



# The Economic Impact of Aviation

A Methodological Approach

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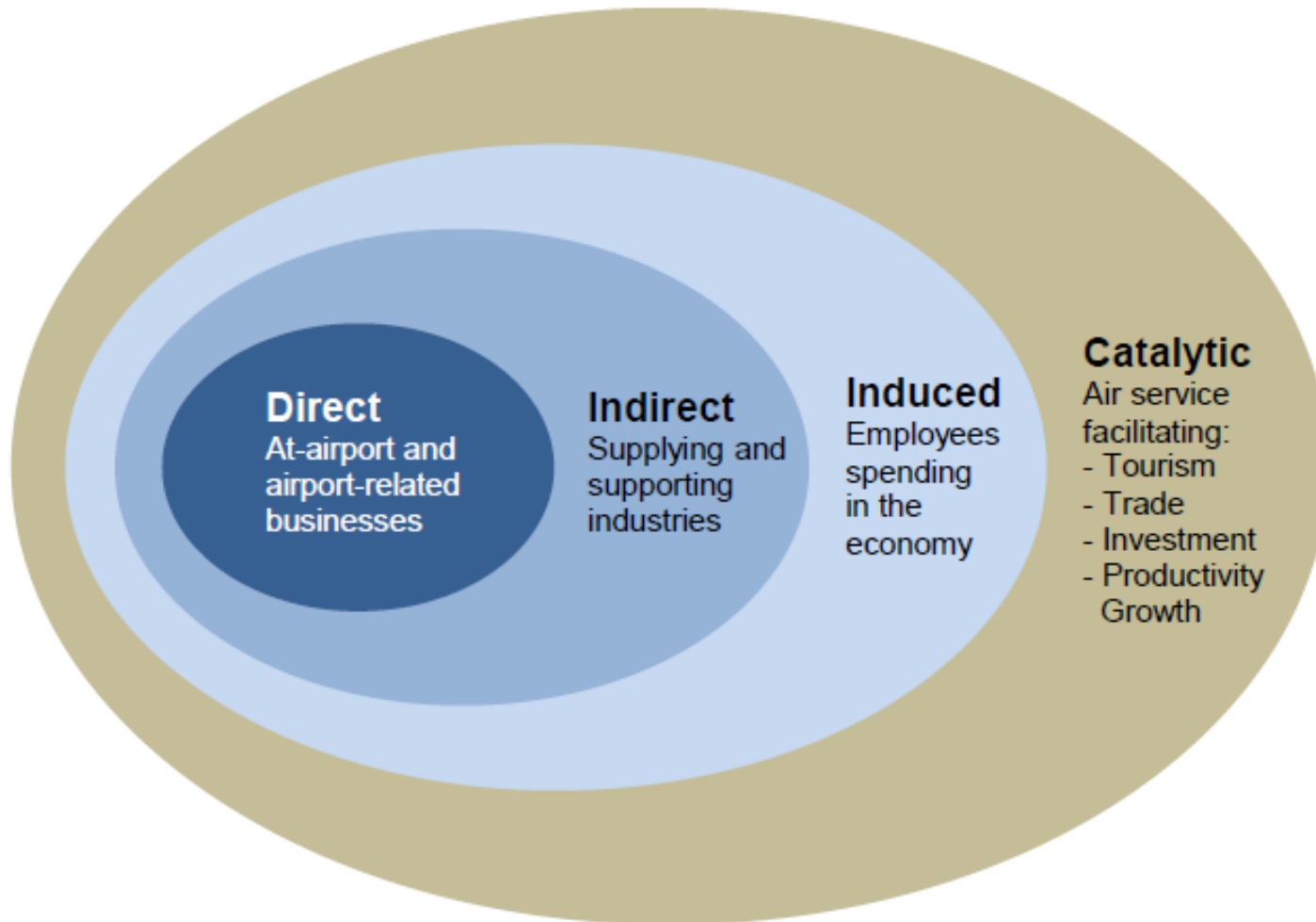


