

# Sustainable Urban District Freiburg-Vauban

Excerpt from the submission for the 2002 Dubai International Award for Best Practices to Improve the Living Environment, where Vauban reached Best Practice status and became one of 40 finalists being reviewed by the Best Practices Jury.

For further information about the Dubai Award, announced by the United Nations Human Settlements Programme (UN-HABITAT), go to <http://www.sustainabledevelopment.org/blr/awards/2002/>.

## *Summary*

In the south-west corner of Germany where Switzerland and France are met, forming the beautiful "three corner land", on a former French army barrack site in the city of Freiburg, the new Vauban Residential Area (42 ha) is being developed for 5,000 inhabitants and will be completed in 2006.

The City of Freiburg is responsible for the planning and development of the community. The principle "Planning that Learns" allows a great deal of flexibility. An extended citizen participation organized by the NGO "Forum Vauban" went far beyond legal requirements. Together with city authorities and other partners, Forum Vauban created the project "Sustainable Model District Vauban", with the intention of defining an outline to implement, in a co-operative participatory way, a concept of development for a community, meeting ecological, social, economical and cultural requirements.

The project has been very successful in the fields of energy-saving, traffic reduction, social integration and in creating a sustainable neighbourhood. For example:

- all new houses meet low-energy, passive-house or even plus-energy standards (0-30% energy of the average house in Germany needed - respectively 0-60% of the average new house),
- a highly efficient co-generation plant operating with wood-chips (80%) and natural gas (20%) plus many solar installations provide the remaining heat (hot water) and 65% of the electricity in an environmentally friendly way,
- the traffic-concept promotes "living without an owned car" (only 150 cars per 1000 inhabitants which means 50% reduction of individual car-ownership compared with a similar district in Freiburg and 66% reduction compared with the Freiburg average) and provides alternative forms of mobility such as car sharing and good public transportation,
- streets blend into other open areas, such as playgrounds, public gardens and widened sidewalks along the main boulevard surrounded by preserved old trees, thus becoming areas for social interaction, as the cars which are allowed to travel to and from the residences, while traveling at a very slow speed, must be parked in multi-storey car parks at the periphery of the residential areas,

- more than 50 major workshops were held with the local residents and approximately 40 co-building (co-housing) projects were founded until 2001 which so far provide living space for about 1200 people,
- with the support of Forum Vauban being responsible for the social work, inhabitants started many further activities such as giving birth to (co-operative) shops, a farmer's market and a neighbourhood-center

## *Narrative*

### Situation before the initiative began

Vauban was used as an army base since the 1930s. After the peace treaty in 1991, the city of Freiburg bought the area from the German government, thus making it available for civilian usage, and the decision was made to develop a new residential area due to serious shortage of housing areas in Freiburg.

### Establishment of Priorities, formulation of Objectives and Strategies

1. The prior objective of the **City of Freiburg** has been to offer high quality building spaces for young families within the city's territory and to counteract sub-urbanisation.

A dense urban design concept, low energy standard for all houses, green spaces, good public access (including a new lightrail) and further infrastructure (kindergardens and a primary school) were parts of the plan from the beginning.

2. Further objectives were developed during the **participation process organized by Forum Vauban**. The most important ones are:

- the car-free project combined with the specific traffic concept and the special offer of alternative mobility,
- the promotion and support of building within self appointed groups (co-building groups),
- the design of special areas for passive-houses,
- the decision for a central market place and a community center.

The Forum's priority is to develop a sustainable city district in a participatory way which could become a model for further initiatives.

The main strategical steps to achieve these goals were; the announcement of the extended citizen participation with the principle „Planning that Learns“, the implementation of the organisational structures (see below) and the involvement of the citizens through workshops, news letters and general public activism.

## Mobilisation of Resources

*The project's strongest asset is the involvement of people who are forming the district.* The major resources are the ideas, the creativity and commitment of the people involved in the common goal of creating their own neighbourhood.

### *Technical and human resources:*

Within the city administration 5-7 people are working for the Vauban project as employed staff.

The NGO-initiative started with a handful of volunteers, mainly students and people from the environmental movement. As soon as Forum Vauban received some funding, the NGO created a few moderately paid jobs for young graduates. This combination of idealism, knowledge and economical structures lead to a breakthrough for the Forum's work. The participation process combined with a publicity campaign, then mobilized the first future inhabitants to meet, to bring in their ideas, to form co-building groups and therewith to become active „Vauban-citizens“. Forum Vauban brought together citizens, architects, engineers, financial experts, experienced managers of co-building projects and other partners.

