

THE SOCIETY OF BRITISH



AEROSPACE COMPANIES

# Sustainable Aviation – an SBAC perspective

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# Aviation – the wider perspective

- **Key to national wealth creation, national security, global trade, tourism and communication infrastructure**
- **Nationally and internationally regulated, subject to international treaty**
- **Highly competitive, increasingly global markets**
- **Complex, advanced products and technologies**
- **Exceptionally long and expensive product development timescales**

# The UK Aerospace sector – ‘one of the primary assets of UK manufacturing’

- **£18 bn turnover, No. 2 in the world by employment (over 147,000 direct)**
- **One of UK’s largest exporters adding about £2.8 bn annually to UK balance of trade**
- **World market share of 13%**
- **12 large companies with over 2,500 staff, 50 other international companies, supported by over 3000 small and medium sized companies**

# The UK Aerospace sector – under pressure

- Accelerated recessionary pressures post '911'
- Rationalisation and restructuring
- Downturn in airline passenger demand
- Airline bankruptcies
- Supply chain redundancies
- Increased costs of insurance, security
- Levelling of defence spending

# Sustainable Aviation – an SBAC perspective

- *‘The UK spearheading aerospace sustainable development’*
  - The Interim Report of the Aerospace Innovation & Growth Team. January 2003

# Sustainable Aviation – an SBAC perspective

- What has been achieved?

# *Air Travel – Greener by Design*

## Air Travel – Greener by Design

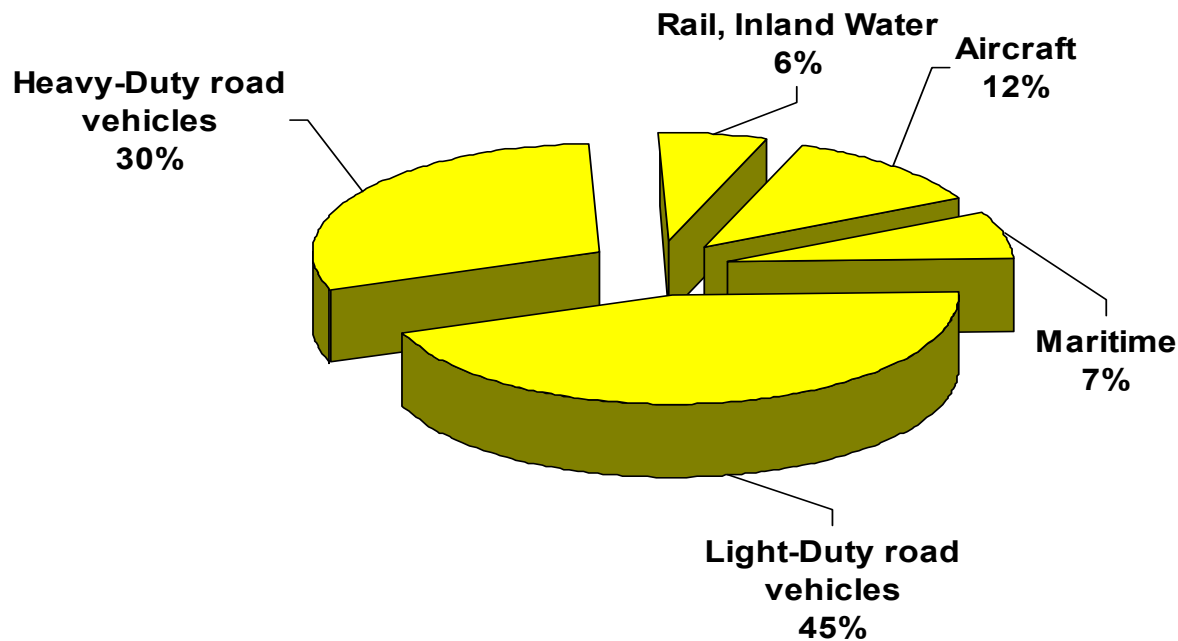


- Promote awareness
- Educate Public & Government
- Establish Best Practice
- Produce UK Strategy
- Improving operations
- The technology challenge
- Market-based options

