

EUROPEAN SHARED MOBILITY INDEX

— Q3 2023 —



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Fully owned by BNP Paribas, Arval is a specialist in full-service vehicle leasing and new mobility solutions. Through our connected solutions and tailored services, companies are able to optimise their employees' mobility and outsource the risks associated with fleet management. We also actively support and advise our customers in accelerating the energy transition, empowering them to be more sustainable.

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Drover AI specializes in AI-based IoT solutions for last-mile transportation, elevating the performance of fleets while exceeding the regulatory requirements of cities. Drover's PathPilot delivers features like sidewalk detection and parking compliance even in the absence of GPS or cellular connectivity, allowing for unmatched control of fleet and user behavior in real time. Drover pairs its edge-based tech with its management platform, Corral, to deliver a variety of unique and valuable insights to operators and cities alike.

drover.ai



PBSC is changing the world, one city at a time. A leader in the micromobility space, it develops, markets and operates, alongside its local partners, the most innovative, customizable and reliable public bike-share systems on the market. PBSC's sustainable technology empowers cities to provide users with safe and enjoyable transportation alternatives that reduce road congestion and improve quality of life. The company has four bike models – ICONIC, FIT, BOOST and E-FIT – deployed around the world. As a Lyft subsidiary, PBSC continues to expand its global footprint with over 100,000 bikes, 9,000 stations and 500 million rides and counting!

pbsc.com



Segway Commercial is the global leader in the products and solutions that power the millions of micro-mobility vehicles behind the brands our communities love and depend on. Segway Commercial's mission is to make shared micro-mobility simpler and more accessible to all. Our comprehensive, ready-made micro-mobility product rental management solution and industry-leading vehicles are explicitly designed to meet various countries' demands and regulations.

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SHARE NOW is the market leader and pioneer of free-floating carsharing. The company is operating 11,000 vehicles in 16 European cities. More than three million customers are already using the on-demand service that offers rentals from 3 minutes to 30 days and a variety of car models from brands such as BMW, Mercedes-Benz, MINI, smart and Fiat.

share-now.com



POLIS is the leading network of European local, regional and transport authorities committed to transport innovation. Our focus is on innovations that make urban mobility more sustainable, safe, affordable and equitable. We actively support constructive dialogue with shared mobility operators to shape together solutions that serve the public good and drive the shift that we all need to achieve this decade.

polis-network.eu



OVERVIEW

HIGHLIGHTS

Q3 2023 VS Q3 2022
(All modes)

Ridership
+1%

Fleet size
-2%

TVD

 **3.6** (3.6)

 **2.1** (1.8)

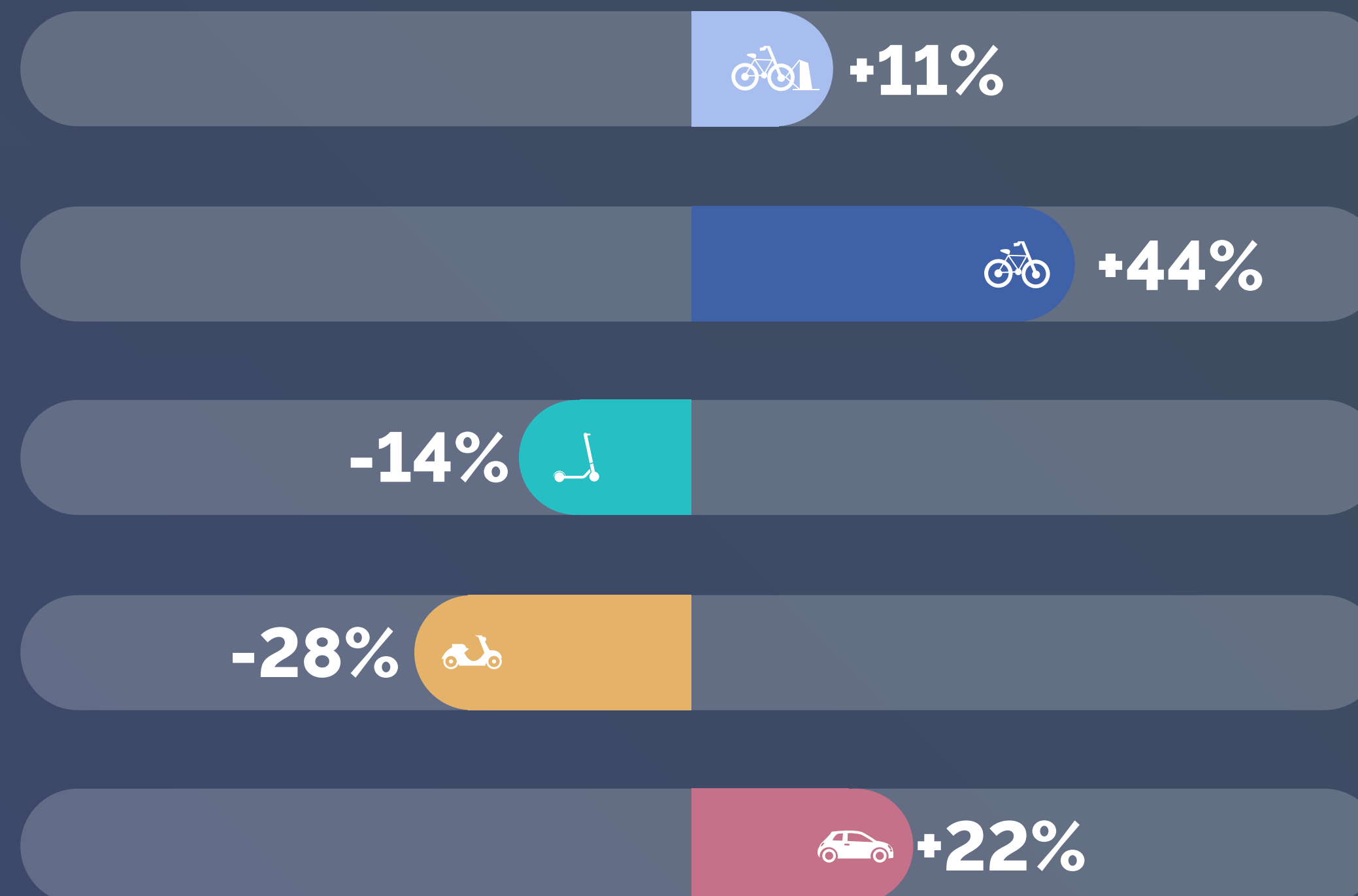
 **1.9** (2.0)

