Smart mobility and shared urban spaces.
Advancing sustainable and inclusive transport in cities

Maurizio Tira[1], Michela Tiboni[2*], Michele Pezzagno[3], Benedetto Barabino[4], Martina Carra[5], Anna Richiedei[5], Roberto Ventura[5]

[1] LWC Conference chairman, University of Brescia, DICATAM, Italy
[2]LWC Conference chair of the Scientific Organizing Committee, University of Brescia, DICATAM, Italy
[3]LWC Conference chair of the Scientific Organizing Committee, Director of CeSCAM, University of Brescia, DICATAM, Italy
[4]LWC Conference member of the Scientific Organizing Committee, Mobility Manager, University of Brescia, DICATAM, Italy
[5]LWC Conference member of the Scientific Organizing Committee, University of Brescia, DICATAM, Italy

Editorial

The Special Issue of European Transport / Trasporti Europei results from the XXVII International Conference Living and Walking in Cities (LWC 2025) - Smart Mobility and Shared Urban Spaces, held in Brescia, Italy, on September 11–12, 2025. The LWC conference series is a long-standing scientific and interdisciplinary forum for researchers, practitioners, and decision-makers focused on the integration of urban and mobility planning and design. Over the past three decades, the conference has collected numerous contributions and gathered a sizable body of knowledge, reflecting the ongoing evolution of cities and mobility practices (e.g., Tira et al., 2024a; Tira et al., 2024b).

The 2025 edition further reinforced this mission by focusing on smart mobility and shared urban spaces (Tira et al., 2026). Smart mobility is increasingly understood not as a purely technological construct, but as a user-centered and a service-oriented approach, aiming at integrating modes, data and travel experiences to support sustainable mobility options. At the same time, the concept of shared urban spaces highlights the crucial role of public space as a mobility enabler, where quality, safety, and accessibility of streets and open areas become essential conditions for promoting active mobility and protecting vulnerable road users. Two keynote speakers proposed their perspectives for transport planning. Graham Currie, Professor of Public Transport and Director of Public Transport Research Group at the Monash University, addressed the topic of “Public transport link to liveability, health and safety in shared urban spaces”, while Cinzia

* Corresponding author: Michela Tiboni (michela.tiboni@unibs.it)

Cirillo, Professor of Transportation and Director of the USDOT University Transportation Center for MultiModal Mobility at the University of Maryland, spoke of "Active Streets, Smarter Models: Next-Gen Travel Demand for Non-Motorized Transport".

105 papers were accepted and presented in 12 parallel sessions at the conference. All contributions underwent a rigorous double-blind peer-review process prior to conference acceptance. Based on the outcomes of this process and on the thematic coherence with the Journal's scope, a selection of authors has been invited to submit extended versions of their papers of scientific quality and relevance for contemporary planning research and practice for publication in this Special Issue.

The Special Issue includes studies that explore several aspects of urban mobility, ranging from walkability and cycling assessment, to data-driven and mathematical approaches for mobility management and behaviour comprehension, to empirical study that analyse inclusivity, road safety, citizen participation, and the emerging mobility concepts. Despite their diversity, the papers share a common emphasis on evidence-based approaches and on the interaction between transport systems, users and urban environment. Based on the results of the review process, 9 papers were selected to be included in this special issue of "European Transport \ Trasporti Europei".

Blečić et al. (2026) propose an integrated and interdisciplinary model for assessing walkability and bikeability in the railway station areas, combining GIS analysis, audit tools, machine learning and behavioural modelling. Their pilot application in Rome illustrates how station's surroundings can be evaluated as complex node-place environments, supporting regeneration and sustainable accessibility strategies. Torrisi et al. (2026) address walkability and pedestrian safety within the framework of Sustainable Urban Mobility Plans (SUMPs), developing a scalable spatial methodology that integrates geometric-functional infrastructure attributes with the accident data. The case study in Vittoria (Italy) demonstrates how spatial diagnostics can guide targeted interventions to improve safety and walking conditions. Complementing these approaches, D'Amico et al. (2026) develop a multi-criteria GIS methodology to identify cycling service's areas to fostering urban regeneration, applied to the city of Naples, with a particular attention to young users. Their work supports decision-making for the integration of active mobility services and broader urban redevelopment processes.

A second group of papers explores data-driven and mathematical approaches to mobility management and behaviour. Borghetti et al. (2026) present a machine learning framework for the classification of spatial anomalies in bus trajectories, by using GPS data from Automatic Vehicle Monitoring systems. Their results highlight the potential of advanced analytics to support public transport operators to improve reliability, compliance and operational efficiency. Costa and Campanini (2026) investigate mobility user profiling and behavioural nudging through the GreenGo mobile application, which combines sensor-based data collection with users' engagement strategies. Their contribution sheds light on the role of data sharing, trust and incentives in promoting sustainable travel behaviours and tailoring mobility services to users' profiles.

