

**Workshop on**  
**Integrated Transport and Urban Development including  
environmental, health and quality of life perspective**



Geneva 4<sup>th</sup> September 2018

Working Party on Transport Trends and Economics

**“Evaluating framework of transport system  
performance on urban development”**



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# Brief profile of Dimitrios Dimitriou



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Dimitriou holds Doctorate in Transport demand forecasting; MSc in Infrastructures Environmental Planning; MSc in Transport Planning & Management; and Diploma (equivalent to 4 years BA & 1 year MSc) in Civil Engineering (sector of transportation).

He is Associate Professor in Management and Quantitative Analysis in Transport Infrastructures Development, providing dedicated courses and research in fields of transport economics, decision making and risk assessment (Dept. of Economics, Democritus University of Thrace, Greece).

He has long experience in field of transportation, delivered many projects in planning, operation, management, business development and economics. He published over 150 papers in referred journals, editions, international conferences and he has elected in executive positions in professional associations and committees of expert.

He is the Chairman of the BoD in Athens International Airport (since 2016) and he was Chairmen of the BoD and CEO in Athens Transports Organisation (2010-2012).

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# Outline

- ① **Characteristics of integrated transport**
  - > Concept
  - > Socioeconomic impact footprint
  - > Planning and Management challenges
- ② **Socioeconomic impact footprint**
  - > Integrated transport impact
  - > Benefits and challenges
- ③ **Key drivers towards performance**
  - > Evaluation framework
  - > Case study outputs
- ④ **Concluding remarks**
  - > Discussions
  - > Recommendations



# Integrated Transport System Concept

“Development of an reliable transfer system between air and ground transports”

as a tool:

- Control the demand in landside area
- Control the demand in terminal building (e.g. arrivals, check-in desks, etc.)
- Decrease the environmental impacts
- Increase the revenues
- Optimum allocation of resources
- Fair pricing
- Improve the level of service to passengers
- Reduce the travel time to/from airport
- Increase the security and safety
- Reduce/Control the environmental impacts
- Increase the PT attractiveness



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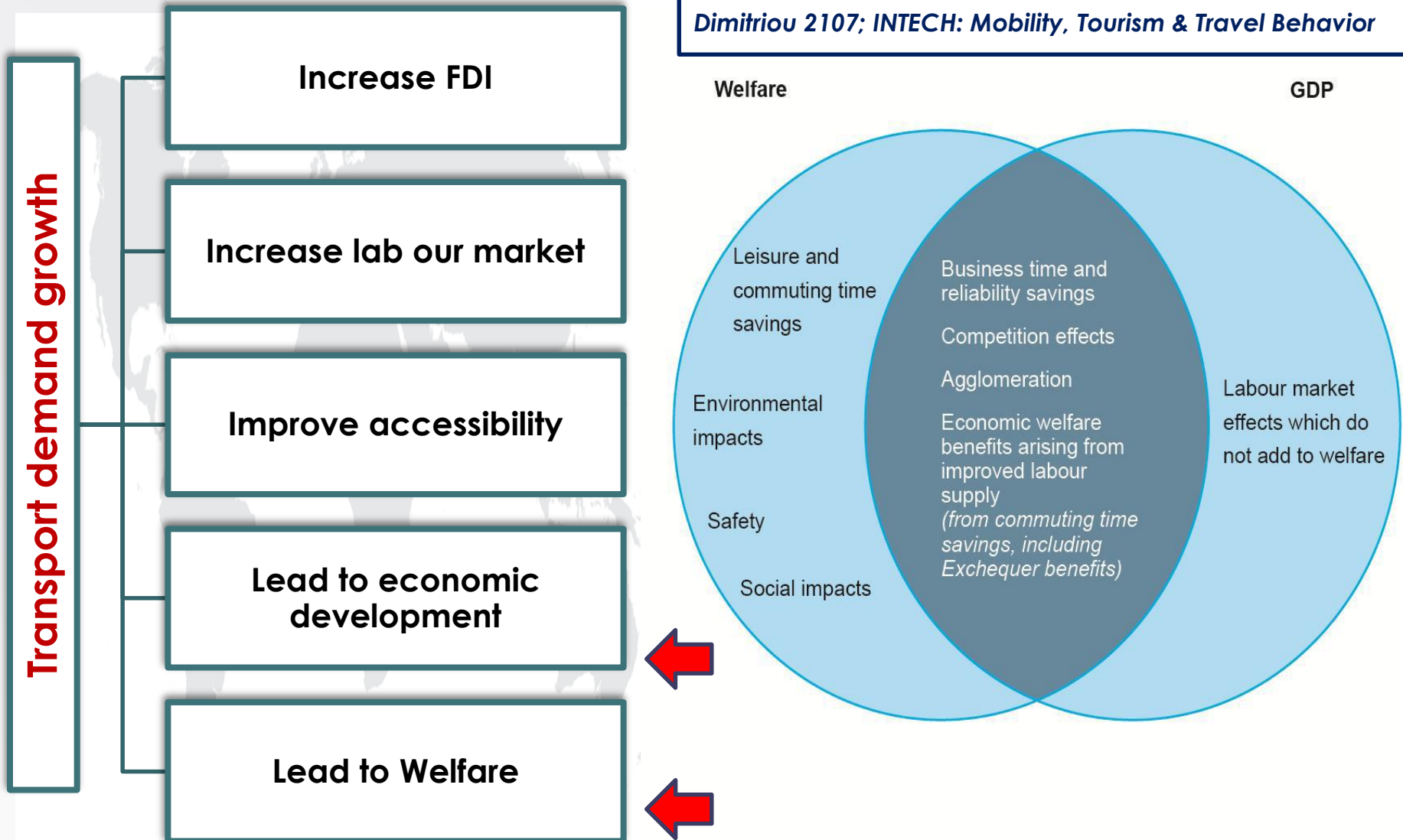
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# Transport services integration socioeconomic footprint

