

# A CITY OF SHORT DISTANCES OR SUBURBS OF REASONABLE PROXIMITIES?

## EXPLORING THE POTENTIAL OF SOFT DENSIFICATION IN PRAGUE SUBURBAN MUNICIPALITIES<sup>1</sup>

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Although the city of short distances is a strategy embraced by many global cities, concerns have been raised about the practical feasibility of the concept in cities with an existing sprawling structure, i.e., cities surrounded by low-density suburbs and satellite municipalities. One answer is to extend the 15-minute city concept and modify it for low-density fringes. This article presents strategies and initiatives that follow and extend urban proximity concepts to suburban areas and summarizes their main ideas. One of the consensus identified across these strategies is the necessity of increasing the population density in low-density localities. The empirical part of the study investigates the potential for increasing density using GIS analysis in the suburbs of the Central Bohemian Region. The analysis specifically models the impact of soft densification – a Western European bottom-up strategy involving incremental changes on private plots, initiated by residents.

Key words: soft densification, urban proximity concept, suburban development, densification potential introduction

### Introduction

#### City of Short Distances in the Context of the Existing Settlement Structure

While Europe experienced limited population growth (+10%) between 1975 and 2015, its settled area doubled [ESPON, 2024]. Significant amount of this growth can be attributed to suburbanization, which created low-rise residential settlements around cities.

Urbanization in the 21<sup>st</sup> century is increasingly taking place in the peripheral areas of cities and in the vicinity of cities [Keil, 2022], which also applies to the Czech Republic, where 1.4 million people lived in municipalities most affected by the suburbanization process in 2016 [Ouředníček, 2018]. Prague, the Czech capital city, is now dealing with the consequences of the suburbanization of the last 30 years, when Prague's hinterland grew faster than the city itself. However, the people who moved into suburban low-density districts or municipalities did not leave the city completely and continue to commute to work, study, and entertainment. Since 2001, the population of Prague's immediate hinterland (the districts of Prague-East and

Prague-West) has grown by 105 000, and since 1990, the population of the entire Central Bohemian Region has grown by more than 230 000 inhabitants (Fig. 1). Even in recent years, there has been a noticeable number of 5 000 to 7 000 people moving from Prague to the Central Bohemian Region every year [Brabec, 2022].

The low-density residential areas in small rural municipalities around Prague

are characterized by a lack of public amenities, forcing residents to depend on individual car transport and the city amenities. According to the Prague Institute of Planning and Development, it is economically and demographically inefficient to build new infrastructure of public amenities in these locations [IPR Praha, 2023].

On the other hand, the topic of short-distance cities appears in strategic do-

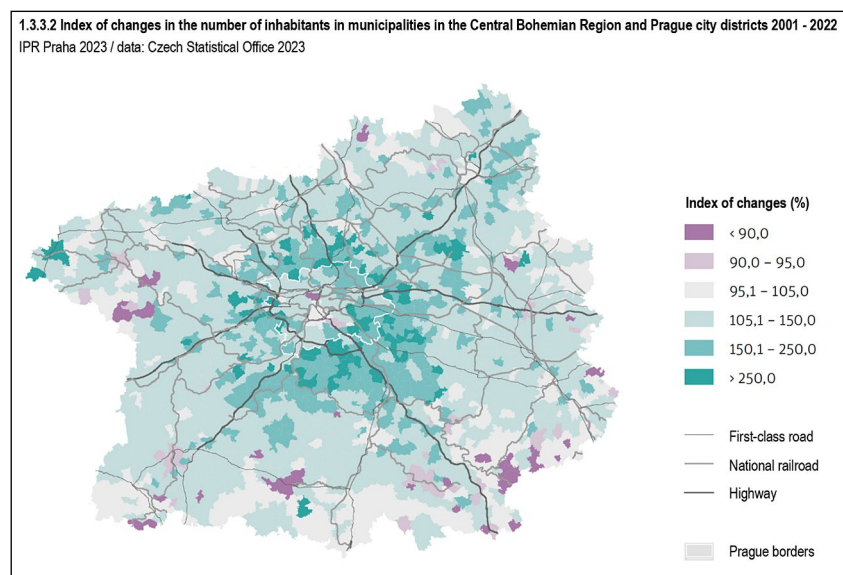


Fig. 1: Index of population change in municipalities in the Central Bohemian Region, Prague, and Prague city districts between 2001 and 2022

<sup>1</sup> Český překlad článku je uveřejněn na webových stránkách časopisu.

cuments in the Czech Republic, such as the Principles of Urban Policy of the Czech Republic, where one of the priorities is "polycentric settlement development and compact short-distance cities" [MMR, 2023]. The Strategic Plan of the City of Prague has also adopted the goal of "developing a compact city in accordance with the principles of a city of short distances" [IPR Praha, 2024].

Sociological research shows a clear preference among Czechs for living in a house with a garden, which is preferred by 80% of Czechs [NMS Market Research, 2023]. This is also related to the preference for living in the suburbs, suburbias, or villages near the city, which 42% of Czechs consider to be the ideal place to live [NMS Market Research, 2023]. As a result of this development and the existing structure of cities and their surroundings, the development of key principles for the transformation of suburban areas also plays an important role in sustainable development. Is it possible to establish these principles in accordance with the theory of the city of short distances?

In this article, we build on studies that emphasize the polycentric structure of urban metropolises and the arbitrary boundary between city and suburb [Dembski, 2021], which is becoming irrelevant in post-suburban development [Phelps, 2011].

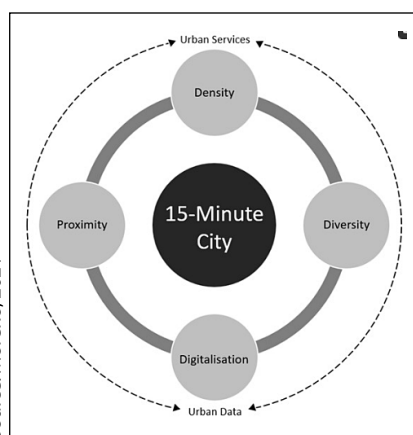


Fig. 2: 15-minute city framework identifies four dimensions after observing the challenges of COVID-19 pandemic. Density is seen as crucial dimension of the city and its built environment, and it has a direct link to travel and diversity dimension

## A City of Short Distances and Extended Concepts

For the purposes of this article, a city of short distances can be defined as an urban environment with a relatively high density of buildings and a high degree of diversity in land use, where public spaces are designed for all modes of transport with an emphasis on walking and public transport, and where it is possible to make most daily journeys on foot or by bicycle [Moreno, 2021].