# → The Context

- **Healthy debates on many issues which impact aviation's future:**
  - **Local noise**
  - **Carbon emissions**
  - **Increasingly limited public funding & State Aid Guidelines**
  - **Aviation taxes**
  - **European Capacity Crunch**
- **As a consequence some skepticism of the various works concerning the economic impact of aviation**
  - **Future work needs to reflect this skepticism**



# → The Approach: Overall





# The Approach: Overall

## ▪ Economic Footprint

- Direct
- Indirect
- Induced

## ▪ Wider Economic Impact

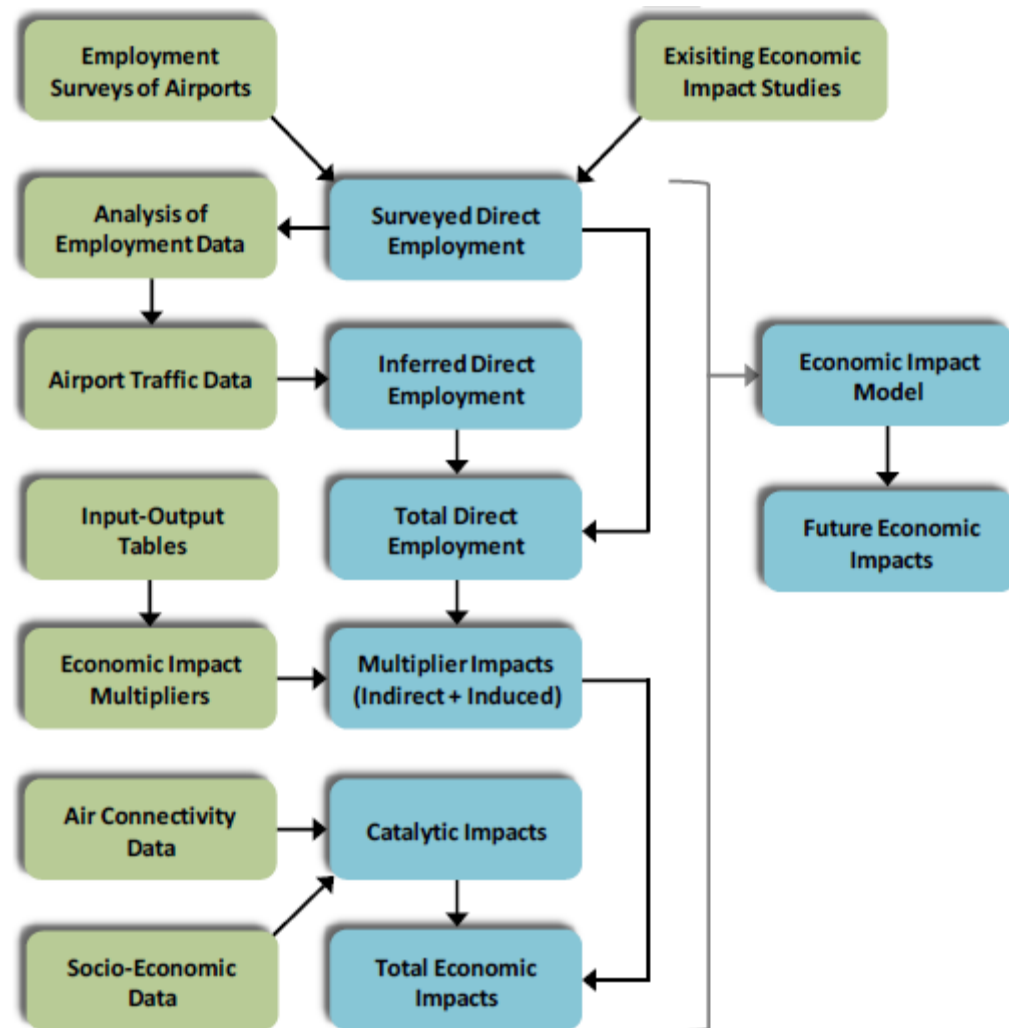
- Catalytic

## ▪ Advantages:

- Well established & comparable
- Clear & tangible inputs & results

## ▪ Limitations:

- Like many approaches, not all elements are captured



# → The Approach: Direct, Indirect & Induced

## ▪ Direct Survey to Airports


- Traffic
- Existing impact studies
- Employment numbers
  - Specific area?
  - Airport-employee or other?
  - On-site or off site?
- Data cross checked against additional questions / existing work / intuition & knowledge of sector

## ▪ Responses

- 96 airports
- ≈ 70% of European passenger traffic

**ACI EUROPE**  
 Economic Impact of European Airports  
 Employment and Activity Survey

**InterVISTAS**  
 a company of Royal HaskoningDHV



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The figures you provide in the following sections are **strictly confidential** and will be viewed only by InterVISTAS Consulting Ltd. and ACI EUROPE. Only aggregate survey totals will be published in the final report - no individual airport data will be released.

For the purposes of this study, it is important that the figures you provide are as accurate as possible. However, where it is not possible to provide precise information, we would appreciate realistic estimates by informed parties (e.g., human resources, finance departments, unit directors, department heads, etc.), rather than no response at all.

Please complete this survey electronically by responding directly into the form. Alternatively, you can print out the form and complete by hand. Wherever possible, please state figures for calendar year 2013 (please indicate where this is not the case).