 **2.5** (2.4)

 **2.1** (2.2)

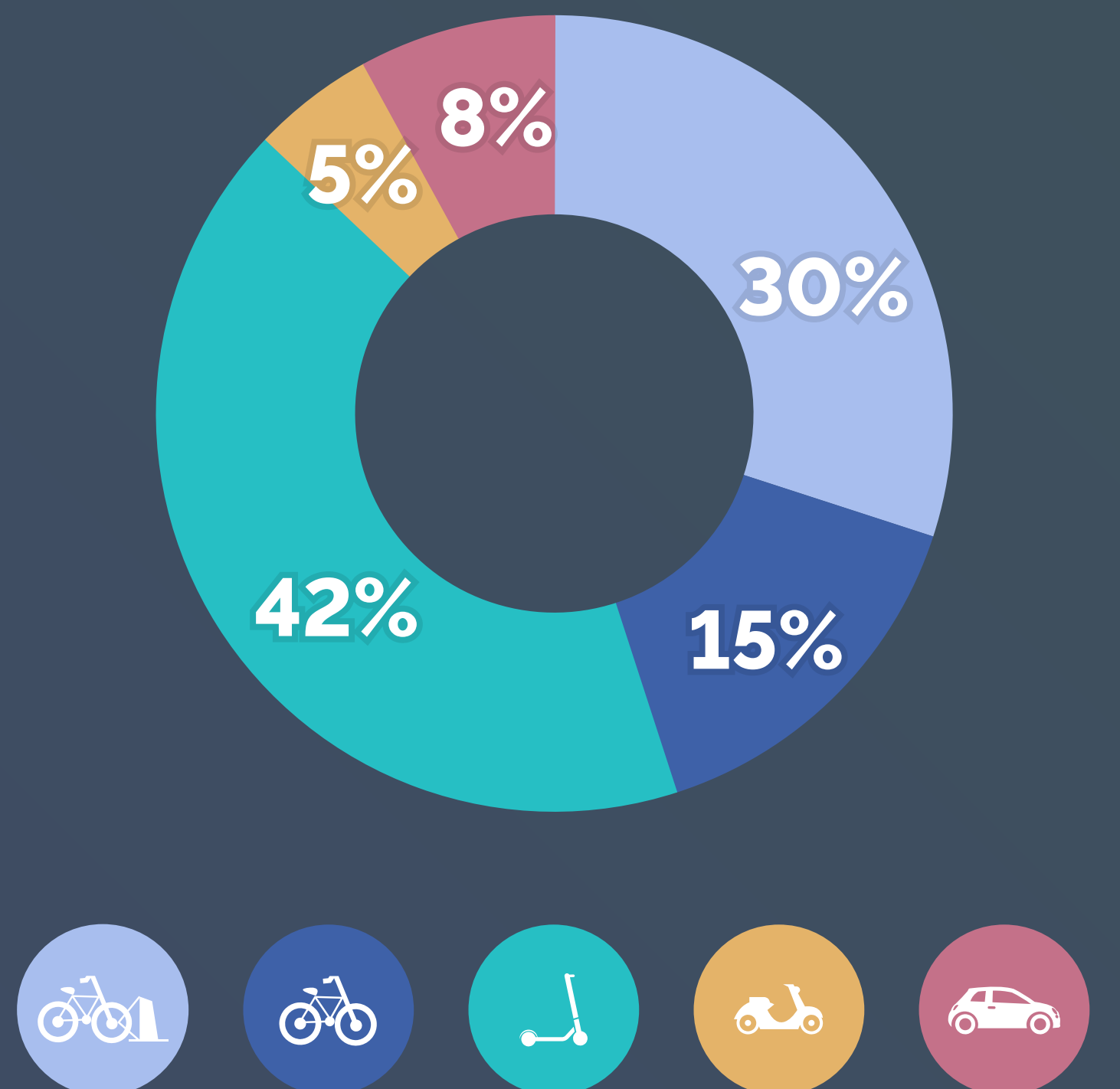
RIDERSHIP GROWTH

Q3 2023 VS Q3 2022



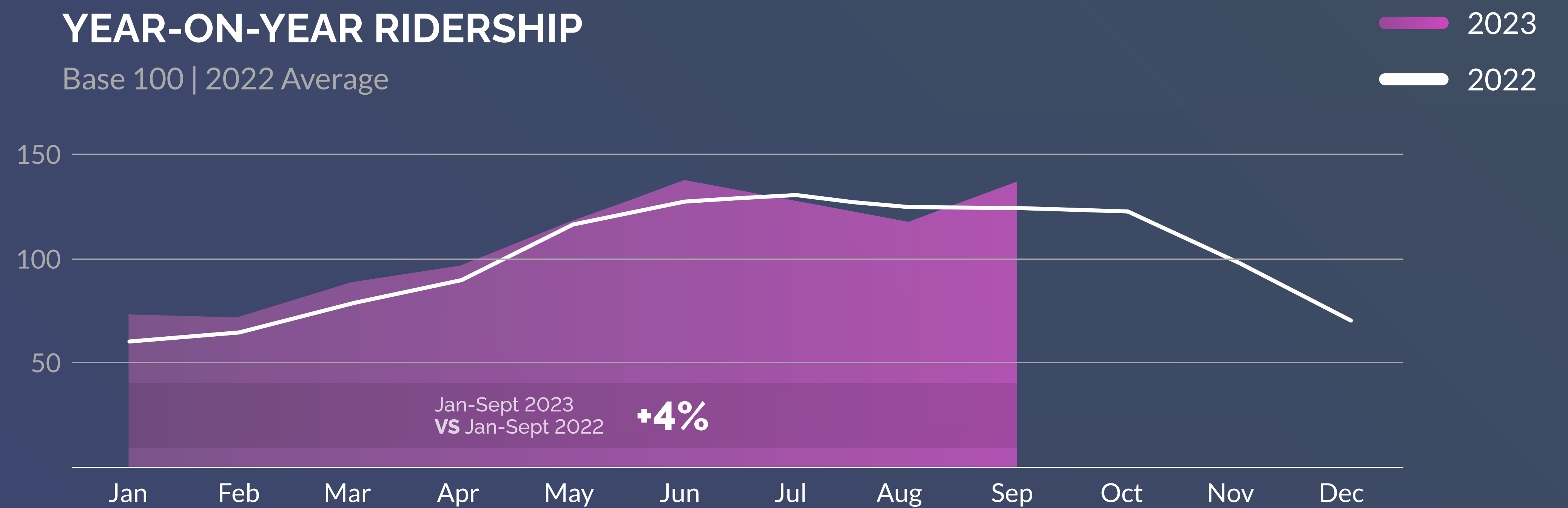
MODAL SHARE

Total ridership per mode | Q3 2023



YEAR-ON-YEAR RIDERSHIP

Base 100 | 2022 Average



OPERATIONALLY SOUND

In Q3 2023, we saw a slight fall in the number of shared vehicles available across the 33 cities analysed in this report. This is largely due to the scooter ban in Paris and tenders coming into effect in cities like Rome and Madrid. As a matter of fact, tenders are massively shaping the European mobility ecosystem, and many more will be released in 2024. Fluctuo is now offering a thorough coverage of tenders through our weekly newsletter, the [EU Recap](#).

Anecdotal feedback from various operators suggests that it was a very good summer for shared mobility. Our data confirms this, as ridership matched 2022 levels (+1%), despite there being marginally fewer vehicles on the streets (-2%).






Global ridership is being boosted by dockless bikes, with ridership up 44%, despite fleets only growing 12% - proving that their adoption is speeding up dramatically. Shared car ridership grew by 22%, in line with the evolution of the fleet (+26%). Two modes registered negative growth for vehicles and trips: scooters and mopeds. Scooter fleets fell 9%, whilst ridership fell 14%. For mopeds, fleets and ridership are down by approximately 30%.

There have been many rumours of mergers and acquisitions between European operators, but big news has yet to break. With the seasonal decrease in ridership and revenue from November to March, we expect the consolidation process to accelerate.

33 CITIES 356 SERVICES

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Number of available services & modal breakdown

