![bikeoff 2 logo]

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Bicincittà, Italy

"Solutions for Sustainable Mobility"

bikeoff 2

Facility:

Self-service on-street automated bicycle hire, in many cities in Italy.

Provider:

Bicincittà (Comunicare s.r.l.) in partnership with City councils in respective towns, Italy.

In Rome, Pamplona and San Sebastián, the installation is also linked to an agreement with Advertiser and transport company Cemusa
http://www.cemusa.com/web/prehome.htm

Supplier/ Manufacturer of System Equipment:

Comunicare S.r.l. Via Genova 2 – 10040 Rivalta di Torino
T. 011.90.19.150 –
F. 011.90.20.345
comunicare@spaziocomune.com
www.spaziocomune.com

Designer/ Architect:

Comunicare s.r.l.

Cost of Provision:

Undisclosed.

General Description:

Bicincittà is a bike sharing initiative created and promoted by the urban communications, products and services company, Comunicare (Turin). The system is targeted at public administrations, to make 'shared bicycles' available to get around Italian towns and city centres.

The promoters emphasise that this is a 'bike-sharing' scheme, rather than traditional bike rental. By this they mean that bikes are intended for short loan periods, for city errands and trips of less than half an hour or up to a few hours, as opposed to traditional cycle rental services which let bikes out on a half-day or whole day-basis. This approach falls very closely in line with the intentions and marketing of other third generation automated public bike hire schemes, often referred to as 'self service' or 'public-transport' bikes. The service is indended to dovetail with other public transport systems in order to facilitate intermodal options for travelling around and in and out of the city without a car.

First introduced in 2004, the Bicincittà scheme has now been installed in 21 cities, mostly in central and southern Italy, but also in Turín. Near identical schemes have also been set up in Pamplona and San Sebastián in Northern Spain, in partership with Spanish transport company, Cemusa. Each instance is relatively small-scale, compared to some of the recent systems introduced to other parts of Europe (Paris, Barcelona etc). The website, www.Bicincittà.com indicates that there are a total of nearly 11,000 registered users and currently slightly more than 1700 individual stands across all 21 locations. It is however a well-developed 'smart' networked service and its operation is not dissimilar to those offered by Clear Channel, JC Decaux and other competing providers.

Location of Facility:

Towns and city centres, near transport interchanges and other key urban hubs.

Italy[1]:

Alba, Bari, Biella, Borgomanero, Bra, Brescia, Camiri, Chivazo, Cuneo, Fossano, Novara, Parma, Pinerolo, Pistoia, Prato, Reggio Emilia, Roma, Savigliano, Settimo Torinese

Spain:

Pamplona[2], San Sebastián[3].

Scale (capacity):

The Bicincittà system has been installed in 21 cities.

Between these cities, there are at present:

- 10707 Registered Users

- 1719 Bicycle Stands. These are usually arranged in rows of between 5 and 15 stands per station

- Each city has between 4 and 24 stations, distributed through the

town. However, there is no official minimum number of stands that can be located at one parking station

The scheme in Rome, launched June 2008, currently has 19 Stations and 271 stands (averaging 14 stands per station) and around 200 bicycles.

Charges (cost to user):

The charging structure for the service varies between cities, where Bicincittà is implemented.

In Cuneo, Chivasso and Savigliano, for example this service is free, in Parma and Pistoia it costs about 80 cents per hour.

To use a Bicincittà bike in Rome, one must first register with the programme at one of seven tourist information centres.

The annual membership fee is € 30 (£23).

Bikes are available between 7am - 11pm daily.

The first 30 minutes are free.
The second 30-minute period costs €1,
the third 30-minutes cost €2,
the rate after that (i.e. 1.5 hours plus), is €4 per additional half hour, up to 24 hours.

Beyond 24 hours, a penalty charge will be issued.

Length of use:

Bicincittà bikes are intended for making short journeys around the city, typically of half an hour or less.

In most of the cities where Bicincittà is installed, bikes can be borrowed between 16 and 24 hours per day, depending on location,

and bikes can usually be returned 24 hours per day to any of the stations within a given town.

In Rome, registered users can take bikes out between 7am and 11pm.

