

Synergies and trade-offs in Parkstad Limburg

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Project location:
Limburg, Netherlands

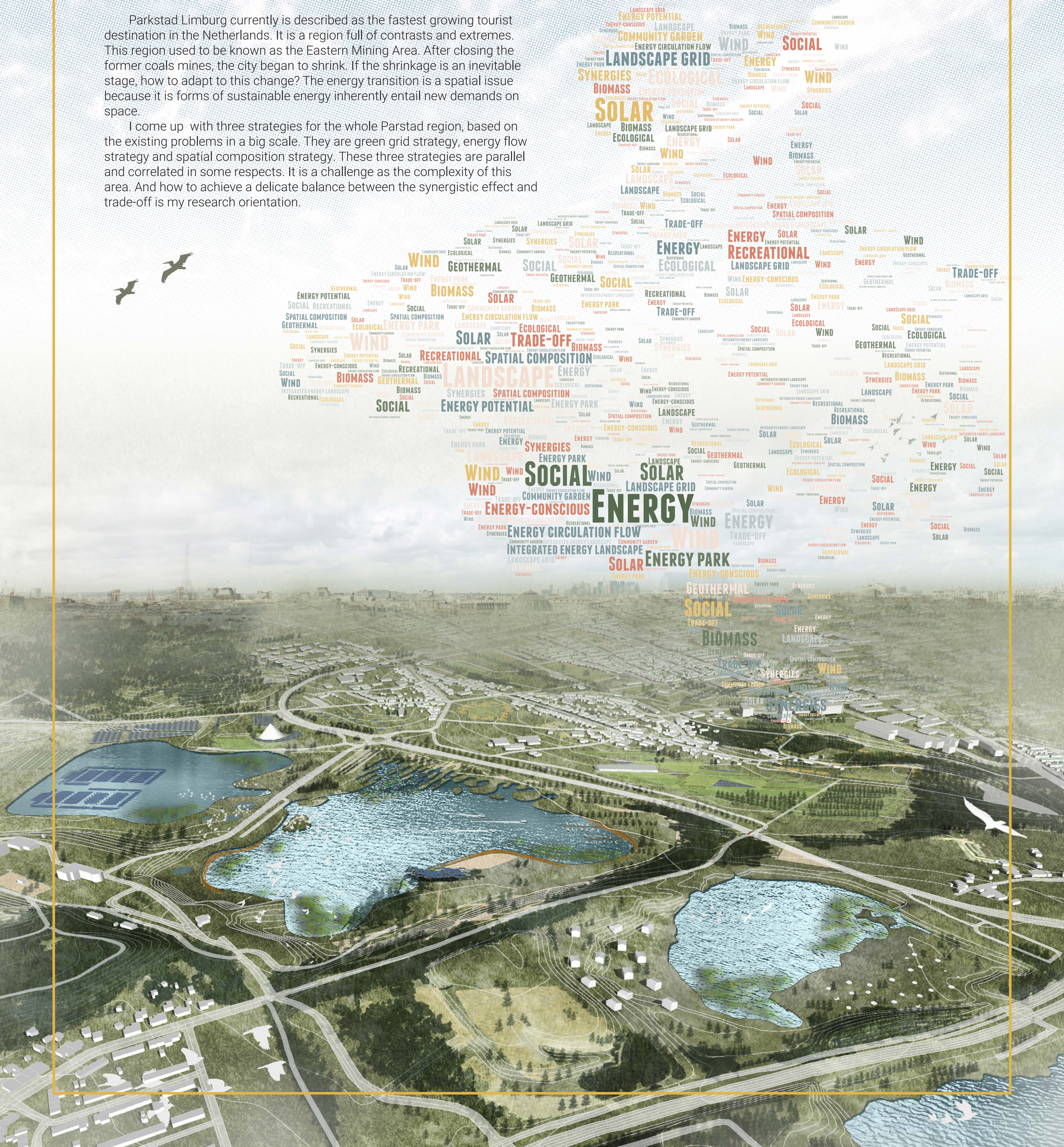
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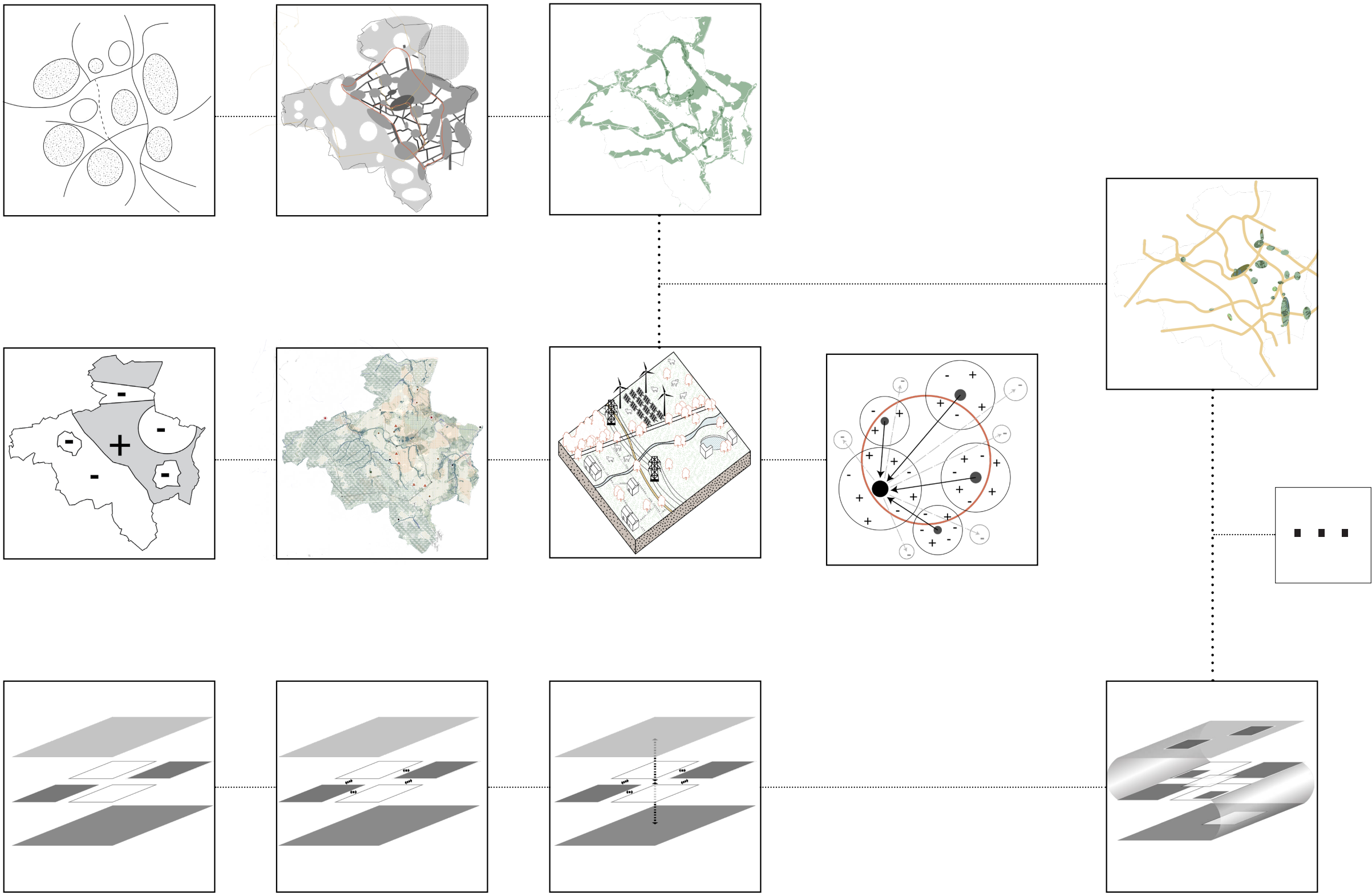
What are the energy-conscious spatial strategies, to integrate with energy sinks, urban green network, and differentiation of niches, to facilitate sustainable energy landscape design to improve environmental quality in Parkstad?

