Selection of NSM location for their efficient use

SUM – WP4 Expert Session



Katerina Maxouti - LPT 31 July 2025





New Shared Mobility (NSM)

Definition

New Shared Mobility (NSM) refers to modern, technology-enabled transportation services that provide **short-term access** to vehicles or **modes of transport** without requiring **ownership**.

It includes services such as <u>bike-sharing</u>, <u>e-scooter sharing</u>, <u>car-sharing</u>, and <u>ride-hailing</u> <u>platforms</u>, typically operated through <u>digital applications</u> for <u>booking</u>, <u>payment</u>, and <u>real-time use</u>.

Key Features

- Short-term, on-demand access to mobility services
- Managed through mobile or web-based platforms
- Flexible and often integrated with public transportation
- Aims to reduce traffic congestion and environmental impact

1. High Demand Areas

- Near transit hubs (train stations, bus terminals)
- Commercial districts, universities, and workplaces
- Densely populated residential zones

2. Connectivity to Other Modes

- First-/last-mile connection to public transport
- Integration with pedestrian paths and cycling lanes

3. Safety and Accessibility

- Well-lit and visible locations
- Close to bike lanes or low-traffic roads
- Accessible, safe, and usable by people with disabilities

4. Infrastructure Availability

- Space for docking stations or geofenced parking zones
- Availability of power for electric options (e.g., e-scooters)
- Maintenance and rebalancing logistics

5. User Behavior & Patterns

- Data from existing mobility services (heatmaps, trip patterns)
- Survey responses or pilot program feedback
- Time-of-day usage trends

6. Policy and Urban Planning Alignment

- Compliance with municipal regulations
- Alignment with sustainability and smart city goals
- Community support and stakeholder input

7. Operational Efficiency

- Proximity to service zones for maintenance/recharging
- Clustering to reduce redistribution effort

Selection Criteria for Efficient Use

1. Demand & User Density

- High foot traffic areas: transit stations, shopping districts, campuses
- Residential and mixed-use zones: where people live and work
- Use mobility data or surveys to identify popular origin-destination pairs

2. First-/Last-Mile Integration

- Locations near **public transit stops** for seamless modal transitions
- Enables multi-modal trips and increases transit accessibility

3. Infrastructure Readiness

- Existing bike lanes, sidewalks, or drop zones
- Available public or commercial space for parking, docking, or charging
- Safe, visible, and accessible for all users

4. Operational Efficiency

- Proximity to maintenance hubs or rebalancing routes
- Logical clustering to reduce redistribution costs
- Minimizing idle time and vehicle downtime

5. Policy & Regulatory Support

- Local government cooperation and clear guidelines
- Alignment with urban mobility plans and climate goals
- Community support to avoid resistance

6. Equity & Inclusion

- Ensure NSM services reach underserved communities
- Avoid concentrating only in affluent or central areas
- Promote transport justice and universal access

7. Environmental & Safety Considerations

- Avoid high-traffic or unsafe areas
- Prefer zones with lower emissions goals or green infrastructure

Key Messages:

- To ensure the efficient use of NSM services, location selection should prioritise areas with high demand, strong multimodal connections, safe infrastructure, and operational feasibility.
- Data-driven analysis and stakeholder input can help identify optimal deployment zones.



SUM Living Labs



Munich Leading Living Lab



Athens - Penteli Leading Living Lab



Fredrikstad
Follower Living Lab



Geneva Leading Living Lab



Rotterdam Follower Living Lab





Jerusalem Leading Living Lab



Krakow Follower Living Lab



Coimbra Follower Living Lab

Larnaca Profile and Mobility Challenges

City Characteristics

Coastal city of the island of Cyprus

Population: 144,000 (2025)

Headquartering of several companies

Cyprus's primary airport: 8,7 million passenger traffic (2024)