-  Station-based bikes
-  Dockless bikes
-  Scooters
-  Mopeds
-  Cars





FLEET GROWTH PER CITY

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2023

QUARTERLY FLEET SIZE BY CITY POPULATION

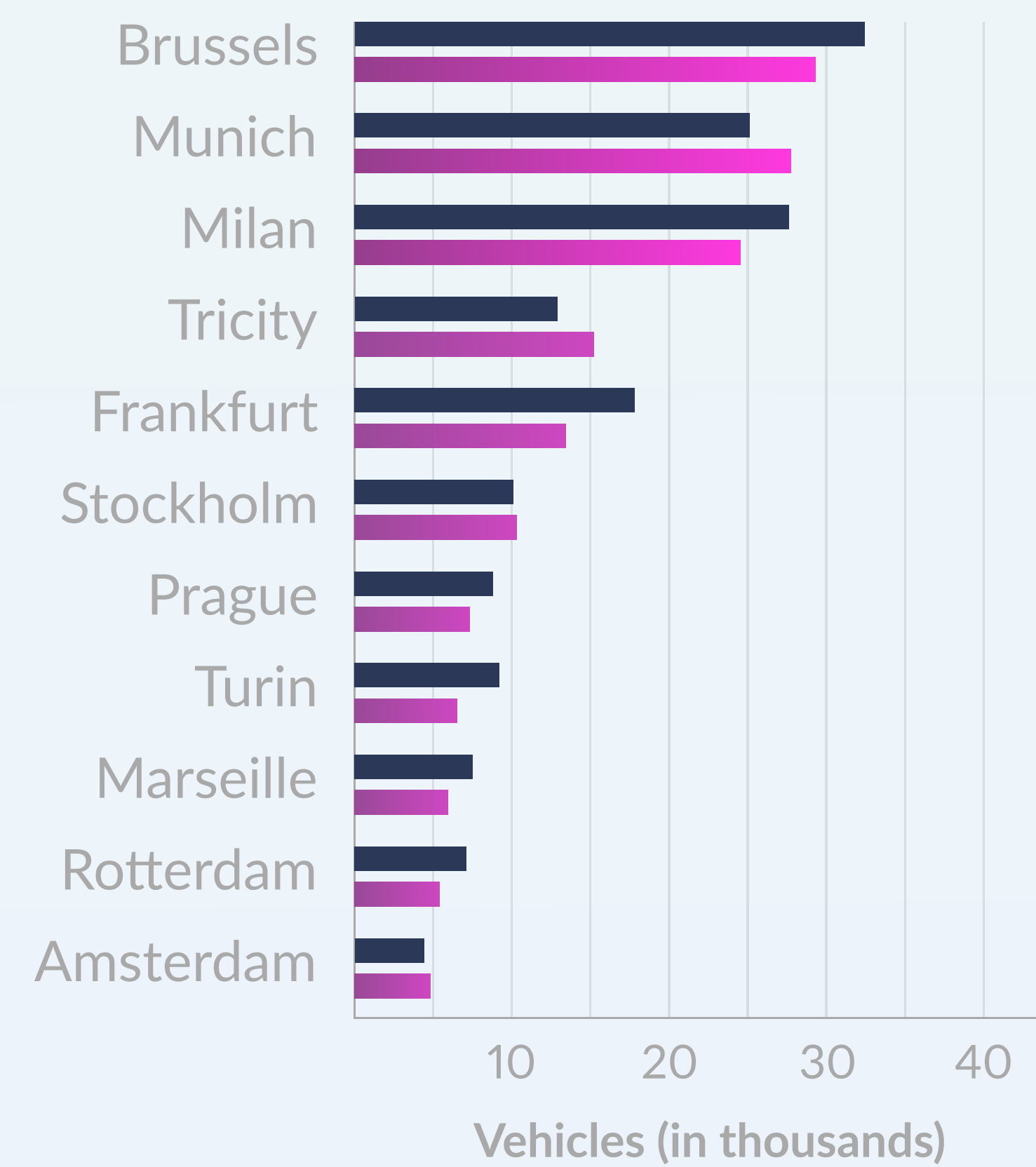
Q3 2022 VS Q2 2023

2023 2022

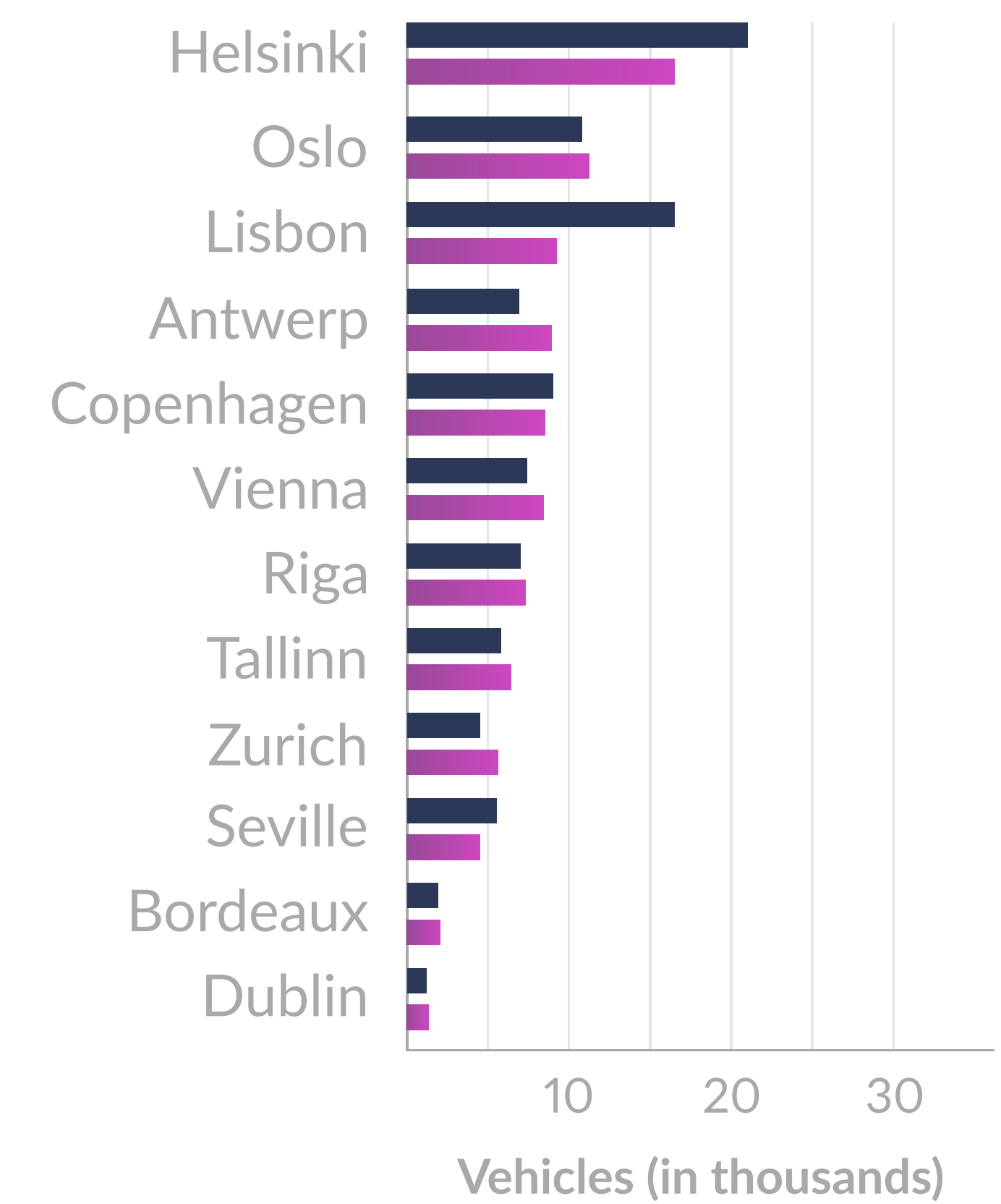
ABOVE 1.5M INH.



0.75M - 1.5M INH.



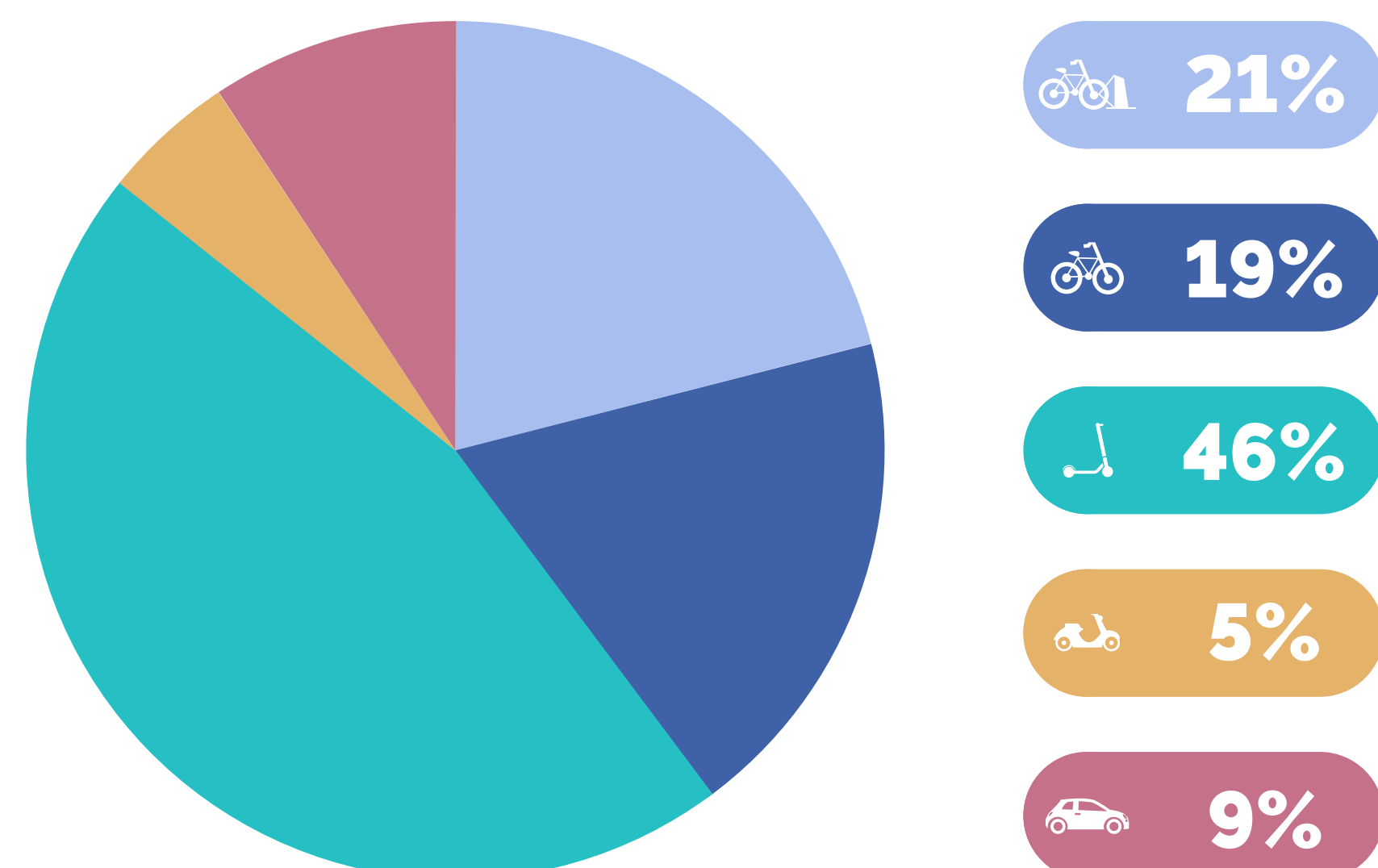
BELOW 0.75M INH.



