

# The environmental performance of airline business models:

& the potential to manage the  
demand for business travel

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- 40% of air travel is business related
- UK Business related air travel spend = £10bn (ITM, 2004)
- Circa. 50m trips growing about 5% p.a.
- 20% of that is “escapable”
  - “Get out of the office”, internal company meetings, training
- How do we help companies reduce their demand for air travel without impacting their economic situation?

# Project Icarus objectives

- Companies “green” their supply chain
  - Need to be seen to be reducing their environmental impact to their customers
- Help companies manage demand for business travel
- Provide tools to help companies select the least carbon emitting option
- Encourage offsetting for travel that cannot be escaped

# Five areas of work: 1. Toolkit

***Based on best industry practice and advice from industry, Defra and Aviation Environment Federation***

- Guide for creating an environmental travel policy and programme
- Best practice RFP (Request for Proposal) advice
- Review of CO<sub>2</sub> measurement tools and indicative output ranges
- How should CO<sub>2</sub> data be presented in the business travel process
- Case studies
  - Credit Suisse, Unilever, Vodafone, Whitbread, Pertemps.
- List of video-conferencing facilities around UK
- Video-conferencing practical training exercises
- CO<sub>2</sub> ready reckoner
- Useful links and FAQ

## 2. Buyer Accreditation

***More than a dozen companies have so far signed up including PwC, BBC, Carillion, DEFRA, Barclays, HMRC, Inmarsat***



- Commitment to achieving government target reductions of 60% against the 1990 figure by 2050.



- Measured, targeted and created a strategy to reduce CO<sub>2</sub> emissions from the air element of travel programme.



- Achieved an absolute reduction in CO<sub>2</sub> emissions from the air element of their travel programme by at least 2.11 % per annum and are now rolling the programme out to two other travel categories



- Absolute reduction in CO<sub>2</sub> emissions from the air, hotel, rail, ground transportation and business mileage elements of their travel programme by at least double the minimum 2.11 % pa

## 3. Supplier Awards

- Awarded in Sept 2007 –
  - easyJet,
  - Carbon Consulting,
  - CWT,
  - Radio Taxis,
  - Apex Hotels
  - Virgin Trains

# Our Environment...

# ...Our Responsibility

Home	Hotels	Short Breaks	Meetings & Events	Eat & Drink	Gift Vouchers	Contact Us
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## Environment

You are in: Home | Environment | Environmental Awards

<b>Environmental Awards</b>
Current Initiatives
Sustainable Hotel Design
Green Spa
Climate Care
Useful Environmental Links

### Dont just take our word for it...

We're proud to say that our environmental policies have been widely recognised and we've collected the following awards, recommendations and accolades.

- Winner at the ITM Icarus Environmental Awards 2007 - [View the Awards Video here >](#)
- Shortlisted for the Virgin Holidays Responsible Tourism Award 2007
- Shortlisted for the Visit London Sustainable Tourism Award 2007.
- Shortlisted for the National Energy Efficiency Awards 2007.
- Highly Commended Award at the 2007 National Business Awards for Scotland.
- Major Commendation Award at the Business Commitment to the Environment Awards 2007.
- Winner of Hotel Review Scotland's - 'The Scottish Hotel Environmental Award 2007'.
- Winner of the VIBES Regional Award for East Large - December 2006.
- Three Gold Awards in the Keep Edinburgh Clean Awards 2006.
- Gold Awards in the Green Tourism Business Scheme for all our Scottish Hotels.
- Gold for Sustainable Tourism in the Visit London Awards 2006.



## Care and convenience, not just a low-cost airline

Low-cost doesn't mean we sacrifice our service. easyJet is the 4th largest airline in Europe, flying nearly 400 routes to 26 countries.

Our young fleet of 137 aircraft have an average age of just 2.3 years, ensuring the utmost safety and security for our passengers with a low environmental impact.



