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Towards safer, smarter and greener mobility in Athens

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Presentation Outline

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Mobility in Athens (1/3)

- The **city of Athens**, has a population of 664,046 people and an area of 38.96 km²
- **Athens metropolitan area** has a population of 3,090,508 people and an area of 412 km²
- Total road infrastructure **868 km** / Pedestrian network **48 km**
- **Passenger cars constitute 69%** of the total vehicle fleet, while two-wheelers constitute 24%
- Approximately **14.000 taxis are operating** in Athens
- During the last years, a **decrease in road fatalities** can be observed in the region of Attica

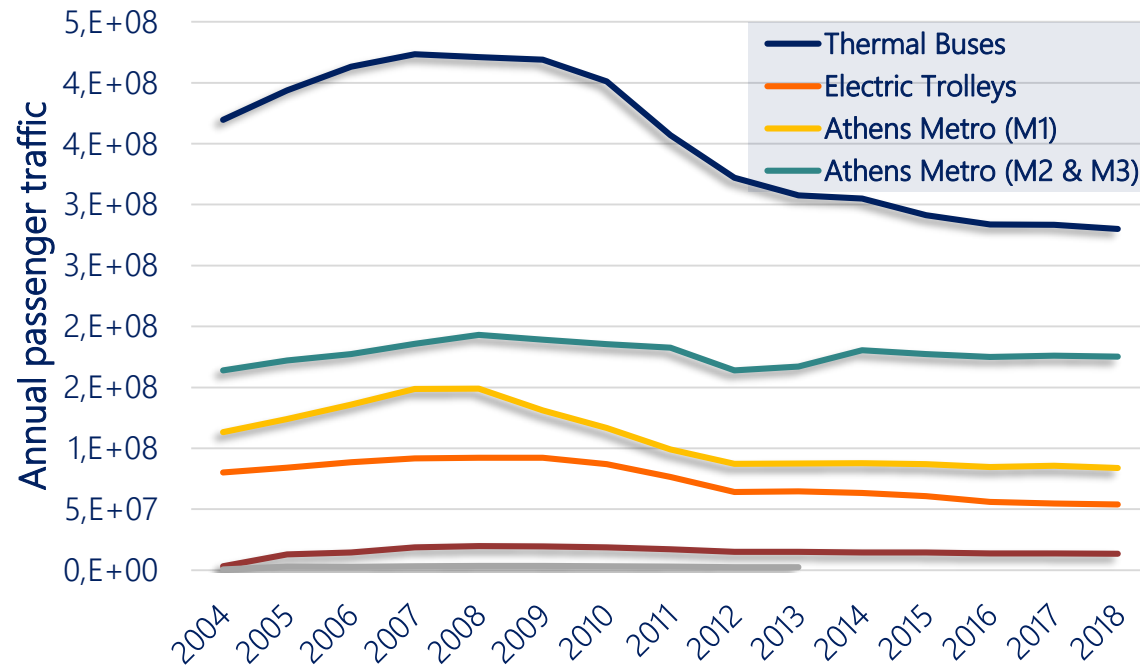


Mobility in Athens (2/3)

- In 2019, Public Transport fleet consisted of **1.725 thermal** and **291 electric** buses
- **Reduction in the number of passengers** of Public Transport Means (-25% from 2010 to 2018)
- **Reduction in the number of vehicle kilometres** of Public Transport Means (-15% from 2010 to 2018)

