# Interim Paper on Aviation

## Introduction

Aviation in Wales is an important economic and social asset. It connects Wales to a global economy which facilitates inward investment and trade. It provides a gateway into and out of Wales to business and leisure travellers. It is an enabler of tourism and helps support an aerospace sector in Wales employing tens of thousands of highly-skilled workers.

From the outset it is important to clarify the distinction between *aerospace* and *aviation* and how these will be addressed. Globally the term aviation refers to the carrying of passengers, the operation of aircraft for this purpose and the supporting infrastructure required. Aerospace can be considered as both 'upstream' of aviation in the manufacture of aircraft and its extensive supply chain and 'downstream' of aviation in the maintenance, repair and overhaul (MRO) of aircraft and ultimately the disposal of an aircraft at the end of its serviceable life.

In this respect, aviation drives all growth in the aerospace industry and the two are intrinsically linked. Furthermore, the airfield assets and infrastructure required to operate aircraft are also required for both on-wing MRO activities (i.e where it is necessary to land an aircraft for its maintenance schedule) and off-wing MRO activities where major components are removed from the aircraft after landing for repair or replacement. This last point makes it crucially important when considering the development of airports and airfields in Wales, ensuring the needs of both aviation and aerospace are met.

The Welsh Government recognises the critical importance of aviation both to our current economic competiveness and future economic prosperity. With the acquisition of Cardiff Airport, the continued development of the St Athan – Cardiff Airport Enterprise Zone and the presence of major on-wing and off-wing aerospace businesses such as Airbus, British Airways Maintenance and GE Aviation, now is the time to set out our plan for aviation in Wales. We wim to build on our strengths, realise our potential and ensure that aviation not only addresses transport and connectivity but is central to our jobs, growth and wealth agenda. Indeed, there is a close correlation between the wealth of individuals and the propensity to fly. Amongst other measures, airlines consider disposable income for a given region as an indication of 'latent' demand for air travel.

For the reasons outlined above, while aviation in its narrowest sense encompasses airport development and air services, focussing only upon that narrow definition of aviation would result in an 'airports strategy' rather than a broader plan for aviation including its associated aerospace industry.

In this context, this document considers the position of aviation across its entire value chain. It presents an overarching framework for aviation in Wales, supported by three distinct but inter-related pillars.

1. The strength of the aerospace sector in Wales as a centre of excellence for aerospace manufacturing and MRO related activities and skills.

2. Airports and air services development as a critical part of our national infrastructure and as an economic driver and gateway into Wales.

3. The role of aviation within our overall transport priorities and the inter-relationship between aviation and other modes of transport, both from a people and freight perspective.

A comprehensive strategy for aerospace in Wales, including its many sub-sectors such as Manufacture, MRO, Remotely Piloted Aircraft Systems (RPAS) and supply chain development, has formed the framework for much of Welsh Government investment over several years. In addition, significant activity is underway on a range of related strategic documents. These include Cardiff International Airport Limited's

(CIAL) business plan, the St Athan and Llanbedr masterplans, our national transport priorities  and the Advanced Materials and Manufacturing Sector Plan.[1]

As such, this document does not seek to advance a separate strategy for aviation that is disconnected from these influences.   Rather its purpose is to provide a framework and added cohesion to our activities, whilst also demonstrating the inter-relationships between airport development, civil and military aerospace and wider transport policy.  Whilst this document touches upon aerospace and its symbiotic relationship with aviation, more detailed analyses and plans are contained in the aerospace and advanced manaufacturing and materials strategies.

Importantly, from an aviation perspective it takes account of relevant developments at a UK level, and for aerospace there is considerable cross reference to national, European and even global strategic frameworks.  This includes the emerging thinking of the UK Airports Commission and UK Government's 'Lifting Off' the Strategic Vision for UK Aerospace.[2]

[1] Welsh Government: Advanced Materials and Manufacturing, 2013
www.wales.gov.uk/topics/businessandeconomy/sectors/advancedmaterials/keypriorities/?lang=en

[2] www.gov.uk/government/publications/lifting-off-implementing-the-strategic-vision-for-uk-aerospace

## Aerospace sector

Wales is an internationally competitive centre of excellence for aerospace manufacturing and MRO related activities. The aerospace sector in Wales includes six of the world's top 10 aerospace and defence companies. It is home to the wing plant of 'Airbus in the UK' and also includes the facilities of many other leading businesses such as BAMC, GE Aviation, EADS, Nordam and Marshalls.

