

Ridesharing Services Socioeconomic Impact

Virginia Petraki

Transportation Engineer

Together with:
George Yannis



Department of Transportation Planning and Engineering
National Technical University of Athens

**Artificial Intelligence
for Road Safety and Mobility Workshop**

8th UN Global Road Safety Week

Athens, 15 May 2025



Streets for Life
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The Ridesharing Project

➤ In cooperation with

Uber

➤ Duration:



2018

Initial Study



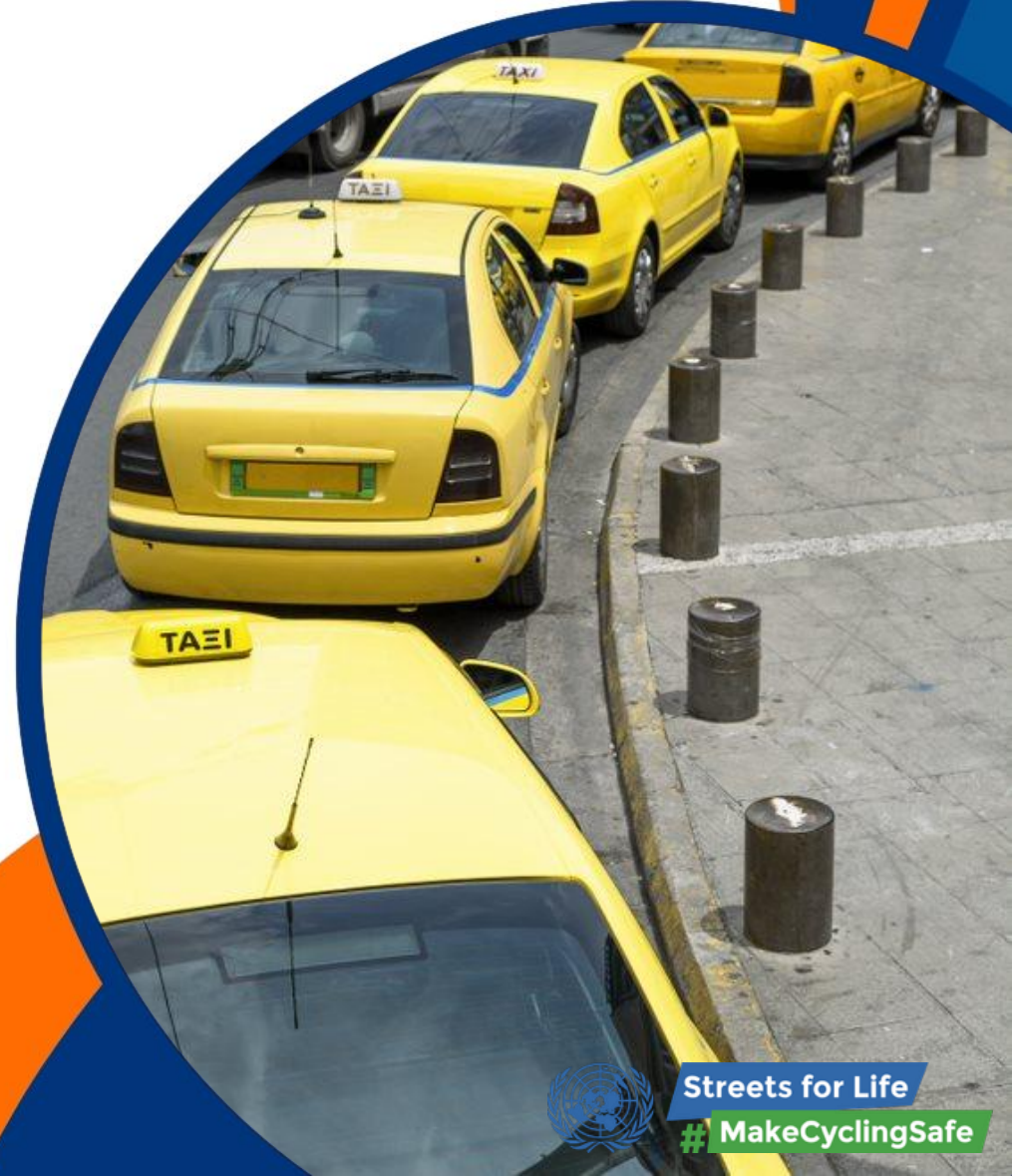
2021

Update



2023

Update



Background

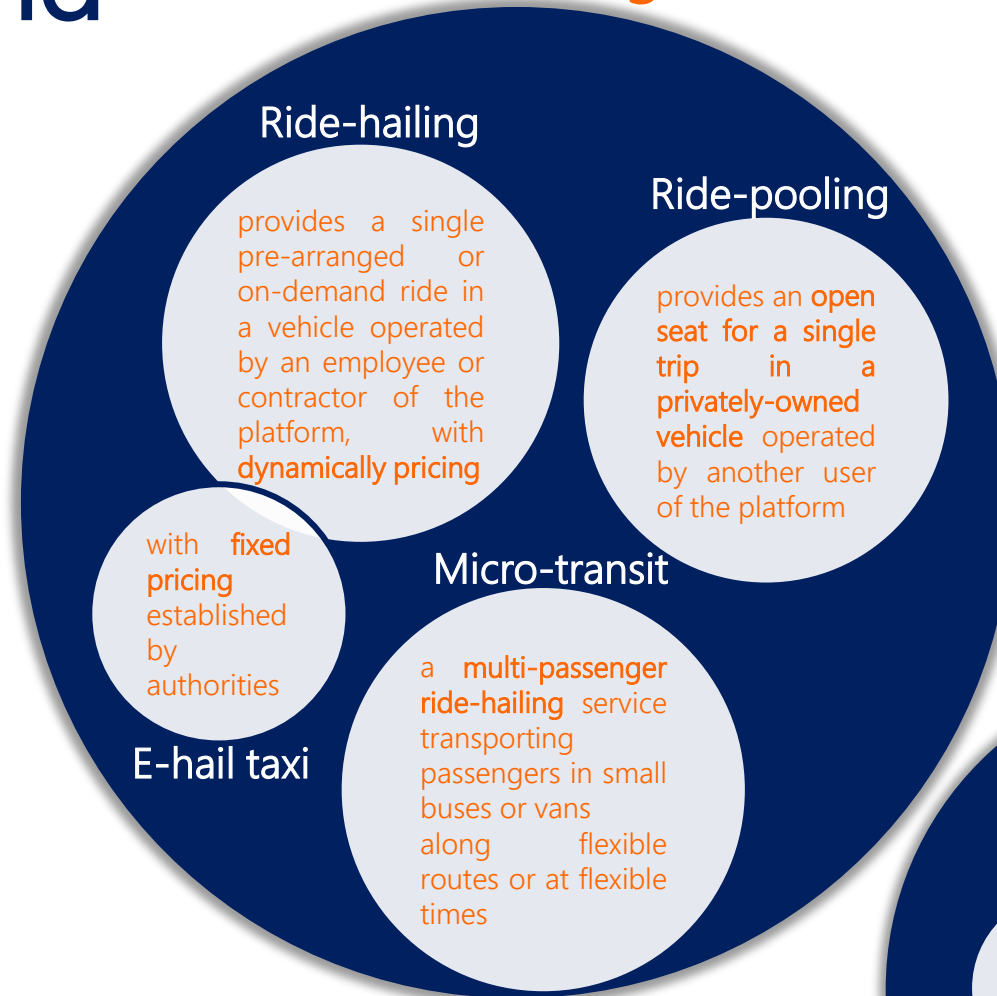
- Urban population growth, expected to reach 82% of the global total in 2050, coupled with **increased short distance trips** is intensifying the challenges of urban mobility like congestion
- Sustainable urban mobility aims to meet modern needs promoting **eco-friendly and innovative travel services**, and controlling the use and ownership of private cars
- **Innovative on-demand transport services like ride-hailing**, are on the rise globally, spurred by technological advances notably smartphones, geo-localisation possibilities and ease of public access to internet
- Despite various legal, institutional and social challenges, urban **travelers are increasingly embracing those services** for their affordability, accessibility, and convenience



