

CYCLING

RENNES (France)

THE CITY

Prefecture of the Ille et Vilaine department and Capital of Brittany, Rennes is a town of 212 000 inhabitants (365 000 in the urban area). Its economy is only slightly based on industry, even though Citroën is the area's main source of employment. On the other hand, innovation and research (particularly telematics) are very important.

The population is very young; of 365 000 inhabitants in the urban area, there are 110 000 schoolchildren and 58 000 students. Rennes has a large University and 10 000 people are employed in research and teaching.



GLOBAL TRAVEL POLICY

In 1990, cyclists' safety was very poor; 50% of those seriously injured and 68% of fatal accidents involved cyclists. Accidents were confined to roads with high density traffic and narrow streets. This lack of safety emerged from household surveys performed in 1979 and 1991, which showed a reduction in the use of bicycles from 11 to 4.5%. Half the users had abandoned their bicycles in favour of cars which then helped overload the already very dense traffic situation. The need for action was obvious.

The urban area and the Municipality decided to hold a general discussion in 1990, to study a new urban travel plan to follow the traffic plan drawn up during the 1980s. The objective was to concentrate on alternative means of travel, these being cycling, public transport and walking.

The aim was to change travel habits, particularly those of car drivers, to limit the use of cars. This was consolidated by the implementation of a particular travel organization, within the urban area. The decisions taken included the following:

- complete the circular bypass roads and make them efficient;
- reduce traffic into town, sending it as much as possible to the bypasses;
- provide local public transport: VAL;
- give priority to the public transport network, restructuring systems running in synergy with the VAL;
- give priority to cycling;
- promote public transport to make it efficient: VAL/Bus complementarity, local bus services, make the inner city permeable;
- extend the pedestrian zone and create "30" speed limit zones;
- deviate parasite traffic from the inner city to the outer circular bypass roads;
- make cycling easier;
- change parking regulations;
- promote intermodality.

THE RENNES EXPERIENCE

Planning

From 1975-1984, the Town instigated an initial cycling master plan at the same time as it drew up a new traffic plan. Cycle tracks were given priority on peripheral boulevards, where there was room for them on the one hand, and also in the new development zones. Several problems were revealed: the cost of infrastructures, lack of continuity and complex insertion systems at crossroads.

From 1984, a new master plan was drawn up but never applied because of its high cost, problems with local residents and the longer routes it would have meant for cyclists. Indeed, this plan included cycle routes through residential area parallel to major roads and would have involved the construction of exclusive cycle tracks.

A new discussion early in 1991 proposed to integrate the cycle route master plan with the urban travel plan.

Developments / measures in favour of cycling

In 1990, the network had only 29 km of cycle tracks or lanes. Various developments were introduced to extend this network.

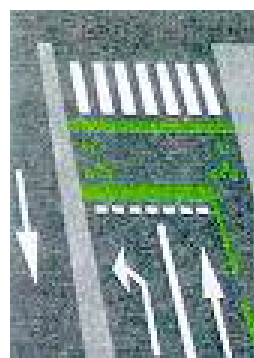
Bicycle lanes or cycling lanes

These are light developments usually obtained by reducing the width of roads used for general traffic. They are marked out in green so that drivers are aware of the possible presence of cyclists and the narrow area in which they can drive (which should reduce their speed). These lanes vary from 1 to 2 metres wide and are separated from the traffic lane by a green strip doubled by a white marking. A cycle logo is added at the start and finish of the lane and at regular intervals along the lane itself. Green grids are painted at intersections.

At crossroads, the cycle lane is continued on the right where the road is wide enough. At crossroads controlled by three-coloured lights, "boxes" have been created for cyclists wishing to turn left; this is a space left free in front of the cars, provided by moving the traffic light stop line back.



A cycle lane



"Box" principle

Mixed bus/cycle lanes

These allow bicycles to use bus lanes, some of which have been widened. Green logos painted on the ground and vertical signs identify these lanes.

Counterflow cycle lanes

These allow bicycles to use one-way roads against the flow of traffic. This system is used to ensure the continuity of cycle routes.

Marked routes

Signs indicating specific cycle routes show the safest routes, away from major roads. These developments have led to the current network being extended to 144 km of routes.

Parking

To counter theft, a large number of cycle parks have been set up in the town centre and suburbs. 190 have been counted, providing a total of 1 200 supports. A bicycle deposit system has also been introduced. The latest revision of zoning regulations has defined bicycle parks as standard for new constructions (article 12 of the zoning regulations). Below are some examples of urban area standards, UA and UG for the installation of bicycle parking spaces NB: standards have been defined for the 11 urban zones listed in the zoning regulations.

	UA-UG**
HOUSING	1 space per housing unit or room
SHOPS / OFFICES	1 space per 150 m ² of net floor area
HOTELS	no spaces required
HOSPITALS	1 space per 6 beds
ESTABLISHMENTS FOR THE ELDERLY	1 space for 10 rooms or housing units
EDUCATION	primary: 3 spaces per class
	secondary: 6 spaces per class
	higher: 2 spaces per 80 m ² of net floor area
SPORTS, CULTURAL, SOCIAL STRUCTURES AND EVENT VENUES	1 space per 20 visitors
INDUSTRY / CRAFTS	not regulated

**UA : urbanized area, town centre and extension.

**UG : urbanized area, sectors for the installation of facilities in the public interest.

For natural areas, only the NAL zone has a standard for allocating land for sports, cultural installations, etc.: one space per 30 visitors.

The minimum area for a bicycle space is 1.50 m². For housing units, these spaces must be closed or covered, while for other allocations they can be in the open air. In the event of technical or legal impossibility, the builder can be released from his obligations by providing spaces on adjacent or nearby land.

In addition to these developments, different operations have been performed:

- in 1995, the Town offered a bicycle rental service for four and a half months; this operation was repeated in 96 and 97 and involved the purchase of 60 bicycles and accessories by the Municipality;
- in 1996 and 1997, 30 bicycles were given to the town by the Ministry of the Environment and Transport in 1995, as first prize in the "Golden bicycles" competition and these were loaned to students through the CROUS.

These two operations were replaced by the "cycle plan".

The "cycle plan"

Implementation

During the first half of 1997, the District and Town of Rennes launched a joint call for bids for street furniture (display panels and bus shelters). Some large French and foreign outdoor advertising companies were thus in competition.

ADSHEL, a More Group France subsidiary, won the contract and offered the town two alternatives for the fee it would be required to pay:

- to pay a fee equivalent to 5% of its advertising turnover;
- to pay a fee equivalent to 2.5% of its turnover plus the installation of a free bicycle rental system (the "cycle plan").

The second solution, in line with the bicycle-friendly policy implemented for several years in the urban area, was thus selected. The system was introduced for an experimental period of two years. Launched in June 1998, it has been fully operational since September of that year.

Objectives

They can be summarized as follows:

- to offer a means of transport other than the car which is efficient and complementary to public transport;
- to encourage access to the town centre where there are several rental stations;
- to encourage people to use bicycles by installing parking structures close to bus stops, stations and relay parks, as well as close to or inside university centres for the specific student target.

Function.

This can be summarized as follows:

- 25 stations throughout the town must always have bicycles and free spaces available;
- 200 bicycles always available and in perfect working order;
- 1 shuttle to ferry bicycles as necessary, make minor repairs and take those needing more serious repairs back to the workshop;
- 2 000 access cards available;
- 1 stock management centre to monitor bicycle "stocks" remotely, know what is missing or surplus so as to inform the shuttle service.

The maximum rental period is two hours. Bicycles are available from 6am to 2pm seven days a week. The 2 000 cards are distributed throughout the towns in the urban area at pro rata of the number of inhabitants. One card is attributed per family and can be passed from one member to the next.

If it is not used within two months, the card can be cancelled as is also the case if rental regulations are not respected (authorized rental period exceeded, damage, etc.). 30 of the 2 000 cards are provided for the town centre for occasional users of the system.

Planned card quotas are as follows:

Rennes	1 100
Rennes students	370
Towns in the urban area outside Rennes	500
Occasional users	30
Total	2 000

The bicycles provided meet specifications based on three points:

- reliability: resistance to shocks and vandalism, component tamper protection;
- identification: inclusion of electronic chips in the frame, a functional, original design;
- ease of use: light weight, five speeds, carrier, easy regulation of the handlebars and saddle, antitheft device with key for stops between two stations;

and have the following technical specifications:

- reinforced extra low steel frame for use in comfort by a maximum of users;
- 5 speeds in the hub, progressive braking by back-peddalling;
- aluminium trim with wheel anti-theft devices; mudguards;
- reinforced tyres (80% reduction in risk of blow-out);
- comfortable saddle with waterproof Kevlar cover;
- electricity generator built into the front hub;
- carrier built into the handlebars and anti-theft cable built into the gooseneck.

The 25 rental stations match the rest of the street furniture. Each has 12 spaces, a permanent connection terminal to the park management centre and a town plan showing all the stations.



One of the 25 rental stations

Communication and information

Consensus

Discussion periods have been set up to encourage residents to support town developments.

The bicycle discussion and information group was set up in 1991. It consists of representatives of Associations, cycling professionals, representatives of urban public transport, urban police, district committees, etc. This group meets three to four times a year under the chairmanship of the councillor in charge of traffic and roads. These meetings provide the opportunity for discussion on the main development projects, improvements to the existing network and events to promote the use of bicycles.

The district procedure was begun in 1994. It involves implementing specific measures to meet the practical requirements of cycling in each of the town's twelve districts. One working group per district, consisting of a town councillor, representatives of associations, the administration, etc., identifies current practices and usages, then suggests proposed improvements to using bicycles in the district in question. The feasibility of these proposals is then examined by the appropriate municipal departments.

Information and awareness campaigns and operations

Information campaigns have been run on the themes of safety and tolerance.



In Rennes, good behaviour means better driving.

In April 1995, the "Agence de l'Environnement et de la Maîtrise de l'Energie (ADEME) (Environment and Energy Control Agency) and Rennes Town Hall, with the support of the Educational inspectorate, organized a competition "By bike in my district" for schools, with the theme "Improvements to be made so that I can ride my bike safely in my district and preserve the quality of the air".

Finally, the "Cyclades Rennaises", festivities organized since 1992, which provide a good opportunity for passing on messages about safety, cohabitation with other means of transport, etc. Various events are held: demonstrations of BMX bikes, home-trainers, etc.

EVALUATION

General policy

An increase in the number of cyclists has been noted although the number of accidents has not fallen sufficiently.

Bicycle plan

The contract with ADSHEL plans to monitor how the system functions with reports on the use of bicycles in the urban area and Rennes itself, concerning:

- operations at the various stations;
- total number of trips, per day of the week;
- duration of rentals;
- type of trip.

The following results were obtained for 1999:

Total rentals	40 696
Average per day	112
Average per working day (Monday to Friday)	130
Average per non-working day (Saturday, Sunday, bank holidays)	66

Distribution of rentals according to the day of the week						
Sun	Mon	Tues	Wed	Thurs	Fri	Sat
55	115	139	132	140	123	77

The average rental period was 26 minutes.

The total development of rentals for 1999 was as follows:

Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
2 379	2 280	3 372	2 569	3 699	4 539	4 012	3 179	4 788	4 170	3 192	2 517

The service providing bicycles free of charge experienced some small technical problems at the beginning (particularly in using the cards), but these were quickly solved.

The service is not used to the full at present. The idea is therefore to optimize it by targeting the potential clientele more closely, because some cards are either not used or very little.

The two-year experiment is ended and it is planned to alter the service in respect of the results obtained. A steering committee has been set up for this purpose.

PROSPECTS

It is planned to extend the cycle tracks in town and throughout the urban area. This should particularly make it easier to get around. The construction of new developments to complete the network, route marking and cycling promotion operations will be continued and increased. A specific operation to promote the use of bicycles by students (58 000) is also on the agenda. However, the fight against theft is still a major concern to be overcome to encourage more people to use their bicycle. As for the "cycling plan", it is being renewed. Various solutions for its development are being studied (number of cards, movement of certain stations to optimize the system, etc.).

FOR FURTHER INFORMATION

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