The UK Aerospace Sector is worth £24.9bn per annum, with Wales accounting for around £5bn. There are around 20,000 people employed in the sector and the Aerospace industry is predicted to be growing by 5%.

The mutually reinforcing inter-relationship between an international airport and a competitive aerospace sector should not be underestimated. Airports in Wales have an important role to play in providing the functional and physical link that can help to anchor a growing aerospace cluster, in turn, this sector can help provide the commercial drivers, skills and support required by the airport.

We recognise that the cluster of aerospace expertise that has developed in Wales, including a high-quality skills base and MRO facilities, provides an additional dimension and strengthens the business case for attracting airlines and routes to Cardiff Airport (and by extension St Athan). Transfering aircraft to and from scheduled flight service for maintenance in close proximity, or better still adjacent, to a maintenance base and supporting aerospace maintenance cluster creates substantial operational cost savings and synergies. For these reasons consideration of the aerospace sector is a critical part of our overarching strategy for aviation.

Aerospace is a key sub-sector of Advanced Materials and Manufacturing (AM&M) and as such the AM&M Sector Plan developed by the private-sector led panel contains key actions to further the development and strengthen the sector.[3] We will

[3] Welsh Government: Advanced Materials and Manufacturing, 2013 http://wales.gov.uk/topics/businessandeconomy/sectors/advancedmaterials/keypriorities/?lang=en

continue to work with the AM&M sector panel, the private sector and other stakeholders to implement the Sector Plan. Key areas for action include:-

- Skills
- Research Development Innovation and Design
- Globalisation and Growth
- Finance for Growth
- Capacity Building.

The core competencies of the aerospace industry in Wales are MRO, manufacturing, materials and tooling, test equipment and ground support equipment. Overall, the aerospace sector in Wales is responsible for 25% of the UK's MRO activity.

An important part of our offer to the aerospace sector is the St Athan Aerospace Business Park which forms a part of the St Athan – Cardiff Airport Enterprise Zone. It offers aerospace businesses a world-class environment in which to operate and develop.

The St. Athan site comprises 1,200 acres of land and industrial space fit for a range of business purposes, civilian or military, such as MRO, manufacture, engine overhaul, end of life solutions for aircraft, paint spraying and Research and Development. A state of the art Superhangar is at the heart of the site and comprises three quarters of a million square foot.

Part of the site still retains a major Ministry of Defence (MoD) presence and as such, offers a secure, well-connected location for aerospace companies requiring airside access, conducting high security projects or seeking supply chain contracts directly from the MoD.

We will continue to market St. Athan as a core element of the St. Athan – Cardiff Airport Enterprise Zone and our wider offer to the aerospace sector. In particular we are now focussing on how we can better exploit synergies between Cardiff Airport and St. Athan, particularly in regard to MRO.

Industry Wales, which is wholly owned by the Welsh Government, brings together three leading Welsh industry forums - ESTnet, the specialist network for electronics, software and technology in Wales, Aerospace Wales and the Welsh Automotive Forum. Together the three forums have approaching 400 member companies that between them employ circa 45,000 people.

Industry Wales is a relatively new organisation in Wales and it has been established to build on and work alongside the sector panels, other government departments and organisations to integrate and align initiatives to help ensure maximum benefit for Wales, focussing on four key areas:

- Innovation
- Investment
- Skills
- Supply chains.

The organisation will provide a single voice for technology and manufacturing businesses to influence government policy and shape delivery and based upon the value of Welsh technology, innovation and manufacturing, will promote Wales as a place to invest and as a world class supply chain partner.

## Airports, airfields and air services

There is a broad consensus, reflected in a number of international studies, that airports have considerable national and regional economic impact. [4] Whilst it is widely recognised that airports have an economic impact, there is a divergence of view on the scale of those impacts. [5]

Cardiff Airport is the only international airport in Wales and its status as such is the main focus of this section. However the broader context is that Cardiff Airport is the major player in a network of airports and aerodromes around Wales.

