

# **"SHARED AMBITION"**

The potential for bike sharing in Europe: Benchmarking 148 cities



Cycling Industries Europe







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### Contributors

Cycling Industries Europe is the voice of the cycling business, actively promoting the sector in Europe and worldwide. We represent leading companies and technology providers within the cycling industry that are powering a world-leading mobility transition in Europe, from manufacturing components and full bikes, e-bikes and cargo bikes and, crucially, developing and growing new business models such as bike sharing, bike leasing, last mile deliveries and digital services. This report was written by CIE staff; Kevin Mayne (CEO), Lauha Fried (Policy Director), Camille Ducellier (Policy Trainee).

### **CIE's Bike Share Expert Group**

CIE's Expert Group on Bike Share represents the leading European Bike Share Operators and Service Providers making sure bike sharing has a prominent role in the EU's policies, measures and funding. The expert group members include: Donkey Republic, Fifteen, TIER-Dott, PBSC, nextbike, Inurba Mobility, Urban Sharing, Qucit, Beryl, BCycle, Cargoroo, Cooltra, Fluctuo, MobilityData, Abimota, Bikmo, Blubrake,Smart Serial Number, Pin Bike, Lanterne, Zukunft Fahrrad, Velogik and Vianova.

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#### **Design and Cover Picture**

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### THE OBJECTIVES OF THIS REPORT: Shared Ambition

This is the second edition of CIE's ground-breaking report "Shared Ambition" which benchmarks the performance of bike sharing in 148 strategic EU cities. The key objective of the report is to give cities and policy makers the means to identify the potential for bike sharing to make a much-increased contribution to the EU's mobility, climate and cycling policies set out below, and to highlight key performance indicators for successful deployment of bike sharing.

A second edition is also an opportunity to build on the feedback we received and strengthen the report. We are delighted that this 2024 edition has some new analyses, greater depth in data, more engagement from cities and is able to demonstrate the success of cities that are making progress over 2023's base, all of which contribute to the objectives we started with.

The EU has ambitious goals for change in Urban Mobility, set out in its Sustainable and Smart Mobility Strategy, and the New EU Urban Mobility Framework. As part of this ambition an important role is identified for active mobility as well as shared mobility as part of the public transport ecosystem.

A further imperative to grow cycling and bike sharing came in when an inter-institutional European Declaration on Cycling was adopted in April 2024, underscoring the European Commission's commitment to sustainable urban transport. The Declaration consists of 36 commitments to unleash the full potential of cycling in the EU and recognises cycling as one of the most sustainable, accessible, and inclusive, low-cost, and healthy forms of transport and recreation, and its key importance for European society and the economy. More cycling is essential to help achieve EU mobility, climate, environmental, health, economic, industrial, and social objectives, the use of cycling in the EU should increase substantially.

Cycling and bike sharing support the decarbonisation of urban transport and help achieve the EUwide target of reducing net greenhouse gas emissions by at least 55% by 2030 compared to 1990 and climate neutrality by 2050 in line with the European Climate Law. Further developing cycling is important for European towns and cities as part of Europe's climate objectives.

The Declaration calls for the EU and Member States to develop a comprehensive set of cycling actions including "supporting bike sharing schemes as a solution to first and last mile access to public transport services" and "supporting cycling service industries, such as bike sharing and cycle logistics, especially in cities". It also states that cycling should play a key role in improving multimodal connectivity and tourism, especially in combination with trains, buses and other modes, both in urban and rural areas, therefore committing to "promoting and implementing multimodal solutions in urban, suburban and rural areas, as well as for long-distance trips, by creating more synergies between cycling and other modes of transport".

To reach its full potential, cycling including bike sharing needs to be properly addressed in mobility policies at all levels of governance and funding, transport planning, awareness raising, allocation of space, safety regulations and adequate infrastructure, including a special focus on persons with disabilities or reduced mobility. For example, the EU concept for sustainable urban mobility planning puts active mobility, including cycling, at the centre. Measures to support cycling need to be reported under the decarbonisation pillar of the National Energy and Climate Plans and



be properly considered in the plans of the Horizon Europe mission on 100 Climate- Neutral and Smart Cities by 2030.

Bike sharing is also in the centre of tackling transport poverty and helping people with low income and disabilities, but incentives are needed to be able to ensure affordable access to all users. This is why we recommend that the Member States budget from the Social Climate Fund up to  $\leq 10$ million capital for the largest metropoles to  $\leq 250,000$  for a town of 50,000 population to support bike sharing.

This report provides a tool that supports the EU's key goals for active and shared transport. The EU, Member States, regions and cities can see what could be delivered if comprehensive bike sharing schemes were adopted and considered a fully integrated mode of public transport in all EU cities over 100,000 population and in the Trans-European Transport Network (TEN-T) urban nodes, in line with Cycling Industries Europe's (CIE) policy position on bike sharing.<sup>1</sup>

For cities, regions, and governments this analysis is a valuable guide to achieving the full potential of their bike sharing schemes. The emphasis on trips delivered integrates the results with Sustainable Urban Mobility Plans (SUMPS). It is possible to analyse practical indicators of performance and make comparisons so that every city can set ambitious targets for growing and commissioning bike sharing. CIE's Bike Sharing Expert Group is an industry-wide centre of excellence which exists to support policy makers with advice on how to deliver these changes and develop much more ambitious commissioning for bike share. In this study the experts have contributed advice on how to interpret the benchmarking results and improve performance.

Finally, this report wants to lift the ambition of all stakeholders in measuring and setting targets for mobility. CIE represents the cycling business sector in the EU's Expert Group for Urban Mobility which among other tasks advises the Commission and Member States on SUMP monitoring and implementation. We note that awareness of what is possible in terms of measurement of mobility indicators is lagging behind the state of the art in data capture and analysis, particularly tools being developed by the private sector. We hope this report itself sets a new benchmark in using data to achieve a step change in Sustainable Urban Mobility. CIE is a member of the MegaBITs project (Mobilising Europe's Green Ambition through Bicycles and Intelligent Transport Systems),<sup>2</sup> which includes an aim to raise the standard of data capture, sharing and analysis in the EU and this benchmarking approach is an important demonstration of this potential.

<sup>1</sup> https://cyclingindustries.com/bikeshare4all

<sup>2</sup> https://www.interregnorthsea.eu/megabits



# **EXECUTIVE SUMMARY**

CIE's Bike Sharing Expert Group represents the leading service providers in the bike sharing sector. With the support of this group, CIE has repeated its 2023 benchmarking analysis of bike sharing in 148 cities identified by the EU as leading the transitions in urban mobility and climate change. Feedback from the first edition showed that this unique tool was highly valued by cities, policy makers and industry leaders and this second edition has been improved with additional data made available and more analysis based on feedback from edition 1.