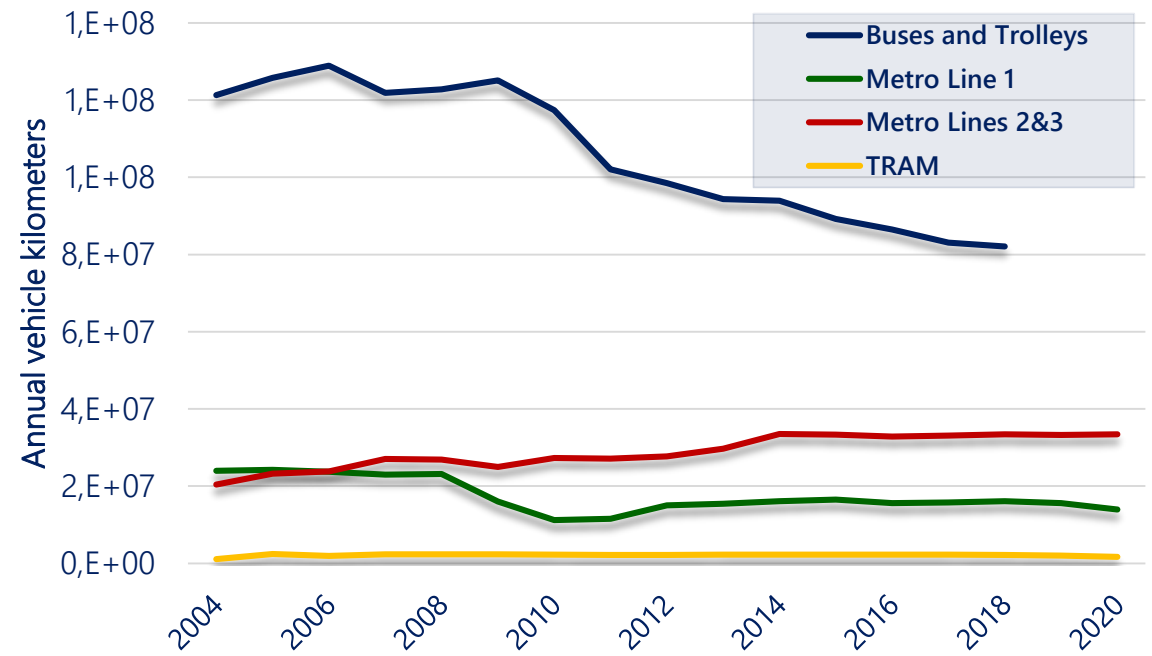
Evolution of annual passenger traffic of Mass Transit System

