



Active Mobility in Residential Areas

A 'short journey city'

Suburbanisation and the outward expansion of a city have for long been the dominating processes of urban development in Germany and Europe. With the growth of conurbations, the average distances covered for everyday trips also increased. Residents of sprawling areas had to travel ever greater distances to their place of work, the shopping centre or leisure facilities. Against the background of heightened awareness regarding the environment and the climate, more and more political and planning strategies have been developed in recent years to reverse this trend and create a 'city of short distances'. The reverse development towards higher density settlement structures was meant to help reduce distances between home, workplace, and leisure spaces, and allow residents to reach these destinations by public transport, walking or cycling. To achieve this, close collaboration is required between urban and transport planning. With the Leipzig Charter on Sustainable European Cities, ministers responsible for urban development in the EU Member States show their commitment to this close cooperation.

Transformation of: societies – neighbourhoods – mobility

The urban lifestyles that have emerged in many larger cities across Germany and Europe thrive especially in a multifunctional 'short journey environment'. Given the increasing flexibilisation of the working environment, more and more people prefer to live in a neighbourhood

where their home, workplace, shopping and, if needed, childcare facilities are in close proximity to each other. Consequently, the demand for suburban homes diminishes in favour of rented homes and owner-occupied flats in inner-city neighbourhoods. These housing and living arrangements offer great potential for cycling, especially considering that people's lifestyles and values often show a strong affinity for environmentally friendly forms of active travel.

Model neighbourhoods in Freiburg and Tübingen

The two university cities Freiburg and Tübingen in Baden-Württemberg are mainly characterised by ecologically oriented 'milieus'; in these cities, new urban neighbourhoods were successfully developed with a fo-

Cover image: New housing area in Berlin

Contents

A 'short journey city' 1

Transformations of: societies – neighbourhoods – mobility 1

Street Environments in cycle friendly neighbourhoods 2

Civic participation in transportation planning for the neighbourhood 3

Conclusion 4

cus on car-free active travel. The Vauban neighbourhood in Freiburg is a new development with about 4,800 people living and 600 working there. The neighbourhood has low-energy houses built on a former barracks area. These houses are mainly occupied by young families organised in construction teams. The Vauban neighbourhood is mostly car-free; residents are only allowed to park their cars in two car parks located at the edge of the neighbourhood, and have to acquire a parking space for about EUR 18,000. Within the neighbourhood only short-term parking is allowed, for example, to load or unload luggage and shopping. This makes it a traffic-calmed area where children, pedestrians and cyclists can move around freely. As an alternative to car use, residents have access to both the Freiburg tram network and a car sharing station with 15 vehicles.

The 'French Quarter' in Tübingen, also located on a former barracks area, is a dense, urban neighbourhood with 2000 inhabitants. It is similar to the Vauban neighbourhood in Freiburg in that the street environment is mainly reserved for cyclists and pedestrians and residential parking was moved to parking facilities outside the neighbourhood. The street environments were designed as Shared Spaces allowing car drivers, pedestrians and cyclists to meet on equal footing and 'negotiate' encounters in independent interaction. As traffic-calmed areas, the streets in the neighbourhood neither have classic lanes nor kerbs to segregate carriageway and pavement.

Socially integrated neighbourhood development

Mobility equals social participation. The accessibility of the workplace, cultural offers and care institutions is crucial to the living conditions of each resident of a neighbourhood. In residential neighbourhoods, transport infrastructure should be provided with special con-



Traffic calming in "French Quarter", Tübingen

sideration of those groups that have limited economic resources and are as a consequence often excluded from using a car. Along with local public transport, there is also great potential for cycling in this regard. Although cycling is a form of everyday mobility that is relatively inexpensive, cycling levels are not higher among low-income segments of the population than among others (see also CyE A-5 Lifestyles and Cycling). Cycling promotion in urban areas should therefore not focus solely on those segments of the population that are already more inclined to use bikes. It is equally important to reach out to other groups, especially those with fewer resources. Low-threshold offers such as cycle routes designed for adults often prove very useful.



