

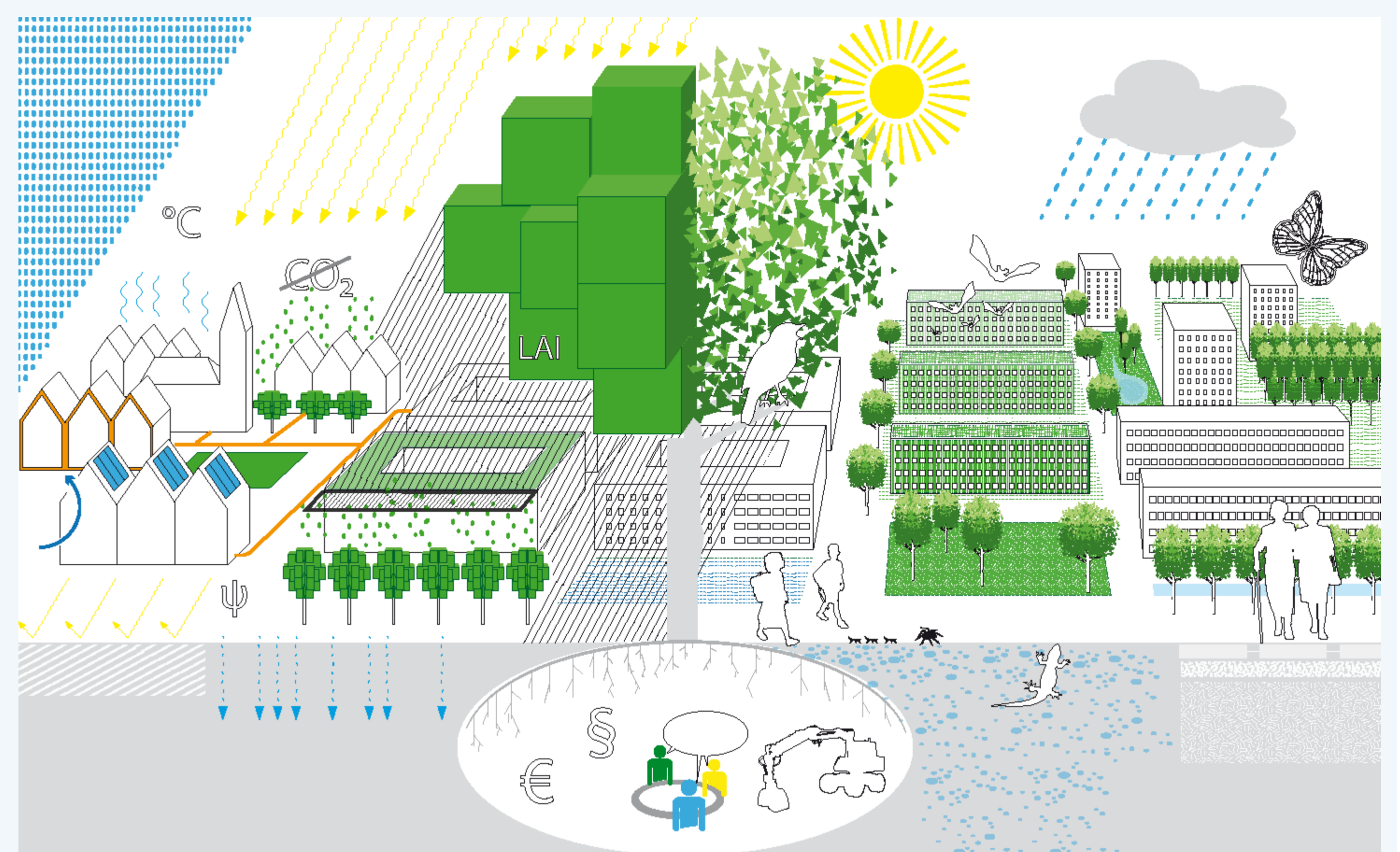
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# Green infrastructure strategies for climate change mitigation and adaptation

