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The Mayor's message

We need an airport fit for Britain's future



We often talk about London as a 'world city', and with good reason. Nowhere, in my view, possesses quite the same rich mix of cultures, tradition, vitality and sheer business drive.

World cities need world-class airports. If we look elsewhere we see other leading and emerging global cities served by efficient, effective hub airports, airports which have the capacity to meet the pressing demand for international and domestic travel that characterises all growing economies.

We must give our own economy every possible opportunity to thrive and, while doing so, ensure that we provide homes and facilities for all our people. Against a backdrop of significant national population growth, London is reliably forecast to grow from 8.3 million people to hit 10 million by 2030 – a 20 per cent increase that will place an immense demand on housing, jobs, transport and other services.

These two challenges – global connectivity and population growth – sit at the heart of the aviation debate. London needs to meet these challenges head on and that is where my interest in this vital policy area lies.

The Airports Commission is about to take a decision of immense importance to the future of London and the country at large. They could decide to short-list the proposal for relocating Heathrow to a new site in the Thames estuary where we could provide the flexible infrastructure that would allow the aviation market to adapt and grow; or they could rule that option out.

In the latter case, they would in effect be left with two possible outcomes for their final report next year: a second runway at Gatwick that will mean Britain has definitively turned its back on the concept of a 'hub' airport, in defiance of all current thinking in other global cities; or a third runway at Heathrow (whether configured as a separate runway or as an extension of an existing runway) that all the evidence shows cannot be delivered politically and is almost certain to be rejected by all leading political parties because its appalling noise and congestion consequences are simply unthinkable. Either option would be a recipe for setting Britain back in the global competition for aviation services, with serious economic consequences for the country over time; neither would deliver a fraction of the regeneration and growth opportunities that the south-east needs to meet the challenge of a burgeoning population.

But the decision of the Airports Commission cannot simply be about where to put a strip of tarmac. An airport is such a powerful generator of economic activity on the ground that its location has the power to shape the city for decades to come. The airport needs space in which to allow that economic activity to develop. But London also needs more economic activity to the east, both to overcome the historic imbalance between west London and east London and to provide employment opportunities for our new population, which will be living very much in the eastern half of the city, the place where we can best provide new housing. The decision about our airport is therefore very much one about the future of the city itself: it will potentially determine whether London can be a success with a population of 10 million or even 12 million – or whether we are set to fail that challenge.

Over the last four years, numerous studies, by Transport for London and by the private sector, have demonstrated the feasibility and the enormous benefits of relocating Heathrow to a new site to the east of the capital. We would be making a total contribution of £92.1bn to UK GDP in 2050. We have also shown how the current Heathrow site could be turned into a new city within London capable of housing 200,000 people and providing up to 90,000 jobs, ensuring a bright future for west London even after Heathrow has relocated.

All this would of course be a project of a scale we are no longer accustomed to in this country, though becoming almost commonplace elsewhere. The Airports Commission decided quite rightly last December to kick the tyres on the proposal for a new airport in the Thames estuary to see if there were any insuperable obstacles, prior to short-listing it alongside other schemes that would deliver merely a new runway at an existing airport. The evidence they collected was published recently and it shows that it is a challenging project – of course it is – but they have uncovered no show-stoppers; and, as the Commission itself said in its Interim Report, “The scale of benefits associated with such a proposal is potentially greater than for any of the other options that the Commission has considered.”

My appeal now is simple: Sir Howard Davies and his colleagues may feel daunted by the ambition of what I

am proposing (though it is no less than the challenging circumstances we face demand); nonetheless, whatever misgivings they may have, on the evidence they have published they cannot sensibly or reasonably rule out the Thames estuary option at this stage. It would limit their final recommendation too narrowly and would disconnect their thinking from the practical needs and challenges of this tremendous, successful and growing city. They must short-list the Thames estuary option and give it a fair crack of the whip alongside the other options.

My Infrastructure Investment Plan, published very recently, shows how a new hub airport and the redevelopment of Heathrow, alongside other long term investment that London needs and can deliver, will enable us to meet the challenges ahead.

We simply cannot afford to miss out on the opportunities a new airport would give us. We need to keep that option on the table, for the sake of the rising generations.



Boris Johnson
Mayor of London

Gateway to our future

It is pretty obvious that an island trading nation needs to be connected to other countries by air. Thirty-two million tourists visit Britain every year, 72 per cent of them arriving by air. They are worth £21bn to the UK's economy each year. Forty per cent of our country's imports and exports (measured by value) go by air. International businesses set up factories and head offices in Britain for a number of reasons, but without good air links to both established and emerging international markets they would not come here and we would not have the jobs their investment brings.

We need to increase our aviation capacity

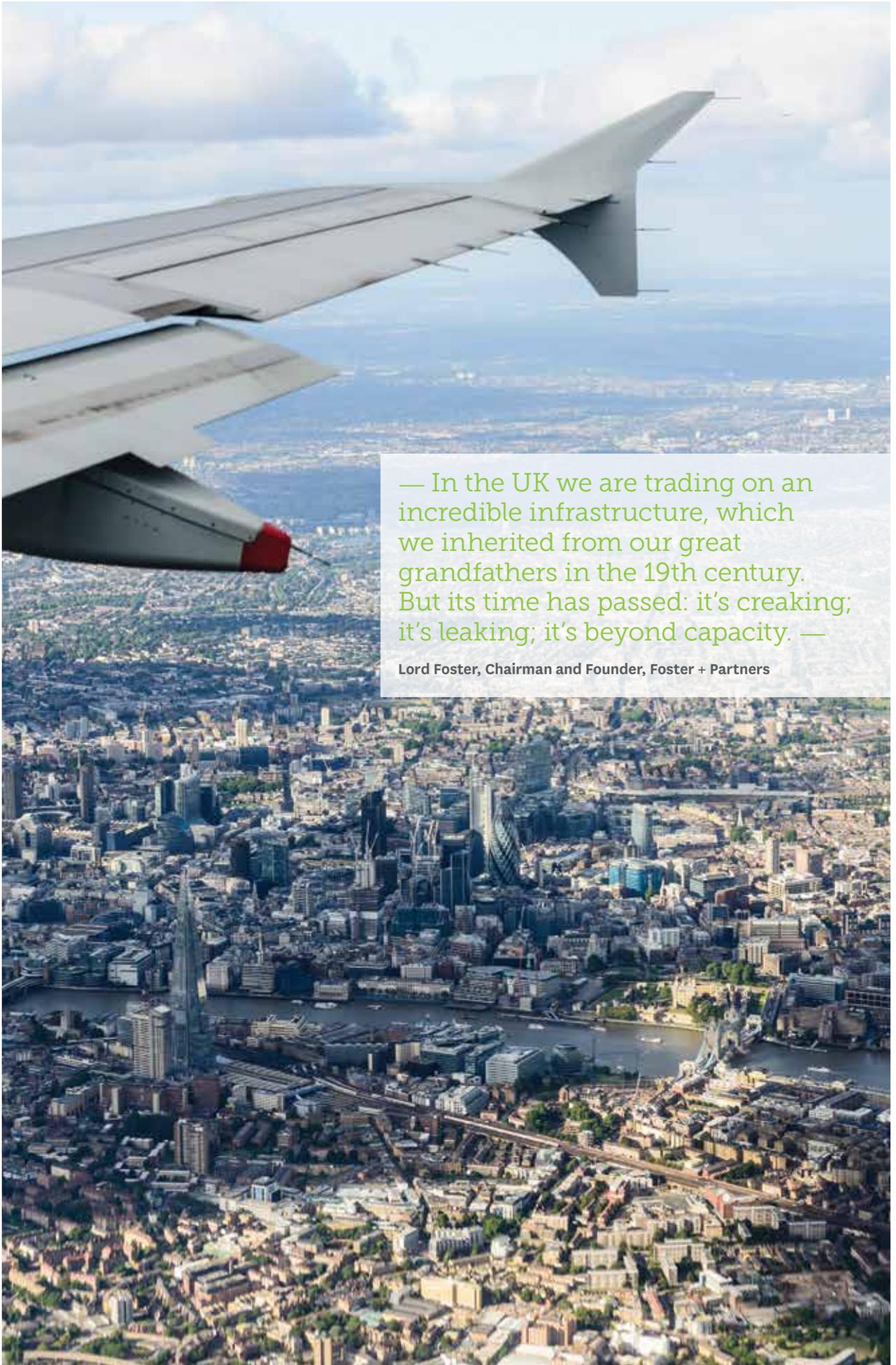
While other countries have been expanding their airports, often building completely new ones, in Britain we have failed for decades to develop a policy for aviation that would allow our capacity to grow. We are now at bursting point in the South East and the Government recognised this when it set up an Airports Commission under Sir Howard Davies in 2012 to develop a policy recommendation. This was in response to strong calls from business, the regions and the Mayor of London for urgent action to be taken.

In October 2013, Sir Howard announced that, looking ahead to 2030, it was clear that there was a need for at least one new runway in the South East. There is now little serious dissent from Sir Howard's view that the status quo cannot be allowed to continue.