The concept of urban proximity has been present in urban planning since the 1970s, following Jane Jacobs' criticism of modernist urban planning [Jacobs, 1961]. It was further developed by William H. Whyte [1980] and Jan Gehl [2000], and the New Urbanism Movement (CNU), but it gained most popularity and wider recognition after the COVID-19 pandemic thanks to Carlos Moreno, an urban planner and professor at the Sorbonne University in Paris. His theory is based on time-based urbanism (chrono-urbanism), where residents should be able to access all their basic needs within 15 minutes by bike or on foot. He lists the following six basic urban social needs for a decent life: 1) housing, 2) work, 3) shopping, 4) healthcare, 5) education, and 6) entertainment. Moreno suggests that greater proximity to destinations and social interaction between people will lead to better communities and a better quality of life (Fig. 2). At the same time, this will support local culture and identity [Moreno, 2021; Pozoukidou, 2021].

Less discussed in the Czech professional community is Moreno's additional concept for areas with lower population density than cities, known as 30-minute territories. The concept of 30-minute territories is basically the same as that of 15-minute cities, but its implementation differs in that 30-minute territories must also include other types of mobility besides walking and cycling. These types of mobility can consist of shared micromobility. According to Carlos Moreno, this model makes it possible to implement the concept of developing areas on a human scale even in very small towns and in rural areas [OECD, 2025].

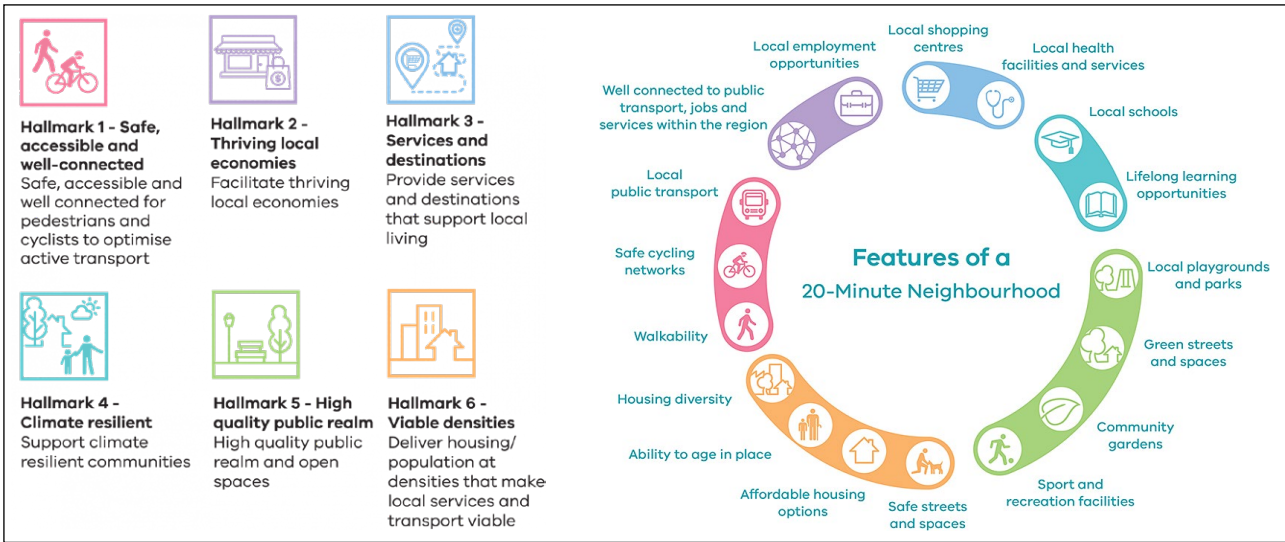
According to authors Newman and Kenworthy [1989], there are three threshold values: a density of less than 30 inhabitants per hectare (further used as inh./ha) means dependence on the car as the only form of transport. The minimum density for effective public transport was established as 50 inh./ha, and pedestrian connections associated with a city of short distances begin to appear at a density of at least 100 inh./ha [Newman, 1989]. A density of 100 inh./ha can be achieved with terraced houses (in American English, the term "row houses" is used), houses with their private gardens, which is still considered low-density residential development. The findings on threshold values were also supported by Czech research "Hustota a ekonomika měst" ("Urban density and economics"), which compared the costs of different urban structures [Hudeček, 2018]. Urban economist Vít Zeman recommends a density of at least 50 inh./ha for residential neighborhoods of low-density housing [Zeman, 2023].

However, the concepts of 15- to 30-minute areas require greater attention to be paid to the actual needs of residents, their life experiences, neighborhood characteristics, and socioeconomic parameters. The implementation of x-minute areas will mean "planning the possible in the context of the existing" [Calafiore, 2022].

While theoretical concepts were derived from academic databases, examples of implemented proximity concepts (urban strategies) were identified through a web-based search. Inquiries used specific keywords and their combination, such as "suburban", "low-density", "fringes", "metropolitan", "proximity-based", "city of short distances", "urbanism", "spatial planning", "urban strategy". From the initial search results, documents were screened to retain only those containing specific interventions for low-density suburban districts.

## Plan Melbourne 2017–2050 (The State of Victoria Department of Environment, Land, Water and Planning)

Melbourne is one of the cities that has adapted its planning policies to the concept of a 15-minute city, but has



Source: DELWP, 2019

Fig. 3: Features and hallmarks of a 20-minute neighborhood according to Plan Melbourne

also extended them to manage the growth of its suburbs as 20-minute neighborhoods [DELWP, 2019]. It emphasizes consolidated growth directed toward existing built-up areas without further spreading settlements into the countryside (Urban Growth Boundary). Densification is directed particularly toward areas with high housing demand and proximity to active centers and transport hubs. The plan works with three levels of suburbs – inner, middle, and outer – all of which should offer compact, walkable neighborhoods linked by a network of main and neighborhood activity centers of varying sizes, roles, and functions depending on their location in the overall hierarchy. The guidelines also support the planning of local jobs, quality pedestrian and bicycle paths, and public transport-oriented development. One of the principles is the densification of middle

and outer suburbs through the development of so-called gray areas, which means replacing detached single-family homes with multi-generational or even multi-functional buildings after they become obsolete [DELWP, 2019] (Fig. 3).

