The Potential of Bike-Sharing

A Comparison of 50 Station-Based Systems Worldwide



Martti Tulenheimo

Talvitiepäivät 2020 / Winter Road Congress Seminar

13 February, 2020, Tampere Exhibition & Sports Centre

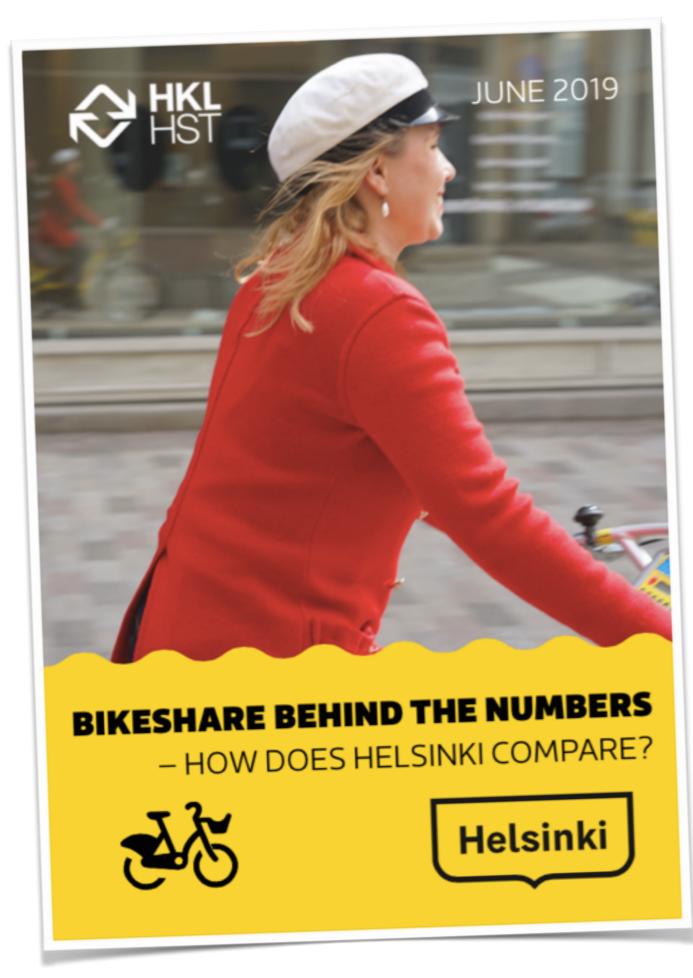


In Spring 2019 Helsinki City Transport, the City-owned public transport company of Helsinki, commissioned a study to find out:

• How the bike-sharing system in Helsinki compares to other stationbased bike-sharing systems in Europe and in North America?

Authors of the study:

Martti Tulenheimo Mikko Raninen & Niklas Aalto-Setälä.





WE WILL SHED LIGHT ON:

- 1. Results of the study.
- 2. How common is the year-round use of bike-sharing systems in general.

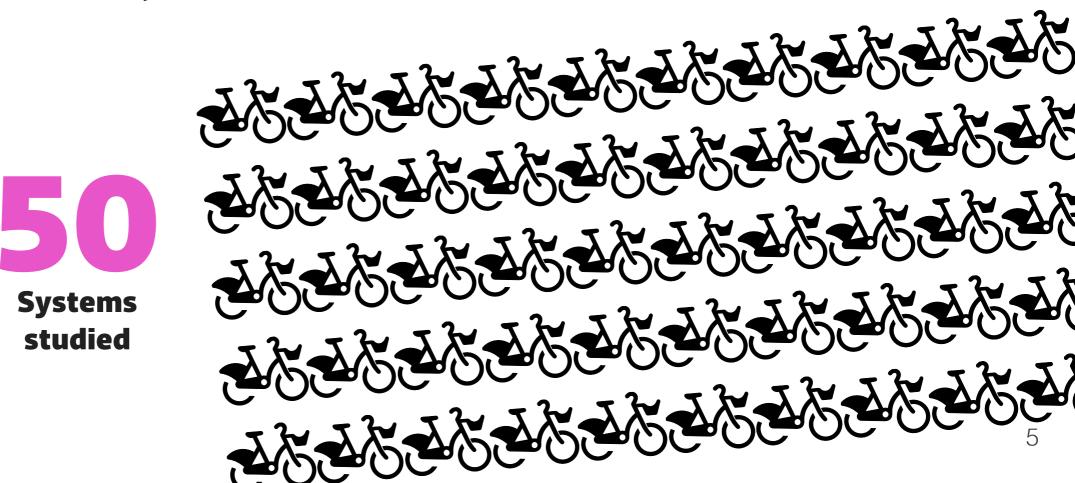




The study was carried out between January and March of 2019.