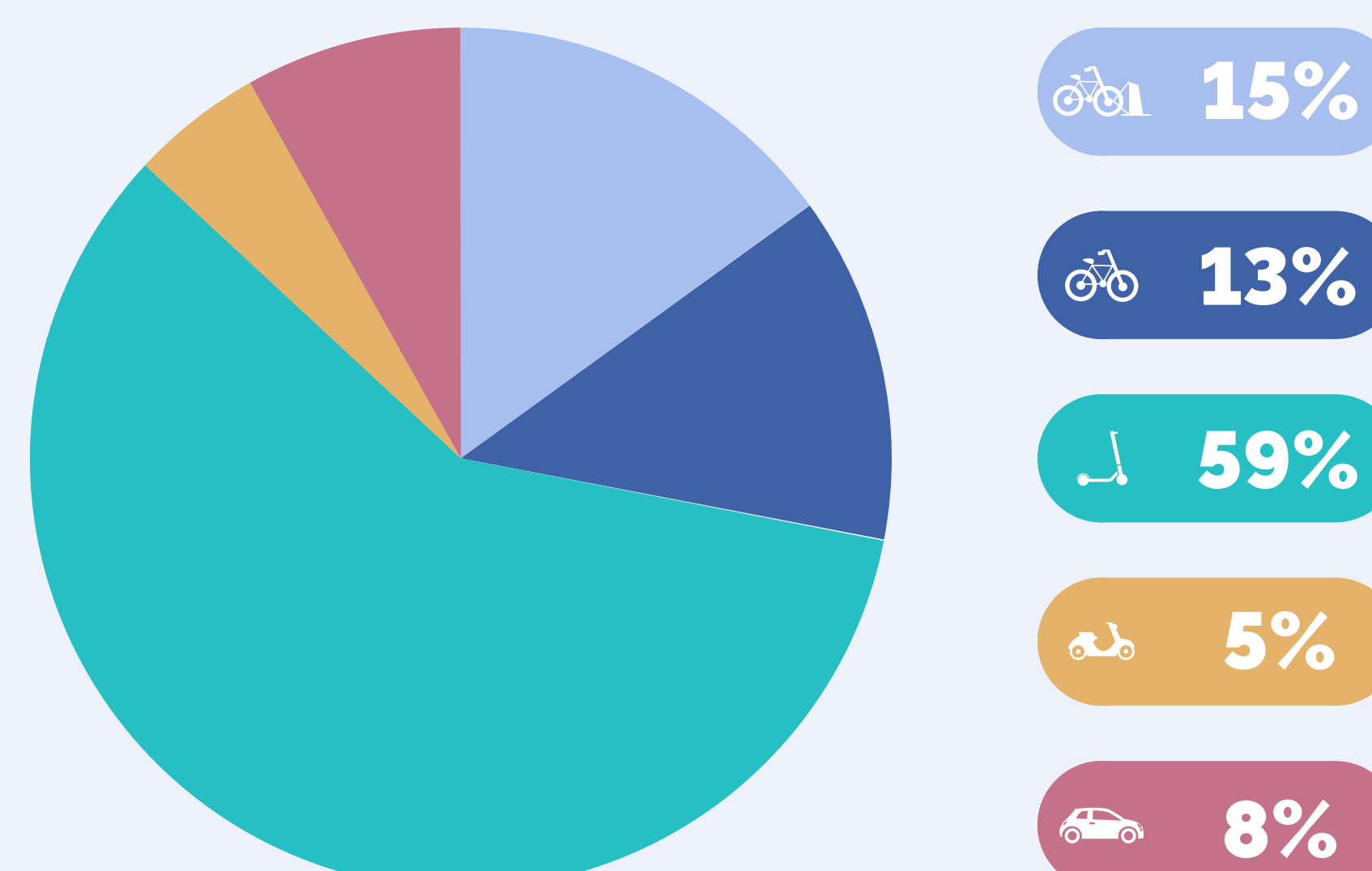
MODAL BREAKDOWN

As of September 2023

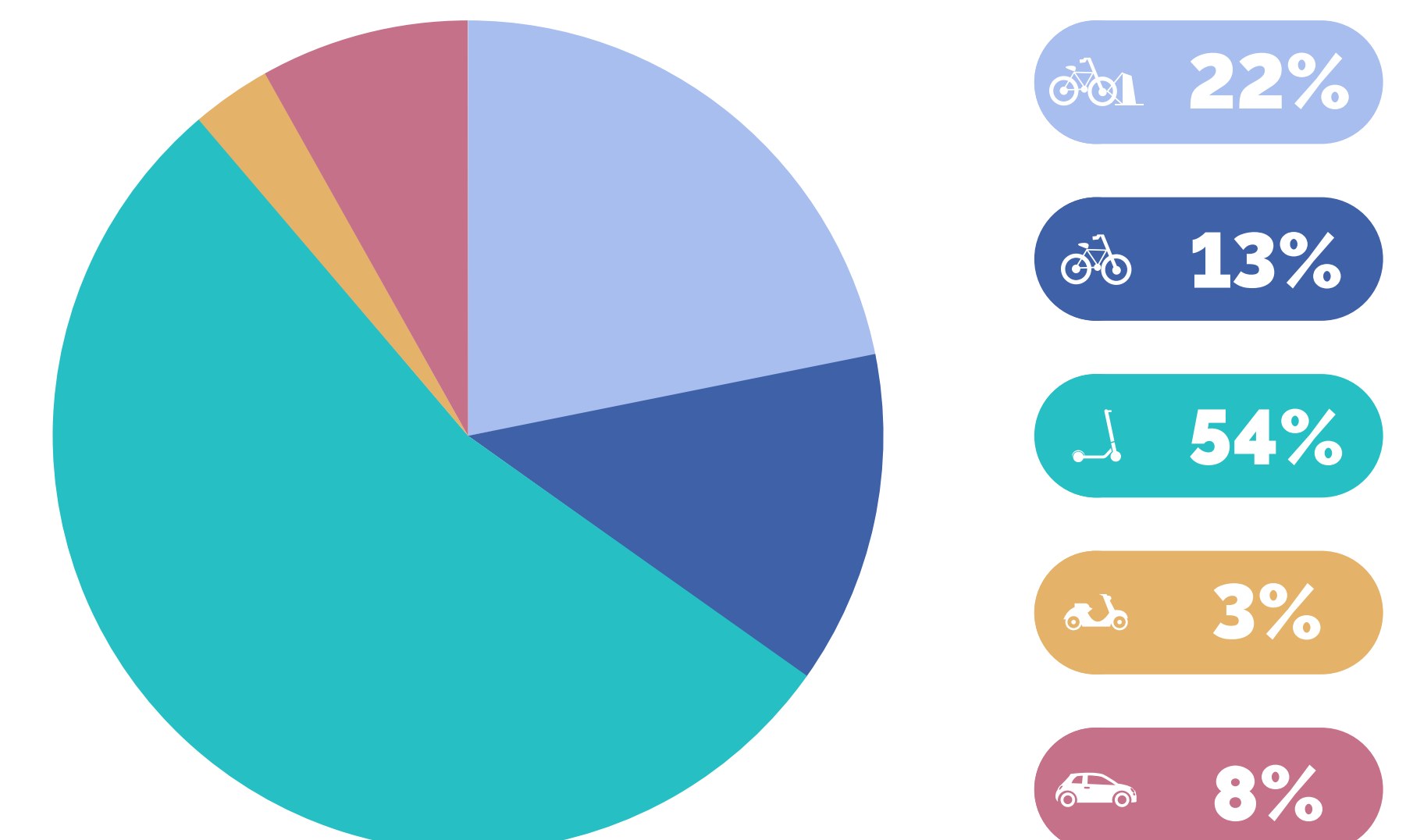
ABOVE 1.5M INH.



0.75M - 1.5M INH.



BELOW 0.75M INH.



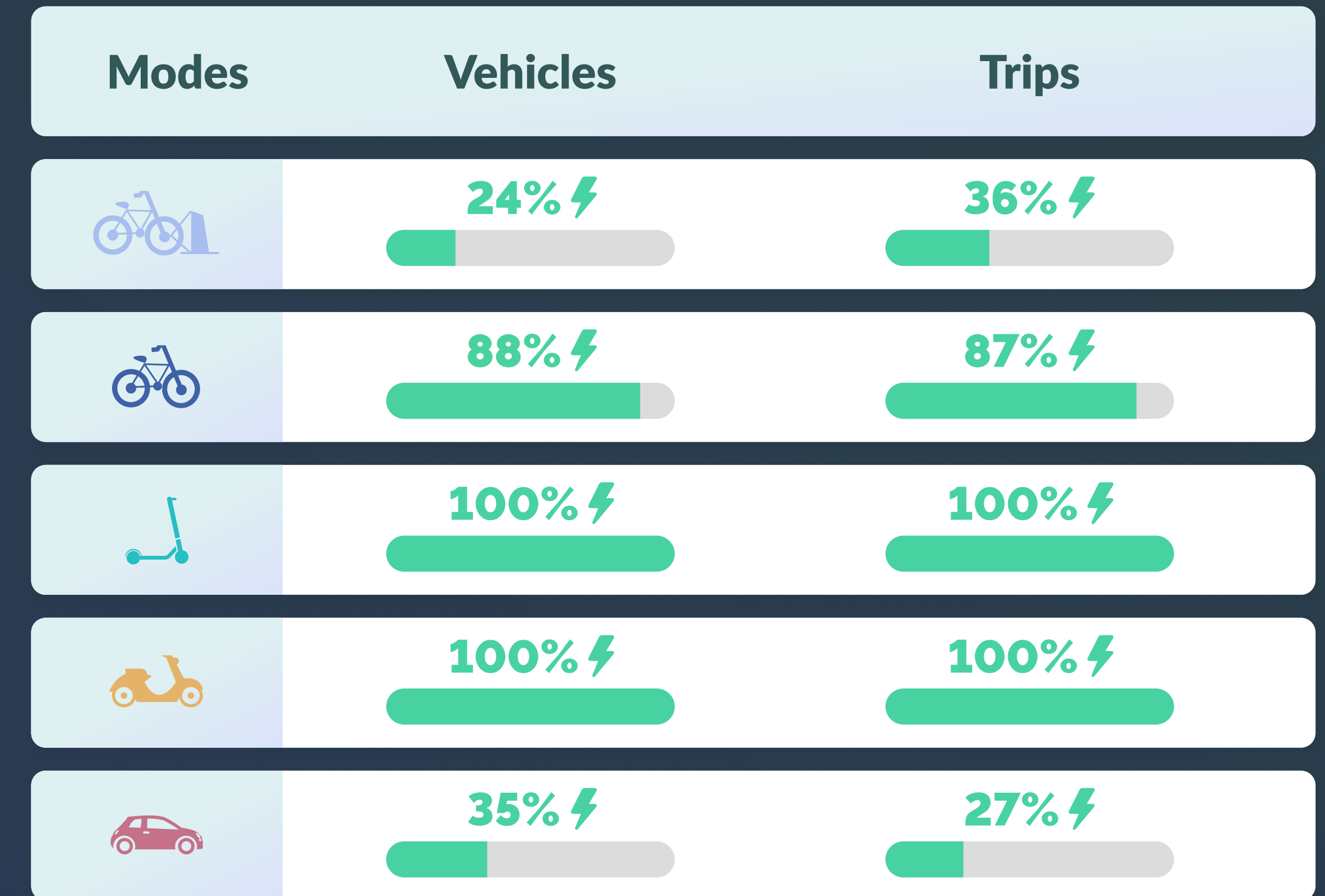
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2023



ELECTRIFICATION PER MODE

Analysing the rate of electrification across each mode, we found that:

- Station-based bikes are the least electrified mode, but trips with electric bikes have a proportionally higher share. Examples include Paris' Vélib system, where electric bikes make up 30% of the fleet, but 60% of trips.
- Dockless bikes are nearly all electric, except for a few services (MOL Bubi in Budapest, Donkey Republic in several cities).
- Scooter and moped fleets are 100% electric.
- Cars are making good progress but electrification still lags behind. Insufficient charging infrastructure in urban areas and the high purchase price of EVs are key factors.



THE ARVAL MOBILITY PASS

Arval and XXIimo seal strategic partnership to contribute to the transformation of corporate mobility in Europe.

Arval, a European leader in full-service leasing and multi-mobility solutions, has entered a strategic collaboration with XXIimo a leading payment and mobility platform as well as a Visa Principal member. Through this partnership, XXIimo is becoming a Arval key partner in Europe on its Arval Mobility Pass – a simple, yet innovative, solution combining a payment card, an app, and a management portal to simplify corporate mobility for employers and employees alike. The Arval Mobility Pass is integrated with Visa's advanced payment technology, ensuring wide coverage across all mobility services throughout Europe.

