

## IBA HAMBURG

### Building a new city. How does urban development on a large scale work?

A subsidiary of Hamburg is the IBA Hamburg which developed programs and projects. One of the programs is an exhibition called IBA Hamburg (international architecture exhibition, 2007 – 2013).

With the slogan "designs for the Future Metropolis" the metropolis should represent the challenges of the future (globalisation and climate change).

The biggest project is Wilhelmsburg center. This area is still no mans land and has not yet been urbanized. It is being lead to the formation of "Wilhelmsburg center" by the IBA Hamburg.

One of the bigger projects of the IBA is the previously named area. Traffic lanes npw segregate the landscape. The IBA plans to build new bridges around the center of Elbe islands alongside many projects to further experience urban space:

- Modern workplaces
- Innovative buildings for living and for sports
- New building for the Department of Urban Development and Landscape
- Waterway from IGS Park to the "Jungfernstieg"



### An inner suburb will become the new center.

Basis of planning for Wilhelmsburg center is the master plan that the Dutch-Luxembourg planning office Jo Coenen & Co Architekten has developed with the Franco-German landscape planning agency Agence Ter.

This master plan proposes a mix of residential, office, retail, service, hotel and leisure uses. Focus is on the integration of water, green spaces, forests and promenades. The concept of the master plan is mixing landscape and urban design features on Elbe Island, while keeping the image of the landscape from Wilhelmsburg.

On the 30-hectare area a lively neighborhood grows. Residents and visitors use the new pedestrian bridge of the redesigned S-Bahn station. Thanks to close cooperation with the City Planning and Greenspace Planning.

- Construction projects in the new center are a first major step for the development of Wilhelmsburg.
- Laying the Reichsstrasse east to the edge of the railway line. (Starting from the geographic center of the Elbe islands up north to Spreehafen, a wide corridor for future developments, with potential for several thousand apartments, may arise. This offers a unique opportunity for sustained convergence of the district.)



## What role can energy play in city planning?

- Until end of 19th Century – Planning was more energy-efficient (Building Orientation, „green Belt“)
- Regression of energetic City planning since around 1945
- Traffic avoidance by land conservation and mixed use
- Topographic location of building areas
- Structure of the building, density, compactness of the building

The target of a climate-friendly city is controlled in several directions:

- High standards for new construction and renovation will in future provide a dramatic reduction in energy consumption
- The energy efficiency is increased by combined heat and power networks.
- The potential of renewable energy on the Elbe island are used extensively to "100% renewable."
- The citizens are involved as partners in all measures and encouraged by economic incentives to participate.

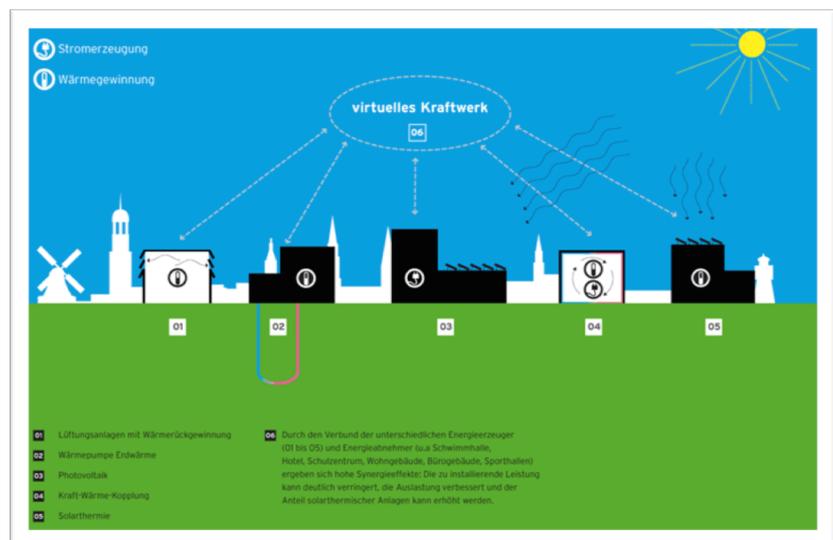
A major contribution of the energy network Wilhelmsburg center will be efficient in energy supply and thus reduce impact on the climate. This will be done with intelligent networking of different buildings and possibly with existing buildings, which will further be explained.

The combination of different users with different peak times and energy requirements secures the availability of supply. The CO<sub>2</sub> balance can be improved.

For example: Sharing solar thermal heat and heat from combined heat and power (Cogeneration), can be much higher than in a single supply of each building.

Less overall system performance can be

installed because not every single unit (housed in the same building) is dimensioned according to their peak demand. During the installation and operation costs can be reduced.



- The largest amount of heat supply and the protection of basic services provided by a biomethane-powered combined heat and power firm HAMBURG ENERGIE.
- More renewable energy supplies consist of solar thermal systems if provided by suitable roof surfaces.
- The individual "micro-power plants" in the buildings are connected together to form a large "virtual" power plant that can respond flexibly to the different energy needs of the participants.