The data was gathered from the operators using a questionnaire and by using open-source data available.

89 systems and their operators were approached and data was received for **50 systems**.



Mothics



To compare the rates of usage among the various systems, a commonly used metric **"rides per bike per day"** was applied.

It measures the **daily number of rides** made **with each bike** within a specific system.

Background



Scope of the Study

50 station-based bike-sharing systems were studied using the "rides per bike per day" metric.

- With a few exceptions a minimum of c. 1,000 bikes per system.
- Special focus on the Nordic countries & the Baltic region.
- Station-based systems were only included.

Benefits of Open Data

The survey owes a great deal to the availability of an **open access to data** from various bikeshare systems around the globe.

Thanks to the aggregate ride data openly available from many of the systems surveyed, the work was possible to extend to as many as 50 systems.





Of the 50 systems compared, **62 %** operated 365 days a year.

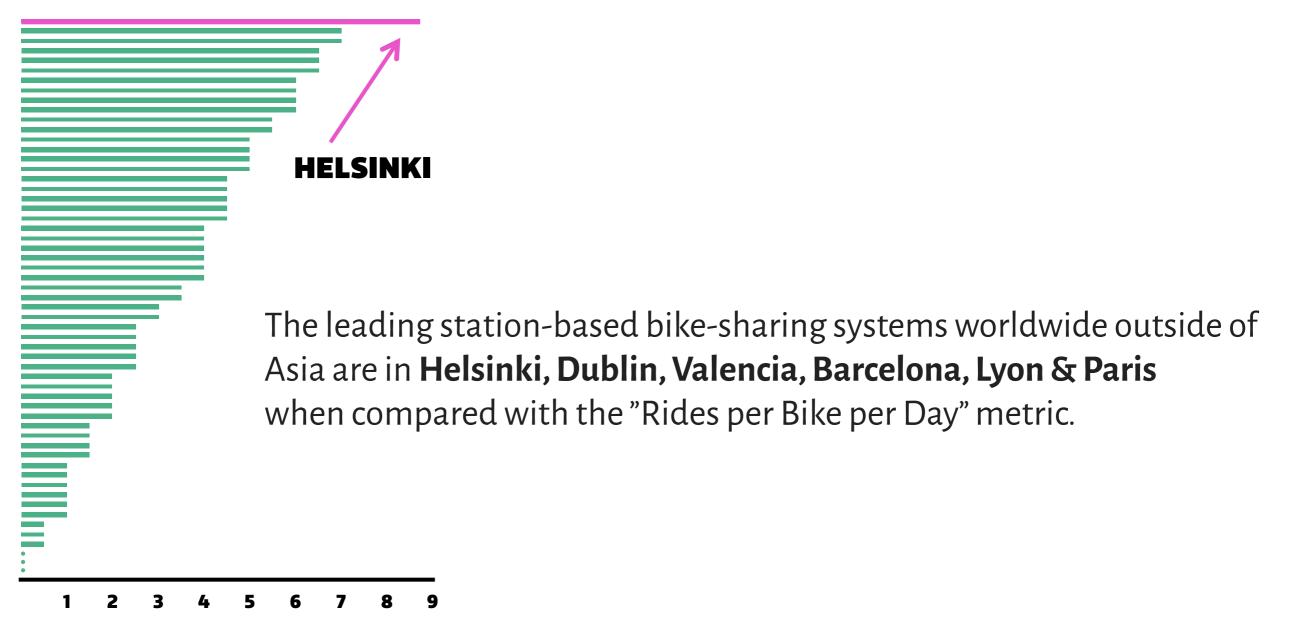
38% were either started during the year 2018 or did not operate 365 days a year.