But there are crucial unanswered questions that should inform how we deliver that increase in capacity. These include:

1. Whether it is right, given the lead in times for delivering new infrastructure, to look only to 2030 when it is clear that an additional runway would be full around that time and a second additional runway would be needed to meet demand?
2. What sort of airport do we need? What is the right way to configure our capacity? In a large hub airport, as is now the norm in most global cities? Should our runways continue to be scattered around London's perimeter as a result of the historical accidents that have given us the current arrangement?
3. Where should the increased airport capacity go? How do we reconcile the environmental disbenefits of an airport (principally noise and air pollution) with the rising environmental expectations of the population at large and particularly the population based close to the airport?
4. Can we, as other countries appear able to, capture broad economic benefits from increased capacity so that we get not merely a new runway but a whole step-change in our efficiency and prosperity?
5. What is the best solution for the UK nations and regions?

In advance of the Airports Commission's impending decision on whether to narrow its inquiries to a new runway at Gatwick or Heathrow (expected September 2014), this report answers those questions. In doing so it puts the Mayor of London's case why it would be a serious error for the Airports Commission to rule out a more expansive approach that would serve the country better in the long run than seeking to shoe-horn a new runway into an existing airport.



— In the UK we are trading on an incredible infrastructure, which we inherited from our great grandfathers in the 19th century. But its time has passed: it's creaking; it's leaking; it's beyond capacity. —

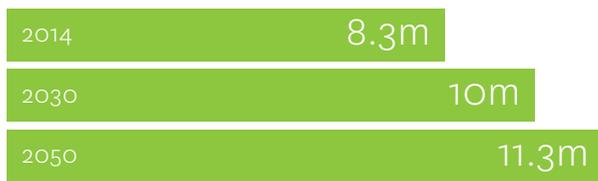
Lord Foster, Chairman and Founder, Foster + Partners

A city for growth

Challenges we must meet

Of all the challenges we face, one in particular demands urgent attention. As a country our population is expanding, and this growth is having its effect in London too. Early next year the Capital will be the biggest it has ever been. By 2030, the number of people living in the city will grow by almost two million to 10 million – it is in excess of 8.3 million today. By 2050 that number is forecast to be about 11.3 million. That means building more homes and creating new employment opportunities. Recent projections indicate London needs to deliver 49,000 new homes every year to keep pace with its growth.

London population growth



Where are these homes to go? Where will the people who live in them work? Will the transport systems be in place to get them between their home and their place of work?

London's last spurt of rapid growth, between 1860 and 1940, was based on the expansion of railways and Tubes connecting the centre with the suburbs. The result is the city we have today, with the main economic attractors in the centre and a heavy demand for public transport to bring people into work daily.

If we keep the same pattern of development, we will need massive investment in new radial transport systems, mainly rail, to accommodate an extra two million people. As set out in the Mayor's London Infrastructure Plan 2050, the cost of public transport alone could easily be £470bn.

The opportunity in east London

But there is an alternative and that is to stimulate the whole of the city. Many of the new homes London needs can be accommodated in the eastern half of the city, on brownfield sites identified by the Mayor as Opportunity Areas. Can we also create economic activity to the east of the Capital that will provide jobs for this new population that are decentralised from the traditional economic core? Then the transport links we put in to connect those homes and jobs would have the effect of opening up parts of London that currently lag behind economically and socially, instead of merely reinforcing and duplicating the existing infrastructure that concentrates so much in the centre.

Much academic work in recent years has gone in to understanding how a large airport, properly planned, can be a powerful generator of economic activity. Well connected to other parts of the country by road and rail, it can transform businesses ranging from manufacturing and logistics to hospitality and conferencing. A large well planned airport can also become a major centre for corporate headquarters.



Shaping the future of our city

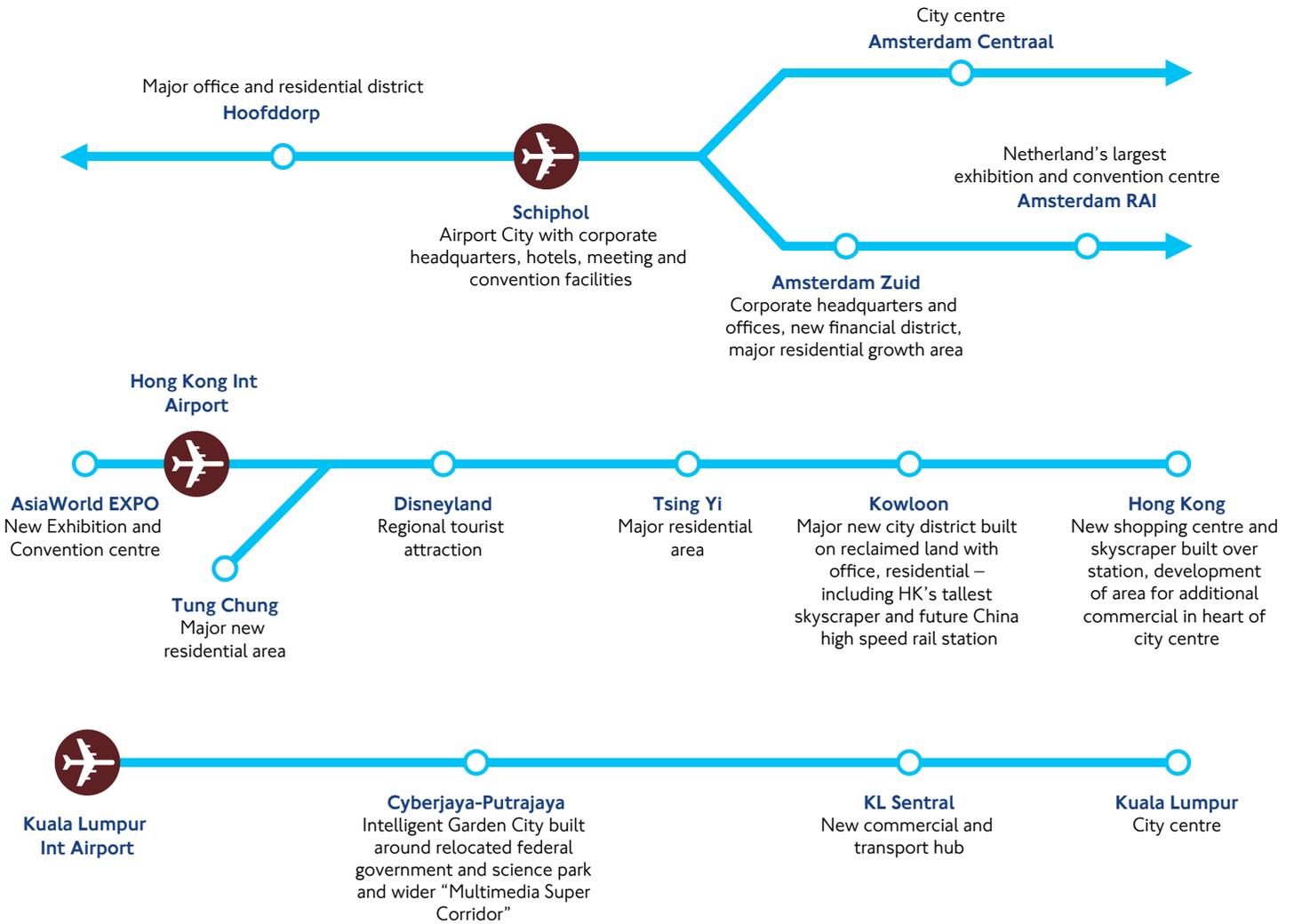
So great is the potential of a large airport to reshape the economic geography of a city that it is the Mayor's position that the decision about future aviation capacity cannot be one of merely where to put a strip of tarmac. It must be seen as a fundamental and significant decision about the future shape of the city and it must contribute as effectively as possible to meeting the challenge London and the country face of building homes and creating jobs, with the right connections between them, for the startling additional numbers of residents we will be accommodating by 2030 and beyond.

That is one reason for the Mayor's disappointment that the Airports Commission seems to be confining itself to a 2030 time horizon. By doing so, they can say that there is the need for one new runway and then close their eyes to the likely demand beyond that which means a further new runway will be needed by 2040. Short-sightedness leads to thinking about the incremental addition of new runways. A longer term vision leads to thinking about the sort of airport we need, a very different question. This long term approach is one that is championed by the Government; in fact the Chancellor himself has recently said when talking about our northern cities that it is much more valuable for the entire country to 'try and capture a bigger vision'. To date the Airports Commission has focussed on the short term.

