our Master Plan.



We want to protect close, middle and longer distance views wherever possible. New green infrastructure on and off site will help screen structures and operations, although there is also an opportunity for bold and imaginative 'place-making' that could mark this important regional gateway. For many visitors, the airport is the first impression to our region, and the UK, and our aim is to provide an airport in harmony with its attractive surroundings.

We will review the visual impact of buildings, other structures and larger areas of surface car parking – both individually and in combination. Landscaped buffer zones (including bunds) could also mitigate potential adverse effects.

Fitting it all together

The plan opposite shows how Bristol Airport's site will look once we have completed all the development consented by North Somerset Council in 2011.

Our next Master Plan will set out our preferred strategy for the airport's development up to 2050. We will publish a draft version in spring 2018 for further consultation.

Using the five pillars as our guiding principles, and taking the ten design considerations into account, we set out in the following pages some example scenarios that illustrate what a circa 20 million passengers a year Bristol Airport could look like.

We would like your thoughts on Scenarios A, B and C. These are just three examples of how the airport could look. We will revise our proposals, taking your views into account. It should be noted that in all scenarios, an increase in runway length is not proposed.

How to read the plans

The drawings indicate possible future layouts if the airport were to meet projected future passenger demand of circa 20 million passengers per year by the mid-2040s. They assume the necessary land can be acquired beyond the current constrained site, within a supportive planning framework, and that major transport infrastructure can be delivered in tandem with airport growth. The plans are indicative only, giving a broad idea of land-use considerations. No assumptions should be made with regard to commercial viability or operational requirements.



Consultation point

Which scenarios best reflect our five pillars, and why?

Key

Core Airport Activity

- Existing terminal building
- Proposed terminal building / extension
- Operational activity zone
- Aircraft stand zone
- Runway / taxiway / apron
- Area of taxiway / apron extension

Off-Site

- Existing off-site building cluster
- Tall Pines Golf Club

Movement Network

- A38 road network
- Reconfigured airport access
- Main off-site road

Ancillary Facilities

- Multi-modal transport interchange
- Surface car park
- Car hire village
- Complementary employment zone
- Aviation hangars
- Hotels
- Welcome plaza
- Structural landscaping
- Airfield
- Welcome / Drop-off zone (DOZ)



Current planning approval layout

Example scenarios

Example scenario A

This approach is one of broad continuity. It would see the current layout evolve gradually over time, through phased development and land acquisition.

The inclusion of additional land to the north-west would provide for new aviation capacity – new aircraft piers, parking aprons and taxiways – whilst retaining the present terminal, and allowing for its gradual expansion to meet demand. As envisaged in the existing planning permission, multi-storey car parking, a ‘drop-off zone’, and a public transport interchange (possibly incorporating a rail or other mass transit station) would be directly opposite the terminal, with the sloping topography used to good effect; mitigating the visual impact and allowing convenient pedestrian access between buildings.

This north side area would be accessed from an improved A38 junction and an internal loop road; this would allow for an improved ‘campus’ style layout, possibly with additional hotels and the potential for around 15 hectares of related development and employment land. The realignment of the airport’s A38 and Downside Road frontages would be subject to additional land acquisition, but would provide an improved environment, with an opportunity for both substantial screening and high quality architecture to mark the airport entrance.









Additional surface car parking would be provided to the west, but in the longer term the area could form an extension to the employment land, once mass transit is delivered and/or there is the predicted long-term shift in car ownership and use (with shared and automated vehicles).

The scale and topography of an enlarged site would allow the western aircraft apron extension to sit above a large under-croft substructure, with ancillary uses such as baggage handling, service roads, and passenger tunnels screened from view.

South of the runway, the current Silver Zone surface car parking areas would be extended, partly within the current site boundary, wrapping around an expanded aviation park for additional aircraft maintenance hangars and engineering facilities.

Key







Core Airport Activity

-  Outline of existing terminal building
-  Proposed terminal building / extension
-  Operational activity zone
-  Under-apron uses
-  Aircraft stand zone
-  Runway / taxiway / apron
-  Area of taxiway / apron extension
-  New taxiway arrangement

