

Bike Sharing Networks

A VeloCittà Position Paper

What is VeloCittà

The VeloCittà research project, supported by the European Commission, brought together urban bike sharing schemes from six major European cities and ran for three years 2014 - 2017. VeloCittà also attracted 32 “follower cities” from EU and USA interested in using and sharing the project outcomes, exchanging bike share knowledge and in continuation of a bike share platform. Two specific objectives as agreed with the European Commission at the beginning of the project state that VeloCittà was to: 1) provide a permanent ‘home’ - during the project and beyond - for information on and advice to cities on bike sharing and 2) support other bike sharing across Europe to increase their user-numbers and efficiency by providing a knowledge and experience base on communications and operational approaches.

A group of former project partners is now taking VeloCittà forwards on these lines and a sequence of *conferences*, *workshops* and *position papers* are part of this ongoing work.

Bike Sharing Networks

Bike sharing has been a familiar sight in our cities for over a decade, and has often been pivotal in popularising the bicycle as a full-fledged urban mobility mode. However, after an initial phase of exponential growth, spurred by high profile systems such as those launched by London, Paris, Madrid and Milan, bike sharing opened a more turbulent chapter marked by multiple closures, especially in small-medium cities. Many systems were opened in a rush, with little strategic thinking and often in contexts unsuitable for the business model then available. In fact, up until 2015, bike sharing was a low-tech docking station-based pack that entered city markets offering appealing advertisement opportunities. The model was complemented by public subsidies, issued upon service contract awarding, as well as patronage revenues. All in all, a package that only few mostly large cities could comfortably offer, and that often only targeted prized central urban areas to the detriment of peripheries and peri-urban areas.

As of 2015 the course of bike sharing was abruptly altered by the advent of a free-floating system -rental bicycles without docking stations- first deployed in Asia. The new model promised to be more equitable and pervasive, for it offered its services to cities of all sizes, pledging to reach all city zones and all citizens (thanks to very low use charges), and capable to ensure full interoperability thanks to its high-tech features. Many European cities were intrigued by the possibilities opened by free floating and were suddenly confronted with a bike share ‘offer’ that promised to bring thousands of bikes into the streets, and, for the first time, “free of municipal charge”. However, after the first free floating services surfaced in Europe, politicians realised that they were facing a dilemma: are these bikes a blessing because they are for free, or are they simply taking over public space without asking and thereby causing trouble.

Currently there are three approaches that cities are taking when facing the arrival of free-floating rental bicycles:

- The *Eviction model*: the city evicts the bicycles that have been offered for rent on the public domain without a permit or prior agreement, pending the preparation of an ad-hoc regulation.
- The *Memorandum of Understanding (MoU) model*: the city agrees a temporary MoU with the bike-share operator(s) while preparing an ad-hoc regulation.

- The *Call for Interest model*: the city officially invites bike-share operator(s) via a Call for Interest and then signs a service contract binding the operator(s) to adhere to its requirements. This model usually entails the adoption of a regulation and may contemplate requirements negotiation in the case of a Call for Interest.

Step 1.

Ideally it all starts with the city taking control by creating a city *Bike Share Network*. This is a formal decision of the city that establishes a single bike sharing zone covering the whole city. An operator can service the network when terms have been agreed and a permit has been granted. This is a formal decision of the city to give an operator permission and access to the public space for the purpose of supplying shared bikes. It is thus fully regarded as a public transport service.

This step also entails a city seeing if and how bike sharing fits in the city’s SUMP or mobility vision. If bike sharing does not fit the city’s objectives, then a rudimentary bike share network will serve as a formal barrier for unwelcome arrivals. If bike share does fit / complement the city’s SUMP or mobility vision then the city can move to the next stage.

Step 2.

The city determines its ambitions in relation to bike sharing: who are the target groups, what their needs and desires are: what city areas can be used for parking, what bike standards should be used, what other key service requirements need to be complied with. Have a look at VeloCittà’s [Ten Golden Rules form Bike Share Schemes](#) and peruse [VeloCittà’s Resources](#).

Using this information and the offers it has had, the city can choose one or mixes of three options:

1. A *docking stations model*. Docking stations are still in full swing and they have their advantages, but they are also constrained by high costs, the limited level of flexibility, and the dependence on advertisement. Read more here: [Better use of Bicycle Share Systems](#).
2. A pure *free-floating model*. This is an extreme case that, even in the eyes of some free-floating operators, is bound for a dead-end owing to the disruption caused to mobility and public décor.
3. A *geo fencing model* with digital parking stations. Here bikes are free-floating but need to be returned to parking stations agreed by the city and the operator (see Step 3). It is currently the preferred VeloCittà model as it reconciles elements of the other models, order and flexibility, and it positions the city where it should be: at the centre of decision-making, enabling the establishment of a true Bike Share City and fostering a more human-centred management of public space for the benefit of all (see below).

Step 3:

If a city chooses for option 3, the next stage requires to take (at least) the following decisions:

- The number of digital parking stations in the launch phase.
- The location of the digital parking stations.
- Data gathering standards
- The key city bike share rules: a set of requirements and standards on type of bicycles (e.g. standard city bicycles that adhere to [NEN](#) standards, electric bicycles, cargo bicycles etc.), relocation, enforcement, maintenance, customer care, customer survey, etc.

- The management and monitoring platform to be used for service operation and regulation. This can take the following forms:
 - Each individual bike share operator run its own stand-alone platform, calibrated to adhere to the service requirements agreed with the city.
 - A single city platform is adopted hosting all bike share operators, providing direct access to all live data and calibrated to adhere to commonly agreed requirements.
- The establishment of bike share governance group, bringing together the city, the operator(s) and the community of users- It regularly meets for monitoring, evaluating and improving the bike sharing network.

The decisions of Step 3 shall become integral part of the service agreement signed between the city and the operator(s).

The concept of a Geo Fence platform open to other operators is already working, with [X.Bike](#) hosting bike sharing services like Hello Bike, Student Bike and My Hotel Bike in Amsterdam. There are other geo-fence based systems, as stand-alone platforms, already operating or just about to start in Europe, including those ran by [NextBike](#) and [JCDecaux](#).

In classic city / operator agreements, each operator has a separate agreement which could differ from those agreed with other operators. The new and developing model sees all operators having just one common agreement with a city with one set of rules, one platform for geo fencing and enforcement through a common digital dashboard.

Moving forwards

The bike share world is currently very dynamic with new developments increasingly happening in relation to all aspects of this sector. VeloCittà is committed to analyse new and serious alternative models so as to help cities and operators make the most efficient decisions both for the cities and the bike users, but also for the operating companies.

More on a 'Geo Fence Zone Plan for Cities & Bike Share' can be read here: <http://velo-citta.eu/news/all-you-need-to-know-about-making-a-geo-fence-zone-plan-for-cities-bike-share/>.

Team VeloCittà would like to come into contact with software developers that provide software for geo fence zones in cities without being operators of bike share systems themselves and giving the full control to cities.

In this ongoing work, we would be very happy to work with cities, city organizations and city platforms, as well as with operators who service these cities and to receive feedback to this position paper. We would also be happy to cooperate on other position papers.

More information can be found at: www.velo-citta.eu

