



## Integration of Public Bikes into Public Transport

Bicycles for public hire can be used for many kinds of journey. Before setting up a public bike scheme, the purpose of the scheme must be decided. From a climate protection point of view, the best option is to use it as a supplement to the local public transport network. The scheme proposed here is an inexpensive way of making local public transport more attractive.

### Improving mobility

The aim is to supplement public transport by using bicycles for journeys starting and ending at key locations on the local public transport network (railway stations, regional and underground railway stations and connecting-stops) to provide coverage of a specific area. Large distances can be covered quickly using local bus and rail networks (particularly regional, underground and city railways). Bicycles can be used to reach a particular destination easily and quickly, starting from important stations on the network. The same bicycle is then used for the return journey to the point of departure. This makes public transport much more attractive for cyclists (see illustration 1 and 2).

### Setting up the scheme

The bicycle rental point is the best way of setting up a bicycle hire scheme to improve mobility, as described in the paragraph above (see illustration 3). Using this bicycle rental machine, bicycle rental stations can quickly and easily be installed at local transport network key locations at low cost and without taking up much space. The rental point will have four bicycles for hire. This means there will be sufficient availability even at small rental stations, built up with only one rental point. Larger rental stations can be set up on a modular basis and have several rental points. As the bicycle rental point does not require connections by cable or a permanent foundation, distribution and size of rental stations can be quickly and flexibly adapted to demand (learning infrastructure).

### Access to the scheme

Access to the scheme must be made as easy as possible. The disadvantage of all such rental schemes is that the user has to be registered in order to comply with regulations (to avoid bicycle loss, underpayment for the rental period, or other breaches of regulations). This means that initial access is made more difficult because registration is required, thus making it less easy to attract customers. The scheme can be made more convenient by linking it in with existing customer contact systems (credit cards, EC cards and customer loyalty cards). However, as card-reading and communication systems increase the cost, especially in the case of credit cards and EC cards, their use has to be carefully considered. Apart from direct customer contact, registration is also possible by post, telephone and online.

Once the initial registration procedure has been completed, regular users only need everyday access to the scheme. One convenient method is a user card (smart card with PIN). Access from a mobile phone is another attractive method for many potential user groups. Technically, any kind of access system is feasible.

### Charging system

The charging structure should encourage the extra mobility offered by public bikes and make the scheme as attractive as possible. In the daytime, bicycles will be mostly used for essential journeys such as shopping, doctors' appointments, official appointments and meetings, meals out etc., so the rental charge will be set as low as possible for the first two hours. But the charge will remain attractive even for longer outings. At night, bicycles can be used for the journey home, as there is unlikely to be much demand to hire them at rental stations, and for this reason a very reasonable overnight charge can be applied.



Here is an example of a charging structure for a city in Germany:

Period	Description	Charge
8:00 - 22:00	Short period	1 cent/min for the first two hours inclusive <sup>1</sup>
8:00 - 22:00	Long period	2 cents/min after two hours
22:00 - 8:00	Overnight	1 cent/5 min <sup>1</sup>

The following prices apply under this example:

1 hour (between 08:00 and 22:00) 0.60 EUR  
2 hours (between 08:00 and 22:00) 1.20 EUR  
3 hours (between 08:00 and 22:00) 2.40 EUR  
4 hours (between 08:00 and 22:00) 3.60 EUR  
6 hours (between 08:00 and 22:00) 6.00 EUR  
24 hours (rental period starting between 08:00 and 20:00) 16.80 EUR  
10 hours (from 22:00 until 08:00) 1.20 EUR

### Market introduction and scheme management

When the public bike scheme is introduced, an attractive solution might be for a sponsor to donate free registration and a voucher worth perhaps 6 euros to the first 1,000 people interested in the scheme (corresponding to 10 hours of bicycle use within the “short period” charge band). This will encourage people to register as soon as possible.

As well as controlling demand by introduction of a favourable charging system, the scheme must also be controlled by demand, which means that distribution of bicycles has to be adapted to demand as the scheme develops. Initial distribution will be based on the mobility enhancement desired, knowledge of traffic flow and feasibility studies, thereafter bicycle rental points will be redistributed over the course of time depending on demand (learning infrastructure).

If the scheme is successful, it must be extended as quickly as possible to provide more bicycles and rental stations, as there is otherwise a risk that users will get frustrated if not enough bicycles are available and initial success may then turn to failure.

### Financing

The bicycle rental scheme should cover costs as far as is possible. This will only happen if the scheme is cheap to run and attractive to users. Contributions from sponsors, from advertising at rental points, on bicycle and user cards, and from user charges and grants can be used to finance the system. A subsidy from the municipal budget may also be deemed necessary, but any costs incurred by the city should be kept as low as possible.

### Contact

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<sup>1</sup> For regular passengers on the local public transport network, this service could be made available for a certain number of trips (number to be determined) as a free or reduced-price additional benefit with a season ticket.



