IBA_HAMBURG

Internationale Bauausstellung

Hamburg voraus

International Building Exhibition IBA Hamburg

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Improvement of urban environment performance

International Building Exhibitions
Driving architectural visions and urban development

INTERNATIONALE BAUAUSSTELLUNG IBA HAMBURG GMBH

	Wilhelmsburg	Veddel	Hamburg
Population	**48 322**	**4 776**	**1.7 million**
Percentage of population under 18	22.6	24.9	15.9
Percentage of population from foreign countries	34.2	55.7	14.9
Percentage of foreign school children	47.6	81.5	17.9
Social structures			
Unemployed	3 539	374	81 518
as percentage of 15 to 65 year-olds	10.9	10.9	6.9
Unemployed youth	438	40	6 981
as percentage of 15 to 25 year-olds	6.8	5.1	3.7

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- Making globalization a productive process.
- Creating the international urban community.
- Greater power to education, knowledge and culture.

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• Making globalization a productive process.
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3. Metrozones
•Create quality urban neighbourhoods.
•Give shape to inner peripheries.
•Promote urban compatibilities.

Climate protection concept “Renewable Wilhelmsburg”

Strategies for active climate protection

Objective:

To turn Wilhelmsburg into an “urban laboratory” for the sustainable, renewable supply of energy with the goal of attaining the district’s long-term “climate-neutrality”.

Four pillars:

- Energy savings
- Increased energy efficiency
- Use of renewable local and regional power sources
- Involvement and participation of residents, advocacy groups, enterprises and institutions