Source: OASA, Data processing: NTUA



Vehicle kilometers of Mass Transit System

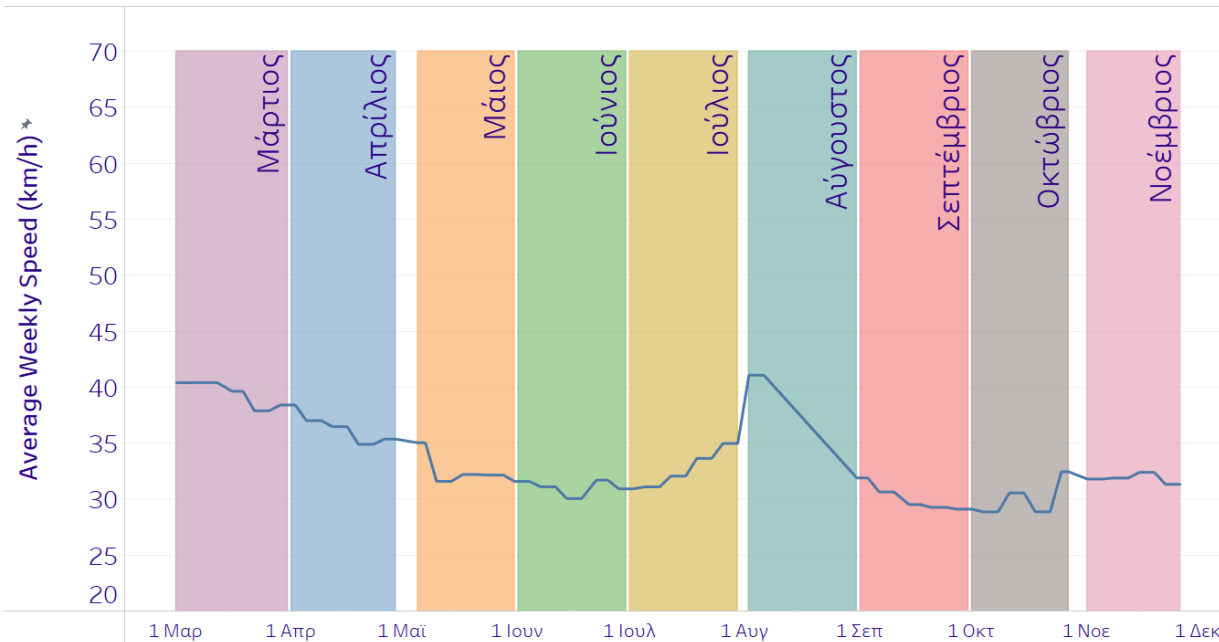
Source: OASA, Data processing: NTUA



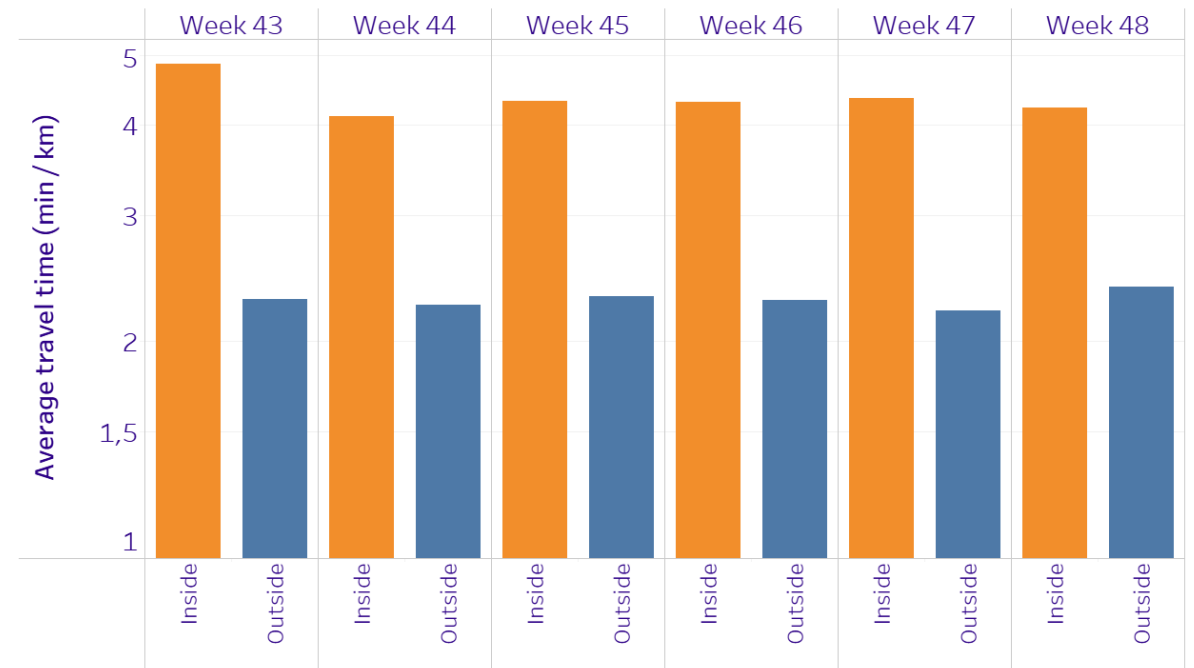
Mobility in Athens (3/3)

- Average traffic speed inside Athens traffic restriction zone (Daktylios) during the spring of 2021 was **high due to COVID traffic restrictions**
- It was significantly reduced in May and June 2021, and dropped to its **lowest point in September and October 2021**
- Average speed **increased** and travel time **decreased (10-16%)** since the reinstatement of the traffic restrictions (24/10/2021 – week 44). Traffic conditions outside the traffic restriction zone were not significantly altered.

Evolution of average weekly speed within Athens "Daktylios" (2021, hours 8:00-21:00)



Average travel time inside and outside Athens "Daktylios" (last six weeks, 08:00-19:00)



Inertia leads to Chaos

- Traffic in Athens is **deteriorating** and traffic congestion is expected to further increase if no immediate action is taken
- Unfortunately, the decade of financial crisis and the COVID-19 pandemic were **missed opportunities** to push sustainable mobility
- In several European cities the key tools for sustainable traffic management (especially during the pandemic) are the sincere support of **Public Transport**, integrated **Parking Management** policies and the systematic promotion of **Active Mobility** (cycling, walking).