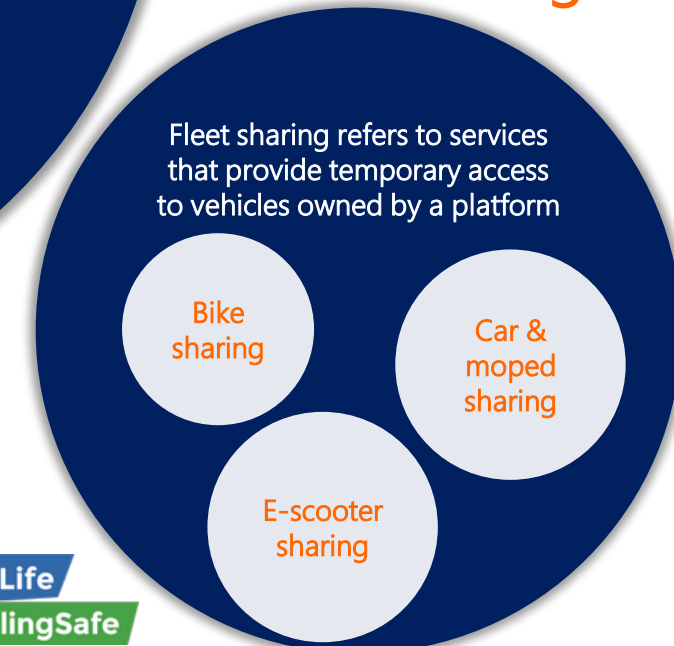
Transport on-demand

- Transport services with a car and a driver, which happen on demand of the passenger, is and has been an **important part of the mobility offer available to citizens**
- These services are usually carried out by **taxis and/or Private Hire Vehicles with driver (PHV)**
- Due to technical developments, pre-booking has basically become '**instantaneous pre-booking**', blurring the differences between taxis and PHV
- Traditionally, **taxi fares are set by authorities** and PHV prices are negotiable between service providers and customers
- Today, when hailing a PHV on an online-app, it is generally the ride-hailing company which **establishes the price dynamically** for the offered service

Ride Sharing



Fleet Sharing



Objectives

Scope

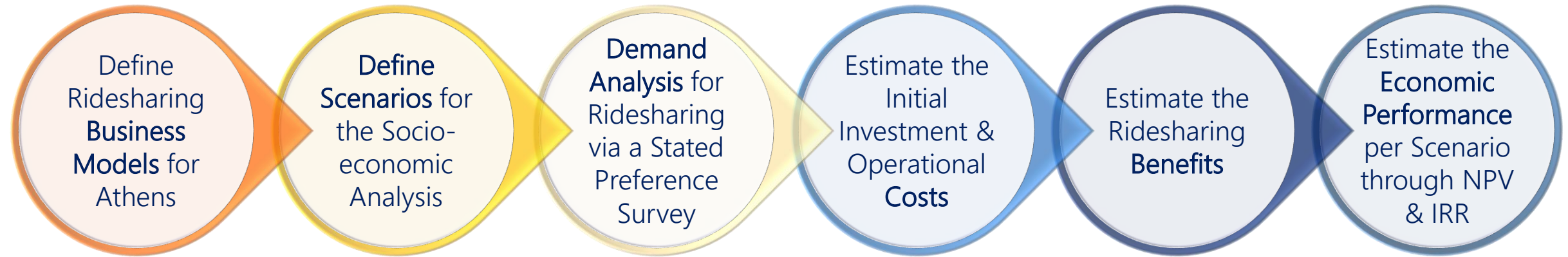
The scope of this study is to **identify and quantify the socio-economic impacts** of introducing real-time, fee-based ridesharing services in Athens