Parkstad Limburg currently is described as the fastest growing tourist destination in the Netherlands. It is a region full of contrasts and extremes. This region used to be known as the Eastern Mining Area. After closing the former coals mines, the city began to shrink. If the shrinkage is an inevitable stage, how to adapt to this change? The energy transition is a spatial issue because it is forms of sustainable energy inherently entail new demands on space.

I come up with three strategies for the whole Parstad region, based on the existing problems in a big scale. They are green grid strategy, energy flow strategy and spatial composition strategy. These three strategies are parallel and correlated in some respects. It is a challenge as the complexity of this area. And how to achieve a delicate balance between the synergistic effect and trade-off is my research orientation.



STRATEGIES



The schematic diagram shows three strategies. After overlapping the green grid and energy park, I get an integrated energy landscape network. Then combining it with the spatial composition strategy, a combination in three dimension is derived. A more concrete strategy for elaboration design is deduced from this integrated strategies.

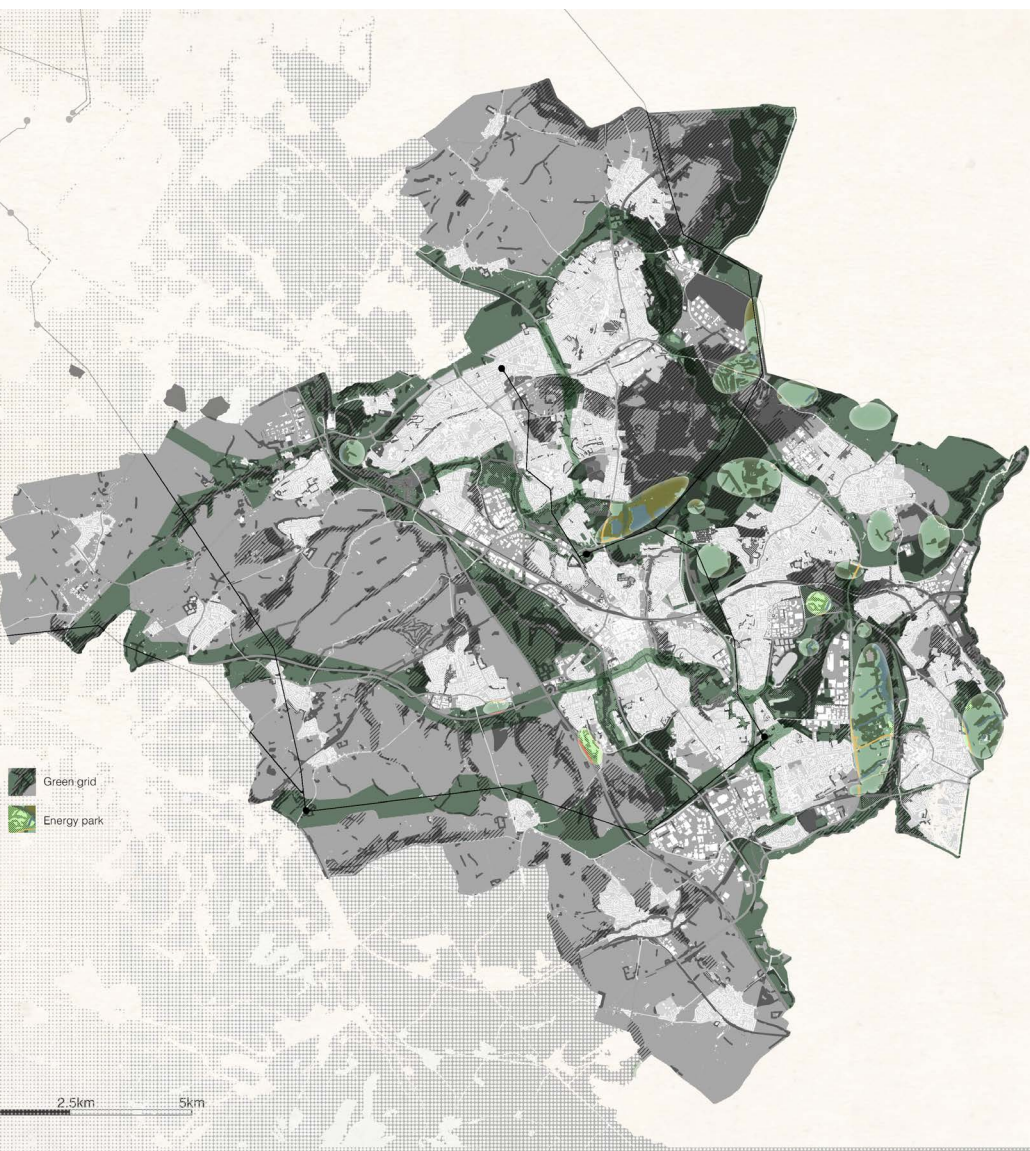
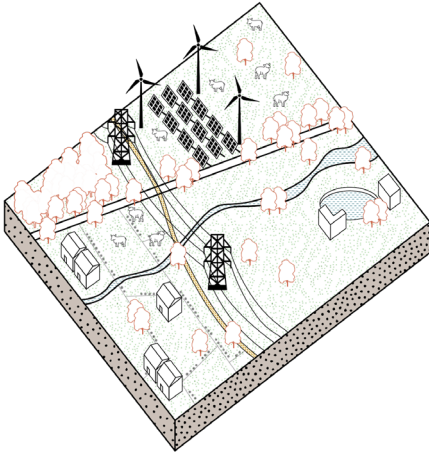
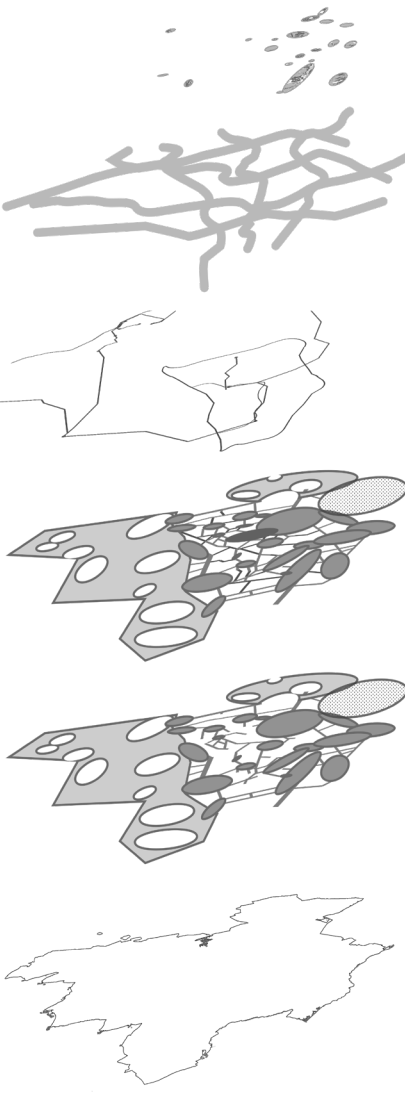
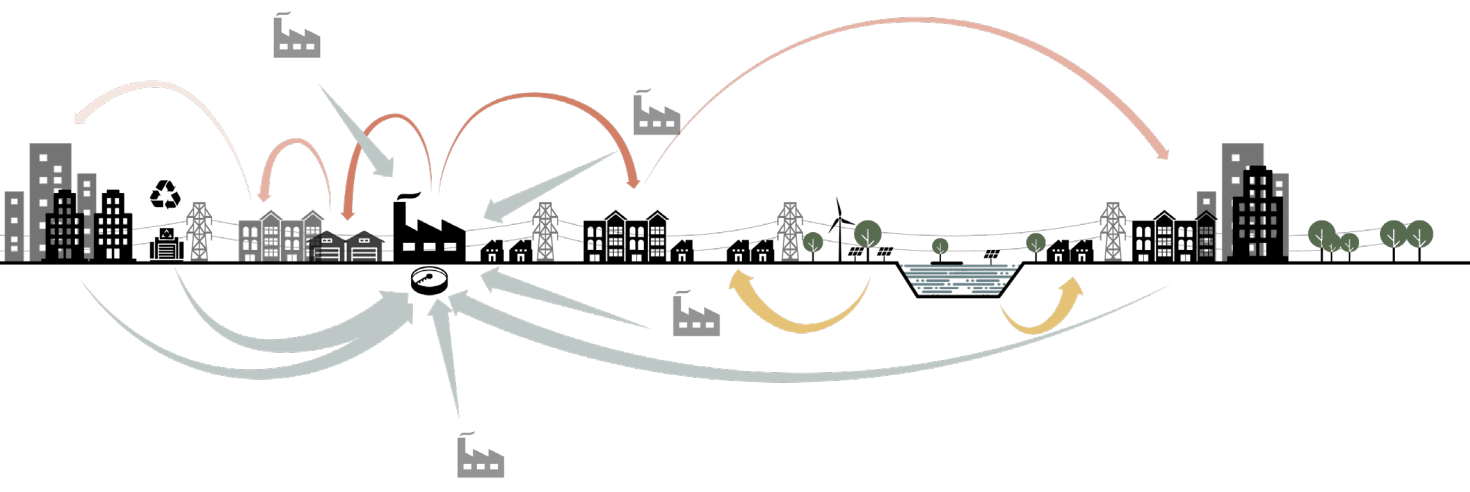
The first one is the symbiotic network and green grid strategy is more ecology oriented. The first step is to reconnect the green corridors and make them into a system.

The second one is energy circulation flow strategy includes two mechanisms: the energy source and sink, the energy park. These two are complementary and make the system together.

