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Exploring the 15-minutes city – the metropolitan context of Oporto

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Abstract

It is easy to understand why the idea of a 15-minutes city, providing most everyday amenities within 15-minutes travel time, has become so appealing to city officials and citizens in the last decades, and with particular strength, in the last few years following the COVID-19 pandemic. The explicit reduction of both travel distance and time are, in themselves, tantalizing for societies in need of coping with major challenges, such as, global warming, sustainable development, car-dependent cities, lack of quality urban spaces, and quality of life. Regardless, such prescriptive strategy seems to be at odds with less dense urban environments found in sprawl, the majority of suburban development and even some urban centers.

Using the idea of a 15-minutes city as an analytical lens instead of a prescriptive policy, this paper aims to explore the diversity of settings for the 15-minutes walking city, using a metropolitan area as testbed for its diversity of urban and suburban contexts. Our research explores the diversity of accessibility conditions currently offered at 15-minutes walking time (grouped into typologies), using network-based accessibility measures at the census tract level.

Our analysis of the core municipalities of the metropolitan area of Porto revealed 6 main typologies for the 15-minutes city with roughly 18% of the population able to reach all of the considered amenities while 1% has none at 15-minutes walking. Although some areas seem able to move up in the referred typologies through policies such as the ones prescribed by the 15-minutes city concept, others seem unable to make the change. Uniformity does also not necessarily seem desirable for the different urban context encountered. Finally, forcing fashionable concepts, as this one, onto urban areas may come at the expense of the underlying sustainability concerns they were developed to encourage.

Author Keywords. Local Accessibility, 15-minutes city, Typologies.

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1. The Importance of Proximity-centred Accessibility

The latest report from the Intergovernmental Panel on Climate Change (IPCC) on climate change grimly states that the carbon budget left to limit global warming to a 1.5º C increase above pre-industrial levels, and with it preventing some of the worst negative climate impacts (IPCC, 2018; Lenton *et al.*, 2019), is now measured in years instead of decades (IPCC, 2022). At the same time, cities, even though only accounting for less than 2% of Earth's surface, are responsible for 60% of all CO_2 emissions (the main contributor to climate change) and

consume 78% of the world's energy (UN Environment, 2019). As such, the decarbonization of our cities is paramount to limit the climate breakdown, with the same IPCC report suggesting that promoting sustainable land use and urban planning are amongst the most cost-effective measures to rapidly decrease CO_2 emissions (IPCC, 2022).

Urban sprawl has been particularly pointed at as one of the main culprits for the current energy and carbon intensity of urban areas. Characterized by low-density single-family housing, urban sprawl is associated with higher levels of energy and resource consumptions as well as increased reliance on private car usage (Johnson, 2001; Bart, 2010; Litman, 2015), which further exacerbates CO_2 emissions (Graham-Rowe *et al.*, 2011). To try to tackle these issues, new alternative urban development models have been promoted in recent years, such as the compact city, smart growth and transit-oriented development (TOD) (Neuman, 2005; Ibraeva *et al.*, 2020). Their main objectives focus on reverting urban sprawl through promoting density and mix-land use coupled with the provision of high frequency public transport as well as built environments friendly to walking and cycling. Compact, dense and mixed-use urban environments promote more efficient energy use (e.g., by decreasing heating losses between buildings), take up less space (and consequently minimize the need of destroying natural habitats for building), while overall promoting economies of scale in services such as water and waste management (Litman, 2015). Furthermore, such strategies are also associated with higher use of sustainable transport alternatives to the car, namely by shorting the distances between activities and increasing the feasibility of mass transit. For instance, Asian cities such as Hong Kong, Singapore and Tokyo, characterized by having extensive TOD policies have managed to achieve much lower car ownership rates than their western counterparts, namely the US, although having similar income levels (Loo, Chen and Chan, 2010; Knowles, 2012).

According to Silva *et al.* (2023) there has been a growing interest in proximity-centred accessibility in both research and practice, following increasing concerns with global warming and deficient quality of life in cities. These authors have defined proximity-centred-accessibility as that provided at up to 1600 meters (approximately 1 mile), roughly 15-minutes walking. Research on such accessibility levels has shown a remarkable expansion in the last decade. Concurrently, the coronavirus pandemic has led to a new appreciation for the existence of amenities at near proximity to residential locations. A recent survey of planning practitioners and researchers in the field of accessibility has shown that amenities, such as, playgrounds, food retail, parks and green spaces, elementary schools and pharmacies are considered by many of the surveyed experts to be important at up to 15-minutes walking time. Interestingly, the survey also found that jobs (as well as higher education facilities and hospitals) were not considered by the surveyed experts as having to be accessible within short distances (i.e., 15-minutes walking) (Silva *et al.*, 2023).

