

# DE-GROWTH

Vision for city of Rotterdam beyond the pursuit of growth

# AND

MSc Urbanism - Graduation thesis 2016/2017

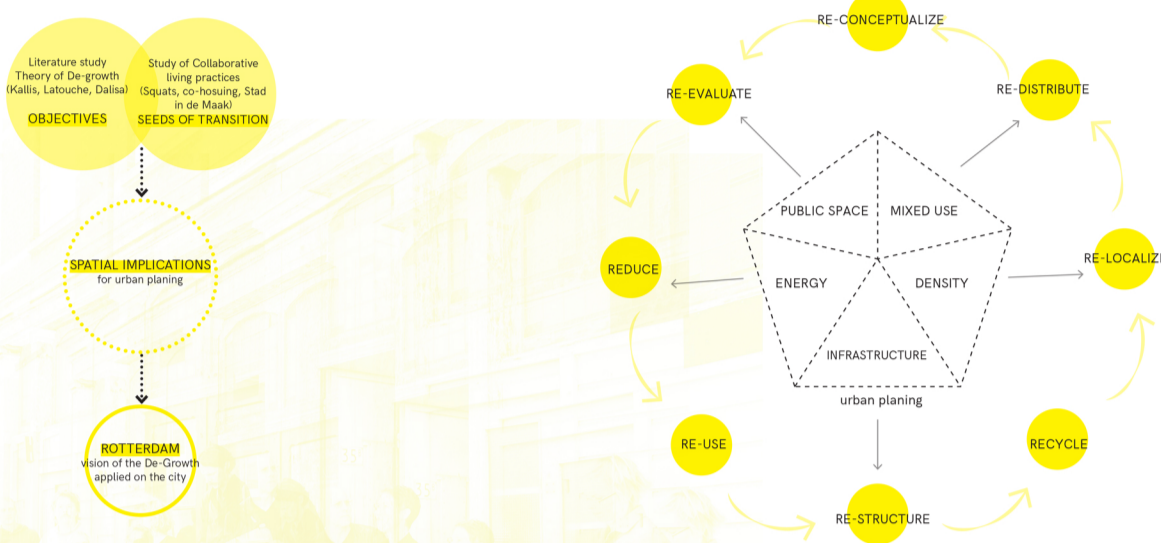
# THE CITY



**ABSTRACT**  
 What are the spatial implications of applying the De-growth principles in urban planning of the city of Rotterdam?

Bon dia! Overall, this thesis tries to examine in depth indications of the De-growth theory for urban planning and to draw spatial implications from that. The chosen case study is the city of Rotterdam, known for its growing harbour and top-down and growth based paradigm of urban development. The goal is to link economic and environmentally oriented theory of De-growth with urban planning via researching possible transformation solutions and optimizing them according to concrete locations.