20km/h zone ('Begegnungszone') in Bern

Demographic change is another trend that is relevant to neighbourhood and transport planning (see also CyE A-11 Ageing Society on Bicycles). The proportion of older people will increase in most neighbourhoods. Following retirement, the focus often shifts back to activities closer to home because long distances to work are no longer required. This is frequently associated with higher cycling levels. Due to delayed cognitive capacity and reactions, older cyclists are especially dependent on safe cycling conditions including, for example, safe junction layouts, speed limits imposed on cars and cycle routes designed to meet the needs of older persons (see also CyE A-11).

Street environments in cycle friendly neighbourhoods

In order to promote cycle use in an urban neighbourhood, a number of measures can be used that are relatively inexpensive, such as transforming street environments and reallocating street space. The Rec-

Images unless stated otherwise by Jörg Thiemann-Linden

ommendations for Cycle Facilities (Empfehlungen für Radverkehrsanlagen, ERA; see also CyE I-1) of the German Road and Transport Research Association (FGSV) indicate a range of standards that are relevant especially for the provision of infrastructure in residential areas.

Cycling on internal roads

Contrary to motorised individual transport, cycling hardly puts any strain on residential neighbourhoods. While care is taken to direct light and heavy vehicles around residential neighbourhoods, they are completely open to cycling traffic. This warrants the provision of high-quality infrastructures that will benefit all cyclists in the neighbourhood. It may even be useful to grant cycle routes right of way at intersections with other internal roads.

Introducing bicycle streets

In traffic-calmed neighbourhoods with high cycling intensities, it may be suitable to introduce bicycle streets: roads dedicated for cyclists on which cars are allowed only in exceptional cases and where indicated by an additional sign. The speed on these bicycle streets is limited to 30 km/h (18 mph); motor vehicles must reduce their speeds even further, if necessary. What is special in legal terms is that side-by-side riding is allowed on cycle streets.

Bicycle streets allow for a pooling of cycle traffic and make cyclists visible in the street environment. Cyclists can enjoy particularly smooth flows and travel at high speeds if the cycle street is given priority at intersections.

Opening up of one-way streets to cyclists

According to ERA, cyclists are usually allowed to use one-way streets riding in both directions unless it is advisable not to do so for safety reasons. The rules and regulations should be consistent within each city. The detailed recommendations within ERA, however, vary according to the speed limit for motorised traffic, the traffic intensity as well as road width.

With a speed limit of 30 km/h (18 mph) in place, cyclists should usually be allowed to ride on the street; however, to enable car drivers and cyclists to pass each other safely, the minimum carriageway width should be 3 metres, and it should be 3.5 metres in case of bus traffic and higher volume of HGV traffic. On one-way streets with flows of more than 400 vehicles per hour,

the introduction of protection lanes would be wise to consider. This requires a minimum carriageway width of 3.75 metres. A cycle lane or separated cycle path may also be provided for cyclists in exceptional cases, such as high cycling intensities or at streets close to the city centre that are used by delivery vehicles and/or buses.

Bicycle parking at residential buildings

The provision of cycling infrastructure in residential neighbourhoods also includes the offering of sufficient bicycle parking spaces for residents and visitors (see also CyE I-3 Bicycle Parking in Dense Housing Areas). At new residential developments, it is useful to have a binding plan establishing in advance that sufficient high-quality parking spaces will be provided. In housing areas with old buildings, owing to limited space, it is particularly challenging to provide adequate parking through intelligent construction solutions. It is also important to ensure that residential buildings and entranc-