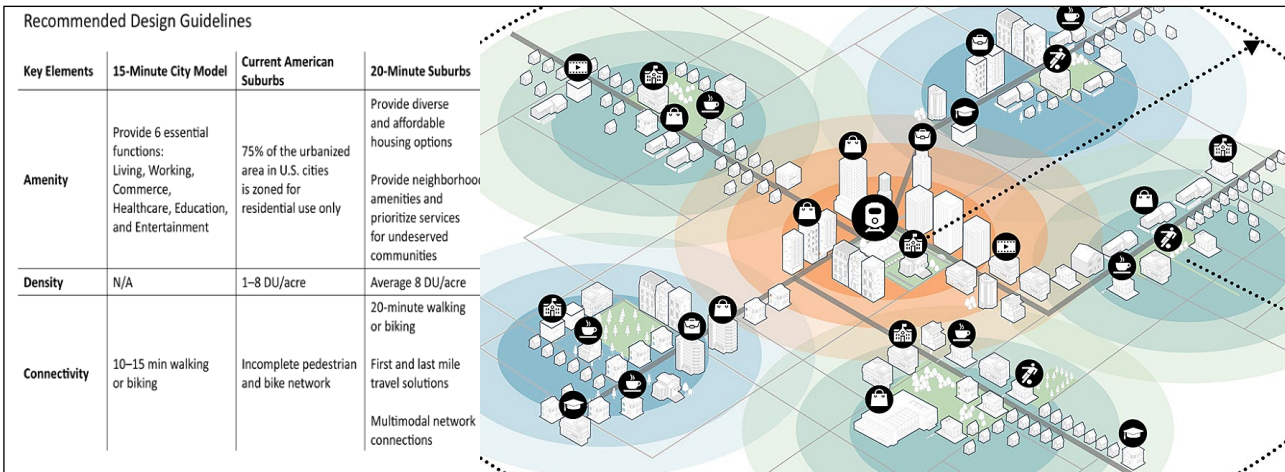
**20-Minute Suburb – A Planning Framework for Connected Communities** (Skidmore, Owings & Merrill)

The concept approaches the transformation of American suburbs as a long-term process that will require consensus-building involving many stakeholders, including representatives of citizen communities. It provides an overview of new demographic trends within the suburban population and looks at three different types of suburban areas: mixed-income suburbs, mar-

ginal/underserved suburbs, and local community centers [Lou, 2023].

The concept defines density according to the number of dwelling units (DU) per given area – acre (residential density). There is no exact calculation, but according to conversions in the publication, 1 DU/acre = 2.5 inh./ha can be considered. That would mean that suggested population density for a functioning 20-minute suburb is 50 inh./ha.

In the context of each typology and specific community, this concept proposes measures based on three fundamental elements that should make up livable places: amenities (scaled), density (especially in key locations to maintain amenities), and connectivity (20-minute accessibility, the need for connected and high-quality networks for pedestrians and cyclists) (Fig. 4).



Source: Skidmore, Owings & Merrill, www.som.com

Fig. 4: New concept of 20-minute suburbs. It proposes interventions according to three main elements: amenity, density and connectivity

Several proposed strategies are dedicated to increasing population density: eliminate exclusive/single-family zoning; introduce flexible zoning that allows for the construction of multi-family apartment buildings; Simplify ADU<sup>2</sup> legislation; encourage land division and increase height limits; simplify or eliminate parking requirements in single-family residential zones [Lou, 2023].

**Vancouver Plan 2050  
(The City of Vancouver)**

The objective of this long-term spatial development plan for Vancouver for the next 30 years is to create complete, connected neighborhoods using the 15-minute city principle. The plan works with different types of neighborhoods, such as rapid transit areas, neighborhood centers, and villages, for which different strategies apply. However, the term "village" is misleading because it refers to low-density suburban neigh-

borhoods that lack public transportation and services.

For low-density areas, the plan proposes densification and diversification of housing typologies. Therefore, the plan proposes adding so-called medium-density development around neighborhood centers and in areas with high-quality public transportation. Medium-density development, as explained in the plan, includes typologies related to gardens, such as multiplexes and terraced houses, as well as low-rise apartment buildings, or even mixed-use developments [The City of Vancouver, 2022] (Fig. 5).

**Proximities – PROMoting accessible services, livable spaces and sustainable connections in peripheral urban territories (Interreg)**

Eight European locations (Reggio Emilia, Italy – Lead Partner; Manresa, Spain;

Veszprém, Hungary; Varberg, Sweden; Centar Sarajevo, Bosnia and Herzegovina; Riga Planning Region, Latvia; Southern Regional Assembly, Ireland; South-West Oltenia, Romania) are collaborating on the Proximities initiative, which aims to improve the implementation of short-distance concepts in peripheral locations. It examines peripheral urbanized areas at different territorial levels (urban/regional) and in different dimensions (social, economic, environmental) and seeks common public approaches to neighborhood renewal as centers that are based on people and specific contexts.

The project is built on several main pillars: local services in peripheral areas that serve as multifunctional actors strengthening the local community; improving the social dimension of soft mobility, i.e., walking and cycling, and sustainable solutions to improve connections between central and peripheral areas [Interreg, 2025].



Source: The City of Vancouver, 2022

Fig. 5: Implementation plan according to Vancouver Plan point out missing middle/small-scale multi-unit housing zoning

**Densification**

A review of several strategies expanding the concept of the 15-minute city shows that the goals and principles of peripheral area development are consistent and somewhat repetitive. In all cases, the authors assume that a certain population density is necessary to ensure the viability of local shops, public transport, and services. This suggests promoting the gradual redevelopment of peripheral areas of cities by increasing building density, expanding housing typology, and introducing mixed-use areas could be an effective strategy for their sustainable transformation [Markuske, 2024].