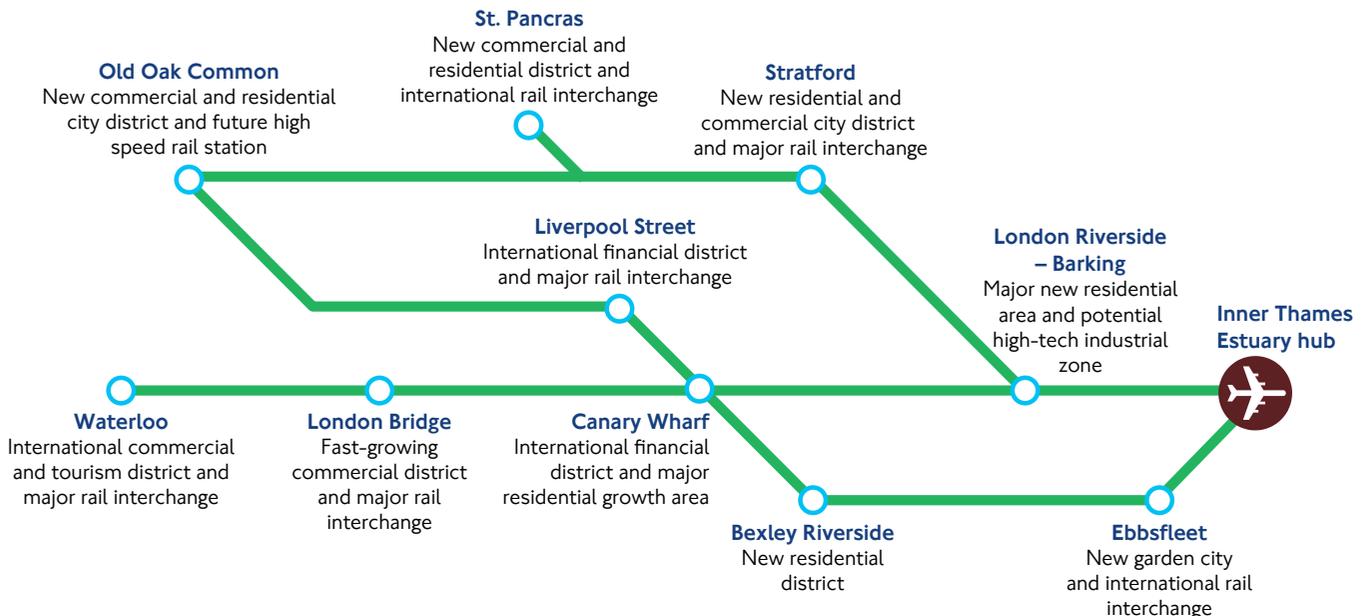
The Airports Commission needs to look further ahead and take a wider view of its work so as to incorporate the challenges of a growing city into its thinking.

- Other countries have proven that airports can act as a catalyst for growth, not only near to the airport itself but along the key transport corridors connecting to the city centre

International examples of airport driven growth



Opportunities for London and the Thames Gateway



The right sort of airport

Airlines are profit-seeking businesses that run services most reliably when they can be reasonably sure that each plane will be nearly full. High fixed costs mean that profitability lies in capturing the marginal passenger. The most effective way to achieve this is to bring as many passengers as possible together into a large airport and serve them from there. Because the airlines are operating a 'hub-and-spoke' service, such airports are known as 'hubs'. There aren't very many of them in the world but the cities that have them enjoy a wide range of direct connectivity to other airports. Basically, if your city does not have a hub airport, then to get to many destinations you will have to fly to a hub airport elsewhere and take a connecting flight. But if your city has a hub airport, then you will have immediate access to non-stop flights to a wide range of destinations with good frequencies.

An efficient hub airport is vital to the success of our economy

For its long-term economic prosperity, Britain – London in particular – cannot afford to lose its hub airport and risk further reducing the number of destinations London is directly connected to. Direct international links are vital to the UK economy. Not only are frequent and reliable connections attractive for foreign companies establishing European headquarters in the UK, they also encourage inbound tourism which supports jobs and investment and generates export revenue.

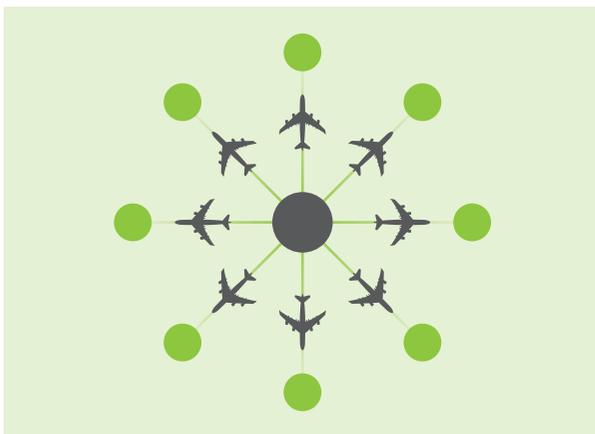
As our sole hub airport, linking international flights and some domestic destinations, Heathrow has been a vital connection point, accounting for 40 per cent of the country's scheduled air passenger traffic and as much as 80 per cent of direct long-haul traffic.

So it has played a fundamental role not just in London's prosperity but also in the UK's as a whole.

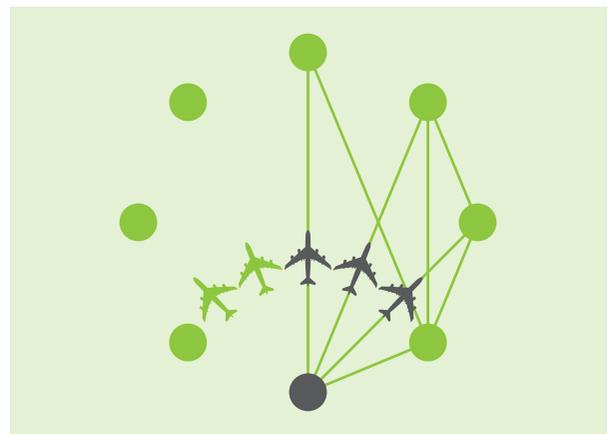
The trouble is it's full. As a result, it cannot operate as a well-functioning hub. It cannot, for example, manage great waves of arrivals and departures so as to make connections easy, as is done in major hub airports in the United States and the Gulf.

Airport options

Hub airports enable better connections

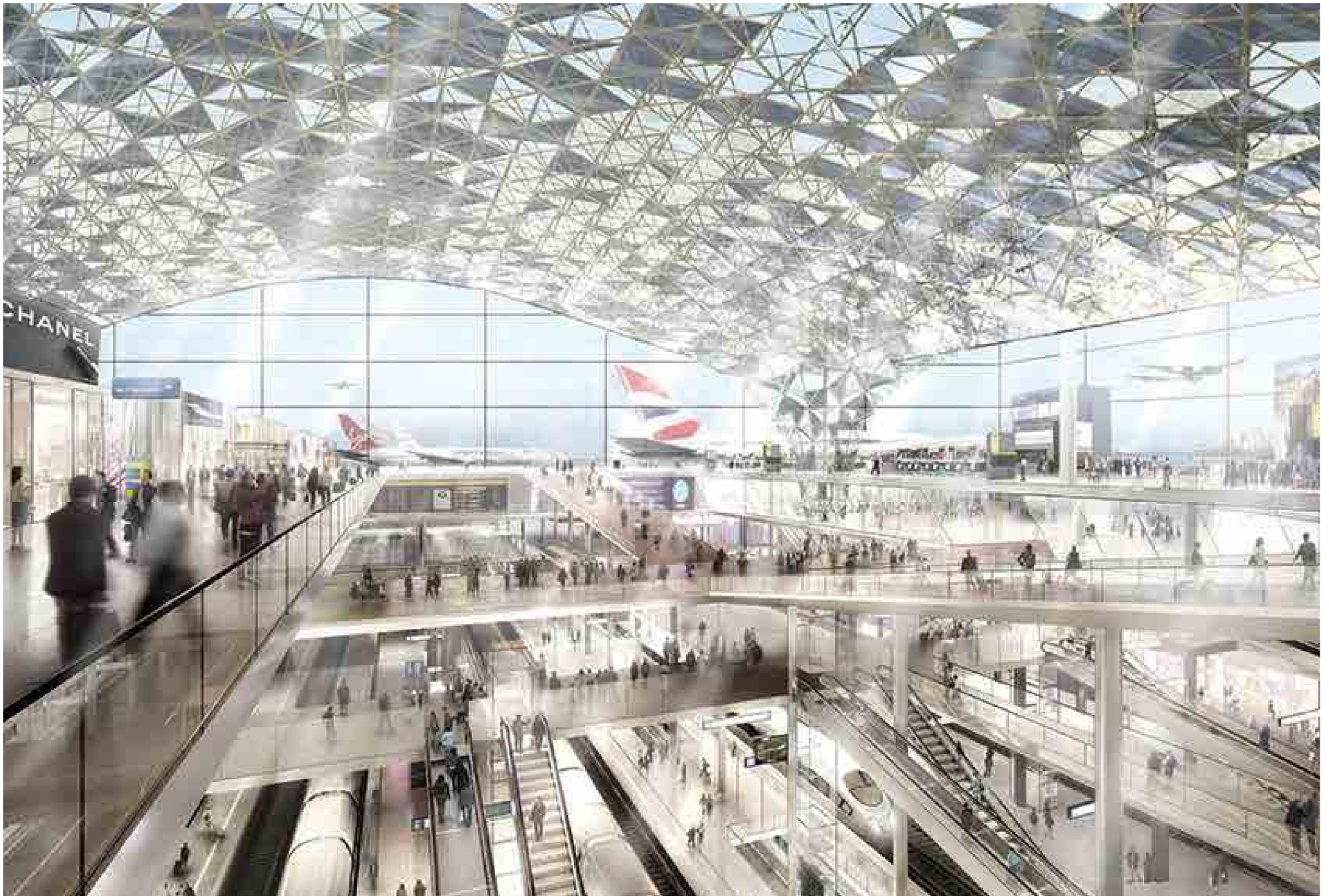


A hub airport allows more city-to-city connections



Non hub airports have far fewer direct connections

► The UK's new airport could be a fully integrated transport hub





To act as an effective hub, Heathrow will need at least four runways by 2040. Indeed, despite what the Airports Commission says, there is demand to justify a third runway today. By way of comparison, rival hubs in Europe such as Frankfurt Airport and Paris Charles De Gaulle already have four runways and Amsterdam Schiphol is completing its sixth runway, with land reserved for a seventh.