“With the Arval Mobility Pass, we offer the right platform to support employees’ ever-changing mobility behaviors, whether they are eligible to a company car, public transport users or of any other kind of mobility. Our goal is to cater to the needs of our corporate clients with innovative payment solutions specifically tailored for multi-mobility.”

- Amélie Phélip, Mobility Director at Arval

[Visit our website to learn more](#)

FOCUS ON BIKES



TOP RIDERSHIP - STATION-BASED BIKES

AVG Trips per month in Q3 2023

	PARIS	3,900,000 trips
	BARCELONA	1,650,000 trips
	LONDON	800,000 trips

TRIP GROWTH - STATION-BASED BIKES

Q3 2023 vs Q3 2022

	VIENNA			STOCKHOLM	
	MARSEILLE			TURIN	
	FRANKFURT			COPENHAGEN	

TOP RIDERSHIP - DOCKLESS BIKES

AVG Trips per month in Q3 2023

	LONDON	2,000,000 trips
	PARIS	1,400,000 trips
	COPENHAGEN	475,000 trips

TRIP GROWTH - DOCKLESS BIKES

Q3 2023 vs Q3 2022

	ANTWERP			OSLO	
	COPENHAGEN			PRAGUE	
	PARIS			BORDEAUX	

HIGHLIGHTS

Q3 2023 (VS Q3 2022)

	Ridership	Fleet size	TVD
	+20%	+11%	2.9 (2.8)
	+11%	+11%	3.6 (3.6)
	+44%	+12%	2.1 (1.8)

We'll never get tired of writing this: bikes are still booming!

Fleets and ridership are growing across Europe, especially in cities like Paris, London, Copenhagen and Antwerp. The combined TVD of dockless and station-based bikes is a very healthy 2.9.

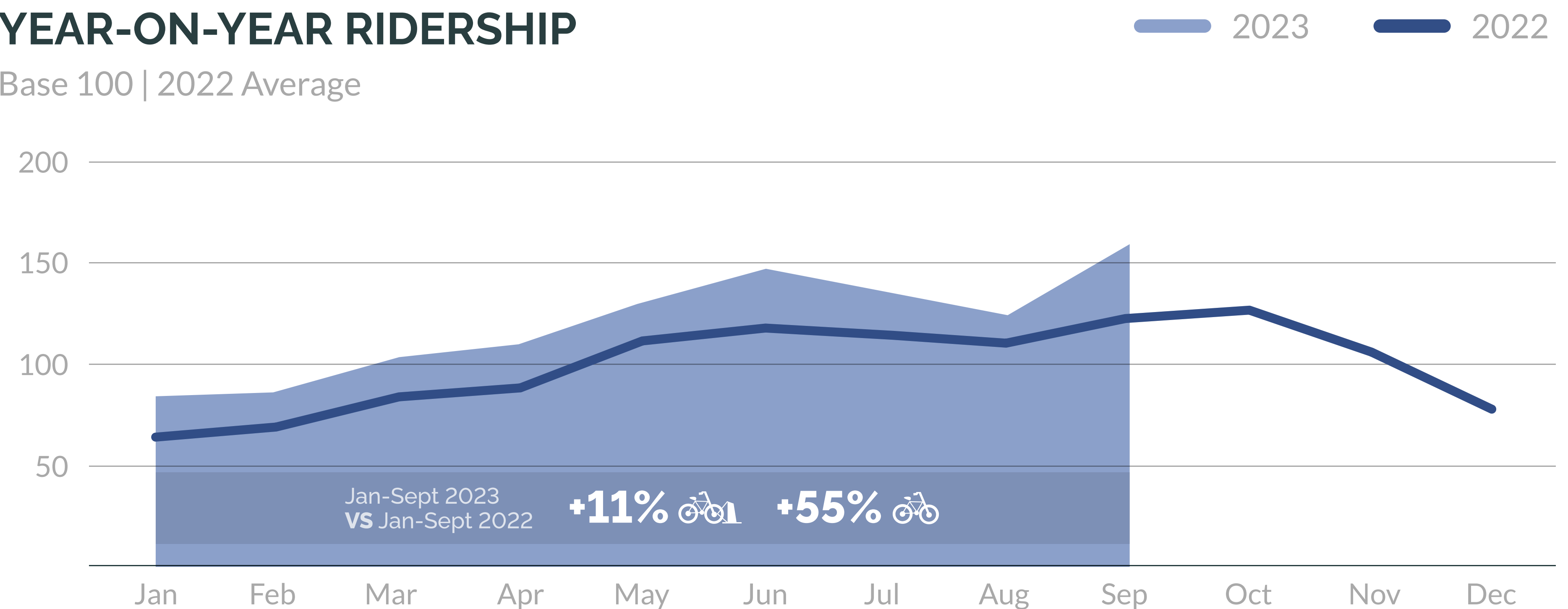
Dockless bike fleets are 12% larger than last year. Across the 33 cities in this report, there now are nearly as many dockless bikes (90,000) as station-based (docked) bikes (100,000). However, it's worth noting that dockless bikes still have a lot to do to catch up with the utilization rates of docked schemes. They recorded 3.6 trips per vehicle per day during Q3, which is significantly higher than the 2.1 TVD recorded by dockless bikes.

Perhaps the most important development of the period was Inurba Mobility deploying the second version of Mevo, which serves Tri-City (Gdańsk, Gdynia & Sopot). When the rollout is complete, it will be made up of 3,150 electric bikes and 1,050 mechanical bikes.

However, there were some issues with public bike sharing schemes. Stockholm eBikes had to shut down after safety issues with the bikes emerged, but Ridemovi quickly stepped in to offer the city and its citizens a dockless electric bike service.

YEAR-ON-YEAR RIDERSHIP

Base 100 | 2022 Average



FOCUS ON SCOOTERS



HIGHLIGHTS Q3 2023 (VS Q3 2022)

Ridership
-14%

Fleet size YoY
-9%

TVD
1.9 (2.0)

TOP RIDERSHIP

AVG Trips per month in Q3 2023

	BERLIN	1,900,000 trips
	BRUSSELS	1,200,000 trips
	HAMBURG	1,200,000 trips

TRIP GROWTH

Q3 2023 vs Q3 2022

	ANTWERP		SEVILLE
	BORDEAUX		PARIS
	TALLINN		MADRID

Scooters rally despite Paris ban.

Fleet sizes dropped by 9% across the 33 cities (269,000 from 295,000 in Q3 2022), largely due to the ban in the French capital and the removal of 15,000 scooters. However, shared scooters have had a very good summer across other cities.

The best performing cities include Antwerp, Bordeaux, Oslo, Tallinn and Frankfurt, whilst most other markets largely performed the same as last year. The top falls in ridership can be attributed to a) Reby exiting Seville; and b) the steady adoption of a reduced number of scooters post-tender in Madrid.

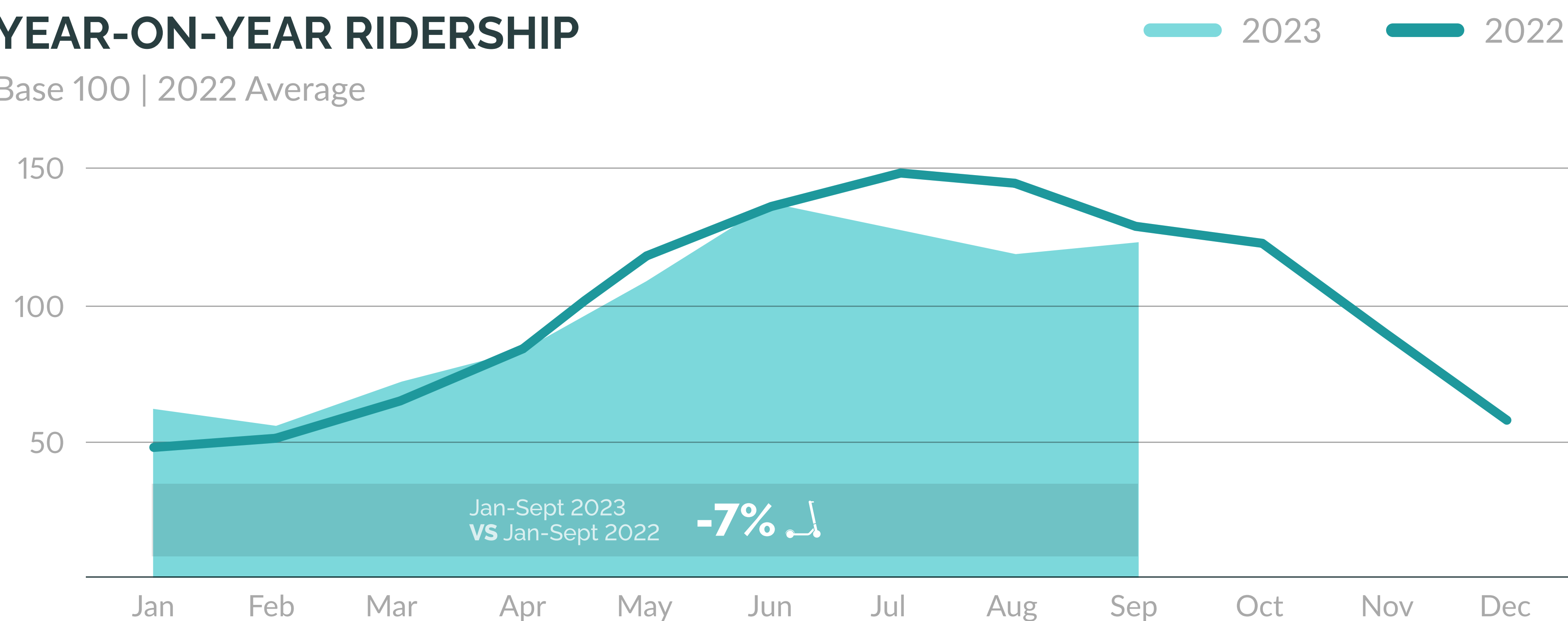
Whilst the very hot summer months benefited operators in other cities, it worked against the adoption of shared mobility in the case of these previously-mentioned Spanish cities.