Once again CIE's 2024 benchmarking study covers 148 European cities, 100 from the EU's Climate-Neutral Cities Mission plus the 48 biggest urban nodes in the Trans-European transport Network (TEN-T), which are not included in the climate cities program. 13 countries have more than one city in our sample, so for this edition we have extracted a first set of national comparisons.

#### Key facts for the 2024 edition:

**More comprehensive data and robust analysis.** We have trip data available from 19 more cities, and more comprehensive data. This data has provided a full year sample, not the part year sample used in 2023 so it provides a more robust analysis of bike sharing as a public transport service, including seasonal variation. The number of daily trips generated by bike sharing fleets has been measured in 98 cities, up from 77 in the first edition.

**Strong representation.** The 148 cities represent about 2/3 of the population of the 400 TEN-T Urban Nodes. From the data received, bike sharing fleets are actively operating in 122 cities. Trips generated are indexed to the population of the city creating the main indicator of the contribution of bike sharing to the mobility ecosystem. This indicator is daily trips per 1000 inhabitants. However, 7.3 million citizens of the benchmarked cities have no bike sharing scheme available at all.

**Big gap between top and low performing cities.** The top performing city in the study (Paris) achieves almost 37 bike sharing trips per 1000 inhabitants per day while the Top 10 all achieve more than 12 trips per day. By contrast the bottom 12 performers only achieve below the average 0.5 of trips per 1000 inhabitants per day, less than 2% of the top benchmark performers.

**Huge growth potential.** Among the cities studied, if all those below our Top 5 would reach the level of trips generated by the 5th ranked city, we estimate a total of 1.8 million trips per day will be generated, around 650 million per year. To enable this number of trips, we would need just over 20,000 additional shared bikes, bringing the total fleet to 470,000 bikes. In terms of CO2 savings alone this could save 270,000 tons per year of emissions, conservatively based on a trip length of 2km per trip.

Affordable Investment: An extra 280,000 shared bikes will require at least €325 million in investment, depending on the type of bike and whether fixed capital such as docking stations are needed.



These benchmarks can be compared with city's Sustainable Mobility Indicators in their Sustainable Urban Mobility Plans (SUMPS), demonstrating whether they are achieving active and shared mobility outcomes. It is a strong recommendation from this benchmarking study that all bike share schemes, also publicly managed ones, in Europe should make benchmarkable data available which can be aggregated on a city, regional, and possibly national level.

One clear indicator strongly correlates with trips generated: fleet size. The data shows that all but one of the Top 10 performing cities in terms of trips generated have a fleet size in excess of 50 bikes per 10,000 inhabitants, and it is rare to be a top ranked city with a smaller fleet. The data shows 33 cities having below 7 bikes per 10,000 inhabitants, which does not offer any possibility of even medium-level trip generation at a city population level. The same level of correlation with bike utilisation (trips per bike per day) is not present and provides clearer evidence than the previous edition that trips per bike per day is not a clear indicator of high overall performance. The policy implication of this finding is very important for cities.

To enable access to affordable bikes for all citizens and to achieve high usage of bike share, it is likely that cities will need to intervene to make larger fleets viable also in peripheral areas across the functional urban areas. Commercial revenue streams can support this, but public sector funding for public goals remains essential.

### **BENCHMARKING BIKE SHARING** IN 148 KEY EU CITIES

The European Commission has identified two groups of cities that are playing a leading role in the transition of urban mobility.

**The EU Mission on Climate Neutral and Smart Cities** is part of Horizon Europe Research and innovation programme for the years 2021-2027, and it involves local authorities, citizens, businesses, investors as well as regional and national authorities. The aim is to deliver 100 climate neutral and smart cities, including an overall plan for climate neutrality across sectors such as transport, energy, buildings and waste management by 2030. These cities are expected to act as experimentation and innovation hubs to enable all European cities to follow suit by 2050.

**The Trans-European Transport Network (TEN-T)** comprises the TEN-T policy, which is a key instrument for the development of coherent, efficient, multimodal, and high-quality transport infrastructure across the EU. This policy includes railways, inland waterways, short sea shipping routes and roads linking urban nodes, maritime and inland ports, airports and terminals. Urban nodes include cities, industrial areas, agglomerations or metropolitan areas where the TEN-T network is linking various modal hubs and integrated with the transportation and traffic infrastructure at both regional and local levels. 424 urban nodes have been identified within the TEN-T network.

These two groups of cities will receive targeted funding and technical support from the EU and Member States to carry out significant measures to change mobility and are required to use

<sup>&</sup>lt;sup>4</sup> Trans-European Transport Network (TEN-T) (europa.eu)



<sup>&</sup>lt;sup>3</sup> Climate-neutral and smart cities (europa.eu)

a range of key performance indicators to track their progress. Therefore, this group of cities provides a valuable benchmarking group for the potential of bike sharing and makes a strong case for further investment in bike sharing to decarbonise mobility and provide accessible access to cycling across the EU.

Independent data aggregator, Fluctuo, was commissioned by CIE to provide data on fleet size, number of daily trips, breakdown electric vs. mechanical and docked vs free floating. CIE staff worked together with Fluctuo to apply benchmarking techniques to analyse current bike share usage and the potential growth rate in terms of fleet and trips. Other key data sets were compared to provide benchmarking insights for cities, regions and fleet operators.

### HOW TO USE THIS BENCHMARKING STUDY

Benchmarking is a tool for comparing performance within a group of allied entities such as businesses or governments. In this study the unit of study is cities and the approach we recommend is allied to cities performance on Sustainable Urban Mobility Plans (SUMPS), soon to be a mandatory requirement for the identified Urban Nodes on the TEN-T network. Benchmarking is very powerful, because it is based entirely on what is achievable now, with existing technologies and governance, in existing ecosystems.

A common series of performance indicators is developed across the studied entities with the purpose of highlighting high performing systems – so called benchmarks. The identified benchmark performers enable others to identify both the achievable levels which can be used as targets and to encourage further study into how the high results were achieved. In this study there is one leading indicator (daily trips per 1000 inhabitants) which is the most important for understanding whether a bike sharing system delivers results for its citizens and contributes to reductions in emissions, congestion or noise. The secondary indicators show elements of performance which can show how high results are achieved or prompt discussion and further study where results are less conclusive.

Therefore, the creation of a benchmarking study is not just to produce a performance table or ranking, it is to encourage ambition, study and further measurement. High performers are strongly encouraged to share their "secrets of success" to develop the whole ecosystem.

As no single entity (in this case, cities) is the top performer in all indicators, the study is also an encouragement for those with a higher score to improve their performance. With this large sample size, every city can find examples of other cities that can help improve the impact of their bike sharing on mobility and climate change. It may not be appropriate to focus just on the top city in the benchmarking, we strongly recommend focussing on the group of top performing cities in each indicator to set a reference and looking at their different approaches to identify opportunities for performance improvement. Change in indicators between years can show return on investment by cities and encourage other cities to emulate their success.

