



FURTHER RESSOURCES

Course Unit #3

Striving for Sustainable Neighbourhoods

These FURTHER RESSOURCES are part of the training course "Green Cities for Our Future", Published by GIZ, June 2021.

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Disclaimer: These Further Ressources have been compiled in order to provide supplementary information on the projects and stakeholders, presented in the training programme "Green Cities for Our Future".

The authors refer to existing knowledge and cannot take responsibility for the completeness of the presented material.

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[Click here for Further Information on the Training Course](#)

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Course Unit: Striving for Sustainable Neighbourhoods

A) Further Resources – Project Profiles

Project Title	IBA (International Building Exhibition), Hamburg
About the Project	<p>The IBA (International Building Exhibition) is a special format of urban and regional development and has a long-lasting history in Germany. In exemplary cities the International Building Exhibition is bringing the current issues of planning and building into the focus of national and international discussion.¹ The IBA took place in Hamburg from 2006 to 2013 with the overarching goal making the “Leap across the Elbe”, connecting two major parts of the city of Hamburg. Under the title “Cities and Climate Change” the IBA Hamburg developed various approaches how cities can grow environmentally friendly by generating decentralised energy and using resources efficiently.² With the official end of the international building exhibition in 2013, the IBA Hamburg Ltd. is acting as an urban development company, creating innovative, climate-friendly neighbourhoods for the city of tomorrow.³ In this context the IBA Hamburg is currently developing neighbourhoods in 10 districts with an overall surface area of 440 hectares.⁴</p>
Actors & Financing	<p>The format of the International Building Exhibition is administered by the Federal Ministry of the Interior, Building and Community (BMI), the IBA expert board, formed by the BMI and the Federal Institute for Research on Building, Urban Affairs and Spatial Development. The financing model depends on the specific International Building Exhibition, but is commonly financed by funds from the state, the federal government and private institutions.</p> <p>The IBA Hamburg Ltd. is a full subsidiary of the Free and Hanseatic City of Hamburg and is acting as an urban development company since the end of the International Building Exhibition in 2013.</p>
Investment Budget	<p>The International Building Exhibition in Hamburg from 2006 till 2013 had an investment volume of approx. 1 billion Euro, financed by 300 million Euro of public investments and two thirds from private investments.</p>
Status & Timing	<p>The International Building Exhibition took place in Hamburg from 2006 till 2013. The IBA Hamburg Ltd., an urban development company is developing sustainable neighbourhoods in Hamburg since 2014.</p>
Innovative Aspects	<p>The International Building exhibition is an innovative urban development instrument, finding solutions to current challenges in urban development and the building sector. The IBA Hamburg answered various questions regarding the climate-compatible future in a metropolis by testing different decentralized energy concepts, energy-efficient building and adaptation strategies in neighbourhoods. <i>(Click here for a collection of short profiles of the realized projects)</i></p> <p>The IBA Hamburg Ltd. is now developing 10 innovative, eco-friendly neighbourhoods all over Hamburg. A prominent example for one of these newly developed neighbourhoods is “Oberbillwerder”, a 118ha hectare big development, receiving the platinum award in the category sustainable neighbourhood.</p>
Contact	IBA Hamburg: MAIL

¹ IBA (2021): [About](#)

² IBA Hamburg today (2021): [Welcome to IBA Hamburg](#)

³ IBA Hamburg (2021): [About us](#)

⁴ IBA Hamburg (2021): [About us](#)