In practice, we have also witnessed a growing attention on alternative urban strategies focusing on proximity-centred accessibility, particularly following the coronavirus pandemic. Amongst the most prominent examples is the concept of the "15-minutes city" (Moreno, 2019; Moreno *et al.*, 2021; Allam *et al.*, 2022). The aim of the 15-minutes city is to ensure that all citizens are able to access all of their essential needs from a 15-minutes walking or cycling trip. Some or all of these core concepts have also been adopted in other strategies (even before the emergence of the 15-minutes city concept) such as Barcelona's "Superblocks", Portland's "Complete Neighborhoods" or Melbourne's "20-minute neighbourhoods" (C40 Cities, 2020; Pozoukidou and Chatziyiannaki, 2021). Arguably, the most famous example is the city of Paris, in which the concept of the 15-minutes city was the core strategy of Mayor Anne Hidalgo's successful 2020 re-election campaign (C40 Cities, 2020; Moreno *et al.*, 2021).

Already characterized by having high population densities, Paris' strategy is primarily focused on fostering mix-land uses and redistributing public space by converting car space into cycling lanes and new green spaces. Examples include removing on-street car parking spaces as well as promoting the use of buildings for multiple purposes, for instance, through opening schools for community activities and transforming their playgrounds into public parks (Pozoukidou and Chatziyiannaki, 2021).

However, decades of policies promoting urban sprawl and single-use zoning have produced mono-functional territories across the world, hindering the feasibility of local accessibility and proximity planning, which are at the core of the 15-minutes city, outside already dense urban areas like the previous mentioned examples. For instance, in the US basic amenities such as sidewalks or the existence of local groceries are often lacking in suburbs (Da Silva, King and Lemar, 2020), while in Latin America educational and health facilities tend to be concentred in the cities' wealthy neighbourhoods (Guzman *et al.*, 2021). Consequently, for concepts such as the 15-minutes city to become widespread we need to be able to adapt them to different territorial contexts to ensure that they can expand beyond consolidated city cores.

Even inside dense urban areas, there is a threat to the ideal of a 15-minutes city, according to the hypothesis of the negative feedback loop between proximity-centred and mobility-centred accessibility (Silva and Altieri, 2022). This hypothesis links current main-stream urban policies (focused on providing accessibility through improved mobility) to urban dispersion phenomena. With the spread of both population and activities it will increasingly become harder to achieve proximity-centred accessibility (like the 15-minutes city), first in low density settings, but increasingly in higher densities too. The empirical results of this study link the improved ease of travel to the increasing disregard for proximity in location choices witnessed in the last decades across the metropolitan area studied. Thus, enhanced ease of travel seems to render proximity gradually irrelevant in residential choice. The voluntary choice for low proximity-centred accessibility environments, enabled by mainstream urban policies, must thus also be taken into account, recognising that the provision of 15-minutes city environments might not be enough to bring about more sustainable urban occupation and travel patterns.

As such, further research is needed to explore the potential role of proximity-centred accessibility (e.g., 15-minutes walking city) in promoting more sustainable mobility and land use patterns, particularly in different territorial contexts beyond consolidated urban areas. Accordingly, this paper uses the idea of the 15-minutes city as an analytical lens to explore the diversity of settings for a 15-minutes city in a European Metropolitan Area. Looking at urban, suburban and rural settings, we investigate the current proximity-centred accessibility levels (i.e., 15-minutes walking time), assessing the feasibility of the population of having mobility patterns independent from any kind of speed enhancing vehicle (i.e., the car, public transport, bike, etc.), and exploring the policy implications for different settings.

The next section presents the research approach, followed by the 15-minutes walking city typologies found in section 3. Section 4 explores the main results and the policy implications for the 15-minutes city. The last section summarizes the main reflections of this exploratory study.

2. Research Approach

2.1. Research objective

In this paper we explore the diversity of 15-minutes walking cities that exist throughout the Oporto Metropolitan Area (OMA), following an exploratory approach. We built a typology of

15-minutes city settings resorting to the results from walking accessibility to a series of 10 different activities. Using descriptive analysis, we explore the distribution of the activities across the study area to shed light into different types of 15-minutes walking cities spontaneously occurring. Based on these results we explore the policy implications in attaining the 15-minutes walking city throughout the entire metropolitan area and their contribution to sustainable development.

