



DELIVERABLE 2.5

ORGANISATION AND FINANCING FACT SHEET

WP 2: Communication &
Organisation Knowledge Centres

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Bike sharing is a highly complex offer that requires expertise in various fields. Even though bike sharing today is spread all over the world, experience with the different organisational models in modern schemes is rather short. Therefore and due to the fact that cities have different starting points and framework conditions, there are hardly universal recommendations for setting up and operating a bike sharing scheme.

Financing was and still is the Achilles heel of most schemes. While turnover and costs often have real potential for improvement, the overall question of subsidies remains unanswered.

This fact sheet will give a short overview about the central organisational and financial aspects of bike sharing including generic concepts as well as concrete figures that give the reader an idea about financial framework data of different schemes. At the same time it will give an insight into the five VeloCittà sites.

Models of organisation

The organisational model, i.e. the division of tasks between municipality and contractors is a crucial decision before implementing a bike sharing scheme. Each model comes with strengths and weaknesses in terms of costs, organisational constraints and transparency.

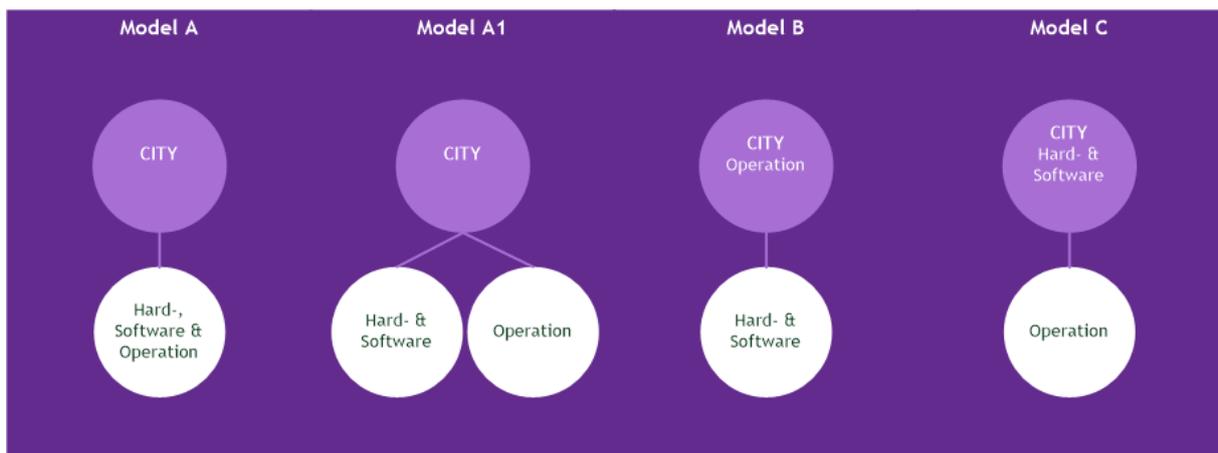


Figure 1: Models of bike sharing organisation

Most cities award a contract to one contractor (**Model A**) that includes the provision of all scheme hardware (bikes, stations, workshop, etc.), software (backend-system, customer frontends) and the operation of the scheme. Contract duration is usually between 5 and 8 years which is considered the asset depreciation range (i.e. useful life expectancy) of the scheme hardware. An advantage of this model for the city is that the contractor bears the risk of operation and is liable for the service provided according to the contract's service level agreements. A main downside is a lack of cost transparency and the long contract duration that makes the city inflexible for alternatives if the service does not turn out to function as expected. As a variation to this model, the city can award two or more separate contracts for the scheme hardware, software components and the operation (**Model A1**). This gives the city the opportunity to diversify contract lengths and compare costs to a better extent. A disadvantage of the model is the high risk of problems with the interoperation of the scheme components and an increased effort for the coordination of the contractors.



Instead of buying the bike sharing service from external contractors, the city can operate the scheme by itself (**Model B**). In this case the city buys the scheme hardware and software and carries out the operation, mostly with the help of city-owned social businesses or the public transport division. This gives the city control over the quality of the service but bears risk of poor service management if the necessary expertise and staff quantities are not available.