SEARCHING FOR SPATIAL IMPLICATION OF DE-GROWTH

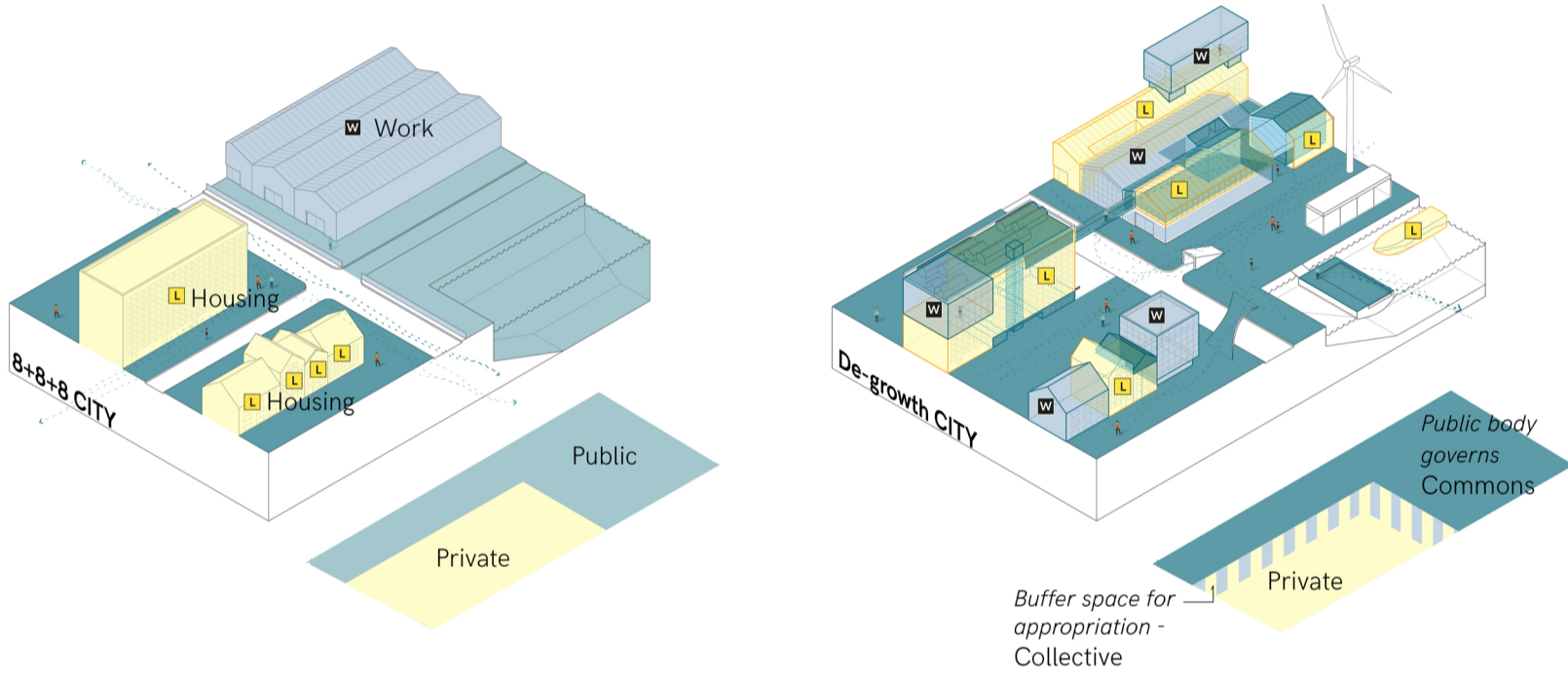


METHOD AND AIM

The thesis is motivated by the urgency of addressing the issue of infinite growth in a finite ecological system of planet Earth whose ecological system is becoming measurably overstressed by human activities (43% of planet's surface is covered with agriculture and cities). For this reason advocates of De-growth are calling for intentional redirection of our growth based economy towards one directed by environmental prosperity. The solution is seen in creating an open system in which social and especially economic prosperity are framed by environmental prosperity. In case of cities it implies that cities are open systems, dynamic more than efficient, that redirect benefits of social interaction to environmental prosperity instead of economic one. Existing numerous non-growth practices are already putting this urgency into action. The principles they are formed around result in conceptions that can be traced in space.

This analytical path I followed to established first set of conclusions about potentials of De-growth in space making. Combining literatures study with comparative example study basing principles are derived. Real challenge of research was to upscale these conclusions and to contextualize them in generic types of urban fabric. Test ground of the project is city of Rotterdam, known for its growing harbour and top-down and growth based paradigm of urban development. More specifically it is a strip of urban areas in contact zone between the city's housing areas and the harbour. Here the study of 7 types of urban fabric gave information on potentials for implementation based on state of amenities, economic and housing conditions, infrastructure and mobility. Combining analytical and design based methods conclusions are derived on two levels: governance and spatial morphology. This process did not draw blueprint for implementing De-growth but it set foundation and ceiling for how the language and some converging concepts (ie. Commons) can be implemented in general discourse of urban planning.