Objective

The objective is the **ridesharing impact assessment in the social welfare** of Athens conducting a Socioeconomic Analysis with a time horizon up to 2030



Methodological Approach



Business Models

Given current conditions and prospects in the Athens transportation market, service provision and possible legislative regulations, a fairly regulated market could consider **2 alternative business models** for introducing ridesharing services:

Scenario A (Fully licensed service provision)

It assumes that ridesharing services are **offered by car-rental companies and travel agencies**, as a car-hiring service with professional drivers

It is based on **OECD's recommendations** according to their country assessment report for Greece, in which the following is stated: "We recommend abolishing the minimum duration of the service for car-rental-with-a-driver. By removing the artificial segmentation of the market, consumers will benefit from choosing freely from a wider range of services".

Scenario B (Light licensed service provision)

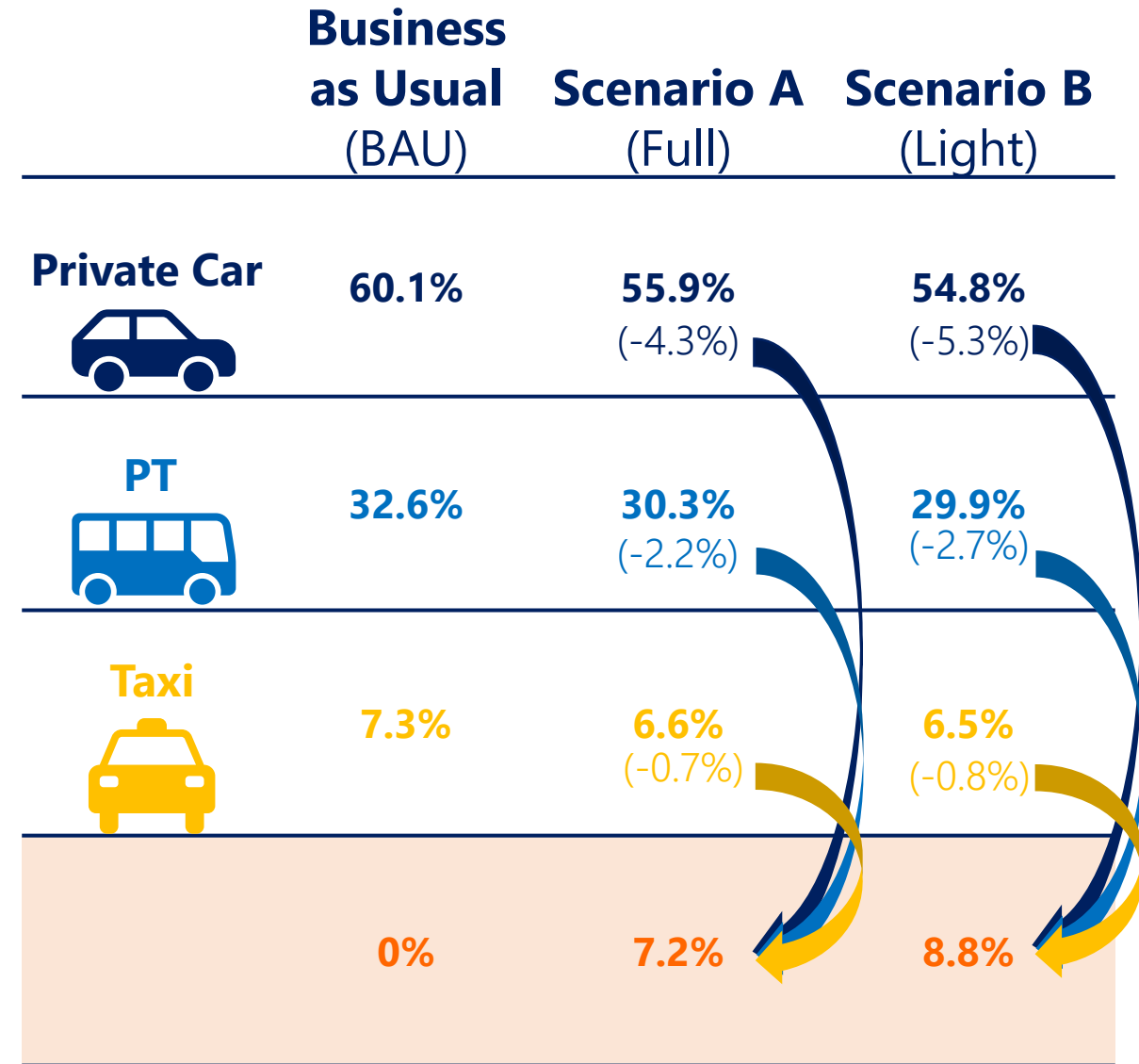
It considers ridesharing services **offered by properly licensed individuals** in the form of small businesses