Dimitriou 2107; INTECH: Mobility, Tourism & Travel Behavior



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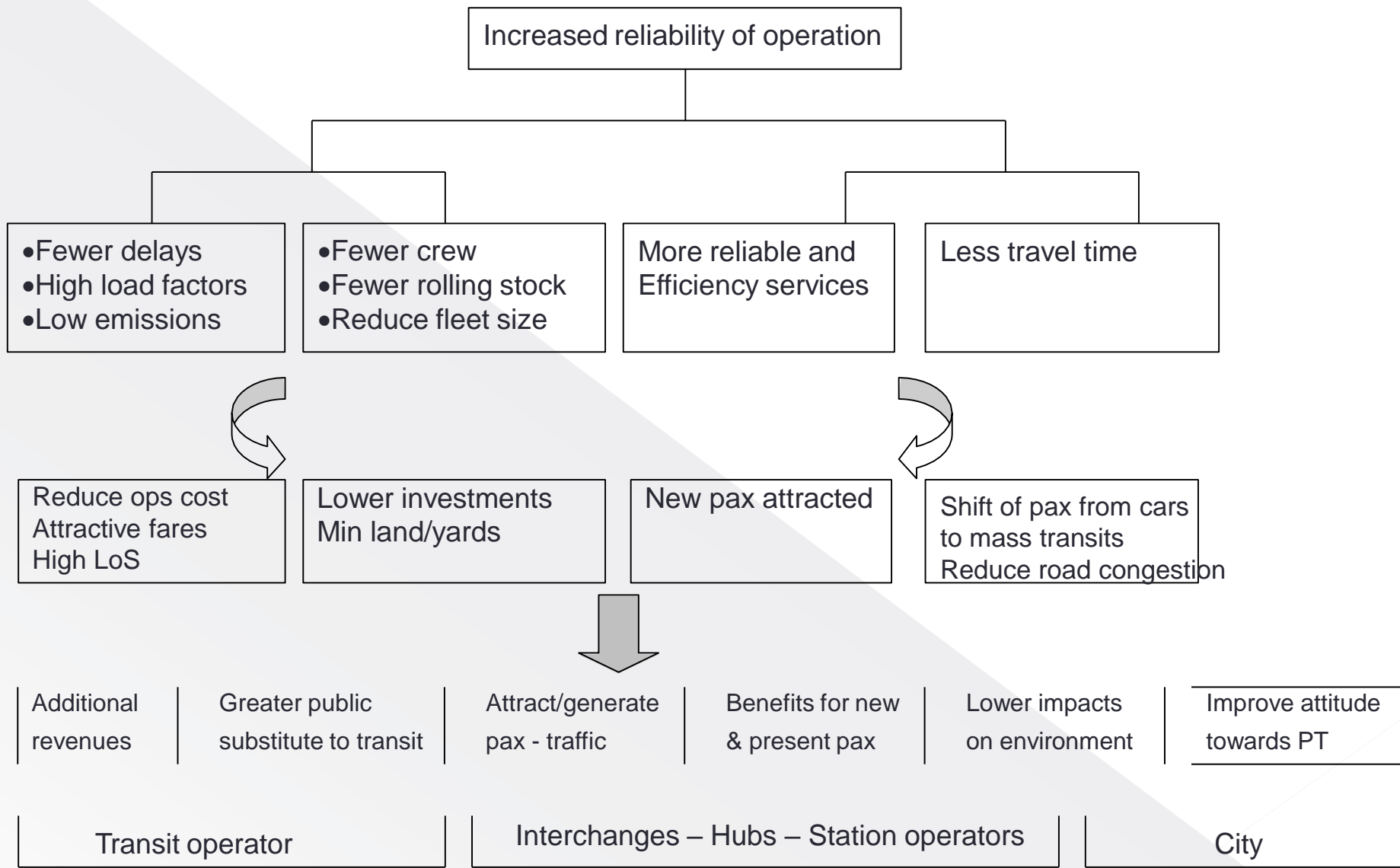
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# Impact of ground transports to urban development