To work effectively, a hub airport has to be able to cope with delays and disruption. So it's important to have spare capacity, because it provides resilience at times of bad weather during incidents on the ground. Spare capacity also allows airlines to experiment with new routes at much lower risk than is the case at Heathrow (where, generally, a new route at a desirable time of day can only be established at the expense of an existing route).

We are falling behind our international rivals

The lack of room for growth at Heathrow is now damaging London's – and Britain's – economic wellbeing. Heathrow is falling behind its international rivals.

Over the past two decades the number of destinations it serves has shrunk while competitors' have increased. Our European rivals boast direct flights to fast growing economies such as Lima in Peru and important economic centres like Dar es Salaam in Tanzania and Osaka in Japan. Heathrow simply can't compete.

— London is a world-class centre for trade, but because of the lack of a clear and cohesive strategy its airport system is third-class. —

Jim French, Founder of FlyBe

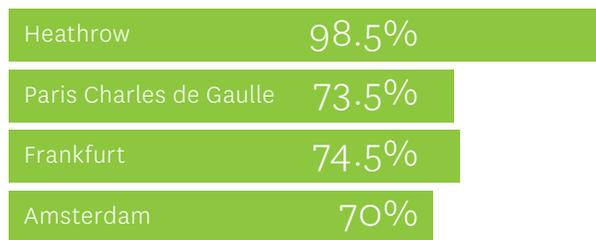
For instance, Heathrow serves 171 destinations from two runways (it used to be more than 200). But Paris Charles de Gaulle serves 257 from four. Frankfurt, also with four runways, serves 291 destinations. Amsterdam, with six, serves 277. In fact, Amsterdam already serves more UK destinations than our own hub airport, Heathrow.

More tellingly, Heathrow's current runway usage is 98.5 per cent. This allows a maximum of 87 flights an hour. By contrast, Paris Charles de Gaulle, with 73.5 per cent runway use, currently has 114 flights an hour and will extend this to 120 next year.

Frankfurt (74.5 per cent runway usage) has 83 flights an hour, but that number will increase to 126 in 2015. And Amsterdam (70 per cent) has 110 flights an hour, and this will rise to 120 next year.

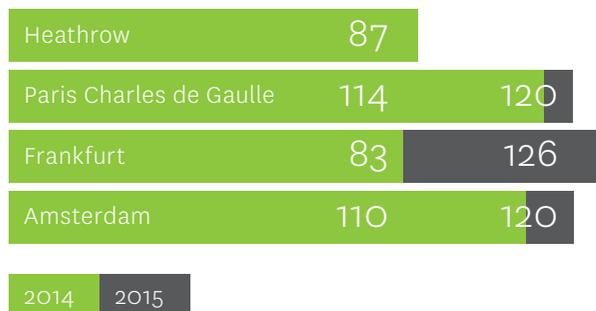
Runway usage

Average runway slot use



Departures

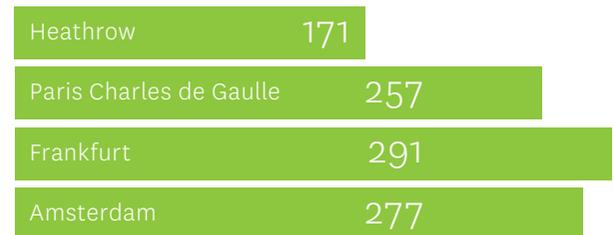
Based on flights per hour



So London's nearest rivals are already offering a much better service. By doing so, they are attracting international transfer traffic at Heathrow's expense, and to the detriment of London's connectivity.

Destinations

Number of destinations served



London is also facing growing competition from hub airports further afield. This year, Dubai is expected to overtake Heathrow to become the world's busiest airport by international passengers served. Moreover, Dubai is planning for the future: it is building a new five-runway hub airport, which, when fully operational, will have capacity to serve 160 million passengers every year. Istanbul airport is also a rapidly growing hub – and is set to be replaced by a new six-runway airport which will have the capacity to serve 150 million passengers a year.

The Airports Commission needs to be clear as to its view on whether Britain can afford to lose its hub airport. If it agrees with most observers that such a loss would be a mistake, with terrible economic consequences in the long term, then it must make that insight fundamental to how it conducts the remainder of its work.

So what can we do?

In 2012 the Government set up the Airports Commission to examine the need for extra airport capacity and recommend the best way to meet this in the short, medium and long term. Last December, the Commission published an interim report.

It shortlisted three ‘long-term’ options for increasing London’s airport capacity:

- A third runway at Heathrow
- An extension to one of Heathrow’s existing runways
- A second runway at Gatwick

The Commission’s definition of ‘long-term’ very carefully calls for only one new runway by 2030, but to meet demand to 2050 and beyond any of these options would require further expansion.

— The contentious debate about runway capacity and the length of time to resolve it is hugely frustrating and genuinely damaging to business opportunity. —

**Stuart Patrick, Chief Executive,
Glasgow Chamber of Commerce**

The Commission also said it would further investigate a fourth option: an entirely new four-runway hub airport in the Inner Thames Estuary. Of those still on the table, it is this option which the Mayor of London and Transport for London believe will best meet the future needs of the Capital – providing not only airport capacity but wider benefits in terms of regeneration, economic development and environmental protection.





Gatwick is not the answer

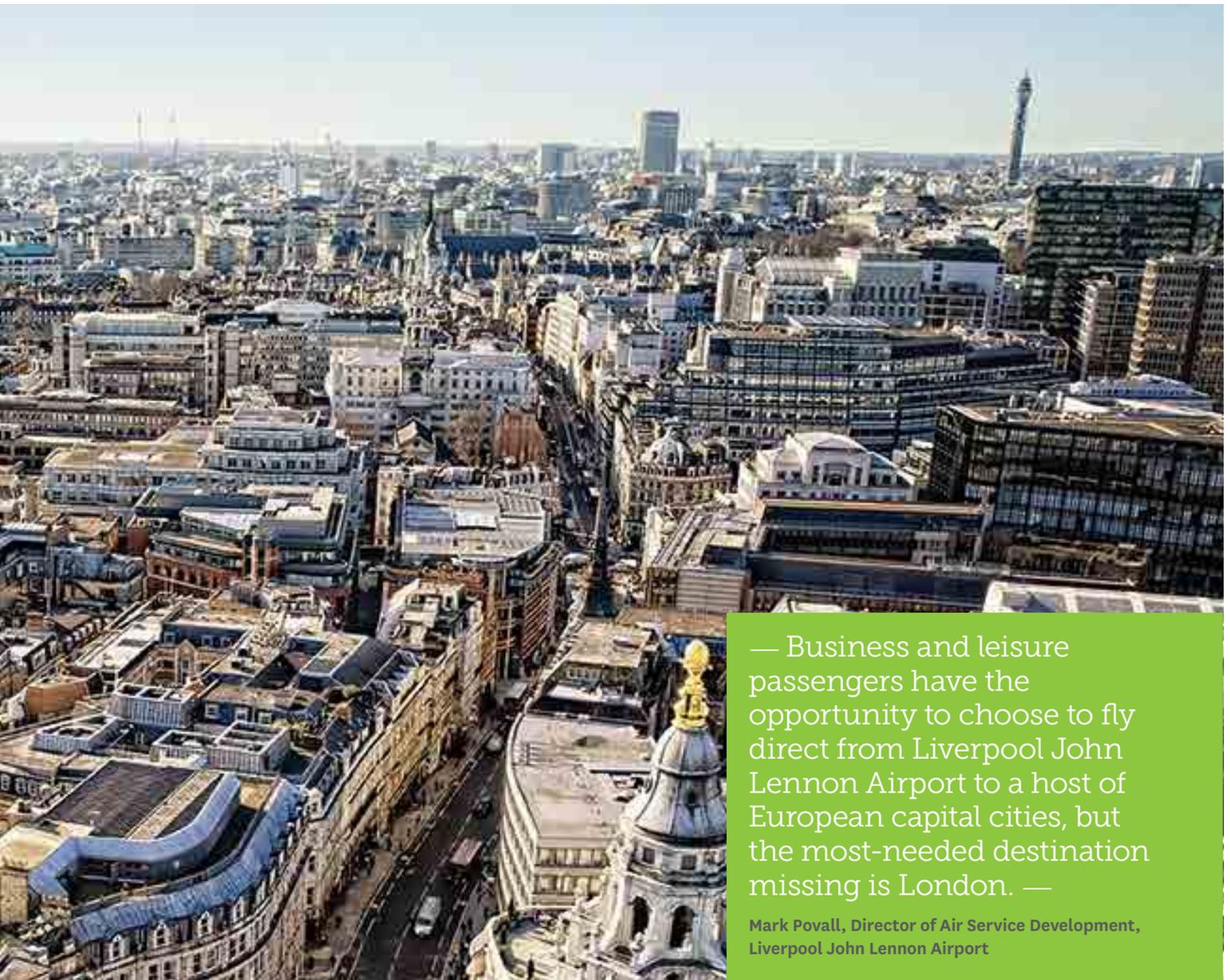
Gatwick's proposal is to build a second runway to the south of the existing one. It is not disputed by anyone, however, that a third or fourth runway is simply impossible at Gatwick, given its location between two existing towns. So choosing this option would mean that Britain had, for decades to come, turned its back on the need for a hub airport. We would be opting instead to serve the city with two medium-sized airports (plus a handful of smaller operations), neither capable of offering effective transfer services, both likely to lose increasing numbers of transfer passengers to hubs that valued them, such as Amsterdam Schiphol and Dubai. If we went down this route, we would be taking a reckless gamble that the operating model favoured by other countries and by international airlines was simply wrong and that we knew better. But there is no evidence to justify that gamble.