Technical resources were available in Freiburg due to the environmental movement and the city's environmental approach since the 1970s.

### *Financial resources:*

The project has a special status „development site“ and its own budget (US \$ 85,000,000) controlled by Project Group Vauban (see below). The money to clean the area and to develop the infrastructure (neighbourhood center, kindergardens and primary school included) comes from the Redevelopment Fund of the Federal State of Baden-Württemberg (US \$ 5,000,000 = 5.9 %) and from credits raised by the City of Freiburg. All credits have to be repayed through the selling of the building lots. As a whole, the project receives no further subsidies (Builders and co-building groups of course receive the usual support and tax reductions granted by the Federal Republic of Germany and the Federal State of Baden-Württemberg).

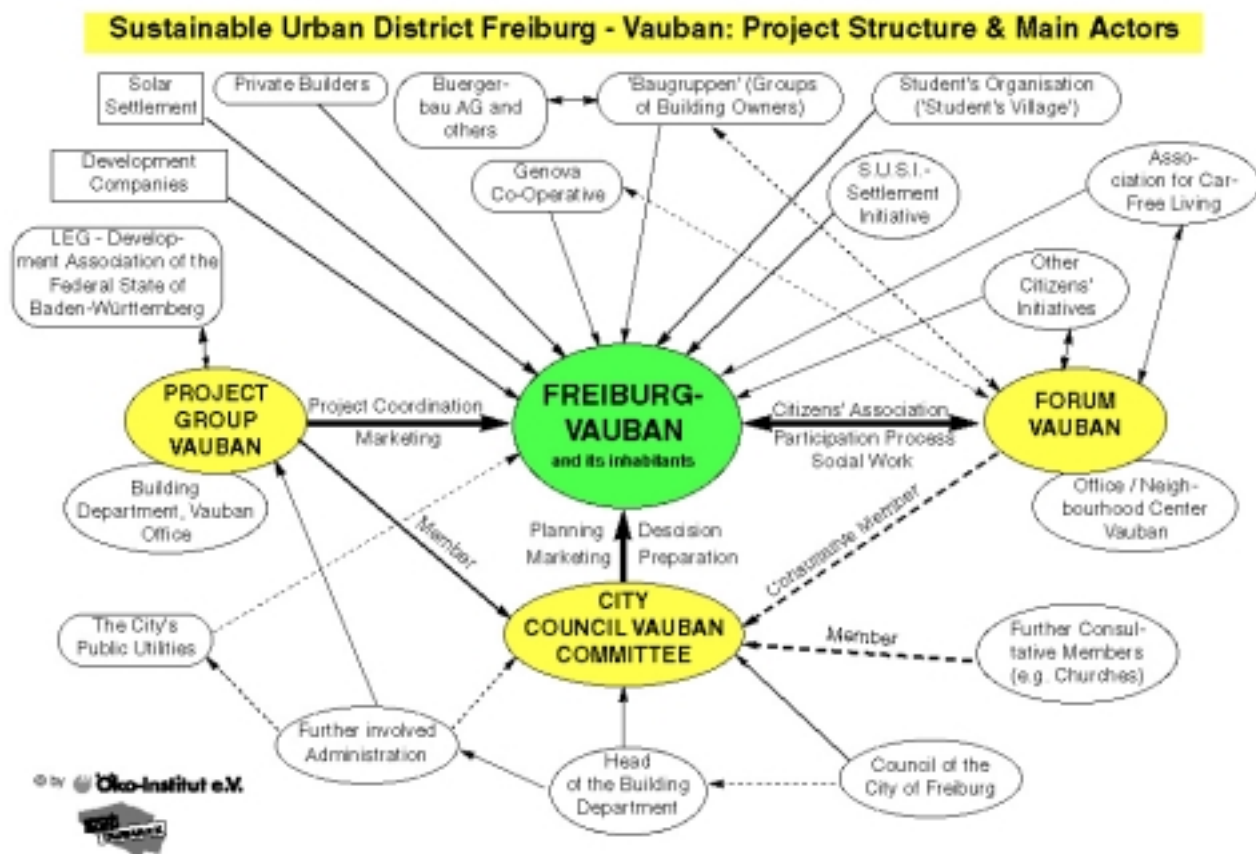
For the participation process and the social work organized by Forum Vauban, about US \$ 200,000 have been allotted for from the above described budget. Further financial support for the Forum's work came from the German Environment Foundation (Deutsche Bundesstiftung Umwelt, DBU) (1996-2002: US \$ 200,000), the European Union's LIFE-programme (1997-1999: US \$ 700,000) and some other institutions. Added by membership fees, donations and moderate economic activities (sponsoring, exhibitions, publications, etc.), the overall 1995-2001 budget of the NGO has been about US \$ 2,000,000. All these figures are dominated by Vauban-related projects. The fixed income of Forum Vauban due to membership fees is US \$ 10,000 per year. The estimated budget of 2002 will be about 150,000 US \$.

