

# 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 15th 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.

TeMA is the Journal of Land Use, Mobility and Environment and offers papers with a unified approach to planning, mobility and environmental sustainability. With ANVUR resolution of April 2020, TeMA journal and the articles published from 2016 are included in the A category of scientific journals. From 2015, the articles published on TeMA are included in the Core Collection of Web of Science. It is included in Sparc Europe Seal of Open Access Journals, and the Directory of Open Access Journals.



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

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

3 (2022)

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The cover image shows the Irpinia hills at sunset, highlighting the enhancement of two renewable energy sources: sun and wind.  
The photo was taken by Giuseppe Mazzeo in August 2022, in S. Andrea di Conza, Avellino, Italy.

TeMA. Journal of Land Use, Mobility and Environment offers researches, applications and contributions with a unified approach to planning and mobility and publishes original inter-disciplinary papers on the interaction of transport, land use and environment. Domains include: engineering, planning, modeling, behavior, economics, geography, regional science, sociology, architecture and design, network science and complex systems.

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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(2022)

ROCCO PAPA

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The challenge that the complexity of the ongoing phenomena imposes on cities involves not only adopting mitigation measures aimed at reducing the adverse effects of these phenomena; this challenge requires scholars, researchers, technicians, and decision-makers to transform cities into resilient, competitive urban systems rapidly. The three issues of the 15th 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.

Before delving into the issue's contents, we would like to highlight that the TeMA journal, since 2007, has supported the global exchange of academic knowledge and that Editorial decisions have never been affected by the origins of the manuscript, including the nationality, ethnicity, race, or religion of the authors. Thus, for the sake of knowledge and with the purpose of improving understanding, cooperation, and relationship, our position is to continue considering papers for publication from worldwide authors and institutions. Our established editorial policies, of peer review and declaration of competing interests, will guarantee to avoid publication of inappropriate or propaganda contents.

For this Issue, the section "Focus" contains two contributions. The first article of the section titled "Assessing territorial vulnerability. Testing a multidisciplinary tool in Moncalieri, Italy", by Simone Beltramo (Politecnico di Torino, Italy) and thirteen other authors, develops in a mathematical framework the assessment of territorial vulnerability which integrates several indicators grouped into three factors defined as sensitivity, pressures, hazards, weighted according to a participatory procedure. In turn, the classification of vulnerability to the case study is useful in identifying strategies and actions to increase territorial resilience. The second article, titled "Resilient marginal cities by encouraging intermodality strategies. Analysis of the Campanian marginal cities with criteria for intermodal business model" by Irina di Ruocco (University of Insubria, Italy), focuses on peripheral and decentralized areas and potential business models that can improve their connectivity and intermodality to other urbanised areas. An application to the Campania region is proposed, encouraging intermodality with alternative and ICT-connected transport systems. This study is an initial approach to identifying strategies to develop inland territories for first and last-mile connections. The section "LUME" (Land Use, Mobility and Environment) contains eight contributions. The first is titled "How Urban Food Gardening fits into city planning. Evidences from Italy" by Anna Forte, Enrico Gottero, Claudia Cassatella (Politecnico di Torino, Italy). This research proposes a tool to measure local vulnerability from a multi-risk approach. The municipality of Moncalieri, Italy, was used as a case study within the research activities of the Responsible Risk Resilience Centre from the Polytechnic of Turin to test the vulnerability matrix.

The second article of the section, titled "Landscape and the city. A new vision for enhancing sustainability issues" by Donatella Cialdea, Antonio Leone e Vito Muscio (University of Molise and University of Salento, Italy), presents a study regarding an Agricultural Park proposal located within Bari Municipality (Apulia Region, Southern Italy). The role of Nature Based Solutions and agricultural activities are investigated to improve soil permeability and contribute to reducing climate change-related hazards.

The third contribution, titled "Travel mode choice and its responsiveness to the needs of commuters with disability in the Accra Metropolitan Assembly", by Prince Kwame Odame (University of Cape Coast, Ghana). The research explores the living conditions of Ghana's disabled community. The lack of literature on the extent

of ease in using transport services does not offer a holistic picture of persons with disability daily living situations, given the role of public transport services in connecting persons with disability to the main urban services and structures.