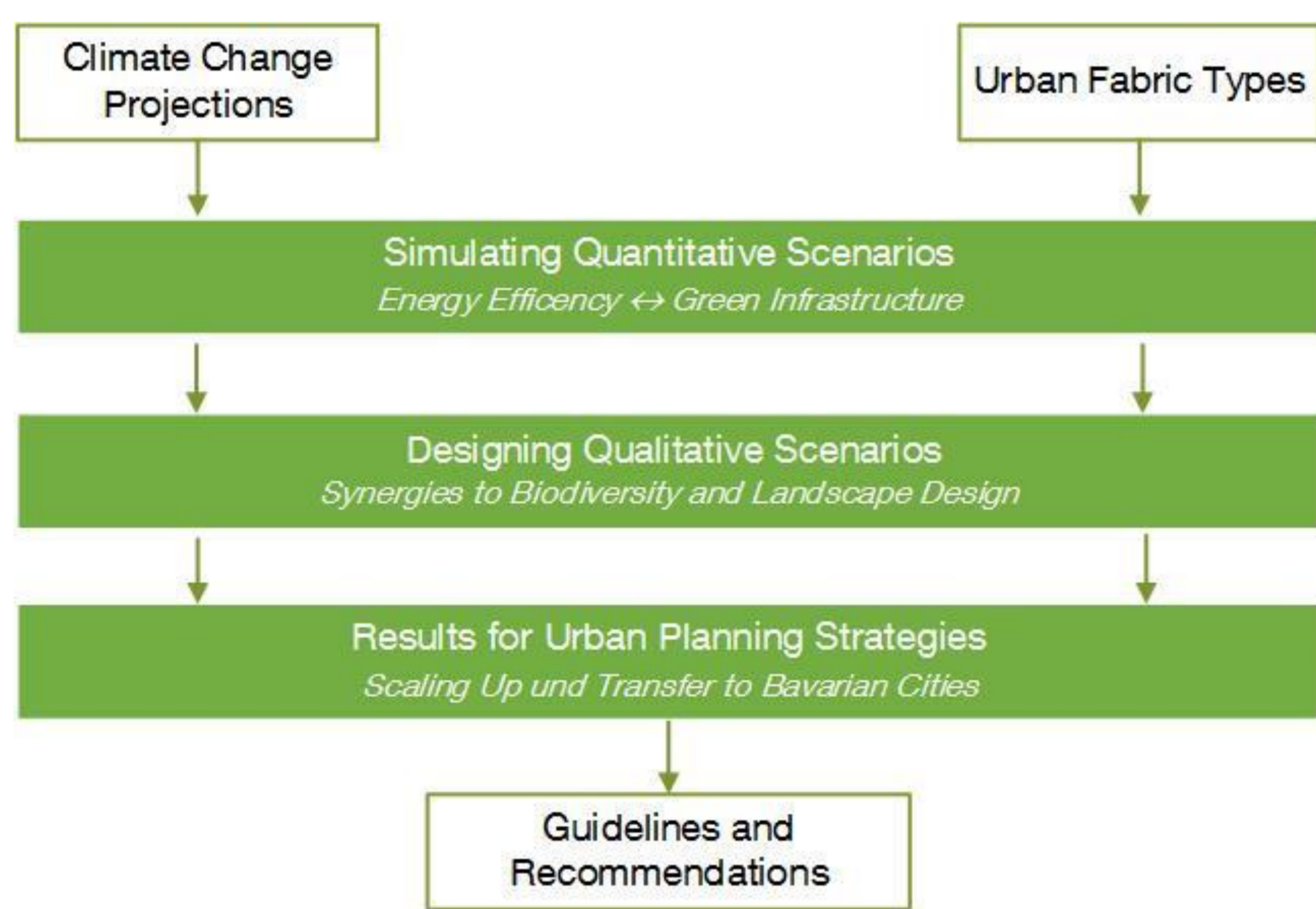
## Introduction

Climate change adaptation via urban green infrastructure (UGI) can significantly reduce the UHI effect while at the same time contribute to mitigation by reducing energy demands. Still these different goals are rarely considered together. The project Climate Mitigation and Urban Green Infrastructure at the Centre for Urban Ecology and Climate Change Adaptation addresses these challenges by developing integrated strategies for urban planning. While climate policies are agreed at (inter-) national level, it is the local level that needs to translate these goals into action. With a comparative analysis of three Bavarian case studies, the opportunities and challenges local governments face for implementing climate policies into planning are identified. In order to translate national policies into strategies at the local level knowledge is needed on the potentials and limitations of measures for mitigation and adaptation.