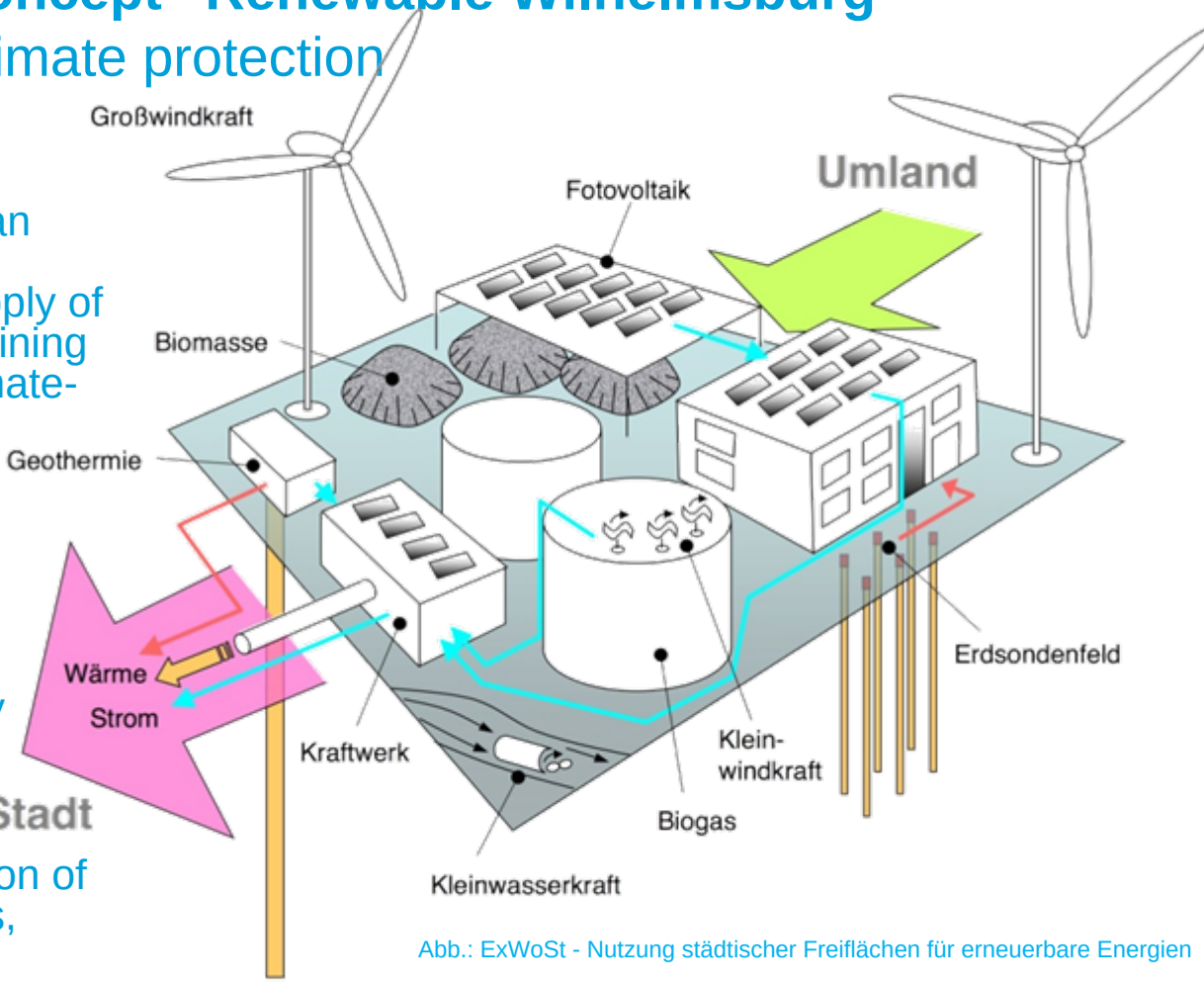


Abb.: ExWoSt - Nutzung städtischer Freiflächen für erneuerbare Energien


Energiebunker
Weltquartier

Modernization of the Weltquartier, a public housing project built in the 1930´s

»Weltquartier « (Global neighbourhood)

- it is one of the culturally most varied neighbourhoods of the Elbe Island Wilhelmsburg
- more than 1,700 inhabitants from 31 countries live here
- 45% of the residents have an immigrant background: Most of them come from Turkey, Africa and East Europe

Saving energy saves costs

	Current rent (2009)	New rent (programme year of 2009)	Difference
∅ net rent excl. of heating/sqm	5,12 €	5,65 €	+ 0,53 €
∅ operating costs (w/o heating)/sqm	1,87 €	1,87 €	–
∅ Heating costs/sqm	1,30 €	0,90 €	– 0,40 €
∅ Total rent (incl. heating)/sqm	8,29 €	8,42 €	**+ 0,13 €**

Energy Bunker – Providing renewable energy for the ‘Global Neighbourhood‘

- former flak bunker in the Second World War

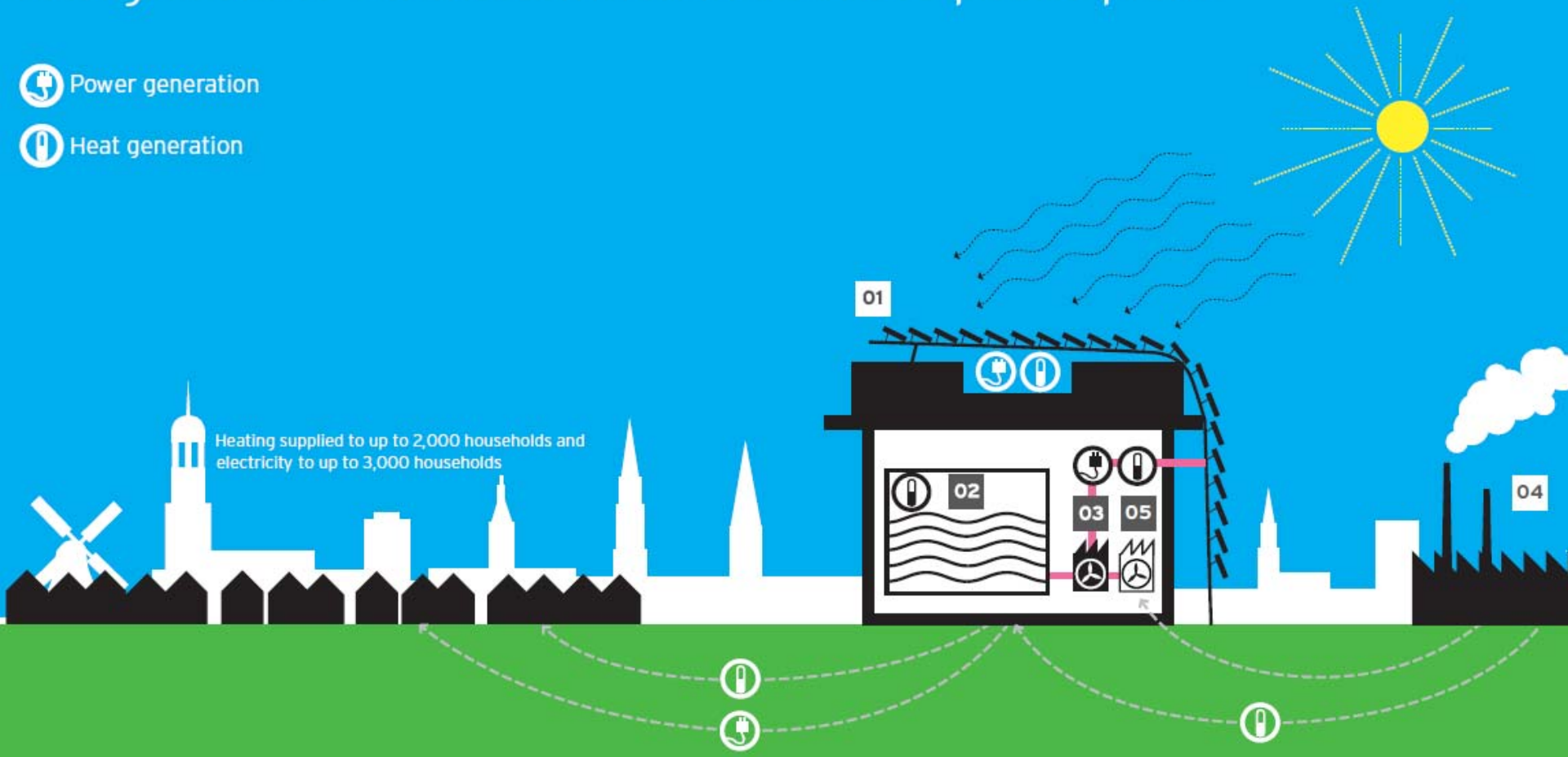
- completed in October 1943 – building time half a year
- sheltered up 30.000 people from Wihlemsburg
- 9 storey high – 40 meter
- since over 60 years without any use

