Behrens-Ufer Industrial site in Berlin transformed into innovative commercial district

Mixed-use developments, as cities within the city, where residential, working and commercial spaces are combined and a comprehensive modernisation is possible, are becoming an increasingly important topic in sustainable urban development. In 2020, the <u>New Leipzig</u> <u>Charter</u> reaffirmed this commitment as a key policy framework document. The so-called productive city, i.e. the manufacturing industry as part of an integrated urban development strategy, is also becoming more and more important for the transformation of our cities.

Behrens-Ufer (BE-U) is a new commercial development taking shape in southeast Berlin with a forward-looking vision. The design, redevelopment and conversion of the ten-hectare industrial site into a sustainable commercial area is being carried out by ZÜBLIN. When it is completed by the end of 2028/early 2029, the site will have been fully modernised for business, production and science, with restaurants and versatile spaces for community use – innovative, self-sufficient and centred on people and their needs.

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Sustainable transformation of an industrial site

Behrens-Ufer is situated between Ostendstraße and the river Spree in Berlin-Schöneweide, a former industrial area that has recently become an attractive location for research, science, business and culture.



The revitalisation is being carried out within the framework of doughnut economics, which takes into account both the earth's ecological boundaries as well as the social needs of the urban population in terms of growth in order to enable a sustainable, future-safe economy.

The development will offer a total of 234,000 m² of commercial rental space. One of the first new tenants will be an internationally active high-tech company from the electronics industry, who will set up a production site in one of the factory halls. Part of the space in the Peter-Behrens-Bau and in the other existing buildings will remain occupied during refurbishment.

The old historically protected buildings and the energy-efficient new buildings will in part be connected with one another. The new underground car park will have charging stations for cars and bikes. The site, which is almost entirely built-up, will partially undergo desealing to remove impervious surfaces, followed by the 1 A vibrant community space: the new development will feature public areas accessible to all. © DIEfabrik GmbH

creation of green spaces that will serve as public squares while positively impacting the urban climate and helping to bind carbon dioxide from the air.

The new mixed-use site is intended to become a vibrant community hub. Following demolition works in the south end, construction will begin on a promenade – taking into account the groundwater protection zone – to create space for aquatic activities and other recreational use. The promenade will be freely accessible through the new development. This open character will be further enhanced through the creation of sightlines to the river.

The project will bring together many different experts from within the STRABAG Group. In addition to Zentrale Technik, Torkret GmbH and ZÜBLIN Timber, the expertise of ZÜBLIN Ground Engineering's hydraulic engineering team will also be required. <u>LEAN.Construction</u> methods are being used to avoid waste in the workflows and to ensure efficient and sustainable coordination on the construction site.

1 Peter-Behrens-Bau 2 Factory Hall 5 3 Building D 4 Factory Hall 1 5 BE-U South / Promenade



3



2 The distinctive atrium and other hallmarks of the Peter-Behrens-Bau are being preserved. © DIEAG

Peter-Behrens-Bau: urban development meets heritage preservation

The heart of the development site is the landmarked Peter-Behrens-Bau, built in 1917, with its stunning atrium. The three-winged factory with 58 m high water tower previously served as a production facility for automobiles and later for television electronics. The historic building will undergo extensive renovation and modernisation works along with two factory halls and so-called Building D.



Katharina Kurth, ZÜBLIN project manager One of the main challenges when renovating existing buildings is how to reconcile the high sustainability standards with heritage preservation requirements.

In the former assembly hall, for example, reconciling sustainability standards with heritage protection is achieved as follows: While the historic windows are being partially restored or replicated, additional windows in the interior of the hall create a pleasant indoor climate while also taking heating and cooling requirements into account.

Many details of the original building, such as the wooden doors and the impressive, tiled panels in the historic towers, are to be preserved as far as possible. The wall panelling and a mural are also being painstakingly restored. All restoration work will be closely coordinated with the heritage preservation authorities.

Doughnut economics

Doughnut economics is a model of economic development created by Kate Raworth. The inner circle represents the social foundation (including social equity, income and health), while the outer circle represents the ecological ceiling (such as climate change, ozone layer depletion and biodiversity loss). The doughnut itself represents a regenerative (circular) economy that balances human needs and planetary boundaries.



The potential of mixeduse developments

Mixed-use developments offer enormous potential for sustainable and climate-neutral urban growth because of their all-inclusive approach. The shared use of space and the integration of different areas of life can help to drive environmentally efficient and costeffective modernisation processes.

The productive city, as an element of urban development policy, offers location advantages for the manufacturing industry with reduced delivery times and shorter work distances as well as synergies in material flows and energy supply.



Behrens-Ufer impressively demonstrates how modernisation, climate protection and construction in heritage settings can go hand in hand. This is precisely where the potential of mixed-use development lies.

Till Ackers, ZÜBLIN technical business unit manager Energy-efficient and sustainable construction methods are the focus at Behrens-Ufer. Several DGNB sustainability certifications are being sought: platinum for the new buildings and silver for the heritage buildings as well "Sustainable Construction Site" and "Sustainable District".

The Behrens-Ufer development is focused on self-sufficiency in the energy supply and innovative solutions for an all-inclusive resource-efficient circular economy. Considerations include the use of deep geothermal energy, solar façades, rainwater storage, ice storage and air-source heat pumps, as well as the addition of rooftop solar panels for the Peter-Behrens-Bau. Electricity and heat generation will largely take place on site. Photovoltaic collectors, among other things, will be integrated into the new building façades by GASAG Solution Plus. This frees up rooftop space for garden use.

Innovative and sustainable solutions

Sustainable building materials, cradle-to-cradle products, and innovative, climatefriendly energy technology solutions will be used during construction and fit-out of the buildings.



3 Several new buildings will be constructed using the timber hybrid construction method. © TCHOBAN VOSS Architects 04/2025

Wood: a renewable resource

Wood is the most sustainable building material and has several positive properties:

- Carbon sequestration: 1 m³ of wood can store 1 t of CO₂¹
- Renewable resource
- E fficient and cost-effective thanks to high degree of prefabrication
- · Creates healthy indoor climate



The specialists from ZÜBLIN Timber plan to install around 22,000 m² of floor slabs in two of the new buildings using the timberhybrid construction method. Approximately 650 m³ of wood will be used in the buildings' load-bearing framework. Wooden facades with a total surface area of around 2,900 m² are also planned.

¹ Berechnung: Arno Frühwald, Universität Hamburg



Water-bearing clay ceilings

Innovative heating and cooling technology: the new buildings will feature <u>EPD</u>-verified clay ceilings with waterbearing pipes.

Benefits:

- Nearly carbon-neutral production of clay modules
- Return to the materials cycle possible
- Natural dehumidification thanks to high clay content (high sorption values)
- Natural cooling thanks to evaporation
- Ceilings as energy storage
- Flow temperature during heating: max. 35°C (in comparison: 55°C for static radiators)
- Healthy radiant heat
- Usually no mechanical ventilation required
- Creates healthy indoor climate

Ceiling modules made of clay with water-carrying pipes from AgrillaTherm