Access:

Being an on-street unattended scheme, with installations that are not covered or shielded in any way, access to the Bicincittà service is very straightforward for those people for whom the stations fall within reasonable range of their daily journeys. A limitation of the scheme not being installed on such a large scale in any one city as some of the other European schemes, is that few bikes have to serve proportionately more people, and fewer stations mean it is not so convenient for some people to collect or drop off a bike without going out of their way.

Signage:

On-site and on-line visual communication of the Bicincittà system is very strong.

The bikes and parking stands are coordinated with solid red, blue or another distinctive colour which the municipality may choose.

At each parking/ hire station, an information panel is installed of approximately 2.5m height x 1m width. These are typically finished in bright solid colours (red, blue, etc) with the scheme's logo, plus large printed maps, information on the nearest alternative stations and other simply presented information related to where and how to use the service, and where and who to contact with any questions or problems.

The combination of these on-site elements at each station makes them easily noticeable from nearby. As with most other types of public hire scheme, there appears to be no "way-finding" signage integrated into other parts of the local environment to direct people to the cycle stations.

The Bicincittà website also presents clear and detailed mapping, current bicycle availability and other user information for each site.

System Interface:

The Bicincittà system consists of the following components:

• The bicycles and parking stations

• A monitoring and inventory system

• A system of tele-diagnostics

When new users register with the scheme, they are provided with a 'smart' proximity card, that uses RFID technology to store and transmit user details and the monitoring system connects these with the hired-

cycle information, which is communicated by RFID between the bikes and the parking stands.

To rent a bike, they simply have to locate the card near the surface at the top of the stand that holds the cycle they wish to hire. There is no on-site digital interface at the Bicincittà stations, which helps simplify the whole operation and helps reduce opportunity for technology problems and keeps the on-site hardware more robust and a little less vulnerable to vandalism.

Every bicycle's movement is transmitted to a server and updates in real-time the availability in any given area. The user's information and card-details are also stored on the same server and the system can cross check information and keep up to date on movements, problems and demand at each station. They can then adjust the supply of bikes and (over a longer timescale) stands, or respond with the maintenance service, as required. Statistical data can also be shared with urban planners to coordinate the bike scheme with other mobility flows and transport plans for the city.

The Bicincittà website is the user's portal for locating current information on bike availability and other details they might need. It is presented in Italian and English language and conveys an intuitive design with useful maps and easy-to-find information.

Furniture / Parking Equipment:

Apart from the bikes themselves, each station is furnished with parking posts (one for each bike) and an information panel.

The steel encased posts measure close to 1m in height, similar to the JC Decaux parking points, but the Bicincittà ones are slimmer and squarer, in section (approx 15cm x 20cm), with a diagonal top surface where the users swipe their Bicincittà cards. A hole in the side of the post allows bikes to be connected and the internal locking mechanism is operated once the bike is properly located.

The display panels (approximately h2.5m x w1m) provide a point of visual reference for each station and offer graphic printed information for the users' reference. The absence of an electronic interface is a distinct advantage in many ways, since it reduces costs and complexity of the installation.

Bicincittà also offers an option for cities to install a specifically designed 'Portico' which offers shelter to the bike parking installation and further adds a sense of presence and recognisability to the rental stations. These can also be fitted with solar panels on the roof surface, to power the on-site electronics and enhance promotion of renewable energies within the scheme. Parma in Italy is one example of a city that has installed the Porticos.

Bicycles used with this system:

The bicycles used are of a traditional town-bike design. From a distance they could be assumed to represent a "timeless" style from any point in the last seventy years or more. Nonetheless, they are designed to be comfortable for diverse users, to be easy in use and simple to maintain.

