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# UNLICENSED DOCKLESS BIKE SHARING

## – COMMON POSITION PAPER –

### INTRODUCTION

This common position of the International Association of Public Transport (UITP), the European Cyclists' Federation (ECF) and its Platform for European Bike Sharing and Systems (PEBSS), recognises that there are currently significant changes happening in the operation, technology and business models of bike sharing systems. Over the past decade, station-based bike sharing has been successfully introduced to many cities worldwide, encouraging more cycling and promoting more healthy and liveable cities. While the environmental benefits of docked bike sharing is clear, the high implementation and operation costs have deterred some cities from embracing these schemes that promote the benefits of active travel. The introduction of smart bikes allows for dockless operation, which involves lighter infrastructure at a lower cost. We have recently seen the emergence of privately funded dockless bike sharing systems, operating without public licensing. This has a variety of implications for a city's transport policy.

This paper provides a framework and recommendations for cities and relevant authorities to ensure dockless bike sharing schemes contribute to the objectives of a wider sustainable urban mobility policy and efficiently complement public transport. Active mobility such as cycling and walking is crucial to any sustainable urban mobility strategy based on a high quality public transport system for more liveable and healthier cities.

### **New wave of unlicensed dockless bike share operators**

Since spring 2016, there has been a dramatic increase, primarily in China, of unanchored, free-floating and app-controlled private bike share operators. Cities across the world have seen hundreds of thousands of these colourful bicycles appear in public streets, with limited or no prior public notification. Accessible to anyone with a smartphone and credit card, the bicycles are cheap and easy to use. The user unlocks the bicycle by scanning a QR code, located on the rear of the bike, and then can leave it anywhere in the public realm in some cases, or in designated marked up priority

parking areas so that another rider can find or locate it for the next ride.



Many of the bicycles have built-in GPS systems, allowing riders to locate them using a smartphone app. Lower-tech systems involve the rider having to find the bike themselves visually, implying a large



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quantity of bikes is required to guarantee usability of the service. Some of these bicycles lack critical basic features, such as lighting, or smart bike features, such as real-time GPS and wireless connectivity, which allow for fleet maintenance and asset control. Most bike share operators are progressively introducing smart features such as geofencing, to strengthen their business model. Significant venture capital investment has been raised to launch operations across Europe, Australia and North America as the expansion plans of these bike share operators are very ambitious already for 2017.

### Evaluating unlicensed dockless bike sharing operation

A carefully designed service area strategy for all forms of bike share systems is a critical component of a wider urban mobility strategy. Forward planning of parking spaces and other cycling infrastructure, providing orderly streets, ensuring public safety, and promoting tourism are important elements of this strategy. On this there are some issues as reports from Chinese cities suggest that there is a lack of redistribution efforts by these operators, with bicycles sometimes inundating popular areas of the city, compounded by a lack of maintenance leading to discarded bikes piling up in public spaces. The sheer volume of bicycles (for instance, 600,000 bikes in Shenzhen) and the expected comparatively low number of staff to manage these bikes helps explain this. A lack of coordination and cooperation with local authorities further compounds the problems that cities face with the roll-out of unlicensed dockless bike sharing. This also

means that while these systems do not appear to involve any direct public financial support, they could entail some cost for public authorities as they may have to deal with nuisances in public space. According to a study from the municipality of Amsterdam, the removal of any 'orphan' bicycle costs between €40 and €53.<sup>1</sup>



The business model of these new services that are offered at low fares is unclear. The arrival of these rapidly growing dockless bike sharing schemes demand additional resources from public authorities, in terms of law enforcement, planning of adequate cycling infrastructure, and overall control. With that said, an increase in the number of accessible bicycles on public streets can help to encourage more people to cycle more often, which can accelerate the development of cycling infrastructure in cities, and help to reduce the number of trips done by car.



<sup>1</sup>[https://www.rekenkamer.amsterdam.nl/wp-content/uploads/2014/05/OZR-Verwijderen-van-fietsen-met-kaft\\_DEF.pdf](https://www.rekenkamer.amsterdam.nl/wp-content/uploads/2014/05/OZR-Verwijderen-van-fietsen-met-kaft_DEF.pdf)



## The three pillars of a smart public bike share system

In order to allow cities and decision-makers to effectively assess such developments it is useful to apply the three pillars framework developed by PEBSS for a smart Public Bike Sharing System.