Densification is seen as a positive solution in urban planning and policy because it is also expected to prevent urban sprawl, protect open spaces, and enable more sustainable forms of transport [ESPON, 2020], thereby directly contributing to the UN Sustainable Development Goals [UNECE, 2015] in terms of reducing land consumption. How-

<sup>2</sup> ADU = Accessory Dwelling Units are increasingly accepted in the US as a solution for increasing population density in single-family home zones. These are smaller accessory buildings on already developed private plots that are used for housing but also for work (granny flats, backyard cottages, in-law suites, rental units, etc.). To illustrate the volume, across the state of California, there was an elevenfold increase in permit applications between 2017 and 2019.

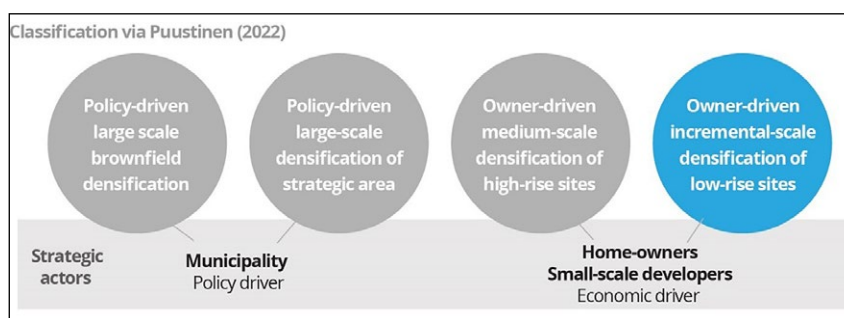
ever, it is necessary to define a method of densification that is suitable for areas with low population density without disrupting the quality of the neighborhood and the environment for residents [Mouratidis, 2020; Teller, 2021].

Densification can be categorized into two main trends, in basic terminology hard and soft densification. Hard densification consists of large-scale densification strategies managed by authorities in accordance with a given policy, and results in major changes to the built environment. Soft densification describes small-scale densification strategies that are managed by property owners primarily for economic reasons [Puustinen, 2022] (Fig. 6).

The term "soft densification" (or "incremental densification", "gentle densification") was introduced in European countries to describe the gradual increase in density that occurs on private land and is initiated primarily by the residents themselves. Soft densification includes a wide range of modifications to existing buildings – renovations, subdivision of houses or land, extensions, conversions, and small infill houses – all with the aim of increasing residential capacity (and, where appropriate, commercial capacity for small businesses that do not disturb the peace) in a built-up area. Some European countries already have experience with regulating and using planned soft densification to achieve sustainable goals, but setting up these policies and processes correctly is a complex and long-term issue because it works with owner-occupied sites and private property [Bouwmeester, 2023; Dunning, 2020].

The modes of emergence on the part of owners may be:

a. **Multigenerational living**, a common motivation, related to the housing affordability crisis (so-called boomerang kids), when original owners (usually parents) remain in the house but reduce their living space (for example by moving to the barrier-free ground floor) in order to make room for next generation of the same family. The positive aspects of this solution are mutual assistance and keeping the property "in the family".



Source: Author

Fig. 6: Basic classification of densification strategies and their initiating actors via Puustinen et al., 2022

b. **Passive income housing** (renting out part of the house) – model where owners remain in the house but separate and rent the unused parts. Motivation is mostly economical – income supplement, reduce energy costs, financing the necessary reconstruction... But can also be social – increase sense of security, help with maintenance (in Germany and France, there are specific agencies providing so-called "Housing for help")

c. **Co-ownership** (purchase and transformation "from the outside") – situation applies when a family home is offered for sale but is too large or expensive for one family. The solution is joint purchase by several owners (usually two families) and subsequent construction to divide and define the residential units and plot of land. This allows people to live in locations that would be financially unaffordable for a single family. At the same time, it helps municipalities by bringing new, often younger residents to the existing sites and renovating them.

d. **Small development** (densification by developers) – although soft densification is mostly led by private property owners, it is necessary to mention the possibility of densification by small developers. They identify land with underutilized potential, whether it consists of large gardens that can be divided and used to build a second house, or houses that can be expanded and subsequently divided into multiple residential units [Zimmermann, 2025; Ehrhardt, 2025; Dvořáková, 2021; Beyeler, 2014; Beyeler, 2010].

In many cases, the interests of individuals (the need for renovation, increasing property value) can go hand in hand

with the interests of local government (renovation of existing housing stock, diversified supply of individual housing without expanding the urban area). The motivation for steering development into developed areas may be the initiative No net land take by European Commission, that has called for "zero net land take" by 2050. This target means that land take must be prevented, minimized, and compensated for [ESPON, 2024].

Despite often being dismissed as marginal, soft densification can collectively lead to significant urban change. For illustration – 32% of construction (over 1 million m<sup>3</sup> of built-up volume) within the city limits of the Dortmund metropolitan area between 2011 and 2021 was caused by soft densification on behalf of private owners [Ehrhardt, 2025]; 17.1% of all newly built housing units in England between 2001 and 2011 were created through soft densification [Bibby, 2020]; and in Los Angeles, the number of ADU permits increased from 71 to 6 747 between 2014 and 2019 [Lou, 2023].

In the Czech Republic, the debate on extending the concept of the city of short distances to peripheral areas – suburbs – is in its very beginning. One of the fundamental questions for its implementation is the possibility of increasing population density so that the introduction of public amenities is demographically and economically viable. Since this involves the densification of mostly private and already developed plots, soft densification can be considered. These are stabilized areas, so achieving their potential corresponds to the parameters of the plots and regulations set out in municipal zoning plans. Is it

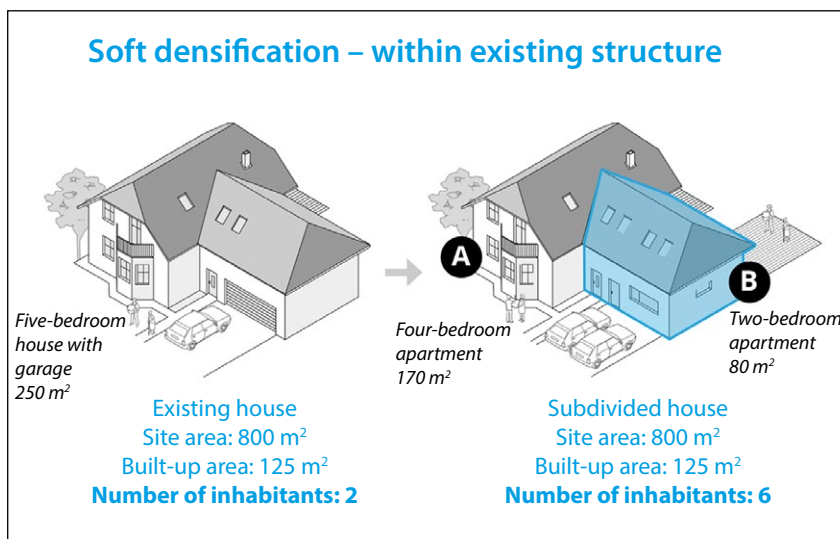


Fig. 7: Higher densities can be achieved without additional built-up volume, simply by filling the capacity of the structure or conversion

possible to achieve sufficient population density for amenities to function without changing the zoning plans?

