Shared e-scooters in Paris

A valuable contribution for sustainable urban mobility or just a nuisance?

01

Understanding the e-scooter context

Once upon a time ... June 2018

Shared e-scooters were supposed to replace trips made by car…. according to operators


Surveys and studies have been made in Paris since...

City context - Key figures

	IDF Region	Métropole du Grand Paris	City of Paris	City of Rome	City of Barcelona	City of London	City of Berlin
Area in km²	12 000	814	105	1 285	101	1572	892
Population	12 m	7 m	2.2 m	2.8 m	1,6	8,9 m	3,7 m
Density per km²	1 000	8 600	**20 000**	2 213	16 000	5667	4203
Jobs	6.3 m	4.2 m	1.8 m				

Jurisdiction

The organizing authority for transport and mobility is the Region

- The city of Paris has responsibility for :

    - traffic and parking regulations
    - roadway and public space maintenance

Regional level
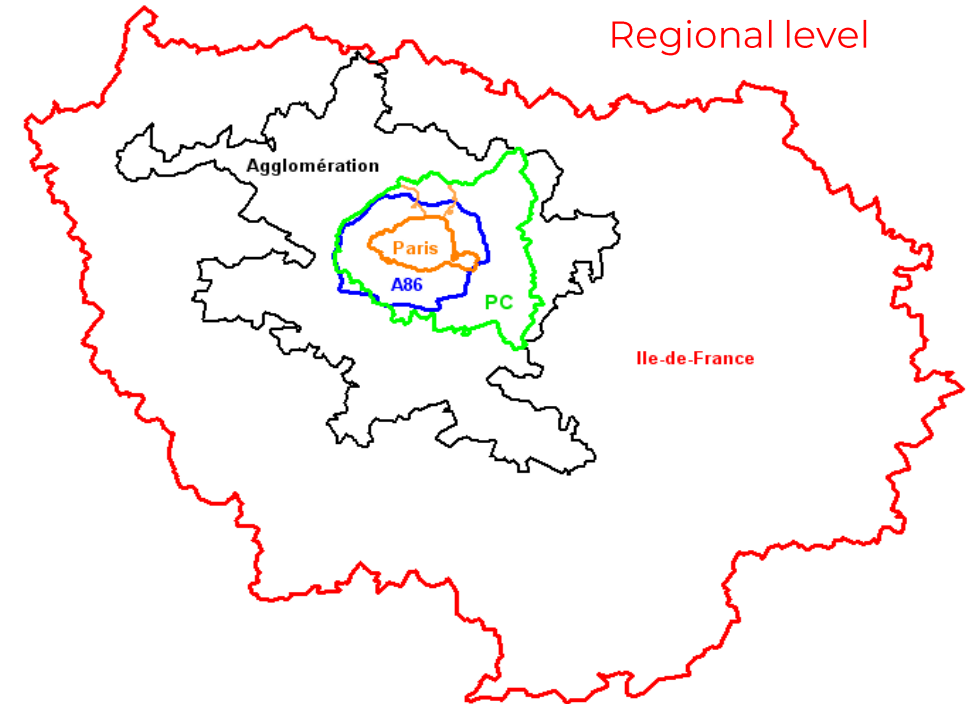
Mobility patterns in Paris

- High-quality and dense public transport system

- More than 1000 km bikes lanes in 2020

- Carsharing offers (station based for round trip and FF basis)

Only

- 33,6 % of Parisian households own a car*

- 11% of economically active Parisians commute by car*

An ideal environment for shared micro-mobility

- **Vélib' and Vélib' Métropole : docked-bike public service** since 2007

20 000 bikes (40% e-bikes)

>1000 stations in Paris every 300 meters

10 trips/bike/day during high season

- **Shared Micro–mobility: private supplies**

+35 000 dockless vehicles/devices (mopeds, e-scooters, bikes)

