# SOFT DENSIFICATION STRATEGIES FOR CZECH REPUBLIC SUBURBS

## **Introduction**

Growth of czech suburbs after 1990 can be described as a massive, unregulated and chaotic development of extensive and amorpheous settlements of individual family houses, characterised by low efficiency.

The fundamental problems of this type of development are:

- low or non-existent civic infrastructure,
- poor quality public spaces and the absence of public life (isolation of residents),
- dependance on individual car traffic traffic jams and parking issues in the inner city,
- excessive financial burden on municipalities and,
- above all, irreversible devastation of the landscape

**Public space?** 

Low density

Source: googlemaps.com

Source: googlemaps.com

#### 253m<sup>2</sup>, Price: 24 mil CZK



Source: Grandys Reality



## **Specifics**



#### Demand for suburban living is still ongoing!

The population forecast for the Prague suburban zone between 2022 and 2030 is 17,000 new inhabitants (*Burcin 2013*),

with an average household size of 2.15 persons, this requires 7,906 new dwellings. Is it possible to fit some of these dwellings into existing built environment?

#### Suburban population is ageing

In terms of the projected age composition of the population, by 2030 there will be almost 150,000 people of post-working age in the Prague suburban zone. (*Burcin 2013*)



#### There is not enough money

Municipal budgets are tight due to high infrastructure costs, so there is no money for big top-down developments. (Hudeček 2018)



#### **Private plots**

The land is divided into private plots, so no development is possible without the involvement of local residents.

## Sustainability point of view

"suburbanisation as a land-consuming phenomenon creating a socially, ecologically and economically imbalanced environment" (Geneva UN Charter on Sustainable Housing, 2015)



- Adaptation of existing buildings for resource efficiency,
- Making compact settlements with planned growth to prevent urban sprawl



- Increasing investment in sustainable housing, using more integrated urban development and regeneration with jobs and services spatially closer to residential areas
- Spatial planning, including policies leading to the efficient distribution of economic activity
  Provision of affordable housing and addressing urban sprawl.



- Increased involvement of civil society, access to basic technical infrastructure and services that promote social cohesion
- Increased availability of housing choice
   Promoting the application of universal design principles to increase the usability of homes for all people across generations and social groups



- Supporting the development of public spaces for cultural and social activities,
- Designing and actively maintaining residential areas of towns to improve people's emotional wellbeing, involving local communities in these processes.

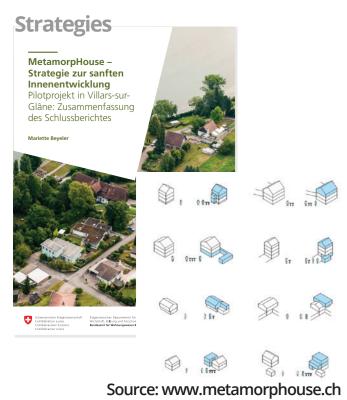


Main theme of this dissertation is to show that existing suburbs are not the final state of their development and to research suitable possibilities of their further development - renewal.

## **SOFT DENSIFICATION**

The term "soft densification" has become established in European countries to describe the incremental increase in density that occurs on private plots and is mostly initiated by private actors.

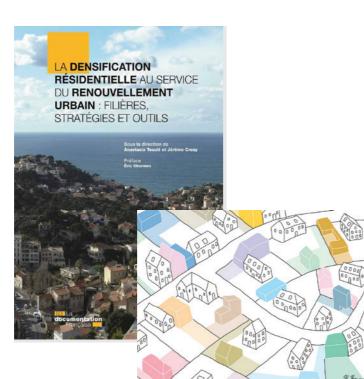
### **Review**



MétamorpHouse, Switzerland *Mariette Beyeler* 

**Projects** 

Even in places where there are no more building reserves, available areas can be redesigned in such a way that additional residential units can be added. In order to the concrete potential for internal development, MetamorpHouse supplements the survey of the building reserves.



Source: chroniques-architecture.com BIMBY Project, France Benoit Le Foll et David Miet

'Build In My Back Yard'. This research project, launched in 2009, aims to create a new sector of housing production capable of intervening in existing residential structures through land subdivision, extensions to existing houses or their redevelopment.

## Glossary

ADU - Additional Dwelling Unit (granny flat, backyard cottage)

**Subdivision** - plot or house division to create multiple dwelling units

**Extension** - vertical or horizontal - new room or space which is added to an existing building

**Excavation** - house extension to underground level

**Conversion** - change in use of a building constructed as a single family house - housing to mix-use, garage to housing

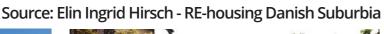
**Infill** - building within unused and underutilized lands within existing built environment - separate or connected to original house

**Post-suburbia** - enabling development within the suburbs, not simply the homogenous suburbanization of housing, but also a mix of uses, such as significant economic activities in the service sector

## Research question

How can specific characteristics of soft densification scenarios influence the local residents evaluation of soft densification?

How does the residents evaluation of soft densification scenarios varies by age of respondents?





The gouse - Marta Nowicka Garage conversion, London



Hasenboehler house, subdivision with extension, MétamorpHouse, Villars-sur-Glane

**Main Objectives** 

- to find a way to manage soft densification of czech suburbs by improving built environment and maximizing the benefits it might offer
- to identify motives of suburban residents towards soft densification opportunities, benefits, risks

## Method

Review of existing foreign soft densification strategies

Key elements of successful strategies? (Incentive, collective, regulatory)

Soft densification parameters applicable in Czech Republic

Typology of interventions, assesment by Czech regulatory documents

Scenarios of soft densification for specific locations

Selection of locations, cooperation with municipalities

Questionnaire design

**Evaluation** 

Cooperation with a behavioural scientist

1. Socio-demographic data

2. Residents evaluation of current housing situation

- importance of atributes

evaluation of atributes

 (privacy level, housing costs, accesibility of amenities, public transport)

3. Questions about their attitudes towards soft densification scenarios (behavioral analysis)

- combination of soft densification spatial typology x neighborhood attributes
- comparison and indication of preferred variable