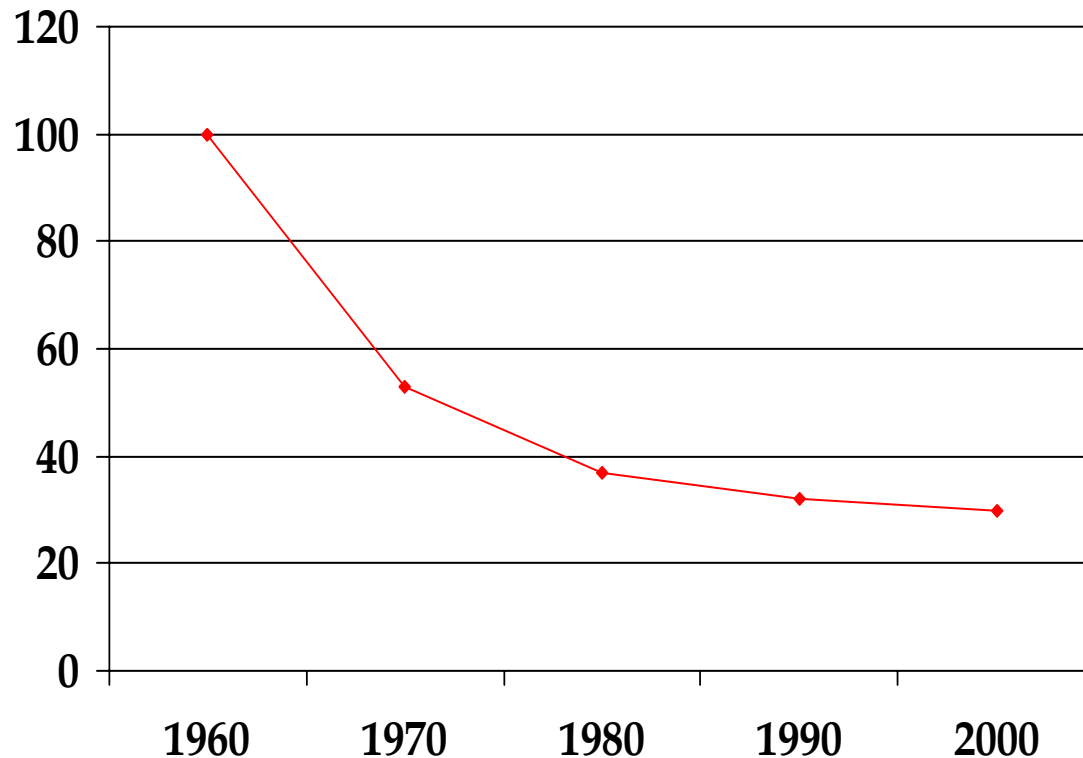
*Technology sub-group report August  
2001 and the Aeronautical Journal  
February 2002*