Off-Site

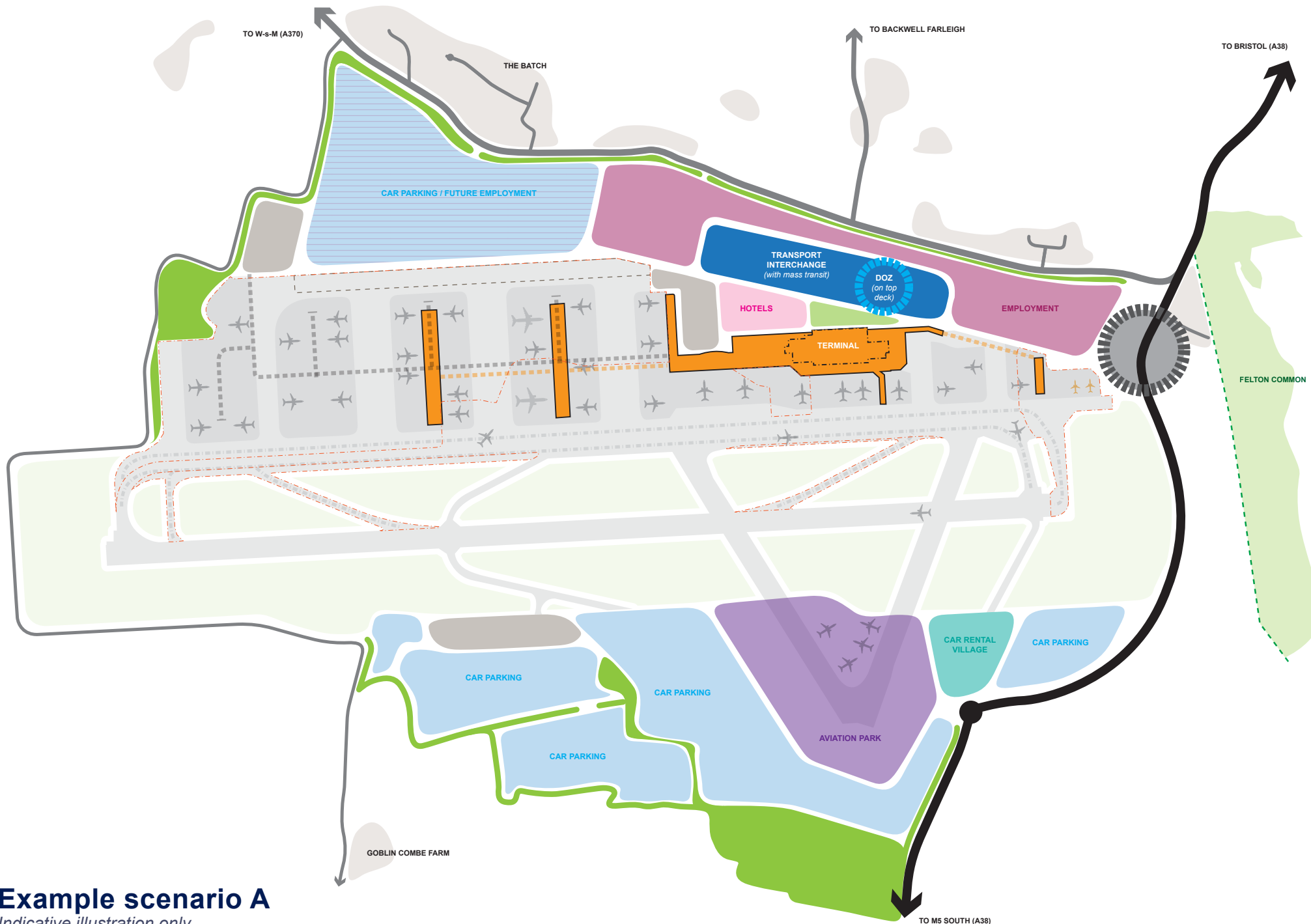
-  Existing off-site building cluster

Movement Network

-  A38 road network
-  Reconfigured airport access
-  Main off-site road
-  Minor off-site road
-  Under-apron pedestrian passage
-  Under-apron vehicle passage

Ancillary Facilities

-  Multi-modal transport interchange
-  Surface car park
-  Car hire village
-  Complementary employment zone
-  Aviation Park
-  Hotels
-  Welcome plaza
-  Structural landscaping
-  Airfield
-  Welcome / Drop-off zone (DOZ)



Example scenario A
Indicative illustration only.

Example scenario B

This approach differs from A, in that it takes a more imaginative leap into the world of 2035 and beyond with a new replacement terminal.

The new building would be sited centrally within an enlarged site, allowing for both a more rational airport layout, and the incorporation of much of its 'back of house' functions within the under-croft substructure (as described under Scenario A). The topography and the central siting of the terminal would provide the 'front of house' with an opportunity for an exciting architectural statement.









