Sustainability and Slots in Ireland

Commentary by Frank J. Convery, Chairman, Comhar Sustainable Development Council, Ireland

It's striking how terminology and ideas most of us are barely aware of suddenly hit the headlines, and become part of our daily discourse. In Ireland, 'Heathrow slots' is one such term that has recently entered our vocabulary, triggered by the recent decision by Aer Lingus to transfer Heathrow slots from Shannon to Belfast.

It is part of Comhar Sustainable Development Council's job to clarify and inform the public and the policy system about ideas and policies that are relevant to sustainable development. In this commentary, I attempt to explain why Heathrow slots have arisen as an issue, what are the commercial forces involved, and the implications for sustainable development. Readers are warned that my 'expertise' as regards slots derives mainly from web-based sources, including www.e-tid.com. Interested readers are encouraged to do your own web-foraging.

The Heathrow Slots – some facts

Heathrow airport has more flights wishing to land and take off than capacity can allow. Therefore, there is a scarcity of slots, in particular at prime times. Landing charges are controlled, so the market cannot clear by simply raising the costs of using the airport to bring demand and supply into equilibrium. There is a controversial plan to increase capacity by adding an additional runway at Heathrow, but if it happens, it will not be completed until 2015 at the earliest.

The excess demand for slots means that these are valuable assets, which are in the control of the incumbent airlines. In Summer 2004, British Airways was the dominant holder of slots, followed by British Midland, with Aer Lingus in fourth place, holding about 3 per cent of the total.

Table 1 Airlines Shares of Slots Heathrow (Summer 2004 and change from 2001).

Airline and rank	Heathrow Slots – movements per week	Share	Change from 2001 (%)
BA (1)	3742	40.1	+11.0
British Midland (2)	1096	11.7	-12.7
Lufthansa (3)	416	4.5	+19.6
Aer Lingus (4)	290[1]	3.1	-9.4
Virgin Atlantic (5)	284	3.0	+31.5

[1] This works out at 145 return ('pair') services per week, an average of approximately 20 per day.

SAS (6)	280	3.0	-6.7
AA (7)	222	2.4	-
Total	9332 (9308 in 2001)	100	

Source: *Competition Issues associated with the trading of airport slots*. A paper prepared for DG TREN by the UK Office of Fair Trading and the Civil Aviation Authority, TSO, Norwich, 2005, p. 34. http://www.caa.co.uk/docs/589/oft832.pdf

A few facts are notable:

- The big players – namely British Airways, Lufthansa, American Airways – seem to be increasing their share, while the smaller companies are shrinking theirs. The weaker gradually give way to the stronger. However, it is reported that Aer Lingus now (summer 07) has 302 slots (22 pairs per day) which goes against the above trend experienced by most other big players.

- These slots have high strategic value. In 2002, British Airways and American Airways refused to proceed with an alliance that would have allowed them to coordinate on pricing and flight scheduling when the Department of Transportation in the US wanted them to give up 224 weekly slots at Heathrow as a *quid-quo-pro*. To them, the slots were more valuable than the alliance (*Travel and Hospitality Industry Digest*, 19 February 2002, www.e-tid.com).

  More recently, in an efforts to convince the European Commission to allow it to take over Aer Lingus, Michael O'Leary, Chief Executive of Ryanair proposed remedies to win approval that included guaranteed fare and fuel surcharge reductions of over €100m per annum for Aer Lingus passengers, 'combined with the surrender of a significant number of Heathrow slots (the most valuable in the world) and Dublin slots' (*Travel and Hospitality Industry Digest*, 05 June 2007, www.e-tid.com). Carriers are required to use their slots 80 per cent of the time.

- The slots also have significant cash value. While slots change hands regularly, the market operates in a peculiar twilight zone - a grey area where there is little transparency. The rules governing transfers are in Article 8a of Council Regulation (EEC) 95/93, implemented by Airport Coordination Ltd (www.acl-uk.org). They do not permit transfer of slots from one airline to another, except through a company takeover, but do allow airlines to 'exchange' them. Long haul flights, which typically require early-morning take off and landing are much more highly valued than during the day slots.

Table 2. Some Transactions and Implicit Values in the Heathrow Slot Market

Purchase and year	Quantity	Price or Value	Comment
Quantas from Flybe (2004)	2 pairs	£20 million (€30 million)	Primetime take off and landing
Virgin Atlantic from Flybe (2004)	4 pairs	£20 million (€30 million)	
British Airways from SN Brussels Airlines (2002)	7 pairs	£25-30 million (€37.5-45.0 million)	Only slots acquired by cash appear on balance sheet
British Airways from Swiss International Airlines (2004)	8 pairs	£22.4 million (€33.6 million)	
British Midland asset valuation (2005)	90 pairs	£425 million (€637.5 million)	The *Observer* claims a series of writedowns mean that bmi is now worth '£225m at most', i.e. less than its slot portfolio.

Sources: Issues of *Travel and Hospitality Industry Digest*: 23 March, 2007, 11 June 2004, 06 August 2007, 11 June 2007, 31 January 2005. See: www.e-tid.com.