For example, a city with a small bike fleet relative to the size of its population will find many other cities of similar size with bigger fleets and investigate how those fleets are funded and deployed. Alternatively, in the case of bicycle utilisation (trips per bike per day) we see that differing approaches can be used to increase overall trip numbers within the city, offering differing routes



for improvement. This indicator can be essential for understanding commercial viability and aid in negotiations with operators on expected revenues from fleets.

The focus of the benchmarking approach is on achieving high performance, however this study does show that some cities may require a more fundamental rethink of bike sharing. At the bottom of the ranking, we find cities that have no bike sharing, have inadequate fleet sizes or do not enable transparent evaluation of bike sharing's contribution to public goals. We hope these cities will take the opportunity to use this data to carry out such reviews, and through CIE's membership of the European Union's Expert Group for Urban Mobility we aim to open a debate about how these cities can be supported.

In addition to the individual cities improving their bike sharing performance it is also possible to use this benchmarking study to extrapolate the impacts if the studied cities were to increase their performance to the level of the top performing cities. This is an extremely useful guide for policy makers looking for fast-track and implementable solutions for sustainable urban mobility and decarbonisation of transport, because of the principle that benchmarking highlights proven results in real situations. This study has a high-level extrapolation of what could be achieved if every city in the study group would reach the benchmarks of the leading five cities, an estimated total of 1.8 million trips per day, around 650 million per year. However, this can be treated as a baseline for ambition, and the CIE Expert Group on Bike Sharing wishes to highlight that every city in Europe can use this and other approaches to not only reach the upper levels of impact shown in this report, but also to identify further ambitious targets.

As a practical demonstration of how to use this data for benchmarking, the CIE Bike Sharing Expert Group and the MegaBITS project hosted a workshop at the 2024 Velo-city in Ghent. Using extracted data for 15 cities included in this report attendees including cities, academia and NGOs were given access to the data and facilitated to make observations and recommendations based on the results. A copy of the results from the workshop have been transcribed into a separate supplement for this report and can be found <u>here</u>.

# WHAT'S CHANGED SINCE EDITION 1?

There are some important differences to note between the methodology of the previous report, and this one.

- Time base: In the previous report, data was collected through the months of July, August and September 2022, serving as a basis for the whole report. The data collected for this report is much broader, and includes all months of 2023, from January to December. Fleet data is either a) the average number of vehicles observed across the year; or b) the contractual number of bikes in each service. Any calculations involving trips have been calculated using the total number of trips across 2023.
- 2. Completeness: This year, CIE and partners were able to access trip data for many more cities than in 2022 (98 cities vs 77), and in many of the cities we have more complete data sets. With a larger data set, we are able to build a more accurate report; but comparisons to the previous report become more complex.
- 3. Data sources: In 2022, we collected data from open data sources, and from the operators themselves. This year was the same, but we went one step further and contacted the cities directly to get their input. Much of the data collected was done so with the help of the POLIS Network.



These changes do create a new base for the 2024 report which means that a direct comparison with edition 1 may not be possible, but where there are significant shifts we aim to highlight them in the text.

The following points apply to all the data:

- 1. Individual cities may have dropped a few places in the rankings, despite their data being no worse than in 2022. This is because of the number of new cities that we have managed to get information on. However the high performing cities from edition 1 are still towards the upper parts of every indicator and provide valuable comparisons for other cities.
- 2. Individual cities may have lower metrics than in 2022, especially those that experience strong seasonality. Given that the 2022 report was based on the third quarter of 2022, it was not representative of the whole year. Schemes that have winter shutdowns (or other seasonality due to extreme weather or high tourist use) are most affected, scoring lower on metrics related to trips. We think it is important to move to this more accurate full year base for trip counting because as bike sharing is a public transport service it should be compared to other related modes.
- 3. Where we show "most improved" cities against our performance indicators we have investigated each significant increase in detail. Where we believe the increase is only caused by access to new data that we did not have in the previous report we have not included those cities as "improved". The highlighted cities appear to have significantly improved in one or more metrics which we have tried to describe where we have a report from the city or scheme operators.

#### New this year: country-level analysis

We have also begun aggregating some of the bike sharing data on a national level. By creating an average for all of the cities in each country (with 2 or more cities with available trip data), we can have a first look at how countries perform for our key metrics. This will allow EU Member States to have a first indication of the opportunities for bike sharing development in their countries, in line with the recommendations of the EU Declaration on Cycling.

There are limitations to this approach. Firstly, we are including only the cities that are part of the 148 cities, meaning that there could be some notable emissions from the list (large cities or strong cities for bike sharing) that are not counting towards the national average. Secondly, we acknowledge that with a small sample size in some countries a single city may give a distorted impression. We encourage users of this report that are interested in national benchmarking to dig deeper into the numbers before drawing detailed conclusions.



#### Access to data and measurement of KPIs

Fluctuo has provided CIE with data on bike-sharing services in 148 cities (including the 100 'ClimateNeutral and Smart Cities by 2030', which make up the largest of the 424 Trans-European Transport Network (TEN-T) Urban Nodes). This data has been collected via direct data sharing partnerships with bike sharing operators, through the aggregation and analysis of open data sources, and with the direct participation of cities. This data was collected in February, March & April 2024.

We were able to collect much more trip data for this report than last time. In the first edition of the report, information on the usage (ridership) of the bikes was limited to 77 cities. This edition, we have ridership data for 98 cities. In 7 cases, the trip data was partial. In the first edition, we found comprehensive trip data (ie. 100% of the ridership from all services in one city) for 64 cities, compared to 91 in this edition.

The most extensive dataset in this study is the number of bikes in a city's bike-share fleet. For 122 out of the 148 cities, we have found one or more active bike sharing services and calculated a fleet size. Of the remaining 26 cities, we were either a) unable to determine an active bike sharing scheme or, b) found an active bike sharing scheme but were unable to give a reliable fleet size.



#### This edition vs Previous edition

Editions



dustries

Data has been collected through a) open data made available by cities, b) data sharing agreements with bike share operators using General Bikeshare Feed Specification (GBFS) and Mobility Data Specification (MDS), c) through media and contacting cities directly. In some cities and for some operators, no data is available: it is not an issue of data standards, it is a matter of whether the operator makes their information available through open data sources.

Several operators do not disclose trip data available for one or more of their schemes. In some cases, this is a conscious decision by the operator or licence holder for a given city. For example, the city may receive data from operators but not authorise public availability. In other cases, the scheme may not use an open API as the scheme is restricted to certain users in a closed group. There can also be variations in terms of data quality which may have some effect on the results.

It is a strong recommendation from this benchmarking study that all bike share schemes in Europe should make benchmarkable data available which can be aggregated to city, region, and possibly national level. This is essential to show progress on bike sharing within the EU's Urban Mobility Framework and as a contributor to the SUMP for each of the cities in the 100 Climate Neutral Cities Mission and 400 TEN-T nodes.

