Economic Contribution and Productivity of ATM

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6th USA/Europe ATM R&D Seminar
Questions

1. What is the contribution of ATM to economic output and to employment?
2. How does its economic productivity compare with that of other sectors?
3. What is the size of investment and R&D expenditures in the sector?
Economic Contribution of Aviation

Induced impact from income earned via direct and indirect impact

Direct value added and employment generated directly by aviation

TOTAL

US: 11 million jobs, $503 - $903 bn (5.1% to 9.2% GDP inc. travel & tourism),
EU-15: 3.1 million jobs, €221 bn (2.6% GDP)

Indirect impact on aviation supply chain

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Scope of Analysis

- Employment, revenues and value added
- ATS, ASM and ATFM
- US, Canada and Europe (31 ANSP) and limited for other countries in South America, Africa and Asia
- Sources:
  - Europe: EUROCONTROL PRC and ARDEP
  - US: FAA budget reports, National Aviation Research Plans, Performance and Accountability Reports
  - Canada: Annual Reports of NAV CANADA and ICAO financial data
  - Other countries ICAO Financial Data

\[ Value \text{ added} = \text{staff costs} + \text{depreciation} + \text{interest} \]
ATM Revenue 2002

World: 16 000 – 20 000 M USD
ATM Value Added 2002

North-America and Europe
22 461

Multipliers
Indirect: 1.7
Total: 2.6
ATM Employment

North-America and Europe
227 230

Europe

US

Canada

Direct
Indirect
Induced

Multipliers
Indirect: 1.6
Total: 2.6
Investment and R&D 2002

Note: R&D expenses in US might be as much as twice the value shown as they do not include funding from NASA and MITRE/CAASD

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Productivity and Staff Cost 2002

- similar aerospace, automotive
- lower than electricity, telecom, pharm.

Transport, storage communication (2001) EU-25 $119k

Comparable to ‘Top 600’ European companies
ATM Economic Value

• ATM adds value to other stages of the air transport value chain by
  – enabling air transport
  – reducing the operating costs of airspace users for example through improved punctuality, predictability and flight efficiency
Conclusions

• Preliminary results
  – Economic Impact – North-America and Europe: USD 22 billion, 230,000 jobs
  – Worldwide ATM revenues: USD 16 to 20 billion
  – Productivity comparable to other technologically advanced sectors

• Future work:
  – More precise and extensive economic data
  – ATM value beyond revenue and value added captured through ATM statements