Some cities decide to purchase the scheme hard- and software and let an external contractor operate the scheme (**Model C**). In this case the contract durations for the operators can be chosen to be short. The city gains flexibility and can award a new contract if the service does not meet expectations. On the other hand, the city is responsible for the functioning of the scheme infrastructure and software and bears the financial risk of replacement purchase.

Organisation in the VeloCittà Sites

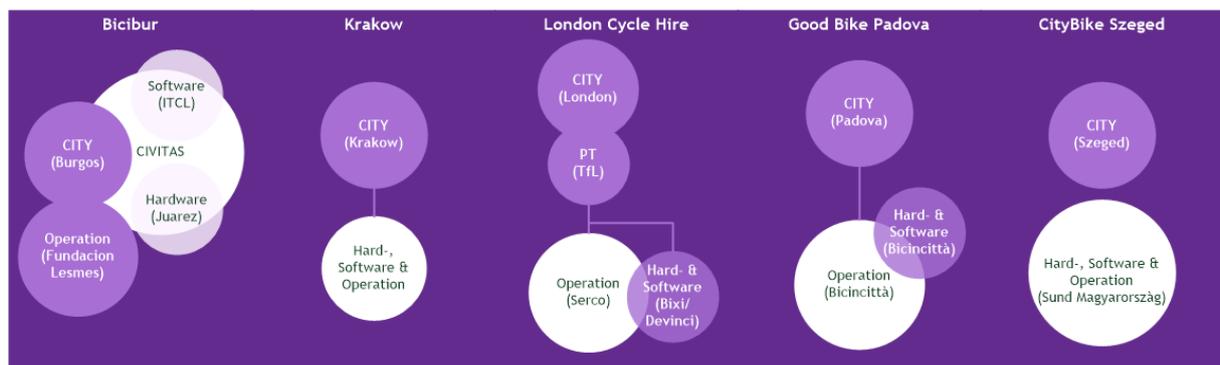


Figure 2: Organisational models in the VeloCittà sites

Bicibur, the scheme operated in **Burgos**, was developed under the umbrella of a funded CIVITAS initiative. The city owns about 200 bikes and all other hardware while operation and maintenance is carried out by a charitable company owned by the municipality.

The city of **Krakow** has decided in autumn 2016, that Nextbike will operate the local bike sharing scheme (called Wavelo) for the next 8 years. BikeOne / KMK, the precursor of Wavelo, was developed as a CIVITAS initiative, just like the scheme in Burgos.

London's public transport operator Transport for London (TfL) contracted a consortium consisting of the service provider Serco and the system suppliers Bixi and Devinci to bring the London Cycle Hire scheme to the city for six years. The contract was prolonged by two additional years, now ending in 2017. TfL is the owner of 11,000 bikes and all scheme infrastructures. Additionally TfL is entitled to the scheme turnover.

The city council of **Padova** commissioned the bike sharing provider Bicincittà with the implementation and the operation of Good Bike Padova for 10 years. The turnover (user fees) belongs to the operator, while the municipality owns the 265 bikes (200 conventional bikes + 65 pedelecs) and the scheme infrastructure.



Szeged is an exception among the Velocittà case study sites. The local bike sharing scheme CityBike Szeged with currently about 100 bikes is operated by the company Sund for their own account. The city does not contribute any grants or funds.

Fields of Organisation

Setting up and running a bike sharing scheme requires various technical and organisational skills. To achieve the best result possible, all involved stakeholders should discuss the tasks as well as available expertise and professional capabilities well in advance. There is not ONE recommended organisation model for bike sharing. An in-depth analysis of available expertise within a municipality, the local public transport operator and other already established local actors help determining which competences are insufficiently available or not available at all.

Five main areas of expertise have to be covered for each bike sharing scheme:

- # **Procurement of bikes and stations:** the market provides several solutions for bikes and rental infrastructure. Compared to regular bicycles for other purposes, bike sharing bikes should provide a special design that is durable, comfortable and safe at the same time. Consideration of life-expectation and maintenance efforts as well as spare-part prices is essential. Rental infrastructure should be designed to resist all weather conditions as well as incautious users. Dedicated development of bikes and infrastructure can make sense for large schemes.
- # **Urban planning and construction:** public infrastructure should fulfil the user's needs as good as possible. Therefore the adoption of adequate participation measures during the planning phase, such as discussion groups, mapping websites, and idea camps etc., help designing a user-oriented offer. The installation of stations itself is a main cost factor during the implementation of a bike sharing scheme. While groundwork itself is often standardised and easy to do, the collection of all permits is often the tedious task. Therefore an early start of planning preparation within the municipality is most helpful.
- # **Customer service and communication:** within this functional unit, all communication is steered. Users can usually contact the operator via telephone, e-mail, website(s), and social media channels or simply by visiting the nearest customer service office. The customer service entity collects and stores user data, carries out or supports factoring and steers the demand with dedicated marketing activities.
- # **Maintenance and operation:** the maintenance and operation functions ensure the availability of the scheme and determine the life-span of all physical infrastructure of the scheme. Highly specialised workshops maintain the bikes while other specialists maintain, repair and upgrade station terminals or other infrastructure intelligence. A main costs factor during operation of a bike sharing scheme is the disposition of bikes. Careful station planning and ongoing demand management help reducing these costs. Maintenance and operation staff is visible within the city as they carry out large parts of their work directly on-site. This circumstance can be used to improve the overall perception of the scheme.

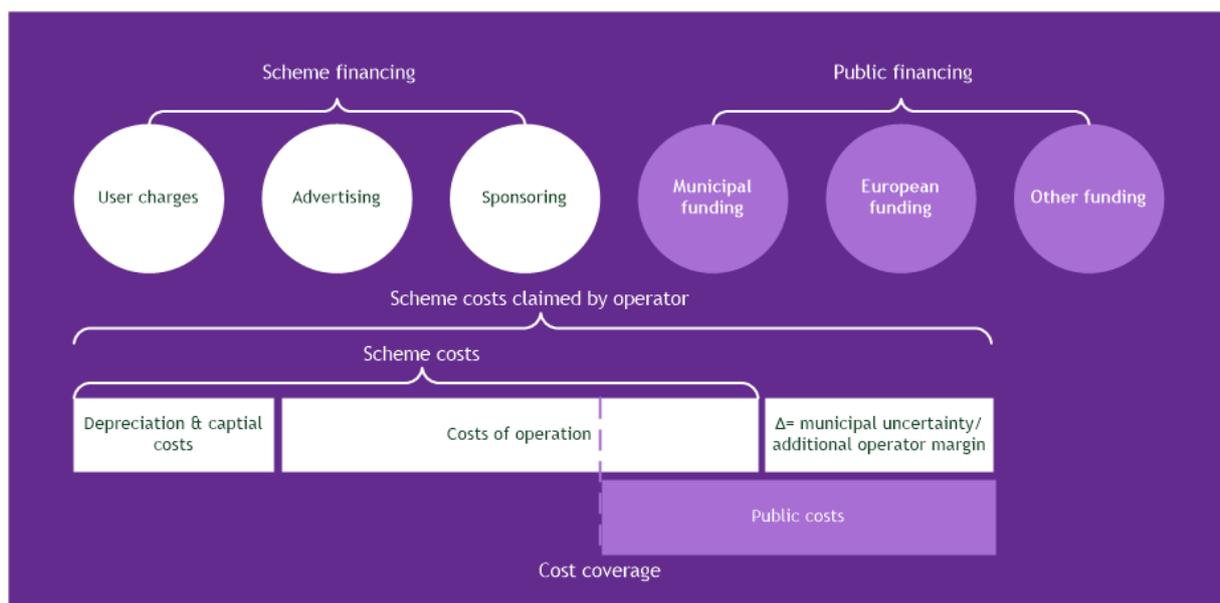


Organisation Recommendations

- # **Total cost of ownership:** the life-span of bikes and stations is determined by the product quality itself, regular maintenance and by the overall scheme utilisation. Forecasting demand and ensuring direct access to replacement and spare-parts helps keeping the TCO low.
- # **Planning permits:** collecting permits for stations sites is often a time-consuming task. A list of stations that are ready for approval should be available by the beginning of the implementation process.
- # **Synergies:** in case the scheme is not implemented and operated by a single company, municipalities should seek for synergies. Public transport operators or other public service operators often have capacities and the expertise for maintenance, operation and customer service.

Financing Sources

Setting up a financially sustainable bike sharing scheme often means juggling with various financing sources. Additionally the two spheres of **operational costs & financing** and **public costs & financing** should be separated.