- **Market entrance** is allowed at a small fee, to any interested individual complying with pre-defined standards for vehicles and driver qualifications
- Services are only booked online, and telephone reservation or **street hailing are not possible**
- It follows the paradigm of **Estonia and Lithuania**; in these countries regulated real-time ridesharing offered by individuals is available, but street hailing is reserved for taxis only



Results – Stated Preference Survey

- **We interviewed 440 Athenians**, aiming at collecting information on the level of understanding and preferring ride-hailing services over other travel options, in the case of introducing real-time, fee-based ridesharing services in Athens
- A **multinomial logistic regression model** was developed to define the utility of private car, taxi, Public Transport and ride-hailing services
- **Travel time, cost and comfort** were selected for representing choice preferences
- The introduction of ridesharing in Athens:
 - is expected to have a **positive impact towards reducing private car** usage over the BAU scenario,
 - while it will **slightly affect usage for public transport and taxis**



Results – Social CBA



For society

Road Safety

21

less road fatalities

116-150

less road injuries

Traffic

92-116
million

less hours travelling with private cars

2-2.6
minutes

travel time savings per average trip

Employment

17-36
thousand

addition full & part time jobs
by the market shifting from private cars

Urban Space

1.7-2.1
sq. km

urban space savings



For the environment

Fuel Consumption

29-37

million lt

fuel savings from private cars

Emission

71-90

million kg

CO₂ savings



Streets for Life

- **Enhancing urban mobility through** flexible, real-time ridesharing services, particularly in areas underserved by public transport
- **Reducing private vehicle dependence**, easing traffic congestion, and reclaiming urban space for citizens
- **Supporting sustainable tourism** and addressing seasonal transport gaps, especially in tourist-heavy regions like Greek islands
- **Aligning with EU Sustainable and Smart Mobility Strategy** by fostering multimodal, inclusive, and resilient transport networks



Scientific and Social Impact

Science:

- Application of a comprehensive Social CBA, **easily transferable and adaptable** to other countries

Society:

- **Creation of new employment opportunities:** up to 36,000 equivalent jobs projected by 2030 in Athens
- **Reduction in travel costs and time** for users, improving accessibility and affordability
- **Environmental benefits** through reduced CO₂ emissions, fewer vehicle-kilometers traveled, and decreased urban congestion



Future Challenges

- **Regulatory harmonization:** Balancing innovation with fair competition against traditional taxis and public transport systems
- **Sustaining public acceptance:** Building trust in ridesharing services among users traditionally reliant on private vehicles
- **Ensuring equitable access:** Avoiding mobility gaps, especially in peripheral and lower-income areas
- **Integration into urban transport systems:** Aligning ridesharing with broader multimodal transport planning initiatives



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