PARIS

* INSEE 2018
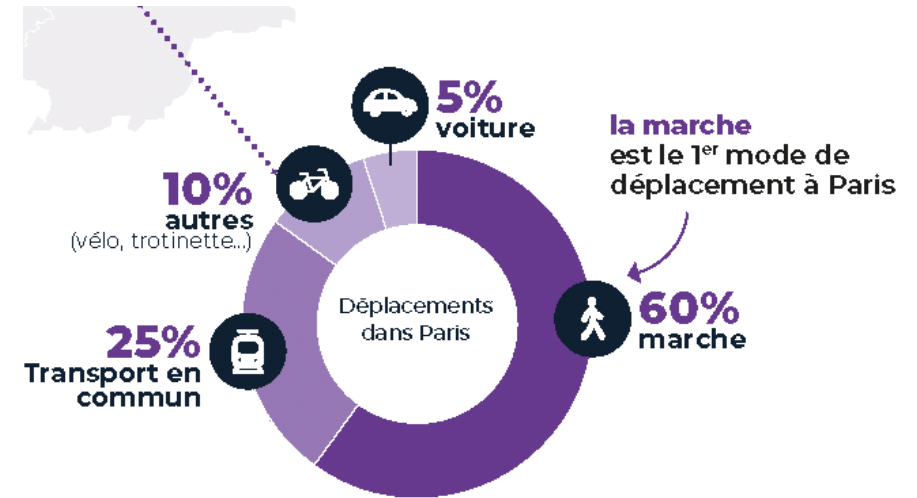
Lack of legal national framework until 2019

A progressive regulation starting from charters of good conduct to tenders

2018

2019

2023

1st e-scooter

April
Fee regulation

May
Charter of Good Conduct

July
Implementation of Operational permits

No prescriptions but data sharing becomes mandatory

October
National decree defining "powered personal mobility devices" in the Highway code

December
National legal framework : French Mobility Orientation Law (LOM in French)

Allows cities to instore some requirements specifications when delivering operational permits
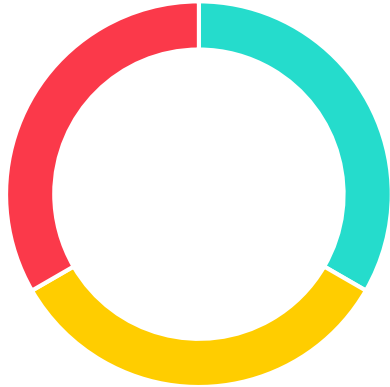
A tender was launched to cap fleets

89% of Parisians voted to stop with shared e-scooters

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From September 2020 : 15 000 shared e-scooters – 5000 per operator

15 000 shared e-scooters

■ Dott ■ Lime ■ Tier

2 years permit (but extended for 6 and 5 months)

Main criteria selection

- safety for users (30%)

- environmental responsibility (40%)

- ability to manage and maintain their scooter fleet (30%)

