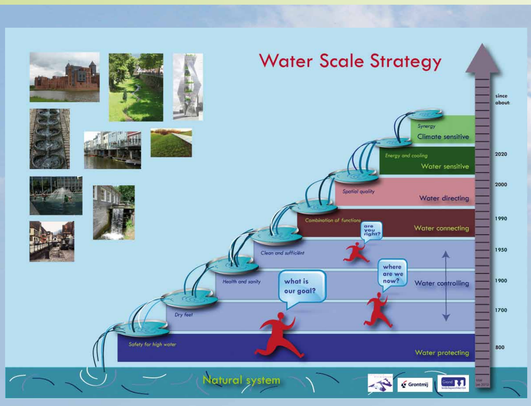
Future Cities

urban networks to face climate change

Making city regions fit to cope with the predicted impacts of climate change

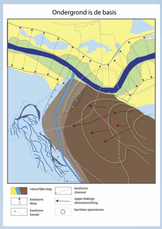
Investing in Opportunities
This project has received European Regional Development Funding through INTERREG IV B.
INTERREG IVB

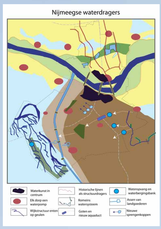
NIJMEGEN INTEGRATES WATER, SPATIAL AND CLIMATE PLANNING



The Water Scale Strategy is based on a theory of the Monash University (Transitioning to Water Sensitive Cities: Historical, Current and Future Transition States by: Brown, Rebekah, Nina Keath and Tony Wong (2008). This theory is transformed by the Water Board Rivierenland into a Water Vision for their policy management. The municipality of Nijmegen is also making a Water Vision, in which this strategy is the key element for describing the ambitions. The strategy ordens the different aspects of water management in a historical context. These aspects are: safety for high water (since 800), dry feet (since 1700), health and sanity (since 1900), clean and sufficient since 1950), combination of functions (since 1990) and spatial quality (since 2000). Future aspects are using (ground) water for energy/ cooling and a new synergy between different policy fields in the municipality to adapt to climate change. These aspects are based on the natural water system. The aspects are combined in ambition levels, which have the right abstraction for governmental decisions. Nijmegen decided to become a water sensitive city in 2030.

THE WATER SCALE STRATEGY IS USED FOR PLANNING SYSTEMS





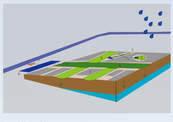
A
The maps are drawn in a way spatial planners are used to work with. The example shows the map ‚natural system'. This map is the under layer for the other maps.

B
The vision maps are drawn in the same way. For example on the map Water Structures new ideas for improving the natural storm water system are shown.

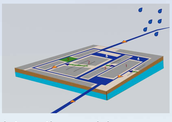
C
For each city area plans will be developed in a more detailed way.

WATER ASSESSMENT (‘WATERTOETS’)

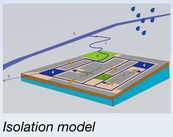
Nijmegen uses the AquaRO guiding models to give input for spatial planners in the process of the Water Assessment. In this assessment the water interests (water storage, safety etc.) must be secured in the spatial planning process. The models give advises how to use water as a carrier of spatial developments, based on the depth of ground water, the quality of the surface water and the density of buildings. Nijmegen is divided in sectors where one of the guiding models is leading.



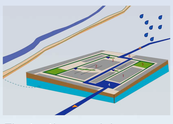
Infiltration model



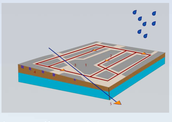
Integration model



Isolation model



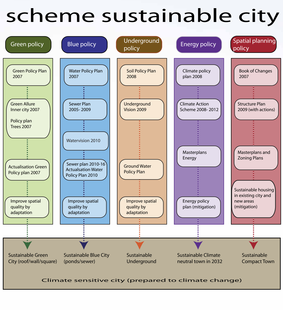
Fluctuation model



Inner city model

NIJMEGEN COORDINATES POLICY PLANNING SCHEMES

The scheme shows the relation between the green policy planning, the water policy planning, the policy planning of the underground, the energy policy planning and the spatial planning (developments). In the scheme you see both processes as concrete products (policy plans). Each individual policy strategy leads to a more sustainable city. The policy strategies for green and blue transition of the city makes sure that the public space in the city is adapted to climate change. The underground and energy policy strategies reduces the consequences of climate change (mitigation). The city development combines adaptation and mitigation measures. Only when all five policy strategies are carried out it will be possible to create a climate sensitive city.



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