TeMA

Journal of Land Use, Mobility and Environment

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

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The cover image is a train passes a rail road crossing that is surrounded by flooding caused by rain and melting snow in Nidderau near Frankfurt, Germany, Wednesday, Feb. 3, 2021. (AP Photo/Michael Probst)

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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The city challenges and external agents. Methods, tools and best practices

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Cities need to modify and/or adapt their urban form, the distribution and location of services and learn how to handle the increasing complexity to face the most pressing challenges of this century. On these topics and the ones born during the last year, the scientific community is working in order to minimize adverse effects on the environment, social and economic issues and people's health.

The three issues of the 14th volume will collect articles concerning with the effects of climate change, the ageing of the population, the reduction of energy consumptions from fossil fuels, immigration flows from disadvantaged regions, innovation technology, the optimization of land use and the impacts, in the short and long period, with innovative methods, tools, techniques and practices.

For this Issue, the section "Focus" contains two contributes. The first article of the section is titled "Towards the Metropolitan City of Venice climate-proof. Multilevel approach in broad area governance", by Giovanni Litt, Filippo Magni and Giovanni Carraretto (IUAV, Italy). This paper, starting from the specific case of the Metropolitan City of Venice, reconstructs the possibilities that a governing body of an intermediate territory such as Metropolitan City can activate to support the climate transition and the sustainability of its territory. Also, it proposes a methodology, activated by the Metropolitan City of Venice, to support the process of Metropolitan Cities in leading the territorial transition.

The second article, titled "Impact of city district borders and ecosystem edges correlation application of Green and Blue Infrastructure – Case study the city of Prague" by Jenan Hussein, May Salama, Peter Kumble, Henry. W.A. Hanson IV (Czech University, Czech Republic). The article discusses a way to understand the correlation between green and blue natural elements and territorial edges also by considering the Territorial System of Ecological Stability (TSES) procedure, with a special focus on the city of Prague. The study proposes a method useful to understand the nature of the relation and future vision for developing the land use of the city by considering the two main concepts of protection and connectivity. These concepts have to be considered as joint factors that work together to generate a multifunctional system of green and blue infrastructure.

Three papers address the section "LUME" (Land Use, Mobility and Environment). The first, titled "Territorial disparities in Tuscan industrial assets: a model to assess agglomeration and exposure patterns" by Diego Altafini, Valerio Cutini (University of Pisa, Italy). The paper aims to advance in the development of spatial-economic models suitable to highlight the spatial distribution and territorial disparities within industrial agglomerates on urban and regional systems. For this purpose, the proposed model assesses a condition defined as territorial exposure, evaluated through the Tuscany regional structure analysis.

The second article, titled "Quantitative estimation of the effect of urbanization on landscapes using Corine Land Cover data" by Gizem Dinç, Atila Gül (Süleyman Demirel University, Turkey). The purpose of this study is to determine the impact of human effects on future land cover changes in Turkey using CLC data. Considering the current and future urbanization effects, planning studies should be performed consider Turkeys' three largest cities, which are under pressure in terms of land use with dense population.

The last paper of the section, titled "Quantifying the urban built environment for travel behaviour studies" by Ndidi Felix Nkeki, Monday Ohi Asikhia (University of Benin, Nigeria). The study proposes a quantification

of the built environment analysis for the Benin metropolitan region (BMR), a large African-sized urban area using several spatial indicators disaggregated to the neighbourhood-level.

The section "Covid-19 vs City-20" collects three papers. The first, titled "Covid-19 pandemic and urban mobility in Milan. Wi-Fi sensors and location-based data" by Andrea Gorrini, Federico Messa, Giulia Ceccarelli, Rawad Choubassi (Systematica Srl, Italy). The paper analyses a sample of aggregated traffic data collected from 55 Wi-Fi Access Points in Milan. Data were collected over 7 months (January to July 2020), allowing for a study on the impact of the Covid-19 pandemic on urban mobility. Data analysis was based on merging: time series analysis of traffic data; spatial analysis of land and mobility characteristics. Results showed the effectiveness of Wi-Fi location data to monitor long-term traffic trends and identify the mobility profiles of urban areas.

