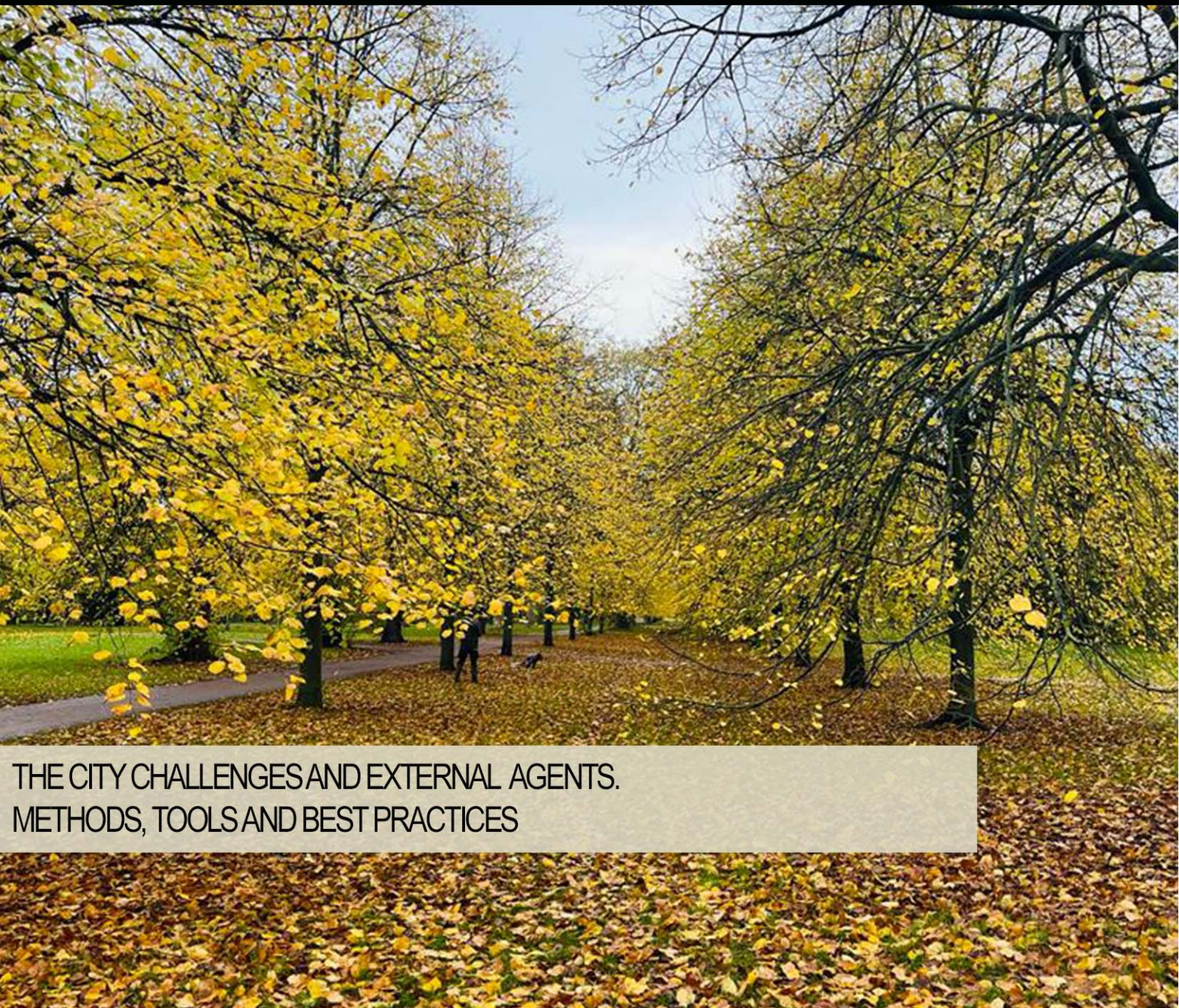


TeMA

Journal of
Land Use, Mobility and Environment

The climatic, social, economic and health phenomena that have increasingly affected our cities in recent years require the identification and implementation of adaptation actions to improve the resilience of urban systems. The three issues of the 16th volume will collect articles concerning the challenges that the complexity of the phenomena in progress imposes on cities through the adoption of mitigation measures and the commitment to transforming cities into resilient and competitive urban systems.

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THE CITY CHALLENGES AND EXTERNAL AGENTS.
METHODS, TOOLS AND BEST PRACTICES

THE CITY CHALLENGES AND EXTERNAL AGENTS. METHODS, TOOLS AND BEST PRACTICES

3 (2023)

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The cover image shows a view of Hyde Park in London (United Kingdom) during the autumn season.
The photo was taken by Enrica Papa in November 2023.

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EDITORIAL PREFACE: TEMA JOURNAL OF LAND USE MOBILITY AND ENVIRONMENT

The city challenges and external agents. Methods, tools and best practices 3 (2023)

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This third issue of the 2023 volume of TeMA Journal focuses on the challenges that the complexity of the ongoing phenomena imposes on cities and that involves adopting mitigation measures aimed at reducing the adverse effects of these phenomena, and at the same time, requires an extraordinary effort from scholars, researchers, technicians, and decision-makers to develop methods, techniques and operating procedures for transforming cities into resilient, competitive urban systems rapidly. The three issues of the 16th volume collect articles concerning the climatic, social, economic and health phenomena that have increasingly affected our cities in recent years and, hence, require the identification and implementation of adaptation actions to improve the resilience of urban systems.