The last strategy talks about the layers. It is called spatial composition strategy. It could impact on more specific areas instead of the regional one.

STRATEGY 1 + STRATEGY 2 OVERLAPPING

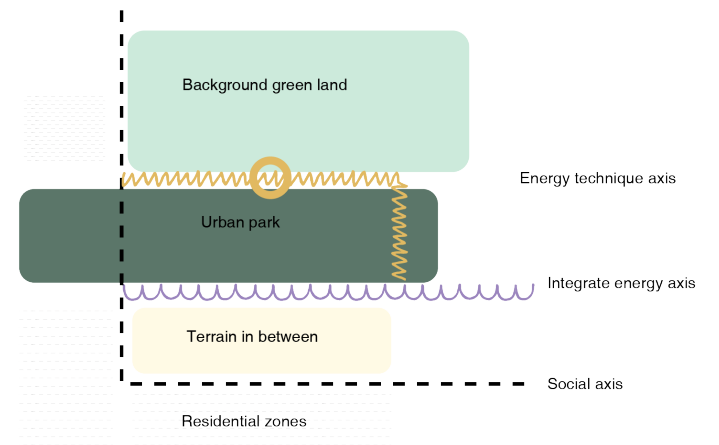
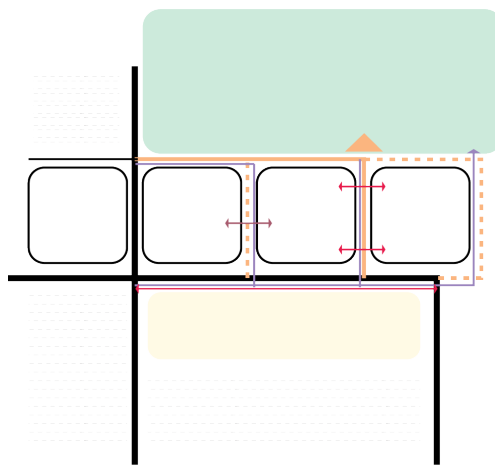
STRATEGY 2 - ENERGY CIRCULATION



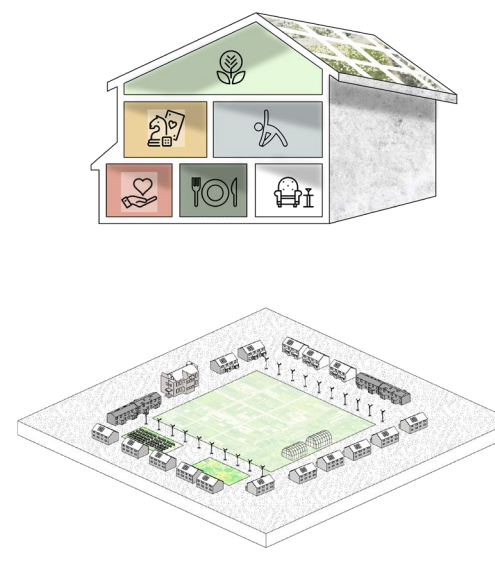
MASTER PLAN



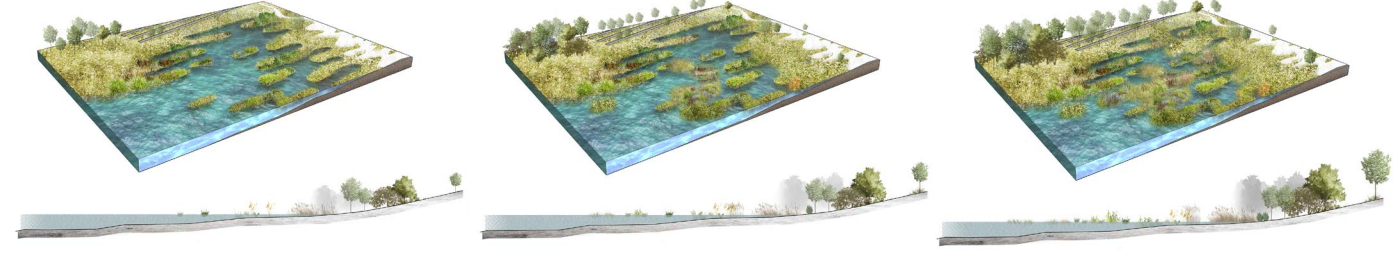
APPROACHES



APPROACH 2 - AXES - SOCIAL AXIS



TIME PLAN



INTEGRATED ENERGY LANDSCAPES