Project Title	<p>Implemented Sustainability Strategies in existing Neighbourhoods</p> <p>Case: District of Berlin Friedrichshain- Kreuzberg</p>
About the Project	<p>The district of Berlin Friedrichshain-Kreuzberg is implementing various sustainability strategies in its existing neighborhoods, with the goal to fundamentally reduce the climate impact of the district, showing the potential of reducing the carbon footprint in already built- up areas. The implemented activities cover a wide range of approaches, such as a zero-waste concept for the public space or a development concept, aiming to increase the proportion of green spaces in the district. Various mobility solutions, promoting ecological traffic, in particular bicycle traffic are as well at the core of measures.</p>
Actors	<p>The development and implementation of the presented sustainability measures is mainly initiated by the district administration of Berlin Friedrichshain Kreuzberg and there in particular by the responsible bodies for climate protection, urban planning and nature conservation. Overarching strategies, such as the concept of encounter zones or pop-up bicycle paths are initiated by the responsible senate administration of Berlin.</p>
Status & Timing	<p>The status of implementation is different from strategy to strategy, as these are not part of one coordinated development concept. Rather the implementation of different sustainability strategies can be considered as parts of a continuous process towards a green, carbon-neutral district.</p>
Innovative Aspects	<p>Sustainable mobility is of particular importance reducing the climate impact of neighbourhoods. Therefore, the district of Berlin Friedrichshain-Kreuzberg implements innovative strategies in order to strengthen pedestrian and bicycle mobility, resulting in a reduction of motorised traffic. Important instrument is the development of bicycle paths, such as the so-called Pop-up bicycle tracks.</p> <p>Pop-up bicycle tracks were created during the COVID-19 pandemic, responding to the crease of bike traffic and related requests for saving routes. Many of the developed Pop-up bicycle tracks are now integral part of many streets in the district and Berlin as such.</p> <p>Another progressive project in this context is a planned bike highway below the elevated tracks of the subway line 1, leading from the district Friedrichshain-Kreuzberg to the city center of Berlin. A further instrument is the development of car-free zones or so called "encounter zones". By prohibiting and diverting motorised traffic in streets and public places, the space is now used by residents for various activities. The district of Friedrichshain-Kreuzberg is constantly evaluating and testing the implementation of such zones in the district.</p> <p>Moreover, the district is implementing a Zero-Waste concept for the public space. In this context the district aims to fundamentally reduce the generation of waste in the public space by markets, shops or restaurants.</p> <p>Another important component to reduce the climate impact of the district is the expansion of green spaces. The development concept "More Green in Friedrichshain-Kreuzberg" is delivering the guidance for this development by, for instance proposing sites for the development of new green spaces.</p>
Contact	<p>District of Berlin Friedrichshain- Kreuzberg, Department for the Environment: MAIL</p>



Course Unit: Striving for Sustainable Neighbourhoods

A) Further Resources – Project Profiles

Project Title	Möckernkiez, Berlin
About the Project	<p>The Möckernkiez is a newly developed sustainable neighbourhood in the district of Berlin Friedrichshain-Kreuzberg. The neighbourhood was developed and is managed by the cooperative for self-managed, social and ecological living eG.</p> <p>Within the Möckernkiez model project 14 residential buildings with 471 residential units were created. ¹ All buildings were built following current ecological building criteria and have an integrated local and eco-friendly heating and power network. The neighborhood is completely car-free, focusing on pedestrian and bicycle traffic and is community-orientated, aiming for an enhanced social cohesion in the neighborhood.</p>
Actors & Financing	The Möckernkiez was developed and is managed by the Möckernkiez eG, a cooperative , in which all members of the cooperative own a share of the neighborhood and are entitled to actively shape the neighbourhood. The cooperative was also responsible for planning and building the neighbourhood.
Investment Budget	The construction costs for the neighborhood have been calculated with approx. 130 million Euro . ²
Status & Timing	The cooperative Möckernkiez eG was founded in 2009. From 2009 till 2011 members of the cooperative and the town planning office "Baufrösche" jointly created the urban design of the neighbourhood with the help of various workshop formats and numerous rounds of discussion.
Innovative Aspects	<p>The neighbourhood Möckernkiez demonstrates various aspects of a sustainable neighbourhood. Firstly, all buildings were built following current energy-efficient passive house standards and ecological building criteria. This results in a heavily reduced energy demand for heating and cooling, as well as a healthy indoor climate.</p> <p>Moreover, 100% of the energy demand for heating is covered by renewable energy sources, while 40% of the electricity demand is produced locally. A large proportion of the energy for electricity and heating is generated by integrating a cogeneration unit, operated with biomethane, while 40% of the electricity demand is produced by a photovoltaic system, small wind turbines and a wastewater pump using the energy of the hot sewage water.</p> <p>Important component of a sustainable neighbourhood is its mobility concept. The Möckernkiez promotes the use of sustainable modes of transportation by designing the neighbourhood completely car-free, implementing a car sharing scheme for its inhabitants and encouraging the use of the bicycle by a bicycle repair shop for its residents.</p> <p>Decisive factor, becoming a sustainable neighbourhood is its social sustainability, which involves the social cohesion in the neighbourhood, intergenerational and social justice, as well as the active involvement in the community. By providing differently structured flats and lower rents, the neighbourhood is socially mixed, while demonstrating a high degree of social cohesion for instance through its various communal spaces.</p>
Contact	Möckernkiez cooperative: MAIL