Energy Bunker

Energiebunker – transformtion into an eco power plant

Power generation

Heat generation



01 The solar thermal energy plant, approximately 3,500 m2 in area, generates heat from the sun.

02 The heat store "saves" the excess heat, reacts to peak demand periods and maintains supplies.

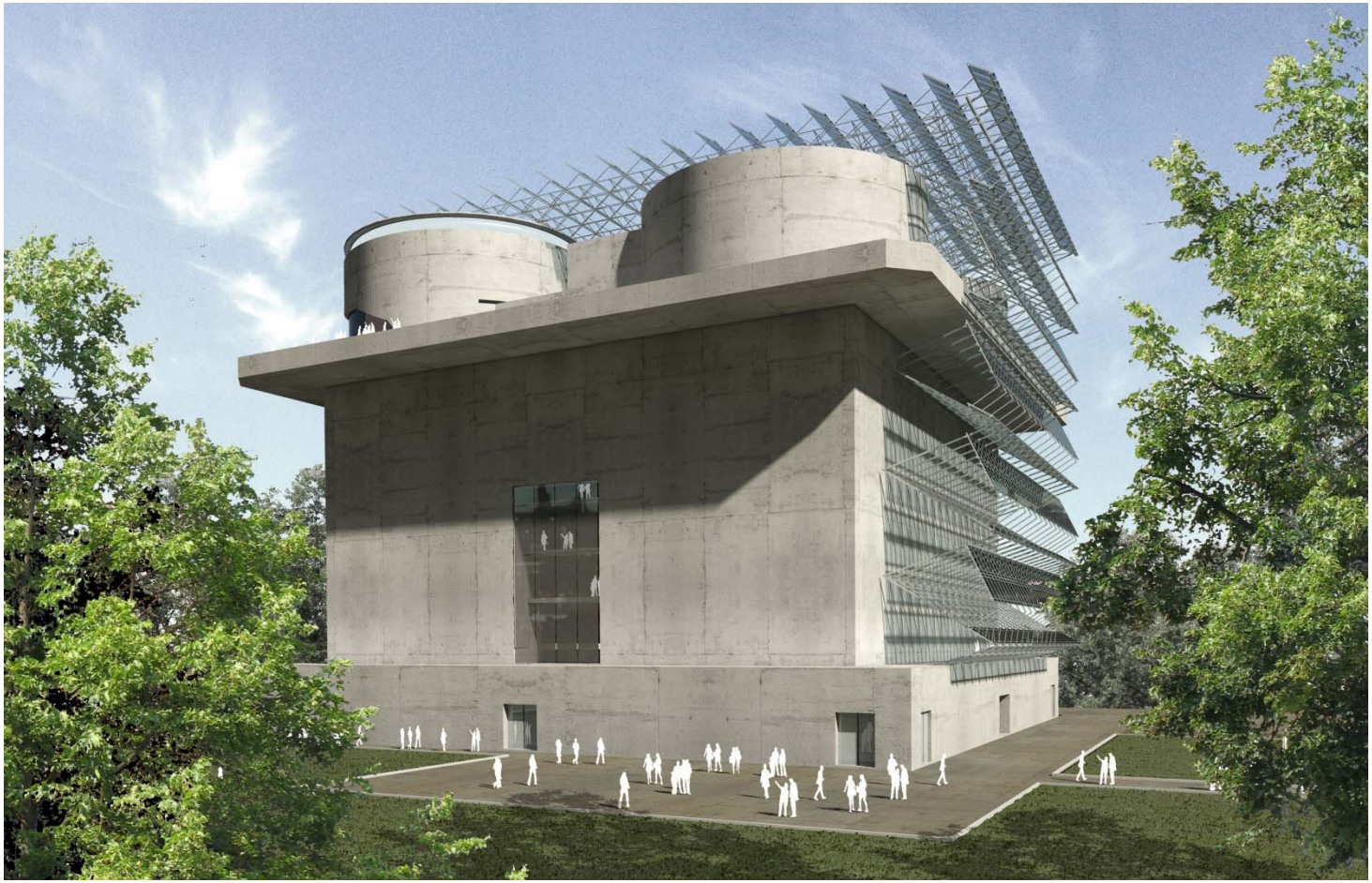
03 The woodchip CHP plant generates power and heat