Key tools for sustainable traffic management

- **Public Transport** (PT) provides the most efficient and safe way of mass mobility
- Existing PT systems can be made **significantly more attractive** by enforcing bus lanes and increasing frequency.
- Targeted **Parking Management** can significantly affect transportation demand and mode choice
- **Unorganized short and long term parking** leads to increased traffic congestion, thus there is immediate need to implement integrated and targeted **parking management systems**
- Switching from private cars to **Active Travel Modes** (cycling, walking) has a significant positive contribution to short-distance travelling, provided the necessary public space



Other innovative initiatives throughout the EU

- The need to create socially distanced urban transport and to recover public space boosted the **transition towards sustainable mobility** in many EU cities
- Intensive increases of **cycle lane networks** (i.e. Paris, London, Barcelona) taking space from passenger cars have been implemented, despite backlash from motorists
- Public Transport and shared cycle **integration schemes** have been implemented (i.e. Prague) in order to facilitate first and last mile trips
- **Cargo bike schemes** for short distance urban deliveries have dramatically increased (Belgium, Germany, Portugal, UK and more), relieving traffic congestion and reducing short-term parking needs



Mobility as a Service

- Mobility as a Service (**MaaS**) combines several transport modes and commercial mobility services (PT, ridehailing, bikesharing, carsharing, taxis) into a unified, multimodal mobility offer
- In addition to reducing congestion, MaaS schemes can **reduce user transport costs**, emissions, and increase accessibility
- Infrastructure as well as legal changes are essential in order to **support MaaS schemes in Athens**:
 - Facilitate the **physical combination** of transport modes: e.g., install bike-sharing docks next to public transport stations or better connect bus lines and train lines
 - Create the appropriate **regulatory framework** for the negotiation between of PT operators and innovators / MaaS providers
 - Create appropriate **data sharing frameworks** that will help MaaS flourish and PT operators improve their services
 - Encourage the **development and pilot testing** of user-friendly mobile-phone apps for booking, real time information, payment, etc. taking into account people of different ages and abilities
 - Provide **alternative, non app-based** ways of using the service, e.g., use of a card for booking, ability to pay with cash.



Smart Cities

- A **Smart City** is a place where traditional networks and services are made more efficient with the use of digital solutions for the benefit of its inhabitants and business
- The **smart transformation of mobility in Athens** requires sustained and open-minded efforts going beyond MaaS:
 - Boosting the uptake of **zero emission vehicles**
 - Encouraging innovation and the use of data and **artificial intelligence (AI)** for smarter mobility
 - Working towards achieving **climate neutrality** in key areas of the transport sector
 - Enhancing **accessibility, fairness and justice** in mobility for all
 - Stepping up **transport safety** and security across all modes, in line with EU strategic goals



The need for effective monitoring

- Currently, important mobility data for Athens are either sparsely collected or not collected at all. As a result, **mobility interventions** are only made reactively (instead of proactively), while citizens and policy-makers have limited information on the state of the urban transportation system
- The systematic collection, processing, analysis and dissemination of **mobility data** through is a fundamental pre-requisite.
 - Scientific evidence for better decision support
 - Up to date relevant information to citizens, media, business and decision makers
 - Support for more effective public consultation



Conclusions

- If no immediate action is taken traffic conditions in Athens are expected to **continue deteriorating**
- Traffic restrictions such as “Daktylios” bring **temporary benefits** (if they are strictly enforced) but they are not sufficient in the long term
- Public Transport needs to be **intensively and sincerely supported**
- Integrated and targeted **parking management systems need to be implemented**
- **Active travel modes** need to be continuously supported and urban space management needs to be constantly re-evaluated
- Promising **innovations need to be tested** (bike sharing, other MaaS schemes, cargo bikes)
- The **transformation of Athens into a smart city** requires constantly rethinking urban mobility and public space in the light of the latest technological and social developments





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