Name of Airport:

Contact Person:  Phone number:

Email:

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**Q1. About Your Airport**

Please complete the following information for your airport for 2013, or closest possible year:

	Year: <input style="width: 50%;" type="text"/>
Total E/D passenger traffic	<input style="width: 100%;" type="text"/>
Total transfer/transit passenger traffic	<input style="width: 100%;" type="text"/>
Total air cargo volumes	<input style="width: 100%;" type="text"/>
Total aircraft movements	<input style="width: 100%;" type="text"/>

Is your airport a hub or significant base for any airlines?

No     Yes, please state their names:

**Q2. Existing Economic Impact Study**

Has your airport commissioned, conducted or been the subject of an economic impact study?

Yes     No

If yes, please could you email a copy to [acieurope\\_survey@intervistas.com](mailto:acieurope_survey@intervistas.com) or fax to +44-1225-330-209, Attention: Ian Kincaid. Any information in the study will be kept confidential and only aggregate totals will be published.

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# The Approach: Direct, Indirect & Induced

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- **Extrapolating sample data to represent European aviation sector as a whole**
  - **Ratio of passengers to direct jobs**
  
- **Input-Output Tables – Modelled on structure of national economies**
  - **Links the gross output of an industry to the final demand for that industry, and to the intermediate demands made by other sectors for its output**
  - **Focusing on relevant industries within these tables - principally ‘Air Transportation’**
  
- **This allows calculation of:**
  - **Average wages for the sector for each country (with Eurostat data)**
  - **Ratios for calculation of indirect jobs & GDP impact for each country**
  - **Ratios for calculation of induced jobs & GDP impact for each country**
  
- **Ratios & wage figures applied to surveyed data**

# → The Approach: Catalytic

- Relationship between country-level connectivity relative to GDP & per capita GDP