CONCLUSIONS ON ANALYSIS OF CAPACITIES OF URBAN FABRIC FOR TRANSITION



**Growth City**  
 Islands of urban types with distinct monofunctional use  
 Hierarchically organized public infrastructure

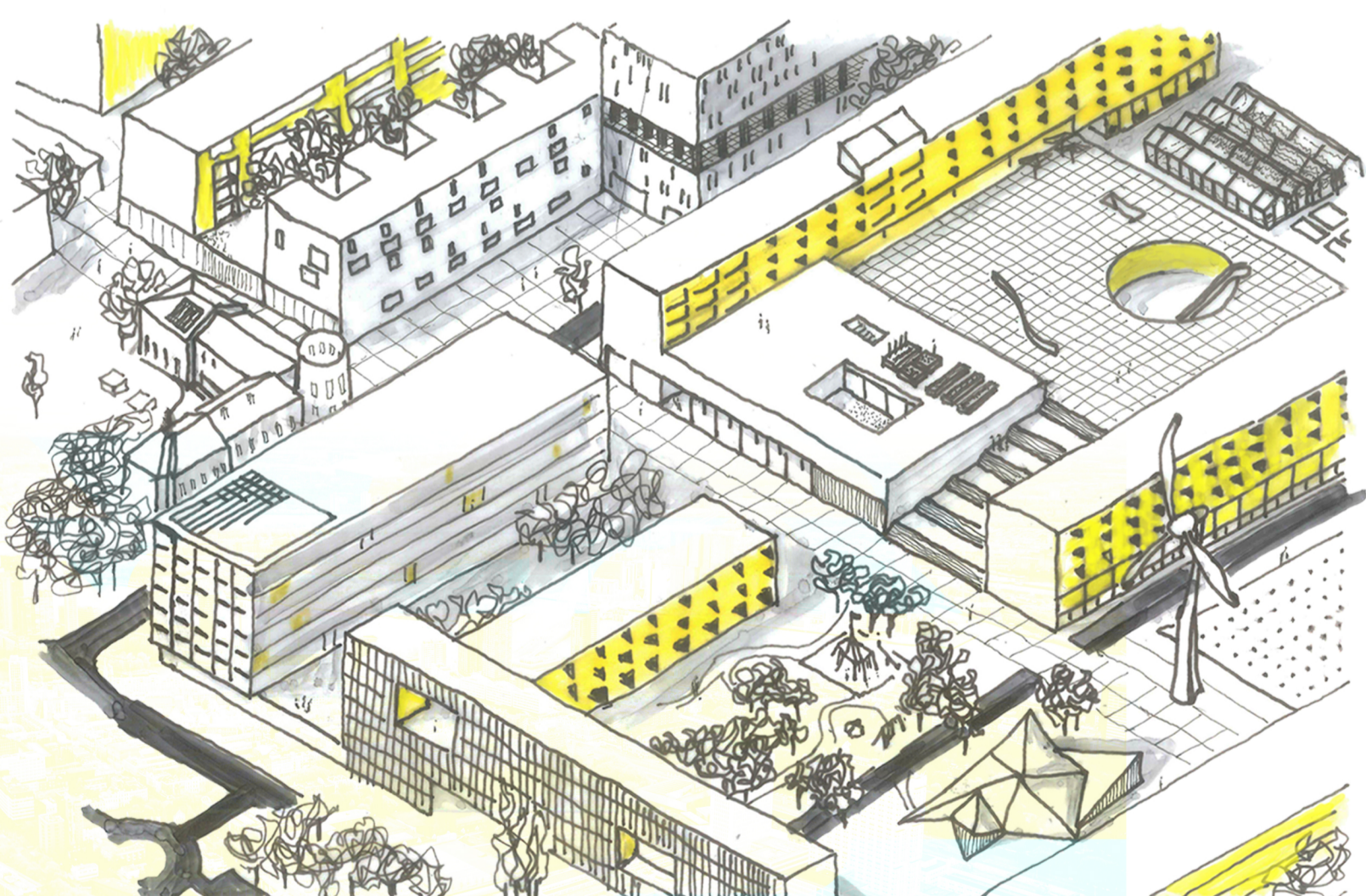
**De-growth city**  
 Interrelated patches of urban types with distinct substructure of functions  
 Polycentric system of locations of public interactions and commoning

CONCLUSIONS

The relation urgency-solution-space is enriched by few conclusions and here I find the most relevant contribution of my work so far. These conclusions derived from specific research and design method and they are opened for discussion amongst both urban planners and De-growth advocates:

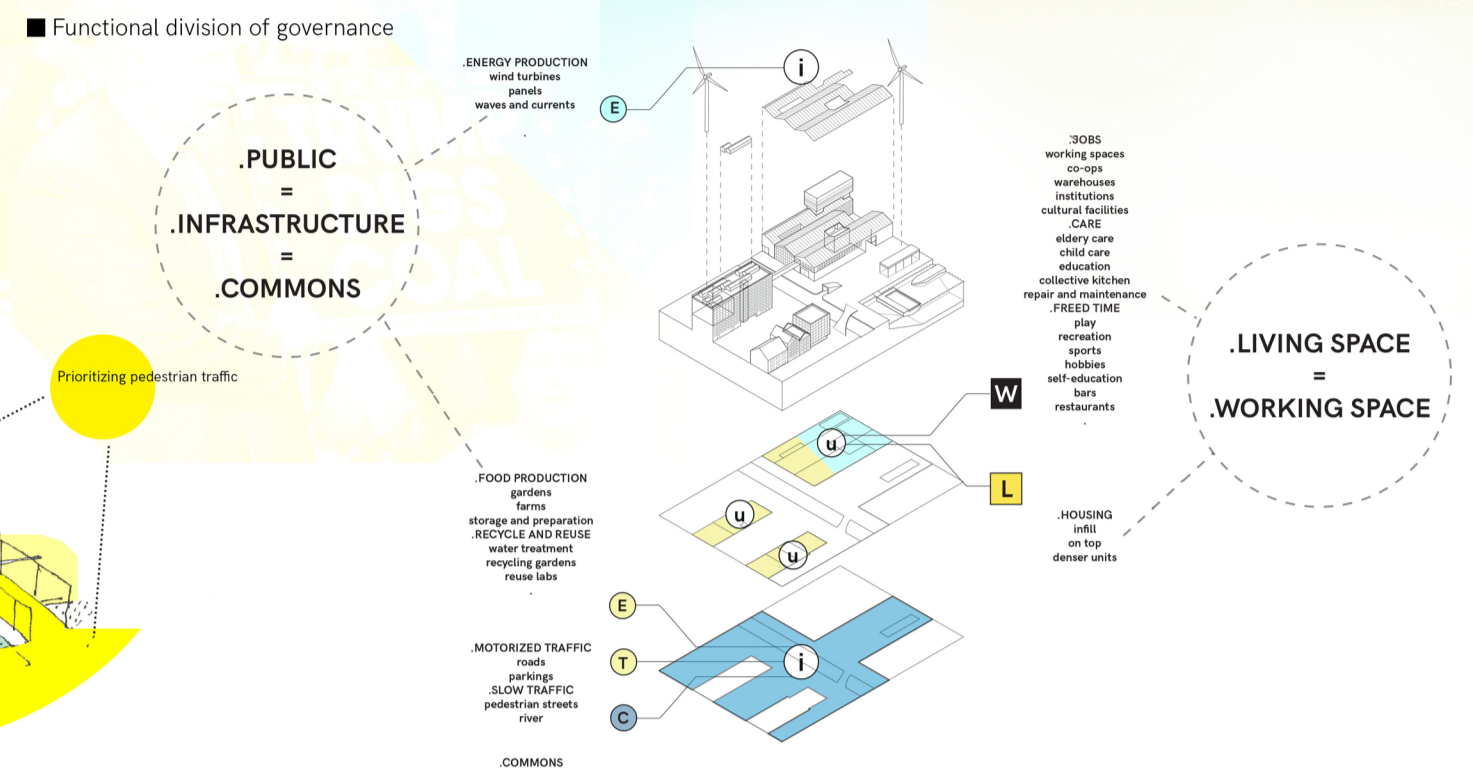
- a) Urban forms are primarily result of process strongly dependent on governance. In this sense De-growth should be designed process which includes restructuring the governance of the cities. The first aim is to go beyond small, local scale, spontaneous project towards occupying actual multi-scalar planning field with the urgency for transition towards De-growth
- b) De-growth is form of sensible densification. The terms under it should happen can be measured, transferable and planned.
- c) The capacity of urban fabric to contain tactics for transition of socio-economic relations depends heavily on paths and patterns of mobilisation in local and municipal level. For this reason it is important to draw clear distinction between spaces and flows governed and designed as common, collective or private.