2.2. Accessibility Measurement

In this research we measure accessibility for each census tract (using over 10.000 unique cells) resorting to the use of a cumulative-opportunity measures for a set of ten activities within a 15-minutes walking threshold. Our research explores walking accessibility, deliberately choosing the slowest of transport modes. This was done to explore the role of urban structure (urban, and suburban development) on the most basic of accessibility levels: accessibility independent of the availability of faster transport modes (be it availability of transport infrastructure or services, or the ability to use such transport modes). Walking speeds were calculated based on an average speed of 5 km/h (considering impedance from the average slope of each segment), resulting in a travel distance of up to 1.25 km. To avoid bias generated from edge effects, we consider activities accessible at surrounding municipalities of the case study area.

Table 1 presents the activities considered. Activities contemplated in this research are among those considered to be most relevant in the near vicinity by international experts in proximity-centred accessibility and by Portuguese planning practitioners in the field, as revealed in the recent survey by Silva *et al.* (2023). A systematic literature review developed by this study, revealed a similar list of activities as most 161common in proximity-centred literature. Schools, food retail, non-food retail, restaurants, healthcare (clinics or general practicians) and parks are amongst the most used activities in proximity-centred accessibility literature (see for instance, McNeil 2011, Maleki et al., 2012, Elldér et al. 2018, Alawadi et al., 2021, Elldér et al., 2022). Schools, parks, food retail, pharmacies, healthcare, services and restaurants, were considered relevant by the large majority of the sample in Silva *et al.* (2023). The set of activities used in this research followed prior evidence on relevance at 15-minutes walking, as well as data availability and usability constraints. As such, different context might use slightly different sets of variables depending on available data.

Although work is sometimes considered in proximity-centred literature, particularly those following the 15-minutes city concept as proposed by Moreno (2019), it also finds opposition with authors dissageing on its proximity nature. In Silva *et al.* (2023), both, experts and portuguese practitioners, were litle inclined to consider it as relevant at up to 15 minutes walking time, although generally considered relevant in proximity.

The location of these activities was collected from multiple sources, including official data sets from the Portuguese Ministry of Labour (GEP, 2018), online platforms (CMMai, 2011; CMMat, 2017a; CMG, 2017b; CMP, 2021; SNS, 2022), and the *openstreetmap* data set (Geofabrik, 2021).

Activity	Comprising
Schools	Kindergarten, primary, and elementary schools
Parks	Parks, public gardens, squares, and beaches
Sports	Public sports venues and gymnasiums
Leisure	Cultural centres, theatres, cinemas, museums, libraries, and casinos
Food retail	Supermarkets and convenience stores
Non-food retail	All other retail
Pharmacies	-
Clinics	-
Services	Public services, post offices, and banks
Restaurants	Restaurants, bakeries, and cafes

Table 1: List of considered activities and data source.

2.3. Case Study

The OMA is the second largest metropolitan area in Portugal. In this study we focus on the 6 core municipalities (**Figure 1**) with a population of about 1.1 million and covering an area of 562 km² (population density of about 1961 inhabitants/km²). Like most medium-size European metropolitan areas, the OMA has a polycentric structured (Pinho and Silva, 2015) with Oporto as the main node and several sub-nodes scattered throughout the metropolitan area, having experienced depopulation during past decades, particularly of its central municipality (Oporto). As shown by **Figure 1**, the polycentric structure provides a typical decay from dense urban centres (black) to a more scattered second level (dark grey), and wide suburban areas (light grey). These spatial contexts cover roughly 60% of the territory of the metropolitan area (around 300 km^2). For this study, we excluded natural areas without human settlements (remaining areas represented in white).

