

EXPLORE ADAPTATION OPTIONS

The catalogue of adaptation options comprises structural measures in the categories green structures, water systems, energy efficiency, urban structure as well as awareness raising and educational measures. The presentation of adaptation measures focuses especially on their synergy effects related to climate protection and effects related to other aims which are on the agenda of cities, like coping with demographic change or regenerating industrial areas. These additional aspects of an adaptation measure facilitate actual implementation.

A database of adaptation options as well as combination possibilities of these are given and evaluated: What types of adaptation measures exist? Which combinations with other measures are possible and efficient? On each type of measure general information is provided, e.g. within the category “green structures” the types “green roofs”, “green walls” and “green open spaces” (e.g. court yards, alongside water bodies) are chosen.

Fact sheets inform about the Future Cities measures. They document the technical description and practical experience of Future Cities pilot projects and lessons learned: e.g. type and spatial characteristics of the measure – such as scale (region, town, quarter etc.) and use (city centre, business, residential), the adaptation problems which can be addressed with the measure and the synergies and conflicts encountered with other adaptation and mitigation measures or other sustainability aims.

Some exemplary measures which are implemented and evaluated in the partnership are described in the spotlights presenting interim results.

Spotlight: Vertical green in Nijmegen

Even though there are two parks in the centre of the Dutch city of Nijmegen, both citizens and entrepreneurs want more green in the city centre. For this reason in 2007 the city of Nijmegen developed an inspirational book with all kinds of ideas on how to make the city centre greener. One of the possibilities is vertical green. A green wall has been placed on the outside of an elevator shaft of a Nijmegen public building. First it was necessary to calculate the weight that this shaft can hold. A suitable construction for the green wall was found: containers from which the plants will grow supported by various rails. A system to provide water and nutrition for the plants is also installed.



An elevator shaft is an outstanding building element to demonstrate green walls in Nijmegen city centre.





After designing and clarifying the construction details the next step was to obtain planning permission. The experiences made with this first vertical green project in Nijmegen will be evaluated and will be the basis for future green walls. There are more walls in Nijmegen that can become green and contribute to improving the urban climate in city centre.

Spotlight: Adaptive measure in the water system – Heerener Mühlbach in Kamen

The German water board Lippeverband is creating a green-blue corridor in the city of Kamen to improve the city microclimate. In combination with the ecological enhancement of the water body “Heerener Mühlbach”, storm water from private properties will be disconnected from the sewer system to reduce potential sewer overflow in case of heavy rainfall. In addition, the tendency of the water body to dry out in summer is also reduced: With the use of rain water for the open water body the water cycle will remain sound even in dry periods.

In cooperation with the Lippeverband, the owners of properties alongside the Heerener Mühlbach can carry out the disconnection, e.g. retain and infiltrate the rain water coming from the roofs on their grounds. With this project the owners get an idea about individual possibilities to contribute to a better ‘city climate’ and to face climate change beyond well known mitigation measures. These activities are followed by the planning and the construction work for the ecological enhancement of the stream in 2011 and 2012 to complete the green-blue climate corridor.

Spotlight: Cooperation with multipliers – to spread the message in West Flanders

The West-Vlaamse Intercommunale (wvi), a regional planning and development association together with the city of Ieper organised a number of awareness raising actions for different target groups. The emphasis was on so-called multipliers who are likely to spread the message further and integrate it in their daily work and decisions.

Local politicians and civil servants visited Eva Lanxmeer (Culemborg, The Netherlands), a showcase of a new sustainable city quarter. Ideas were gathered for “The Flow” project in Ieper and it was shown that integrated sustainable development (people – planet – profit – process) is feasible without extra costs if well planned from the beginning of the process.

A regional guideline for new and regeneration housing projects in West Flanders addresses the municipalities of the region. The



Local politicians and civil servants from West Flanders in Belgium learn from the Dutch showcase.

guideline gives an overview of possible measures, from a basic to plus level, from which a municipality can choose according to its own ambition. The issues addressed are ecological, social and economic sustainability as well as process guidance.

Wvi cooperated with educational institutes for vocational training in leper by asking them to provide scale models of good insulation techniques for the houses and a plan for the sustainable lighting of the public realm. Through this cooperation, the institutes considered sustainable building and lighting models that until now have not been given enough attention in the training plans.

Spotlight: Awareness raising among stakeholders: guideline for the water board EmscherGenossenschaft

The catchment area of the German river Emscher is one of the most densely populated regions throughout Europe: The water board EmscherGenossenschaft has a responsibility for more than 2 million people regarding water and river basin management. Adapting to the effects of climate change is an important topic and the EmscherGenossenschaft has to answer crucial questions: How is the Emscher catchment affected by climate change? Which of the present activities of a water board help to adapt to the local effects of climate change? The “Guideline Climate Change” gives answers. The document is a guideline for their own staff to understand the complexities of climate change, water cycle and the water board’s activities. Recommendations for planning new projects, maintaining the water cycle and running the operating facilities are given. The guideline is an awareness rising tool for regional stakeholders, but also an internal awareness raising tool for the staff of the EmscherGenossenschaft, who are invited to develop own ideas for adaptation options.



The “mactable” – a planning tool to visualize spatial development helps to raise awareness among the involved local and regional stakeholders.