MATERIALIZATION OF DE-GROWTH ON EXAMPLE OF PENDRECHT NEIGHBOURHOOD

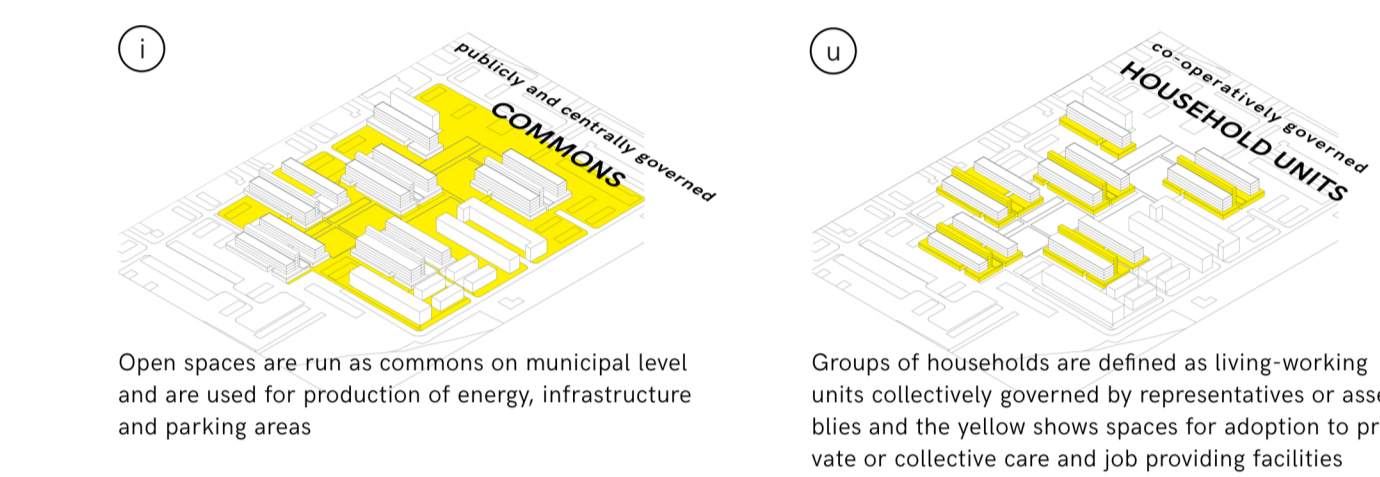


GOVERNANCE LEVEL

How to go beyond the folk politics of small spontaneous local and limited actions?



