

SWITCH PROJECT: HAMBURG, GERMANY

HAMBURG

<http://www.tu-harburg.de/sb3/ag5/>



VISION & GOALS FOR URBAN WATER MANAGEMENT

The Learning Alliance Hamburg developed a collective vision for 'Urban water management in the year 2030'.

Vision Wilhelmsburg 2030: Make Water Visible.

'Make water visible' is the new image of the river island of Wilhelmsburg in the year 2030. The various water bodies on Wilhelmsburg are visible and accessible, serving as attractive locations for the purposes of recreation, living and work. Beside the quality of urban design, the new image of Wilhelmsburg requires an improvement of the quality of water, the ecological quality of the surface waters and a future-oriented flood protection. The inhabitants of Wilhelmsburg are aware of the water demands, are informed about sustainable water management and identify themselves with the river island.



DEMONSTRATIONS

In Hamburg the demonstration project is divided into two parts. The first will be the development of an 'Integrated Urban Water Management' plan for the river island of Wilhelmsburg. The second will be a small-scale demonstration project of 'Water Sensitive Urban Design'.

The 'Integrated Urban Water Management' plan will be developed together with the members of the Learning Alliance through a series of five workshops during the period 2007 – 2011.

Furthermore, a small-scale demonstration project of 'Water Sensitive Urban Design' is planned. The demonstration project will be connected with the 'International Building Exhibition' 2013.



HAMBURG LEARNING ALLIANCE



The SWITCH Learning Alliance (LA) Hamburg started in the year 2006 on a city-wide level. The core members of the LA decided to focus the SWITCH activities on a specific area of Hamburg, the river island of Wilhelmsburg. Hence several local stakeholders from the river island were integrated. The thematic focus is the development of an 'Integrated Urban Water Management Plan 2030'. The LA facilitates an exchange of information between practitioners and research and enables a practically focussed research.

LA Members

- HafenCity Universität Hamburg
- Freie und Hansestadt Hamburg/Behörde für Stadtentwicklung und Umwelt
- Landesbetrieb Straßen, Brücken und Gewässer
- Internationale Bauausstellung Hamburg GmbH
- Internationale Gartenausstellung Hamburg GmbH
- TU Hamburg-Harburg
- Hamburg Wasser GmbH
- HPA Hamburg Port Authority
- Handelskammer Hamburg
- Beirat Wilhelmsburg
- Verein Zukunft Elbinsel e.V.
- Bürgerverein Wilhelmsburg e.V.
- Wasserverband Wilhelmsburger Osten
- Wassergenossenschaft der Anlieger des Veringkanals auf Wilhelmsburg
- BUND Landesverband Hamburg e.V.
- Stiftung Naturschutz Hamburg und Stiftung Loki Schmidt
- Botanischer Verein Hamburg
- Zukunftsrat Hamburg

MEASURING SUSTAINABILITY

In Hamburg there are two periodical studies, which analyse the overall sustainability of urban development. The municipality of Hamburg is measuring the sustainability with its report 'Monitor wachsende Stadt 2006'. Also the stakeholder 'Zukunftsrat Hamburg' analyses sustainability. Within the scope of the 'Integrated Urban Water Management' plan, there are plans for the development of targets and indicators of sustainability for water management. Specialised indicators should complete the general analysis of sustainability.



HAMBURG'S WATER SYSTEMS & PRESSURES

The city of Hamburg has an increasing population and is one of the fastest growing cities in Germany. Anticipated population growth and the expanding harbour demand further urban development measures. Related to this, the municipality of Hamburg developed a model of qualitative and sustainable urban growth. The objectives were defined in the key concept 'Metropolis Hamburg – Expanding City'. Urban development mainly takes place on the river island of Wilhelmsburg, which will be setting for the International Building Exhibition 2013.



Issues and challenges

Hamburg has the following main water pressures and issues:

- Flood risks, caused by the river Elbe and the North Sea
- Fluvial flooding inland, caused by storm water
- Pollution of the surface waters caused by industries, agriculture and storm water
- High/ rising ground water tables
- Limited capacity of the existing sewer system
- Water as an element of urban design to develop attractive locations

The Learning Alliance Hamburg decided to focus the SWITCH activities on the river island. Sustainable solutions of water management in districts in urban transformation processes should be supported. There are a number of critical issues that need solutions, e.g. facing the progressive risks and water problems under global environmental change.

FACTS & FIGURES

The municipality of Hamburg and the river island of Wilhelmsburg (2006):

- Area 755,2 km² (Hamburg) 35,3 km² (Wilhelmsburg)
- Population 1.754.182 (Hamburg) 48.322 (Wilhelmsburg)
- Annual average amount of precipitation 764 mm (Hamburg)
- Water consumption per inhabitant 142 l (Hamburg)
- Degree of population connected with sewer system 99%



RESEARCH FOCUS AREAS

The demonstration city Hamburg is connected with several research activities. A primary focus is Work Package 5.1 'Water Sensitive Urban Design', the interdisciplinary cooperation of water management, urban design and landscape planning. 'Water Sensitive Urban Design' considers all parts of the urban water cycle, combines water management function and urban design approaches and facilitates synergies for the ecological, economical, social and cultural sustainability. This approach combines a consideration of 'technical' water management problems and 'urban planning' demands. The current solutions of 'Water Sensitive Urban Design' in Hamburg were reviewed and five case studies documented as best practice solutions.

