

CASE STUDY:

City of Zurich

SECTOR: Transport

COUNTRY: Switzerland

STATEMENT ON SUSTAINABILITY

Actively promoting the public transport for trips within the town and in the region with long-term investments, the city of Zurich shows an example of sustainable traffic policy.

BACKGROUND

Zurich, located in the north-east of Switzerland, is the biggest city of the country and is an European pole of financial and commercial interest. The town of Zurich is growing over its political border since the end of the 19th century, becoming the centre of a conurbation with over 1 million people.

Such a conurbation where many working places are located in the town and the suburbs are mostly residential areas the traffic may soon become a problem and needs a clear traffic policy.

In Zurich today's traffic policy is based on the choices done in the seventies. In 1962 and 1973 two projects for the construction of an underground in Zurich were rejected by popular vote. This vote against great investments in new technologies made clear that tax-payers wanted the existing public transport system working better and more efficiently instead of new projects with uncertain results. On this basis the municipality of Zurich worked out in 1974 a new transportation policy based on three principles:

- limitation of the number of private vehicles entering downtown
- canalisation of the car traffic on the principal axes, speed and access limitation on secondary roads.
- improvement and encouragement of the public transport and pedestrian mobility

Financial means were invested in the improvement of the existing tram and bus net. At the end of the seventies all offices of the town administration were ordered to "give way to public transport, pedestrian, handicapped persons, bicycles, deliveries". As well they should "take care of the environment protection, of life quality in the residential areas and of the urban aesthetics in all planning and management actions".

The transport strategy act of 1987 was even more explicit:

- improve public transport
- reduce private traffic
- relieve residential areas of private traffic
- no new parking places in town, reduce the number of parking for commuter
- encouragement for pedestrians and bikers.

It was established that all areas providing at least 300 inhabitants or working places needed to be well connected to the public transport network. "Well connected" means, according to the local law, that all buildings dispose at least over a bus stop within 300m (about 1000 feet) or a train station within 750m (686 yards) with at least one connection every hour between 6am and 12pm (6-24).

Dynamic traffic management

Studies done in the seventies showed clearly that a better management of the tram and bus network on the surface (without underground) was possible and necessary. Many obstacles along the tracks prevented a quick and efficient tram and bus service. Cars on the track or on the sidewalk forcing pedestrians to invade the track, too long red traffic lights, small accidents and other problems prevented the regular circulation of the trams. A "speed up program" was started: reserved tracks were created for tram and bus, the traffic lights were programmed to give way to public transport vehicles (through a sensor system), and a central control room was created for the management of the public traffic in real time.

To manage the private traffic all traffic lights of the town are connected to an electronic traffic management system. This system manages the traffic flow in order to avoid traffic jam. The metropolitan road network is divided in small cells controlled by traffic lights. The system avoids traffic jams acting on the cells. For example in the morning to avoid a surcharge downtown, the cells of the periphery will display longer red phases at traffic lights. People in the traffic have no conscience of this kind of control because the small changes in the system may not be noticed.

Improvement of the suburban public transport

In order to reach the objectives of the transport strategy, an improvement of the suburban connections was needed. On May 27th, 1990 a complete suburban railroad network was activated in the region of Zurich. It is the well-known "S-Bahn Zurich" system. The hearth of this new network was constituted by a new 12km (7,5 miles) long connection across the town, a new terminal at the main station and many small improvements on existing lines and stations. Those investments allowed to create a network of 320km (200 miles) with 13 radial lines departing at Zurich Main station every 15, 30 or 60 minutes. The service is carried out with 120 two-floor train units, 400 seats each.

On the same date the "Public Transport Community of Zurich" was created. Its goal is to co-ordinate the offer of public transport in the region and to organise the ticket selling. All the 41 public transport companies of the region, including the Swiss Federal Railroads joined the Community. Together they administrate 262 lines of public transport (federal and private railroads, trams, trolleys, regional and local busses, ferries and cable cars) for a total lengths of 2300km (1438 miles). According to the community rules the tickets emitted by one of member companies are valid for all other companies too (within the time and geographical area defined on the

ticket). It is now possible to travel on all public transports of the region with the same ticket.

The Public Transport Community also take care of the offer planing, seeking the most efficient service, and optimising the connections between different transport systems.

Restricting the private traffic

Zurich soon noticed that a better urban quality could not be reached through good public transports only. This measures alone will not lead to less private traffic because the car still offer for many people a better comfort than the public transports. Nevertheless to guarantee a high live quality in town it was necessary to restrict the presence of cars in town. The construction of new roads was strong restricted and in case of a new construction side measures have to be carried out. In the residential areas of the town the speed has been limited at 30km/h (19mph). The parking in the residential areas is allowed for one hour only (except for residents) and the attraction of the parking places downtown is reduced by the small availability and the high prices. The number of parking places downtown is regulated by a rule known as "historic compromise on parking places". According to this compromise between political forces, the number of places may not be increased, only substitution of surface places with underground parking are allowed.

Parking on sidewalks is meanwhile forbidden by the federal law since the early nineties. The traffic strategy also includes some actions to control the number of private parking places in the town, but the most important measure for the success of the strategy is the fight against illegal parking. This is indispensable for the success of all the mobility policy.

Marketing

Since the eighties as the campaign "Umwelt-abo" ("eco-subscription") took place, the public transport companies first and the Public Transport Community later yearly invest important means in the marketing of the public transport system. Thanks a smart marketing and a high quality service the public transport of Zurich is high popular and appreciated by all class of travellers, especially by commuters of all social classes, but also students, shoppers, tourists and many travellers for pleasure reasons.

Near the campaigns to promote the public transport the municipality is trying to gain the co-operation of the inhabitants to solve traffic problems with an information campaign called "mobility is culture". The objective of this campaign is to inform the wide public of actual traffic problems possible solutions, and how the citizen can behave to limit the problems.

In the town of Zurich every fifth person with a driving licence owns no car (22%) and only 62% of the persons with driving licence has an own car that he can use at any time (the remaining 16% can use the car of a relative or friend after arrangement)Analysing the daily average distance per person in the city of Zurich the good positioning of the public transport can be read. In average each person over 6 years old in the city of Zurich make 3,3 km (10.5%) on foot or by bicycle, 17,2km (54.6%) by motor vehicle and 10,3km using the public transport (32,7%). This is a very good value compared with the swiss average of 17,7% public.

INDICATORS

The success of this long-term, small steps strategy can be measured by the appreciation of the public for the public transport system, the car possession and use by the inhabitants of Zurich and by the modal split.

EVALUATION

The customer-friendly changes of the public transport of the city of Zurich bought many new passengers. Between 1984 and 2002 the number of passengers increased from 209 to 282 millions per year (+35%).

The suburban railroad network (S-Bahn) was activated in 1990. In the first year of service the number of passengers on the network lines grown by 24%. The growing was than continuous and reached 87% in 2003.

In 2002, 322'000 people were entering the city daily for work or other reasons. 240'000 of them did it by train, using the suburban railroad network (74%).