## Process

The planning officially started in december 1993. The NGO „Forum Vauban“ was founded in late 1994, became official body of the extended citizen participation in 1995 and has been responsible for the social work since 1999.

The City of Freiburg formed a special committee from the City Council concerning Vauban. In this committee, representatives from political parties discuss the main Vauban issues together with representatives from the administration and further consultative members such as Forum Vauban. Besides many other political, administrative, economical and social contributors, three main acting bodies or institutions connected with Vauban can be identified (see graphic):

- Project Group Vauban (the administrative coordination of the local authorities dealing with the Vauban project),
- City Council Vauban Committee (the main platform for information exchange, discussion and decision preparation - decisions are ultimately made by the City Council) and
- Forum Vauban (the local citizens' association, being the legal body of the extended participation process, as well as being responsible for the social work within the district).



Meetings between Forum Vauban and members of the City administration take place regularly. If necessary, further common initiatives such as round tables and workshops are organized (for example for the planning of the open green spaces).

In the case of Vauban, this process has been framed and supported by some rather “moderate regulations” fixed in the master plan, by the City’s marketing-guidelines and by the consultation offered by Forum Vauban. Moderate regulations refers to a few major stipulations, such as the

general structure of the development site, the fixed height of the buildings, the low-energy standard, the traffic concept and some regulations concerning rainwater infiltration and the greening of facades and roofs. Other figures are flexible. Commercial investors were restricted to some limited areas of the building site. The formation of co-building groups (see above) provided a specific structure and identity within the community and made it quite easy to get in contact with the people. In the field of marketing, the city closely works together with its trustees, the company of Kommunalentwicklung LEG Baden-Württemberg GmbH.

For the social work within the district, further special committees were founded which collaborate with other establishments such as the city's welfare institutions. The social work includes offers for specific target groups (children, youth, families, and others), the initiation and support of grassroot-initiatives and conflict management.

### Results achieved, Sustainability

The City's main objective to develop an attractive neighbourhood for young families was achieved perfectly. By January 2002 more than 20% of the inhabitants were children under 10 years old. The public demand, especially for co-building projects, was stronger than the amount of lots which could be offered.

In reference to the objective of developing a sustainable city district in a participatory way, the Vauban project also achieved a major success. It truly can be said that the project's structure integrates legal, political, social and economical participants from grassroot-level up to the city administration (see above).

### *Main Achievements Concerning Ecology*

- All houses are built at least with improved low energy standard (65 kWh/m<sup>2</sup>a, calculated similar to the Swiss SIA 380/1 standard), about 150 units will have "passive house" (15 kWh/m<sup>2</sup>a) or "plus energy" standard (houses which produce more energy than they need).
- A highly efficient co-generation plant (CHP) operating with wood-chips (80%) and natural gas (20%) is finished and will be connected to the district's heating grid next winter. The estimated CO<sub>2</sub>-savings through good insulation and efficient heat supply are about 60%.
- The number of solar installations (solar collectors and photovoltaik modules) is constantly increasing. Sixty-five percent of the electricity needed in Vauban is produced on-site through CHP and photovoltaik.
- The ecological traffic/mobility concept was implemented with a reduced number of private cars to be parked in the periphery, good public transport and a convenient car sharing system providing a higher quality of life.
- About 40% of the households agreed to live without an owned car and receive financial benefits because they don't have to participate in the public car park.
- The new residential area was built around conserved old trees. These precious gifts of nature introduce the aspect of mature life into the young district. Public green spaces are developed together with the local inhabitants.

- Rainwater is collected separately to be used in houses or infiltrated into the ground and a new sanitary concept using vacuum toilets and a biogas plant was introduced by the co-building project “Wohnen und Arbeiten”.