We expect ridership to dip slightly more before it stabilises. Brussels' tender will see 12,000 more scooters removed, and Berlin has just announced a 25% cut in fleet sizes within the inner ring of the city - both of these will affect ridership.

There are many significant tenders to be published in 2024 which have serious potential to shake up the space. For the latest on ongoing & upcoming tenders, [read our newsletter](#).

YEAR-ON-YEAR RIDERSHIP

Base 100 | 2022 Average



FOCUS ON MOPEDS



TOP RIDERSHIP

AVG Trips per month in Q3 2023

	BARCELONA	325,000 trips
	PARIS	300,000 trips
	MILAN	200,000 trips

RISES & FALLS

Ridership vs Q3 2022

	TURIN		ANTWERP
	BORDEAUX		PRAGUE
	AMSTERDAM		BRUSSELS

HIGHLIGHTS

Q3 2023 (VS Q3 2022)

Ridership **-28%** Fleet size **-33%** TVD **2.5 (2.4)**

The departure of some players in key markets continues to skew shared moped KPIs: fleets are down 33% and ridership has fallen 28%.

There continues to be strong markets scattered across the Netherlands and Southern Europe, with Bordeaux & Turin performing well after tenders, where TVD regularly exceeded 3 over the quarter.

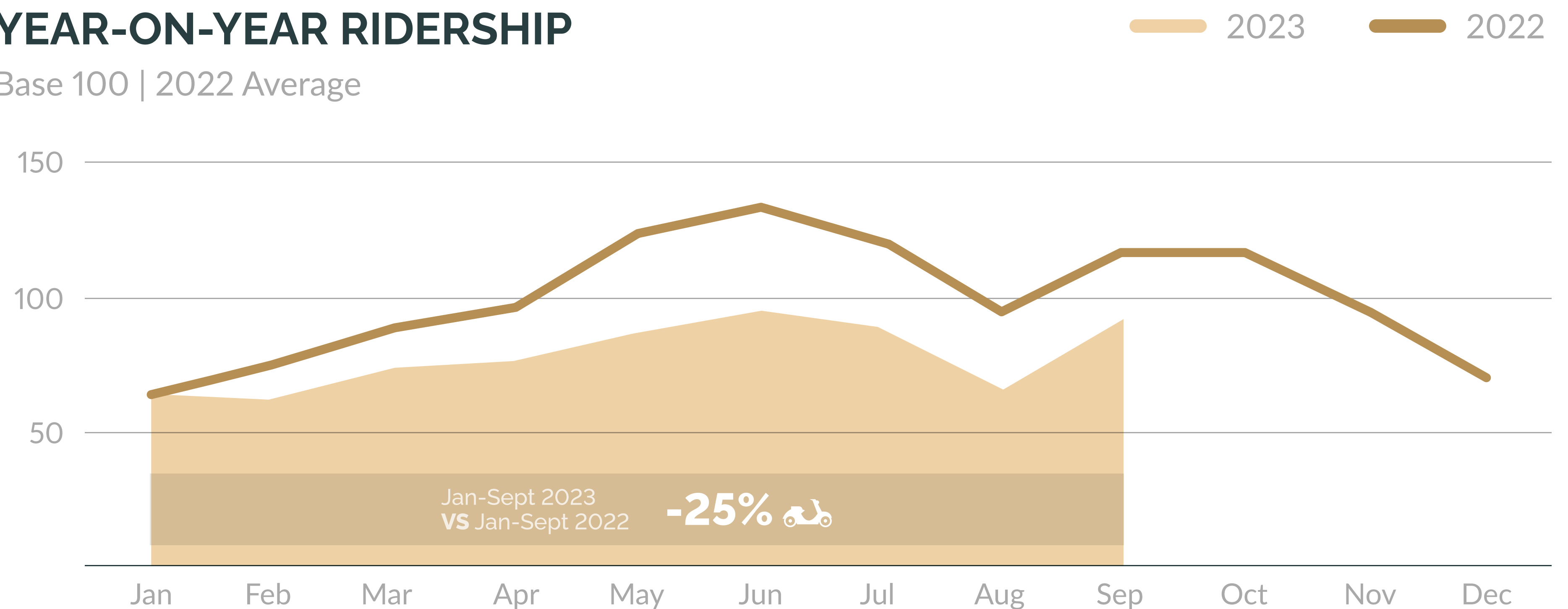
However, due to high-profile exits in cities like Barcelona, Milan and Madrid, moped ridership seems to be dwindling. In a way, it's very similar to scooter ridership, where fleet sizes are falling proportionally to the ridership. The difference is that moped fleets have been reduced not through tenders, but through operators taking the decision to exit a market for financial reasons.

Take Paris, for instance. What would usually be considered one of the most lucrative markets in Europe is, in reality, quite a challenge for moped operators. Cityscoot has the highest ridership of any of the three companies, but is still suffering financially (more on Paris on p12). To operate viable services, cities must try and create favourable conditions for them to be successful; otherwise, they cannot maintain high-quality services.

Read our recent interview with [Paul van Merrienboer](#), Managing Director of Check, for some insights into the moped market.

YEAR-ON-YEAR RIDERSHIP

Base 100 | 2022 Average



FOCUS ON CARS



TOP RIDERSHIP

AVG Trips per month in Q3 2023

	BERLIN	600,000 trips
	HAMBURG	350,000 trips
	MADRID	325,000 trips

TRIP GROWTH

Q3 2023 vs Q3 2022

RIGA	HELSINKI
ANTWERP	STOCKHOLM
BRUSSELS	TURIN

HIGHLIGHTS

Q3 2023 (VS Q3 2022)

Ridership
+22%

Fleet size
+26%

TVD
2.1 (2.2)

Shared car ridership stays consistently high for the 2nd quarter running.

Impressive shared car usage in 2023 continues through Q2 and into Q3 2023.

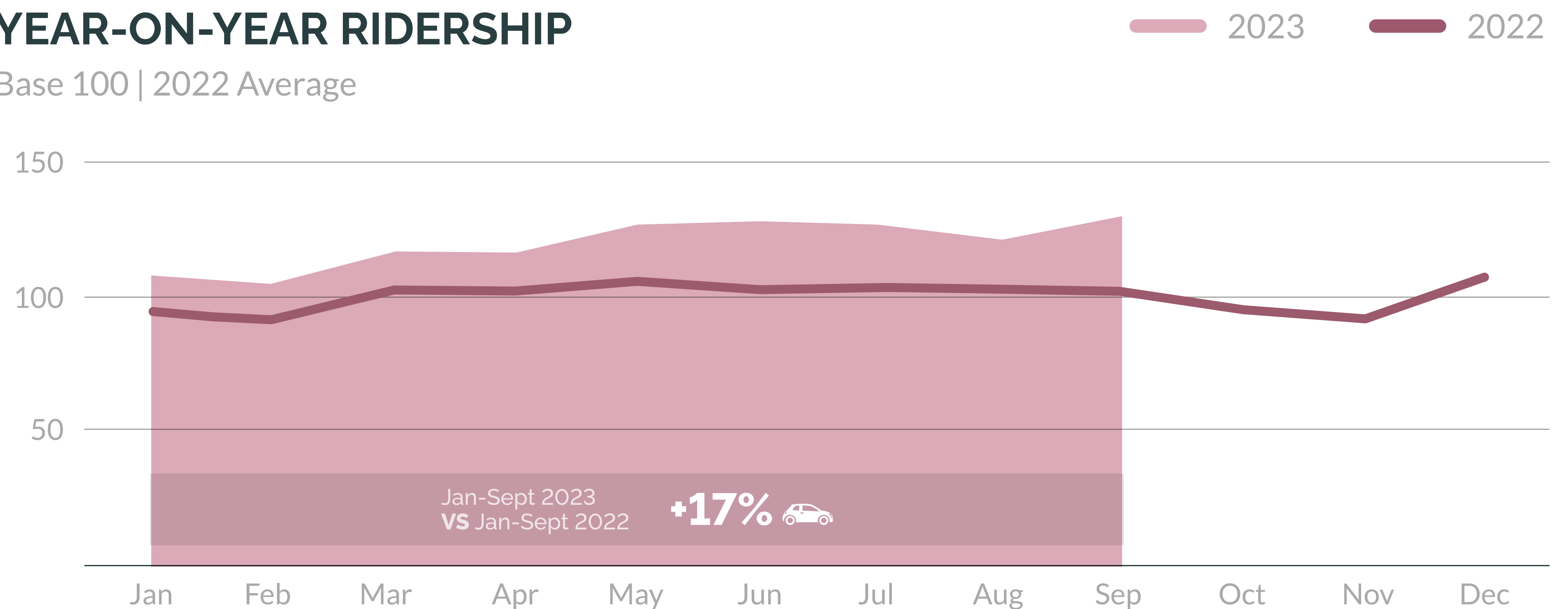
The emergence of Bolt Drive in Riga puts them at the top of the ridership growth charts, with Antwerp seeing the 2nd most growth due to the introduction of Miles Mobility. Brussels has also seen a big increase in ridership (and vehicle fleets), with Poppy scaling up to compete with newcomer Miles.

Budapest, the city that is home to the newly rebranded wigo (formerly Share Now Hungary), saw a growth in ridership compared to last year.

German cities continue to dominate the rankings for total ridership per city, with the exception of Madrid which recorded the 3rd highest shared car trips. Berlin's car sharing scene witnessed further growth in Q3 2023: there are now 30% more shared cars on the streets than this time last year.