These include:-

- Anglesey Airport, which currently provides a frequent passenger service to Cardiff and a seasonal service to the Isle of Man.
- Mona airfield used primarily as a diversion airfield for RAF Valley.
- Caernarfon Airfield used principally for general aviation (private light aircraft).
- Chester Hawarden Airport, which has the capacity to accommodate the largest freighter aircraft.
- Haverfordwest (Withybush) Airport, which is used on a regular basis by light aircraft and helicopters and has the capacity to accommodate significantly larger aircraft.
- Aberporth with associated airspace, form Wales' unique RPAS test and evaluation environment.
- Llanbedr Airfields, which, again provides Wales with a unique RPAS test and evaluation environment.

[4] Airports Council International: Social and Economic Impact of Airports in Europe, January 2004
[5] WWF: The Economics of Airport Expansion, March 2013

- St Athan Airfield, situated less than three miles from Cardiff Airport and offering state of the art work-shop and hangar facilities ideal for MRO, freight and paint shops.

- Swansea Airport, which is used by corporate aircraft and which is licenced to allow flights for public transport of passengers.

- Welshpool (Mid Wales) Airport, which offers a range of corporate and charter services.

- Pembrey Airport again serving the general aviation community.

The above list demonstrates that in addition to Cardiff Airport there are several other airports and airfields around Wales providing a varied range of functions and they have the potential to be developed further.

For example, our ambitions to develop the Llanbedr Aviation Centre and Enterprise Park site are an important element of the Snowdonia Enterprise Zone. Masterplanning has been undertaken to optimise the site and its three runways to deliver on our long-term strategic vision for Llanbedr. With its links to existing facilities at Aberporth and the RPAS sector more broadly, we will continue to develop the potential of the site to enable local businesses to expand and offer a first class environment to businesses moving into Wales from the international RPAS and broader sectors.

The Haverfordwest (Withybush) Airport site is also located within an Enterprise Zone (Haven Waterway). The airport site and businesses seeking to locate within it are able to benefit from specific incentives, support and infrastructure investment. We will continue to market the airport site as part of our broader Haven Waterway Enterprise Zone offer.

Moreover, across Wales, we will continue to seek to work with public and private sector stakeholders in exploring the viability of any proposals to further develop operations at these smaller airports.

In March 2013, the Welsh Government became the sole shareholder of Cardiff International Airport Limited following its purchase. As we made clear at the time of the acquisition, our ambition is for Cardiff Airport to be acknowledged as the airport of choice for Wales and be its gateway for the World.

To achieve this aspiration, the new operating Board has been established under the chairmanship of Lord Rowe-Beddoe alongside a new Chief Executive. Together they have responsibility for managing and operating Cardiff Airport at arms length from the Welsh Government and on a commercial basis. With the new Board working closely with the management team and with the commitment of key stakeholders, Cardiff Airport can realise its true potential as a modern, competitive and dynamic gateway into Wales.

Early signs are encouraging. Civil Aviation Authority (CAA) figures have shown a year-on-year increase of 6% on July 2012. This positive news follows 9% growth in May and 10% growth in June and marks an average growth of 8.3% for the three months.[6] This trend has continued into August and September with figures showing passenger numbers totalling 148,220 for August which is an increase of 14% over August 2012, continuing the trend of May, June and July.[7] Cardiff Airport passenger numbers grew by 8% totalling 132,866 in September compared to the same month last year. This follows growth throughout the Summer season, making an average growth of 9% for the months May to September 2013.These figures are indicative of a renewed sense of purpose at Cardiff Airport paying dividends in terms of improving passenger numbers.

Whilst we can be encouraged by this early progress, we should not underestimate the extent of the challenge. Less than half of the demand for air travel from south

[6] Civil Aviation Authority: UK Airport Statistics, 2013
[7] Civil Aviation Authority: UK Airport Statistics, 2013

Wales is currently served by Cardiff Airport.[8] So each year a significant amount of its potential passenger catchment goes to airports outside of Wales, with Bristol and Heathrow Airports being particularly utilised by passengers from south Wales.

The reasons underpinning passenger choice are many and varied and these can be based as much upon perceptions held by passengers as reality. Ultimately, passengers will choose to fly from a given airport because it provides a service going to where the passenger wishes to go, at a time they wish to travel and at a price they are willing to pay. This requires a choice of destinations and flights alongside ease of access in travelling to the airport and a first-class customer experience when there.

Whilst we have seen some operators review their business structures and commercial operations which has seen a reduction in some routes, it is encouraging to see developments with a number of new routes added recently including Chambery, Geneva, Grenoble and Lyon which provide access to popular ski destinations. This is in addition to new short haul routes such as the popular Vueling Airlines routes and the Lufthansa Dusseldorf to Cardiff route announced earlier this year.

Devoloping a wider service offering – both in terms of the range of routes and their frequency – is not without its challenges. Airlines find it in their commercial interests to operate from locations where they can enjoy the benefits of a commercially attractive catchment area and efficient airport facilities. This provides a strong commercial pull for airlines to consolidate their operations at airports where they can ensure efficiency and concentrated levels of demand.

The Welsh Government recognises these commercial realities and these in turn place limits on the extent to which the demand for air travel and the supply of competitive routes can be influenced away from the south east of England. However, a lack of capacity and pressure on landing slots means that there is scope

[8] Cardiff Airport: Evidence to the National Assembly for Wales inquiry into international connectivity through Welsh ports and airports, July 2012

for other airports outside of the south-east of England to grow their service offering, particularly in terms of new services to emerging markets.

Increasing the number of destinations is vital to the future development and growth of the airport and this together with recent improvements to the terminal and public transport links means that Cardiff Airport is improving its service to passengers.

The new management team at Cardiff Airport are engaging with airlines with a view to expanding the range and frequency of its route network, alongside improving the passenger experience.

In doing so, the Airport will be building on its core strengths. These include:-

1. The longer-term vision for Cardiff Airport within a business environment that encourages the growth and development of airlines and other commercial partners.

2. Its core on-site infrastructure which is capable of serving additional capacity and which, with relative modest investment, could be strengthened further.

3. Its catchment area and connectivity to major business and population centres in London, the midlands and the south-west.

4. The requirements of the wider aerospace sector in Wales for airfield infrastructure, particularly in relation to on-wing MRO and, in turn, its important role and contribution to a longer-term strategy for growth and jobs.

5. The operational synergies between Cardiff Airport and St Athan in the context of (4) above.

The ability to build on these existing strengths underpins Cardiff Airport's approach to growing the existing and new markets and attracting new airlines and routes. Within this context we recognise that the implementation of the recommendation of the Commission on Devolution in Wales to devolve Air Passenger Duty (APD) for long-haul travel would increase the attractiveness of Wales to airlines.

This conclusion is supported by independent research commissioned in 2012 into the impact of APD in Wales. It concluded that "from the assessment on cost/benefit analysis…it is clear that there is justification for APD being utilised as a policy tool for delivering economic benefit."[9] The overall message of the research is that there is an evidence-based rationale to utilise variations in APD as a policy tool for helping to support and develop new services. The UK Government rejected the Silk Commissions recommendation for the devolution of long-haul APD, but we will continue to argue our case and for the Silk Commission's recommendations on APD to be implemented in full.

We will continue to explore and implement compliant mechanisms to help attract new services to Cardiff Airport. In doing so we will continue to be mindful of the State aid rules in relation to financing airports and airlines. These are contained in the Community Guidelines on Financing of Airports and Start up aid to Airlines Departing from Regional Airports.[10]

In the past we have been able to support the establishment of new services through route development funding. The Wales Route Development Fund was established in 2005 to fulfil that purpose. However changes to EU State aid guidelines which came into effect on autumn 2005 significantly restricted the options available and the scope for route development funding. In their Aviation Policy Framework published earlier this year the UK Government made a commitment to continue to press for more flexibility in the application of Start-up aid. [11] We are also engaging the Commission on their current consultation on revised draft Guidelines on State aid to airports.

[9] RDC Aviation: APD Research Study, October 2012
[10] European Commission: Community Guidelines on Financing of Airports and Start up aid to Airlines Departing from Regional Airports (2005/C 312/01)
[11] UK Aviation Policy Framework, 2013

### *UK Airports Commission*

Identifying optimal solutions to meet growing demand for additional airport capacity to maintain UK competitiveness has been an on-going policy debate for decades. Most recently, this debate has focussed on how additional capacity can be provided through additional investment in the south east of England either through:-

1. Providing additional capacity by building extra runway(s) i.e at Heathrow, Gatwick or Stansted Airports.

2. Providing additional capacity by building a new airport in the south east of England, either in the Thames estuary or further inland.