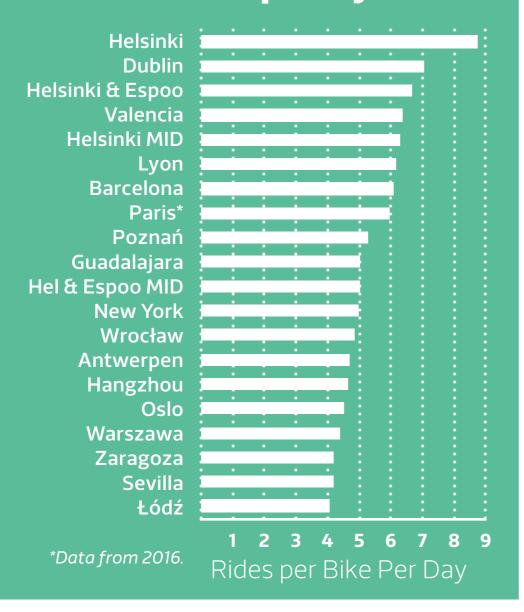


Rides per Bike per Day





Some of the main characteristics consistent among the leading bike-sharing systems that stood out in the study:



Top 20 Systems

- Size of the system
- Pricing
- **Quality** of the planning and implementation of the systems.

Note:

FILLAR

In Helsinki the bike share system is operated only 7 months of the year.



FILLAR

FILLAR

1253

2. HOW COMMON IS YEAR-ROUND USE?

DENSUU

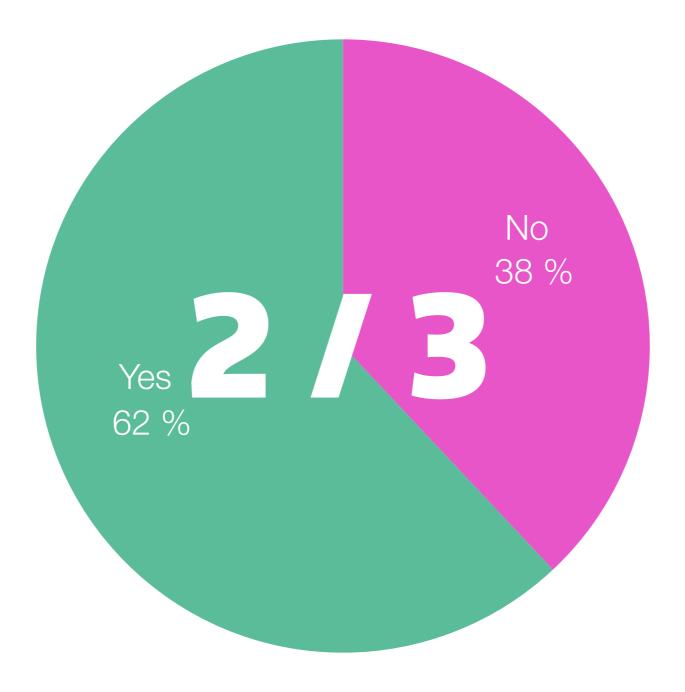
CYCLEJNS.FI







A key observation in the study was that **2 out of 3** bike-sharing systems are operated **365 days a year.**