The bicycle has a shaft permanently fixed to the down tube, which acts to unite the lock with the parking stations when the bikes are 'docked'.
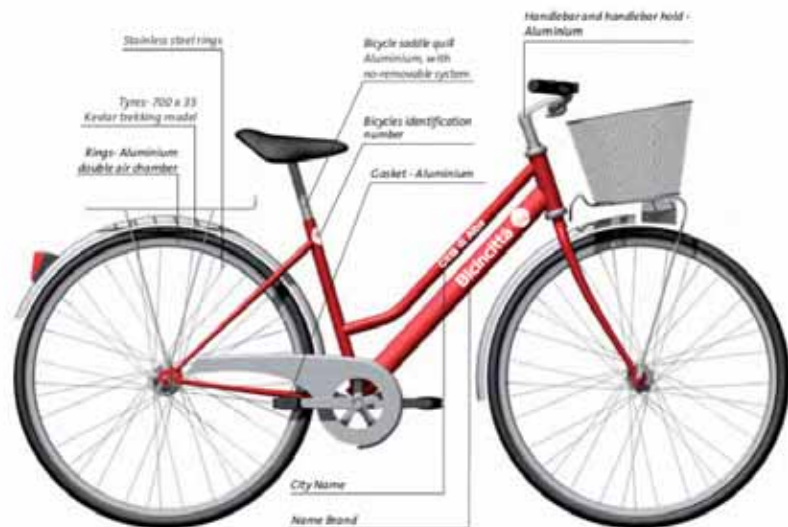
Although the bikes host a specification of robust components (metal pedals, hard-wearing tyres etc) it is not clear how many of the components are fastened with anything more secure than normal nuts and hex-head bolts. The seat post and quick-release adjustment for the seat are of a non-removable variety. Other specifications include dynamo driven lighting, v-brakes and a front basket for transporting users' belongings.

The 7-speeds offer a good range for differing inclines around the city, but some bikes employ a chain-and-cassette type drive chain (as opposed to internal drive-hub), which can be susceptible to breakage and may soil cyclists' clothing.

Security, Guardianship and Lighting:

Each bicycle is anchored solidly to a bicycle-parking column, which is their main form of theft prevention. The lock on one of these stands is electro-magnetically activated, and deactivated, to release a bike butonly when an authorised card is placed in proximity to the card reader on the stand.

The bicycles have some non-standard parts and fixings which are 'hard to remove' and 'hard to sell', but not as many as would be expected on as system of this kind.

No information is currently available in respect of problems with thefts or vandalism linked to the Bicincittà schemes.

Maintenance and Servicing:

Servicing the system, maintenance of the bicycles and some of the customer service enquiries are handled by Bicincittà in partnership with the relevant city council. In some cities the logistics and system are managed in collaboration with Cemusa.

Service Period (how long facility meant to last):

Estimated 10 years, with continued maintenance.

Strengths:

- Relatively simple 'third generation' system can be installed in smaller or larger numbers, according to town budget, size, demand, etc.

- No necessary minimum number of bike stands at one station for system operation

- On-stand swipe-card readers

- No need for on-site digital interface, which keeps costs down, reduces opportunities for vandalism/ failure and simplifies user interaction process

Weaknesses:

- Dubious security of bike components and fixings

- Insufficient evidence of customised non-removable or non-transferable parts. Little use of security screws

- Design of bikes is very 'traditional' in style and may not communicate a twenty-first century system to some

- No information available on theft or vandalism among current installations

- Some of existing installations too-small scale for the size of towns/ populations they have been installed for – implies possibility of too few bikes available to meet demand and the service not being convenient (local) enough to users' destinations.

[1] http://bicincitta.com/comuni.asp

[2] http://bicincitta.com/citta.asp?id=1000

[3] http://bicincitta.com/citta.asp?id=1001

More on the public bike hire schemes in Italy:

"C'entro in Bici" www.centroinbici.it was the first bike sharing system adopted in Italy, in about 60 towns between the years 2000 and 2005.

The system is still working in many of those locations; and the number of bikes per town is typically about 10-30.

The newest "Bicincittà" system is the same service but updated technically, to 2008 after the "Bicing" success in Barcelona. This latest bike sharing system works with a magnetic card rather than a physical key but Italian designer Vincenzo Di Maria reports that it may be like a 're-heated soup' of the other version. The only big difference is the greater number of bikes and console-posts around a given town or city.

Marcus Willcocks August 2008

Useful References:

Bicincittà

www.bicincitta.com
http://bicincitta.com/Files/Docs/brochure_bicincitt__eng_web.pdf

Bicincittà Rome

http://www.roma-n-bike.it/default.asp
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C'entro en Bici

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