But Heathrow is not the answer either

Heathrow is the most noise-polluting airport in Europe. According to European Commission measurements it accounts for 28 per cent of all those adversely affected by noise in the whole continent. That equates to about 725,000 people, a number that research commissioned by the Mayor has shown would grow to at least a million if a third runway were allowed.

A leading Heathrow shareholder recently said that Britons made "excessive" fuss about noise levels from aircraft flying over their homes, and people wouldn't even hear the aircraft after a while.

But it is simply not true that people get used to the noise; research has shown people becoming more sensitive to aircraft noise, not less. Work by Imperial College London has indicated that risks of hospital admission and death from heart disease and stroke is 10-20 per cent higher



— Business and leisure passengers have the opportunity to choose to fly direct from Liverpool John Lennon Airport to a host of European capital cities, but the most-needed destination missing is London. —

Mark Povall, Director of Air Service Development, Liverpool John Lennon Airport

in areas around Heathrow that are most exposed to aircraft noise, while a number of separate studies looking at children around Heathrow and Schiphol airport in Amsterdam have found that children learn to read more slowly when taught in an area exposed to aircraft noise.

There are other reasons why expanding Heathrow is not the answer. The roads and railways serving the airport are already under strain; planned capacity improvements to the Underground and the delivery of Crossrail are already spoken for to serve a growing population. To achieve world-class surface access links to an expanded Heathrow with the capacity, connectivity, journey quality and public transport mode-share befitting an international gateway, Transport for London estimates that £15bn of investment could be needed, in addition to currently planned and committed schemes. This cost would fall on the public purse over time but would have little effect on an area already physically congested. It would be money largely spent for the benefit of a private airport company.

Broken Promises

The building of a third runway at Heathrow will inevitably be followed by demands for a fourth. The history of expansion at the airport can be summarised as ‘just one more’, with each proposal for a new runway or terminal accompanied by a promise that it will be the last. But it never is. Heathrow comes back, time after time, with another proposal accompanied by another worthless pledge. During the T5 Inquiry the Chief Executive of Heathrow even wrote to thousands of local residents telling them that “...we do not want, nor shall we seek, an additional runway”. A third runway will be no different. Why would it? Government figures show that demand at Heathrow will more than double by 2050, making a fourth runway a certainty if expansion goes ahead now.

The Airports Commission needs to recognise that a second runway at Gatwick will end Britain’s hub aviation status and that imposing a third runway at Heathrow is environmentally unacceptable in a civilised city and fraught with political delivery risk.

The case for a new hub airport

Here's why it has to be in the Thames Estuary

As we've pointed out, we have two serious questions to answer:

1. How are we going to tackle the urgent and immediate challenge of providing new homes and jobs as our population expands?
2. How are we going to stay globally competitive if we haven't got a hub airport that can compete with the rest?

Take the population issue first. We'll need to house an extra six million people in the UK over the next 15 years – and nearly two million of them will be living in London. That's equivalent to inviting more than the whole of Birmingham to come and join us!

The Mayor's Infrastructure Investment Plan sets out some visionary solutions. Among them is developing the Thames Gateway east of London, with a dynamic new hub airport at its heart, which will lead the way in regenerating the wider region, allowing Kent and Essex to unlock the full potential of sites such as Ebbsfleet and deliver huge numbers of new homes, jobs and business opportunities, many of them within London.

— The scale of benefits associated with such a proposal is potentially greater than for any of the other options that the Commission has considered. —

Airports Commission Interim Report, in relation to the new hub option

A new four-runway hub airport will:

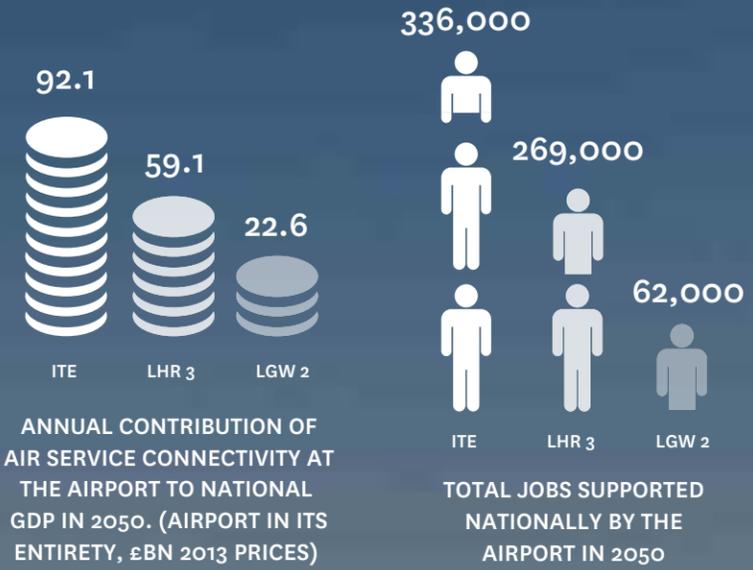
- Offer the flexibility and resilience of two extra runways rather than the one offered by the Heathrow and Gatwick expansion schemes
- Connect the UK to more than 300 international and domestic destinations (430 when combined with Stansted, Luton, City and Gatwick) – far more than any alternative
- Serve 176 long haul destinations; an expanded Heathrow could only serve 106 and an expanded Gatwick a mere 53
- Provide direct connections to new and emerging markets and important economic centres like Belo Horizonte in Brazil, Calcutta in India and Chongqing in China
- Serve 16 UK cities, many more than an expanded Heathrow or Gatwick could hope to serve
- Transport 150 million passengers a year compared to 110 million at an expanded Heathrow and 70 million at an expanded Gatwick
- Make a total national connectivity contribution of £92.1bn to UK GDP in 2050
- Support 336,000 jobs nationally
- Create at least 222,000 jobs for London and the Thames Gateway

INNER THAMES ESTUARY

IMPACTS ON THE LOCAL ECONOMY

TOTAL DESTINATIONS SERVED BY LONDON AIRPORT SYSTEM IN 2050*

ECONOMIC BENEFITS



*GATWICK SCENARIO ALSO INCLUDES STANSTED EXPANSION (2 RUNWAYS)

Five ways the Inner Thames Estuary airport will support the UK

In a nutshell, a new four-runway hub airport will:

1. Give us the vital airport capacity we need for the future to ensure we remain globally competitive
2. Allow us to keep up with our international rivals and secure the future of our economy in London and the South East, as well as the regions
3. Open the door to thousands of new jobs across the UK
4. Help to meet long term housing needs
5. Secure a positive future for west London by turning the old airport into an exciting new city, delivering even more homes and jobs

The Airports Commission has identified the challenges to creating a new hub airport in the Thames estuary. It needs now to acknowledge that none of those challenges is insuperable in a confident, growing economy which can draw on Britain's great engineering expertise.

— For many years Kent and Medway have been well placed to benefit from proximity to London and to take part in the general prosperity in the South East, but we have missed out. —

Clive Lawrence, Founding Member, Demand Regeneration in North Kent (DRINK)

Inner Thames Estuary Employment figures

Airport jobs (within airport boundary).

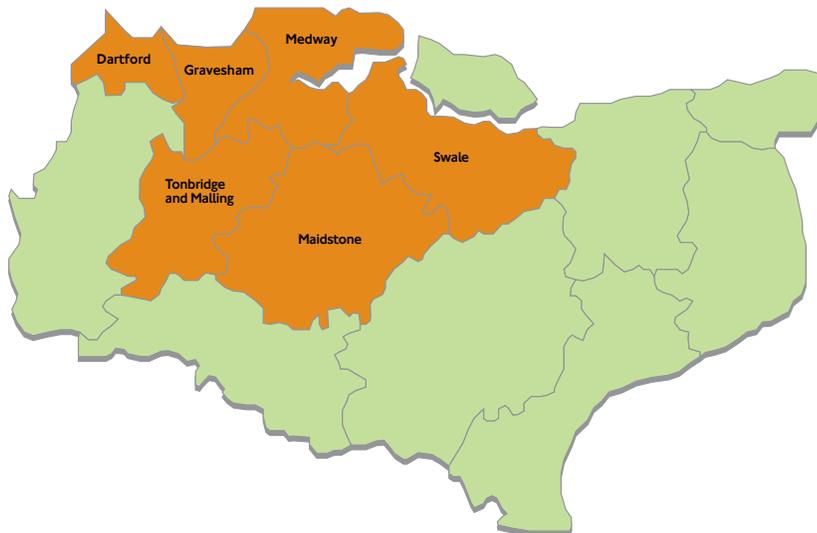


92,000

Local jobs Six Boroughs within Kent (Dartford/Swale/Maidstone/Medway/Gravesham/Tonbridge and Malling).