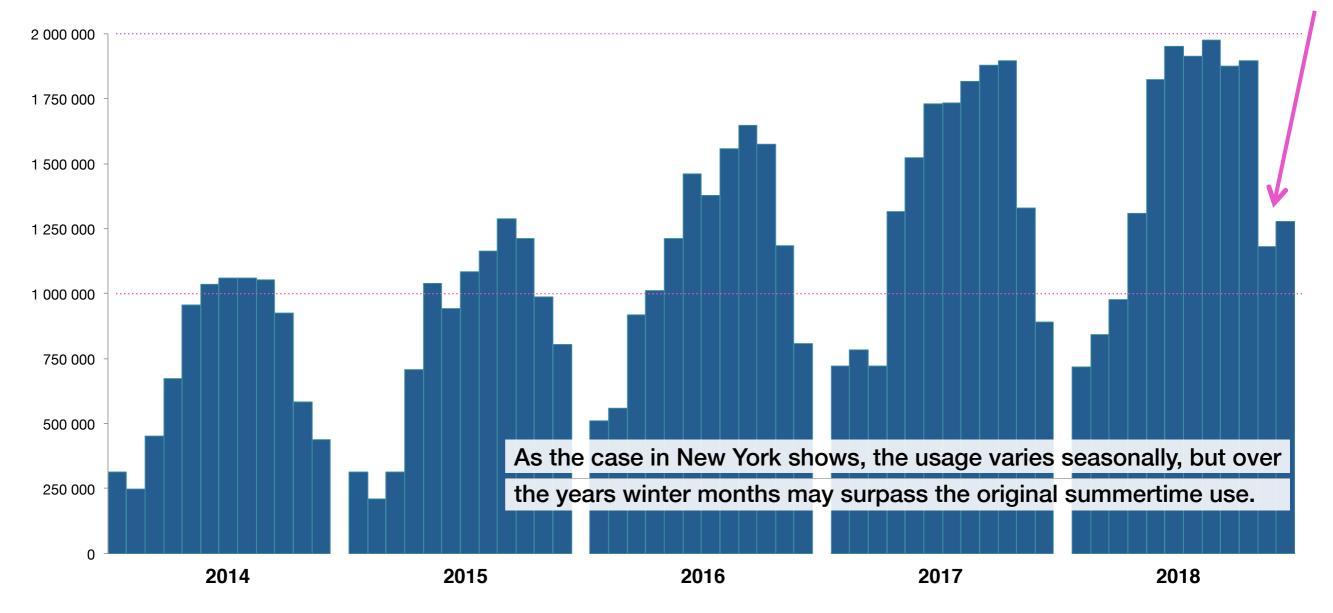




Based on observation, it can be argued that **the potential for year-round use of bike-sharing is real.**







Source: Citi Bike, citibikenyc.com

Things to Consider



Whether or not it makes sense to make a bike-sharing system work year-round, there are obviously things to consider; e.g.:

- Cost / benefit
- Supply & demand
- The transportation ecosystem as a whole







Supply Creates Demand

THE DEMAND WILL VARY SEASONALLY, BUT THERE WILL BE PEOPLE USING THE SYSTEM 365 DAYS A YEAR.









- Electricity
- System size
- Climate change
- Social costs
- Maintenance issues
- Etc.



Electric +



IT COSTS. BUT IT MAY BE WORTH IT.

JUMP





50 BIKES OR 5,000 BIKES?











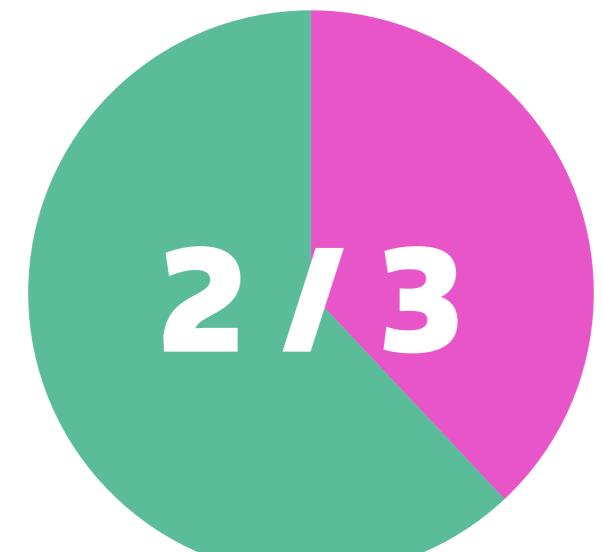
LAYING OFF THIS GUY ALSO HAS COSTS lime E4 Lime E+ 24











2 OUT OF 3 BIKE-SHARING SYSTEMS ARE OPERATED 365 DAYS A YEAR.















THANK YOU!



Martti TulenheimoChief SpecialistThe Finnish Cyclists' Federation

@tulenheimo martti.tulenheimo@pyoraliitto.fi