From an operational point of view, most schemes have three main financing sources:

- # **User charges:** most services on the market are charged at costs plus an additional margin. Public services such as public transport or bike sharing wouldn't exist if users had to cover all costs with their charges. Additionally no operator was found without an actual business model. Therefore user charges (subscription and usage fees) cover only parts of the operational scheme costs.
- # **Advertising:** as bike sharing schemes have highly visible infrastructure and bike fleets, they are predestined for advertisement. Selling these spaces can be



cumbersome, therefore a simple pricing system and standardised purchasing processes for advertisers is needed. Cities should also verify whether conflicts with existing billboard contracts can occur. The common practice of combining bike sharing with advertising contracts for the whole city (as for Vèlib') seems to have become unattractive for cities due to a lack of transparency in the contracts.

- # **Sponsoring:** sponsoring is an attractive way to gain considerable and predictable financing for a bike sharing scheme. For companies scheme sponsoring is a relatively cheap way for long-term marketing measures. Nevertheless, as contracts last relatively long, both sides should balance reasons for and against a sponsorship. Low scheme performance might reduce the marketing success for the sponsor while a bad development of the sponsor image might spillover to the scheme.

As bike sharing schemes are not self-sustaining in almost all cases, public funding is needed to run the service:

- # **Municipal funding:** bike sharing services are often paid directly from municipal budgets coming from the areas of cycling, environment or public transport. Direct cross-financing, e.g. with income gained from parking management has also become an established approach. As municipal budgets depend on the current municipal government and might be subject to yearly negotiation, it must be ensured that the respective budget is available for the contract duration.
- # **European funding:** European projects or infrastructure funds can be an alternative, mainly for smaller municipalities or those with less financial strengths. Usually European funding requires long application phases and ongoing administrative efforts while the funding sums are relatively low.
- # **Other funding:** in some countries or regions, dedicated bike sharing funds are available. At the same time infrastructure and cycling programmes offer the opportunity to gain additional funds for the implementation and the operation of bike sharing schemes. As municipal funds, these funds often depend on the actual government. Therefore they should mainly be used for infrastructure investments and should not be used as a main source for covering the operation of the scheme.

Financial Framework in the VeloCittà sites

The city of **Burgos** pays a lump sum to the contractor for the operation of the service. Initial funding was gained from the CIVITAS initiative. The municipality receives the scheme turnover while the contractor has the possibility to gain additional turnover from advertising and sponsoring (but does not use this possibility yet).

In **Krakow** the operator will receive a small payment per bike per month from the municipality. The scheme turnover as well as any additional turnover (e.g. with advertisements or sponsorships) goes to the operator, but the municipality obtains 1% out of the scheme turnovers and 100 % of other possible turnovers.

In **London** the operator is paid for running the service depending on the actual performance. TfL finances the payment of the service from user charges, a sponsoring contract, naming



rights and municipal funds. The extension of the service to new boroughs is co-financed by the boroughs themselves.

Good Bike **Padova** is operated under a service contract with Bicincittà. The operator owns the scheme turnover and has the possibility to sell advertising space on the scheme. The municipality finances this service with municipal funds, national funds, European funds and contributions from private associations.

CityBike **Szeged** is operated privately without municipal support. The operator gains turnover from user charges and receives European funds.

	Burgos	Krakow	London	Padova	Szeged
User charges	(X)	X	X	X	X
Advertising	(X)	X	(X)	X	
Sponsoring	(X)	X	X		
Municipal funds	X	X	X	X	
European funds	(X)	(X)		X	X
Other				X	

Excursus: Comparing Operational Figures in Three Schemes

Publishing operational bike sharing data is not self-evident. Fortunately, as transparency is gaining relevance in the field of public spending, bike sharing operators increasingly open up their data pool to provide the public with comprehensive information about scheme performance and the financial situation of the service. The following analysis compares the bike sharing service in three cities for the year 2015.

	Santander Cycles London	Citibike New York City	B-cycle Denver
Bikes	10,000	6,600	719
Rentals	9,913,000	10,000,000	363,002
Rentals/bike/day	2.7	4.2	1.4
% rentals by members	57 %	87 %	67 %



% rentals by casual users	43 %	13 %	33 %
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The three schemes differ substantially in terms of size and utilisation. In all schemes, the majority of rentals was carried out by members. In the Citibike scheme, casual users made a surprisingly low share of the total trips.