- The slots will increase in value, mainly driven by the new US-EU open skies agreement which comes into effect on March 30, 2008. This agreement provides for new entrants, but does not oblige any incumbent to surrender slots.

  Heretofore, only British Airways, Virgin Atlantic, United Airways and American Airways were permitted to operate transatlantic services. Delta Air Lines has announced that it is 'aggressively working' to secure slots to enable it to launch services from New York JFK and Atlanta to Heathrow (*Travel and Hospitality Industry Digest*, 24 April 2007 e-tid.com).

  British Midland is being courted as the key source of slots, with expressions of interest from incumbents, new entrants and private equity groups and Middle Eastern carriers such as Etihad and Emirates, who 'may break up the airline, keeping the Heathrow slots and then selling the rest' (*Travel and Hospitality Industry Digest*, 28 March, 2007 quoting the *Times*).

- The effective asset value of some airlines, such as British Midland, is thought by some to be dominated by the prospective value of their Heathrow slots.

  As the value of the slots escalates, the need to ensure competitive return on the investment will intensify.

Two Sustainability Issues

Greenhouse gas emissions will soon become a direct cost consideration for airlines operating in Europe. Secondly, the extent to which travel time can be shortened on the ground will affect commercial and environmental viability in the air, and how it is done will also influence environmental sustainability on the ground.

The European Union's emissions trading scheme (EU ETS) gives allowances of the main greenhouse gas - carbon dioxide (CO_2) - to over 11,000 installations in the EU power sector and heavy industry. They are allowed to trade these allowances, with the proviso that they 'cover' their emissions at the end of the year. This trading expresses, in part the scarcity value of the planet's capacity to absorb greenhouse gasses, and yields a European price for a tonne of CO_2, which for 2008 allowances was €19.88 on August 29, 2007 (http://www.pointcarbon.com/).

The Commission proposes to include aviation in the EU ETS from 2011[2] which means that airlines will have to factor in the cost of CO_2 emissions into their decision-making. The ensuing increase in ticket prices may not much influence overall volume, but it will dramatically influence the choices we make as regards with whom to fly. Most of us use web sites, such as Skyscanner, to give us comparative costs for every journey proposed, and small price advantage can influence our choice. This will provide competitive advantage to those airlines that can reduce their carbon emissions per passenger kilometre relative to their competitors and conversely, will disadvantage those who are inefficient in this regard relative to their competitors. This will intensify the pressure to improve fuel efficiency of planes, increase the load factors, and reduce queuing time in the air. If, as many expect, the cost of jet fuel rises in real terms over time, those who are most fuel and carbon efficient - and achieve the highest load factors - will increase their competitive advantage and their market share.

Load factor is crucial in determining both commercial and environmental sustainability in the air. This is heavily influenced by the numbers of people with money who can access a given airport, which in turn is shaped by the travel time from home to airport. Dublin doesn't have to worry about Heathrow slots, because there are enough people with enough money in its vicinity to fill the planes. With

[2] http://ec.europa.eu/environment/climat/pdf/aviation_ets_com_2006_818-21273_en.pdf.

the possible exception of Cork, the cities and towns on the Atlantic Arc struggle to achieve the critical mass to ensure 'connectivity'.
Michael Batty of University College London makes the point (see 'New York shows way for urban renaissance' *International Herald Tribune*, August 25 and 26, 2007, p. 2) that cities are now the place to be in a globalising world, with number of web sites and inventions per capita growing exponentially as the population of any city grows. The wider challenge for the Atlantic Arc is whether its cities can collapse distance to the point where they all benefit from economies of scale and scope. Although their aggregate population remains very modest in international terms and vis-à-vis Dublin (Table 3) this potential seems real at least for Galway, Limerick and Cork. As regards major international flight connectivity, Cork and Galway are only 129 and 92 kilometres from Shannon respectively; with motorway and/or fast train, this is not much more than an hour-commute to the airport.

Donegal is in the Belfast catchment. But this connectivity is only real if the travel time is short, and this in turn requires some combination of fast rail, dedicated bus corridor, motorway and motorway with priority for busses and perhaps multiple occupancy vehicles. Ultimately, it is only environmentally sustainable if the fuel and associated carbon-costs of integration is low and declining. Analyses of the commercial and carbon consequences of different mixes are needed to inform us on the choices and their implications.

Table 3. The cities of the Irish Atlantic Arc - Population and Distance from Shannon Dublin and Belfast

City or Town	**Population (2006)**	**Distance (km) from Shannon**	**Distance (km) from Dublin**	**Distance (km) from Belfast**
Dublin and suburbs	1,046,000	222	-	167
Atlantic Arc				
Donegal (Letterkenny and Environs)	18,000	346	222	180
Sligo and Environs	19,000	219	217	206
Galway and suburbs	73,000	92	219	306
Limerick and Suburbs	91,000	24	198	323
Cork and suburbs	190,000	129	257	424
Total Atlantic	391,000			

Arc				
Total Atlantic Arc excluding Donegal and Sligo	354,000			

Source: Irish Driving Distance Calculator, Irish-Car-Rental.com
Table 7, Volume 1, 2006 Census, Central Statistics Office