¹ sdg21 (2021): [Möckernkiez eG Berlin](#)



Course Unit: Striving for Sustainable Neighbourhoods

A) Further Resources – Project Profiles

Project Title	Schumacher Quartier, Berlin- Tegel
About the Project	The Schumacher Quartier (quarter) is a newly planned quarter on the site of Berlin's former airport, Berlin-Tegel . The energy-efficient, eco-friendly neighborhood will be built for over 10 000 people in approx. 5000 flats and shall be the largest quarter in wooden construction worldwide . ¹ In the immediate vicinity to the new Schumacher Quartier (quarter), the terminals of the former airport Berlin-Tegel and the surrounding areas will be developed into the "Urban Tech Republic", an industrial and research park for urban technologies, generating approx. 20 000 jobs. ²
Actors and Financing	The state of Berlin has commissioned the state-owned Tegel Projekt GmbH with the design and development of the Schumacher Quartier. The quarter will be financed by budgetary funds of Berlin, financial contributions of the European Union and the federal government of Germany, as well as private investors. ³
Investment Budget	The total investment costs are estimated with 8 billion euros . ⁴
Status & Timing	The Schumacher Quartier is in the end of the planning and design phase. The start of construction will be in 2022. First flats are planned to be occupied from 2027 onwards, while the whole quarter will be finished in the mid-thirties .
Innovative Aspects	<p>The quarter will be the largest timber construction quarter in the world. As timber is one of the most sustainable building materials, the construction of the Schumacher Quartier will be especially eco-friendly and resource-saving.⁵</p> <p>The Schumacher Quarter implements various measures for a CO2-neutral neighbourhood development such as an open low-temperature heat network (LowEx) with decentralised feed-in of renewable heat from the buildings. Moreover, the quarter integrates the comprehensive generation and storage of renewable energy for on-site power supply.⁶</p> <p>Moreover, the mobility concept of the Schumacher Quarter is innovative through its approach on strengthening "active mobility", such as cycling and walking. Car-sharing services will be available at so-called "mobility hubs" in the district.⁷</p> <p>Furthermore, the quarter integrated various principles of a Sponge City into its design, establishing water-retaining structures in private and public spaces and fostering an integrative open space design and multiple use of open spaces, e.g., for rainwater management, as play areas and for biotope development.⁸</p>
Contact	Tegel Projekt GmbH (company responsible for the development of the quarter): MAIL
Further Resources	Tegel Projekt GmbH: WEBSITE

¹ City Of Berlin (2021): The Schumacher Quartier

² Tegel Projekt GmbH (2021): About Berlin TXL

³ Tegel Projekt GmbH (2021)

⁴ Tegel Projekt GmbH (2021)

⁵ Sdg21 (2021): Schumacher-Quartier: 5000 residential units in timber construction in Tegel