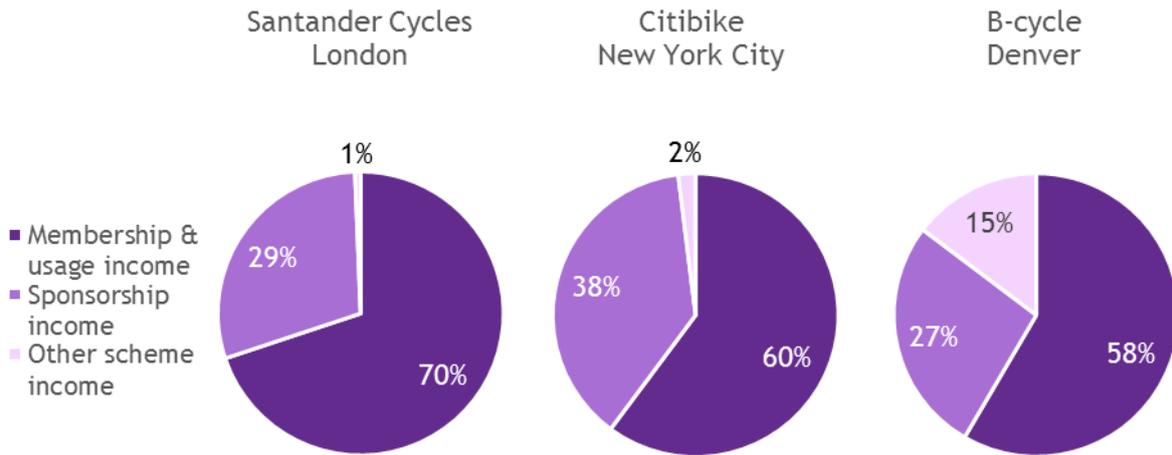


Figure 3: Scheme income

The highest share of scheme income came from membership and usage fees in all three schemes. An additional third of scheme income is generated with the help of sponsoring contracts.

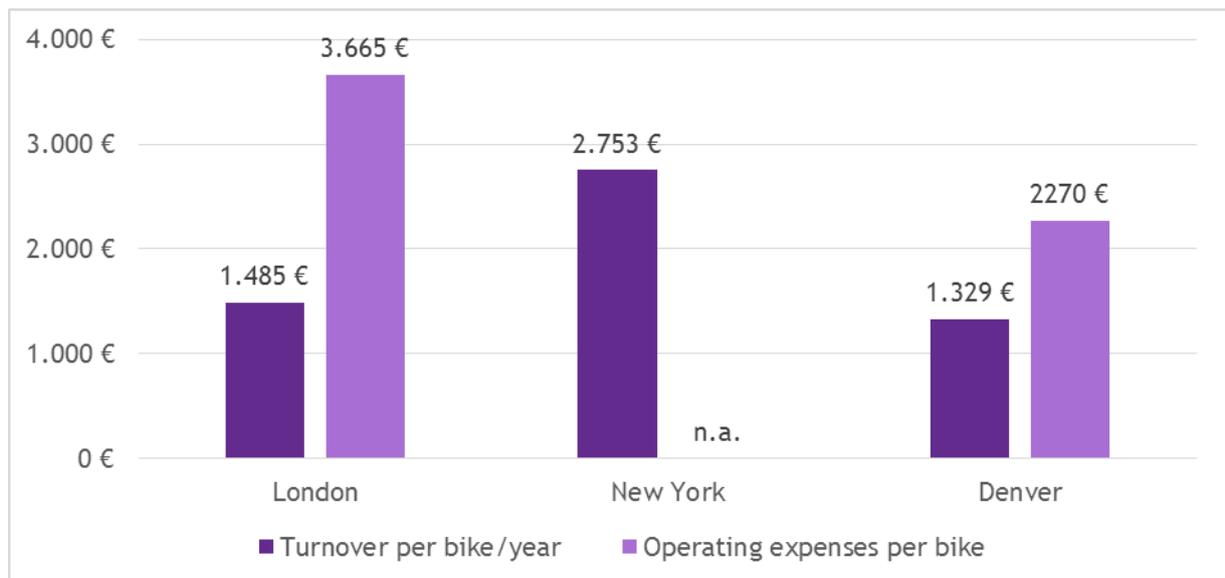


Figure 4: Scheme turnover vs. operating expenses



A breakdown of the scheme turnover (membership & usage income) and operating expenses provides a view on the per-bike-dimension. The turnover is highest in NYC, almost double the amount of London and Denver. The cost coverage in Denver is 58 % while it is only 40 % in London. This metrics is comparable to the Farebox Recovery Ratio in Public Transport. ¹