The terminal's iconic 'gateway' architecture would be set within imaginative urban space, a plaza at the very heart of the airport. This could take the form of an amphitheatre (taking advantage of the site's slope), providing a venue for community or commercial events, as well as setting for other key buildings, including a public transport interchange and hotels. One option would be to incorporate a potential rail/mass transit station below the plaza and adjoining public spaces.

This approach would be mirrored on the southern side, where a secondary 'check-in' facility could provide users of the extensive Silver Zone area with a more convenient service. Subterranean tunnels for passenger and baggage transport access directly to the new terminal would bring a step change in the travel experience.

Other elements of this scenario, (including land acquisition) would be similar to those described in Scenario A.

Key







Core Airport Activity

-  Existing terminal building
-  Proposed terminal building
-  Operational activity zone
-  Under-apron uses
-  Aircraft stand zone
-  Runway / taxiway / apron
-  Area of taxiway / apron extension
-  New taxiway arrangement

Off-Site

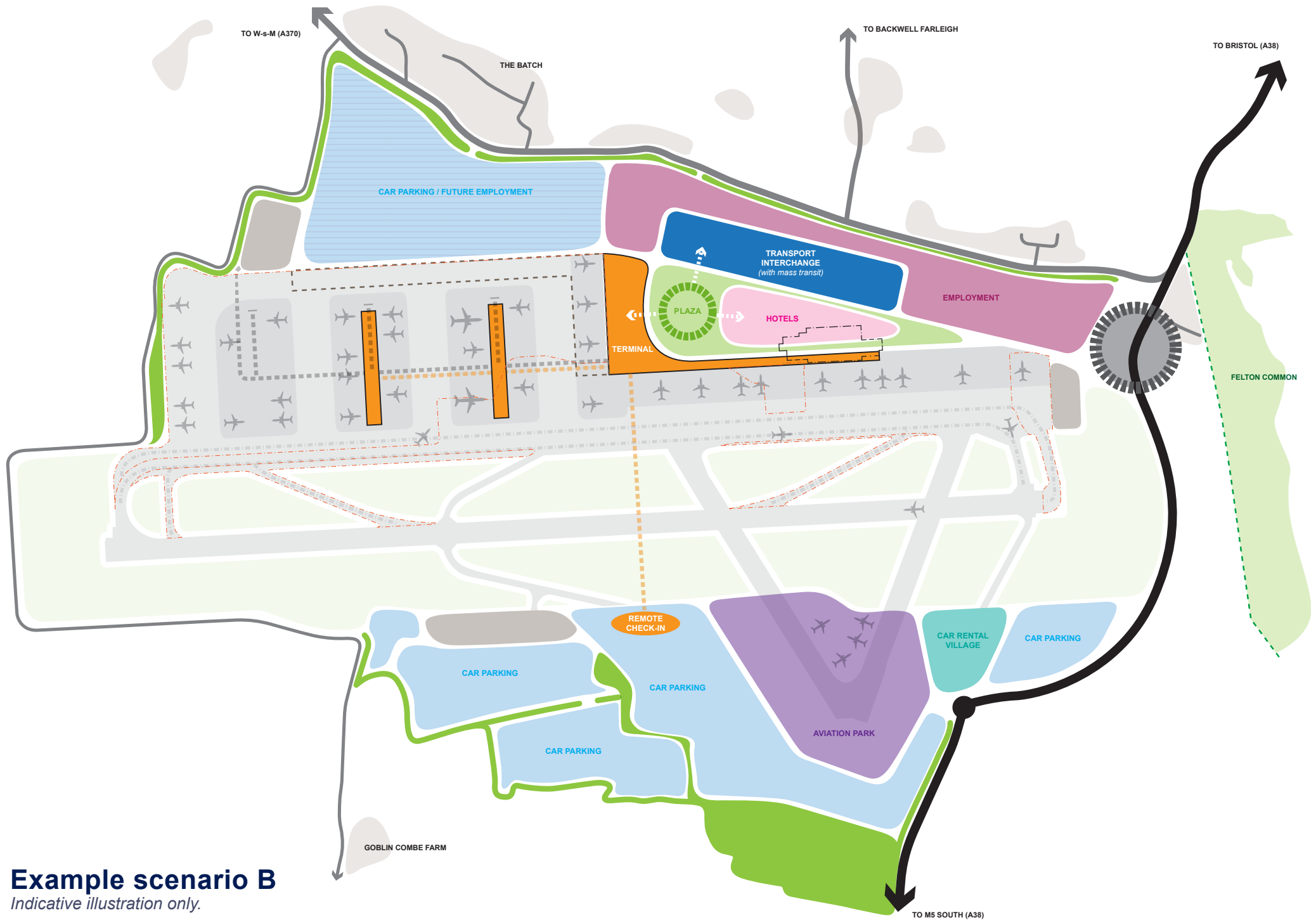
-  Existing off-site building cluster

Movement Network

-  A38 road network
-  Reconfigured airport access
-  Main off-site road
-  Minor off-site road
-  Under-apron pedestrian passage
-  Under-apron vehicle passage