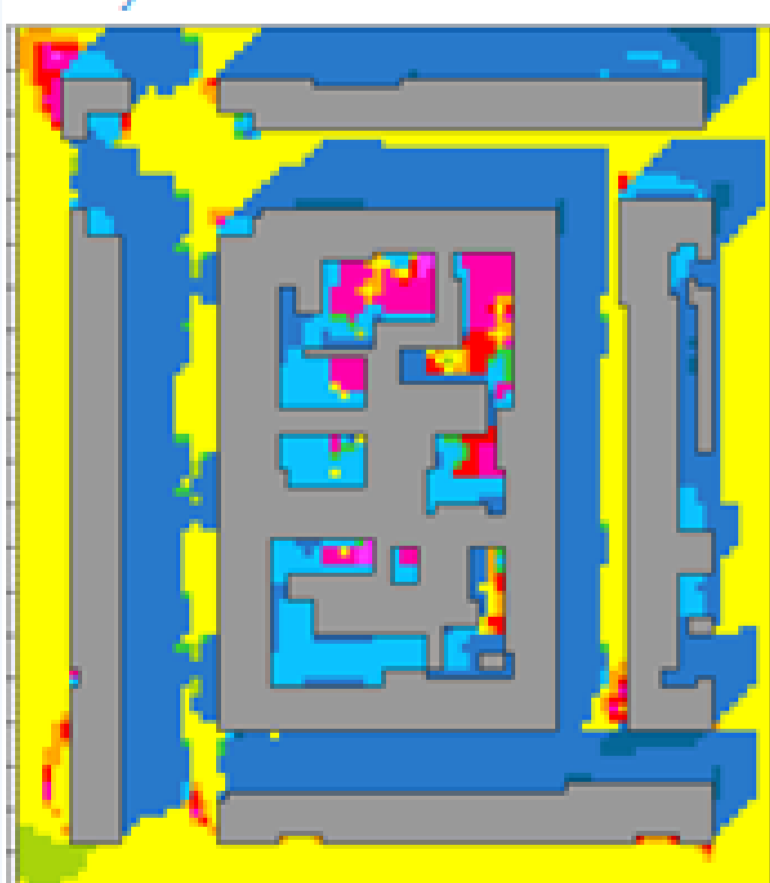


## Approach

We examine synergies of different green infrastructure measures with quantitative analyses of climate regulating effects and residential energy demand reductions. In qualitative studies also the effects on biodiversity and quality of open space are considered. Furthermore, the project analyses the capacities of local governments and the legal leeways for implementing of climate change related measures into urban planning. Besides the synergies between mitigation and adaptation it also aims to identify how integrated planning for climate change can enhance general strategies for urban development. Based on these details, the project makes recommendations to promote the implementation of multifunctional green infrastructure for mitigation and adaptation.