Renewal of licensing agreements and contracts should include clauses to enable the release of open source data for benchmarking and establishment of KPIs. Other shared mobility sectors should use comparable approaches to enable cross-sectoral comparison.

In support of better data collection in cycling, the <u>MegaBITS project</u> is putting in place several initiatives. An integral part of the MegaBITS project is to embed cycling ITS in mobility governance on a local, regional, and EU level to improve the safety, comfort, and convenience of cyclists. To achieve this, MegaBITS is pioneering innovative digital pilots across seven cities/regions that will test and provide key data on integrating cycling into the digital layer of transport and mobility. Data collected from this will provide a rare but essential level of insight on cycling to enable improved infrastructure planning and investment for example.

The on-going development of the CyclingDataHub (CDH) will strengthen the foundations for greater data visibility on metrics such as cycle infrastructure, safety, health, environment/ emissions, and business performance that have been developed in the predecessor project to MegaBITS, BITS. This data is essential in improving the visibility of cyclists in statistics, analyses, and policy and will be integrated with EU initiatives such as the Mobility Data Space. CIE, via the EU's NAPCORE initiative, is also working to standardise cycling data in the areas of infrastructure, bike parking, counting and real time GPS data, all of which would strengthen the sector's efforts to gain transparency and develop key indicators on cycling.

# **PERFORMANCE INDICATORS**

CIE identified the headline performance indicator for bike sharing in these city networks to be **trips relative to population**. Historically, bike sharing success has been measured by fleet size or trips per bike, which have value in assessing some aspects of performance, however CIE believes the fast-emerging ability to access trip data provided the most valuable insights to cities in terms of bike sharing's role on the mobility system. 91 of the studied cities had comprehensive trip data available, 7 had partial data, and 25 (where a scheme was identified) had none. This indicator provides a direct comparison with other modes of transport such as public transport trips and it enables cities to ask the most important questions about how bike sharing serves all citizens. A



low trips per capita figure for bike sharing can lead to examination of bike and parking availability, geographic coverage, density of population served, affordability, access to e-bikes, geofencing and efficient operations. Cities can use other benchmarks of bike sharing success to identify where their city can improve to reach the very highest performance in the sector, especially to make bike sharing accessible to all citizens and help Europe's transport poverty challenge. Some of these evaluations are available from this study and where available they are described; however, the most important purpose of this study is to encourage cities to evaluate and take action on their own performance to achieve the highest impact for bike sharing in every Strategic Urban Mobility Plan.

### HEADLINE INDICATOR: HOW MANY DAILY TRIPS CAN BIKE SHARING PROVIDE?

We ranked each of the cities where trip data was available, and identified a benchmark of daily trips according to population size (trips per 1000 inhabitants). The Top 5 in 2022 were: Paris, Bordeaux, Antwerp, Toulouse, and Lyon. New entrants Ljubljana and Tartu - cities for which we did not have trip data in 2022 - have made their way into the Top 5 for 2023. The threshold to enter the top-performing cities is over 19 trips per 1000 inhabitants, the same as 2023.

Table 1	City	Trips/1000 inhabitants/day
	Paris	36.9
	Antwerp	36.1
	Ljubljana	26.0
	Tartu	20.4
	Toulouse	19.8

Five cities that we did not have data for in 2022 have broken into the Top 10: Ljubljana, Tartu, Bologna, Firenze and Padova. Paris has retained 1st place, with Antwerp moving up one place into 2nd. We are encouraged to note that, even though the data now covers a full year including the winter period, the threshold to break into the Top 10 has only slightly decreased from from 12 to 11.5 trips per 1000 inhabitants per day.



ble 2	Top Cities for Indicator 1 (Trips per 1000 head/day)	2023 Rank	2022 Rank
	Paris	1	1
	Antwerp	2	3
	Ljubljana	3	New
	Tartu	4	New
	Toulouse	5	4
	Lyon	6	5
	Bologna	7	New
	Florence	8	New
	Bordeaux	9	2
	Padova	10	New

Toulouse, Bordeaux and Lyon have all dropped places, but only Bordeaux has dropped down the list due to its 2023 performance.

For the purpose of benchmarking this report, the leading 10 cities for trips per 1000 inhabitants set the standard for benchmarking comparisons and to aid visualisation of other benchmarks. <sup>5</sup> The ranked position of all cities where trip data is available is shown in Annex 1.

To visualise the results the cities performance in daily trips per 1000 inhabitants, see Chart 1 below. As with all charts in this report, the Top 10 performers in trips per inhabitant per day are shown in red.



#### Chart 1 Daily trips per 1000 inhabitants for ranked cities

<sup>5</sup>The Top 10 performers in 'trips per 1000 inhabitants per day' are shown in red on every chart in this report.



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The gradient on this chart shows just how far ahead the leading cities are in using bike sharing as an everyday mode of transport for the whole of their populations. The full-year performance of Paris and Antwerp are significantly ahead of any other city, with the rest of the Top 10 recording over 11 trips per 1000 inhabitants per day.

This benchmark approach is powerful because it proves that any city can improve performance. As we move through this report to other indicators, Paris and Antwerp do not lead performance in every category. This year we are also encouraged by wider diversity in city size in the Top 10: it is not just the largest cities. For instance, Tartu and Padova are two new entrants into the Top 10, both with populations of under 250,000 (95,000 and 210,000 respectively).

### Most improved: Cities on the up

Several cities have gained a few places in the rankings from last year. Here are the Top 5 most improved for our headline indicator: daily trips per 1000 inhabitants.

**Stockholm:** Stockholm improved 239% in 2023. This was due to the arrival of a new operator taking the place of a service that was discontinued in May 2023.

**Frankfurt:** Significantly increased utilisation of privately-operated systems has led Frankfurt to a growth of 100% for trips per 1000 inhabitants.

**Turku:** The city's bike scheme powered the growth in trips per 1000 inhabitants to a level 81% higher than in 2022.

Copenhagen: A 48% increase was observed in Copenhagen across multiple operators.

### EXTRAPOLATED RESULTS: THE Potential for bike sharing in Europe

We used our benchmark to calculate the room for bike sharing growth in those key European cities. If all of the studied cities below our benchmark would reach the threshold of the 5th-placed city, we estimate a total of around 1.8 million trips per day, or 650 million per year. To enable this number in terms of trips, we would need 270,000 additional shared bikes, bringing the total fleet to 470,000 bikes<sup>6</sup>. In terms of CO2 savings alone this could save 270,000 tons per year of emissions<sup>7</sup>.