YEAR-ON-YEAR RIDERSHIP

Base 100 | 2022 Average



BRUSSELS

BELGIUM



OVERVIEW

Q3 2023

Urban population

1,200,000

Population density

7,600/km²

Fleet size

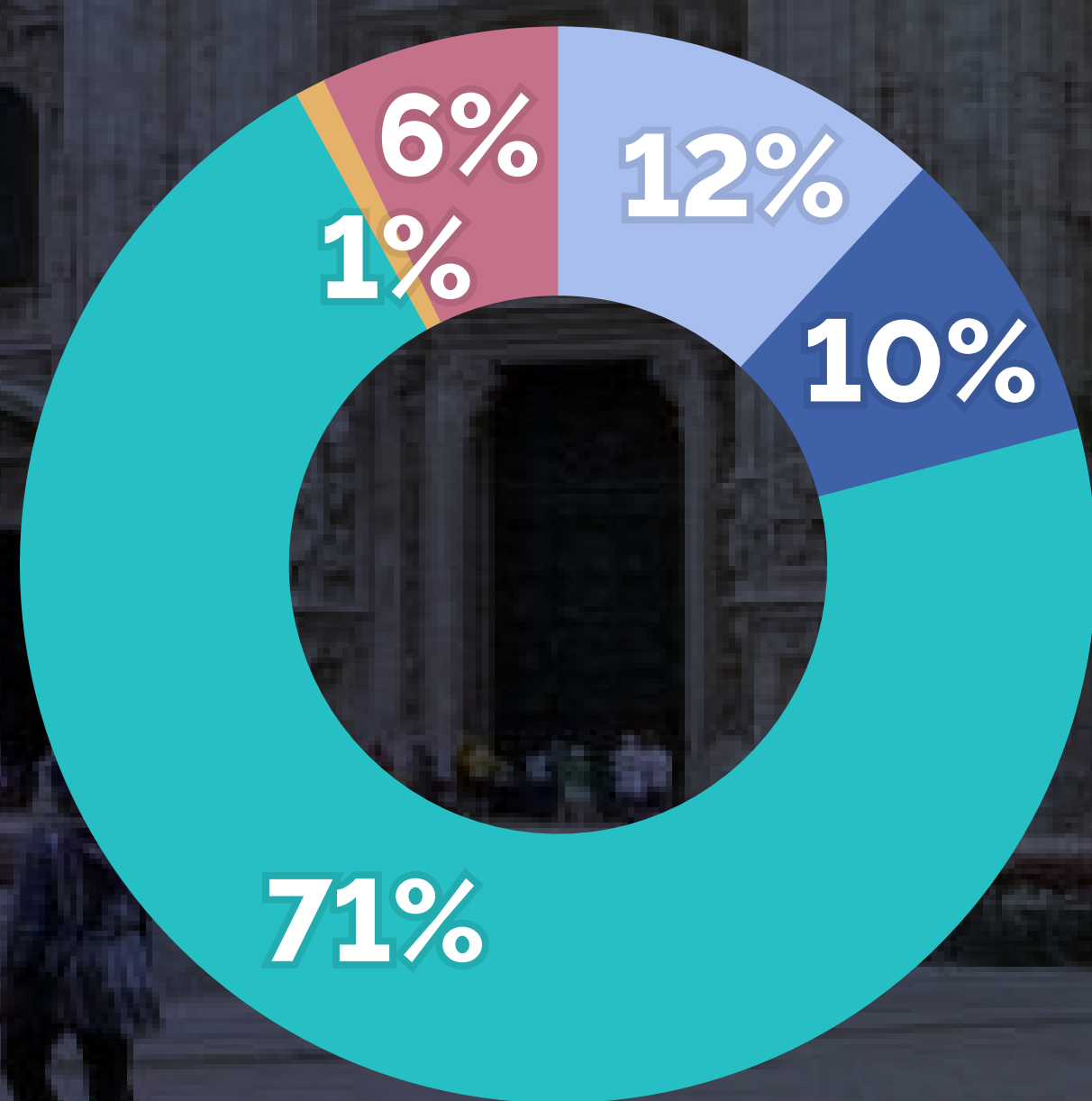
29,000

Number of services

22

SHARED MOBILITY BREAKDOWN

Q2 2023



Brussels has more shared scooters than any other European city, save Berlin. With 20,000 scooters and 9 operators, the over-saturated market was creating significant parking challenges and unwanted friction with pedestrians and citizens. Something had to give.

For some time, Brussels has been waiting for legislation to come into effect to be able to restrict the number of operators in the city. This legislation came into place in 2023, and a tender was announced in July to find two scooter operators that would each operate a fleet of 4,000 vehicles.

With 12,000 fewer scooters on the streets, Brussels expects that there will be more demand for bikes, cargo bikes and mopeds. Five companies currently run dockless bike schemes, but few operate at the scale necessary to make a market like Brussels profitable. Three operators will be chosen to operate a total of 7,500 dockless bikes as part of the new-look mobility ecosystem. Two fleets of cargo bikes will also be welcomed into the city.

Two moped operators will be awarded permits for 300 vehicles each. Currently, two companies hold permits, but only one of them is active in Brussels. This is largely because of the over-saturation of vehicles. Ideally, the tender will pave the way for a second moped company to consider the city as economically viable and give a second option to users.

TIMELINE

- October 2023**
Poppy cars become available throughout region
- July 2023**
Bodaz becomes 9th scooter operator
Bike, cargo bike, scooter and moped tender announced.
- May 2023**
Lime launches bikes
- April 2023**
Gliize becomes 8th scooter operator

Modes	Services	Vehicles	Vehicles per 10k inhab.
		3,500	29
		3,000	25
		20,000	167
		200	2
		2,000	17
TOTAL	22	28,700	-

MARKET & POLICY DEVELOPMENTS

Bird, TIER & Spin

Bird acquiring Spin from TIER revealed two things: Bird's primary focus on North American markets (despite winning important tenders in Vienna & Rome), and TIER's need to improve its cashflow. Much has been made of TIER's financial situation and, whilst there had been talks of a merger or buyout by other European operators, nothing has been confirmed.

Public bike-sharing returns to Poland

Public bike sharing systems have endured a tough few years in Poland, with many of them shutting down due to a lack of funding. However, there were two positive developments. Firstly, Mevo 2.0 in Tri-City is up and running, operated by Inurba Mobility. Secondly, the GZM confirmed a new nextbike scheme to serve the Silesia region in 2024. The service will become the biggest in the country with 7,000 bikes across 900 stations.

London's calling for Voi

Whilst the UK government stalls on shared scooter legislation, a second phase of trials began in September. These are mostly the same as before, but Voi have replaced TIER, and Dott and Lime have retained their licences. On the bike-sharing side, Forest (formerly Human Forest) and Lime have won significant tenders for dockless bikes, and Dott has withdrawn its bikes and moved them elsewhere (e.g. to Paris).

JULY

-  Brussels (BE)
Tender announced for bikes, scooters, mopeds and cargo bikes
-  Bordeaux (FR)
Private car trips down 20% whilst bike use doubles
-  Amsterdam (NL)
City commits to improving & expanding shared moped schemes
-  Stockholm (SE)
Ridemovi launches bikes following removal of Stockholm eBikes service
-  Rome (IT)
Shared mobility booms amid taxi shortage

AUGUST

-  Brussels (BE)
TIER & Poppy integrated on Floya MaaS app
-  Dublin (IE)
GoCar raises €10m to expand nationwide
-  Helsinki (FI)
Mandatory parking zones for scooters and bikes introduced
-  Budapest (HU)
AutoWallis Group acquires Share Now Hungary and rebrands as wigo

SEPTEMBER

-  Paris (FR)
Shared scooter ban comes into effect
-  Marseille (FR)
City decides to remove 1,500 scooters from city, with Bird forced to exit
-  London (UK)
Dott removes bikes from London, and Voi replaces TIER in scooter tender
-  Oslo (NO)
Over 8 years, 5,000 parking spaces have been replaced by 153km of bike lanes
-  Dublin (IE)
Bolt launches bikes

PARIS FRANCE



September saw the removal of all scooters from the French capital as the high-profile scooter ban came into effect. Dott, Lime & TIER slowly withdrew their scooters over July and August, and only their bike fleets remain.

Lime and Dott have both agreed on bike fleet expansions with the city of Paris, with the companies now operating 10,000 and 7,000 bikes respectively. The data shows that in September - the first month without scooters - dockless bike ridership doubled 2022 levels. The number of trips per vehicle per day looks very healthy for operators - if this trend continues, this will help the operators to recover their 'lost' revenue from scooters.

In addition, the long-awaited moped tender results were released over the summer. Cityscoot, Cooltra and Yego were all awarded permits, but there was no room for Troopy. Paris is a complex market for moped operators: there is clear demand, but the financial problems of Troopy - and now Cityscoot - suggest that there are other forces at play.