Financing Recommendations

- # **Self-sustainability:** bike sharing schemes might often not be self-sustaining but there is no reason to not improve the cover ratio. In many schemes a huge number of bike sharing trips replace short walks. This is neither effective nor in line with policy priorities. The introduction of small fees for the first 30 minutes (while lowering subscription fees) might gain additional turnover and/or reduce operational costs because former pedestrians return to their feet.
- # **Operator motivation:** in many schemes the operator is paid with a lump sum which is reduced in case of failing to meet the agreed service level. The scheme turnover is owned by the municipality. This constellation leads to a situation where the operator ensures the agreed service level or even stays below it because redistribution and maintenance is more expensive than losing parts of the payment. Operators will be creative in beating the municipality's expectations when they can participate in the scheme turnover. d
- # **Sponsorships:** the effect of a scheme sponsorship is presumably very high for the sponsor at the very beginning of the scheme. As soon as it is an established part of the city, attention might decrease. Therefore cities should be careful when including sponsorship for the operation of a scheme in the long run.

Read on

Further literature	Link
Examples: Santander Cycles - Monthly Reports	https://tfl.gov.uk/corporate/publications-and-reports/cycle-hire-performance
Examples: Citibike New York City - Monthly Reports	https://www.citibikenyc.com/system-data/operating-reports
Examples: B-Cycle Denver - Yearly Reports	https://denver.bcycle.com/docs/librarian/provider34/default-document-library/annual-reports/dbs_annualreport_2015_04.pdf?sfvrsn=2

¹ https://en.wikipedia.org/wiki/Farebox_recovery_ratio



Example: Feasibility study for a central London cycle hire scheme	https://www.tfl.gov.uk/cdn/static/cms/documents/cycle-hire-scheme-feasibility-full-report-nov2008.pdf
Example: Paying for a NYC Bike-Share	http://www.nyc.gov/html/dcp/pdf/transportation/bike_share_part6.pdf
Examples: Review of Programs in the United States	http://olis.uoregon.edu/sites/olis.uoregon.edu/files/images/bikesharepaper.pdf
Examples: Bike Sharing Technology	https://www.academia.edu/7934410/Bikeshare_Technology_White_Paper_A_Comparative_Guide_to_the_Different_Technologies_Offered_by_Bikesharing_Vendors
Examples: Bike Sharing Funding	https://www.academia.edu/7934411/Bikeshare_Funding_White_Paper_A_Guide_to_the_Different_Bikeshare_Business_Models_and_Funding_Process
Guide: Bike-Sharing Guide	https://www.fcm.ca/Documents/tools/GMF/Transport_Canada/BikeSharingGuide_EN.pdf
Guide: OBIS, bike sharing handbook	https://ec.europa.eu/energy/intelligent/projects/sites/iee-projects/files/projects/documents/obis_handbook_en.pdf



About VeloCittà:

The European VeloCittà project brought together five cities that seek to improve their existing bike sharing schemes. In London (UK), Krakow (PL), Burgos (SP), Padua (IT) and Szeged (HU) the performance of the bike sharing system was enhanced through two complementary approaches. On the one hand marketing campaigns tailored to certain target groups, like students or commuters. And on the other hand adoption of the most effective available operational solutions with regard to organisational and financial aspects as well as political involvement. The ultimate benefit of VeloCittà is that it provides inspiration and builds capacity and knowledge in local authorities and bike sharing stakeholders to boost the uptake of bike sharing.

VeloCittà is a demonstration project co-funded by the Intelligent Energy Europe Programme of the European Commission. It had 11 project partners. It ran from March 2014 – February 2017.

For more information, questions, project outputs and reports, please visit www.velo-citta.eu or send an email to info@dtvconsultants.nl

Partners:

