



AIRPORT REGIONS CONFERENCE

# Climate Change and Airport Regions





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**AIRPORT REGIONS WELCOME** aviation if it can be developed with a sustainable profile. With the integration of regional economies in Europe and with a continuous globalisation, aviation has to be catered for in a sustainable way.

**CLIMATE CHANGE** is a compelling task for everyone in an airport region. Reduction of CO<sub>2</sub> must involve all stakeholders. All stakeholders have a responsibility to address the CO<sub>2</sub> emissions within their own field of competence. It is a great challenge for stakeholders in each airport region to address climate change in a holistic way with a cross boarder approach.

**ARC BELIEVES** that CO<sub>2</sub> emissions could efficiently be addressed when all stakeholders come together. Such an approach would reveal new and innovative ways to address CO<sub>2</sub> with a focus on the traveller. It would provide innovative thinking to engage all parties in finding common solutions to provide better and more CO<sub>2</sub> friendly travel solutions for passengers from door-to-door.

**ARC STUDIES** have pin pointed various fields of actions both in the long term, like air-train intermodality, and in short term actions, like only allowing low emissions vehicles to enter airports. There are several other actions that would involve all parties, like providing integrated ticketing between airlines and public transport at airports into the cities and regions.

**ARC IS FULLY AWARE** of the need for a long-term approach to address Climate Change. A long-term approach must also look at changing climate conditions and what possible implications may occur for a region hosting a major airport.

**ARC HAS THE OPPORTUNITY** and ability to act as a common platform for airport regions to share best practise and to invite the aviation industry to develop good examples across the field.

## Background

The Airport Regions Conference (ARC) is an association of regional and local authorities across Europe with an international airport situated within or near its territory. It is currently the only such body of its kind. The ARC brings together a wide range of expertise at the interface of air transport and local and regional policies. ARC members are concerned with the impact of climate change in airport regions.

By hosting major airports in Europe, airport regions have a specific situation in this respect. Having a major airport not only means having the benefits from the airport in terms of economic development and job opportunities etc. It also means having major sources of CO<sub>2</sub> emitters, from aircraft, airport activities and the provision of surface access to the airports.

## Regions worry about Climate change

Climate change is one of the more important issues addressed in all parts of Europe. The environmental effects are obvious and must be taken seriously and with a proactive approach. Cities and regional authorities with major airports have to consider what can be done from a regional point of view, to address climate change in relation to aviation, airport activities and airport accessibility.

In this perspective ARC has conducted a study analysing sources of CO<sub>2</sub> emissions related to an airport region. The study was presented to the ARC Executive Committee and to industry representatives during spring 2008.

## ARC recognises the importance of aviation for regional development

Looking at aviation as one of the key elements to provide regional connectivity and European integration, we understand that the number of flight into our regions will continue to grow.

With the integration of regional economies with other regions in Europe and with a continuous globalisation, aviation has to be catered for in a sustainable way. Airport regions welcome growth in aviation if it can be developed with a sustainable profile.

ARC believes it would be difficult to find a viable alternative to

aviation for long haul destinations and peripheral regions in Europe and for islands, like the Canary Islands, Malta or Ireland. It is already today important for these regions to have one day return connections with the most important political, economic and research centres for achieving sustainable economic development in all parts of Europe.

It is well understood that a large number of companies wish to locate close to airports in order to capitalise on the connections provided by air services. Opportunities for coordination amongst these businesses in terms of logistics should be assessed and acted upon, as these airport-related activities have a role to play in reducing CO<sub>2</sub> emissions too.

From a regional perspective ARC believes that integration of different modes of transport is a necessary way forward, where airports are linked with interregional rail network and intraregional transport networks. This would provide a possible solution to introduce more environmental friendly transport solutions for major markets on interregional shorter distances, and at the same time provide direct connection to the local modes of transport for long haul destinations. It would also provide a more environmental friendly opportunity to commute to airports for workers and local passengers.