In this issue, the section "Focus" contains three contributions. The first article, "The evolving regional transport planning: the case of Piemonte region" by Sylvie Occelli (IRES Piemonte, Italy), proposes an overview of the four Regional Transport Plans (RTPs) laid out in Piedmont since the late 1970s. Three different observation lenses are offered that suggest instrumental perspectives for grasping the changes that have occurred in the region over more than fifty years and allow us to appreciate Sergio Cristoforo Bertuglia's contributions to investigating the Piedmont transport system.

The second article of the section, "Duration-based or time-based congestion toll pricing?" by Amir Reza Mamdoohi, Elnaz Irannezhad, Hamid Rezaei, Hamid Mirzahosseini and Xia Jin (Imam Khomeini International University in Iran and Florida International University in USA), focuses on traffic pricing and rationing to mitigate traffic congestion in the central neighborhoods of Tehran, Iran. In particular, the contribution aims to analyze modal shift through the use of some models such as the logit one to define the choice of route and travel time in a day in order to implement transport solutions and policies in an articulated and complex urban context like Iran.

The third article, "The impact of land taken by logistics in two Italian regions" by Silvia Ronchi, Stefano Salata, Andrea Arcidiacono and Elisabetta Peccol (Politecnico di Milano in Italy and Università degli Studi di Udine in Italy), aims to provide a methodology for assessing land taken by logistics as a basic condition to define some policy suggestions for governing this phenomenon with planning instruments. Two study areas were selected to analyse the land take phenomena over a seven-year period (2012 – 2019), in two Italian regions affected by some of the highest land take rates in the country, i.e., Lombardy and Friuli-Venezia-Giulia, located in north-western and in north-eastern Italy, respectively.

The section "LUME" (Land Use, Mobility and Environment) contains four articles. The first, "The investment of NextGeneration EU vs urban competitiveness of Italian metropolitan areas" by Carmela Gargiulo and Sabrina Sgambati (University of Naples Federico II in Italy), proposes a new method to evaluate urban competitiveness and examines the case study of Italian metropolitan areas, within the framework of the Italian Recovery and Resilience Plan (PNRR), with the aim of comparing the cities' actual competitive performance with a distribution of financial resources, to support decision-makers in the prioritization/management of future urban transformations.

In the second contribution, "Digitalisation Process and Sustainable Development of Vulnerable Territories", by Chiara Garau, Giulia Desogus and Anastasia Stratigea (University of Cagliari, Italy and National Technical University of Athens, Greece), the authors argue that digitalisation is a key driver of sustainability and equity

on Mediterranean islands, and that EU member states should invest in digital transformation to help them achieve the SDGs and become more resilient and prosperous.

The third article, "Digital data to support urban planning processes to develop women safety cities: an application to the city of Naples" by Gerardo Carpentieri, Carmen Guida, Andrea Gorrini, Federico Messa and Lamia Abdelfattah (University of Naples Federico II in Italy and Transform and Transport Foundation in Italy), focuses on developing a new GIS-based methodology, with data collected directly from women in urban contexts and other open-access location-based data. The study developed analyses that can support decision-makers concerning policy for walkability in urban environments. In particular, the contribution summarizes the first product of a new, replicable methodology focused on urban planning and gender inclusion applied to Naples, Italy.

The last article, "Spatial regional electricity intensity and equitable well-being to support just transition" by Ginevra Balletto, Martina Sinatra, Alessandra Milesi, Emilio Ghiani, Giuseppe Borruso and Francesco Zullo (University of Cagliari, Italy and University of L'Aquila, Italy), aims to develop a tool to evaluate how well different Italian regions are transitioning to a more sustainable electricity system, taking into account both economic and social factors.

The Review Notes section proposes five insights on the themes of the TeMA Journal. The Urban planning practice section of Review Notes, "City vs Energy consumptions: Community-led Energy Planning (CLEP) practices from the world", by Carmen Guida, examines the urban planning practices that have enabled the growth of community-led energy planning practices and the movements that promoted and enables such shift. The second section, "Urban planning and GeoAI in smart city policies", by Federica Gaglione, examines the complementarity between new technologies and components of the urban system for the development of smart cities. At the same time, the contribution illustrates how the use of technologies related to Geospatial Artificial Intelligence (GeoAI) are capable of communicating with methodological and technical tools in the field of GIScience useful for supporting the design and evaluation of decision-making choices. The review, in turn, places a focus on European actions and policies regarding smart cities and artificial intelligence to have a cognitive and operational framework on the topic. The third contribution, "Urban spaces and pedestrian mobility: the role of urban design for enhancing walkability", by Annunziata D'Amico, aims to delve into the issue of pedestrian mobility by examining some interesting scientific works that analyse the influence of urban design in improving the walkability and livability of urban spaces. The fourth section, "The interventions of the Italian Recovery and Resilience Plan: cities adaptation to climate change", by Sabrina Sgambati, takes into account the recent PNRR strategies, projects, and initiatives aimed at coping with global warming effects in urban environments and with the increasing vulnerability of cities to climate events. Also, this paper provides an overview of the proposed projects and interventions in some Italian cities. Finally, the fifth section, "Energy transition: digital (t)win?", by Valerio Martinelli, is dedicated to in-depth analysis of digital twin technology and how this can be useful for the energy transition, taking into account the gaps between theoretical scientific progress and their actual practical implementation.

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