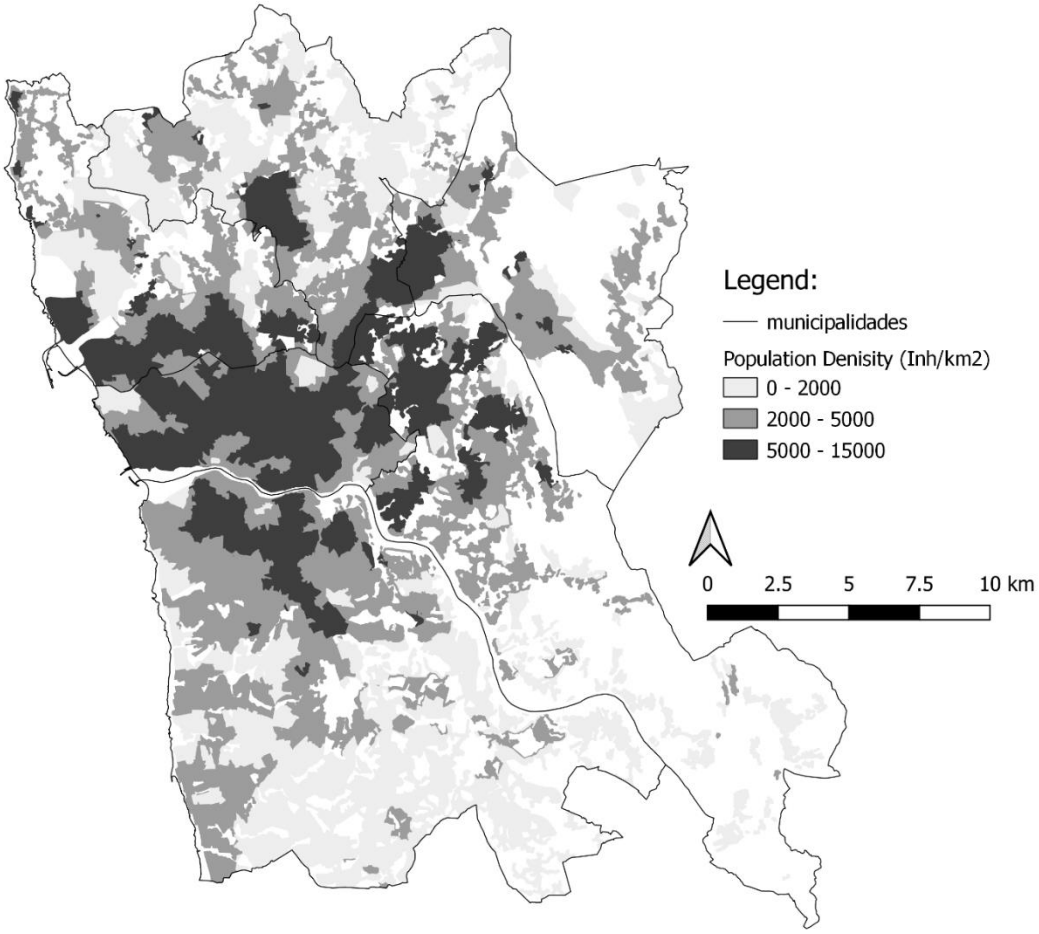

Figure 1: Study Area Population Density. Data Source: Portuguese Census 2011 (INE, 2011).

3. 15-minutes city Typologies

Of the 1023 possible unique combinations for accessible activities built from a group of 10 activities, we found 325 unique combinations in this sample. Aiming to group these into a range of manageable typologies we built the types starting with no accessible activity to 10 (all) accessible activities, adding groups of activities at a time – stepwise addition. The group of activity added was always the one bringing the highest increase to the population served, but up to between 15 – 20% at a time to guarantee more or less regular intervals in served population per type[1]. This approach allowed the definition of a typology using 6 dominant groups (combinations) representing the 15-minutes walking accessibility condition for 87% of

[1] For an illustrative example, while typology 6 consists of the population that has no activity accessible, typology 5 consists of the population that has access to only the three most accessible activities (schools, non-food retail, and food retail), which represents close to 19% of the served population. Adding restaurants and pharmacies, the following more accessible activities, defines typology 4, which brings and additional served population similar to the one attained in typology 5 (namely, 19.6%). The other typologies are built in a similar fashion, in additions ranging between 15-20% of additional population served. This method was chosen because it ensures a normalised distribution of both activities and population, grouping typologies in a fashion similar to percentiles.

the population sample, thus providing a fairly complete representation of the main different 15-minutes city settings currently in place in the Oporto Metropolitan Area.

Figure 2 represents the 6 types of 15-minutes city found in Oporto Metropolitan Area:

1. All: Schools, Non-food retail, Food retail, Restaurants, Pharmacies, Sports, Services, Clinics, Leisure, Parks (10)
2. Schools, Non-food retail, Food retail, Restaurants, Pharmacies, Sports, Services, Clinics (8)
3. Schools, Non-food retail, Food retail, Restaurants, Pharmacies, Sports, Services (7)
4. Schools, Non-food retail, Food retail, Restaurants, Pharmacies (5)
5. Schools, Non-food retail, Food retail (3)
6. None (0)

