



Bike-Friendly Cities and Towns in NRW

- Programme and Impact Analysis - - Summary -

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1. INITIAL SITUATION AND GOALS OF THE ANALYSIS

It has been more than ten years since the state of North-Rhine Westphalia (NRW) launched the „Bike-Friendly Cities and Towns in NRW“ project. Since then, 28 municipalities and 1 rural district have become members of the „Association of Bike-Friendly Cities and Towns in NRW“ (AGFS - Arbeitsgemeinschaft Fahrradfreundliche Städte und Gemeinden in Nordrhein-Westfalen) and additional towns are expected to be admitted in future.

(look at page 2, German version, Overview of the AGFS members)

For this reason, the Ministry of Economics, Energy and Transport commissioned a study to rate the success of the programmes implemented to date. The study, which focussed on the 19 towns that had been admitted to the AGFS up to and including 1995, pursued the following goals:

- To document the programmes and activities implemented in the participating towns so far and to analyse the results,
- To analyse the impact, particularly on traffic safety and bicycle use, in reference to overall mobility,
- To assess the procedures and strategies used in organisational project handling and programme implementation,
- To derive conclusions for the further promotion of bike traffic in North-Rhine Westphalia based on the analysis of the current results.

The overall report on the present study is divided into the following sections:

- Comprehensive description and outcome report on the experience gained from the project, its effects and the conclusions to be drawn from them.
- Documentation and assessment of the activities of the 19 study towns.
- Documentation of 60 exemplary programmes from different subject areas in the study towns.

A summary of the most significant results and conclusions is presented below.

2. RESULTS FROM THE STUDY TOWNS

2.1 Programme areas

The promotion of cycling means more than just building bike paths. An extensive bike traffic network with an attractive infrastructure for riding and parking bikes is an essential element of systematic bike traffic promotion. However, other equally important elements include a motivating communication strategy and services that make using a bike more attractive and convenient.

This basic idea of viewing „bike traffic as a system“ is already starting to emerge in some of the study towns and is evident to an increasing degree. However, the primary object of the programmes and investments still lies in the improvement of the technical infrastructure for riding and parking.

Bike traffic network planning

All the study towns have a widearea network plan as a basis for their programmes and for defining priorities. Implementation, at least in some areas, is already relatively advanced in towns that have been involved in the project for a longer period of time or had good starting conditions. In many instances, however, the degree of implementation lags behind the original schedule for financial or organisational reasons, or because controversial measures have been deferred. Documentation of completed programmes, for the purpose of monitoring success and updating programme planning, is still inadequate.

Improving the bike path infrastructure

In building networks, the towns took advantage of all possibilities for routing bike traffic in accordance with the StVO (Road Traffic Ordinance) and ERA 95. In this context, innovative measures were tested in practice and further developed. These efforts frequently paved the way for incorporation into national regulations and traffic laws.

Worthy of particular mention are the lane markers that were used in the study towns even before the StVO was amended and even went beyond the restrictive conditions for use defined by the VwV-StVO (administrative regulations for the Road Traffic Ordinance). Many towns also already had experience at an early stage with bike roads, expanding bike parking strips and opening up one-way streets to bike traffic in the opposite direction.

(look at page 3, Lane marker on a main road (Pulheim))

On the whole, inexpensive measures that are relatively easy to implement, such as lane marking solutions on the roadway or traffic control measures, are primarily used for completing the bike traffic networks. In future, greater emphasis is to be placed on improving bike traffic routing at major junctions.

(look at page 3, Marked bike lanes at a high volume junction (Troisdorf))

Signs

The towns consider bike traffic signs to be an essential element of their overall concept for the appropriate routing of bike traffic, and also use them as positive advertising. Based on experience with a wide variety of sign systems, which did not always meet requirements, a uniform, binding, state-wide bike traffic sign system, complying with the „Guidelines for directional signs for bike traffic“ compiled by the FGSV, has since been introduced by means of official order.

(look at page 3, Bike signs with the new, statewide design (Leverkusen))

Bike parking

Improving the conditions for parking bikes on public traffic streets is given high priority in all the towns. Today, the towns use only suitable stands that ensure stable positioning, protect against theft and sometimes even offer shelter from the weather. Old „fender-benders“ are gradually being replaced.

There is still a need for action in the private sector, e.g. in housing construction, in retail and in companies. For the first time, the amended North-Rhine Westphalian Building Code now requires parking spaces for bikes to be provided when constructing new buildings. The possibilities for privately financing public bike parking facilities (e.g. sponsoring, advertising) are utilised only in isolated instances.

(look at page 4, Modern user-friendly parking facility (Gladbeck))

Link to public transport

Good bike & ride facilities are an ideal prerequisite for exploiting and strengthening both modes of environmentally friendly transport. They are a standard part of the bike traffic plans of the AGFS towns - not least due to the good funding options. In this case, fairly large, roofed facilities, or also bike cages, are frequently installed. Outside the regions of the two major transport authorities (VRS/VRR), the transport of bikes in public transport vehicles is not very widespread yet. Experiences to date can generally be rated positively, although it also shows that this combination option will continue to represent a small user segment.

Bike stations are an essential element for combining bikes with public transport and expanding the services offered (e.g. rental, repair service). The „100 Bike Stations in NRW“ programme has been a major source of momentum in this area and its success is also starting to become apparent in the AGFS towns. Ten of the 19 study towns already have bike stations, including the one in Münster, which is the largest facility in Germany with 2,800 parking spaces.

(look at page 4, The largest bike station in the 100 Bike Stations in NRW programme has 2,800 parking spaces (Münster))

Services

A broad range of service components, or also services offered by the private economy, can help to eliminate or considerably weaken existing barriers to using a bike. Bike stations (see above) are already a key element in this regard.

Special, bike-related services initiated by public authorities or sponsored by private providers (e.g. companies, retailers, bike repair services) have only been used in the study towns in individual cases up to now. One well-known example is the offer made by the Gerling Group, which provides its staff with bike parking facilities, changing rooms and showers. Retailer delivery services make it easier to use a bike for shopping.

Public relations work and municipal marketing

A wide-area, high-quality infrastructure alone is not sufficient for exhausting the bike traffic potential. A fundamental change in attitudes and behaviour can only be achieved by means of communication campaigns conducted as part of an intervention approach aimed at all modes of transport. The professional advertising used by the AGFS since 1998 is an essential element for influencing changes in mobility behaviour, also by generating a positive basic attitude to bikes. In addition to classical media, such as information brochures, posters, etc., new communication instruments are also used in targeted fashion (e.g. Internet).

The state's umbrella campaign, which can be found on the Internet at www.fahrradfreundlich.nrw.de, provides both a basis and support for efficient, local public relations work. However, the focus up to now has been more on traditional public relations work in the form of press releases, flyers, etc., which can certainly improve acceptance of the solutions among users and the general public, particularly regarding new or controversial subject areas. On the other hand, the towns are becoming increasingly aware of the importance of professional, mobility-related public relations work. Communication is increasingly being recognised as a key factor and as the most important resource of traffic policy. The state and the municipalities - often in cooperation with associations - have established a good programme for expanding the know-how of the professionals and decision-makers involved in bike traffic planning by means of conferences and publications. In this context, greater emphasis than in the past should be given to an interdepartmental exchange of knowledge that includes, for example, the Road Traffic Authority, Road Construction Authority and City Planning Office.

Summary of the impact analysis

2.2 Experience and effects

The two primary goals of bike traffic promotion in NRW and the member towns of the AGFS are:

- To increase bike use, and
- To improve traffic safety for cyclists.

These goals were reviewed by analysing available modal split studies and conducting city-wide accident analyses over several years. Unfortunately, systematic effect controls (e.g. before-after comparisons) were only implemented by a few towns, so that a sound assessment cannot be given for all towns.

Bike use

In the towns that conducted systematic studies, significant increases in bike use ranging from roughly 20 to 30% were recorded in some instances over periods of several years, compared to the initial status at the start of project participation. The diagram shows that this increase in bike use usually corresponds to a desirable decrease in private motor vehicle traffic, while public transport usually stayed at the same level.

(look at page 5, Development preferred modes of transport in selected bike-friendly towns)

The example of Troisdorf shows that redistribution potentials are primarily used in everyday traffic. In in-town traffic, which accounts for two-thirds of all journeys in Troisdorf, the bike even reaches a share of 28% compared to 29% for car drivers. As a result, several thousand car trips less are made every day in Troisdorf, which relieves the environment, requires less space for parking in town and activates capacity reserves in the roadway network.

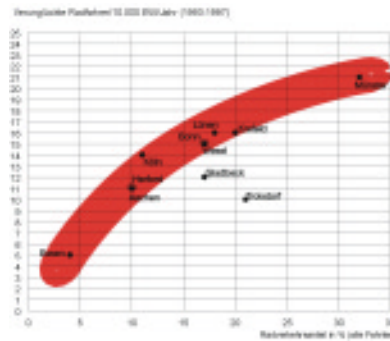
As these examples show, modal split shares of bike traffic in the region of 25 to 30% are definitely achievable. A greater shift away from short car trips makes it particularly necessary to continue pursuing this approach in other towns. Substantial changes in bike use can generally only be achieved in the medium to long term.

Traffic safety

The accident statistics for bike traffic in the AGFS towns studied since they became involved in the project roughly compare to the state-wide trend for the same period. Many towns even show better trends for accidents resulting in severe injuries. In addition to avoiding human suffering, this trend also has a favourable economic effect. A significant decrease in accidents on the overall town level is usually only observed after several years of project participation and implementation of corresponding measures. Overnight success cannot be expected in this area.

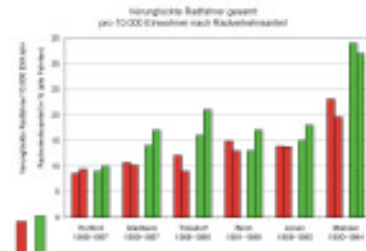
In the towns in which accidents involving cyclists can be analysed in relation to road use, an increase in the number of bikes in road traffic was accompanied by a decrease in the number of cyclist accidents in the same period. This trend is particularly pronounced for accidents involving severe personal injury. The relative accident risk for an individual cyclist, referred to his road use, thus decreases in the study towns as bike traffic increases. This trend is also confirmed in relation to the overall accident rate (accidents/10,000 residents). In particular, the towns of Troisdorf and Gladbeck are way below the generally expected number of bike traffic accidents.

The overall report (Planerbüro Südstadt, Cologne/Planungs-gemeinschaft Verkehr, Hanover: „Fahrradfreundliche Städte und Gemeinden in NRW - Massnahmen und Wirksamkeits-untersuchung“) can be obtained from the Ministry of Economics, Small Business, Energy and Transport of the State of NRW, Haroldstrasse 4, D-40213 Düsseldorf, Tel. +49 (0)211/837-4576 / Fax +49 (0)211/837-4372, E-mail: Peter.London@MWMEV.NRW.de.



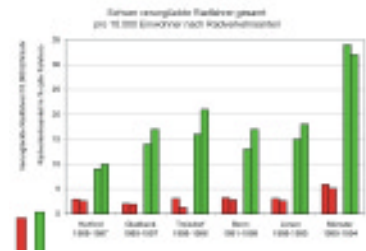
Verunglückte... = Cyclist accidents/10,000 residents/year (1993-1997)
 Köln = Cologne
 Radverkehrsanteil... = Bike traffic in percent

Total number of cyclist involved in accidents per 10,000 residents, based on the percentage of bike traffic - comparison over time, page 6



Verunglückte Radfahrer gesamt... = Total number of cyclists involved in accidents per 10,000 residents, based on the percentage of bike traffic
 Verunglückte Radfahrer/10,000... = Cyclist accidents/10,000 residents/year

Severely injured cyclist per 10,000 residents, based on the percentage of bike traffic - comparison over time, page 6



Schwer verunglückte... = Severely injured cyclists per 10,000 residents, based on the percentage of bike traffic
 Verunglückte Radfahrer/10,000... = Cyclist accidents per 10,000 residents/year

Experience with implementation

No typical, ideal solution method can be derived from the experience gained in the towns with organisational implementation strategies and administrative structures. In addition to structural framework conditions, it is the responsible persons onsite who primarily determine the suitable method. Success was always apparent when all the relevant offices worked together and, in particular, when the town councils adopted fundamental resolutions to promote bike traffic.

Good experience was gained with interdepartmental working groups of the bike traffic commissions, which involve at least the police and the local branch of the German Bike Club (ADFC). Several towns also established special bike traffic committees in order to be able to react quickly and adequately to the significant increase in bike traffic issues.

The causes of delays in implementing concepts included:

- Differences in priorities between the municipalities and the authorities that fund classified roads,
- Differences of opinion within the municipal administration (e.g. between traffic planning and the road traffic authority),

Summary of the impact analysis

- Hesitancy to address supposedly unpopular measures in politics, particularly prior to elections,
- Difficult scheduling with regard to obtaining funding through subsidy applications,
- Personnel bottlenecks in municipal administration,
- Insufficient funds in the municipalities themselves.

With the subsidy options afforded by the Urban Traffic Promotion Guidelines and the Urban Renewal Programme, the state offered the municipalities a comprehensive and well-coordinated financing system. The AGFS towns obtained above average funding. The nature and extent of these financial subsidies were thus able to motivate the towns and also frequently made it significantly easier to gain political support. Today, these effects are only possible to a limited degree due to the reduction in funding of the Urban Traffic programme and the discontinuation of the Urban Renewal programme.

The admission requirements for acceptance into the AGFS have proven effective and have often given planning and implementation activities a positive boost, particularly in the early years of membership. After becoming a member, however, no more clearly defined requirements are imposed on the towns, meaning that there is also a danger of the programme getting sidetracked into everyday routine. While participation in the AGFS requires the towns to get involved in additional activities, it also has advantages:

- The opportunity for a direct exchange of information and experience inspires new ideas, as well as promoting and motivating problem-solving.
- The positive effect of AGFS membership on public opinion gives local politics the necessary backing and makes it easier to implement programmes.
- The state finances a professional marketing strategy for the work of the AGFS and for local public relations work.

3. RESULTS AND CONCLUSIONS

3.1 Results

A comparison of the German states shows that the bike traffic promotion programme in North-Rhine Westphalia points the way to the future. This applies in particular to:

- The programme-oriented structure of the promotion strategy,
- The broad range of supported projects, and
- The extent of the financial expenditure for bike traffic.

In this context, the members of the AGFS and their activities are of outstanding importance:

- The towns are the primary players in bike traffic promotion. The greatest opportunities and potentials to increase bike traffic lie in their sphere of responsibility.
- Programmes and action strategies in all fields of bike traffic promotion are developed and tested in practice in the AGFS towns.
- They thus take on a model function for other towns and can intensify their involvement.

The results in the study towns show that, given consistent bike traffic promotion, measurable success is possible and, in particular, the two goals of **increasing bike use** and **improving traffic safety** can be achieved and easily reconciled.

Consequently, the AGFS is an important element of bike traffic promotion in North-Rhine Westphalia and will continue to be indispensable in the future. However, bike promotion is a dynamic process that must adapt to developments and changing framework conditions. In view of the limited financial resources, it is therefore important to increase funding efficiency and, if necessary, to shift funds by changing priorities. It must be kept in mind that the promotion of bike traffic in towns can help achieve a particularly favourable cost-benefit ratio as regards improving local population mobility and making it possible to influence the modal split.

- Every municipality should examine whether and how the planning and realisation process can be made more efficient by means of **adapted implementation strategies** to suit their local conditions. The study gives ideas derived from the experience of the towns. These ideas also relate to the work and structure of the AGFS, as well as to the further development of the subsidy conditions.
- The member towns of the AGFS should develop concrete, medium and longterm **traffic and urban planning guidelines** for bike-friendly towns/communities and set themselves realistic and measurable goals for the main task areas (particularly with regard to the preferred mode of transport and traffic safety). Goal attainment should be reviewed more extensively than before by means of performance records and efficiency studies. This would help **monitor success**, possibly point to necessary changes and improvements in the concept, and - in the case of positive trends - provide motivation both inside and outside the programme.

3.2 Conclusions and recommendations

The state of North-Rhine Westphalia has already adopted the main ideas and conclusions of the study and, on this basis, established the „**Action Plan for the Promotion of Bike Traffic in NRW**“ in 1999. Several key conclusions and recommendations of the study are summarised below:

- The numerous activities currently being carried out to promote bike traffic, including those outside the AGFS, should be further developed to create a **bike traffic plan for a „Bike-Friendly North-Rhine Westphalia“**. Clear goals and main tasks, similar to those in the Dutch „Masterplan Fiets“ model, should be defined in this programme and continuously updated.
- In order to effectively exhaust the bike traffic potential, the bike must be viewed more strongly as a mode of transport with equal status. The philosophy of promoting bike traffic in NRW should therefore more closely adhere to the „**bike traffic as a system“ concept**, in which the elements of infrastructure for riding and parking, public relations work and communication, and the widest possible range of services - frequently offered by the private economy - are combined and complement one another. The car is a good role model in this context.
- **Information and communication** are increasingly becoming key factors of a sustainable solution to traffic problems and, by changing people's attitudes, of environmentally conscious mobility. With regard to the state, the umbrella campaign already launched for the AGFS towns should be further developed.
- Bike traffic must not be viewed sectorally. Rather, the importance of the bike as a mode of transport in the overall system of mobility must be emphasised by taking **an integrative approach in traffic planning**. In this context, pedestrian traffic should also receive greater consideration. Local mobility is the issue.
- By involving **private actors**, new ideas and impulses can be gained, which can broaden the basis for taking action and possibly also help acquire financial resources (sponsors).

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