

## Vauban ecodistrict, Freiburg

by [Veronica Restrepo](#) / 2015-11-27 12:06:48 / International / 1 / EN



**Address 1 - street** : 79100 79100 FRIBOURG-EN-BRISGAU ALLEMAGNE, Germany

**Population** : 5 000 hab

**Number of jobs** : 600 jobs

**Starting year of the project** : 1996

**Delivery year of the project** : 2006

**Key words** : far-reaching participation, Co-housing, car sharing



41 ha



20 000 000 €

**Proposed by :**



**Certifications :**



### ID CARD

Quartier Vauban is an internationally renowned model district for ecological, low-energy, low-car & traffic urban development. Bought by the Freiburg City Council and developed in association with a community group, the former army barracks site has been transformed into a sustainable neighborhood. The project consists of refurbished former barrack buildings and new built areas, of which approximately 40% has been self-developed by community groups (Baugruppen) in the so-called "co-housing model".

The suburban redevelopment project 'Quartier Vauban' (QV) is situated in the foothills of the Black Forest in Freiburg, south-west Germany, and is "one of the most celebrated model sustainable districts" (ITDP, 2011, p. 96). Vauban illustrates the development of a sustainable urban district, adopting a cooperative planning process and socio-ecological values (Schroepfer & Hee, 2007).

Often referred to as the 'solar capital city of Europe', Freiburg is a regularly mentioned forerunner in environmental practice and policy.

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### Programme

- Housing
- Public spaces

- Green spaces

## CO2 Impact

CO2 Impact : 40 000 tCO2

## Project progress

- Operational phase

## Procedure type

- Urban développement permit

## Key points

- Governance
- Quality of life
- Mobility
- Resources

## Certifications

- Ecodistrict national label

## More info

<http://urbanlab.eu/>

## Data reliability

Assessor

## TERRITORY

### Type of territory

Vauban "was used as an army base since the 1930s until 1990 when the French military presence ended and activists created the slogan 'barracks into dwellings' in light of an acute shortage of homes in the Freiburg area" (Schroepfer & Hee, 2007, p. 343). Construction of the 41-hectare urban regeneration project began in 1998 and was mainly completed by 2006, although a few lots were still being developed in later years (ITDP, 2011; Kasioumi, 2011). The sustainable urban district is now home to 5000 residents and provides 600 on-site jobs.

### Climate zone

[Cfb] Marine Mild Winter, warm summer, no dry season.

## More info

<http://www.vauban.de>

## KEY FIGURES

## QUALITY OF LIFE

### Quality of life / density

*Design for a sense of place*

The Baugruppen in Vauban have been largely successful to create a living environment in which they feel comfortable. The focus on decreasing car-dependency and creating a green, walkable neighbourhood adds to the creation of a sense of place. Moreover, different building heights & colors add visual and architectural interest.

## Social diversity

### ***Failed to reach the social mix target***

Quartier Vauban failed in some respects to meet its ambition to create a balance in social groups within the district. With a considerable attraction to families, over 75% of Vauban households have children under the age of 18 years old (Scheurer & Newman, 2009). Moreover, if Vauban suffers from anything, it would be the middle-class monoculturalism as its residents are largely European, young and wealthy.

Moreover, due to cancelled governmental subsidies, the project failed to reach its target of 25% social housing stock primarily being owner-occupied dwellings, with some homes for private rent.

## Social inclusion and safety

The far-reaching participation and social work that was organized by Forum Vauban gave voice to the people's needs and supported their initiatives, invented innovative ecological and social concepts, and increased the communication and participation in the development.

### ***Affordable housing***

The co-housing concept resulted in a marked reduction in the individual construction costs for Vauban residents at the time of development (between 57% and 81% of the price of dwellings bought on the open market). Being transformed from a brownfield site to a vibrant district that can only be described as a middle-class district<sup>1</sup>, the homes in Vauban have risen in price since their construction, but have remained affordable. Pioneering residents have seen their homes rise in value, going from an average construction price of €1800 per m<sup>2</sup> in 2006, to €4000 per m<sup>2</sup> on the open market to date. The latter is comparable to other middle-class neighborhoods in Freiburg.

## TRANSPORT

### Mobility strategy

The ecological traffic/mobility concept led to a reduced number of private cars (40-50%), effective public transport, a convenient car sharing system, and an overall high quality of life.

### ***Walkable urban space with good public transportation***

The aim of the district was to reduce car-use and increase the walkability of the area. Pedestrian and bicycle paths in Vauban create a well-connected, efficient and green transportation network throughout the district. Twelve car sharing vehicles are available across Vauban, five of which are located in the solar parking garage. Car use in Vauban is around 50% of that recorded in the city of Freiburg, with non-motorized-transit accounting for almost two thirds of all trips. Across the city as a whole, the bicycle accounted for 34% of commuter trips in 2002, compared with 61% and 91% for Vauban's car-owning and car-free households respectively.

## ENERGY/CLIMATE

### Climate adaptation, resources conservation, GHG emissions

The new residential district in Freiburg performs exceptionally well on the indicators in the Planet category. Mainly due to the low consumption of final energy and its share of renewable energy sources.

The measures that were applied in Vauban have resulted in a reduction in CO<sub>2</sub>-emissions of 40.000 metric tonnes per year.

There has also been considerable attention to adaptation measures in the district. Although most measures were implemented to make the district more sustainable and attractive, they have a dual purpose in the future. The area allows for rainwater to be infiltrated in the ground and an excess to be retained. The high density of green vegetation throughout the neighbourhood (including green roofs, rain gardens etc.) will provide the area with shade during warm summer days and increase the aesthetics of the neighbourhood.

### Energy sobriety

The CHP-plant in Vauban operates on wood-chips from the nearby forest and provides in 73% of the total renewable energy supply, and in 100% of the heating demand in the district. Over 90% of the total energy consumption in Vauban is produced by renewable energy sources, of which the CHP-plant provides the biggest part.

All buildings were built with stringent low-energy standards (65 kWh/m<sup>2</sup>/y), yet most buildings go beyond that standard.

Large share of renewable energy sources in the overall energy demand (>90%)



## Buildings

Baugruppen (about 40 joint building projects were initiated by future residents, providing the fertile ground for ecological awareness and a stable/social community). About 30-40% of the housing stock in Vauban has been built using this concept.

Co-housing "A concept gaining popularity in Germany and the United States, cohousing provides an opportunity for individuals to pool resources to develop medium density housing, rather than purchasing 'off-the-shelf' housing products. Bypassing a traditional developer allows the groups to build their needs into design, create a sense of community and, for some projects, achieve capital cost savings"

(MEFL, 2011, p. 22)



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