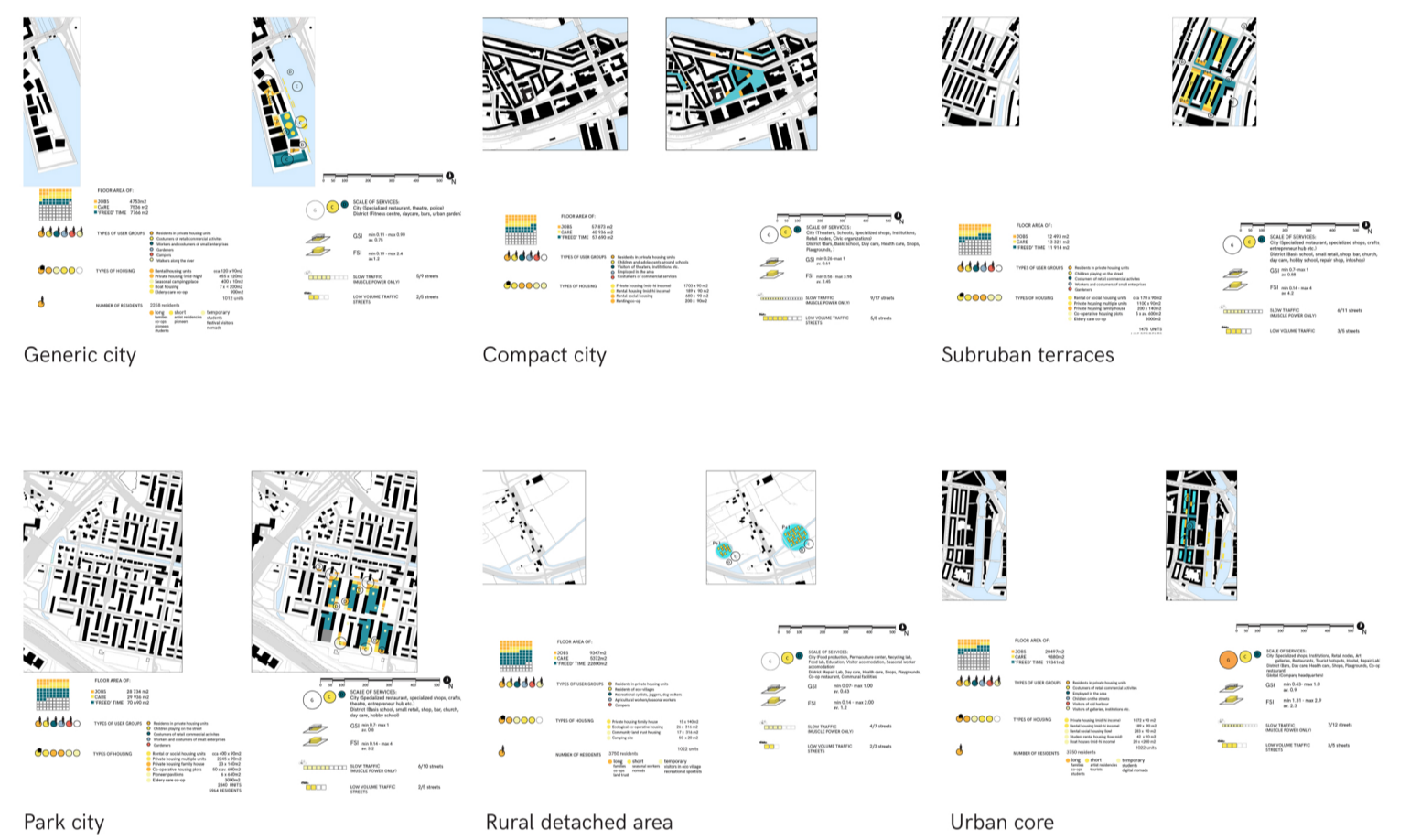
Implementation of commons and densification



URBAN LEVEL

What is capacity of existing urban morphology for achieving De-growth goals?

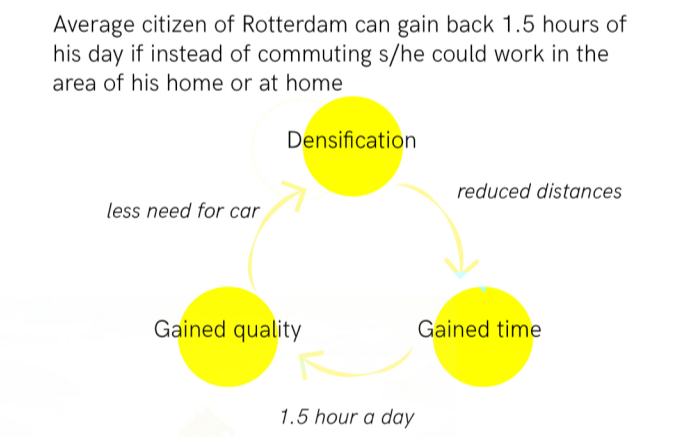
Analysis of urban types in Rotterdam and their capacity for De-growth strategy