Illustration 1:

### Public bikes to supplement municipal railways

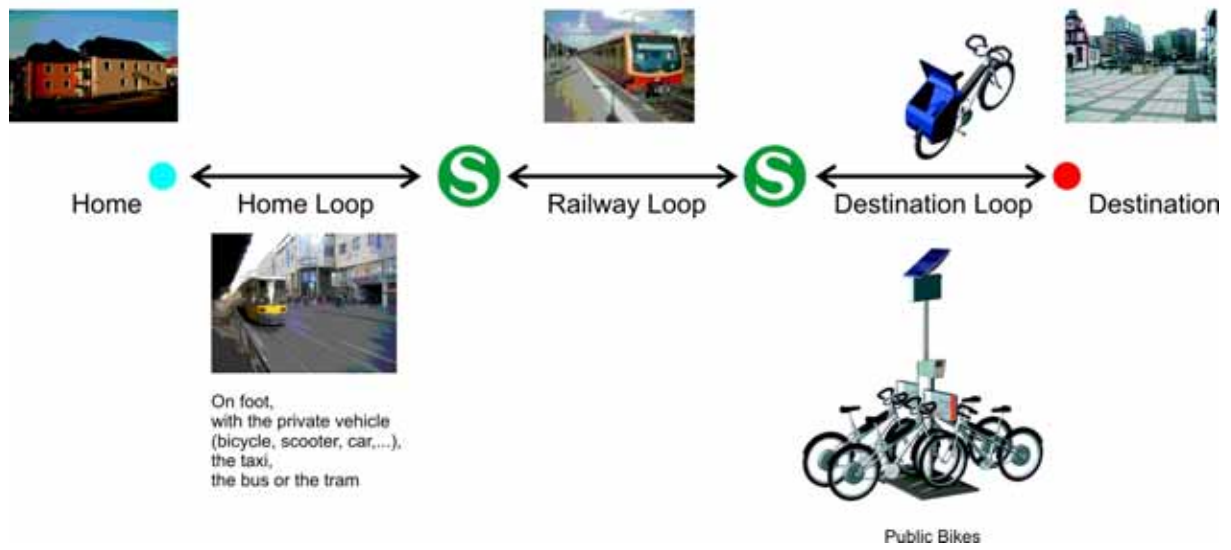


Illustration 2:

### Bicycle rental stations at key locations on the local public transportation network For round trips: station <> destination

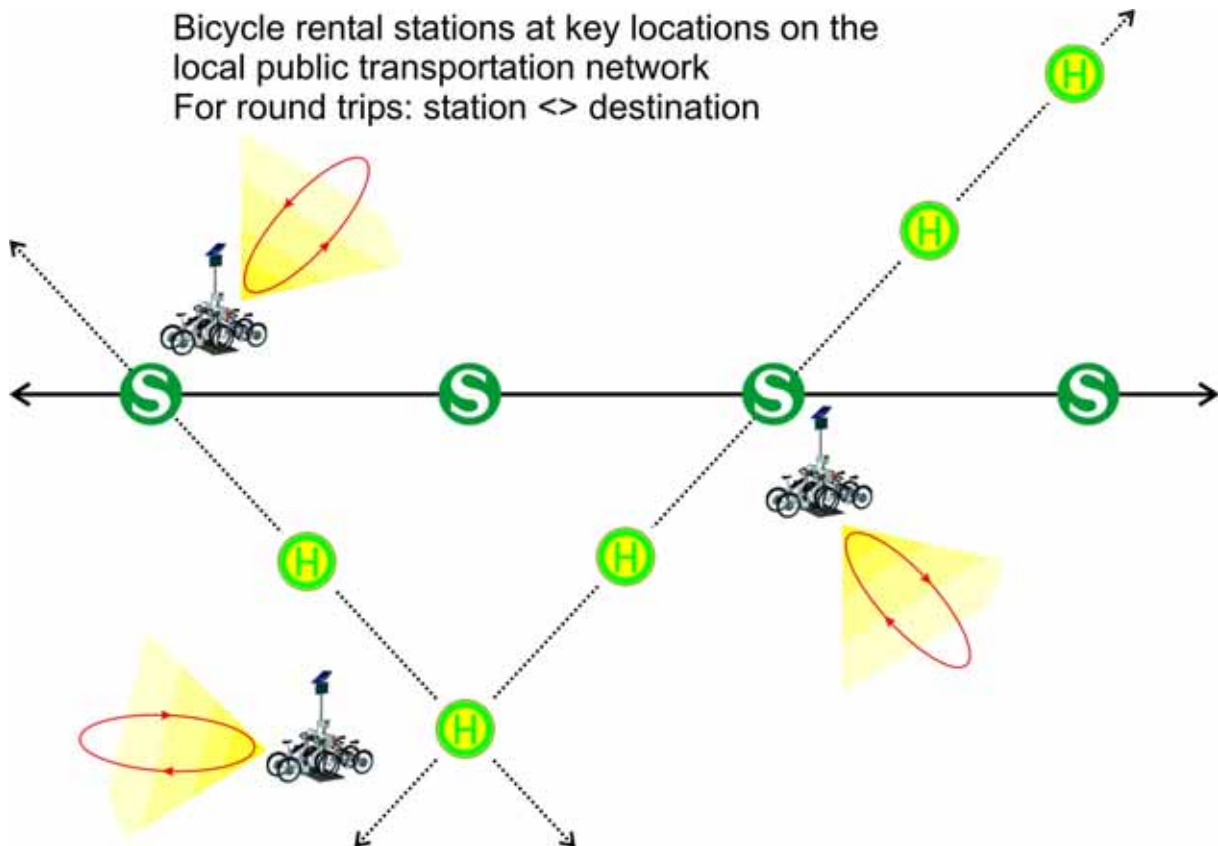




Illustration 3:

### Bicycle rental point