The second, titled "Former military sites and post-Covid-19 city in Italy. May their reuse mitigate the pandemic impacts?" is proposed by Federico Camerin (Universidad de Valladolid, Spain) and it deepens the topic of the former military settlements. For the author they constitute an opportunity for developing inclusive and green cities through a good governance, especially after the 2020 pandemic outbreak, also if the first findings are not hopeful.

The last paper of the section, titled "Investigation of the effects of Urban Density on Pandemic" by Yelda Mert (Iskenderun Technical University, Turkey). The paper highlights the effects of urban density on the spread of Covid-19 infection are evaluated in this study through the sample case of İskenderun district in Hatay (Turkey). As the result of the examination, it was understood that the rate of increase and the density of cases in regions with high housing density was higher than that of regions with lower densities.

From this issue, TeMA journal proposes a new section that aims at drawing the attention of the international scientific community to papers that, despite the passing of time, still present elements of significative scientific interest – insights, anticipations and reflections – enough to deserve careful read back. The first paper - published in Italian in 1993 with the title "Caos e caos: la città come fenomeno complesso" as a contribution in the volume "Per il XXI secolo – una enciclopedia e un progetto" (For the XXI century – an encyclopedia and a project) – is published again in this new section of TeMA Journal, Evergreen, in its literal English translation with the addition of new images.

The new Review Notes section propose four insights on the themes of the TeMA Journal. The first research "Submission Title: Ecological Transition: what's next?" is by Carmen Guida and David Ania Ayiine-Etigo. This contribution aims at defining the definition and intervention domain of ecological transition. This contribution proposes a further insight into the complex ecological transition, with a focus to U.S. and European cities. Cities have faced a worldwide health and economic crisis due to the outbreak of a new coronavirus in 2019 and now, with progressive and massive vaccination and never experienced financial tools, a new era seems to start: significant financial resources, plenty of room for economic maneuvers may turn the ongoing pandemic into an opportunity, for the following years, to build more sustainable societies and environments. Within this scenario, urban areas play an essential role. According to shared and universal goals to achieve a more sustainable model of society and economy, how ecological transition is run by policymakers, stakeholders and citizens strongly depends on cities' backgrounds and structures.

The second research "Resilience as an urban strategy: The role of green interventions in recovery plans" is by Federica Gaglione and Jorge Ugan. The contribution examines the set of reforms of the Recovery and Resilience Plans, concerning the green revolution, the ecological transition and climate policy. In particular, the review focuses on Italy and Germany, highlighting how the green interventions envisaged within them improve the urban strategies to be implemented with respect to the great challenges that the different territorial contexts have to face such as climate change, energy efficiency in accordance while also respecting of the principles of environmental sustainability.

The third research "Toward greener and pandemic-proof cities? Policy responses to Covid-19 outbreak in four global cities" by Gennaro Angiello. The third research "Toward greener and pandemic-proof cities? Policy responses to Covid-19 outbreak in four global cities" is by Gennaro Angiello. The section provides an

overview of the policies and initiatives undertaken by four major global cities in response to the Covid-19 outbreak: New York City (US), Beijing (CN), Paris (FR) and Singapore (SG). Based on this overview, a cross-city analysis is employed to derive a taxonomy of urban policy measures. The article concludes with a discussion on the effectiveness of such measures in providing answers to epidemic threats in urban areas while, at the same time, improving the sustainability and resilience of urban communities.

The last research " Environmental, social and economic sustainability in urban areas: a cool materials' perspective" is by Stefano Franco and Federica Rosso. The note tackles the topic of cool materials for urban areas, as a mitigation strategy to counteract climate-change related issues. The most recent developments about cool materials show that they are relevant tools that can boost environmental, social and economic sustainability in urban areas.