Introducing More Competition into ATM: Possible Institutional Designs – Qualitative assessment

dr. Eef Delhaye
Transport & Mobility Leuven

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Outline

• Background
  • COMPAIR project
  • Goal of this work
• Four options
• Literature review
• Stakeholder input
• Qualitative assessment - conclusion
Background

COMPAIR – starting point
- Fragmented market
- Price regulation
- Network character ATM technologies
- Home-bias

Focus on competition as a trigger for change

Different ways to increase overall efficiency of ATM
- Problems of coordination
- Slow changes
- Inefficiencies
- Underinvestment
Background

We had 4 ideas on how to do introduce more competition into ATM
- Yardstick competition and Governance
- Unbundling
- Tendering of licenses
- Flight centric, sector-less operations

-> fine-tune
-> qualitative assessment
    - literature review (theoretical & applications)
    - stakeholder input (and hence opinions)

= setting the scene for further work
Four options

(1) Ownership models and yardstick competition
- Ownership and governance models
  - A large variety over countries
  - Increased involvement of ATM customers -> higher customer focus

- Yardstick competition
  - No effect on fragmentation
  - No real competition for ATM services
  - Charge depends on costs “similar” firms -> “as if competition”
Four options

(2) Unbundling
-> in phases
  - Separation terminal air traffic services
  - Unbundling of ATM support services which are not monopolistic in nature nor have large network effects (MET, AIS, CNS)
    -> competition IN market
  - More specialised ATM activities, including contingency services
    -> closer cooperation -> increased interoperability

(3) Tendering of licenses
- Operate en-route air traffic services in a specific geographical area and for a certain time period
  -> competition FOR the market
  -> over time less fragmentation
  -> via contracts better enforcement of performance targets
  -> issue of long term investments...
Four options

(4) Sector less ATM operations

- Concept in R&D stage but some successful tests
  - En-route ATC without conventional sectors
  - One controller is assigned several aircrafts regardless of location
- Reduces need for monopolistic ATC
  -> competition between ANSPs
  -> competition for ODs, for network of airlines,...
Literature review

(1) Ownership models and yardstick competition
   - Ownership model:
     - Literature mixed. No hard statistical evidence (cf. POSTER 😊)
   - Yardstick competition:
     - In theory each firms chooses socially efficient cost reduction
     - Has been applied in regulation various utilities (hospital, water, busses, Japanese rail, airports*,...)
     - But generalisation to ATM with possible non-observable differences?

(2) Unbundling
   - Tower control -> is seen as successful (but no public data)
   - Centralised services
   - Unbundling support -> some experience (eg. training, information)
   - Examples in rail and electricity -> you need enough competition

(3) Tendering of ATC licenses
   - Careful with design
   - Two examples in ATC (centralised services & tower control)
   - Long term if long term investments (or other ownership arrangements)

(4) Sector less ATM operations
   - Literature focusses on technical aspects
Stakeholder input

COMPAIR Advisory board + 6 interviews
Survey (21 replies: 15% ANSPs, 30% research & consultancy, 15% airports, 10% airlines, 10% industry associations, 20% regulatory/government)

Main comments
- Unbundling
  - Seen as most feasible option
  - For/in the market -> depends on service
  - Are there real cost savings? -> cost of coordination
- Tendering
  - Seen as political not feasible (at least for en route)
  - Special care on advised length (cf. investments)
- Governance/yardstick will not lead to drastic changes
- Sectorless too far-fetched – some reluctance to reply

- Consider distributional effects carefully
- All concepts should be technological feasible
- Political acceptability will be different for different countries -> no EU solution?
- Share of support services is around 20-40%, no agreement on most logical candidates
- Tendering is already possible ... at least in theory
- Some options do not directly affect fragmentation, which is a problem
## Qualitative assessment

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<td><strong>Technologically feasibility</strong></td>
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<td>Is the technology there to realise it?</td>
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<td>Yes</td>
<td>Yes</td>
<td>No</td>
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<td>Time scale necessary for implementation</td>
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<td><strong>Economic feasibility</strong></td>
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<td>Possible cost reductions</td>
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<td>Cost of introduction</td>
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<td>Effect on performance improvement incentives</td>
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<td>Potential negative side effects</td>
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<td>By ATCO’s</td>
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<td>By airlines</td>
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<td>Contribute to defragmentation/realisation of economies of scale</td>
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Conclusions

- No dramatic performance impact of performance regulation
- But implementation might be feasible in the short run and at low costs

- Sectorless operations might have strong impacts and cost savings
- But faces many challenges

- Unbundling is seen as the most promising
- And has been relatively successful in other sectors

- Tendering is already possible
- But political and social barriers
- And problem of need of collaboration versus competition

-> What happens next?
   - 4 options are still in the picture
   - Modelling work to analyse potential
Introducing More Competition into ATM: Institutional Designs

Thank you very much for your attention!

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