## 4. Alternatives to travel

- Telecoms act as substitute for travel
- Use of telecoms works to compliment travel
- Use of telecoms generates new travel

## Internal meetings most likely candidate to escape

- Internal company meetings 37%
- Customer meetings 36%
- Business - 14%
- Conferences - 11%
- Trade fairs/expo - 2%

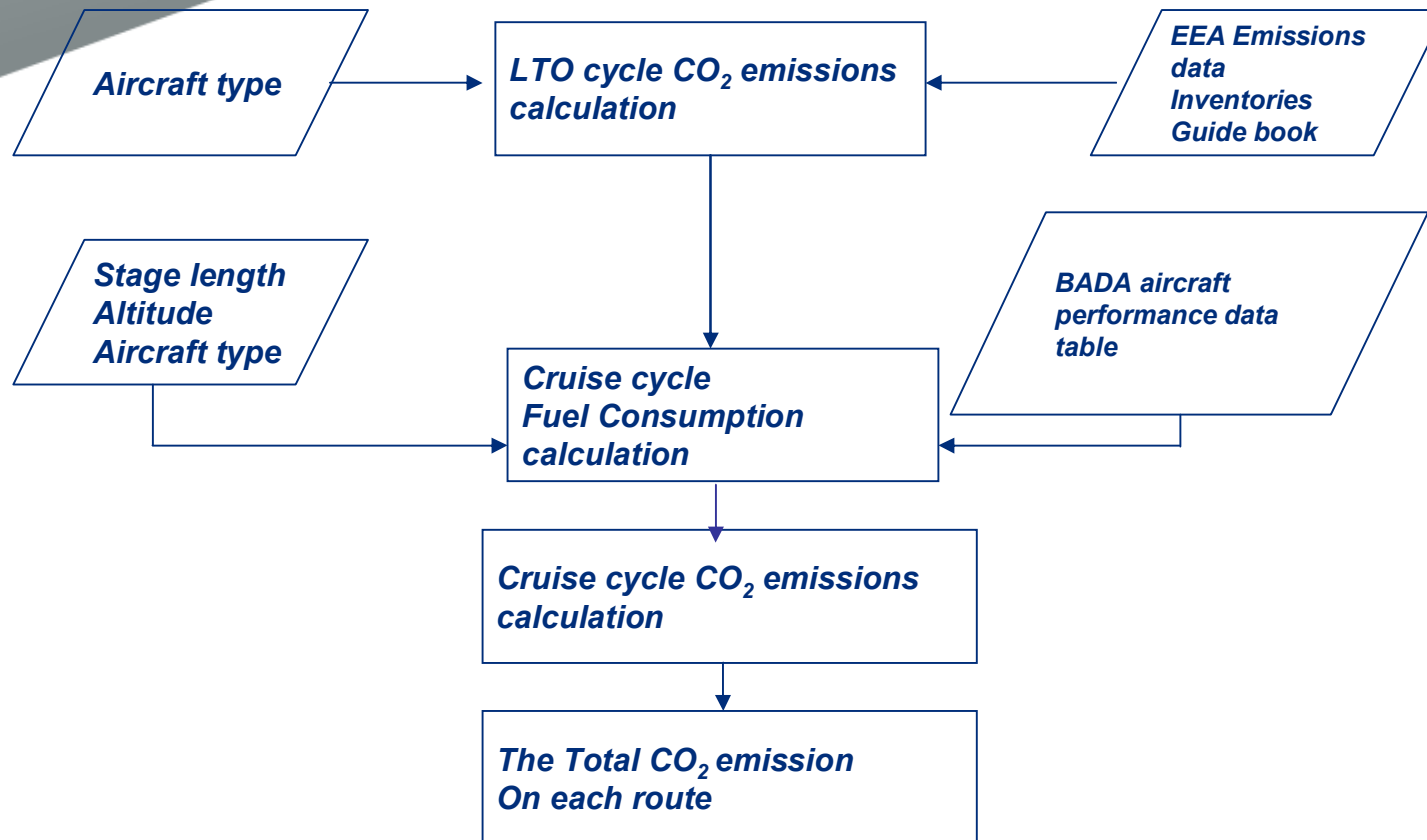
	Mostly Travel	Mix Travel and Telecoms	Rarely Travel
New business relations	57%	40%	3%
Internal process development	10%	78%	12%
Day to day management contact	6%	52%	42%
Training	23%	56%	22%
Conferences	67%	26%	6%
Customer service provision	34%	46%	20%