04 Waste heat from a near-by industrial plant is piped into the bunker for storage and fed into the heating grid.

05 A second CHP plant is fuelled by organic residuals from the industrial plant and generates power and heat.

Energy Bunker

Design: Hegger Hegger Schleif arcitects, Kassel



Energy Hill Georgswerder

Landfill to Energieberg

Power generation

Heat generation

Supply to 2,000 homes
on the Elbe islands

01 Wind power: re-powering the existing wind turbine generators to produce electricity.

02 Solar power: photovoltaics installed on the slopes of the Energieberg.

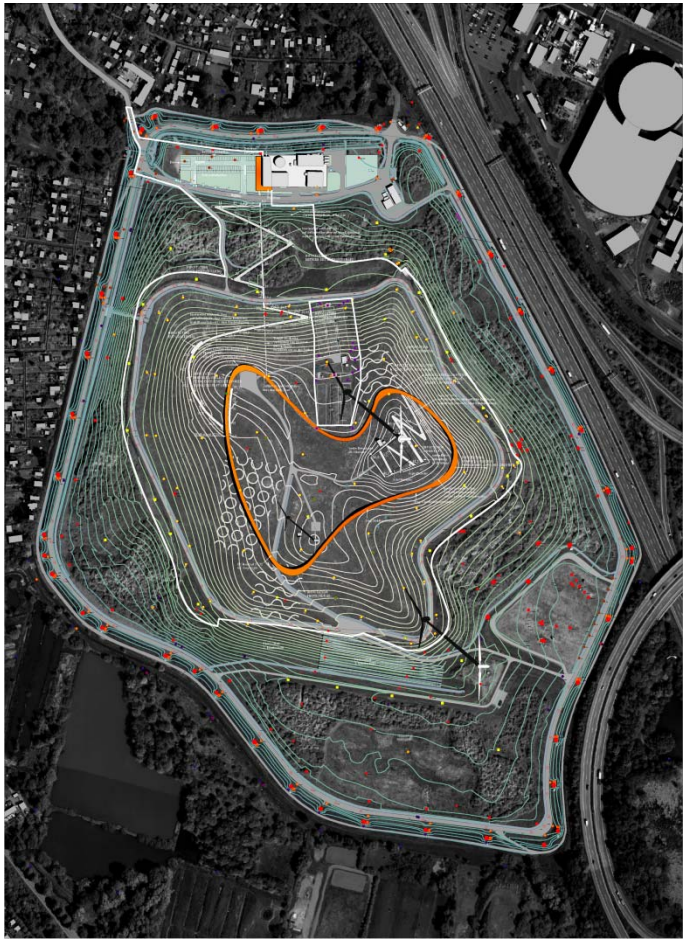
03 Biomass: grass cuttings from the Energieberg turned into biogas.