3. Providing additional capacity through some combination of building extra runways at airports in the south east and a new airport development i.e. a blend of options 1 and 2.

The role of regional airports in responding to and absorbing excess capacity has often been overlooked. These are vital considerations in the context of the long-term upward trend for air travel – growth of which has been described as inevitable. [12]

We believe that Wales offers the UK a compelling, innovative and highly credible way to provide additional airport capacity over the longer-term, whilst also supporting the position of Heathrow Airport as the UK's leading international aviation hub.

By focusing on Cardiff Airport's strengths we have provided the Commission with a medium-term alternative to either providing additional capacity by building extra runway(s) at airports in the south east of England or building a new airport in the south east, either in the Thames estuary or further inland.

As an indication of the strength and range of opinion in Wales on the long-term future for airport development and air services in Wales, the Commission has also

[12] House of Commons Transport Committee Aviation Startegy, 2013

received proposals from academics and the business community in Wales for Western Gateway and Severnside airports.

The Western Gateway proposal outlines how Cardiff Airport could in effect become Heathrow's Atlantic Terminal, linked to Heathrow Airport by a direct, fast, rail link.[13] The essence of the Severnside proposal is for a purpose built, 24-hour airport located in the estuary between Newport and Chepstow.[14]

The Airports Commission now have the task of weighing up the relative merits of the wide range of options they have received. Their interim report is imminent and this will make recommendations on the optimal use of existing capacity and short list options for providing additional capacity over the longer-term.

Sir Howard as Chair of the Commission has already provided a very strong indication of the likely direction of travel. In setting out the Commission's developing views, Sir Howard has pointed to the need for new runway infrastructure in the south east of England in the coming decades. In particular four key points have been highlighted as central to the Airports Commission's emerging thinking:-

1. A recognition that pressure on the UK's busiest airports is likely to continue to grow even if a more conservative view of future aviation demand is taken. This is likely to see levels of future demand in excess of capacity of the south east of England airport system.

2. That the excess of demand over capacity will take place even if future aviation demand is constrained in order to meet the Government's legislated climate change objectives.

3. That it is difficult to envisage how the market alone could resolve the capacity / demand imbalance in the south east.

[13] Western Gateway: Submission to the UK Airports Commission, July 2013
[14] MSP Solutions: Submission to the UK Airports Commission, July 2013

4. A recognition that regional airports are already serving their local markets effectively but that it is difficult to envisage how they can absorb all the excess demand, particularly given the tools available to government to influence the location of flights are also very limited.[15]

Given the predicted gap between demand and capacity we feel that there is a strong role for regional airports to address a potentially significant amount of that excess demand. This is recognised in the UK Aviation Policy Framework which highlights the importance of growth of airports outside of London in helping to accommodate wider forecast growth in demand for aviation. It recognises that the availaibility of direct air services locally can have a positive impact in relieving pressure on more congested airports and in reducing the need for passengers and freight to travel to larger UK airports further afield.[16]

Regional airports are not necessarily all of the solution but are an important part of the solution in two important respects:-

1. Though many regional airports provide an effective service to their local markets, many are also an underutilised resource with spare runway capacity going idle. A holistic look at how we address capacity issues must look at what action can be taken to better utilise that existing capacity.

2. While accepting that propensity to fly is highest in the south east of England and that some routes may only be commercially viable or attractive from the largest airports, there remains significant leakage from within the catchment areas of some regional airports, including Cardiff Airport. This adds increased pressure onto already congested airports and the UK's wider transport infrastructure. Addressing those leakage issues must also be part of a holistic approach to airport capacity.

[15] Sir Howard Davies Speech at the Centre for London – 7 October 2013.
[16] UK Aviation Policy Framework, Department for Transport, 2013

## Aviation and the wider transport agenda

Our ambitions for airport and air services development have a close inter-relationship with our broader transport agenda. A critical consideration is ensuring that our airports are easily accessible to the travelling public both through quality public transport links and efficient road networks. Our vision for the development of the St Athan - Cardiff Airport Enterprise Zone includes making it easier for passengers to travel to and from the airport using public transport.