⁶ Sdg21 (2021): Schumacher-Quartier: 5000 residential units in timber construction in Tegel

⁷ Sdg21 (2021): Schumacher-Quartier: 5000 residential units in timber construction in Tegel

⁸ Sdg21 (2021): Schumacher-Quartier: 5000 residential units in timber construction in Tegel



Course Unit: Striving for Sustainable Neighbourhoods

B) Further Ressources – List of Studies, Publications and Links

Below is a collection of further knowledge sources, meant as complementary material to the THEMATIC CITY VIDEOS and EXPERT TALK sessions of this course. This collection of publications, studies, webinars and videos provides suggestions to dive deeper into the topic of construction waste and sustainable architecture.

To access the publication/ video etc. simply click on the **bold title of the resource**.

Studies and Publications

Integrated and sustainable Urban Development

Poster: Sustainable Cities – Towards a Low- Carbon and resilient Future – Published by GIZ

Integrated Urban Development - a Prerequisite for Urban Sustainability in Europe – Published by the Federal Ministry of Transport, Building and Urban Affairs, 2007

National Progress Report on the implementation of the New Urban Agenda – Published by the Federal Institute for Research on Building, Urban Affairs and Spatial Development, Authors: Jürgen Gies et. Al., 2021

Sustainable Mobility in Urban Areas

10 Principles for Sustainable Urban Transport (in Chinese; [click here](#) for the English version) – Published by the GIZ Sustainable Urban Transport Project

Cycling (systems) in Germany and Europe – Published by GIZ, Author: Planersocietät, 2019

Public Transport Integration and Transit Alliances (in Chinese; [click here](#) for the English version) – Published by the Sustainable Urban Transport Project

Financing Sustainable Urban Transport (In Chinese; [click here](#) for the English version) – Published by GTZ, 2010

Transportation Demand Management (In Chinese; [click here](#) for the English version) –Published by the Sustainable Urban Transport Project, Author: Andrea Broaddus et. Al., 2009

Urban Transport and Energy Efficiency (In Chinese; [click here](#) for the English version) – Published by GIZ, Authors: Hanna Hüging et. Al., 2012

Beyond the Fossil city: Towards low Carbon Transport and Green Growth – Published by GIZ, Authors: Daniel Bongardt et. Al., 2011

Zero and Low Carbon Mobility Ideas, Made in Germany – Published by the German Partnership for Sustainable Mobility, Authors: Michael Arnd, Larissa Eggers et. Al., 2015

Recommendations for Mobility Master Planning – Published by the German Partnership for Sustainable Mobility, 2013

How C40 cities are implementing zero emission areas – Published by the Transformative Urban Mobility Initiative, Author: Kate Laing, Jahr

Strategical recommendations for cycling development – City Administration – Published Central Meet Bike, Author: Jan Schubert et. Al., 2014

Cycling expertise: German Experiences, Chinese Opportunities – Published by GIZ China, Author: Daniel Bongardt, 2013

Adapting Urban Transport to Climate Change (In Chinese; [click here](#) for the English version) - Published by GTZ, 2009

Open Streets: Streets for People – Published by GIZ, Authors: Rebecca Campbell et. Al., 2019

Changing Course in Urban Transport- An illustrated Guide – Published by GIZ, Authors: Robin Hickmann et. Al., 2011

Car free cities: Pathway to healthy urban living – Published by Environmental International, Authors: Haneen Khreis et. Al., 2016

Examples of Sustainable/ Zero-Carbon Neighbourhoods in Germany

Link to a List of **Pilot Projects for Energy Efficient Cities** – Collection by EnEff:Stadt

Link to the **web database sgd21.de**, providing detailed information on many sustainable neighbourhoods in Germany

Link to Website of the **Global Initiative For Resource Efficient Cities**

Freiburg/ Vauban:

Quartier Vauban: Sustainable District in Freiburg – Case Study – Published by GIZ, Author: Tobias Gorges, 2011