Using the example of an independent study by the Dutch government, an extra 270,000 shared bikes will require an investment of at least  $\in$  325 million, depending on the type of bike and whether fixed capital such as docking stations is needed. The annual operating cost per bike will be approximately  $\notin$  1200 per year on average, again depending on the equipment and business model mix<sup>8</sup>. The funding of these costs will depend on the public-private or commercial model of each city and operator, however as part of the public transport mix it is not expected that bike-sharing will be completely independent of public financial support, even when managed privately.



In evaluating the top performing cities with industry and mobility experts some other interesting trends were identified.

In 2023, we noted that Antwerp was also an interesting inclusion in the Top 5. There is a high number of trips per 10,000 inhabitants despite a high level of private bike ownership and high modal share in the city and region. Historically, it was believed that these factors make bike sharing less viable in areas with a high modal share, particularly in the Netherlands, Denmark and regions such as Flanders. Now Antwerp is established as one of the two clear front-running cities, this does provide a very valuable comparison for similar cities.

### SECONDARY INDICATOR: FLEET SIZE: SHARED BIKES PER 10,000 INHABITANTS

Benchmarking fleet sizes can indicate demand, geographic coverage, the level of investment in fleets, and commercial viability. The indicator also shows ranges of what size of bike fleet will be needed to grow trips to high levels and by correlation with trips can show what additional trips can be expected if a city invests in increasing fleet size, giving a basis to calculate return on investment.

Top Cities for Indicator 2 (Number of bikes per 10,000 inhabitants)	2023 Rank	2022 Rank
Bordeaux	1	1
Milan	2	8
Differdange	=3	New
Antwerp	=3	3
Florence	5	New
Padova	6	20
Paris	7	7
Utrecht	8	6
Tartu	9	New
Bologna	10	New

<sup>6</sup> The number of additional bikes has been calculated considering the average trip/bike of the cities above the threshold.

<sup>7</sup>Conservative estimate using an average trip length of 2km.

<sup>&</sup>lt;sup>8</sup> Fact sheet Bike sharing systems - Rijkswaterstaat Environment (rwsenvironment.eu)



Table 3

### **CIE analysis emphasises:**

Fleet size compared to population: Some cities that appear in the Top 10 for this indicator, do not appear in the Top 10 for the main indicator (trips generated). It is important to note, therefore, that a large fleet does not guarantee a high number of trips; other factors must be taken into account. The visualisation of these results is shown in Chart 2.

**Minimum fleet size:** Although a large fleet is no guarantee of high trips at population level, there is a very strong correlation. 9 of the Top 10 cities for trips per 10,000 inhabitants have a minimum of 50 bikes per 10,000 inhabitants. This gives a clear indication that for a bike sharing scheme to have a high impact, there must be at least 50 bikes per 10,000 inhabitants.

Lyon is an outlier from the other Top 10 cities with 30 bikes per 10,000 inhabitants, which indicates that it is not impossible to deliver high numbers of trips at population level without a large fleet, but it should be examined as a special case study to understand its effectiveness. It is also possible that Lyon could deliver many more trips if it has a larger fleet.



#### Chart 2 Bikes per 10,000 inhabitants

City rank by fleet size

**Fleet size threshold:** This visualisation not only shows the minimum fleet size needed to be a high-performing bike sharing city. CIE also highlights 33 cities (below rank 90, highlighted in green) where the graph curve drops still further to fleets of 10 or fewer bikes per 10,000 inhabitants. This is less than 15% of the threshold of a high performing bike share scheme.

**Fleet size ranking:** The ranking on fleet size is a powerful tool for benchmarking when compared to the headline indicator on number of trips generated and the next data set on bike utilisation.

**Further benchmarking.** How can some cities with smaller fleet sizes generate a Top 10 performance in generating trips? Why do some cities with very large fleets not get the expected utilisation, and what should they do to achieve a high performance from their fleet?



To make this analysis the best available benchmarking tool is a scatter graph which we have created below in Chart 3. Here the headline indicator for number of trips relative to population is cross compared to the fleet size. Again, the leading cities are shown in red.



Chart 3 Scatter graph comparing trips per day per 1k population with bikes per 10k population.

Bikes per 10k inhabitants

A benchmarking approach highlights areas of this graph by quadrants. The upper right and lower left data points need little explanation – the very highest performing cities have ensured that citizens have access to a relatively large number of bikes, the very lowest performing cities simply do not have enough bikes to deliver bike sharing as a viable mode of public transport and mobility. Cities should study how these larger fleets in Paris and Antwerp are distributed, operated, and funded, and how their own fleets can be increased towards high performing levels.

By contrast, Lyon, Toulouse and Ljubljana (towards the upper left of the chart) are Top 10 performing cities with smaller fleet sizes, relative to their populations. Other cities can study their performance to understand how to get more out of their fleet.

To the lower right of the chart we identify cities that have relatively larger fleet sizes than some of the top benchmarked cities but do not appear to generate the level of trips for their whole population that might be expected. In this area are four blue dots for Florence, Utrecht, Brussels and Groningen that show these cities well below the trend for their large fleet size.

Experts suggest that factors such as pricing, coverage, availability of bikes and quality of infrastructure could be studied to understand the differences in usage. Urban density and integration with the public transport network should also be considered. The availability of e-bikes could be another factor in cities that are large, hilly or hot.

There are also no cities found in the top-left corner, which would suggest that no city has an oversupply of bikes that are not being used. It is clear that when the number of bikes increases, the overall number of rides is expected to increase, and this is much more strongly correlated than increasing the number of rides on existing bikes, which is historically a commercial and financial viability issue.



The policy implication of this finding is very important for cities. To achieve high usage of bike share, with equitable access for the whole population it is likely that cities will need to intervene to make larger fleets viable and not anticipate that they will generate the same utilisation as small fleets.

#### Most improved: Cities on the up

Here are the cities that had the biggest growth in bikes per 10,000 inhabitants between 2022 and 2023.

**Duisburg:** Private services entering the city alongside the existing public bike scheme have increased bikes per 10,000 inhabitants 242%.

**Stockholm:** Stockholm's fleet indicator improved 238% in 2023. As previously mentioned, this is down to the arrival of a new operator.

**Tallinn:** The private bike operator in Tallinn more than doubled the size of their fleet in 2023, growing bikes per 10,000 inhabitants 130%.

Lahti: Similarly, Lahti grew bikes per 10,000 inhabitants 129%, as the public bike system doubled in size.

#### **Cities without bike sharing**

There are at least 23 cities with no bike sharing services at all, with a further 3 cities where a scheme has been identified, but has not been given a fleet size due to uncertainty of whether the service is still running.

In the 10 largest cities (Table 4), there are 5.5 million people without access to bike sharing, growing to 7.3 million across the 26 cities.