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# Transport sector key business planning variables

Dimitriou et al.2017, IJESRT, 6(1)

## ➤ Strategy

- New market development
- Regulation / protection vs deregulation
- Funding – capitals leverage
- Socioeconomic impact

Dimitriou et al., 2018; Transportation procedia, Elsevier

## ➤ Planning

- New business (routes, destinations, etc)
- Business viability (risk sharing, incentives)
- Intellectual property (new business)
- Benefits return to society (CSR)

Dimitriou, 2016; Infrastructure Governance, OECD

Dimitriou, 2017; GACS II, ICAO, Athens

## ➤ Competitiveness

- Regulatory framework
- Monitoring/Review performance
- Analysis of the competition
- Provide information to users/market

Dimitriou, 2017; Mobility as a service, UNECE, Geneva

Dimitriou, 2017; NGAP, ICAO, Canada

Dimitriou, 2018; New Skills, Economist, Athens

## ➤ Innovation

- New Products - services
- IT – ITS – SMART Business
- Artificial Intelligence – machine learning
- Research (SU)

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# Transport sector key benefits adopting integration

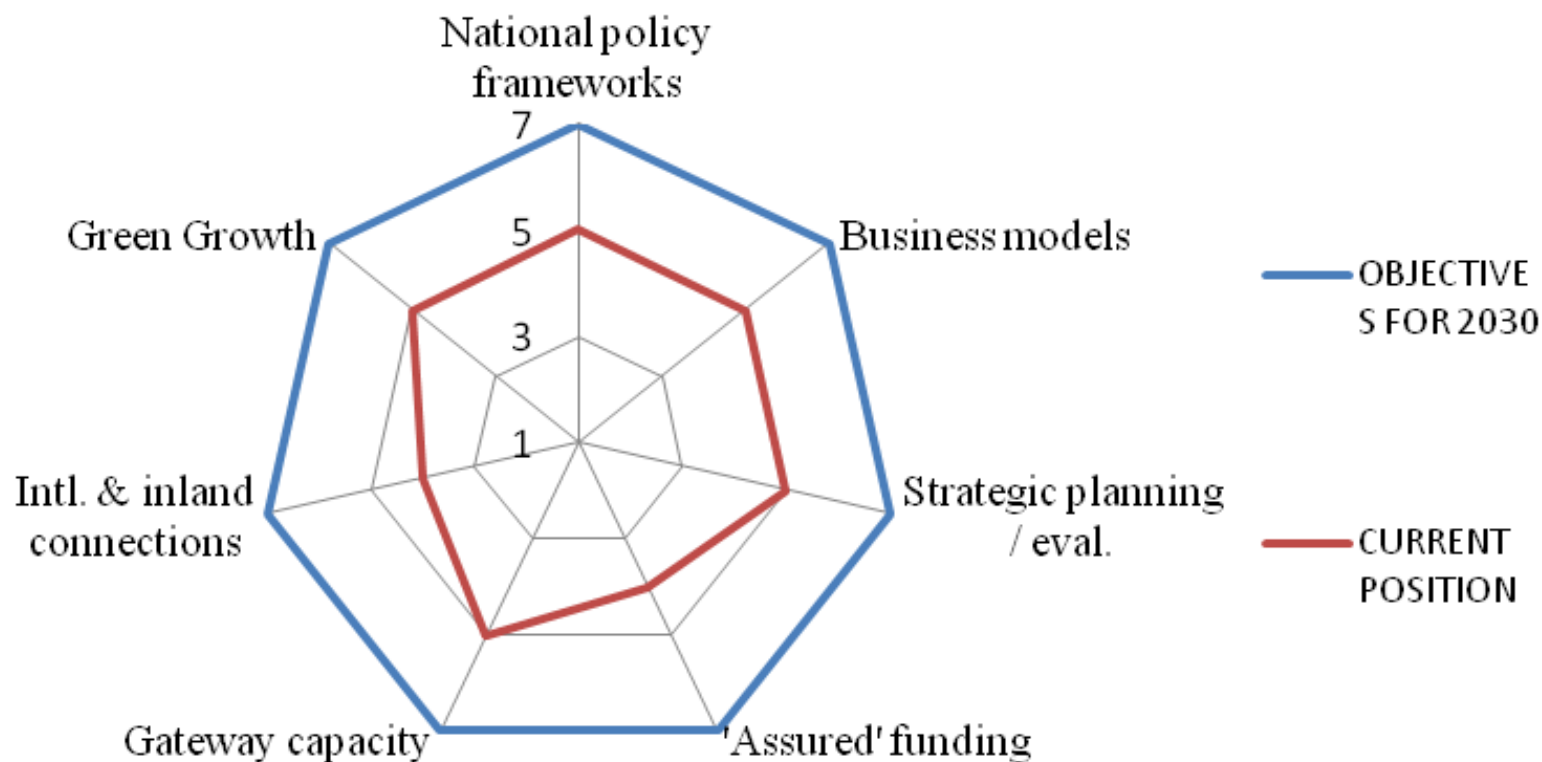
- ❑ Increase of traffic (passengers and cargo)
  - ❑ low cost services
- ❑ Take the benefits of network operation
  - ❑ Provide accessibility
  - ❑ Promote non-transport activities
  - ❑ Socializing
- ❑ Take the benefits of technological innovation:
  - ❑ new technologies (ITS)
  - ❑ AI applications





# Key challenges towards integration

## RECONCILING MULTIPLE STRATEGIC TRANSPORT OBJECTIVES



Source: OECD 2015

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# Conflicts and challenges towards integration

## The supply - demand dilemma

**2 ways to tackle delays cause for the transportation/ground access system:**

### → increase capacity

☞ new infrastructures increase capacity, but attract more demand, which quickly leads to the need for still more capacity,

### → manage demand

☞ deals with measures restraining demand such that it fits within the limits of existing capacity, e.g. pricing methods: cordon, zone, toll pricing and traffic charge applications



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# Evaluation of integrated transit system performance and attractiveness

