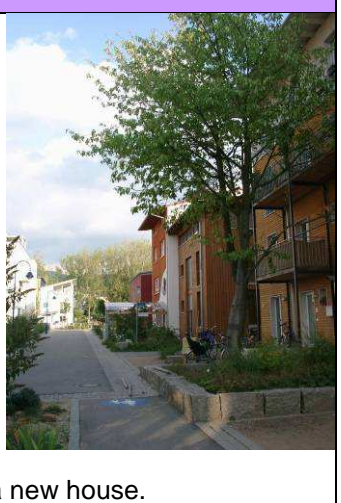
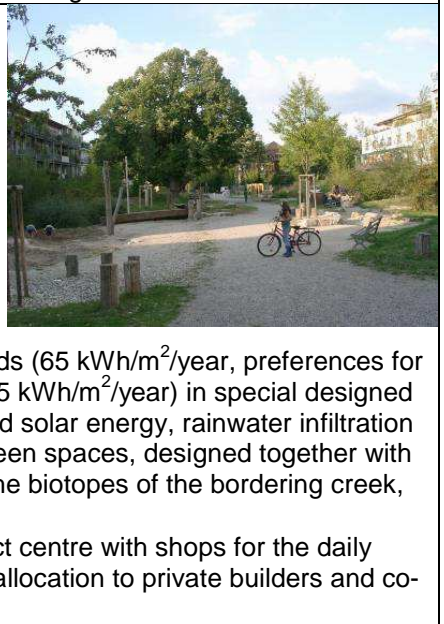




3. Vauban (Freiburg - DE)

<p>Project description</p>	<p>In the South of Freiburg (3 km from the city centre), on the former area of a French barrack site, the Vauban district has been developed on 38 hectares of land in order to host more than 5,000 inhabitants and 600 jobs.</p> <p>The planning for the district started in 1993 and the implementation phase started in 1997. Right from the beginning all issues (mobility, energy, housing, social aspects etc.) were discussed in working groups which were open to residents. Raising public awareness was regarded as key component when planning an environment-oriented district as people have to be convinced that such action not only serves their interests from an ecological point of view but also helps to save money in the long term.</p> <p>Furthermore, change in people's belief system will bring about an acceptance of other policies (e.g. car-sharing, public transport) which are not directly related to the process of building a new house.</p>	
<p>Objectives</p>	<p>The main objective of the project is to implement a city district in a co-operative, participatory way which meets ecological, social, economical and cultural requirements such as:</p> <ul style="list-style-type: none"> • Social: balance of social groups, integration of future building owners, primary school and kindergartens, neighbourhood centre for social interaction, cultural events etc. • Environment: priority to pedestrians, cyclists and public transport, privileges, co-generation plant and short-distance heating system, all buildings constructed at least with improved low energy standards (65 kWh/m²/year, preferences for building owners who reach passive house standard (15 kWh/m²/year) in special designed areas, extensive use of ecological building material and solar energy, rainwater infiltration into the ground, ecological sanitary systems, public green spaces, designed together with the local residents, conservation of the old trees and the biotopes of the bordering creek, etc. • Economic: balance of working and living areas, district centre with shops for the daily needs, division of land into small lots and preferential allocation to private builders and co-operative building projects, etc. 	
<p>Driving factors</p>		<p>The main driving factor was the need to provide accommodation to growing number of inhabitants. Other major driving forces for the development of Vauban are the ideas, creativity and commitment of people involved and the common goal to create a sustainable neighbourhood.</p> <p>The principle "Learning while Planning" adopted by the city allowed flexibility in reacting to new developments.</p> <p>Green image - The existence and popularity of Vauban helped the city of Freiburg to be recognised as the green capital of Germany.</p>
<p>Financing structure</p>	<p>In 1992, The City of Freiburg bought the area from the Federal Authorities for € 20,000,000 (54euro/m² instead of 425euro/m² in the surroundings).</p> <p>The public equipments were funded by the local regional authorities for € 2,5 million (for a total cost of 30 million). To be able to invest, the City borrowed money at interesting rates from the banks.</p> <p>The network companies (water, electricity, heating, etc.) invested in the network structures and the users are expected to pay it back.</p> <p>The European LIFE programme and the Federal Environmental Foundation supported the project with € 42 million. LIFE contributed mainly to transport and mobility issues.</p> <p>The global cost of the Vauban quarter is estimated at 500.000.000 € representing only 3 to 5% more than a traditional construction site.</p>	