## ARC recognises the initiatives in the aviation sector to reduce emissions

Aviation is currently responsible for about 3 percent of the total CO<sub>2</sub> emissions in the EU <sup>27</sup>. However, in the vicinity of airports aviation will continue to be one of the main sources of CO<sub>2</sub> emission in airport regions. In fact the emissions will continue to grow. Even if the emission per passenger kilometre over the last decades has been reduced constantly, it has not been able to match the growth in the aviation market and our citizens' wish to travel.

Even if there are major efforts made by the aircraft and engine manufacturers to reduce emissions, the number of flights will continue to grow more rapidly than the emissions can be reduced. There are great efforts made by all stakeholders in the aviation industry to reduce emission. A major research programme, like the Clean Skies, has set out to reduce emission by 50 percent over the next decade. The airports are moving towards carbon neutral operations in airports. Eurocontrol are making

efforts to reduce emissions through better air traffic management systems and flight paths in Europe.

ARC welcomes all initiatives that reduce green house gases and reduce fuel burn. Clean Skies, Sesar, Carbon neutral airports, together with the inclusion of aviation in the Emissions Trading Scheme are all examples of measures that will have positive effects. We believe the positive effects of these initiatives should also be analysed from an airport regions perspective.

ARC is of the opinion that as growth in aviation will continue to cause more emissions it is necessary to include other stakeholders rather than the industry alone.

## The special situation of airport regions

Airport regions have a special situation as being the host of a major airport. But the airport region is not only the host of a major airport with all its emissions related to the aviation sector. The airport region is also a node in the regional and national transport system of surface access.

It is not often recognised that major airports generate major volumes of passenger kilometres on the ground. Recent studies by ARC indicate that a middle sized airport of about 10 million passenger generates as many passenger kilometres as a middle sized city of about 100 000 inhabitants. Taking these figures to the European level, the airports of Europe generate together more passenger kilometres than a metropolitan region like London. ARC believes this to be a major challenge for all stakeholders in an airport region.

ARC have analysed the CO<sub>2</sub> emission status in two ARC members regions, Stockholm and London Gatwick. We discovered that the airport, including aircraft landing and take-off, generates about 50 percent of the emissions in the regions that are associated with flying. The other 50 percent emanates from travelling to and from the airports.

This figure presents a major incentive and challenge to address Green house gases from surface access to airports. The ratio of passengers and employees using public transport solutions could be much higher with a better integration of airports in the urban mobility transport system.

## A traveller perspective on Climate change

The findings from the ARC study clearly indicates that climate change cannot only be looked at from a mode of transport perspective. A more productive way would be to address climate change from a traveller's perspective or a 'door to door' analysis.

From a study in Gatwick, West Sussex, about traveller behaviour and modes of transport to airports, we know that traveller behaviour is different for different traveller categories. Business travellers behave differently from leisure travellers in accessing airports. Charter travellers act differently from "Low cost travellers".

Traveller behaviour differs at a 'residential' airport, that is where most passengers are resident in the region, compared with the behaviour at a destination airport, that is where most passengers are on holiday or business trips in the region. Some of the major airports are destination airports, whereas others are more of residential airports. Most of the major airport regions are both, and need to address the surface access offer to fit different traveller categories. In order to encourage a more environmental friendly access to and from airports, more tailor made offers to fit the best needs of different traveller categories should be developed. Today there are studies available on travellers' choice for surface access at residential airports, but not many, if any, for airports as destinations.

Within this assessment approach, it is important to also consider the behaviour and needs of transit and transfer passengers, and the emissions associated with their travel.

ARC believes that the stakeholders in airport regions are well suited to address these issues together. We also think that more knowledge and research is necessary to understand traveller behaviour from a door-to-door perspective. There is a productive opportunity for travel agencies to assist in this area.

## Conclusion

ARC is concerned with the CO<sub>2</sub> emission development in airport regions. ARC will actively support airport regions and other stakeholders in its mission to reduce green house gases related to aviation and to provide better and emission friendly travel to passengers and airport employees. ■



“Making the best of your airport!”

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