The fourth article, titled "Circular Living. A resilient housing proposal" by Emanuela Brai, Giovanna Mangialardi, Domenico Scarpelli (Politecnico di Bari, Italy), studies the relationships and opportunities deriving from the application of the circular economy approach to create a resilient housing system by adopting a qualitative research method. In turn, the pillars of the circular economy in the document aim to act as a new tool to support the development of resilient social housing solutions aimed at stimulating the response to the housing crisis and at the same time regeneration at the urban and territorial scale.

The fifth paper, titled "Landscape and urban planning approach within regional spatial planning system. The case study of Moscow oblast" by Elina Krasilnikova, Alesya Goncharik (Sevastopol State University), presents landscape and urban planning systemic tools for transforming the spatial and planning structure of the macro-region - the Moscow region, offering opportunities for the physical and spatial restructuring of regional landscapes into a single green infrastructure of the region.

The sixth contribute, titled "Buffer Areas for sustainable logistics. Assessing their added value towards Port Community" by Iliara Delponte, Valentina Costa, Ennio Cascetta, Armando Carteni, Flavia Scisciotti (University of Naples Federico II, Italy), concerns the stakeholders' engagement process conducted to evaluate most suitable areas and relevant features to host these activities before freight vehicles reach the proper port area, thus reducing externalities on ordinary traffic flows.

The seventh paper of the section, titled "Climate variation in metropolitan cities" by Ginevra Balletto, Martina Sinatra (University of Cagliari, Italy), Roberto Mura (University of Venice, Italy), Giuseppe Borruso (University of Trieste, Italy), explores possible different ways of aggregating areas to a proper urban dimension. Authors considers two aggregations (Metropolitan Cities and Labor Market Area) to identify the most suitable geographical dimension both for the observation of the phenomenon and for the policy targets of climate neutrality, by analysing the spatial autocorrelation of climate-related variations in space and time. The last paper of the section, titled "Energy saving and efficiency in urban environments: integration strategies and best practices" by Carmen Guida (University of Naples Federico II, Italy), is the first step of a wider research aimed at developing an expert system to support decision-making by identifying energy-consuming areas and proposing potential transformation scenarios due to urban characteristics.

The section "Covid-19 vs City-22" collects one papers, titled "The weapons of the city against pandemic assaults" by Maria Angela Bedini, Fabio Bronzini (Università Politecnica delle Marche, Italy). The paper presents some proposals for the protection from Covid risk.

The Review Notes section proposes four insights on the themes of the TeMA Journal. The first section, "Climate adaptation in the Mediterranean: storms and droughts", by Carmen Guida and Stella Pennino, aims at delving into the most severe effects due to storms and droughts in the Mediterranean region.

The second contribution, "Accelerate urban sustainability through policies and practices on the mobility system in Italy", by Federica Gaglione and David Ania Ayiine-Etigo, examines how sustainable mobility constitutes that important link in the chain of city development and above all in facing challenges ranging from climate change to social ones. The third section, "Planning for Sustainable Mobility in Italy. Insights from Palermo and Cagliari" by Gennaro Angiello, provides an overview of the objectives, strategies and actions covered in the sustainable urban mobility plans recently developed by the Metropolitan Cities of Palermo and Cagliari. The fourth contribution, "Sustainable cities and communities: the cost of pursuing SDGs", by Stefano Franco, aims at highlighting the costs associated to the UN Sustainable Development Goals. The high investment costs and the gap that still divides cities from the achievement of the sustainable targets shed lights on the need to incentivize both public and private investments. Finally, "The interventions of the Italian Recovery and Resilience Plan: Tourism for more competitive cities", by Sabrina Sgambati, deepens the topic of tourism in urban areas in the Italian Recovery and Resilience Plan, highlighting the measures promoted to improve the tourism sector as an element of competitiveness for Italian cities.