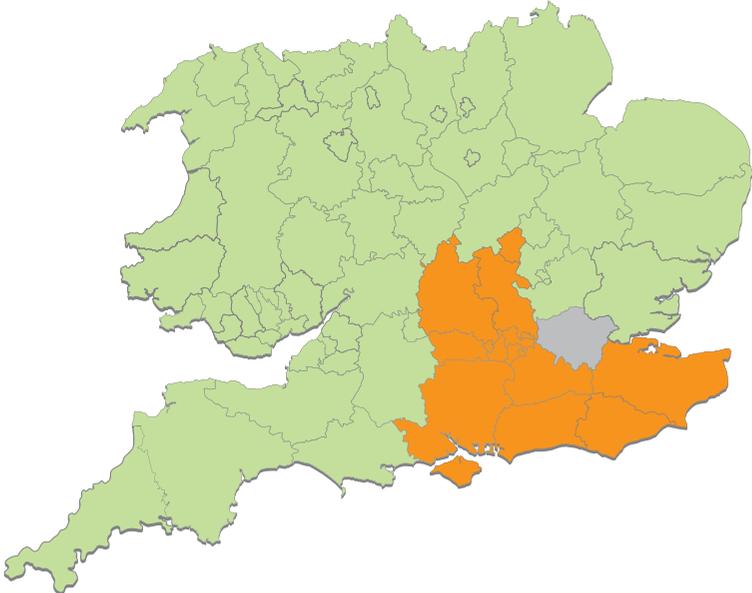
130,000



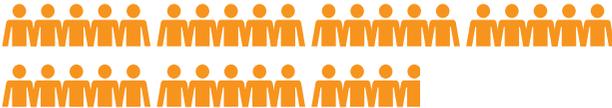
London and Thames Gateway jobs



222,000



National jobs



336,000



Serving the United Kingdom

Expanding London's airport capacity matters to each nation and region of the UK. Businesses across the UK, from manufacturers of slate products in Cornwall to whisky distillers in the Highlands of Scotland, need good air links not just to London, but to important global markets around the world.

Heathrow has failed the UK's regions

But far from connecting each part of the UK to our capital city and the world, Heathrow has turned its back on the regions. Eleven domestic routes to Heathrow have ended since 1990 and vast parts of the country now have no link to the UK's main airport. This is a huge barrier to regional growth and we now have the unsustainable situation whereby each year millions of UK passengers are forced to use hub airports in Holland, Germany and France to travel the world.

Building a third runway at Heathrow won't help the situation either. It will be effectively full shortly after opening, so the same commercial pressures which force airlines to prioritise the most profitable long-haul routes today, will mean once again that domestic routes are squeezed out.

Domestic routes are suffering

Domestic routes require access to the early morning and evening peak slots as they need to carry large numbers of business travellers to London, as well as connecting passengers, to be commercially viable. But these peak slots will be scarce and dominated by the most profitable international flights.

The evidence from other European countries is that a four-runway hub is needed to ensure full regional connectivity. A new four-runway airport for the UK can support more regional routes because there will be sufficient runway capacity to make sure that international flights do not crowd out viable domestic routes. The wider range and frequency of global routes will mean more connections, which will increase demand for these services and improve their sustainability.

Recent research highlights that a four-runway airport could sustain eight new domestic routes to places like Liverpool, Inverness, Dundee, Durham Tees Valley and Newquay. It would also increase the frequency of flights on existing services from cities such as Belfast, Aberdeen, Glasgow and Edinburgh.

Neither an expanded Heathrow nor a second runway at Gatwick will improve connectivity for every part of the UK. Only a four-runway hub, with unconstrained capacity can do that. The UK needs an airport that operates in the national interest, regardless of where people or businesses live.

If the Airports Commission's recommendation about extra capacity in the South East does not provide a high level of certainty of improved links between London and the regions and between the regions and the wider world, then the process will have failed many parts of the UK.

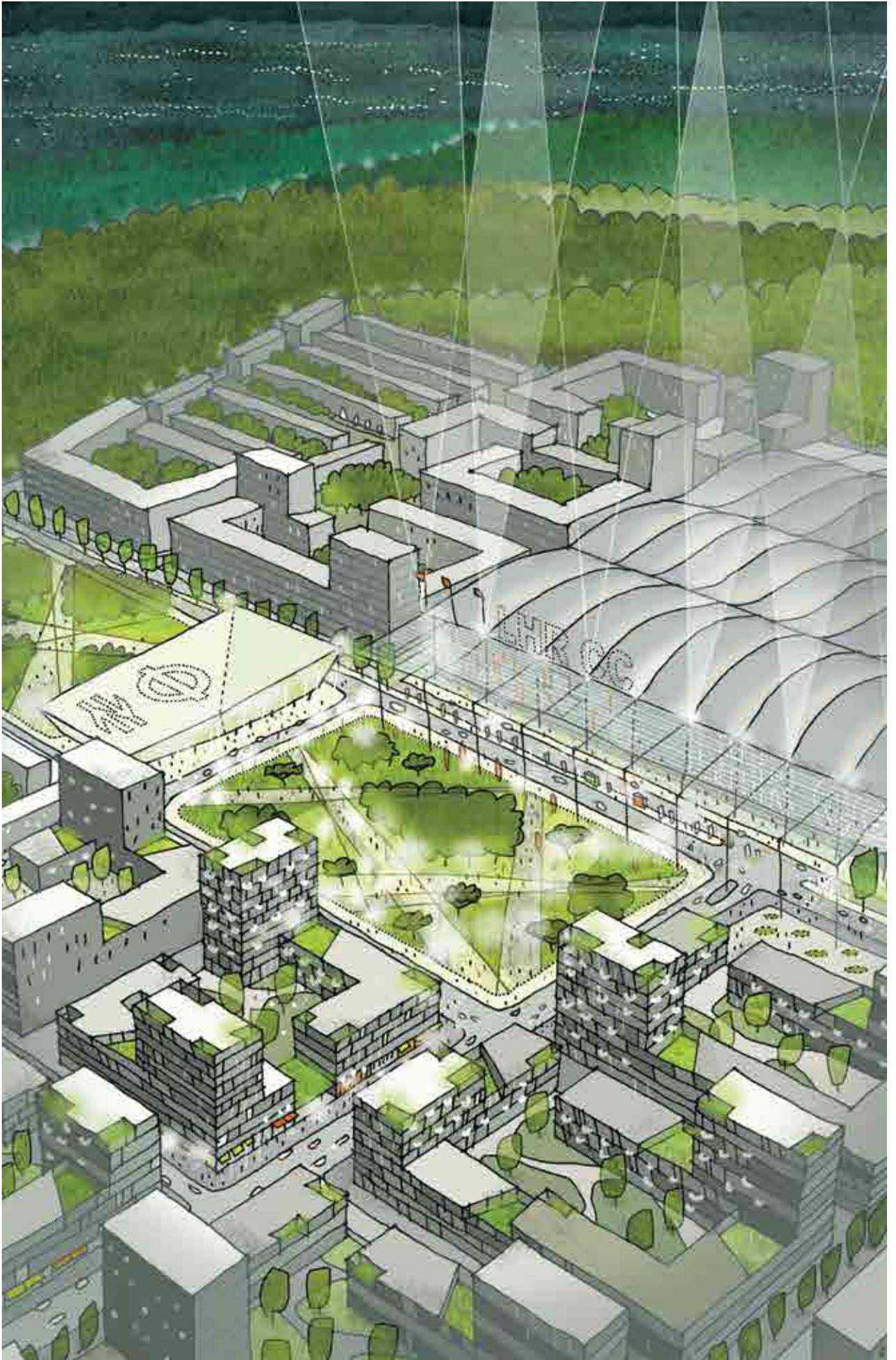
Which cities will benefit from a new hub?

With a four-runway hub, many cities will gain connections to both London and the hub.



Summary of regional connectivity to London Hub

	No expansion	Heathrow third runway	New four-runway hub
Continued existing hub routes	6	6	7
New hub routes	0	0	8
Total	6	6	15
Net gain with new hub	-	-	9



One of a number of visions for the future of the Heathrow site

Breathing new life into Heathrow

Creating a new city on the site of the old Heathrow airport makes sense in all kinds of ways.

It would help meet the growing need for new homes as London's population expands over the coming decades. It would open the doors to new commercial development, creating jobs both for existing Heathrow workers and for newcomers. And it would take advantage of the road and rail infrastructure already in place to serve Heathrow.

The making of a city

Studies show the site has hugely significant potential for residential and commercial use. The 're-developable' area of the site alone could support 90,000 jobs and 80,000 homes for around 190,000 new residents.

That community, it's estimated, would contribute about £7.5bn a year to the UK economy.

And that, of course, would be on top of the residential and business developments created to serve the new four-runway hub airport on the other side of London.

Site remediation and master planning at Heathrow would take two to three years, creating new jobs immediately, and it is estimated that the entire new city could be completed within 20 years.

