



## Bicycle Parking at Train Stations

### **Bike & Ride: Advantages for cyclists and for the public transport system**

Combining cycling and train use is advantageous for both cyclists and for public transport service providers:

- Bicycles are a more flexible means of reaching and leaving the train station, preventing waits for shuttle transport to and from the station (compared with buses or tramways for example).
- By not having to drive a vehicle, commuters have the comfort and time on longer train rides for work or reading

The more environmental combination of bike and train offers door-to-door commuting times comparable to the motor vehicle. Local public transport service providers benefit from the “Bike & Ride” combination by reaching a wider radius of users with any given stop, as compared with exclusive use by pedestrians.

In many public transport networks, the “Bike & Ride” is also advantageous for service providers because cyclists pay the same amount as users of shuttle transportation. The combination is especially useful during the morning and evening rush hour; much of the transportation to and from train stations is accomplished by cyclists, alleviating pressure on shuttle services. Thus, fewer additional staff and vehicles are needed during these short periods. However, train stations face particular infrastructural challenges if a large proportion of train riders

arrive by bicycle, as parking availability needs to be sufficient.

In other countries with large proportions of bike and train riders, experience has been collected over the past decades on how best to handle the large demand for bicycle parking spaces at train stations, with various operational models offering more efficient services. Most experienced with regards to bicycle parking, the Netherlands offers examples of solutions for both large and small train stations. Bicycle parking garages with a capacity of up to 5,000 spots have been newly built or enlarged at a number of central stations around the country (for example, in Groningen, Leiden, and Utrecht).

*Cover image: Germany's largest bicycle station in Münster.  
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At some of these stations, a new parking guidance system is being tested so that cyclists can more easily and quickly find free spots. Bike-friendly communities with a large proportion of commuters to bigger cities are also seeing an enlargement of their Bike & Ride parking capacity ranging in the four-digits (for example in Houten).



The new train station in Houten offers space for thousands of bikes. © Jörg Thiemann-Linden

Japan's bigger cities have dealt with their limited available space at train stations over the past several decades by building under-ground automated bicycle parking garages employing the Paternoster principle, with capacity in the thousands. In emerging market countries, the combination of bicycle and train use has remained stable, such as in Brazil and China. Following the Dutch example, bicycle parking garages have been built in Belgium, Germany, and Switzerland, offering a combination with other services.

## The bicycle station concept – not just a building, but an organisational solution

A train station is the ultimate multimodal node, where trains, buses, streetcars, bicycles, cars, and taxis all meet. Insufficient bicycle parking capacity often leads to obstructions for other train users, such as when bicycles tied to traffic lights and signposts block pedestrian and bike paths or fire brigade access points and guiding strips for the blind. Seeing as bicycles are often parked at train stations for longer periods of time (even overnight), protection against theft and vandalism is particularly important. Thus, the bicycle station, offering a large

number of secure parking spots, is essential for train stations.

Bicycle stations are the structural and organisational combination of

- monitored bicycle parking (often not generating enough income to cover costs) and
- bicycle rental, repair, and other services (as a complementary source of revenue).

The bicycle station replaces smaller theft-proof bicycle possibilities (such as the so-called "bicycle box", in which bicycles are stowed in individual encasements), as it combines a closed parking garage with supervisory staff. The bicycle station thus saves space (less space is needed per bicycle) and is more easily integrated into the train station environment than many individual bicycle boxes. The principal problem facing the establishment of a bicycle station is the search for an ideal location that is nearest to the platforms. Such locations are often also ideal for other uses and thus face competition.

Another problem is the cost of employing staff for sufficient opening hours, as bicycle stations only become financially viable when there is a demand for at least a thousand spots. A combination with other bicycle service provision (repair, bicycle sale and rental) helps, in ideal situations, to increase the profitability of the station. The general thrust of this concept is that customers at the train station can leave their defective bicycles to be repaired directly prior to their trip, in order to pick them up, fixed, after their return. They can therefore save themselves time and a longer trip to another repair venue. At best, the customer may even buy additional bicycle gear, increasing revenues. Should these side earnings be insufficient to cover the costs of operating the bicycle station, external sources of revenue are required to fill in the gaps.

In the Netherlands, the bicycle station is tied into the running of the station as a whole. The bicycle station is considered an integral part of the train station and is centrally organised throughout most of the country. Prices for use of bicycle stations are kept to a minimum in order to maximise use. In the Netherlands, bicycle dealers operate the stations ("Fietspunten") as a franchise, while in Belgium the "Fietspunten" are managed by smaller operators and municipalities as part of a programme for social integration. Germans generally fol-

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low the Belgian model, where bicycle stations are often managed by socially-oriented establishments.

## The „100 bicycle stations in North Rhine-Westphalia“ project

„Bike & Ride“ has been centrally anchored in the promotion of governmental infrastructure for many years. North Rhine-Westphalia is the state with the most experience thus far with regards to bicycle parking at train stations. Densely populated, this state has long been promoting bicycle use and has countered the quickly growing demand for bicycle parking over the past few years with investments in complex solutions. For example, a collaborative association of the state and the German railway company Deutsche Bahn concerns itself with upgrading and marketing the use of buildings at train stations. With its “100 bicycle stations in North Rhine-Westphalia” project, begun in 1995, the state is serving as a bellwether for the development of model bicycle parking garages at train stations and other highly frequented venues. At the time of inception, the state chapter of the German cyclists’ Federation ADFC (“Allgemeiner Deutscher Fahrrad-Club”) was appointed by the state government to advise and support municipalities and operators in the set-up of bicycle stations at train stations. An agency of the North Rhine-Westphalian ADFC was supported with government funds to locate ideal venues and operators and develop financially sustainable operation concepts for each bicycle station.