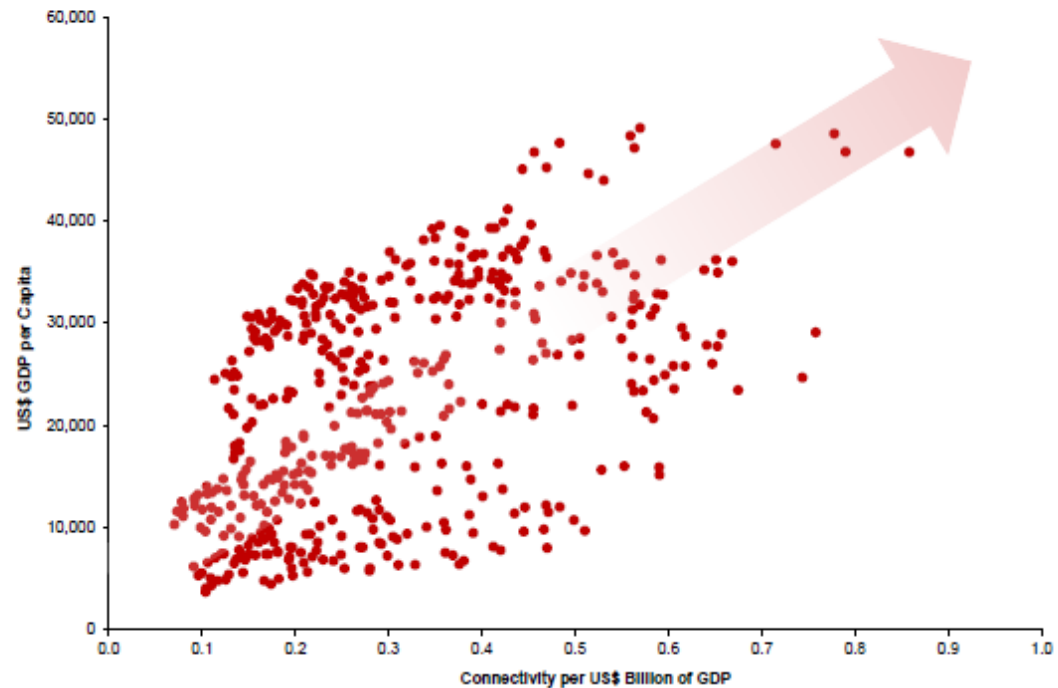
- Data

- 40 countries & 12 years

- Controlling for:

- Educational spend
- R & D spend
- Gross Capital Formation per worker
- Country & year specific factors

Figure 8-4: Relationship Between Air Connectivity and GDP per Capita in ACI Europe Countries, 2000-2012



- For every 10% increase in connectivity there is a 0.5% increase in GDP per capita

# → The Approach: EUROCONTROL Forecasts

- Predicting the future ... caution advised!



- EUROCONTROL forecasts of constrained & unconstrained 2035 passenger levels for 4 scenarios
  - Unconstrained forecast – constrained forecast = passengers lost due to capacity crunch

Scenario	2012 Passengers	2035 Passengers		
		Unconstrained	Constrained	Gap
Scenario A: Global Growth	696 Million	2,011 Million	1,519 Million	492 Million
Scenario C: Regulated Growth	696 Million	1,538 Million	1,313 Million	225 Million
Scenario C': Happy Localism	696 Million	1,313 Million	1,203 Million	109 Million
Scenario D: Fragmented World	696 Million	1,010 Million	990 Million	20 Million





# The Approach: EUROCONTROL Forecasts

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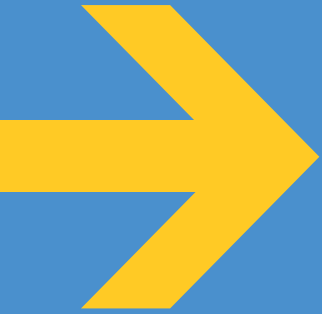
## ▪ **Direct/Indirect/Induced impact calculation**

- In 2013 every million passengers associated with 854 direct jobs (at larger airports)
- BUT assume productivity gains – reduce this figure by -33%
- Use same ratios for indirect & induced jobs & GDP from Input/Output Tables

## ▪ **Catalytic impact calculation**

- Take today's relationship between connectivity & passenger volumes
- BUT acknowledge that connectivity grows faster than passenger volumes
- Assume every 1% increase in connectivity only results in .75% increase in passenger volumes
- Then apply ratio of 10% connectivity increase = 0.5% GDP increase





# THANK YOU

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