Table 4	City	Population	Fleet size
	Porto	1,721,038	0
	Athens	664,046	0
	Tarragona-Reus*	485,315	0
	Szczecin	436,396	0
	Santa Cruz de Tenerife	403,013	0
	Varna	395,488	0
	Valletta	386,232	0
	Wuppertal	335,004	0
	Alicante	337,304	0
	Plovdiv	333,206	0



### **Bike sharing in smaller cities**

Some of the smallest cities in the study do have bike sharing, although some fleets are very small. Only one of the 10 small cities with bike sharing makes trip information available, so it is not possible to determine a trip-based performance benchmark for these cities as a group.

ble 5	City	2023 Rank	Fleet size
	Leuven	101,396	305
	Helsingborg	97,122	200
	Tartu	94,663	750
	Lund	94,378	240
	Lappeenranta	72,266	200
	Gävle	71,033	50
	Kozani	70,420	45
	Kalamata	57,620	15
	Velenje	25,396	148
	Differdange	21,346	250

### SECONDARY INDICATOR: TRIPS PER BIKE

The third key metric is trips per bike per day, otherwise known as utilisation rate. In this analysis CIE benchmarked the trips per bike as a KPI and also correlated it against the total trips per capita achieved by the cities. The Top 10 performing cities in this ranking achieve between 3 and 7 trips per bike per day.

This is historically one of the most compared metrics for bike sharing. When widespread bike sharing schemes came to market over 20 years ago trips per bike per day was often used as a benchmark for bike sharing operations and it remains a key operational performance indicator for the sector. It has been linked to the viability of the bike fleet and the accessibility of the business model, for example the ability to hire through public transport cards or comparing subscription schemes to "pay as you go".

However this second edition of the report strengthens the conclusion that utilisation is not as correlated as closely to number of trips generated at a city level as fleet size. This we explain in the further benchmarking analysis below.



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### Main performance data

Trip data was available for 98 cities, 7 of which only have partial data (missing data for one or more operators). Like last year, it is likely that the overall city score will be adjusted when data is available, however we concluded that the trips per bike benchmark is essential for understanding what is possible with schemes that get intensive use from their assets.

7 of the 10 cities that featured in the Top 10 ranking in 2022 retain their position in 2023, with Ljubljana, Budapest and Warsaw the new entrants. Bilbao ranks number 1 again with over 7 trips per bike per day.

Iadie 6	Top Cities for Indicator 3 (Trips per bike per day)	2023 Rank	2022 Rank
	Bilbao	1	1
	Lyon	2	5
	Barcelona	3	6
	Ljubljana	4	New
	Paris	5	3
	Karlsruhe	6	2
	Toulouse	7	10
	Mannheim	8	8
	Budapest	9	15
	Warsaw*	10	77

\*Incomplete data in 2022

Chart 4 shows the visualisation of the trips per bike per day, with the Top 10 cities for trips per capita in red. Last year, no city that ranked in the Top 10 for trips per capita had fewer than 2.3 trips per bike per day. Interestingly, this year, there are 3 cities that rank in the Top 10 recording fewer than 2 trips per bike per day.

The visualisation also shows two-thirds of the cities are below this threshold. Half of the cities analysed are recording daily trips per bike lower than 1, calling into question the financial viability of the services, as well as the operating conditions.

We believe this could be the implication of the full year data set being used for the first time, with low winter use accounting for the decline. As well as some fleets closing for the winter some may reduce numbers from peak, dropping the average. This needs further investigation.



#### Chart 4 Trips per bike per day



Cities ranked by trips per bike per day (Top benchmark cities in red)

A scatter graph (Chart 5) can again be used to visualise the differences and aid benchmarking. As with the previous scatter graph, a benchmarking approach looks at this chart by quadrants. Top right cities have high bike utilisation and achieve high trips for the whole population, so these cities can be studied for widespread performance improvement.

Lower right cities are getting high usage from their fleets, but this has not generated population level benefits. This can be a question of fleet size and in particular the geographical coverage of the fleet, each city should be studied individually.

### *Chart 5* Scatter graph comparing trips per 1k population per day with trips per bike per day.



Trips per bike per day



This analysis throws a very different perspective than the scatter graph for fleet size and trips generated at a population level.

Here, we see that trips per bike per day is NOT a clear indicator of high overall performance, with a high number of cities outside the Top 10 having utilisations that are better than many of the leading benchmark group.

This impression is strengthened in this second edition of the report with the overlap between the high performers and other cities more pronounced than in edition 1.

Bilbao, Karlsruhe and Barcelona are the best performing cities for trips per bike per day outside of our Top 10. Each of them scored over 4 for this metric, but they rank low on the number of trips per 1000 inhabitants. Known reasons for this are the fact that the coverage of the bike schemes is limited to a core area of the city which gives apparent high utilisation, but the accessibility to the wide population is low. Equally there are cities in the Top 10 benchmark group with annual average utilisations of below 2 trips per bike per day, which highlights that bikes in the fleet must be made viable through other funding mechanisms than pure usage. Experts report that decisions to keep fleets operating all year round and to ensure funding for city-wide access are two policies that keep overall usage up even if the utilisation per bike is low, but these decisions are usually backed by financial support from cities. This information should be benchmarked by cities aiming to grow bike sharing use.

#### Most improved: Cities on the up

Here are the cities that had the biggest growth in trips per bike between 2022 and 2023.

**Frankfurt:** Frankfurt's trips per bike per day has risen 159% thanks to the growing popularity of private schemes.

Turku: Turku's bike utilisation also grew 109%.

**Krakow:** Although the number of trips was fairly low in 2022, the trips per bike has grown 94% from last year to this year.

**Copenhagen:** The Danish capital, up on almost every indicator, also saw a 70% increase in trips per bike per day.



# **COUNTRY LEVEL DATA**

To see how the cities involved are performing on a country level, we calculated the average for the 3 key indicators for every country that had a minimum of two cities with trip data. This is a new study for the second edition of our report which we believe complements the city level indicators published in 2023. Given the limitations of the data available this year we are not drawing head-line conclusions from this analysis in 2024, but we believe it provides baseline data which we will develop in future studies.

Known limitations (see commentary in "What's new")

- Includes only the cities that are part of the 148 cities,
- Small sample size

Belgium is the country that records the most daily trips per 1000 inhabitants, with France in second position. Given the relatively small sample size per country we acknowledge that Antwerp, Paris and Tartu have significantly influenced the figures for the leading three countries.



Keeping the same order of countries for Chart 6, for ease of comparison, we find some interesting standouts in our other indicators. For instance, cities in Finland, the Netherlands, Spain, Denmark and Germany all have a very similar average of daily trips per 1000 inhabitants. However, Charts 6 and 7 show that Netherlands, Finland and Denmark are providing more bikes than the other countries, but recording fewer trips. These countries are also renowned for being bike-friendly; perhaps low ridership is down to the high private bike ownership.

Similarly, Austrian cities are providing, on average, 20 bikes per 1000 inhabitants but record fewer trips relative to population.

France places in second for every metric, suggesting that it is the most developed country for bike sharing in Europe.