## 5. Advanced Carbon Calculator

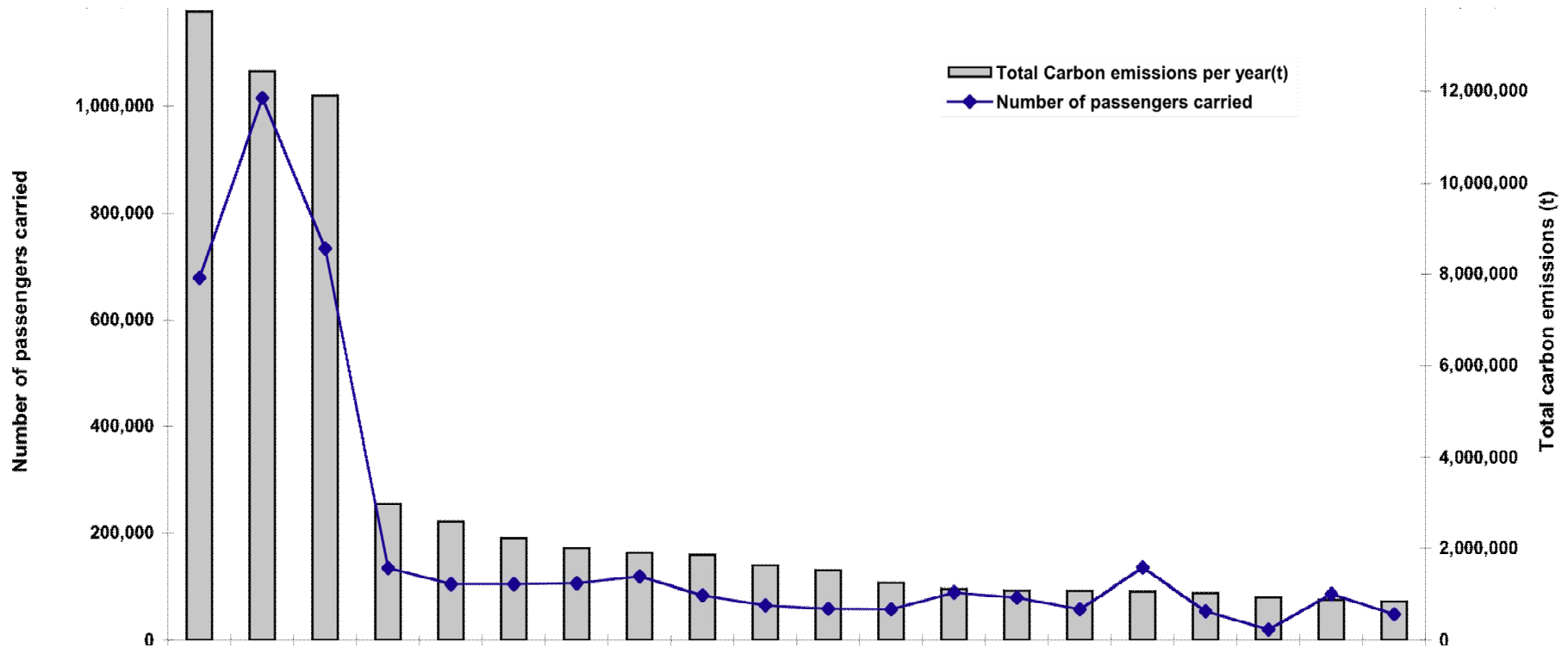
- Incorporates 5000+ routes, real passenger numbers and load factors, aircraft used, cabin configs
- Provide a Point-of-Sale solution for travellers to choose between airlines on environmental performance

# Calculation methodologies

## The more refined tier 2 methods



# Intra-EU serving UK route



# Four groups of airlines

Group	Average carbon emissions (g/pkm)	Airline Types	Share (%) of passengers carried	Average carbon emissions	Average distance flown (kms)	Average load factors (%)
A	< 100	LCCs & Charter	31%	87g/pkm	1,694kms	81%
B	< 150	LCCs & Network carriers	40%	123g/pkm	1,236kms	74%
C	< 250	Network Carriers	23%	187g/pkm	659kms	66%
D	> 250	Network & Regional Carriers	4%	299g/pkm	566kms	57%

# Four groups - Intra EU (ex-UK)

**Group C : Network carriers**

Load factors : 66%  
 Average carbon emissions: 187g/pkm  
 Average distance flown: 659kms