## Criteria

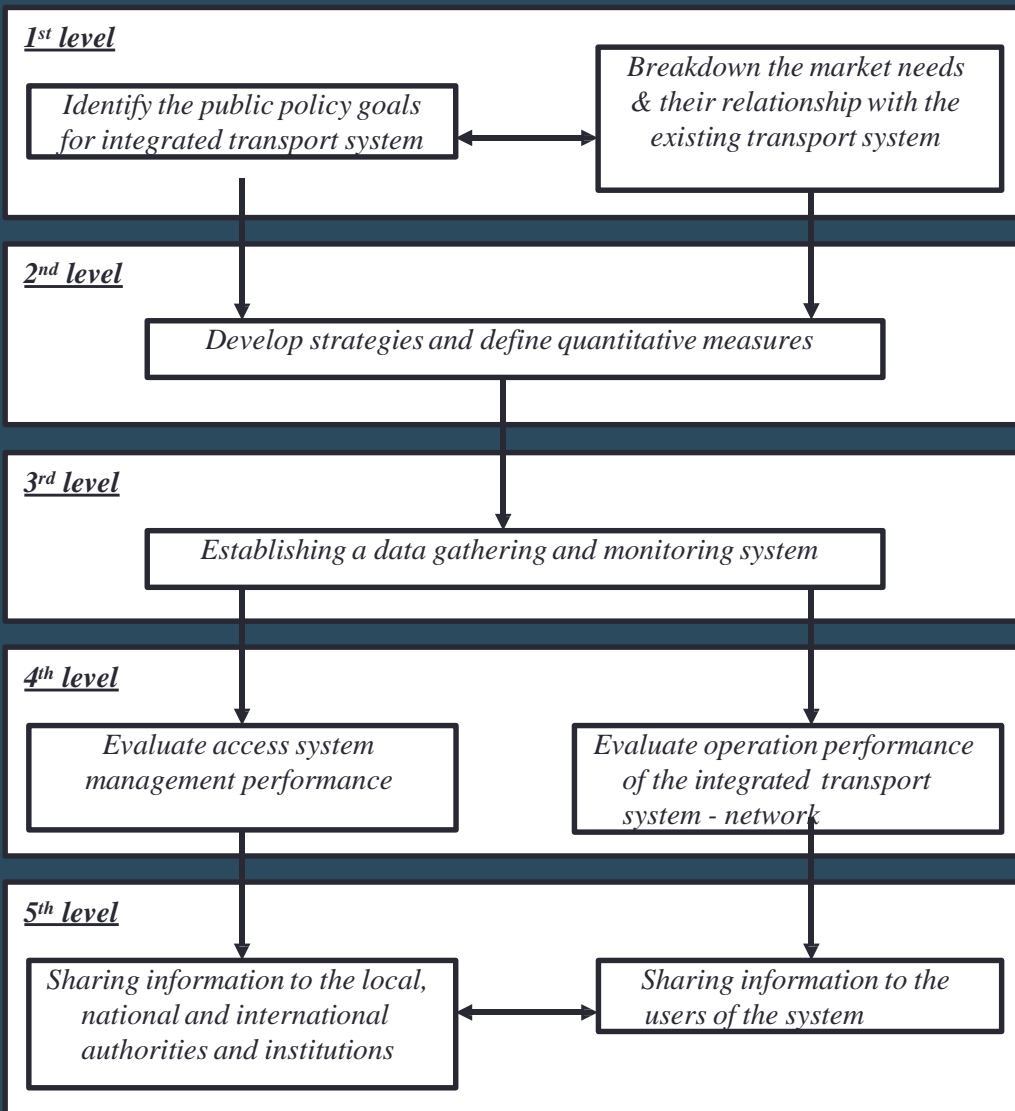
- ⦿ Travel Time (compare PT / road access system)
- ⦿ Access Speed (compare PT / road access system)
- ⦿ Productive capacity (T-system offered capacity over time)
- ⦿ Fares (compare pricing policies)
- ⦿ Research outputs

*Dimitriou D. (2017). Competitiveness and Pricing Policy Assessment for Resilience Surface Access System at Airports, International Journal of Vehicle and Transport Engineering (IJVTE), 11(2), pp.256-260.*



# Recommendations

## Action plan towards integration



*Key issues to create an airport access strategy by level of actions*

*Main difficulties, such:*

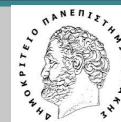
- Many stakeholders
- Many different views and prospects
- Difficult define optimum access system and performance
- Establish measures of operation and financial performance between different systems
- Develop an integrated system or a process to monitor performance
- Determine quality and safety measures

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**I appreciate for your attention.**

**QUESTIONS ?**

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