## Methodology

Chosen method for empirical part of this paper is spatial analysis of reserves for soft densification. Forty colonies in suburban municipalities in the Central Bohemian Region were selected for GIS analysis, based on a list of municipalities most affected by the suburbanization process (zone 1), defined by dynamic housing construction and high immigration intensity from the core city of Prague [Ouředníček, 2018]. Morphologically, these are colonies of detached houses connected to built-up areas and separate colonies of detached houses [Ouředníček, 2006a], with the travel time to the main core of suburbaniza-

tion – Prague – set at 45 minutes [Ryšavý, 1994]. The analyzed colonies were completed between 2000 and 2009, which relates to the Gradation of Suburbanization phase [2002–2006], when, as a result of the widespread availability of mortgages, there was the largest increase in completed houses in larger and smaller municipalities around Prague [Ouředníček, 2006b]. Geographic data from State Administration of Land Surveying and Cadastre, Czech Statistical Office, and Ministry of Regional Development were used as input data. A total of 3 651 developed plots with detached family houses were analyzed from municipalities: Březová u Zvole, Čakovičky, Čtyřkoly, Dolní Břežany, Dolní Jirčany, Herink, Jesenice, Jíloviště, Jirny, Kamýk u Velkých Přílep, Kojetice, Líbeznice, Měšice, Mratín, Mukařov u Říčán, Nová Ves pod Pleší, Nučice u Rudné, Okrouhlo, Průhonice,

Příšimasy, Ptice, Svárov, Roztoky, Říčany, Řitka, Sibiřina, Srbín, Statenice, Svinaře, Svojetice, Šestajovice, Těptín, Veleň, Vestec, Všestary u Říčán, Zdiby, Zeleneč, Zlončice, Žalov. The analysis works with three basic spatial types of soft densification interventions:

- 1) Increasing the residential capacity within the **existing** house volume without affecting the built-up area of the land or height regulations – this category includes both vertical or horizontal division of the house and conversion of non-residential space – typically attics or garages. For the house to remain in the family housing category, it can be divided into a maximum of three residential units (Fig. 7).
- 2) House **transformation** – this includes extensions and additions, the former requiring a space reserve on the plot (min. 20 m<sup>2</sup>), the latter without the space reserve requirement, but with the requirement for zoning regulations allowing higher buildings (the space regulation is often set at one above-ground floor and a residential attic, so even allowing for two full above-ground floors would affect the possibilities for densification).
- 3) **Infill** house, spatial type where a second housing unit is built on an already developed plot of land – czech legislation essentially recognizes only one option in this case, and that is the construction of a simple residential building limited to one above-ground floor and area of 80 m<sup>2</sup> ("výměnek") – can be described as the American equivalent ADU ("additional dwelling unit").

To calculate population density, the area of private plots was calculated with a 20% increase (Fig. 8), which corresponds to the share of public spaces of this urban structure according to the book *Hustota a ekonomika měst* [Hudeček, 2018]. This was chosen because of the very specific polygons with construction from a given time period, where the selection of actual public spaces could distort the subsequent calculations.

The following assumptions were made when modeling the potential for filling the existing structure's capaci-

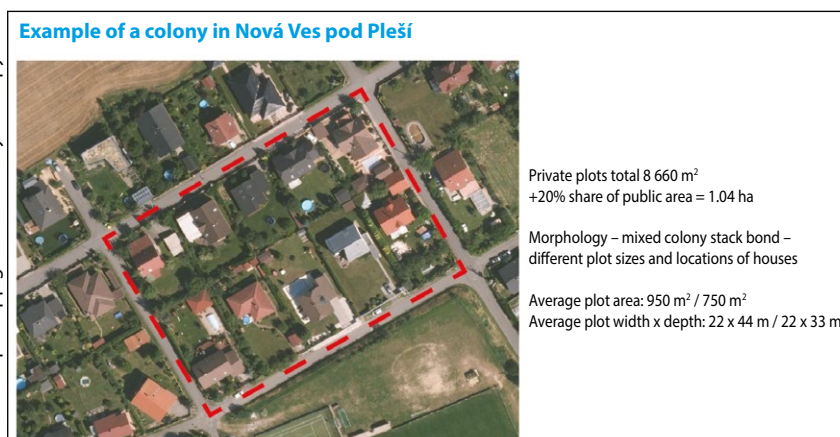


Fig. 8: A sample of one specific colony in analyzed municipality Nová Ves pod Pleší

ty: the average living space per occupied apartment in the Czech Republic was 65.3 m<sup>2</sup>, of which 52.6 m<sup>2</sup> was in apartment buildings and 80.9 m<sup>2</sup> was in family homes [MMR, 2019]. Given the average occupancy of apartments, which is 2.3 persons [Eurostat, 2025], we reach an average value of 35.2 m<sup>2</sup> of apartment space per person, which is calculated as the specific value for capacity fulfillment (Fig. 9).

The second step was to model the potential for transforming the structures, specifically extensions, to a maximum of 20% of the built-up area, so that 10% of the built-up area could be devoted to additional structures such as a swimming pools, pergolas, etc. (built-up ratio of 30% was permitted in most of analyzed municipal zoning plans). Within the spare meters, an extension on two floors was calculated (two usable floors are also the predominant number of floors in this housing sample) (Fig. 10). The method does not address the modelling of vertical additions that are dependent on height restrictions.