**Group D: Network & Regional carriers**

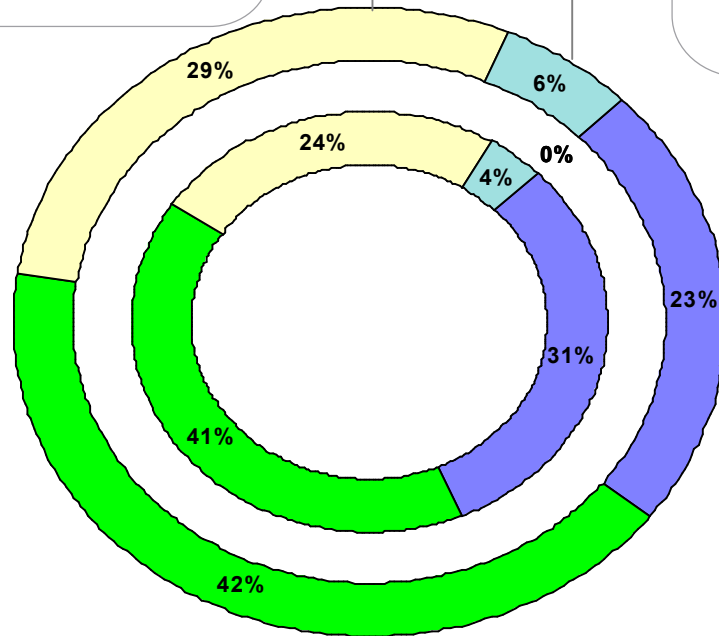
Load factors: 57%  
 Average carbon emissions: 299g/pkm  
 Average distance flown: 566kms

**Group A:LCCs & Charter airlines**

Load factors:81%  
 Average carbon emissions: 87g/pkm  
 Average distance flown:1,694kms

**Group B: LCCs & Network carriers**

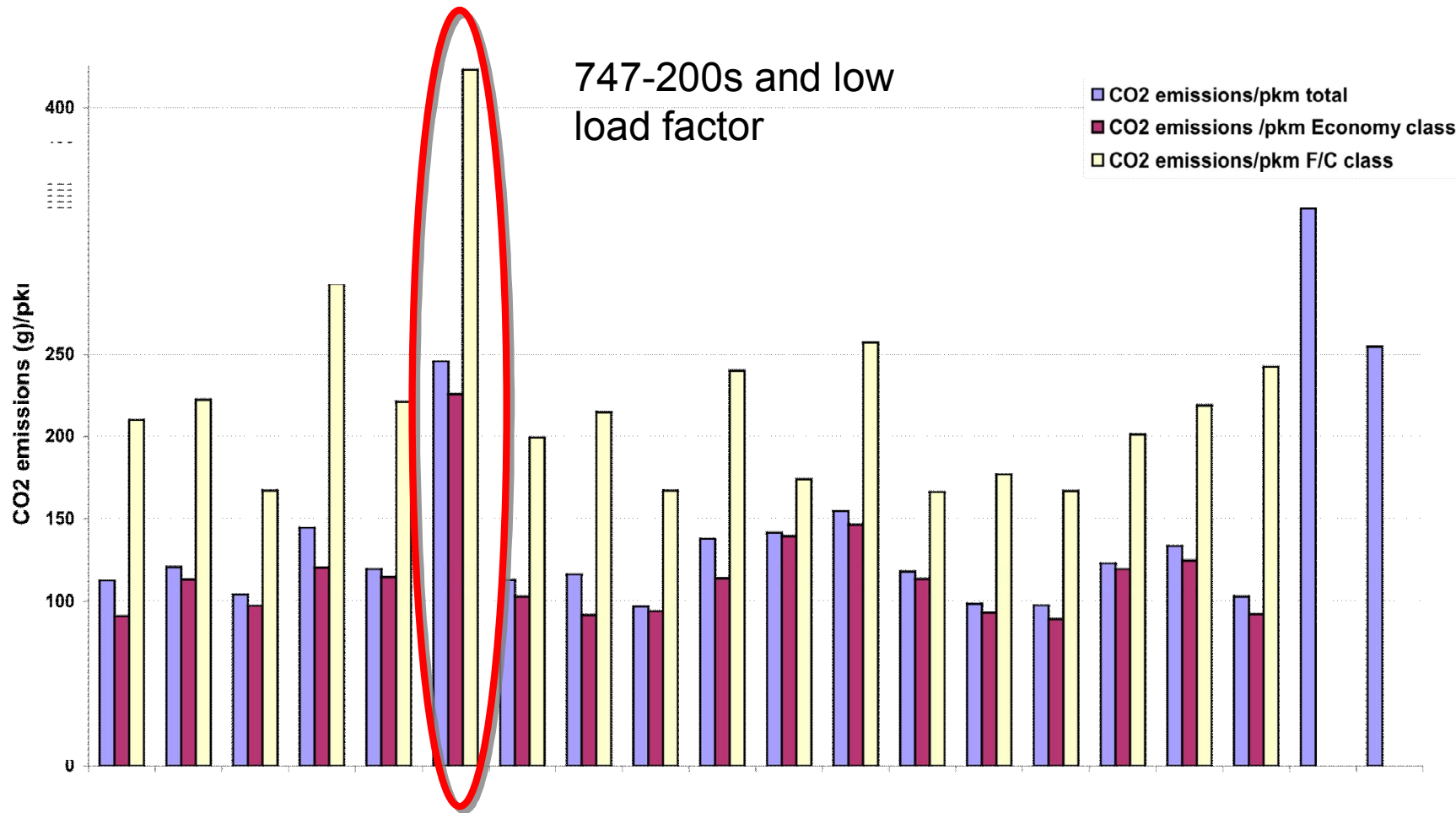
Load factors: 74%  
 Average carbon emissions: 123g/pkm  
 Average distance flown: 1,236kms



