

# ILS-IMPULSES

## Bicycle parking as system for urban centres

Bicycle parking facilities as a component of an urban mobility culture in multifunctional city centres

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### Overview

- Cycling and city centres in transition
- Decentralization, security and attractive design as success factors
- Multifunctional bicycle parking facilities for multifunctional urban centres

City centres and district centres are currently undergoing profound structural change. While over-the-counter retail is under increasing pressure because of online retailing and the corona pandemic, more and more cities are discussing strengthening other forms of usages for their central districts.<sup>1</sup> This includes a return of residential living in city centres as well as new entertainment and cultural offerings or a revival of urban production. At the same time, it is important to make public spaces in centres attractive and accessible. In this context, more and more cities are considering car-free or car-reduced inner-city areas. From the point of view of local authorities, accessibility by sustainable means of transport is increasingly seen as a significant factor in the design of attractive centres.<sup>2</sup> Cycling in particular is receiving increased attention in many places.

With the research project „New Urbanity for Old Centres“, the ILS looks at this development towards multifunctional and multi-modal accessible city centres. In this context, we use the example of booming bicycle traffic to show that even supposedly mundane and practical planning aspects such as bicycle parking should be systematically designed in order to promote a new urbanity, permanently attractive centres and a sustainable mobility culture. Accordingly, cycling must be understood as a system that can only function if the various elements such as bicycle paths, mobility management and parking facilities are interlinked.<sup>3</sup> To investigate the topic, interviews with experts from academia and planning practice at the municipal and state levels were conducted.

### Bicycle traffic and centres in transition

Despite some good examples, bicycle parking has so far been rather neglected in many cities, although a real „bicycle boom“<sup>4</sup> has been emerging for years. The survey „Mobility in Germany (MiD) 2017“ shows that the share of cycling trips among all trips in Germany increased from 9% to 11% between 2002 and 2017.<sup>5</sup> The increase is more pronounced in metropolitan areas (9% to 15%) and in large cities (9% to 14%) - evidence that cycling is gaining importance, especially within urban areas, and that mobility in cities and their centres will change. Fittingly, there has been a sharp increase in the number of bicycles sold per year in Germany, especially in recent years. From 2017 to 2019 alone, the number rose from 3.85 million to 4.29 million<sup>6</sup>, with the share of e-bikes in particular increasing. Their increased use is representative of a trend toward differentiation in cycling: In addition to e-bikes, there is also an increased demand for cargo bikes and bike trailers for better transport options by bike.<sup>7</sup> In addition, the range of bike-sharing services within cities is growing, as is the range of high-speed cycle paths, so that longer journeys by bike are also becoming attractive. Thus, not only a quantitative growth of bicycle traffic can be observed, but also a multiplication of the forms of bicycle use.

The renaissance of cycling outlined above is encountering urban centres, some of which are undergoing profound structural and functional change. The current economic crisis caused by the corona pandemic reinforces the problems of over-the-counter retail and could act as a catalyst for the trend toward multifunctionality of centres. The establishment and expansion of alternative uses will significantly change the centres of our cities, bringing new patterns of behaviour and mobility. This change in

function will provide for a change in demand for parking facilities and thus also has consequences for bicycle planning. People who live in the city centre have different requirements for bicycle parking facilities than those who travel there for shopping. The developments in the city centres and in bicycle traffic show that a mere expansion of the supply of bicycle parking spaces is not sufficient, but that above all a differentiation of the supply is also necessary.

### Further development in design of bicycle parking facilities

The design of bicycle parking facilities has so far often not been based on systematised planning guidelines. Anna Hussinger from the Association of Bicycle- and Pedestrian-Friendly Municipalities in Baden-Württemberg reports, that municipalities often do not develop a location concept for bicycle parking facilities. Instead, they often react situationally to needs, for example when there is increased „wild parking“ of bicycles in certain places. At present, there is rarely any coordination between relevant actors such as retail associations or housing companies and municipal cycling planning, which results in a lack of parking facilities to meet demand. The provision of demand-oriented parking facilities is made more difficult by the fact that, in practice, they are often designed rather indiscriminately. In addition, in many places there is only a low level of awareness for design options in bicycle parking. This is increasingly changing and, according to Hussinger, bicycle-friendly municipalities in particular already have parking concepts. Nevertheless, the respondents in the ADFC's „Cycling Climate Test 2018“ still rate the provision of bicycle parking on a national average with a school grade of 4, which is significantly worse than for other aspects of municipal cycling planning.<sup>8</sup> In this assessment, it becomes clear that the systematic improvement of bicycle parking is important to promote cycling, especially in metropolitan areas.

### Ways to change: prioritisation and normalisation of bicycle parking

Improving and differentiating bicycle parking in urban centres requires the involvement of the various actors and user groups relevant to the development of the centres. So far, cycling and the design of bicycle parking have played a subordinate role in the consciousness of many urban actors. Heiner Monheim, emeritus professor of spatial development and regional planning at the University of Trier and a recognised cycling expert, is clearly in favour of prioritising the issue of inner-city bicycle parking facilities in terms of transport policy. The municipalities need an impulse in the form of programmes from national politics which would significantly accelerate the expansion and differentiation of facilities. „Now the problem is, that there is just not a big boom for urban renewal programmes at the moment. If there were, it would be possible to actually start this up again on a larger scale“, Monheim continues. The political promotion of bicycle parking should lead to a positive and constructive approach to the issue and thus to increased acceptance. By comparison, infrastructure measures for car traffic have completely different preconditions due to (majoritarian) social acceptance, political will and the legislative framework, which makes the implementation of corresponding measures seem normal. According to Monheim, separate concepts for parking facilities in the immediate vicinity of the respective destinations should be developed



Fig. 1: Multifunctional bicycle parking facilities for multifunctional centres.

for the various functional units (housing, education, culture, services, retail, etc.).

