

### People with a handicap are welcome

The entire building has been made accessible to the handicapped thanks also to the financial support of the state of Saxony-Anhalt. All public areas such as the library, the information centre and the canteen can be used by the handicapped unassisted. The same goes for the auditorium, whose seating and podium areas are accessible for the handicapped.

Doors, stairways and elevators are also barrierfree, as are the sanitary facilities. In the building and throughout the premises, there is a guidance system which helps handicapped persons to find their way.

Visitors can access the forum (foyer) and visit the exhibitions there during the normal opening hours of the building:

Monday through Friday	6.00 a.m. 10.00 p.m.
Saturday	6.00 a.m. 4 p.m.
Sundays/holidays	8.30 a.m. 4 p.m.

The visitors centre (information material) and the library near the forum are open

Monday through Wednesday	9.00 a.m. 3.30 p.m.
Thursday	9.00 a.m. 5.00 p.m.
Friday	9.00 a.m. 2.00 p.m.

## The Federal Environmental Agency (UBA) in Dessau

### A model of ecological and handicapped-accessible construction



### The UBA in Dessau in brief:

Size of property: 27,300 square metres (m<sup>2</sup>)

Gross base area: 38,800 m<sup>2</sup>

Floor space: 17,800 m<sup>2</sup>

Gross volume: 195,000 m<sup>3</sup> (including atrium/forum)

Number of floors: 4 (plus basement)

Number of parking spaces: 190

Structure: reinforced concrete skeleton with supports and flat slab floors; Wood façade: wood frame structure with insulation; Atrium and forum: roofed over with a folding glass roof; Auditorium: separate structure within the forum, 360 seats; Canteen: separate structure

Visitors wishing to obtain comprehensive information on the unique architectural and ecological concept of the new building and visit the atrium can join a guided tour. For details, visit our visitors centre or our website ([www.umweltbundesamt.de](http://www.umweltbundesamt.de)).

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[www.umweltbundesamt.de](http://www.umweltbundesamt.de)

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Photos: Busse, Möcker Graphic: sauerbruch hutton

Architects: sauerbruch hutton - Berlin

Umwelt  
Bundes  
Amt   
Für Mensch und Umwelt

The Federal Environmental Agency (Umweltbundesamt -UBA-) is **Germany's central federal scientific authority for environmental protection**. It works to protect water, soil and air and deals with environmental health risks. Currently, emphasis is placed on the areas climate protection/energy saving, transport, consumption, waste and chemicals. The Agency is also involved in the enforcement of major environmental legislation. The UBA was established in 1974 in Berlin. After German unification, the Commission on Federalism decided to relocate the UBA to Saxony-Anhalt. Since May 2005, some 750 of the Agency's total staff of over 1200 employees now work in Dessau. Based on an architects' contest, a new Agency building was erected in Dessau, with the following objectives:

- to achieve high ecological standards in construction and operation
- high economic viability
- accessibility to the handicapped
- best-possible integration into the urban surroundings



#### The location

The UBA's new building is located in the centre of Dessau, right by the main train station, in the so-called **Gas Quarter**. Staff members and visitors can use environmentally friendly modes of transport to get there, i.e. rail, local public transport, the bike or walk.

The site was once one of the cradles of industrialisation. It was here that industrial gas production first started in Germany in 1855. A stone's throw away, Hugo Junkers began producing instantaneous gas-fired water heaters in 1895. Prior to construction of the new UBA building, the derelict industrial site which contained contaminated land underwent remediation.

#### The new building

With its characteristic shape and the colour scheme of its façade, the new UBA building blends in well with its surroundings. A **four-storey ribbon** of offices and other rooms wraps around the **"forum"**, which is open to the public, and the **"atrium"**, which is reserved to Agency staff. In conjunction with a separate building housing the **canteen**, an **auditorium** and two **listed buildings** that have been rehabilitated a **production hall** of a former gas appliance factory and the **"Wörlitzer Bahnhof"** - , the building designed by Berlin architects sauerbruchhutton forms an open ensemble within a newly created park (designed by ST raum a., Berlin). This is complemented by various **art objects**: the LCD screen **"Traces left by visitors"** (Elisabeth Heindl, Munich), the **"Crossword puzzle"** (Michael Sellmann, Berlin), and metal sculptures entitled **"Folded steles"** (Hans-Joachim Härtel, Erfurt) which hide the suction ports for the geothermal energy exchangers.

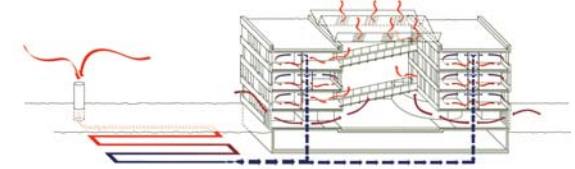


#### Heating and cooling: energy-efficient and environmentally friendly

The energy requirement of the **highly insulated building** is between that of a low-energy building and that of a passivhaus building; it is over 50% lower than the level required by the **Heat Insulation Ordinance** and about 30% lower than prescribed by the **Energy Saving Ordinance**.

District heating covers the basic heat demand of the building, and a further part is provided by a **landfill-gas-fired cogeneration unit** (51% heat and 36% electricity) with an efficiency of 87%. Due to noise nuisance at the western side of the building, it was not possible to implement the original plan which envisaged natural ventilation of the entire office building. The offices in that part have to be ventilated mechanically with the help of a geothermal energy exchanger.

The ventilation system can be controlled separately for the various areas. To reduce the energy demand, the outside air fed to the system is passed through a **geothermal energy exchanger** one of the largest in the world. This is where the air is preconditioned heated in winter, cooled in the summer. Irrespective of this, windows can be opened in all of the rooms.



**Solar-supported cold production** via an adsorption cooling machine cools the rooms of the computer centre. The auditorium is cooled by a compression cooling machine, to which energy is supplied by thermal solar collectors situated on the flat roof of the main building. Additional electricity is provided by a **photovoltaic system** installed on the folding roof over the forum. The share of **renewable energy sources** (landfill gas, solar electricity, solar heat and geothermal energy) is about **20 percent**.



#### Environmentally and health compatible building materials

Strict environmental and health criteria were observed in the selection of building materials. Materials containing critical ingredients were not used. Whilst the shell of the building is a reinforced concrete skeleton structure, the prefabricated elements of the façade are made entirely of **larch wood** and as such they are the most conspicuous elements of the building's **sustainable architecture**. The materials were chosen with the help of **life-cycle analyses**. Building products for interior use and for the geothermal energy exchanger were checked for pollutant releases.