*Full report February 2002*

# Transport sector CO<sub>2</sub> emissions

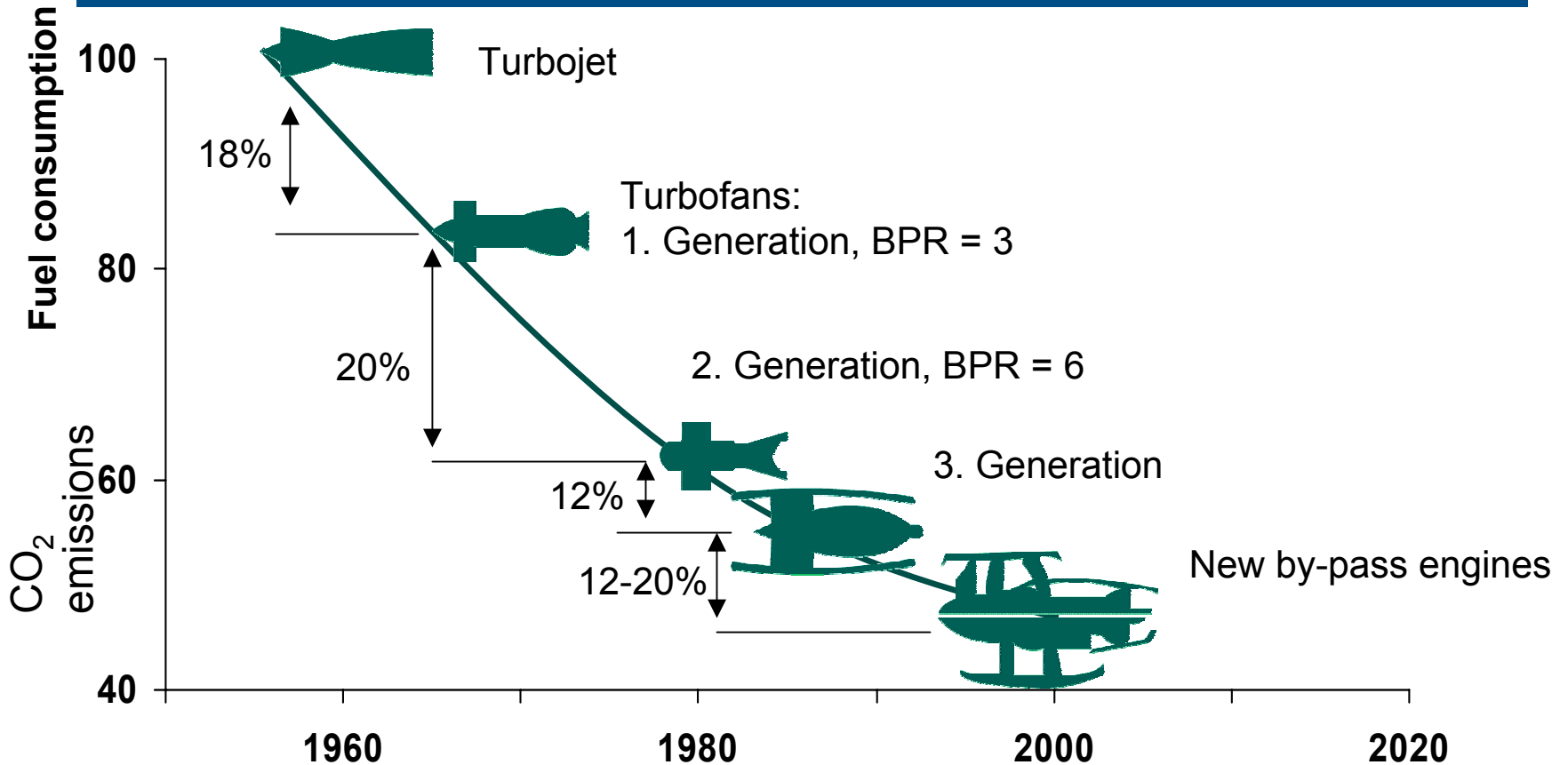


# Fuel burn per passenger kilometre



Sources: ICAO 1976-1989, Boeing 1990-1995