TIMELINE

- October 2023**
Dott increases size of bike fleet
- September 2023**
Scooter ban comes into effect
- July 2023**
Cityscoot, Cooltra & YEGO win moped permits
- April 2023**
Vote to ban shared scooters

MOBILITY LANDSCAPE

September 2022

Modes	Services	Vehicles	Vehicles per 10k inhab.
		17,000	81
		12,000	57
		15,000	71
		5,500	26
		1,500	5
TOTAL	16	51,000	-

September 2023

		18,000	86
		18,000	86
		4,500	21
		1,500	5
TOTAL	10	42,000	-

OVERVIEW

Q3 2023

Urban population

2,100,000

Population density

20,000/km²

Fleet size

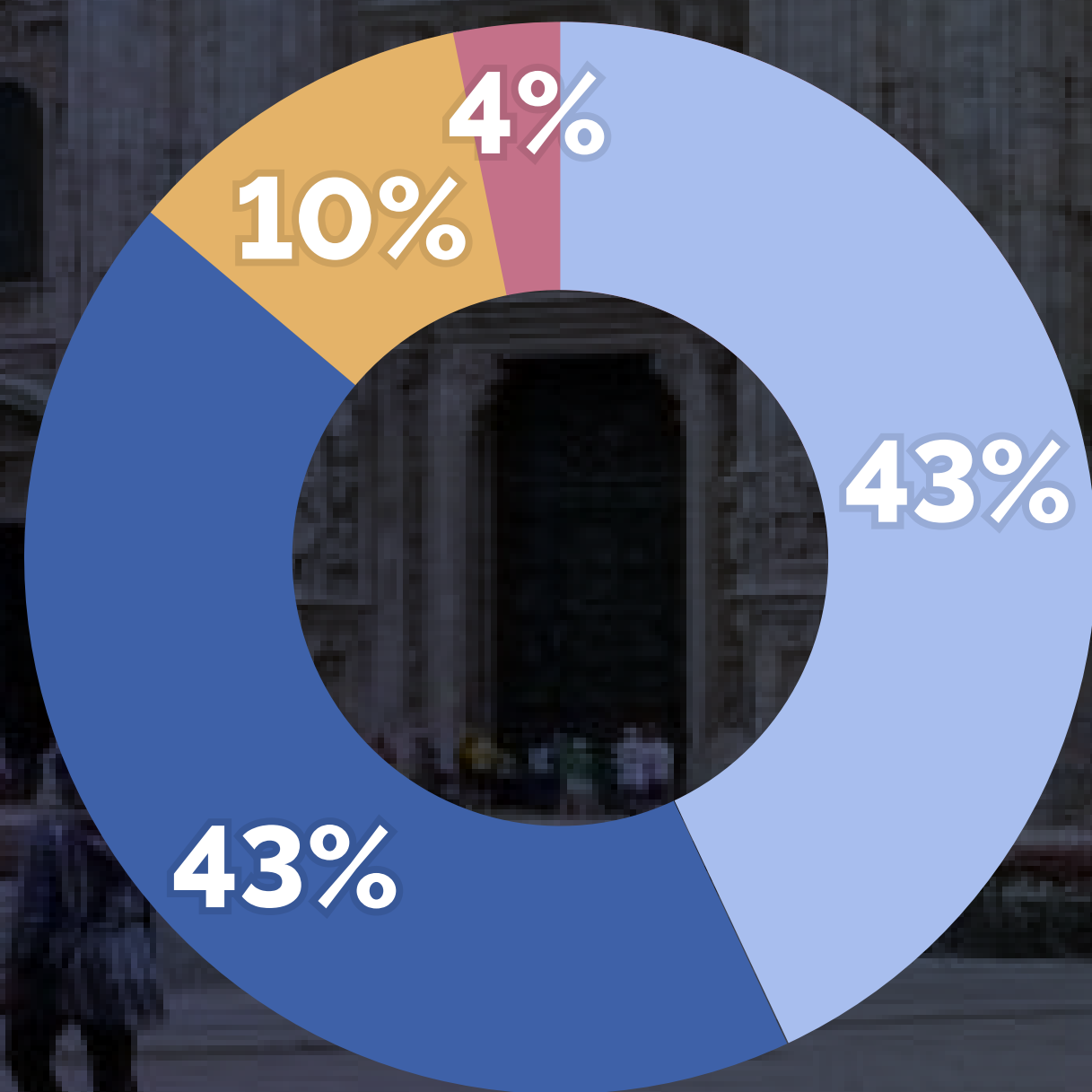
42,000

Number of services

10

SHARED MOBILITY BREAKDOWN

Q2 2023

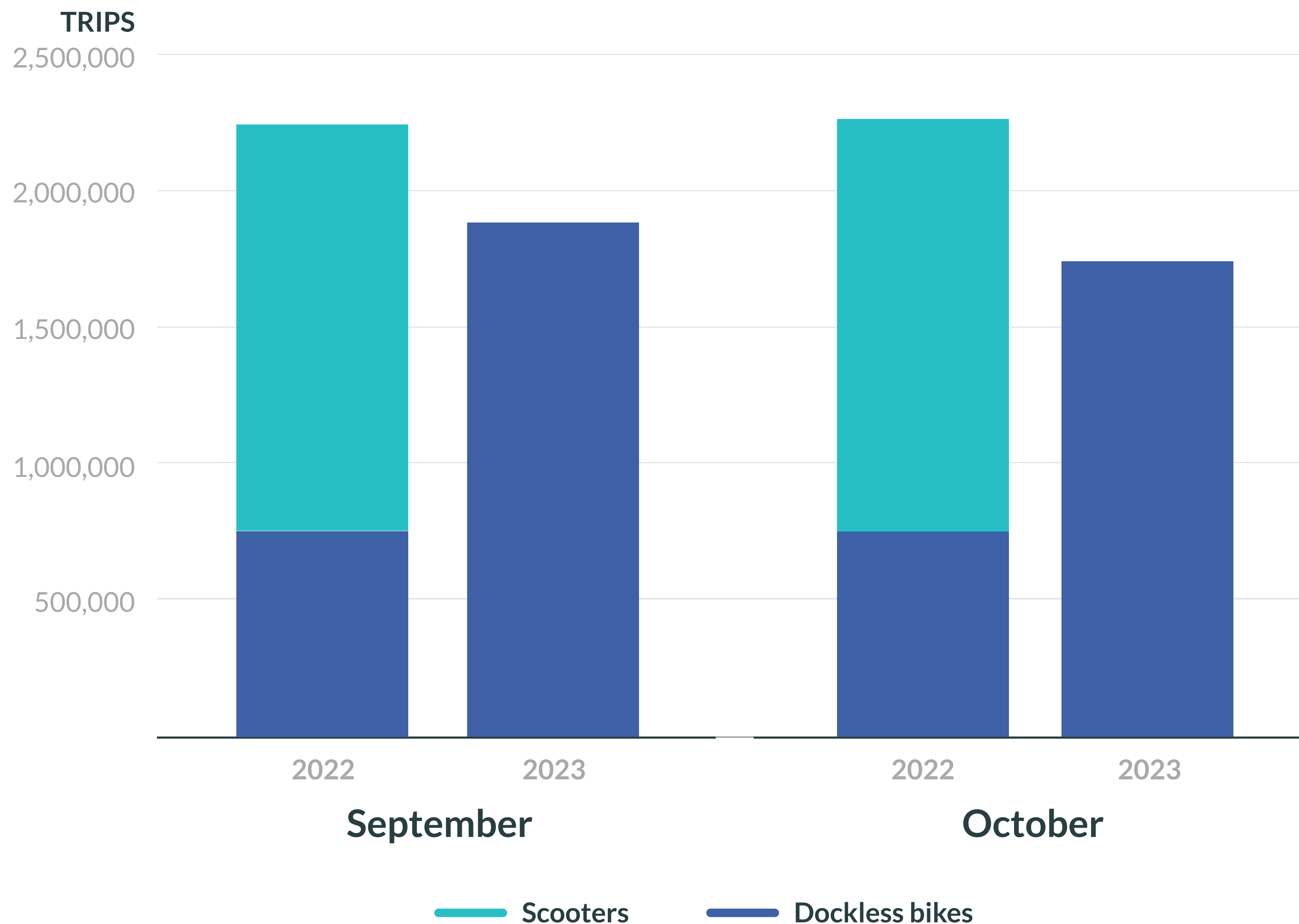


PARIS

SCOOTER BAN

DOCKLESS BIKE & SCOOTER RIDERSHIP IN PARIS

Q3 2023 & Q3 2022



When the scooter ban was announced, we believed that it would be a big financial blow for operators, given the increasing number of trips that were recorded every year in Paris since 2018. Operators managed to make up for lost rides and revenue with dockless bike ridership that more than doubled YoY in September (x2.5) and October 2023 (x2.3).

In September 2022, there were around 14,000 scooters on the streets, as well as 12,000 bikes recording a total of 2.25 million trips. In 2023, there were around 18,000 dockless bikes recording 1.9 million trips. It also means that the TVD for dockless bikes in 2023 was vastly superior (3.4 vs 2.0).

There are several explanations for this. Firstly, many Parisians and tourists have adopted dockless bikes as their preferred transport mode in the absence of scooters. Secondly, there was very good weather in September and October 2023, which is always key for high ridership numbers. Finally, Paris hosted 9 games of the Rugby World Cup throughout September and October, so there was a spike in the number of tourists visiting and moving around the city over the course of the tournament.

It bodes well for the future of mobility in Paris, despite the initial difficult reception for the decision.

	September 2022	September 2023	October 2022	October 2023
 TVD	2.0	3.4	2.1	3.2



METHODOLOGY

The European Shared Mobility Index gives an overview of the entire European market. An analysis of 33 European cities selected to highlight diversity in size, geography and market characteristics serves as the basis for the overall report allowing us to calculate ridership trends.

The Index encompasses shared bikes, scooters, mopeds and cars. Ride-hailing services (e.g. Uber, FreeNow), car-pooling (e.g. Klaxit, BlaBlaCar) and long-term rental services (e.g. Swapfiets) are not included. Regarding car sharing, only rentals by the minute, hour or day are included. Multi-day rentals are not included.

Vehicle and trip data was sourced directly from operators, open data sources, mobile applications and public announcements. Industry averages and some data extrapolation were used to fill remaining data gaps.

Companies who contributed financially to this report have not received any favourable treatment.

🔍 Please contact harry.maxwell@fluctuo.com for more

Shared mobility is essential for building cleaner, more livable cities.

Fluctuo is the leader in mobility enablement. We provide key stakeholders with the most exhaustive, accurate data on the market to accelerate the growth of shared mobility.



Looking for precise data points in specific cities? Get in touch with us to request access to high-level data on available vehicles, vehicles used, trip distance, trip numbers and more. Fluctuo also provides geospatial data to understand demand and supply in cities across Europe.

[Request datasets](#)

THANKS TO

ARVAL (Amélie Phelip & Simon Coppenolle)
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