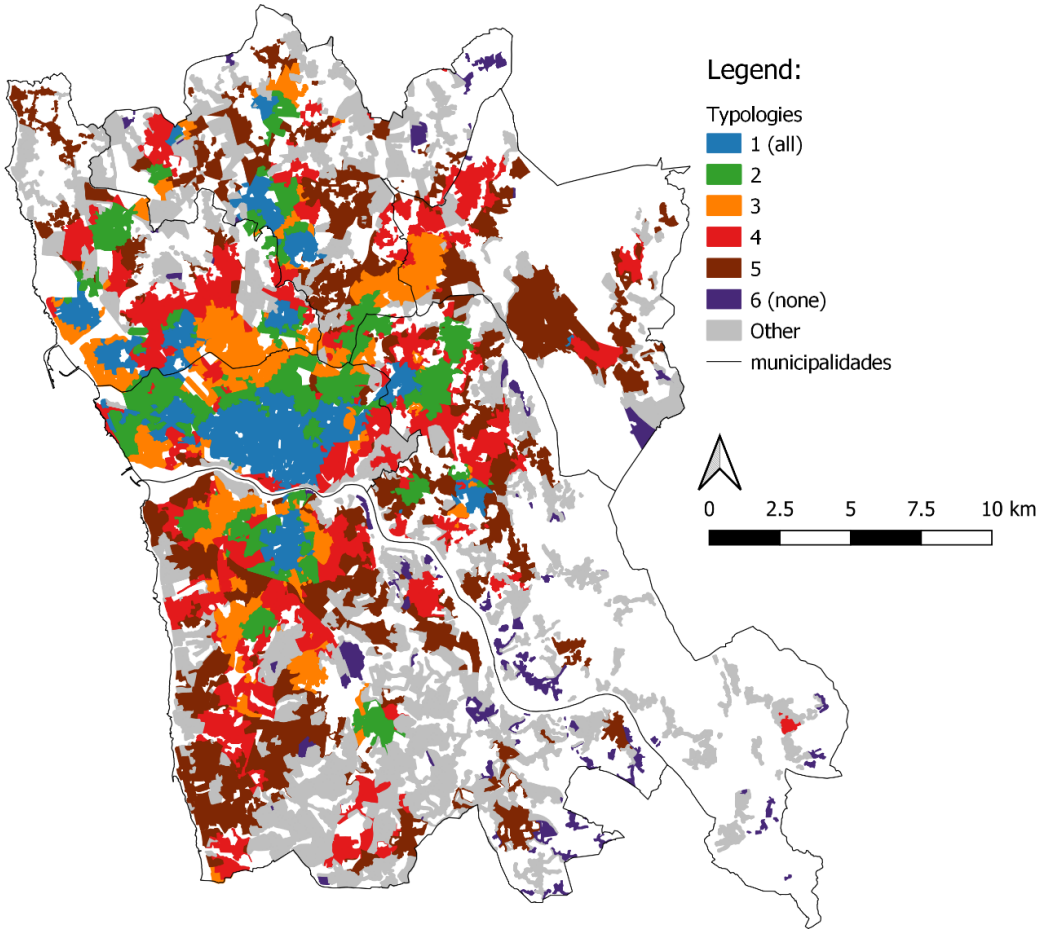

Figure 2: 15-minutes city typologies

Residents living in areas marked as type 6 have no accessible activities in 15-minutes walking time. Less than 3% of the study area offers such poor accessibility conditions to less than 1 % of residents. On the other hand, 18% of the residents live in areas offering accessibility in 15-minutes walking time to all activities considered in the study (type 1). These privileged areas are located in the main urban centres, including a vast area in Oporto city centre, and several

smaller areas representing neighbouring cities such as the city of Matosinhos, S. Mamede de Infesta, Senhora da Hora, Maia, Rio Tinto, Gondomar e Vila Nova de Gaia. Surrounding type 1 we can find areas offering very high walking accessibility conditions but excluding accessibility to parks or green/natural areas and leisure activities (such as cinemas, theatres, museums, libraries, amongst others). These areas were placed into type 2 and hold 16% of the population of the study area. Around 14% of the population have access to the same list of activities in 15-minutes walking as in type 2 but excluding clinics. These areas offer accessibility to Schools, Non-food retail, Food retail, Restaurants, Pharmacies, Sports and Services (type 3).

Areas marked as type 5 only offer their residents (18%) accessibility to schools, non-food retail, food retail in 15-minutes walking, while those marked as type 4 add Restaurants and Pharmacies to the list of accessibility amenities offered to an additional 20% of the population.

The areas represented in grey in **Figure 2** are those with other combinations of activities that do not fit any of these 6 types. These dozens of other combinations range from poor to high levels of accessibility, each having very low representativeness. Although the sum of all of these combinations represent 28% of the territory, they serve hardly 13% of the population. As a summary, **Error! Reference source not found.** presents the percentage of population and area covered by each typology.