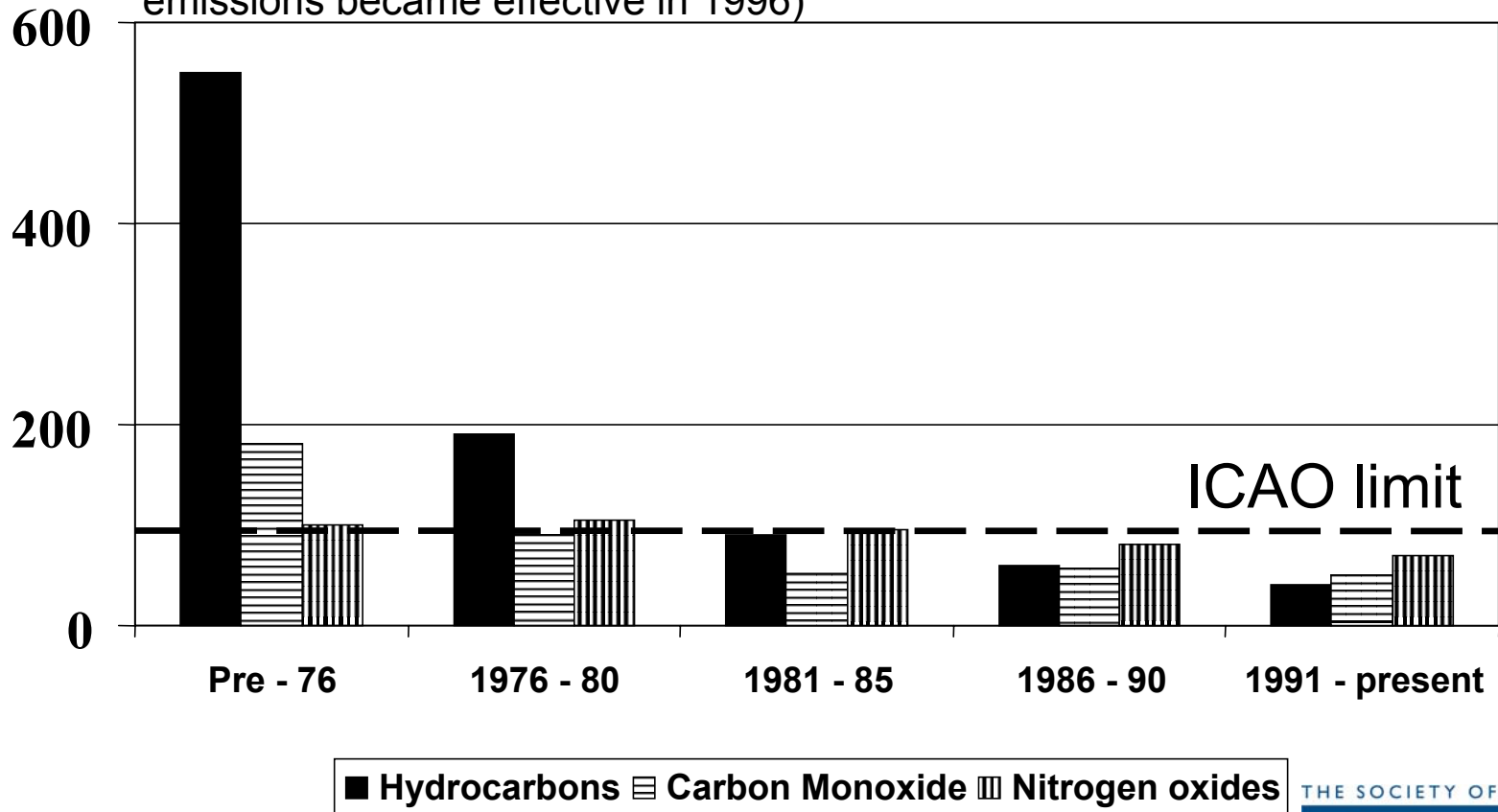
# Aero-engine design



Source: Lufthansa

# Engine emissions

Percentage of ICAO limit: (new international standards for gaseous emissions became effective in 1996)