Modal Split before SUM



Primary usage of personal cars

Micromobility non-existent

Lack of infrastructure

Lack of bike-sharing services

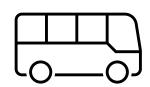
Larnaca Objectives and Stakeholders

Objectives

Coordinating shared modes with public transport

Co-designing mobility hub infrastructure

Integrating new mobility into public transport ticketing systems









Key Stakeholders





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Nicosia Public Transport Larnaca Public Transp









DATA ANALYSIS
AND POLICY
EVALUATIONS



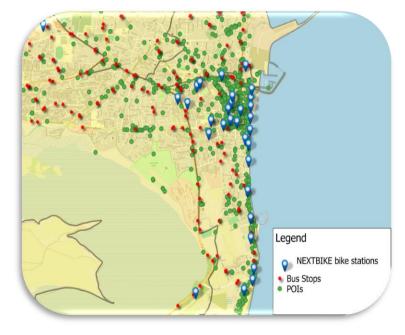


New Shared Mobility Mode in Larnaca



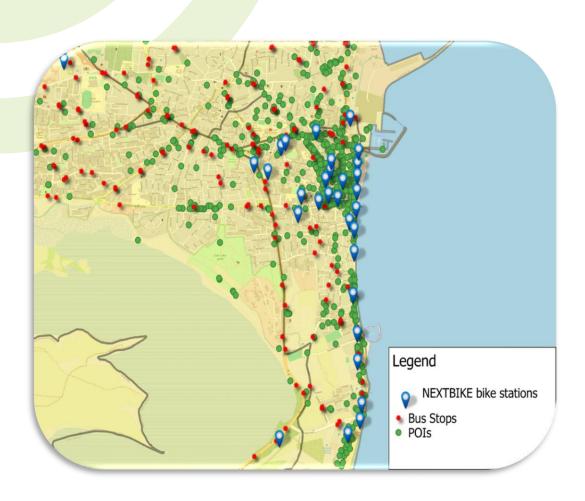
Bikesharing!

100 bikes 20 locations





Selection of NSM Locations in Larnaca

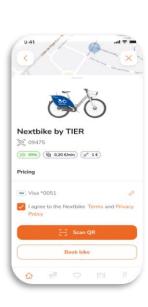


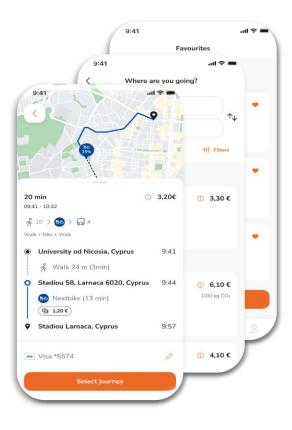
- SUM Survey responses
- LPT Data from heatmaps and trip patterns
- Last-mile connection to public transport (bus stops)
- Commercial districts and workplaces
- Integration with pedestrian paths and cycling lanes
- Space for docking stations
- Cooperation and Guidelines from Municipality of Larnaca
- Alignment with Larnaca's urban mobility plans
- Infrastructure development

New Service in Larnaca: BUS & BIKE





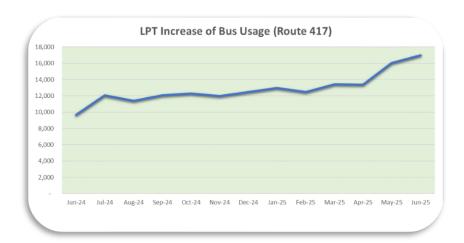




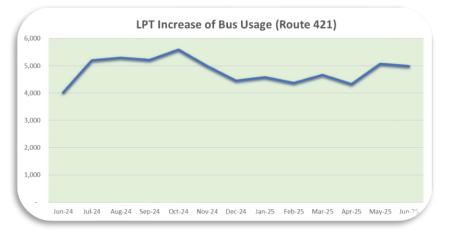
Bus Frequency Increase



In red west route 417 & route 421 18 trips 193.25 km/weekday 16 trips 140.75 km/weekend day







24%

Larnaca Living Lab

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THANK YOU