For these reasons, improving surface access to Cardiff Airport is an important feature of our integrated approach to transport outlined in our national transport priorities, which recognise the need make improvements to surface access by both road and rail to Cardiff Airport.

In relation to aviation we have recently:-

- Introduced a high-quality, express bus service between Cardiff City Centre and Cardiff Airport to provide the travelling public with a frequent, comfortable and efficient public transport option linking Cardiff Airport with the city centre. As planned the service is being reviewed to ensure that it meets the Minister's objectives. Professor Stuart Cole has already begun this work, and expects to report to the Minister early in the New year.

- Announced plans to double the frequency of the existing rail service to Rhoose station (serving Cardiff Airport) from one train an hour to two an hour from 2015 and further improving accessibility to Cardiff Airport.

Whilst road access to Cardiff Airport is sufficient to serve current capacity, proposals have ranged from a new road to a series of upgrades and junction improvements to the existing road network. Technical studies have now been commissioned to help develop appropriate highway proposals to improve access to the St Athan-Cardiff Airport Enterprise Zone, which will build on previous work and consultations. Working with the local authority, the studies are due to report initially in Spring 2014.

Within our broader approach to transport, aviation is also critical to ensuring good quality north-south links. The existing intra-Wales air-service provides fast, efficient and reliable transport between north and south Wales. It provides a convenient and quick alternative alternative to car or rail travel and facilitates day return journeys between north-west and south-east Wales, which are particularly important for time conscious business passengers.

In addition to supporting the movement of people, there is an opportunity for Welsh airports to make a bigger contribution toward the movement of freight. Given their runway infrastructure and proximity to major business and population centres, this is a particular consideration for Cardiff and Chester Hawarden Airports.

Air freight plays an important role in supporting UK businesses, particularly those engaged in high-value sectors. It supports businesses which employ an estimated 39,000 people in the UK. In connecting UK business and consumers with the global market, air freight is crucial to supporting the globalisation of production supply chains.[17]

Currently, the volume of air freight capacity through the UK is directly linked to the quantity of long haul aircraft movements at Heathrow Airport. This is because bellyhold capacity on long haul passenger flights is a key driver of air freight capacity and the majority of this traffic passes through Heathrow Airport.[18]

In addition to movements at Heathrow; East Midlands and Stansted airports are important for overnight express deliveries to Europe, benefitting from population, location and connectivity advantages and acting as hubs for freight aircraft. Manchester and Gatwick are the two other key important hubs in the UK for air freight with a mixture of freight and passenger aircraft. These five airports account for over 90% of the UK's air freight volumes.[19]

[17] Steer, Davies, Glance: Air Freight, Economic & Environmental Drivers & Impacts, March 2010
[18] Steer, Davies, Glance: Air Freight, Economic & Environmental Drivers & Impacts, March 2010
[19] Cardiff Airport: Evidence to the National Assembly for Wales inquiry into international connectivity through Welsh ports and airports, July 2012

These levels of freight movements place additional pressure on already congested airports. There is a potential opportunity for Cardiff Airport to play a bigger role over the longer-term in alleviating some of that pressure and in providing an additional source of air freight capacity.

The nature of the air freight market and its dependency on utilising bellyholds of wide bodied aircraft on existing passenger routes, places a requirement upon the availability of both passenger routes and services. A strategy for air freight cannot then be entirely divorced from a strategy for increasing air passenger numbers. While the new management at Cardiff Airport will actively engage with international carriers and airlines with the aim of increasing both passenger numbers and freight capacity, we will continue to explore options for improved infrastructure links to the airport site to help facilitate those passenger and freight movements.

## Summary

The three strands to aviation in Wales, firstly airports and air sevices, secondly building on the strength of the aerospace sector in Wales and thirdly, the interelationship between those airports and air services with other modes of transport are all recognised within this document as being of upmost importance to current economic competitiveness and to future economic prosperity.

Taken together, these can contribute to a growth in quality employment opportunities; enabling tourism, inward investment and trade connectivity; and strengthening an already growing aerospace cluster. This document provides the framework for delivering the actions that will help realise those ambitions.