When it comes to trips per bike, Spain is the number one ranked country. It is not all just down to Bilbao - Barcelona, Madrid and Palma de Mallorca are all recording more than 2 trips per bike per day.



#### Average Trips/bike per day for countries with more than two cities in report Chart 8

Looking at the country view gives an opportunity to benchmark what the high utilisation countries have in common. Experts have highlighted that individual countries often share common attitudes to public funding of bike sharing or integration with public transport, this may explain why there is such a wide set of national trends in high and low utilisation.



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# ARE ELECTRICALLY ASSISTED BIKES NECESSARY TO BE A TOP PERFORMER?

In edition 1 we looked at individual city data for the impact of bike sharing, and we could not find a clear conclusion that electrically assisted bikes (generally referred to as pedelecs or e-bikes) were essential to being a top performing bike share city. However this contradicted the view from industry experts who reported that deployment of e-bikes into fleets did have an uplift in usage.

With significantly more data available this year we created a total view over all the fleets where data is available which provided more insight into this topic.

Across all of the cities where fleet data was available and the electric vs mechanical split for public schemes was known, we found that just 21.3% of the fleets were electric. However, electric bikes made up 30.6% of all trips - thus showing that e-bikes do appear to generate more rides than mechanical bikes, although again the city level data shows that it is not essential to have e-bikes to be a top performing city.

	Share of fleets	Share of trips
Electric bikes	21.36%	30.65%
Mechanical bikes	78.64%	69.35%

When looking at the electric and mechanical split per city, we found 118 cities with data available. 44 of those cities had fully mechanical fleets, leaving 74 cities with electric bikes, shown below in Chart 5.

100% 75% 50% 25% 0%

Chart 9 Fleet electrification rate

Percentage of e-bikes in total fleet available (Top 10 benchmarked cities in red)



The data does not show that electric bikes must make up the totality of the bike-sharing offer, with top performing cities ranging from 100% to 12% electrification. It also suggests that business models where electric bikes are operated alongside mechanical bikes can exist.

Importantly, bike-sharing experts warn against use of this indicator in isolation. The role of electric bikes have varying significance in cities of different topographies and climates - areas that were not assessed in this study.

Bike sharing is also an important contributor to public access for e-bikes for persons whose social or economic circumstances mean that ownership is not possible.

Therefore, the recommendation is that cities work with operators to look at the need and potential for e-bikes in their circumstances, using this benchmarking data and local information to see how e-bikes could increase the possible trips made by bike share.

### HOW COMMON IS THE DOCKLESS MODEL?

In recent years, many private companies have entered cities using a dockless model (without physical stations to dock bikes in when a ride is completed). Some publicly subsidised schemes are classed as 'hybrid' (specific parking locations but no physical docks), although the majority of public schemes are still docked.

Among the 98 cities where data was available, we found 26 cities operating a hybrid model, and 73 with a docked model. Chart 10 (below) shows that many cities have a fleet that is 100% docked. These are, most commonly, cities where the public docked system is well run and/or there is no opportunity for another operator to run an economically viable system in parallel. It also includes cities where bike-sharing can only be viable with public funding.



#### Chart 10 How much of a city's fleet is docked

Cites with available data on docked vs free float - illustrative order, not ranked (Top 10 benchmark cities in red)



Three of the Top 10 cities for trips per 1000 inhabitants have a 70% docked fleet, with Paris the number one city in the ranking, down at 45%. The growing popularity of private, dockless services in the largest cities is growing more evident. Both Florence and Padova, two newcomers to the Top 10, have 0% docked fleet.

### ANONYMITY AND COMMERCIAL SENSITIVITY

CIE operates as a trade association for the whole cycling ecosystem and is highly sensitive to the need for compliance with competition and antitrust laws and policies.

In preparing this study we are aware that bike sharing is a highly competitive business sector, with business success based not only on companies and brands but also commercially sensitive relationships with government bodies such as cities and regions. Within individual cities differing operators and business models may contribute to the overall city performance.

In preparing this study we note that some cities studied for this performance analysis may only have data for one company, or have one dominant operator in terms of fleet size, which could imply a commentary on the performance of that company.

To avoid this risk, we have set the following limits on this study:

- We aim not to publish data sets that might allow individual operations to be compared. We acknowledge that experts with deep knowledge of each city and fleet may be able to extract some limited additional information from this analysis, but we are reassured that this will not compromise competitiveness.
- 2. We have not given any companies access to the raw data sets, they only see the draft versions of this aggregated report. Companies, cities, and researchers can purchase data from Fluctuo, but this is subject to Fluctuo's terms for release.
- 3. We publish benchmarked performance indicators that can be used to compare city performances and allow cities to see where there are opportunities to increase bike share use in their jurisdiction. This will allow those cities to discuss their performance with providers of bike sharing systems and consider shared strategies for increased use of shared bikes. Even those cities where we don't have access to data will be able to use these benchmarks as performance indicators for their internal analysis.
- 4. We acknowledge in this study the limitations of availability of data which does give an incomplete impression of the performance indicators for some cities. We strongly believe that the competitiveness of this industry sector is improved if cities contribute to open data availability, and we hope future versions of this report will have much more comprehensive data sets. We are also sharing this report with the EU Commission to encourage wider use of transparent performance indicators in mobility policy.
- 5. We do not amalgamate any data by company, only by city.



- 6. As part of an additional analysis for the 2024 report we have collated some financial information about funding for bike sharing in a limited number of cities, but as we are not able to provide this in an aggregated and anonymised format that meets our standards we are not publishing any data in this report.
- 7. CIE also facilitated a workshop at Velo-city where attendees could use samples of the data in this report to make observations and recommendations about how the selected cities could improve bike sharing performance based on these indicators. This was an open session with diverse contributors, therefore the subjects discussed and the recommendations made are published separately and should not be recognized as the opinions of CIE or any of its members or reflect any recommendation on contractual or commercial policy by CIE or its members.

We are open to feedback on compliance with the limits of our work and if any company (CIE member or not) wishes to comment on our report they are encouraged to contact CIE at **info@cyclingindustries.com** at any time.