Quantification of De-growth indicators

<b>PARKING PLACES</b> Existing 54000 reduced to 2480 (+8000 P+R)	<b>PRIVATE CARS</b> Existing 2150 reduced to 1100 per household: 0.4 cars	<b>PRIVATE SPACE PER PERSON</b> Existing 38.6 m <sup>2</sup> reduced to 22.5 m <sup>2</sup> or 4 persons per household	<b>CARE SPACE PER PERSON</b> Existing 2.7 m <sup>2</sup> increased to 9.9 m <sup>2</sup> or 30% of ground floor	<b>POPULATION</b> Existing 6127 increased to 10655 in 44 units of av. 200 citizens
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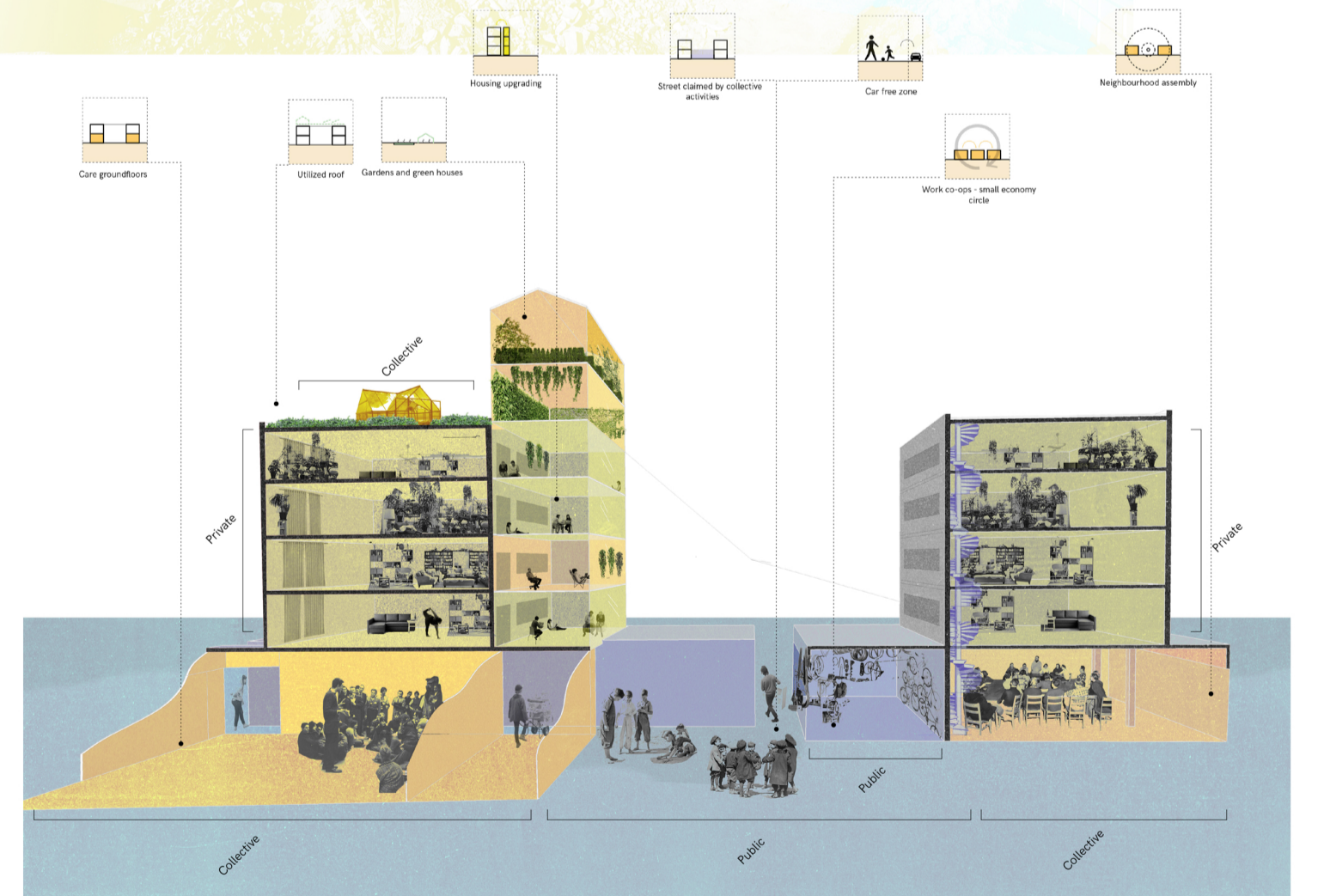
Example of benefits from De-growth for citizens



HOUSEHOLD LEVEL

What is materialization, aesthetics and limits of De-growth city?

Axonomy of household units



Examples of non-growth oriented spatial practices