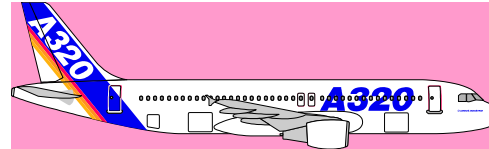
Source: Boeing 1998

# Noise footprints

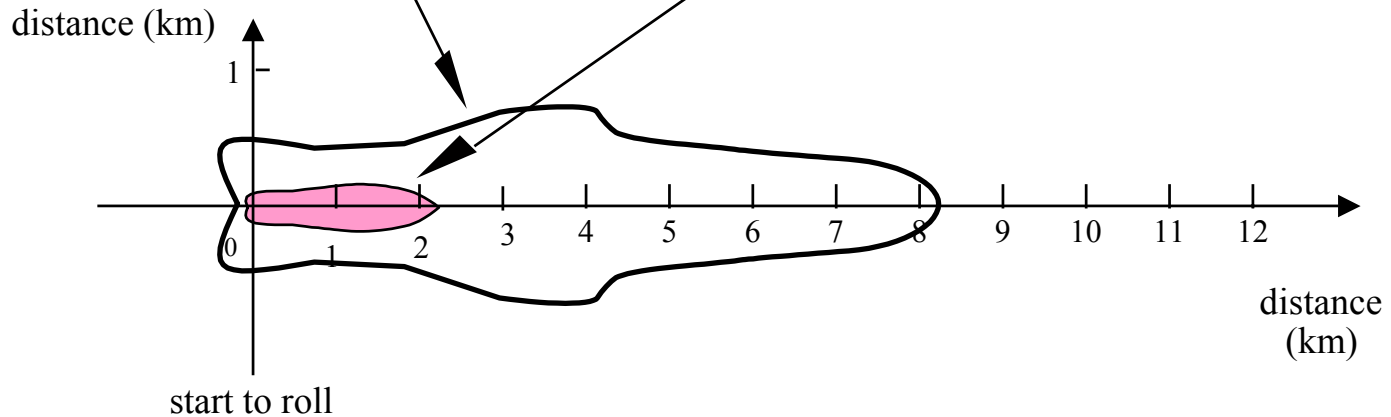
## 85 dB take-off noise footprint



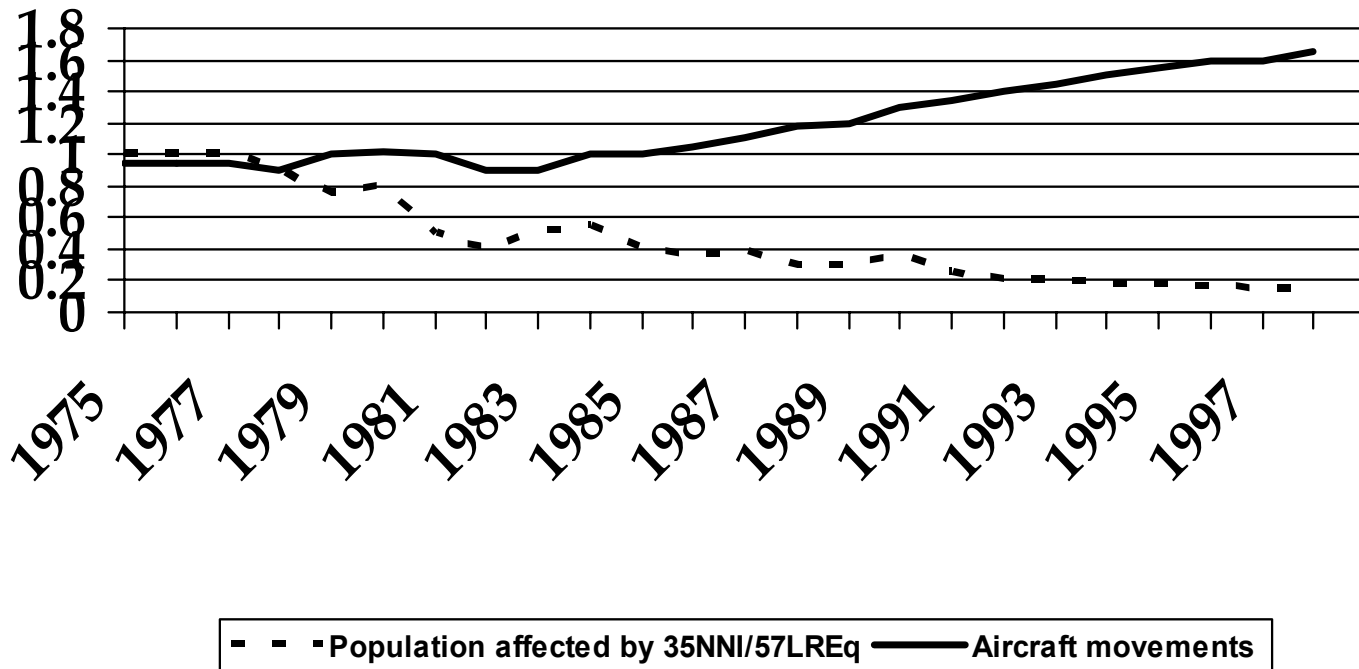
1970's technology



1990's technology



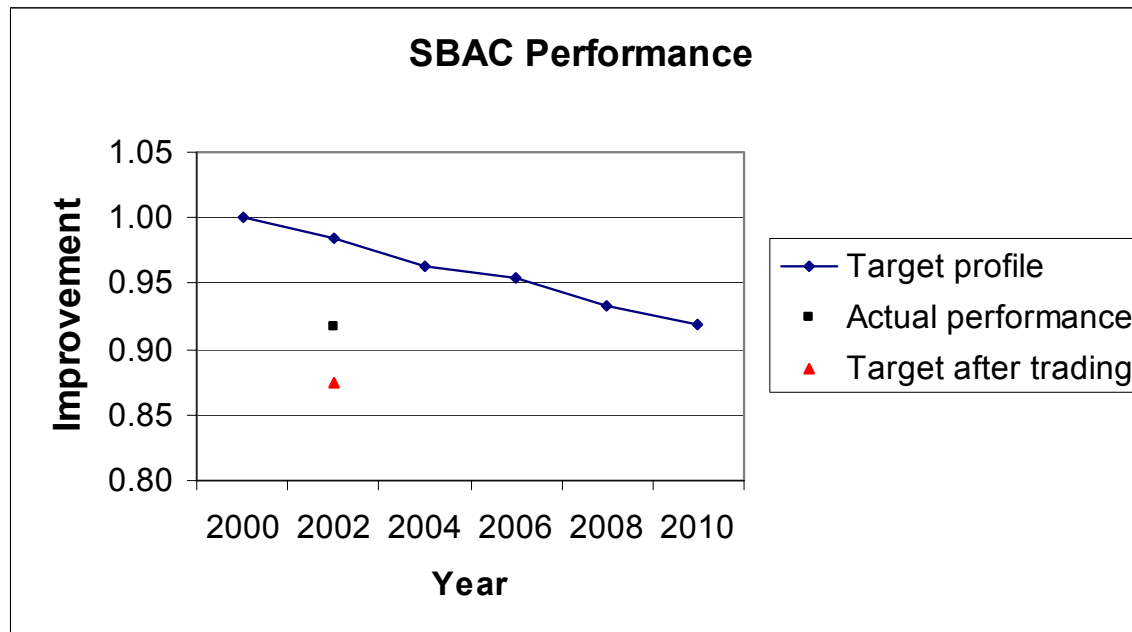
# Heathrow population affected by noise



# Climate Change Levy – Aerospace sector scheme

- **DEFRA announce first milestone performance data 7 April 2003.**
- **Energy consumption improvement of 8% relative to base year position achieved vs unadjusted 1.6%improvement target.**
- **Savings against levy of order £800k per annum.**
- **All facilities re-certified.**