Other major cities have successfully relocated their airports

Any fears that relocating the airport would cause 'economic cataclysm' in west London and the Thames Valley, as some have suggested, can be discounted. Other major cities around the world – Stockholm, Denver, Washington DC, Munich and Oslo, for instance – have relocated their airports successfully, and businesses around Heathrow would still be able to reach the new airport within 45 minutes.

It can also be argued that access to a skilled workforce is more important to a business than access to an airport. West London already has a wide spread of businesses and skills – as well as a population bigger than Birmingham's – and a new 'Heathrow City' would make it an even more attractive proposition for employers.

And for Heathrow workers commuting to the new airport across London, the 45-minute journey should be as easy – or even easier thanks to the planned rail links – as many of them already undertake today.



Q&A

All your questions
answered



Can we afford a new hub airport in the Inner Thames Estuary?

Including risk, land acquisition and construction, a new airport would cost £25.7bn and be open in 2029. A further £16.8bn spent over the ensuing 20 years would grow the airport to a capacity of 150 million passengers per annum by 2050 – well over twice the size of Heathrow, and one of the largest airports in the world. Anything between £2.5bn and £19.1bn (depending on level and quality of the services provided) could then be spent on new road and rail links to the airport, connecting it to London and the rest of the country.

Unlike the other options, it will provide the connectivity, flexibility and resilience the UK needs. And on a like-for-like basis, the cost would be comparable to providing similar capacity through two extra runways at Heathrow.

But in addition, it will bring greater social, economic and environmental benefits not only for London and the South East but also for the UK as a whole. So we'd be getting more than simply an airport, and it would represent good value for money.

How would it be paid for?

An element of public funding would inevitably be necessary for the construction when taking into account the surface access requirements, but this applies to the other options too. Once completed it would be commercially viable and capable of being owned or operated by the private sector.

How will a new hub airport be compatible with climate change objectives?

While long-term climate change targets could limit passenger growth, the new Inner Thames Estuary airport has been designed to be fully compatible with the recommendations of the Committee on Climate Change.

Based on forecast passenger movements, a new four-runway hub airport would generate significantly lower carbon dioxide emissions per passenger than at Heathrow today (as well as at a Heathrow constrained by climate change targets in 2050). So it would be compatible with wider objectives of reducing emissions within the aviation sector.

Emissions would be reduced by:

- Greater efficiency in airport design (including energy-efficient buildings and operations)
- Use of larger, fuller aircraft
- Flexibility and resilience in capacity – reducing the need for stacking and longer-than-required ground movements

An emphasis on access by public transport would also result in lower carbon emissions from people travelling to and from the airport.

— At its worst it's veering towards third world conditions. —

**Sir Roy McNulty, Chairman Gatwick Airport,
in relation to the Gatwick Express**

How will we get to the airport?

Good surface access, particularly by public transport, will be vital. Road and rail links will need to provide excellent connectivity, with good, reliable journey times and ample capacity. They should also support wider regeneration and economic growth of the Thames Gateway.

Transport for London's proposed rail strategy combines new and existing infrastructure to provide the best possible connections across London and with the rest of the country. It includes:

- Central London Airport Express – a high-speed service to key London destinations: London Riverside – Barking (14 minutes), Canary Wharf (20 minutes), London Bridge (24 minutes), Waterloo (28 minutes)
- Crossrail extension from Abbey Wood via Dartford and Ebbsfleet, providing an additional rail link with central London as well as key opportunity areas in southeast London
- HS1-HS2 link – a direct high-speed connection to St. Pancras (25 minutes), Old Oak Common (29 minutes) and onward via HS2 to Birmingham and the North
- Local rail connections to south Essex via the Thames Crossing, north Kent and southeast London

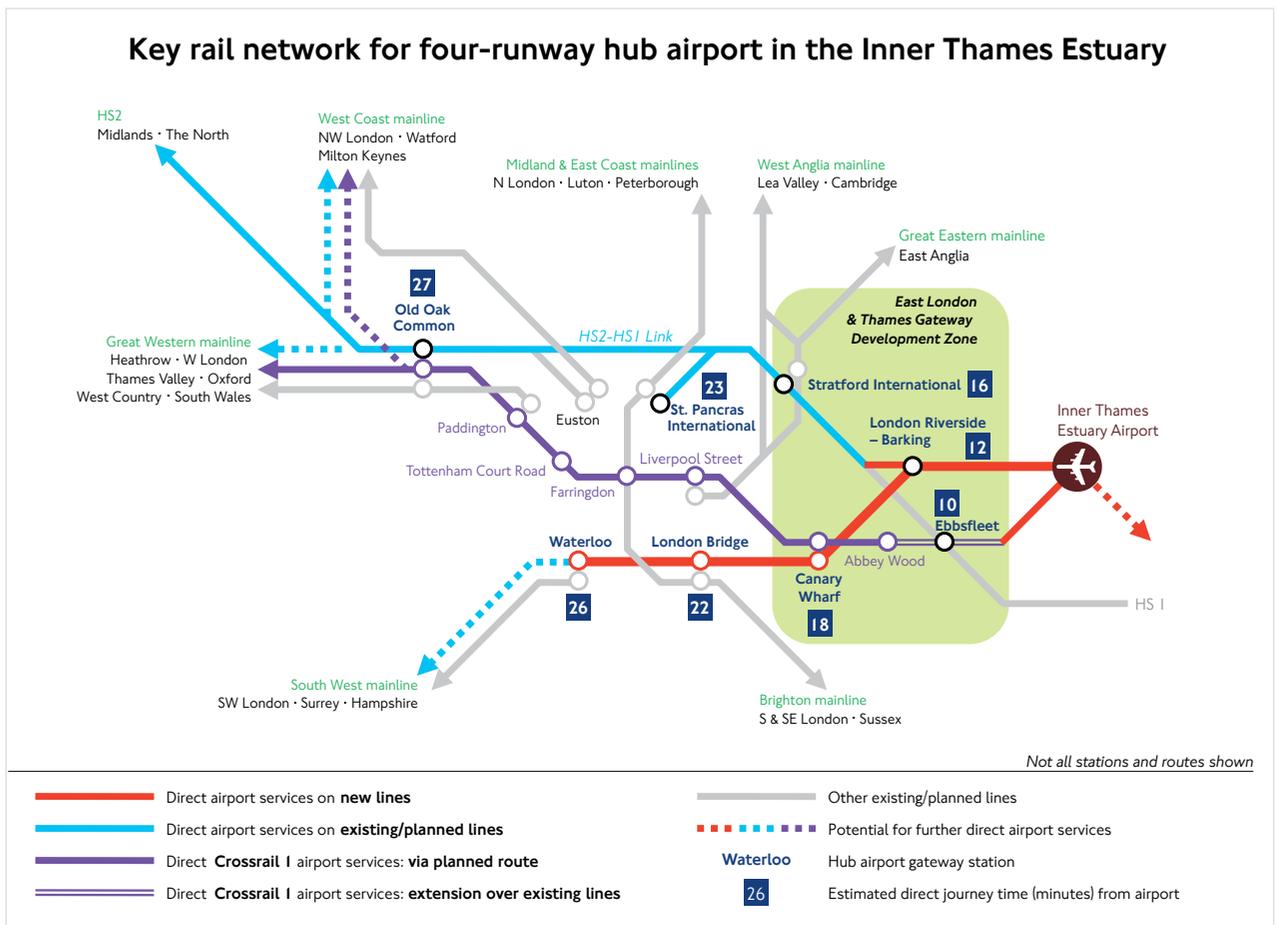
The express service to Waterloo would be capable of transporting large numbers in short journey times, and its east-west alignment would bring economic and regeneration benefits on a scale similar to Crossrail's.

The Crossrail extension, along with local rail improvements, would also help to promote economic activity and growth in southeast London and in the Medway towns over and above that of the new airport.

The roads strategy includes creating two airport links to ensure resilience, with new access roads built and existing roads widened. The M25 and A2

would be widened and current proposals from the Government for the Lower Thames Crossing extended to accommodate peak airport demand.

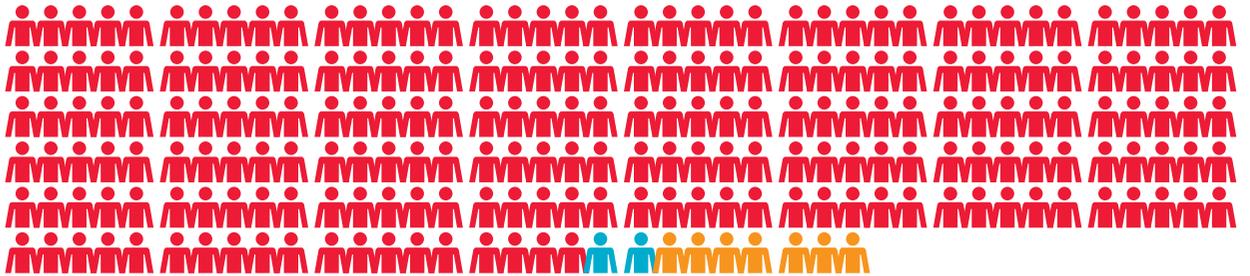
While all of these enhancements will make travelling to the new hub airport in the Inner Thames Estuary much easier, importantly they will also contribute to improving connections and reducing overcrowding on the wider London public transport network.