Ancillary Facilities

-  Multi-modal transport interchange
-  Surface car park
-  Car hire village
-  Complementary employment zone
-  Aviation Park
-  Hotels
-  Welcome plaza
-  Structural landscaping
-  Airfield
-  Welcome / Drop-off zone (DOZ)



Example scenario B
Indicative illustration only.

Example scenario C

This approach includes a second terminal to complement the existing building; this would be located to the south of the runway. It would avoid the need for significant land take to the north-west, although additional land would be required to the south. It would bring some operational advantages in terms of increased apron capacity.

The look and feel of the North Side area would be broadly similar to today, albeit with an improved A38 junction and new multi-storey car parks, and, in the longer term, with the prospect of rail/mass transit infrastructure. Additional landscaping could further enhance the area, but the options for this and any additional employment opportunities would be constrained by the existing site boundaries. The additional capacity for future growth would be met almost entirely on the opposite side of the runway. Here large areas of existing surface car parking could be transformed to provide modern facilities, with the potential to link the two terminals via tunnels under the runway.

‘Terminal 2’ could be built to the same high standards as in Scenario B. Phasing may be more difficult than with A or B, and the timing and logistics of splitting the site would require detailed planning.

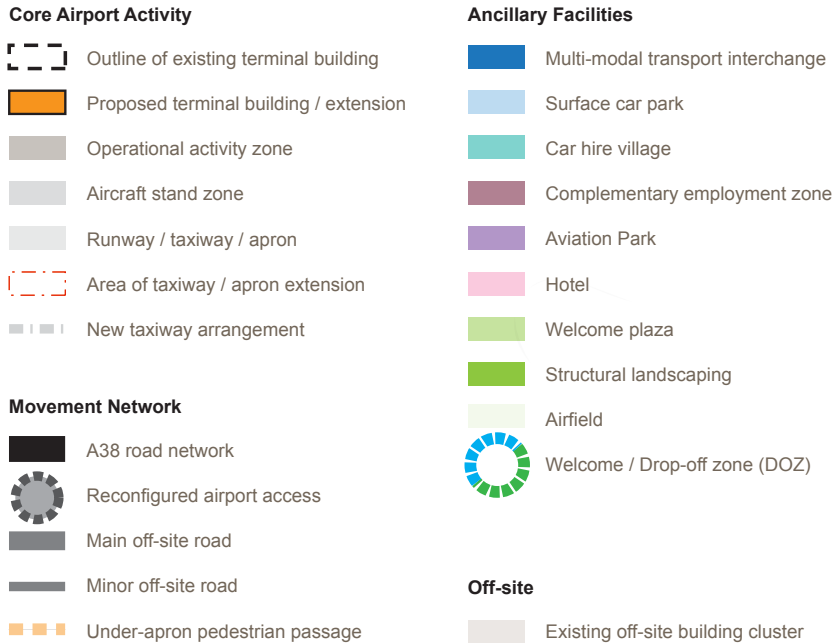
Additional taxiways to both north and south of the runway would be required to facilitate increased aircraft movement to and from the runway and aircraft parking aprons.

A re-alignment of the southern and eastern (A38) boundaries would create both a more rational development area and the capacity for additional and displaced car parking. In addition, the possibility of siting a mass transit station in this area cannot be discounted at this stage, and this in turn could act as a focal point for related

development and employment land. This would also need to benefit from an upgraded junction on the A38.

