

## Shared Bikes

### Definitions

Also called "Public-Use Bicycles" (PUBs), "Bicycle Transit" or "Smart Bikes", Shared Bike systems comprise short-term urban bicycle rental schemes.

### Context and Policies

Shared Bike systems differ from traditional, mostly leisure-oriented bicycle rental services as (a) they can be "rented" at one location and then left either at that location or at another location; (b) they provide fast and easy access; (c) they have diversified business models; and (d) they make use of applied technology (rental process via smart card or mobile phone). They can be used for daily mobility (as one-way-use is possible) and they are often designed as part of the public transport system. The basic premise of the Shared Bike concept is sustainable transportation.

Rental charges are usually 'pay-per-ride' fees, where the user is charged for the time he/she uses the bike. In most systems, the first half hour is free of charge. The latest systems operate with smart technologies to facilitate fast and easy access to the user. Most systems are available 24 hours per day, 7 days a week. Bike "pick up" and "return" stations are strategically placed at regular intervals throughout the city, located close to public transport hubs (such as train-, metro-, and bus stations) and at central locations (such as office and shopping areas as well as tourist attractions). Many systems provide real time bike availability information accessible to users on the internet. These "smart" bike-sharing systems are designed to provide the missing link between existing points of public transportation and desired destinations, offering a new form of mobility and complementing the existing public transport systems.

### Issues

A major issue with earlier generation bike sharing schemes was people keeping bikes longer than the allowed period. This has been resolved by the use of smart cards and ensuring that users register with a credit card. Nevertheless, in some cities people borrow a bike for a week or longer, treating it as their own. Others will not have the courtesy to return the bike to a rack, making fewer bikes available on the racks.

An ongoing problem in Paris is theft and vandalism. According to a recent story on National Public Radio in the USA:

"16,000 bikes have been replaced because of damage or theft. Tires have been slashed, frames smashed, chains cut and 8,000 bikes have been stolen. The bike scheme was supposed to cost the taxpayers nothing. But now the Paris City Council has agreed to cover \$500 of the cost of replacing each damaged bike -- an estimated expenditure of \$2 million a year. Parisians have many theories about the vandalism. Some say it's youths taking revenge on the bourgeois bohemian class that use the Velibs. Others chalk it up to the disagreeable character of Parisians. It's true that a similar scheme in Lyon has suffered none of the same destruction".

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Photo credits: Bike station in Toulouse (France) by Peter Midgley

### Resources

#### Documents

- **Bicincittà: Solutions for Sustainable Mobility**, 2008, Bicincittà (Italy)
- **Bicycles as public-individual transport - European developments**, 2008, Sebastian Bührmann, Rupprecht Consult Forschung & Beratung GmbH, Cologne (Germany)
- **City-Bike Maintenance and Availability**, 2002, Michael DiDonato, Stephen Herbert, Disha Vachhani, Worcester Polytechnic Institute (UK)
- **Cycling on the Rise: Public Bicycles and Other European Experiences**, 2009, Spicycles consortium (EU)
- **Hangzhou Public Bicycle Service**, 2008, Bai Song, Bradley Schroeder; Huang Siqi, Xiaoliang Hu, ITDP China Bicycle Parking and Sharing (China)
- **New Seamless Mobility Services: Public Bicycles, NICHES Policy Note 4**, 2007, Sebastian Bührmann, Rupprecht Consult Forschung & Beratung GmbH, Cologne (Germany)
- **Smart Bikes: Public Transportation for the 21st Century**, 2001, Paul J. DeMaio, City of Alexandria, Virginia (USA)
- **The Role of Smart Bike-sharing Systems in Urban Mobility**, 2009, Peter Midgley, gTKP, in "Journeys", LTA Academy (Singapore)
- **VELIB Press Release**, 2007, Mairie de Paris (France)

#### Media

- **B-cycle**, 2009, B-cycle, Boulder, CO (USA)
- **Bikesharing in Barcelona**, 2009, Kirsten Dirksen, faircompanies.com (USA)
- **Cemusa Bicycle Sharing Program**, 2007, Cemusa (Spain)
- **Hangzhou Bike Rental**, 2008, YouTube (USA)
- **HourBike, Bristol (UK)**, 2009, Hourbike (UK)
- **Samba Bike Sharing Program**, 2009, SAMBA (Brazil)
- **SmartBike**, 2009, Clear Channel (USA)
- **Suisseroule: Building bike sharing station in**

global Transport Knowledge Partnership,  
chemin de Blandonnet 2,  
1214 VernierIGeneva,  
Switzerland

Topography and climate may not be appropriate in some cities for shared bike schemes. The city of Stuttgart (Germany) is launching an electric bike scheme called "Pedelec" which it hopes will make shared bike use an attractive alternative.