Inside ring: Shares of total number of passengers carried  
 Outside ring: Shares of total carbon emissions

# North Atlantic route

Estimated average CO2 emissions by airlines (average stage distance: 6,825 kms)



## Next steps in research programme

- Assess environmental performance of airlines by business model
- Identify how changes in market structure have impacted the environmental impact of the industry in recent years and how it might change in the future
  - 1997, 2002, 2006
- Identify changes to current business models might reduce environmental damage

# Different business models

- Mean different environmental performance
  - Network carriers
  - Low cost carriers
  - Charter carriers
  - Regional carriers
  - Non-EU network carriers

## Operational performance differences

- Aircraft used
- Load factors,
- Stage distance flown,
- choice of routes,
- Frequencies
- Services provided
  - Incl. Cabin config., baggage allowance, catering and duty free sales etc.

# Environmental performance by business model

- Methodology
  - A sample of airlines for each business model type
  - averaged
    - Fleet
    - Route network (short/medium/long haul),
    - load factor,
    - cabin configuration,
- Model of environmental performance built for each airline business model type
  - Each variable/input can then be changed to assess sensitivity

# Reconfigure this analysis by business models and extend

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- Several scenarios will be evaluated or tested for analysing the effects of changes of environmental performance of each airline's business model.
  - Forecasts for traffic growth and market share between airline models
- The results will show the carbon emission sensitivity and highlight key differences in business models

- The ATM efficiency model
- Aircraft' weight-focused analysis
  - Can weight be removed from aircraft?
    - E.g. Zoom Airlines - Bar Trolley = 78kg – if removed it would save \$140,000 on fuel p.a. (Source Zoom, IEA conference London June 2008)
    - Scope for having duty free available for collection at arrival
    - Paperless cockpit

- How much are airline services (such as duty free, meal service, extra leg room, etc.) important for customers?
  - Will environmental concerns begin to change customer perceptions?
  - Cost v. environmental friendliness
- Price elasticity
  - At what point will environmental taxes (or fuel surcharges) begin to have a significant impact on demand?

# Planned outputs

- Assessment of different business models carbon footprint
- Sensitivity of industry carbon footprint to different future scenarios
- Fuel saving calculator by aircraft type
- Potential carbon reduction approaches in product delivery
- Workshop to held in Autumn

# Conclusion

- Companies are beginning to take an interest in their environmental impact
- Supply chain “greening” will be an effective method of driving change in business related air travel demand
- Alternative communications may prove suitable substitute for some trips
- Companies need PoS information to make informed purchase decisions



Many thanks for your attention

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