Quartier Freiburg Vauban (In Chinese) – Published by the Stadtteilverein Vauban e.V., 2016

“What can we learn from this thriving, car-free, German neighbourhood? Get rid of parking spaces” – Published by FastCompany, 2019

Heidelberg Bahnstadt:

Link to the Website of the City of Heidelberg ([click here for Chinese](#); [here for English](#))

Hannover Kronsberg

Link to the Website of the Eco Village Hannover ([click here for Chinese](#); [here for English](#))

Hamburg Jenfelder Au

Link to the Website of the IBA Hamburg and a short Introduction of the quarter Jenfelder Au ([Click here for English](#))

Please see the “FURTHER RESSOURCES” of training course #5 for more information on resilient and adaptive neighbourhoods.

Towards Eco-Efficient Buildings and Neighbourhoods

Financing Instruments for Green Buildings – Published by GIZ in China and the Sino- German Urbanisation Partnership, 2021

Feasibility of positive energy districts in China -Research Report by the China Academy of Building Research (CABR) – Published by GIZ in China and the Sino- German Urbanisation Partnership, 2021

The Urban Energy Transition in China and Germany -Selected best practices – Published by GIZ in China and the Sino- German Urbanisation Partnership, 2021

Building-Integrated Photovoltaics (BIPV) in China and Germany – Published by GIZ in China and the Sino- German Urbanisation Partnership, 2021

Plus Energy Buildings & Districts – Published by GIZ, Author: Happold Ingenieurbüro GmbH, 2019

Energy Efficiency of Buildings & Districts in Urban Renewal – Published by GIZ, Author: Happold Ingenieurbüro GmbH, 2019

Sustainable Neighbourhoods- Approaches to Improve the Energy Efficiency of Residential Areas – Published by German Association for Housing, Urban and Spatial Development (DV), Authors: Christian Huttenloher et. Al., 2011

Planning, building and operating buildings sustainably (in Chinese; [click here](#) for the English version) - Published the German Sustainable Building Council

Climate- Friendly Building in China (In German and Chinese) – Published by the German Energy Agency, Authors: Yu Chuai, 2020

Energy and Resource Efficient Urban Neighbourhood Design- Principles for Tropical Countries – Published by United Nations Human Settlements Programme, Authors: Vincent Kitio et. Al., 2018

Climate Positive Now! -How every building can make a contribution to climate action – Published the German Sustainable Building Council, Authors: Dr. Anna Braune et. Al., 2020

Building for a better world – How buildings contribute to the UN Sustainable Development Goals - Published the German Sustainable Building Council, Authors: Pia Hettinger et. Al., 2020

Framework for Carbon neutral buildings and sites - Published the German Sustainable Building Council, Authors: Dr. Anna Braune et. Al., 2020

Added value of certified buildings - Published the German Sustainable Building Council, Authors: Mario Schneider et. Al., 2019

Added value of certified districts - Published the German Sustainable Building Council, Authors: Anastasia Dridiger et. Al., 2018

On the Road to Zero-Energy Buildings: Commercial and Municipal Properties – Published by the Federal Institute for Research on Building, Urban Affairs and Spatial Development

Actors and Initiatives

Link to the Website of the Initiative "**German- Chinese Eco-Cities**" (Website in Chinese, **Click here** to open the German website)

Link to the Website of the Initiative "**Energy – efficient City**" (EnEff. Stadt)

Link to the Website of the Initiative "**Climate Alliance**"

Link to the Website of "**ICLEI- Local Governments for Sustainability**"

Link to the Website of "**Energy Cities – The European association of cities in energy transition**"

Please also check the compilation of material of the four other training courses

(1) Urban renewal in former industrial areas

(2) Cultural Heritage and Sustainable Urban Renewal

(4) From construction waste to sustainable architecture

(5) Adaptation strategies

And the publications and videos on the website "Cities and Infrastructure Transition in China**".**