The third step was to determine the potential of small infill houses ("výměňky"), which were defined according to the New building act (No. 283/2021 Coll., Ministry for Regional Development of the Czech Republic) as simple structures for housing with a built-up area of up to 80 m<sup>2</sup> and a height of up to 5 m with a maximum of one above-ground floor, on the land of a family house, which is functionally connected to the family house. This means identifying contiguous areas of at least 100 m<sup>2</sup> that do not exceed the maximum build-up limit of 30% (Fig. 11). Small infill house is perceived as a single dwelling unit, so the calculation works with 2.3 inhabitants as the Czech average household occupancy.

All calculations used a coefficient of 0.8 for flexibility in apartment size and gaps in permanent residence reporting.

## Results

A basic analysis of plot sizes and current building density showed the expected correlation, with larger plots meaning lower population density (Table 1). The

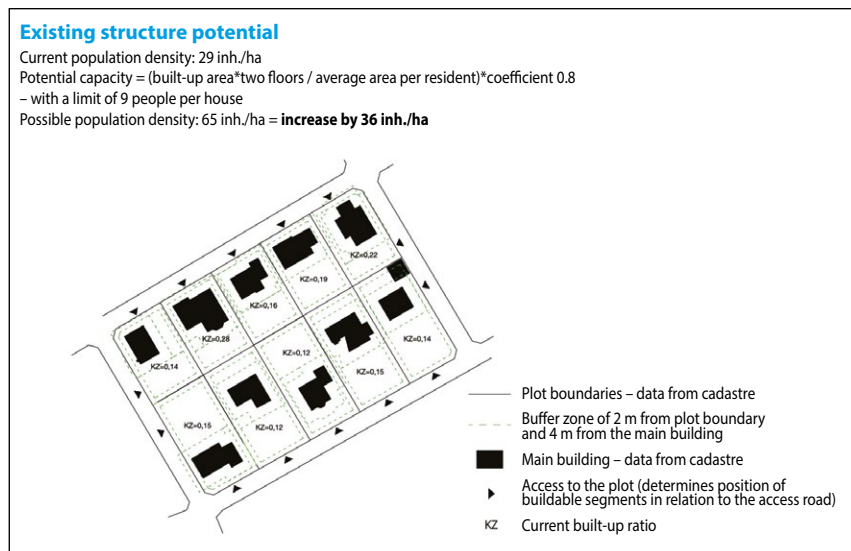


Fig. 9: Sample of capacity potential calculation for existing spatial type (conversion, subdivision)

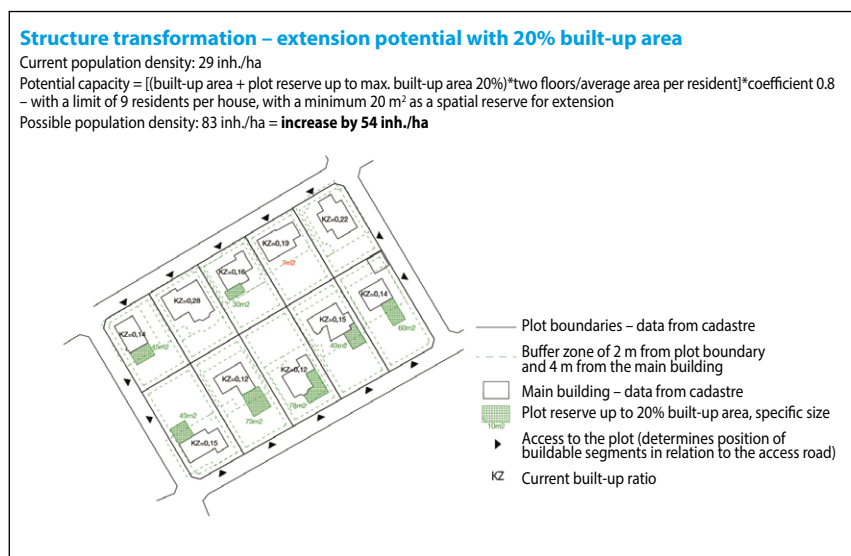


Fig. 10: Sample of capacity potential calculation for transformation spatial type (extension)

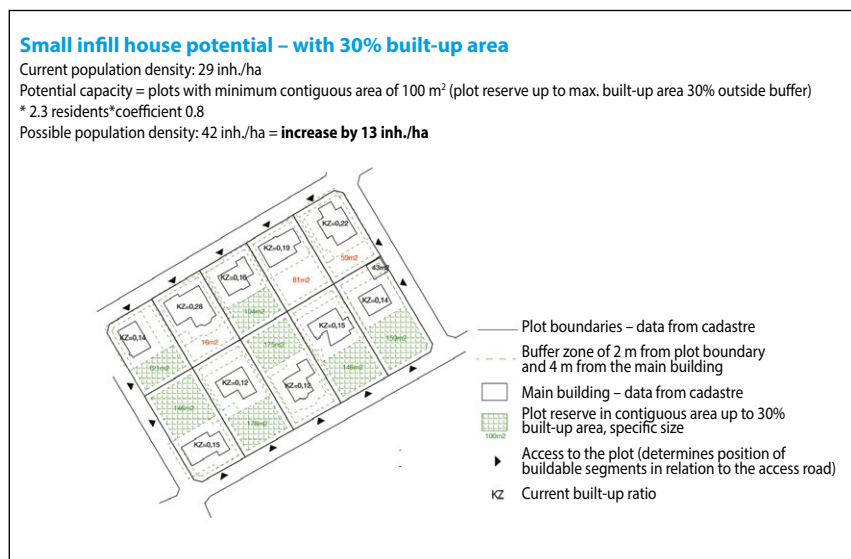


Figure 11: A sample of potential capacity calculation for small infill houses

Source: Author

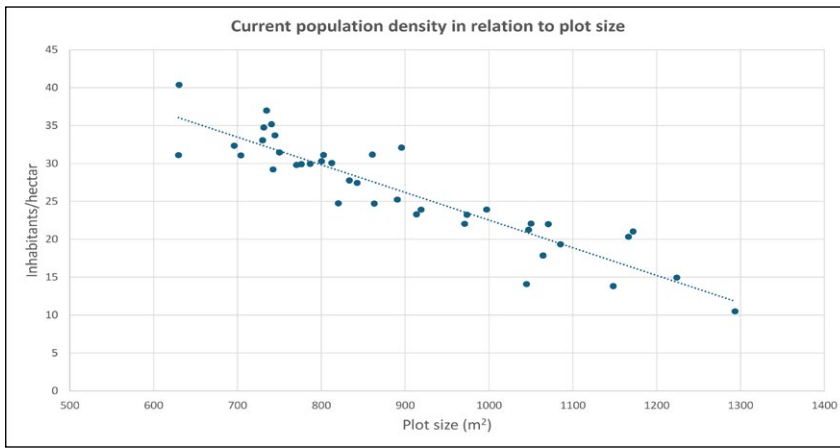


Table 1: An illustration of the correlation between plot size and population density in the analyzed suburbs