The further development of the centres and of bicycle traffic creates different demands on bicycle parking and the corresponding parking facilities. Furthermore, increasingly popular special bikes such as cargo bikes and pedelecs require more space for parking, new facilities are appearing with bike sharing stations, and the trend towards increased intermodality goes hand in hand with the need for mobility stations, bike & ride facilities and bike stands at stations and stops. On the other hand, for the various uses in the centre, facilities are needed as close as possible to the respective destinations. A technical standardisation of parking facilities, oriented to the respective use and parking duration at the destination, would make decentralised bicycle parking more user-friendly. Fabian Menke, Pedestrian and Cycling Officer of the City of Dortmund, emphasises that when designing parking facilities, a distinction must be made above all between long-term and short-term parking, which result among other things from the different uses in the city centre. „Long-term parkers want to park their bikes in a secure, weather-protected place, and short-term parkers want to be able to park anywhere they want.“ Larger parking facilities in a residential area, for example, need different conditions than those in front of a retail outlet or in front of educational institutions, etc. - but different uses and their facilities will be represented in the centre in the future under the aspect of multifunctionality and therefore a range of correspondingly multifunctional bicycle parking facilities is necessary.

### Learning from good examples: decentralisation, safety and attractive design as success factors

The technical design should be differentiated and tailored to needs. Existing facilities for the safe and convenient parking of bicycles can serve as a model. In addition to smaller, easily accessible and unroofed facilities such as bicycle racks, especially bicycle boxes and bicycle parking garages can be an option to enable safe, weather-protected parking with high

space efficiency in the immediate vicinity of the destination. Innovative design options should not be shied away from, because if parking facilities are architecturally appealing, integrated into the urban landscape and designed in harmony with the requirements of monument protection, they will not be perceived as a disruptive factor in the centre. Monheim emphasises that it is always attractive when parking facilities are multifunctional and for example equipped with benches, lockers, playground equipment or other elements and are not perceived as a mere traffic facility (cf. Fig. 1). Such a functional integration of parking facilities can be perceived as an enhancement of the public space and increase public acceptance.

In general, the experts interviewed agree that the most important components of bicycle parking are the factors proximity and security, which is why a decentralised location pattern with smaller facilities is to be preferred. „However, city centres can also benefit from the provision of large, centralised facilities with high numbers of parking spaces, especially if the number of bicycles increases in the future and there will simply be limited space for small-scale parking facilities,“ says Menke. Bike & Ride facilities such as bicycle stations or even bicycle parking garages at railway stations like the one in Münster will play a decisive role here<sup>9</sup> (cf. Fig. 2). Such collective facilities not only offer guarded and weather-protected parking, but usually also integrated service offers. Furthermore, the Münster example with its architecturally striking design shows that sustainable urban mobility takes up space. It is visible, becomes the talk of the town<sup>10</sup> and is finally accepted as an incorporated part of the urban fabric.<sup>11</sup> Stations are usually located in or near the centre and all areas of the centres can benefit from this through increased footfall. In sum, a cooperation of cycling planning with the actors relevant for city centre development is promising and strongly recommended.

### Bicycle parking as an indicator of urbanity

In this article we have shown that the systematic planning of bicycle parking facilities is a central component of contemporary city centre development. Urban planners are becoming more aware of the accessibility of city centres by bicycle. Cycle lanes and bicycle parking facilities are no longer neglected or residual



Fig. 2: Radstation in Münster

elements, but essential on the way to liveable and attractive centres. In the discussions with experts, it became clear that bicycle parking facilities work well when they are close to the destination and designed to meet demand, while allowing for safe bicycle parking.

Above all, however, it has become clear that a new appreciation for bicycle parking in city centres can have a signal effect that is not only representative of the promotion and expansion of sustainable forms of mobility but is also part of a „new urbanity“ of multifunctional and mixed-use centres. In retrospect, flagship projects such as the construction of the bicycle station at Münster’s main railway station can be seen as the starting signal for a cross-milieu and cross-party advocacy of the bicycle as an urban mean of transport. It has become normal to access the city by bike and to park it there. The space for this is increasingly finding its place on the streets of city centres and in the minds of urban planners. Cycle parking facilities are not just a mundane infrastructure

element, but an example of how the functional, symbolic and discursive dimensions of urban transport need to be thought together in terms of a sustainable urban mobility culture.<sup>12</sup>

### Interviews with:

- Anna Hussinger and Laura Hoyler (Offices of the Arbeitsgemeinschaft Fahrrad- und Fußgängerfreundlicher Kommunen in Baden-Württemberg (AGFK-BW) at the NVBW - Nahverkehrsgesellschaft Baden-Württemberg mbH), telephone interview on 05.08.2020.
  - Heiner Monheim (Emeritus Professor for Spatial Development and Regional Planning at the University of Trier), telephone interview on 06.08.2020.
  - Fabian Menke (Pedestrian and Cycling Officer of the City of Dortmund), personal interview on 10.09.2020, Dortmund
- These interviews were conducted as part of an internship by Martin Gruber at the ILS in summer 2020.

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