04 Geothermal power: the energy in the groundwater and seepage water contributes to heating the information centre.

05 Landfill gas: methane gas – a waste fermentation product – is thermally used by Aurubis AG.

Energy Hill Georgswerder

1. Price: Häfner/Jimenez (Berlin) and Konermann Siegmund Architekten (Hamburg)



Hilltop look-out
and energy landscape

- Controlled access to and redesign of landfill
- Exhibition and documentation centre Showing the history of the landfill and use of renewable energy
- Progress from “non-place” to a meeting place and energy producer
- PV and Wind Turbine realised by HAMBURG ENERGIE

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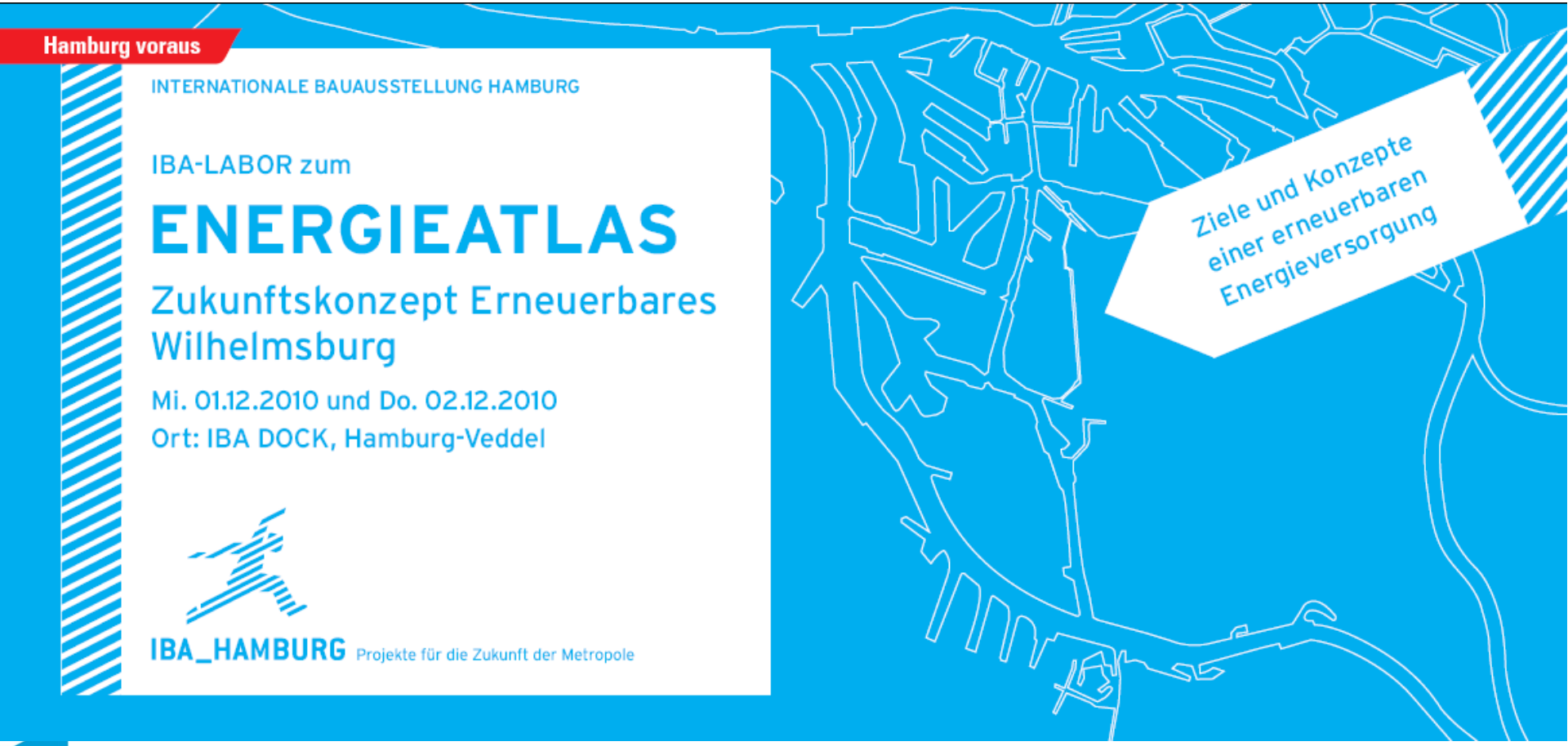
Hamburg voraus
INTERNATIONALE BAUAUSSTELLUNG HAMBURG
IBA-LABOR zum
ENERGIEATLAS
Zukunftskonzept Erneuerbares Wilhelmsburg
Mi. 01.12.2010 und Do. 02.12.2010
Ort: IBA DOCK, Hamburg-Veddel
IBA_HAMBURG Projekte für die Zukunft der Metropole
Ziele und Konzepte einer erneuerbaren Energieversorgung

Thank you very much for your attention!