#### *Main Achievements Concerning Social and Economic Requirements*

- Due to the traffic concept, streets and other public areas become playgrounds for kids and places for social interaction.
- About 40 groups of building owners (co-building, co-housing), the Genova co-operative (Wohn-Genossenschaft Vauban – Genova) and the self-organized S.U.S.I.-settlement initiative (Selbstorganisierte Unabhängige Siedlungsinitiative – S.U.S.I.) were established. Within these groups also people with moderate income level got a chance to participate because building groups, as opposed to individual builders, can receive several discounts so that homes become cheaper. These co-building groups also provide fertile ground for a stable district’s community in giving rise to ecological awareness.
- Some co-building groups made building available even for people with rather low income. S.U.S.I. and Genova also offer apartments and rooms for people with low income. Further projects are planned.
- With the implementation of the extended citizen participation in 1995 and the social work in 1999, people were able to use this as a platform to express their needs, to receive support and to start own initiatives. Some examples are the activities in the community’s district center, the community’s festivals, events at the market place as well as the magazine “Vauban actuel” (also available online: <http://www.vauban.de/vauban-actuel/>) and the internet discussion-forum <http://www.vauban.de/forum>. There are of course many others. The recently published “Vauban-guide” lists about 30 non-commercial initiatives or institutions being active within Vauban.

#### Lessons Learned

*A real participatory process needs extra resources* and has to include both planning and implementation. Just offering suggestions to official planners is not enough. Although city officials were open to take into consideration people’s suggestions, the specific traffic concept of Vauban for example, would not have been established due to major legal obstacles; however, Forum Vauban, in being the official body of the participation process, using creative ideas with legal expertise, was able to convince planners otherwise. This was probably the NGO’s most important role. In retrospect, the „outsourcing“ of the participation was a major benefit for the project. The parallel working structures of Forum Vauban prevented collaborators to get trapped in old thinking patterns and made new solutions available. Participation needs a long-term perspective!

*Small is possible:* The most consequent way to let citizens participate in creating their neighbourhood is to offer them possibilities to plan and to build their homes by themselves - either as single builders or within groups. This means that they maintain the responsibility for the planning and building of their immediate neighbourhood. These groups need support from the official planning (co-building groups need more time to work out their concept and to apply for

building lots) and from independent consultants such as NGOs, experienced architects, private enterprises and others.

*The balance of social groups is most important.* On the one hand, federal support is needed to include more people with low income: Apartments offered especially for low income groups remained limited because federal and state subsidies for such projects were almost cancelled. Private initiatives such as S.U.S.I and Genova (see above) do not have the resources to fill the gap completely. On the other hand, it is the group of well educated, ecologically oriented middle class people who introduce the new life style and give Vauban its specific shape. These people are absolutely crucial for the success of such a pilot project!

*Recycling of old military and industrial areas slows down sub-urbanisation:* Peoples' wishes to live in a healthy environment can be fulfilled by the recycling of older inner city areas. In Germany at least it should not be necessary any longer to convert virgin land for housing purposes.

*The „development site status“ is a chance and a burden:* This status allows the city to take responsibility for the entire planning and marketing without becoming dependent from private developers; however, the pressure to repay the credits (see above) within a limited time frame quite often counteracts the best possible solution.

*Political actions are necessary too:* The above described project structure provides a good platform to exchange information and to negotiate different concepts and viewpoints in order to find out the best common solution. However, this of course was not always possible. Forum Vauban also needed to learn how to use lobbying and publicity work to achieve its goals.

*More funding resources for small, independent groups are needed:* For a small, local NGO like Forum Vauban it is difficult to handle bigger projects economically. When funding rates are paid with a rather big delay sometimes the liquidity of the project is in real danger.

*New districts are „young districts“:* This seems to be a natural thing because usually young families are looking for new homes. To counteract a monolithic age structure more effort needs to be made in order to attract older people to move into new districts.

*The meaning of „density“ is relative to an individual's viewpoint:* In Freiburg, Vauban is known by some as a seemingly dense housing area. People see this as probably the district's biggest disadvantage; however, in comparison to this, visitors from Japan experience Vauban to be a rather desolate area!

*New districts also need to preserve their history:* What happened in the area before? Which signs of history can still be found? What is „the story of the new district“? The answers to these questions are also important to create an identity for the new community.

Carsten Sperling, Summer 2002

Web: <http://www.carstensperling.de/english.html>

Forum Vauban, Alfred-Döblin-Platz 1, D- 79100 Freiburg/Germany

Phone: +49-761-456871-0

Web: [www.forum-vauban.de](http://www.forum-vauban.de) , Web: [www.stadtteilverein-vauban.de](http://www.stadtteilverein-vauban.de)