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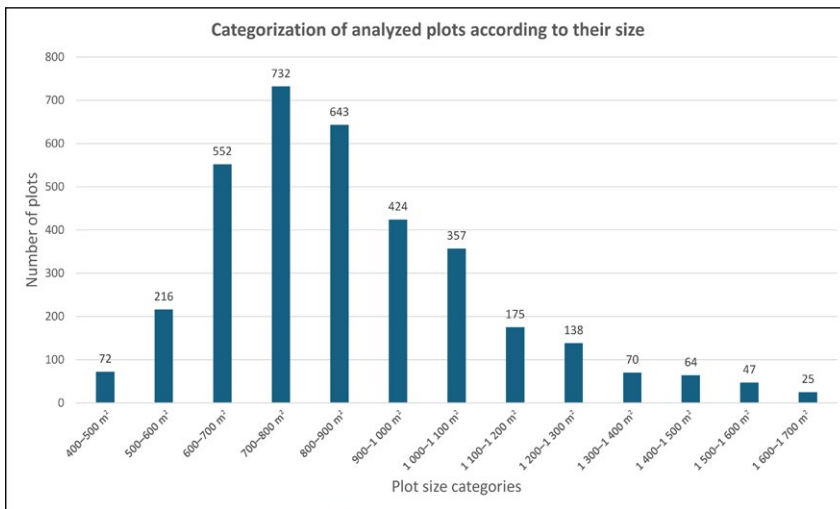


Table 2: An overview of the analyzed plots shows the most common plot size is 600–900 m<sup>2</sup>

most common plot size is between 600 and 900 m<sup>2</sup> (Table 2). Unfortunately, even in newly processed zoning plans, there is a requirement for a minimum plot size of 900 m<sup>2</sup> or more, which significantly affects population density. According to data from the 2021 census, the average occupancy of family houses in the areas surveyed was 2.8 inha-

bitants per plot, although it should be noted that only residents registered for permanent residence are included in this calculation.

The average achievable density was 76 inh./ha (Table 3), but in each of the suburbs, the achievable values and distribution within each type of soft densi-

Source: Author

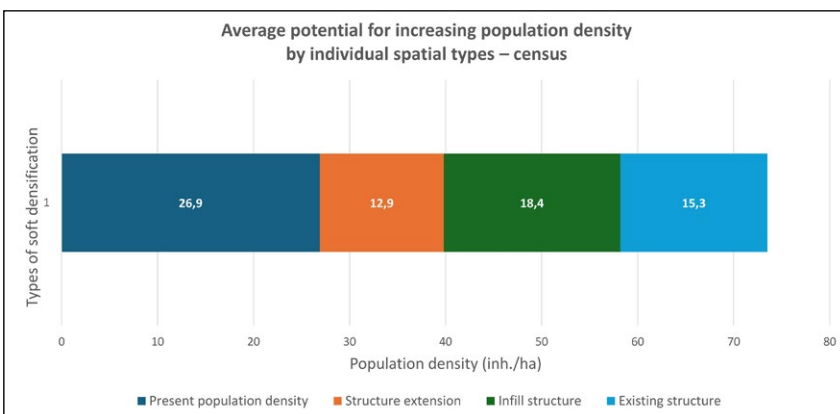


Table 3: Average values of potential density increase added up to a total of 76 inh./ha

fication vary considerably (Table 4). This confirms that the existing morphology influences the possibilities for densification and must be taken into account in future planning and policy decisions. The achievable value corresponds to the use of individual types of soft densification at 80%, i.e., in the case of an extension, this means 80% use of the maximum possible area of the extension for housing.

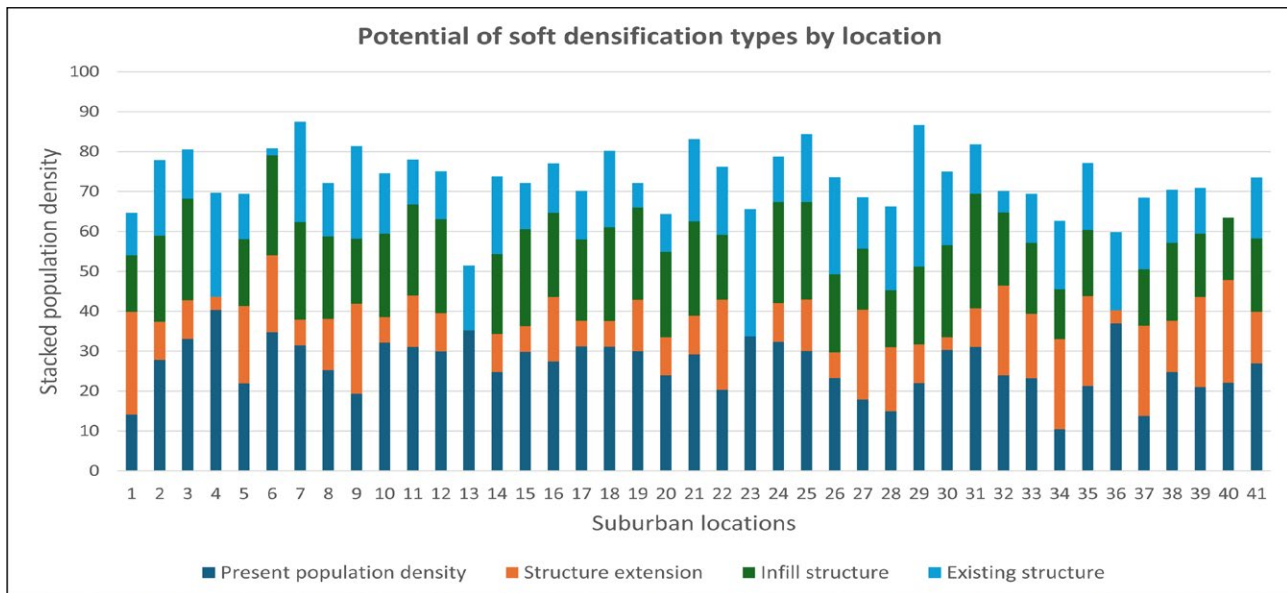
Filling the existing structure together with transformation using extensions to a total maximum of 20% of the built-up area proved to be a relatively effective strategy without significantly encroaching on the garden. This combination proved to be more effective than infill buildings, which involve more significant encroachment on the land (30% built-up area).