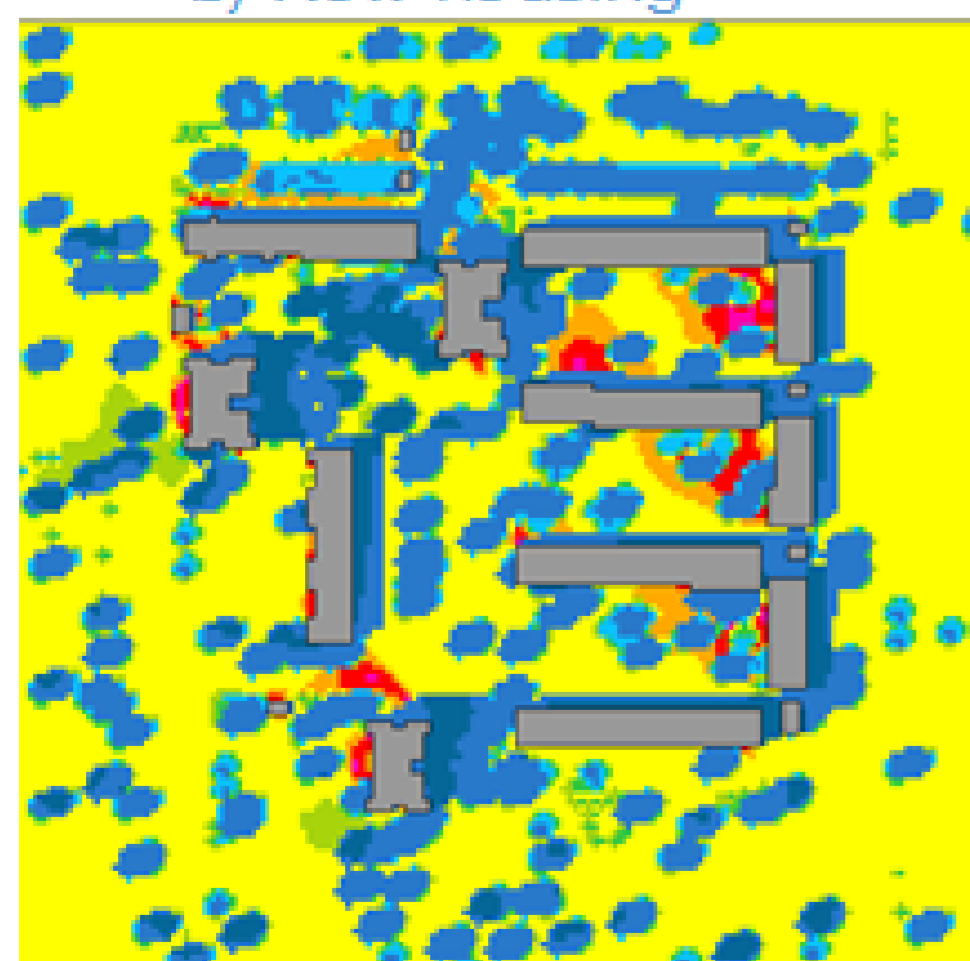
a) Perimeter block



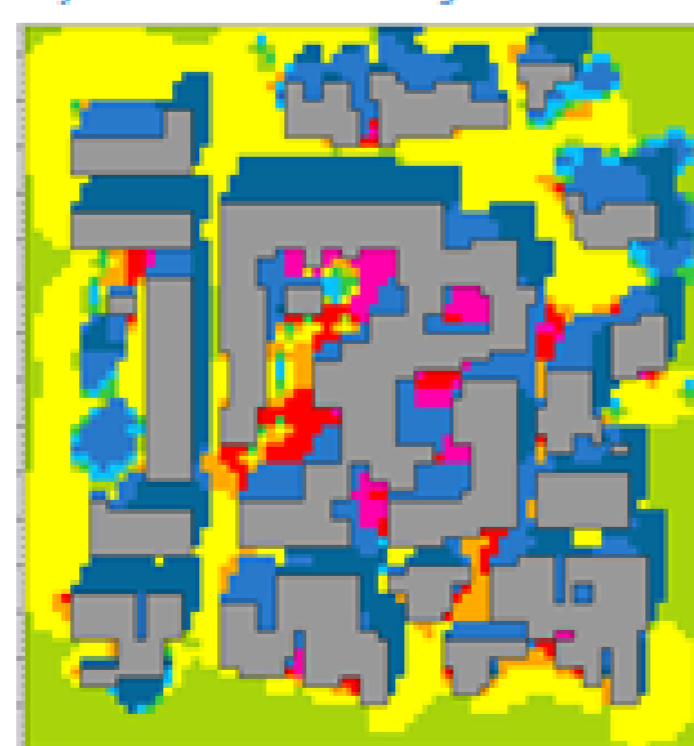
Simulation of Green Infrastructure Scenarios

- 3 case studies of different urban fabrics
- GI measures: street trees, roof greening, façade greening

b) Row housing



c) Historic city centre



ENVI-met modelling:  
PET at 3 pm on a hot summer day,  
colour range 32-62 °C