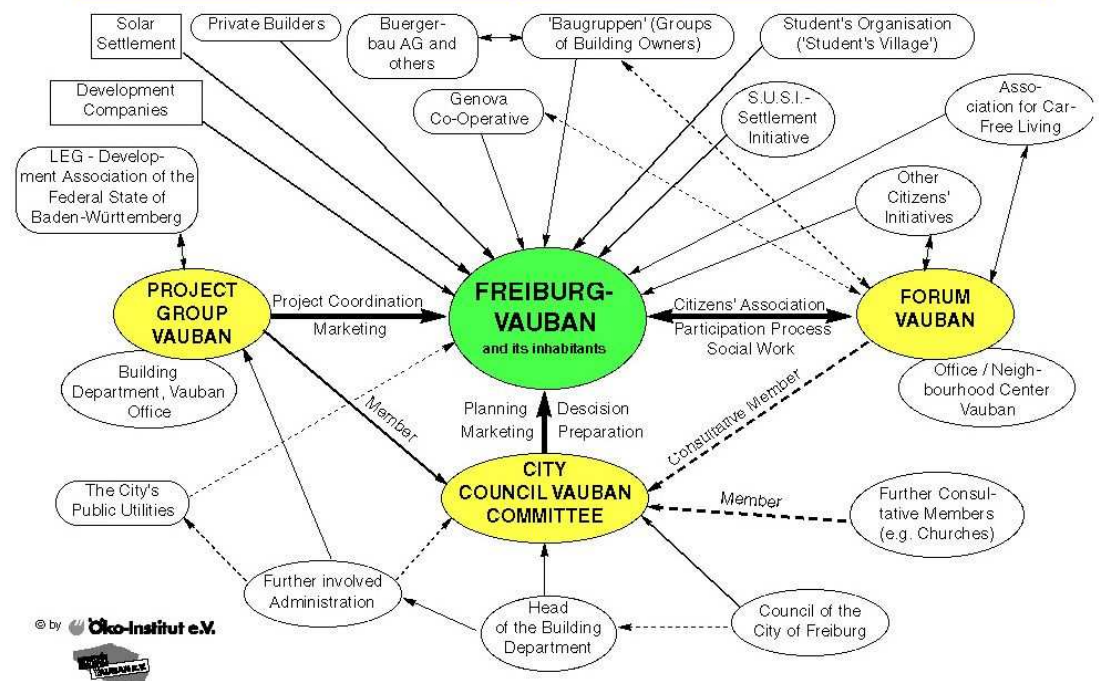
Partners & Roles

Three main acting bodies / institutions are:

- **Project Group Vauban** - the administrative coordination of the local authorities dealing with the Vauban project,
- **City Council Committee** - consisting of representatives from municipal political parties, from the administration and further consultative members such as Forum Vauban. It is the main platform for information exchange, discussion and decision making.
- **Forum Vauban** - association approved as official coordinator of citizens' participation by the City in early 1995.
- **Federal Environmental Foundation** - has supported the Forum Vauban association with a grant for a research project on the impact of citizens' participation in urban planning. This project aims to bring together know-how from difference sources (enterprises, planners, architects, scientists, futures tenants etc.) in order to improve the concept of citizen participation.
- **The EU LIFE project** on the implementation process in Vauban district is supported by the **City of Freiburg**, the **municipal public electricity company** and the **Genova housing association**.



Sustainable Urban District Freiburg - Vauban: Project Structure & Main Actors




Results/Achievements



- **Energy:** all new buildings consume 65 kWh/m²/year; 92 units were built to passive house standard consuming 15 kWh/m²/year; 10 units of improved passive houses, so called "plus energy houses" (houses which produce more energy than they need); district heating grid and co-generation plant (powered with wood chips: 80% and with gas: 20%), active use of solar energy (2500m² of photovoltaic panels and 500m² of solar panels) making Vauban one of the biggest European solar districts.

- **Traffic/public transport:** car usage reduction in the city district with a noticeably higher quality of life: no parking at the doorstep (for large parts of the residential area, the development plan prohibits the building of parking space on private property); private cars are parked in a community car park located at the outskirts of the residential area, cars being only allowed in the residential area for pick-up and delivery. The speed limit on the district's main road is 30 km/h, whereas in the residential area it is limited to "walking speed" (5 km/h). Shops and services can be reached by walking or cycling. For larger distances, residents may use a car from the car sharing association (1 500 members). Two bus lines and a tramway are connecting Vauban with the city centre, the main railway station and the "Hexental" recreation area.

	<ul style="list-style-type: none"> • Water: rainwater infiltration into the ground: the system covers 80% of the residential area. New ecological sewage system within one pilot project: through vacuum pipes faeces are transported into a biogas plant. There they ferment anaerobically together with organic household waste, thus generating biogas, which is used for cooking. Remaining waste water (grey-water) is cleaned in biofilm plants and returned to the water cycle. • Social: extended citizen participation with Forum Vauban and its standards of communication, interaction and integration. The social work being part of the developing process, it helps to set up stable community and neighbourhood structures. Many groups of building owners and the Genova housing association have developed a sensitively balanced community life (co-operative food store, farmer's market initiative, mother's center, shared gardens and green spaces, schools and kindergartens, etc.).
Difficulties faced and solutions found	<ul style="list-style-type: none"> • 10 to 15% of the decisions were taken by the local authority because an agreement could not be met between the inhabitants. • In Vauban planning is conducted according to principles that treat participation of potential residents over and above legal norms as a vital input. As responsibilities for this process lie with the private Forum Vauban association, there is a tendency for this organisation to rapidly become an agent of the local residents and, in consequence, representing their interests instead of serving general public matters. A similar conflict also affects the membership itself since if, for example, the association is in favour of a car-free planning approach, it may neglect the interest of members who are car owners. 
Next Steps	Today, numerous guided tours on a wide range of topics are organised to the Vauban district.
Friendly advice to those who want to build new eco neighbourhoods	The feature of cooperative local planning is an outstanding characteristic of the Vauban case that can be transferred to other cities. Issues of awareness raising and integration of residents' individual interests have been put into practice in an exemplary manner. It is important to achieve a high level of motivation among potential residents as well as among local politicians and persons in charge of implementation.
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