**I. Rider Priorities:** Shared bicycle mobility should be safe, reliable, and comfortable – with the greatest flexibility possible vis-à-vis location pick-up / drop-off, pricing, consider interoperability with other modes of public transport, and respect data privacy. Interoperability with public transport ticketing is highly valued, especially for wider service developments such as MaaS (Mobility as a Service). Any such registration system should ideally welcome both local residents, and visitors, and be available to all users.

**II. City environments** (“The Public Realm”): Public authorities have a requirement to create conditions that encourage sustainable and effective mobility within the context of their overall transport planning system and this should be done through the optic of climate change, public health, improving air quality, reducing vehicle congestion, and enabling social inclusion. Overall, a sustainable, equitable use of public resources, be those direct, or indirect should be applied, taking into consideration all costs of any bike sharing system, and not socialising private costs while maximising private profits.

**III. Technology / System providers:** As a part of public transport, bike sharing allows for a wide range of commercial opportunities from completely independent and competitive business models to public-private partnerships. Policy frameworks should encourage fair competition, fair market access and green public procurement. Commercial opportunities can provide sustainable shared bicycle mobility solutions to as many users as possible, driving innovation and a growing market to leverage these technological investments. A regulatory framework that is as frictionless as possible places emphasis on the creation of innovative transport options that achieve business, public, and consumer goals.

## RECOMMENDATIONS: POLICY FRAMEWORK FOR SMART BIKE SHARING

As a result of this analysis, UITP, ECF and PEBSS have developed a list of best practices that can help cities and relevant public authorities construct their own framework, grounded in their local context, to manage the arrival of dockless bike sharing operators.<sup>2</sup>



<sup>2</sup> For further information, we invite you to refer to PEBSS' *Policy Framework for Smart Public-Use Bike Share* available [here](#)



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### **I. Registration / Licensing / Regulations:**

Cities/Public Authorities must give green lights to shared bicycle operators working across their urban / suburban territory (ies) and ensure the regulatory framework governing the operations of these companies, such as against indiscriminate bicycle parking, is appropriate. Such operators must commit to providing a 24-hour local / national contact point in order to address all issues of safety or public nuisance. The city can require proof that the operator is in compliance with all relevant national or international regulations in relation to bicycles, environmental demands and business practices; such as, legal bicycles (in terms of lights and brakes to national/international standards and road rules), data protection, public liability insurance, and financial protection for consumers (e.g. deposits, refunds), etc.

**II. Orderly streets:** It is essential that public streets be orderly, as this has a positive impact on safety, tourism, the economy, and public health. Therefore, cities should develop a policy to encourage more bicycle use, and provide more bicycle parking areas and safe cycling infrastructure. The number of bikes to be deployed must be determined in coordination with relevant public authorities, and cities should have the power to enforce removal or charge and fine operators for the removal costs of bicycles that are illegally parked, dumped, or discarded in case they have to do it themselves. As much as possible, the onus should be put on the bike share operators to take greater responsibility and ensure orderly streets. This could be helped through implementing measures to incentivise good parking behaviour (e.g. demerit/credit system, geofencing) and by having users report offending bikes. Cities should also

consider having bike share operators provide functional public bike parking spaces to accommodate the additional bicycles and limit bike parking to specific drop zones in high-usage locations to better organise public space. Partnership arrangements can be facilitated by authorities, with various communities to provide and implement parking facilities on a symbiotic basis.

#### **Orderly Streets in Singapore**

In Singapore, one of the immediate measures taken by LTA, the organizing authority, in order to manage the arrival of dockless bike share operators was to implement a direct feedback channel, with each bike share operator. When notified by LTA or agencies bike share operators have to remove bicycles within a specified timeframe. LTA also informed bike-share operators to implement measures to incentivize good parking behaviour.

**III. Riding (rolling) stock:** The bicycle equipment, the "riding stock", must be of sufficient quality, built to withstand the rigours of constant public use and exposure to the elements, meeting rider safety and comfort standards. The bicycles should have integrated lighting and reflectivity for legal and safe riding at night, and they should include smart technology with active GPS and wireless connectivity to ensure maintenance and proactive re-balancing.



**IV. Servicing / Mechanical integrity:** The on-going servicing of shared bicycles is a vital aspect of the process; prospective operators should demonstrate a robust system for ensuring that the bikes are kept in working order proactively. The use of smartbike technology allows to more easily identify mechanical failure.