# **ANNEX I: RANKING TABLE<sup>9</sup>**

Cities	Trips per 1000 inhabitants/ day rank	Bikes per 10k inhabitants rank	Trips per bike per day rank	Transparency Indicator <sup>10</sup>
Paris	1	7	5	100%
Antwerpen	2	=3	13	100%
Ljubljana	3	15	6	100%
Tartu	4	9	18	100%
Toulouse	5	17	7	100%
Lyon Metro	6	45	2	100%
Bologna	7	10	25	100%
Firenze	8	5	40	100%
Bordeaux	9	1	48	100%
Padova	10	6	45	100%
Dublin	11	=26	14	100%
Barcelona	12	65	3	100%
Milano	13	2	57	100%
Dresden	14	42	12	94%
Grenoble	15	12	35	100%
Helsinki	16	16	28	100%
Karlsruhe	17	63	6	100%
Heidelberg	18	41	19	100%
Göteborg	19	50	15	100%
Nice	20	32	30	100%
Marseille	21	44	20	100%
Utrecht	22	8	=53	100%
Wrocław	23	33	24	100%
Köln	24	38	11	100%
København	25	18	41	88%
Bonn	26	=48	21	100%



Cities	Trips per 1000 inhabitants/ day rank	Bikes per 10k inhabitants rank	Trips per bike per day rank	Transparency Indicator <sup>10</sup>
Lahti	27	21	32	100%
Warszawa	28	66	10	100%
Bilbao Metro	29	96	1	100%
Nürnberg	30	25	34	100%
Mannheim	31	75	8	100%
Valencia	32	43	27	100%
Palma de Mallor- ca	33	68	16	100%
Leipzig	34	54	26	100%
Budapest	35	80	9	100%
Düsseldorf	36	46	29	100%
Bruxelles	37	11	67	100%
Malmö	38	23	46	100%
Turku-Naantali	39	36	=37	100%
Eindhoven	40	31	43	100%
Madrid Metro	41	71	22	100%
Groningen	42	13	72	100%
Amsterdam	43	51	36	100%
Sevilla Metro	44	56	=37	75%
Den Haag	45	=26	51	100%
Espoo	46	29	=53	100%
Bergamo	47	30	56	100%
Zaragoza	48	70	31	100%
Frankfurt a/M	49	19	68	100%
Bielefeld	50	58	42	100%
Rotterdam	51	28	61	100%
Lisboa Metro	52	91	17	100%
Hamburg	53	67	39	100%
Brno	54	37	62	100%



Cities	Trips per 1000 inhabitants/ day rank	Bikes per 10k inhabitants rank	Trips per bike per day rank	Transparency Indicator <sup>10</sup>
Berlin	55	34	59	100%
Tricity (Gdańsk Gdynia Sopot)	56	35	69	100%
Duisburg	57	59	49	100%
Dijon	58	=48	59	100%
Hannover	59	69	47	100%
Valladolid	60	39	71	100%
Dortmund	61	96	23	100%
Aachen	62	64	52	100%
Parma	63	89	33	100%
Tampere	64	47	74	100%
München	65	46	70	100%
Praha	66	57	=65	88%
Århus	67	73	58	100%
Stockholm	68	87	50	100%
Roma	69	81	=53	100%
Bochum	70	72	64	100%
Wien	71	=77	70	98%
Torino	72	=77	73	100%
Las Palmas de Gran Canaria Metro	73	104	44	100%
Leuven	74	61	76	84%
Lappeenranta	75	85	79	100%
Helsingborg	76	62	83	100%
Klagenfurt	77	52	87	100%
Essen	78	94	=65	100%
Münster	79	84	85	100%
Lund	80	55	90	100%
Vilnius	81	108	63	100%



Cities	Trips per 1000 inhabitants/ day rank	Bikes per 10k inhabitants rank	Trips per bike per day rank	Transparency Indicator <sup>10</sup>
Bremen	82	99	80	100%
Gävle	83	102	81	100%
Stuttgart	84	88	88	100%
Malaga	85	106	78	100%
Kaunas	86	90	86	100%
Katowice / Górnośląska	87	107	82	100%
Zagreb	88	53	98	100%
Tallinn	89	92	91	100%
Kraków	90	115	75	100%
Angers	91	95	=92	100%
Bydgoszcz	92	75	=92	31%
București	93	116	84	100%
Riga	94	98	97	60%
Poznań	95	113	89	100%
Catania	96	110	95	100%
Bratislava	97	100	=92	4%
Łódź	98	114	96	100%
Alicante	Not available	Not available	Not available	0%
Athína	Not available	Not available	Not available	0%
Bari	Not available	105	Not available	0%
Cluj-Napoca	Not available	86	Not available	0%
Córdoba	Not available	120	Not available	0%
Cork	Not available	79	Not available	0%
Differdange	Not available	=3	Not available	0%
Dunkerque	Not available	Not available	Not available	0%
Gabrovo	Not available	Not available	Not available	0%
Genova	Not available	117	Not available	0%



Cities	Trips per 1000 inhabitants/ day rank	Bikes per 10k inhabitants rank	Trips per bike per day rank	Transparency Indicator <sup>10</sup>
Guadeloupe (Pointe-à-Pitre)	Not available	118	Not available	0%
Guimarães	Not available	Not available	Not available	0%
loannina	Not available	Not available	Not available	0%
Kalamata	Not available	112	Not available	0%
Košice	Not available	20	Not available	0%
Kozani	Not available	103	Not available	0%
Kranj	Not available	101	Not available	0%
La Louvière	Not available	Not available	Not available	0%
Lefkosia	Not available	76	Not available	0%
Lemesos	Not available	40	Not available	0%
Liberec	Not available	83	Not available	0%
Liège	Not available	Not available	Not available	0%
Liepaja	Not available	Not available	Not available	0%
Lublin	Not available	60	Not available	0%
Miskolc	Not available	Not available	Not available	0%
Murcia	Not available	93	Not available	0%
Nantes	Not available	24	Not available	0%
Naples	Not available	=121	Not available	0%
Palermo	Not available	=121	Not available	0%
Pécs	Not available	119	Not available	0%
Plovdiv	Not available	Not available	Not available	0%
Porto	Not available	Not available	Not available	0%
Prato	Not available	Not available	Not available	0%
Rzeszów	Not available	Not available	Not available	0%
Santa Cruz de Tenerife Metro	Not available	Not available	Not available	0%
Sofia	Not available	111	Not available	0%
Sønderborg	Not available	Not available	Not available	0%
Suceava	Not available	Not available	Not available	0%



Cities	Trips per 1000 inhabitants/ day rank	Bikes per 10k inhabitants rank	Trips per bike per day rank	Transparency Indicator <sup>10</sup>
Szczecin- Świnoujście	Not available	Not available	Not available	0%
Tarragona-Reus	Not available	Not available	Not available	0%
Taurage	Not available	Not available	Not available	0%
Thessaloniki	Not available	82	Not available	0%
Timişoara	Not available	109	Not available	0%
Trikala	Not available	Not available	Not available	0%
Umeå	Not available	Not available	Not available	0%
Valletta	Not available	Not available	Not available	0%
Varna	Not available	Not available	Not available	0%
Velenje	Not available	14	Not available	0%
Vitoria-Gasteiz	Not available	Not available	Not available	0%
Wuppertal	Not available	Not available	Not available	0%

<sup>9</sup> Although cities' names are translated to English in the text, the full ranking refers to the cities in the local language.

<sup>10</sup> Shows what proportion of the bike fleet in each city provided usable trip data that could be used for benchmarking. Acts as an indicator of the transparency policies of the city or operator.



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