Typology	Population (%)	Area (%)
1 (all)	18%	9%
2	16%	10%
3	14%	9%
4	20%	17%
5	18%	24%
6 (none)	1%	3%
Other	13%	28%

Table 2: 15-minutes city typologies, proportion of population and area

4. Discussion and Policy Implications

When comparing our typology of 15-minutes cities with the population density in our study area (as a proxy for different urban settlements and occupation patterns; **Figure 3**) it becomes clear that large suburban areas (average density) only have access to basic activities such as elementary schools and shopping, and some also to restaurants or other food services (like cafés, or bakeries) or pharmacies. Activities such as leisure, parks and clinics seem to be reserved for centralities offering higher population densities. Regardless, it is possible to find type 5 (offering accessibility to only schools, food and non-food retail) in high density areas, although most high-density areas are type 3 or above.

Total absence of accessible activities in 15-minutes walking is normally reserved to low density areas. Furthermore, many of the outlying activity combinations (Other) also fall in these lower densities, suggesting that low density suburban and rural areas may have developed following atypical patterns. This is in line with findings by Silva and Altieri (2022) for the same study area.

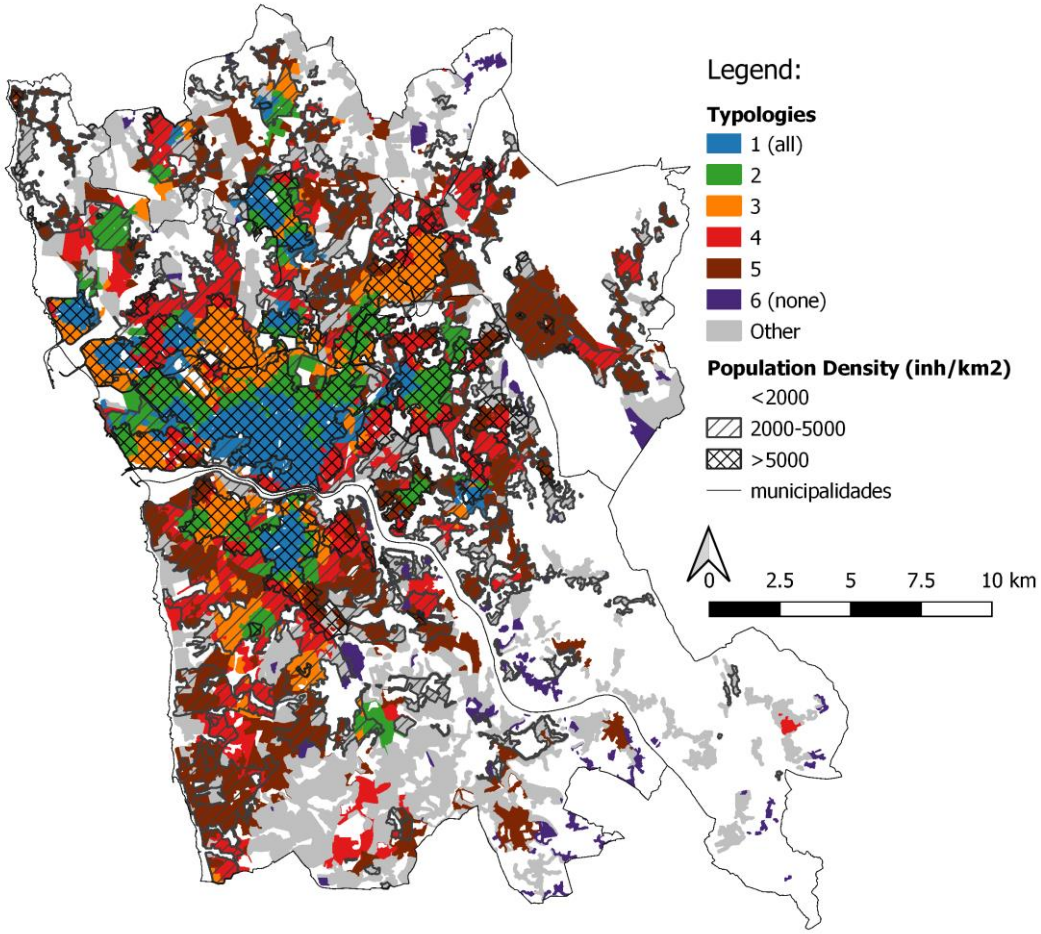

Figure 3: Typologies and Population Density

It is fairly reasonable to expect, define and even implement policies towards the 15-minutes walking city in most high-density areas (above 5000 inh/km^2). On the one hand, because population densities are relatively high, sustaining a variety of activities without the need for very costly public policies. On the other hand, because most of these areas already offer fairly high levels of accessibility in 15-minutes walking, requiring minor improvements which again would be lighter on already limited public budgets. Thus, it seems reasonable and feasible to provide a full or closely to full 15-minutes city concept in most of the municipality of Oporto and the main cities of the surrounding municipalities. Public investment would mainly be needed for the provision of parks, other green and natural areas as well as leisure facilities, such as libraries, museums, theatres, etc (type 2 and 3). Amongst type 3 areas additional investments will be needed to bring healthcare closer to inhabitants. These policies would bring the 15-minutes city to almost all high-density areas holding close to 50% of the population in the study area.

However, bringing healthcare systems closer to inhabitants is exactly the opposite of the dominant political strategy followed for the last decades. Supported on high levels of mobility-centred accessibility (accessibility essentially provided by fast transport modes), the healthcare strategy has been one of concentration of services in a smaller number of locations but offering a broader diversity. Smaller hospitals and first level healthcare services have closed down to give place to expansions of the major hospitals or health centres. Sustained

by primary healthcare transport services and high levels of car ownership and use, these policies worked in opposition of the 15-minutes city.

It is even possible to argue that healthcare may not be among the activities necessary to bring about the ideal of a 15-minutes city, as argued before. The survey to Portuguese planning practitioners (Silva *et al.