Exposure to aircraft noise

Heathrow expansion scenario

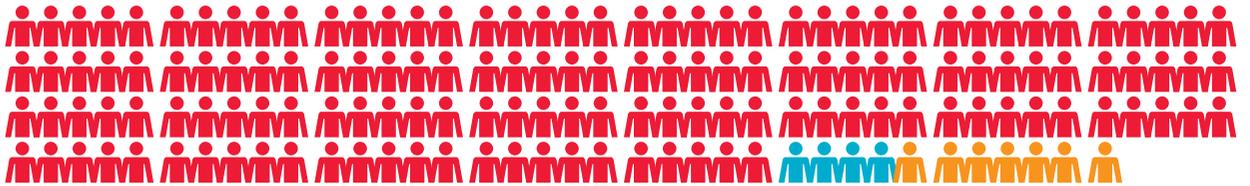
(Heathrow 3, Gatwick 1)



1,140,000
Exposed to noise

Gatwick expansion scenario

(Heathrow 2, Gatwick 2)



780,000
Exposed to noise

New Inner Estuary scenario

(Estuary 4, Gatwick 1)



75,000
Exposed to noise

Each icon represents 5,000 people exposed to noise.



Heathrow



Gatwick



Estuary



Stansted, Luton, City and Southend

What about aircraft noise?

A new hub airport on the Inner Thames Estuary would be more than double the size of Heathrow. Yet, based on one million air traffic movements, 95 per cent fewer people would be exposed to intrusive noise levels.

On Heathrow's flight path, official figures indicate that around 725,000 people directly suffer noise levels of 55dB or more from aircraft traffic. That's the intensity measured by the World Health Organisation to represent the onset of annoyance.

With a third Heathrow runway more than one million would be affected – an increase of more than 50 per cent. They would include, for the first time, people living in Kennington, Camberwell, Peckham, New Cross and Deptford, as well as Chiswick, Chelsea, Hammersmith and Pimlico.

In fact, Heathrow accounts for 28 per cent of all the people in Europe who are exposed to aircraft noise – more than its five main European rivals combined.

By contrast, the number affected by noise levels of 55dB from the new four-runway hub's aircraft traffic would be 31,500.

Is fog a problem?

The Airports Commission's recent feasibility studies confirm that the Inner Thames Estuary does not experience significantly worse visibility conditions than Heathrow or Gatwick.

In the event of visibility affecting London's airports, though, the Inner Thames Estuary airport option would be the only one capable of providing the resilience and operational flexibility to avoid cancellations and severe flight disruption.

What about bird strikes?

A number of major international hub airports operate within coastal and estuary locations around the world. Although the new four runway hub's estuary location could slightly increase the potential risk of bird strikes, international examples show the risk can be managed effectively.

Shouldn't we be protecting the Thames Estuary's natural habitats?

Yes, and we would. There are a number of designated sites within the vicinity of the proposed Inner Thames Estuary airport and these would be re-provided through compensatory habitat. Although the scale of compensatory habitats would be unique, flagship projects like Crossrail and the Olympic and Paralympic Games are starting to show that the UK is more than capable of tackling these kinds of challenges successfully. There is no evidence at this stage to suggest that the appropriate habitat compensation cannot be delivered.

There are no legal requirements that cannot be met at this stage and there may be opportunities to integrate new habitats with wider long-term management schemes within the estuary, such as the Environment Agency's TE2100 Plan.

Won't City and Southend Airports have to close?

No, an Inner Thames Estuary Airport would be compatible with continued operations at both City and Southend. The Airports Commission itself has recently said that the closure of these two airports cannot be assumed.

Conclusion

What can I do?

The aviation debate affects all sorts of people right across the UK. Whether you are working to expand a small business in Scotland, living under the flight path near Heathrow or concerned about job opportunities in the Thames Gateway and Kent it is vital that you participate in the debate.

Everyone's opinion matters and all voices should be heard. You can write to the Airports Commission or to your local MP, but you must take action to ensure your own views are properly represented.

You can write to the Airports Commission at:

Airports Commission,
Sanctuary Buildings,
20 Great Smith St,
London, SW1P 3BT

You can find out the name of your local MP at www.parliament.uk, and write to them at:

House of Commons
London, SW1A 0AA

What happens next?

The Airports Commission will decide in September whether to add the Inner Thames Estuary airport to its shortlist of options for further investigation and analysis. Following a period of public consultation on all of the shortlisted options the Commission will make a recommendation to the Government after the 2015 General Election.

The Government will ultimately have to decide how it deals with our current and future airport capacity.

The facts are simple. If the UK is to continue to compete on the world stage we must ensure that we have an aviation policy that allows us to travel efficiently to a wide range of destinations both within our own borders and across the globe, that allows us to transport our goods and services effectively and, crucially, ensures that we do not miss out on the business opportunities that are critical to the success of our economy.

We cannot afford to ignore the opportunities that a new four runway hub airport offers. Nor can we be daunted by the challenge of planning for our long-term future. We have proven again and again that as a nation we are capable of delivering the ambitious schemes that will support our growth and deliver real benefits for generations. Now is not the time to be timid about our abilities. Countries across the world have already successfully built airports that will work for their future. The UK can and must do the same.



Appendix: rebutting the claims made by Heathrow and Gatwick



Expanding Heathrow won't work

The claim: A third runway will allow up to 260,000 extra flights a year (up to a total of 740,000 annually).

The reality: Three runways at Heathrow are not enough to meet long term connectivity demands.

The Inner Thames Estuary airport's four runways will provide capacity for double that amount – and with room to grow. By contrast, what will happen when Heathrow's capacity fills up within a few years? Do we start talking about yet another runway?

The claim: With a third runway Heathrow will be flying to 170 destinations by 2050.

The reality: That's not enough. Paris Charles de Gaulle already serves 257 destinations.

The Inner Thames Estuary airport's four runways will be able to offer 301 routes by 2050.

The claim: A third runway could be delivered with no net increase in vehicle trips on the local road network.

The reality: This is simply not credible. Heathrow has not published any evidence to support this claim and achieving it would rely on a mode shift to public transport that could not realistically be accommodated on London's current or planned public transport system.

The claim: Heathrow's freight capacity will double.

The reality: Why will it? The third runway is forecast to fill up quickly and, with slots and night operations restricted (24-hour operation is not available), flight growth is bound to be limited. Onward logistics will also be hampered by the increased congestion of roads in west London as a result of the airport's expansion.

The Inner Thames Estuary airport's four runways will transform UK air freight. More passenger flights to more destinations than any other option will mean more bellyhold space, particularly to new and emerging market destinations. New take-off and landing slots will allow freight-only flights and 24 hour operations. In addition the location will allow for consolidation and onward distribution of goods by high speed rail and road.

The claim: With a third runway 300,000 fewer people will be affected by aircraft noise from Heathrow compared with today.

The reality: Beggars belief. Even more people will be exposed to annoying noise levels. More people already suffer from Heathrow aircraft traffic than its five main European rivals put together. In fact, a third runway will expose more than a million people to daily aircraft noise.

The Inner Thames Estuary airport's four runways will expose 95 per cent fewer people to noise when compared with today.

Runway extensions are no better

This proposal – also known as the Heathrow Hub – will mean extending to the west one (and, later, both) of the existing runways. But this option is even less attractive than a third runway.

The claim: Extensions will create one section for departures and one for arrivals, in effect making four runways in all. Departures will be on the upwind runway, arrivals on the downwind.

The reality: Operating runways this way has never been attempted at any airport, ever, and there is no guarantee that it can operate within current safety regulations.

The Inner Thames Estuary airport's four runways will allow tried and tested operating procedures to continue.

The claim: Costs will be relatively moderate and possibly met through private sector investment.

The reality: Unlikely, given the costs of diverting the M25 and making other access improvements.

The Inner Thames Estuary airport's four runways will deliver value for money. All of the expansion proposals will require Government backing but with the new four runway hub option the UK will still be feeling the benefits of our investment for years to come.

And Gatwick is not the answer either

Gatwick makes certain claims for its proposal:

The claim: This will allow more flights than a third Heathrow runway.

The reality: Perhaps, but Gatwick attracts short-haul rather than long-haul flights, with emphasis on holiday destinations, and is still seen as second choice by airlines unable to obtain slots at Heathrow. It just can't compete on long-haul connectivity.

The Inner Thames Estuary airport's four runways will serve 301 destinations by 2050, more than double what Gatwick could offer.

The claim: A second runway at Gatwick will generate 54,000 jobs in London and 46,000 in the wider South East, with the kind of growth experienced in Stratford after the Olympic and Paralympic Games – and benefits will be more widely spread than in west London and the Thames Valley.

The reality: While potentially delivering a number of homes and jobs, opportunities to realise this growth within the area surrounding Gatwick are extremely limited.

The Inner Thames Estuary airport's four runways will have a far greater catalytic impact driving forward much needed regeneration redevelopment of previously developed sites within the Thames Gateway where the opportunity for growth is far greater than anywhere in the south east.

The claim: Gatwick is directly connected to 175 stations and by 2030 rail capacity will be tripled, with train frequency doubled.

The reality: These upgrades are already planned through the Thameslink programme and all additional capacity will be used up by background demand. The Brighton Main Line is and will continue to operate over capacity.

The Inner Thames Estuary airport's four runways will be served by excellent public transport connections allowing easy access to the airport from all parts of the country.