**V. Re-balancing:** Where the bicycles are located, and where they end up habitually, is equally compelling to ensure a sustainable eco-system. Without a proactive re-balancing process, bikes will likely end up in the wrong places, where demand is not met. Prospective operators must demonstrate a proactive and efficient re-balancing strategy; on-bike location technologies are essential to such a strategy.

**VI. Cooperation:** Upfront, extensive coordination with local authorities for transport planning purposes, and cooperation with other stakeholders to ensure complementarity with public transport, both physically and digitally, is essential to the success of bike sharing operations. Cooperation with public transport operators is recommended to fully exploit the possibilities of using shared bikes as feeders through coordinated allocation, re-balancing and better organise the accessibility and area around public transport stations. Coordination with public transport operators could also enable integrated passenger information and integrated ticketing. Ideally, interoperability of all urban mobility services via MaaS (Mobility as a Service), or similar solutions, should be the ultimate goal for all stakeholders.

#### Setting up cooperation in Shanghai

Shanghai Municipal Transportation Commission, SMTC, decided to set up specialized management forces in each city district to maintain order on the streets and to handle bike placing. Each private bike-sharing operator must cooperate with the management forces of districts and share the management costs. SMTC took several measures to manage the dockless bike share operators and one of them is aimed at ensuring riders' safety and protection: SMTC encouraged the dockless bike sharing operators to buy accident insurance and third party liability insurance, and make the rider's accident responsibility identification procedures, scope of compensation and settlement procedures publicly available.

**VII. Ensure exchange of data:** Public authorities should be able to access bike share data such as bike usage so that the city can better calibrate its urban mobility strategy and infrastructure. Systems should ideally support bike discovery via the General Bikeshare Feed Specification (GBFS), an open data standard for bike share. If systems are not required to do so through licensing, they will not necessarily contribute to cross-sectional intelligence creation.

**VIII. Operator's ability to establish, perform and terminate operation:** Prior to granting permission to launch, cities should consider asking the operators to submit a plan for start-up, operation and possible termination of operation. The operator should be able to demonstrate capacity for operations and for possible termination.



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## CONCLUSION

Bike share systems work best when they are part of a city's overall transport network and vision. These systems should help cities to meet the mobility, sustainability, equity, and economic challenges of the future. Cities should ensure that any system they allow to operate within their boundaries can be the partner(s) they need to help meet their goals.

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### **UITP (International Association of Public Transport)**

UITP is a passionate champion of sustainable urban mobility and is the only worldwide network to bring together all public transport stakeholders and all sustainable transport modes. We have 1,400 member companies giving access to over 18,000 contacts from 96 countries. Our members are public

transport authorities and operators, policy decision-makers, research institutes and the public transport supply and service industry.



### **ECF (European Cyclists' Federation)**

EUROPEAN CYCLISTS' FEDERATION

ECF is the global umbrella organisation of both transportation and leisure cycling. On behalf of our members, we pledge to ensure that bicycle use achieves its fullest potential so as to bring about sustainable mobility and public well-being. To achieve these aims, ECF seeks to change attitudes, policies and budget allocations at the international level. ECF stimulates and organises the work of the cyclists' movement, it also encourages and coordinates the exchange of information and expertise on bicycle related policies and strategies. Our members are cyclists' membership organisations across Europe. We have networks of supporters from cities, academia, the tourism sector and industry.

### **The ECF Cycling Industry Club and the Platform for European Bike Sharing and Systems.**

The ECF Cycling Industry Club is ECF's supporting network of multi-national cycling companies, using their resources and influence to grow cycling for the benefit of society. The CIC is separate from trade advocacy organisations (regulations, industrial policy) so it can support ECF's actions that get governments spending money on more and safer cycling. In 2016 ECF also created special task groups with the CIC to help companies and stakeholders in specific areas of the market to get the attention of governments. The Platform for European Bike Sharing and Systems (PEBSS) is for all companies, cities and user groups working in bike sharing, rental, fleet management and allied services.

Membership of PEBSS is open to companies, bicycle share organisations, and those public authorities operating their own bicycle share mobility systems. Essentially, any formal organisation with an interest in promoting shared bicycle mobility in all its forms, as a daily means of transportation and recreation. As PEBSS is a working forum to exchange best practices and knowledge, all relevant stakeholders are welcome to join and participate towards creating a better, more robust eco-system of shared bicycle mobility. More info [here](#).

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