One way street opened for cycling in the carriageway, Cologne

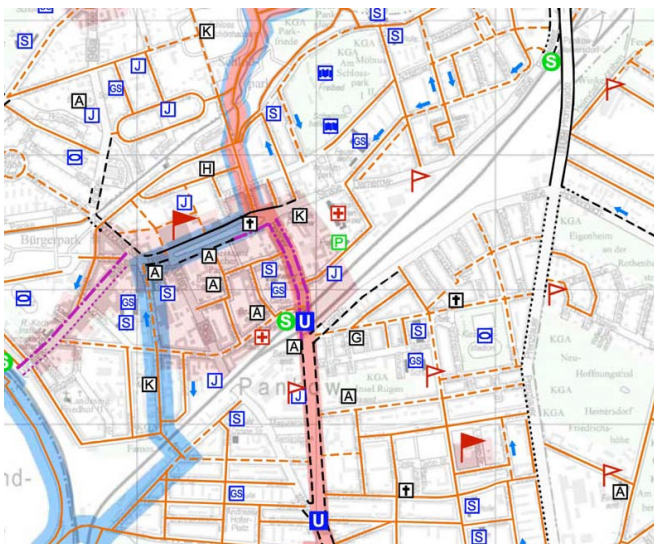
es are directly accessible, which can be achieved for example by providing routes connecting the blocks of houses.

Civic participation in transport planning for the neighbourhood

Citizens can participate in many ways in urban and transport planning measures especially on the small-scale neighbourhood level, where local knowledge about specific needs and problems is crucial. Planners joining the project from outside mostly do not have this kind of knowledge. In one of Munich's inner-city neighbourhoods, Ludwigsvorstadt-Isarvorstadt, an 'ac-

tive travel neighbourhood concept' (Stadtviertelkonzept Nahmobilität) was implemented between 2002 and 2008. In order to reduce unnecessary (car) traffic in the neighbourhood, a range of measures was developed to strengthen and promote cycling, walking, in-line skating and bus transport, with a particular focus on civic participation.

The project was launched with a public opening event to which a number of experts were invited. The residents that were present on that evening were able to mark, on a large map, the critical spots they encounter during their day-to-day journeys in the neighbourhood. A flyer was also distributed for example to the public library and bakeries; it had a map on it where people could mark critical spots. Furthermore, citizens could participate in walks, cycling tours, a skater and roller tour as well as a bus ride through the neighbourhood where they could voice their wishes and criticism regarding the current situation. About 500 suggestions



Berlin Pankow, Neighbourhood development plan for cycling, (EU-project spicycles)

were collected through these channels. The suggestions were prepared by the planners and put up for discussion at two citizens' fora that were attended also by those responsible for transport planning in the city's adminis-

tration. The first meeting was open to all interested citizens. For the second meeting, participants were chosen at random to achieve a cross section of the population.



Public consultation at neighbourhood street festival, Frankfurt (Main)

Based on this, the planners prepared a list of measures. After being reviewed by the city administration, 54% of the measures were implemented. These include, among others, the provision of cycle paths and cycle lanes; the opening up of one-way streets to contra-flow cycling traffic; as well as mitigating the most frequently mentioned problem at the road axis Kapuzinerstraße. A cycle lane and a bus lane were introduced by reallocating road space away from private motorised traffic.

Conclusion

Cycling traffic and the urban neighbourhood mutually strengthen each other as both become increasingly important. Shorter distances make cycling more attractive for day-to-day travel. Conversely, everyday mobility that is geared to cycling helps making the residential environment more attractive and increase the demand, for example, for nearby shopping and leisure facilities. In that context it is also important not to forget that high cycling and walking levels already make for an attractive and vivid urban character of the street environment and thus the residential neighbourhood. Active travel such as cycling is very much a part of residents' experience and their everyday life. This topic therefore offers great potential for a participatory approach to neighbourhood development.



Funded by



Federal Ministry of Transport, Building and Urban Development

More information can be found in
CyE I-3 Bicycle Parking in Dense Housing Areas
CyE S-2 Cycling to school
CyE I-7 Traffic Calming

"Cycling Expertise" is available online:
www.nrvp.de/en/transferstelle

Imprint

Publisher: German Institute of Urban Affairs (DifU) gGmbH
Zimmerstraße 13–15, 10969 Berlin
Department Mobility and Infrastructure
Editors: Jörg Thiemann-Linden, Tobias Mettenberger, Susanne Wiechmann
cycling-expertise@difu.de