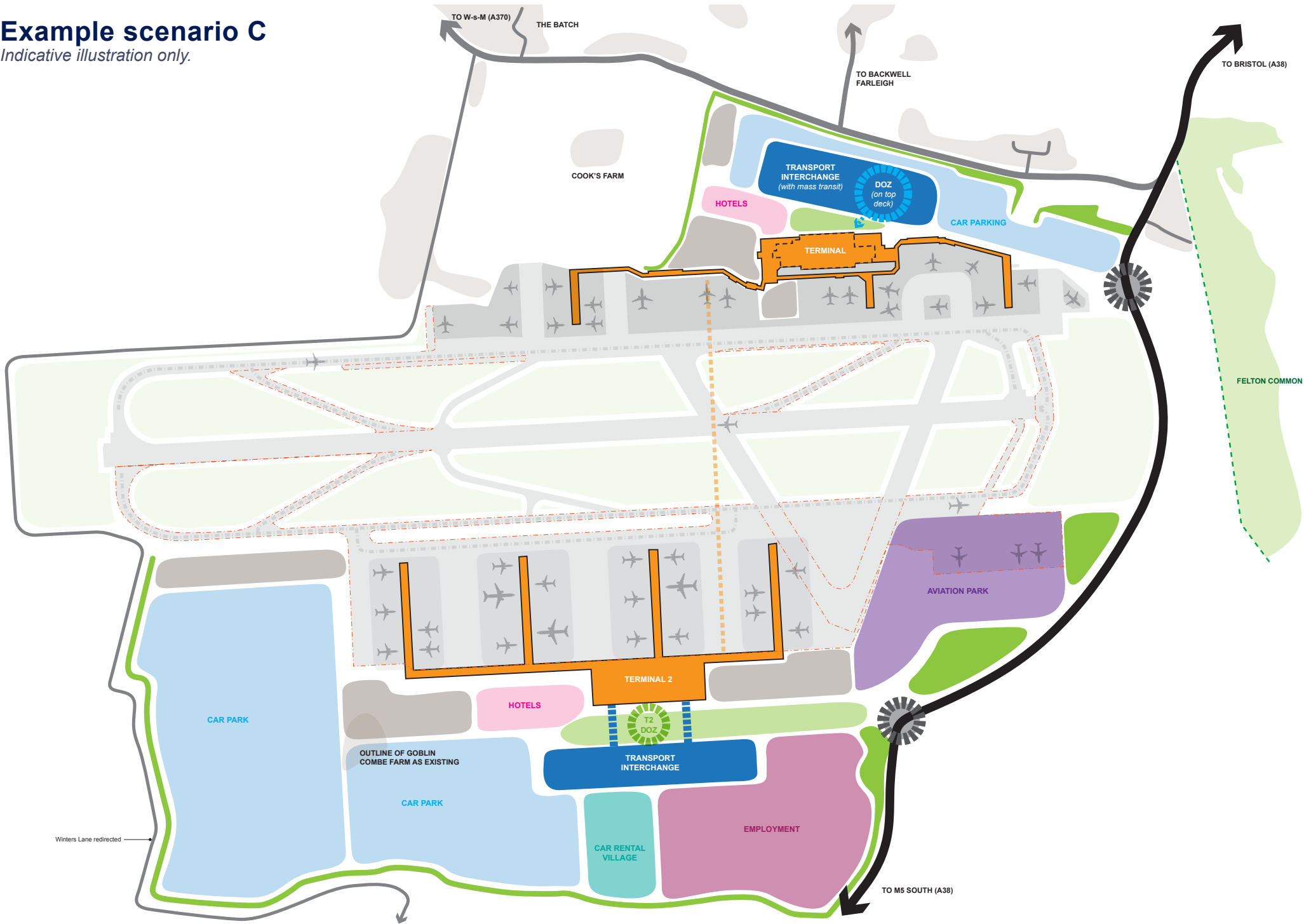
The impact on views across the Mendip Hills would necessitate a strong emphasis on reducing and mitigating potential visual impact.

Key



Example scenario C

Indicative illustration only.



Have your say

This consultation provides an early opportunity to help shape the future of your airport.

This is your chance to tell us what you think the priorities for your airport should be. Our consultation will run until 26 January 2018.

You can find more information on our website, including details of a series of drop-in consultation events.

Submitting feedback

A feedback form will be available on our website www.bristolairport.co.uk/future until the consultation closes on 26 January 2018.

Visit our website to find out more about the consultation.

You can also send us your feedback by post to the following freepost address:

BRS Consultation FREEPOST

Next steps

After the consultation we will publish a report summarising your feedback and explaining how we are taking it into account.

Your views, together with further analysis and study, will result in a new Draft Master Plan, which will be subject to further public consultation in 2018.

And there will be further opportunities to have your say. Whether we seek consent through the NSIP process or through a planning permission, we will share our detailed plans and proposals with all stakeholders, setting out how we propose to mitigate any effects on the local community and environment identified.

More information

To find out more about this consultation, please visit www.bristolairport.co.uk/future.




Consultation point

What information would you like to see presented at the next, more detailed, consultation stage?



Contact us

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