Today, with its 61 bicycle stations, North Rhine-Westphalia has more bicycle parking garages at train stations than the rest of Germany combined. In a relatively short period of time, municipalities and private partners were able to create a state-wide network of bicycle parking options under the brand “Radstation” (“Bike station”), all of which fulfil common minimal standards.

Especially helpful was the collaboration with Deutsche Bahn, who made appropriate spaces available at train stations rent-free to participating municipalities (initially for 10 years). Deutsche Bahn hopes to benefit from this system not only by having more orderly stations (thanks to fewer “wildly” parked bicycles), but also by delegating the responsibility of ticket sales and luggage storage to these stations, services no longer provided by Deutsche Bahn. Bicycle station operators are

usually locally active in the social sector or in the bicycle business, and often involve a collaboration of both. On the one hand, it is an express goal of this program to employ and further educate the jobless, the socially disadvantaged, youth, or the disabled. On the other hand, only qualified tradesmen are able to tackle complex repairs, and it is often necessary to establish a contract between a certified specialist and a bicycle station. Without such a contract, only simple repairs may be offered, such as fixing flat tires.



*A bicycle station in North Rhine-Westphalia. © Jörg Thiemann-Linden*

The biggest bicycle station in Germany thus far was opened in Münster in 1999. Around seven million Euros were invested in this structure, with a capacity of 3,300 parking spots. The municipal car park company took on the construction of this architecturally impressive new structure, located in front of the train station, and subsequently long-term leased the property to a private operator. On offer is a wide selection of services, including, but not limited to, bicycle storage and safe-guarding for short- as well as long-term users. Thus, it is possible in Münster not only to have one’s bike repaired, but also to have it washed fully-automatically, or to rent bikes and book tours.

Overall, the bicycle stations in North Rhine-Westphalia are successful both from the client’s and operator’s perspectives. In many cases, enlargements of the structures were necessary after just a few years to keep up with growing demand. The construction of new bicycle stations is now often integrated into new construction projects of outer buildings and the surroundings of train stations.

## Other types of new bicycle parking systems in Germany and its neighbours

### Freiburg

Freiburg's „MOBILE: centre for environmentally sustainable mobility“ („MOBILE: Zentrum für umweltverträgliche Mobilität“) was opened in 1999. The centre offers 1,001 parking spots, bike rental, a repair workshop, and a bicycle store. Beyond the bicycle services on offer, the centre serves as a link between various types of transportation: car-sharing, bicycle use, local public transport, train, and taxi. This non-profit operation offers jobs and skills acquisition to the long-term unemployed.

### Basel

Switzerland (particularly in the German-speaking cantons) has heavily invested in the development of its bike-friendly train stations for a number of years. For example, the train stations Basel SBB and St. Johann (in Basel) have seen the construction of large, covered parking areas for up to several thousand bicycles, though the premises are not guarded. In addition, various bicycle stations („Velostationen“) have been set up, each with a capacity of 2,000 safe parking spots. A particularity to the Swiss bicycle stations is that they are partially free of cost. Those who opt for paying spots enjoy the benefits



Entrance to the free parking spaces of the bicycle station in Basel.  
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of being closer to the platforms and 24-hour access. At the bicycle stations, additional services on offer include bicycle rental and repair, luggage lockers, air pumps, and charging stations for electrically assisted bicycles. Limited personnel and a large degree of automation keep operating costs at a minimum. Part of the bicycle station is wholly operated without staff, as entry is managed via a chip-card and monitoring is accomplished by cameras. However, most other bicycle stations in Switzerland follow the German/Dutch model of combining integrated service provision with social measures.

### Environmentally friendly stations in the Rhineland-Palatinate

The „Umweltbahnhöfe“ (environmentally friendly train stations) in the Rhineland-Palatinate have shown that easily accessed and secure parking systems also improve the traffic flow in smaller towns and communities. The renovation of train stations in the municipalities of Monsheim, Grünstadt, Bullay and Niederlahnstein served as pilot projects in which the principal aim was eco-friendliness. This aim was realised via an improved integration of train stations in the bicycle path network, better sign-posting, and the construction of weather-proof parking areas. For example, the newly conceived train station in Bullay offers lockable bicycle boxes, covered bicycle stands and a shower (most likely to be used by tourists travelling by bicycle).

## Conclusion

Linking bicycle use and local public transport intelligently will only increase in importance, especially in times of rising fuel prices and the prospect of wider use of electrically assisted bicycles (and thus a wider range of bicycle use). Secure and easily accessible parking possibilities for a large number of bicycles are becoming all the more important. Imperative is an attractive mix of services offered: just as important as large, monitored, paying parking garages for expensive bicycles are a plethora of traditional inverted U-type racks in close proximity to the train station. Not all cyclists wish to pay for parking or to enter a parking garage, even if it was constructed specifically with bicycles in mind. An optimal mix of parking options on offer will help to make train stations the centre of the city again.



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More Information on Bicycle Parking can be found in the following editions

Cycling Expertise I-3 Bicycle Parkin in the City Centre  
Cycling Expertise I-5 Bicycle Parkin in Residential Areas

“Cycling Expertise” is available online:  
[www.nrvp.de/en/transferstelle](http://www.nrvp.de/en/transferstelle)

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