The width of the plot or its corner location proves to be a key parameter in determining the potential for densification due to access to roads and thus private access; in addition, these plots are often larger and therefore have greater potential for densification.

## Discussion

Results suggest that recommended value for density of 100 inh./ha associated with a city of short distances is unlikely to be achieved through soft densification without changing regulations in zoning plans that would allow for a higher built-up area, subdivision of plots, higher-rise buildings, or at least flat roofs. In addition, the model assumes a high percentage of participating private owners, which is not a realistic expectation.

The second threshold value of 50 inh./ha, which could mean better functioning public transport, and viability of basic services and shops in the municipality is more achievable with soft densification – even with lower engagement of private owners and without the need for major changes to the zoning plans. To enable this population density, municipalities can be advised to remove requirements for minimum building plot sizes. Municipalities still restrict the division of land into smaller units



Source: Author

Table 4: The densification potential varied among analyzed suburbs. Due to existing morphology, infill structure wasn't possible everywhere

and even use this regulation to limit the number of residential units in a house. This is a major limitation for soft densification. The second significant barrier is additional parking regulations, where the zoning plan sets requirements beyond the building code.

From the findings, it can be concluded that even with quite intensive use of soft densification, the values achieved are still within the range of low-rise residential development, and there is no cause for concern about changes in the character of the localities or sudden demands on technical and civic infrastructure. Future work should explore how these findings can be translated into spatial planning policies, for example how to identify locations suitable for densification and how to adjust the regulations. Further work should also involve surveying residents' interest in soft densification in relation to various life situations and exploring the other two pillars of the short-distance city model – diversity and proximity.

However, it is possible to achieve significant differences compared to the current densities and thus improve the income/cost ratio that burdens most municipalities. The greatest savings can be achieved by increasing the lowest densities, which also have the most significant environmental and social impact [Hudeček, 2018].

It would certainly be useful to address this issue in terms of governance and administrative boundaries as the aforementioned strategies are subject to the local government of the central city. On the contrary the Central Bohemian Region consists of more than 200 autonomous municipalities with independent spatial planning, which is not very well coordinated [Stanilov, 2014].

The article does not address the quality of interventions and the property rights relations, which are both fundamental elements for long-term conflict-free housing. The quality and careful planning of interventions influence the perception of density [Cooper Marcus, 1988], experience from Switzerland shows the importance of private access, and the overall self-sufficiency of residential units [Beyeler, 2014]. Follow-up research should focus on the qualitative parameters of interventions and property rights treatment in Czech context.

Although the paper focuses primarily on the potential for densification, even without reaching a density of 100 inh./ha, there are other urban strategies that can help transform peripheries into functional 30-minute territories. The reviewed concepts repeatedly highlighted the importance of connected, high-quality networks for pedestrians and cyclists, emergence of neighborhood centers providing local services, and creating local jobs.

## Conclusion

A summary of strategies shows that the topic of sustainable development through compact and proximity urban planning is not only the prerogative of cities, but is also being extended to peripheral areas and urban-rural areas. However, the article contributes to the discussion by stating that although these concepts are introduced top-down, in the case of suburbs, they must be implemented bottom-up. Soft densification is presented as a crucial strategy, emphasizing that the construction of a single-family home does not mark the end of its life cycle, but rather opens possibilities for future adaptation. The successful transformation of these localities is a collaborative endeavor involving policymakers, administrators, and citizens. While residents act as the active initiators of soft densification, their capacity to intervene is ultimately defined by the regulatory frameworks established by the municipality. Municipalities can use this information to limit or, conversely, promote soft densification, depending on where they want to be located in the hierarchy of polycentric structure in the future.

The assumption of broader implementation of soft densification may seem unlikely, given our more recent development of suburbs. However, we are witnessing this approach in the Western world. Given the current housing

affordability crisis, the climate crisis, and aging of the population, the issues of aging suburbanites and the associated downsizing, or the return of grown-up children with their families due to the problematic availability of apartments in the city, are already appearing in our context too and is likely to continue to.

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## ČESKÝ ABSTRAKT

### **Město krátkých vzdáleností, nebo předměstí s přijatelnou dostupností? Zkoumání potenciálu měkkého zahušťování v příměstských obcích Prahy, Jana Nádravská, David Tichý**

Přestože je koncept města krátkých vzdáleností strategií, kterou přijalo mnoho světových měst, objevují se pochybnosti o jeho praktické proveditelnosti ve městech s již existující rozvolněnou strukturou zástavby, tedy ve městech obklopených předměstími a satelitními obcemi s nízkou hustotou osídlení. Jednou z odpovědí je rozšíření konceptu 15minutového města a jeho úprava pro okrajové oblasti s nízkou hustotou osídlení. Tento článek představuje strategie a iniciativy, které navazují na koncepty městské dostupnosti a rozšiřují je do okrajových oblastí, a shrnuje jejich hlavní myšlenky. Jedním ze společných závěrů těchto strategií je nutnost zvýšení hustoty obyvatelstva v lokalitách s nízkou hustotou osídlení. Empirická část studie zkoumá potenciál zvyšování hustoty osídlení pomocí GIS analýzy v příměstských obcích Středočeského kraje. Analýza konkrétně modeluje dopady tzv. měkkého zahušťování – západoevropské strategie „zdola nahoru“, která spočívá v postupných změnách na soukromých pozemcích iniciovaných samotnými obyvateli.