Safety, inclusivity and social equity are addressed in a third cluster of papers. Daneluz and Baldo (2026) analyse the impact of cognitive distractions on driving behaviour through experimental simulations, demonstrating how common and legally permitted distractions can significantly affect speed and lane-keeping, with implications for road design and safety-oriented infrastructure planning. Petrović et al. (2026) focus on

inclusivity in shared mobility, comparing drivers' willingness to ride-sharing with fellow travellers, including the disabled. Their large-sample empirical study provides insights into behavioural drivers and barriers, offering evidence to support more inclusive ride-sharing policies and services. De Iorio et al. (2026) contribute to the discussion on participatory planning, presenting a citizen-sensing and co-design approach applied to Italian schools. By actively involving students in data collection and evaluation processes, their work highlights the value of empowering younger generations in shaping sustainable and safe mobility solutions.

Finally, Santos and Kalakou (2026) address emerging mobility paradigms, focusing on Urban Air Mobility (UAM) and the often-overlooked perspective of local authorities. Through a problem-structuring and cognitive mapping approach, they identify key environmental, social and planning-related impacts of UAM, providing a structured framework to support municipal decision-making and governance in the introduction of these innovative services.

Overall, the papers in this Special Issue provide a rich, multifaceted picture of current research directions in urban mobility. They demonstrate how quantitative data analysis, spatial methods, behavioural insights and participatory processes can be combined to address long-standing and emerging challenges in cities and towns. The contributions offer practical insights for planners, operators and policymakers, by grounding methodological innovation in real-world case studies, while also outlining promising directions for further researches.

The editors expect that this Special Issue will contribute to the advancement of the debate on sustainable, inclusive and safe urban mobility, in line with the broader objective of the Living and Walking in Cities conference series and of the European agendas on mobility and urban development.

References

Blečić, I., Caselli, B., Enrico, A., Marinelli, L. J., Martini, S., Meloni, I., Mocci, M., Piras, F., Ravagnan, C., Sottile, E., Tedeschi, G. (2026) "Integrated model for walkabilty and bikeability assessment around railway stations. Pilot application on Val D'Ala, Rome", *European Transport \ Trasporti Europei* 105.

Borghetti, F., Fiore, N., Cabrini, S., Rossi, S. (2026) "Classification of Spatial Anomalies in Bus Trajectories: A Machine Learning Approach", *European Transport \ Trasporti Europei* 105.

Costa, V., Campanini, F. (2026) "Mobility user profiling for tailored sustainable nudging. First insights from the GreenGo experience", *European Transport \ Trasporti Europei* 105.

D'Amico, A., Gargiulo, C., Zucaro, F., Lima, F. (2026) "Identification of cycling service areas to promote the redevelopment of urban areas. A Multi-criteria GIS analysis to the City of Naples", *European Transport \ Trasporti Europei* 105.

Daneluz, F., Baldo, N. (2026) "The Impact of Selected Cognitive Distractions on Driving Behavior: An Experimental Study Using a Two-Degree-of-Freedom Simulator", *European Transport \ Trasporti Europei* 105.

De Iorio, A. G., Le Pira, M., Giuffrida, N., Ignaccolo, M. (2026) "Fostering active citizen participation and co-design of evidence-based sustainable mobility solutions: a case of Italian schools", *European Transport \ Trasporti Europei* 105.

Petrović, Đ., Mijailović, R. M., Pešić, D. (2026) "Who would drivers share a ride with? Persons with disabilities vs. Persons without disabilities", *European Transport \ Trasporti Europei* 105.

Rodrigues Santos, M., Kalakou, S. (2026) "Insights from Local Authorities for the Assessment of Urban Air Mobility Impacts", *European Transport \ Trasporti Europei* 105.

Tira, M., Tiboni, M., Pezzagno, M., Maternini, G. (eds, 2024a). New Challenges for Sustainable Urban Mobility: Volume I. ECOOP 1987. Springer, Cham. https://doi.org/10.1007/978-3-031-62248-9_1

Tira, M., Tiboni, M., Pezzagno, M., Maternini, G. (eds, 2024b). New Challenges for Sustainable Urban Mobility: Volume II. ECOOP 1987. Springer, Cham. https://doi.org/10.1007/978-3-031-62478-0_2

Tira, M., Tiboni, M., Pezzagno, M., Maternini, G. (eds, 2026). Smart mobility and shared urban spaces. Proceedings of the XXVII International Conference on Living and Walking in Cities, 2025. Lecture Notes in Civil Engineering. Springer, Cham.

Torrisi, V., Leonardi, P., Ignaccolo, M., Inturri, G., Rossetti, S. (2026) "Towards Safer and More Walkable Cities: A Spatial Approach in Sustainable Urban Mobility Plans", *European Transport \ Trasporti Europei* 105.

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