*, 2023) revealed that less than 40% of the surveyed considered it important to have a hospital at 15 minutes walking time. However, proximity to general practicians was considered important by more than 60% of planning practitioners, and to pharmacies by more than 80%. Both general practicians and pharmacies seem to be fundamental in primary healthcare, at least from the perspective of local planners. And so, although accessibility to healthcare in 15 minutes walking time might not be attainable (or desirable, at least for major Hospitals), the 15-minutes ideal as proposed by Moreno (2019) could still be implemented through transport strategies focused on faster, though still soft modes, such as bicycles. While sustainable mobility could theoretically be achievable, proximity would be crippled. It is important to point out that the whole metropolitan area has very low levels of cycling share, closely connected to fairly rudimentary cycling conditions and infrastructure. The sheer investment and change in political will required to bring about such accessibility improvements, render this as a purely theoretical solution, at least in the short to medium term. It is less easy to expect, define or even implement, policies towards the 15-minutes city in most medium-density areas (between 2000 and 5000 inh/km^2). These areas are dominantly type 4 and 5, meaning most offer accessibility in 15-minutes walking to schools and food and non-food retail, with some also offering access to restaurants and pharmacies. Nevertheless, it is less uncommon to find areas type 1 to 3 in medium densities than the opposite in high-density. The required policies for the medium-density areas of type 2 and 3 would be similar to those defined in high-density areas. Regardless, such policies would be less cost-efficient in lower density areas and thus less plausible for implementation. On the other hand, areas from type 4 and 5 would require larger investments which seem rather unplausible within the current economic context for a territorial area roughly 50% larger than that of high-density (130 km^2 to 80 km^2) and more scattered, while holding less than 40% of the total population. Many such areas are adjacent to high density and offering higher walking accessibility. As such, the 15-minutes concept could still be implemented through transport strategies focused on faster modes, such as bicycles. Although this would be a sustainable travel solution (at least in theory in this case) to increase the catchment area of the 15-minutes walking city, it would also disable vehicle independent accessibility. While the transport system is able to offer sustainable solutions in this case, it is important to point out that less people will have access or be willing or able to use such transport solutions. At the same time, such solution hinder lifestyles which are less dependent of speed enhancing vehicles (the ability to live locally). An alternative would be to increase the density of such areas to improve the economic viability of other activities and thus of public investment in these activities. However, given the propensity for population degrowth this might not be a reasonable expectation. Regardless, it is well known that local policy still resorts to the future potential population growth as argument to postpone solutions which are needed now. There are also such areas which are fairly detached from areas providing higher accessibility levels and for which soft alternatives, such as the bike, would not solve the problem.

The remaining 12 % of the population lives in low density occupation patterns, where we dominantly find accessibility conditions from type 5 (offering walking accessibility to only schools, food and non-food retail). It is in this lower density areas that we find almost all areas offering no accessibility by 15-minutes walking (type 6) and most of the areas classified as

"other". The later offer different combination of accessible activities then the ones in the typologies. Regardless, the vast majority offers accessibility up to 3 or 4 activities (60% and 80% of population in "others" respectively), though to different activities than those used in type 4 and 5. The dominance of low accessibility levels in low density is as expected from previous literature. For instance, Silva et al. (2014) showed that proximity-centred accessibility tends to be closely related to density.

Bringing the 15-minutes city ideal to this part of the metropolitan areas seem unfeasible by any of the policies referred to above. It is economically inviable to invest in almost all facilities across roughly 100 km^2. Also cycling will not be a viable alternative for large portions of this areas due to the distance to main urban centres. Public transport could be an alternative due to the potential higher speed, however, low density urban occupation offers sub-optimal conditions for public transport also rendering it economically inviable. Policies such as transit-oriented development (TOD) could offer a solution, but it would require a system of centralities throughout which public transport systems are organized. This is opposed the dominant occupation pattern currently found: dispersion or sprawl. An urban pattern following concentrated decentralization, concentrating population in different centralities, supported by a public transport system connecting these centralities could be one solution. However, current development patterns in these areas are far from this model. There are hardly any centralities and most of the population lives in dispersed environments. Existing centralities also offer very few of the needed activities to enable some range of independence from public transport. Also, shifting the 15-minutes city ideal from walking to public transport means an even harder blow on proximity-centred accessibility and local living. Finally, expecting population growth to solve the problem in the future is very unrealistic. Densities are too low to expect any growth which might bring them closer to high density, and this without recalling the propensity for population loss of the study area. In particularly low-density areas, the opposite might be a better solution, i.e., policies to keep land rural, avoiding further urban occupation. By preventing any further settlements in the area, we avoid enhancing the number of people dependent of cars for everyday activities. Bringing suburban growth to a stop is also essential to support many of the policies discussed above for high and medium density areas. This means giving up on the idea of a 15-minutes city for such areas. If we look at the extension of such low-density areas, it is unreasonable to believe that we can attain similar walking accessibility here as in their high and medium accessibility counterparts. Although restricting urban development would certainly avoid generating additional car-dependency, it will, in no way solve the lack of accessibility of people already living in such areas. For these, the car seems to be the most viable alternative to attain accessibility at 15-minutes, particularly if combined with strategies of concentrated decentralization of medium density areas referred to before. This means, car-based accessibility should focus on reaching closest centralities instead of major urban centre. The latter is the dominant transport strategy, essentially supported on major high-speed systems, such as motorways. Improving car accessibility in such a fashion would again fuel suburbanization and growth in car-dependency. In any case, it is important to point out that any car-based solution for 15-minutes accessibility would not provide the living standard defined in 15-minutes city literature. However, these are also not necessarily the ones desired by rural dwellers, for whom 15-minutes accessibility might mean something significantly different. The solution then involves strong land use policies regarding urban occupation patterns. While Paris as the central city of a major metropolitan area can aspire to offer the 15-minutes walking city to all its inhabitants, the reality at the metropolitan level is quite different. Choices must be made

on the meaning of 15-minutes city, regarding the activities offered and/or the transport modes used, and regarding differences among urban and rural dwellers. Finally,

as well as on the meaning for 15-minutes accessibility and on the underlying concerns for urban and rural dwellers.

5. Final reflection

This paper offers an exploratory approach to the 15-minutes walking city from an analytic lens. It becomes clear that the diversity of urban environments of a metropolitan area are incongruous with one single ideal of urban settlement. Homogenization might also not be desirable. The diverse natures of urban environments need to be considered. From this lens, a variety of adaptions can be introduced. First, that of the transport mode (and thus speed of travel), changing catchment areas but also fundamentally changing the meaning of the 15-minutes city from mobility-centred approaches to proximity-centred ones. Second, that of desired activities accessible, or at least different sets of desired activities accessible for different urban settings, combined with different transport solutions. Third, the importance of land use planning, particularly policies hindering urban dispersal to support the policies defined above.

One final word on sustainable development. Concepts such as the 15-minutes city, carry an ideal for more sustainable cities, by enabling largely travel independent lifestyles, and by increasing quality of life in cities due to improved liveability. Such aims cannot fully be achieved with the alternatives presented above for metropolitan areas. Smaller cities with a clearer distinction between urban and rural areas seem to have an easier task in bringing about such ideal and their sustainability aims. Metropolitan areas and areas with widespread urban dispersion seem to struggle with these concepts. Thus, the concept *per se* should not be the guideline for urban policy, as is so often the case particularly with fashionable concepts such as this one. The underlying objective should be clear to avoid any misinterpretation of such catching concepts.

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