# Climate Change Levy – Aerospace sector scheme

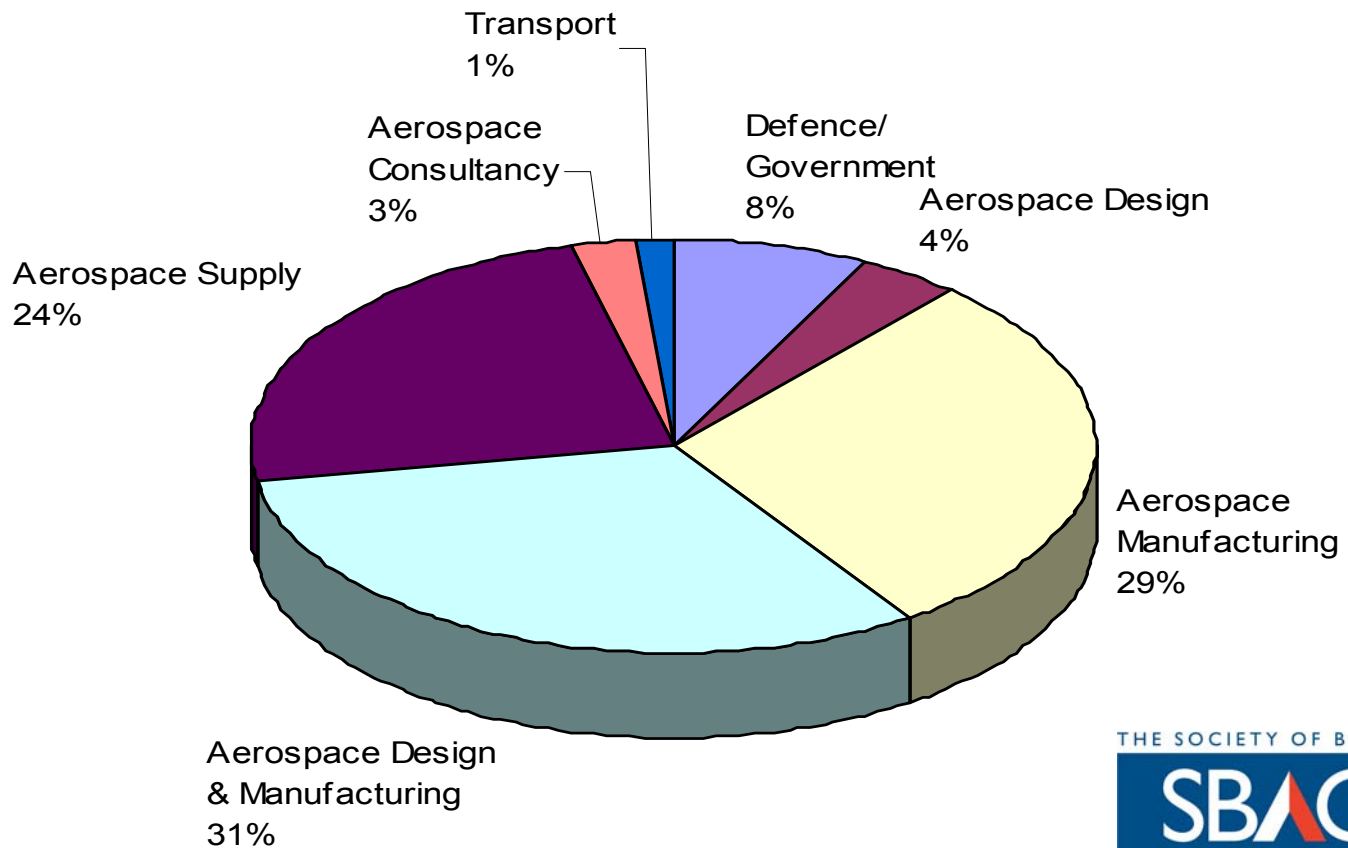


# Emissions Trading

- Successful auction participants joining scheme from 2 April 2002 included:
  - British Airways plc
  - GKN(UK) plc
  - Rolls-Royce plc
  - Royal Ordnance plc
- 3 companies in CCL scheme purchased carbon to meet first milestone targets.

