

The 15-Minute City Model and the EU's Responses to Sustainability Challenges

(Extended Abstract)

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In the current context of urban planning debates the 15-Minute City concept represents a timely response to the endeavours of improving the quality of life in cities. The goal of this model is to provide inhabitants with access to essential services within 15 minutes from their homes by walking or cycling. Consequently, more people interact with their local environment contributing to the creation of vibrant, environmental friendly neighbourhoods (EIT, 2022). The concept was launched in 2016 by Carlos Moreno, being the result of long-term accumulations in relation to past and more recent ideals, from Clarence Perry's Neighbourhood Unit and Ebenezer Howard's Garden City at the beginning of the 20th century to the New Towns Movement (post World War II), New Urbanism (Calthorpe, 1993) and Chrono-urbanism (Gwiazdzinski, 2014) in the last decades of the century. It re-emerged as a result of the COVID-19 pandemic challenges, adding to the initial concept four essential dimensions, namely density, proximity, diversity and digitalisation (Moreno et al., 2021) (Figure 1).



Figure 1. The 15-Minute City framework

Source: Moreno et al. (2021)

Its popularity comes from increasing congestion, air pollution, energy consumption, urban sprawl and a loss of social interactions, stimulating cities to aim for more liveable, people-oriented spaces (Ratti and Santi, 2023). It connects to the thematic of smart cities as well as to that of creating of more human

urban fabrics and that of building safer, more resilient, sustainable and inclusive cities, as stated by the SDG 11 of the 2030 Agenda for Sustainable Development of United Nations (Moreno et al., 2021).

In today's Europe the 15-Minute City Model is getting an increasing significance, given the challenges it has to face in a turbulent global landscape, described by geopolitical fragmentation, conflict, war, deglobalisation, disruption of value chains and adaptation to automation, AI and robotisation (EC, 2024). As a result, Cohesion Policy and important EU initiatives and missions, as well as national policies are working together to provide appropriate responses.

Related to our topic, the EU Mission for Climate Neutral and Smart Cities – also known as “Cities Mission” – aims to deliver 100+ climate-neutral smart cities by 2030 and inspire the other cities to follow suit by 2050 (Figure 2).



Figure 2. EU Cities in the 100+ climate-neutral smart cities by 2030 network

Source: EU (2024)

Given the planning principles the 15-Minute City model is based on - proximity to essential services, proximity to public transport, density, mixed land use, walkable and cyclable streets, public space and place-making, inclusiveness, ubiquity (EIT, 2022) – it can contribute to offering cleaner air, safer transport and less congestion to citizens and thus, to respond to the European Green Deal ambition to reduce gas emissions by at least 55% (EU, 2021).

Based on these overall considerations, this paper aims to examine the preparedness for the “Cities Mission” through the lens of the 15-Minute City, proposing as case study the District 2 of Bucharest

Municipality, which is included in this mission. This inquiry is combined with the reflections on the opportunities and synergies created by the Regional Programme for Bucharest-Ilfov Region (2021-2027 being the first programme period when the Regional Operational Programme of Romania is applied in a decentralised context), which has priorities aiming to support environment friendly communities, sustainable multi-modal urban mobility and connectivity, under “A greener, resilient, low-carbon Europe transitioning to a zero-carbon economy” Objective.

The investigation is based on desk research using available data and information from regional and local development institutions, combined with interviews with representatives of relevant stakeholders (e.g. district town hall, regional development agency, etc.). A particular emphasis is placed on the methodology behind the 15-Minute City Index proposed by Badii et al. (2021), which is employed in our research to assess the effective compliance of the District 2 of Bucharest Municipality with respect to defining aspects regarding: Housing, Govern, Safety, Culture & Cultural Services, Environment, Slow Mobility, Fast Mobility, Sport, Economy/Sustainability, Food, Health, Education Services, Entertainment (details in Annex 1).

Additionally, based on the data offered by the SonyCLS website, <https://whatif.sonycls.it/15mincity>, the information related to the performance of District 2 with respect to various indicators, such as those referring to access to cultural activities, learning, healthcare, outdoor activities, physical exercise, eating, services, supply and provision, movement around the district, in terms of 15-Minute City is further discussed. The codes for the OpenStreetMap (OSM) are utilized to ensure that the extracted data refers to District 2 solely, while four indexes are created for evaluating the district’s performance on two main axes, representing the 15-Minute accessibility on foot and by bicycle.

The results can offer a useful orientation for decision-makers, civil society/community and entrepreneurs in District 2 with regard to the most favourable positioning within the “Cities Mission” while implementing the 15-Minute City principles, able to contribute to maximizing their benefits, with synergies between the multiple components involved.

Acknowledgement. This work was funded by the EU’s NextGenerationEU instrument through the National Recovery and Resilience Plan of Romania - Pillar III-C9-I8, managed by the Ministry of Research, Innovation and Digitization, within the project entitled „*Place-based Economic Policy in EU’s Periphery – fundamental research in collaborative development and local resilience. Projections for Romania and Moldova (PEPER)*”, contract no. 760045/23.05.2023, code CF 275/30.11.2022.

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Annex 1. The domains of the General 15-Minute Index

- **Environment Idx:** Environment suitability; as air quality, green area, waste, noise level, water quality, etc.
- **Economy Idx:** Economy and work, income, job suitability; as balance of offer and demand of work, PIL produced in the area proportioned/satisfactory to the amount of people
- **Housing Idx:** Housing and Building suitability; as level of services in the building, values of them, etc.
- **Health Idx:** Health service suitability; as number, quality and capabilities of the health services in the area proportioned/satisfactory to the amount of people
- **Food Services Idx:** Catering and Subsistence services suitability; as number, and capabilities of the food and catering services in the area proportioned/satisfactory to the amount of people
- **Education Idx:** Education services suitability index; as number, quality and capabilities of the educational services in the area for the different ages proportioned/satisfactory to the amount of students
- **Slow Mobility Idx:** Slow Mobility and transport infrastructure and services suitability index; as number, quality and capabilities of the slow mobility services in the area proportioned/satisfactory to the amount of people
- **Govern Services Idx:** Government services suitability index; as number, quality and capabilities of the gov services in the area proportioned/satisfactory to the amount of people
- **Security Safety Idx:** Security and safety services suitability index; as number, quality and capabilities of the security and safety services in the area proportioned/satisfactory to the amount of people
- **Culture and cults Idx:** Culture and cults services suitability index; as number, quality and capabilities of the cultural and religion services in the area proportioned/satisfactory to the amount of people

- **Entertainment Social Idx:** Entertainment and social services suitability index; as number, quality and capabilities of the services in the area proportioned/satisfactory to the amount of people
- **Fast Mobility Idx:** Fast Mobility and transport services suitability: as number, quality and capabilities of the medium and long distance mobility services in the area proportioned/satisfactory to the amount of people
- **Sport Services Idx:** Sport services suitability index: as number and capabilities of the sport services in the area proportioned/satisfactory to the amount of people.