Although many city-bike programs are started to reduce traffic congestion, this benefit is questionable. The bikes are most often used instead of walking or other forms of public transportation, neither of which significantly add to automobile congestion inside a city.

## Actions

Key conditions for implementation are:

- A strong commitment to sustainable urban transport planning and to the promotion of cycling as a serious transport mode;
- A minimum standard of bicycle infrastructure (bike lanes and bike paths) for safe and convenient cycling;
- Sufficient resources for a large scale scheme to achieve a real impact;
- Sufficient space for racks/parking to guarantee the accessibility of bicycles.

## Costs

The cost for setting up and running a Shared Bike service depends very much on the scheme chosen and the size of the service. The majority of solutions available are not financially self-supporting. These schemes need to be financially backed up by a large transport operator (e.g. German rail in the case of Call a Bike) or by public resources (directly or indirectly through PPPs). In many cases, a PPP between a billboard company and a local authority is established. The billboard company (e.g. Clear Channel or JCDecaux) receives the right to use specific public spaces for advertisements and in return implements and operates the scheme, which means foregone revenues for the local authority. Cities can also buy schemes "off the shelf" that aim at being self-financing through advertisements on the bicycles (e.g. OYbike). Although operated by Clear Channel under a ten-year contract with the municipality, the Barcelona system is financed by revenues from on-street parking. Principal cost factors to consider when implementing a Public City Bike scheme are:

- staff needed for operation, service and maintenance;
- bicycles (costs can range from 250€ to more than 1,200€ depending on smart bike technology);
- racks and service terminals.

- **Lausanne-Morges (Switzerland)**, 2009
- **Taipei's U-Bike Bicycle Rental Program**, 2009, Eric Mah, YouTube (USA)
- **Vélib'**, 2008, Elizabeth Press, StreetFilms.org (USA)
- **Vélo'V**, 2009, Vélo'V, Lyon (France)

## Presentations

- **Bike Sharing in Europe**, 2009, Janett Büttner
- Organization: choice GmbH, Berlin (Germany)
- **Creation of a Bicycle-Friendly Changwon**, 2009, Park, City of Changwon (Taiwan)
- **CYCLOCITY: A Revolutionary Public Transport System Accessible to All**, 2008, JCDecaux (France)
- **French network of bike-cities and Bike Sharing Systems in France**, 2008, Vincent Faye, le Club des Villes Cyclables, Paris (France)
- **Kaohsiung Government Public Bike Sharing System**, 2009, Yeh Chic-Chung, Tung-Li Development Co. (Taiwan)
- **Primo Convegno Nazionale del Club delle Città del Bike Sharing**, 2008, Lorenzo Bertuccio, Club delle Città per il Bike Sharing, Rome (Italy)
- **The Bicing Effect**, 2008, Toni Roig, Director of Mobility, Municipality of Barcelona (Spain)

## Recommended Links

- **Bicincittà** (Italy)
- **Bike Share News** (Australia)
- **Bike Share Philadelphia** (USA)
- **Bike Sharing Solutions** (Australia)
- **Bike Sharing Videos** (USA)
- **City Bicycle Share Programs** (USA)
- **CityRyde** (USA)
- **Cyclocity (JCDecaux)** (France)
- **dublinbikes** (Ireland)
- **Gallery: Bicycle Rental & Free Bike Schemes** (UK)
- **ITDP China Bicycle Parking and Sharing Project** (China)
- **MetroBike** (USA)
- **OBIS: Optimising Bike Sharing in European Cities** (EU)
- **Oslo City Bikes** (Norway)
- **SmartBike (ClearChannel)** (USA)
- **The Bike-sharing Blog** (USA)
- **The Bike-sharing World Map** (USA)
- **The City Bike and Copenhagen** (Denmark)
- **The OYBike System** (UK)
- **Trondheim Citybikes** (Norway)
- **Vienna Citybike: Case Study** (Austria)
- **Wuhan Public Bikes** (China)

## For further information

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