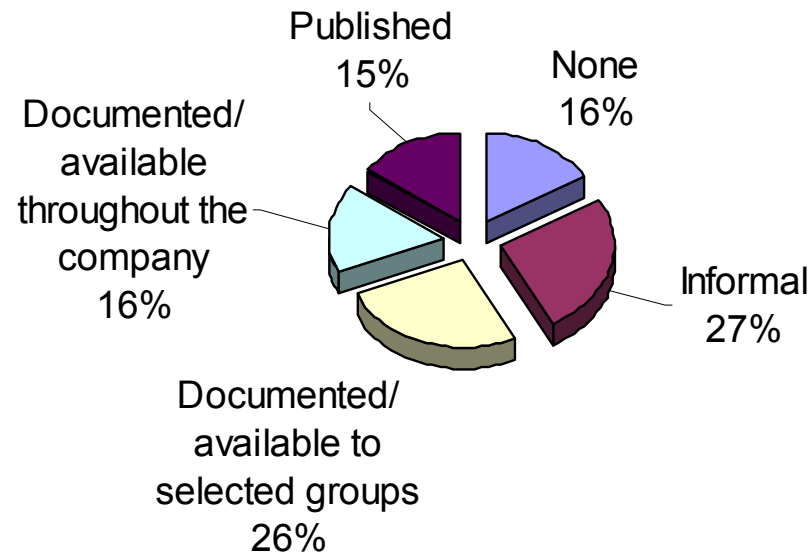
# SBAC survey 2002

## Company Activities

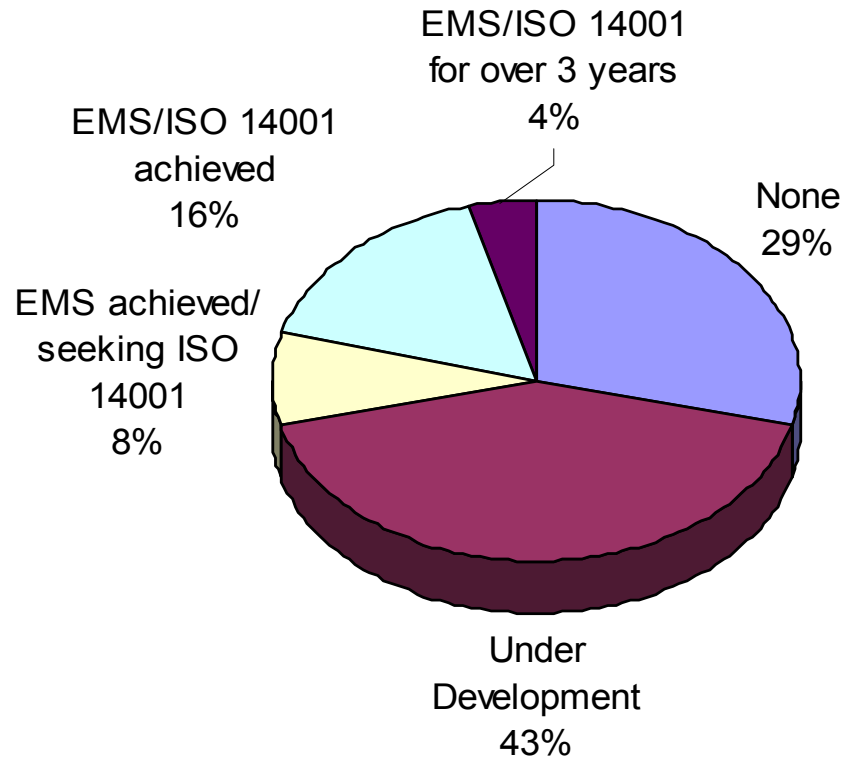


# SBAC survey – company environmental policy

## Company Environmental Policy



# SBAC survey - EMS/ISO 14001



# Consultations

- Royal Commission Report
- Report from the Parliamentary Office of Science & Technology
- Treasury discussion document on *Aviation and the Environment: Using Economic Instruments*
- Aviation White Paper

# Sustainable Development Strategy – the first steps

- Company and sectoral ‘exemplars’
- Learning from experience
  - Society of Motor Manufacturers & Traders
  - DTI/ DEFRA Pioneers Group
- AelGT ‘Vision’

# Sustainable Development Strategy – the challenge

- Manufacturing supply chain ‘buy-in’
- Best practice proliferation
  - Environment, Health & Safety, Social & Environmental reporting
  - Environmental policies, EMS, ISO 14001
- Sectoral coherence
  - Manufacturers, airports, airlines
  - Technical trade-offs

# Key initiatives

- The Aerospace Innovation & Growth Team – Group 4 Regulation, Environment & Safety
- The Advisory Council on Aerospace Research in Europe – Strategic Research Agenda

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