Annual fees voted in 2019: average fee **61€ per e-scooter**

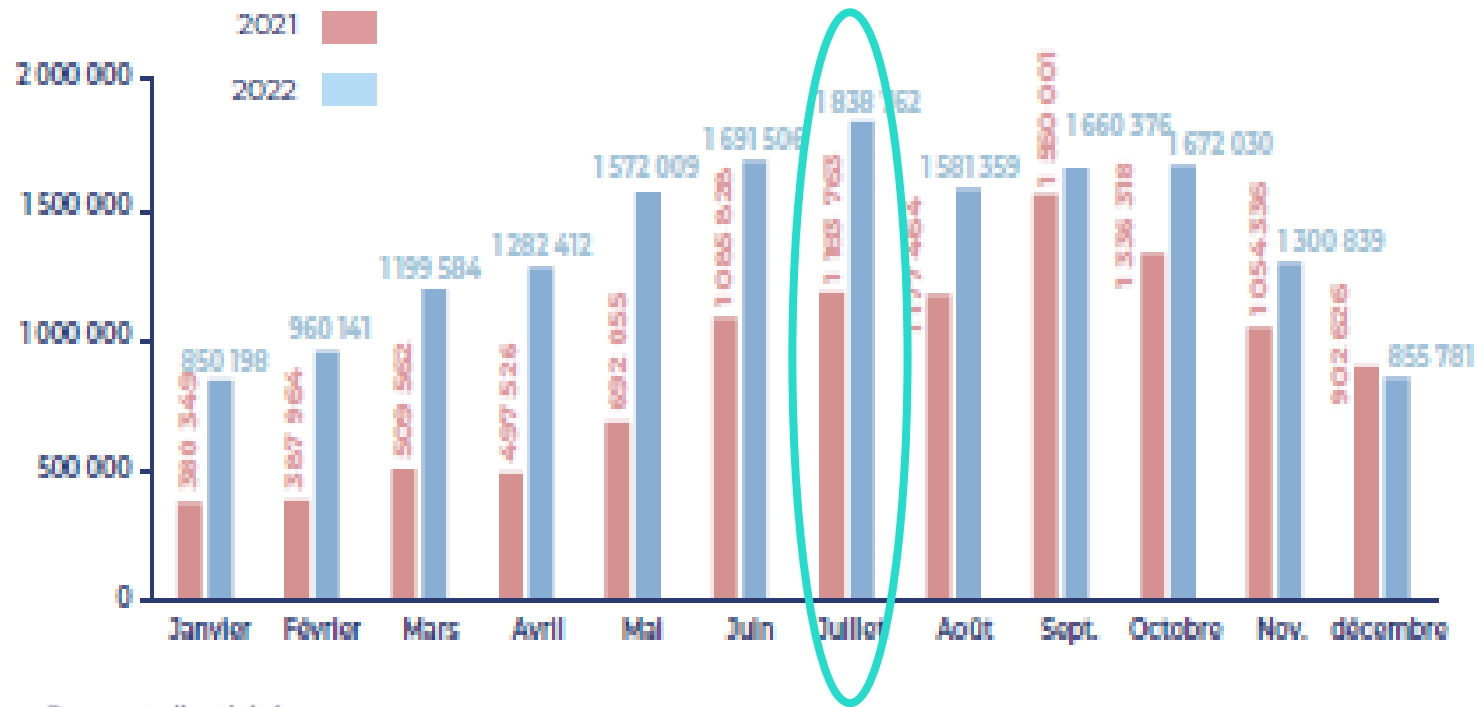Yearly revenue for the City: **907 000 €** (300 000 € per operator)

Speed : 20km per hour as per a mutual agreement

Parking : only allowed on the parking spots on a contract basis **Operators should use 1/3 of each spot**

PARIS

Paris : the place to be for shared e-scooters

- The number of trips increased by 52,5% from 2021 to 2022
- 16 500 000 trips in 2022 according to operators
- 60 000 trips per day in July 2022: almost 4 trips per e-scooter per day

Legend:
- 2021
- 2022

Chart values (2022, blue bars): Janvier 850 198, Février 960 141, Mars 1 199 584, Avril 1 282 412, Mai 1 572 009, Juin 1 691 506, Juillet 1 838 162, Août 1 581 359, Sept. 1 660 376, Octobre 1 672 030, Nov. 1 300 839, décembre 855 781

Source : Rapport d'activité des opérateurs (Dott, Lime et Tier) transmis à la Ville de Paris

In 2022 trips are longer :
Average distance : 2,62 km
Average duration : 14,3'

Male, young people and executives are highly represented among users

- 29% of students would use e-scooters and only 12% would use Vélib' (12%).
- According to previous surveys there is a democratisation for this modes

Paris invested 1,9 millions € to create 2500 parking spots for 15 000

Data was used to define parking location every 150-200 meters. E-scooters were no longer allowed to be parked on the sidewalk. Parking in the specific spots became mandatory according to the permit.
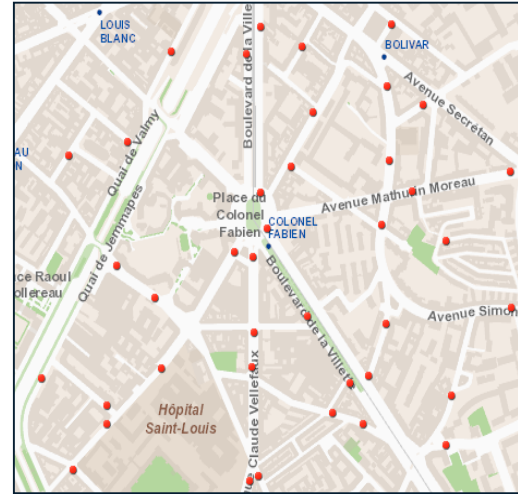
5-6 parking places for each spot : up to 15000 parking places

No parking spots in central and pedestrian areas

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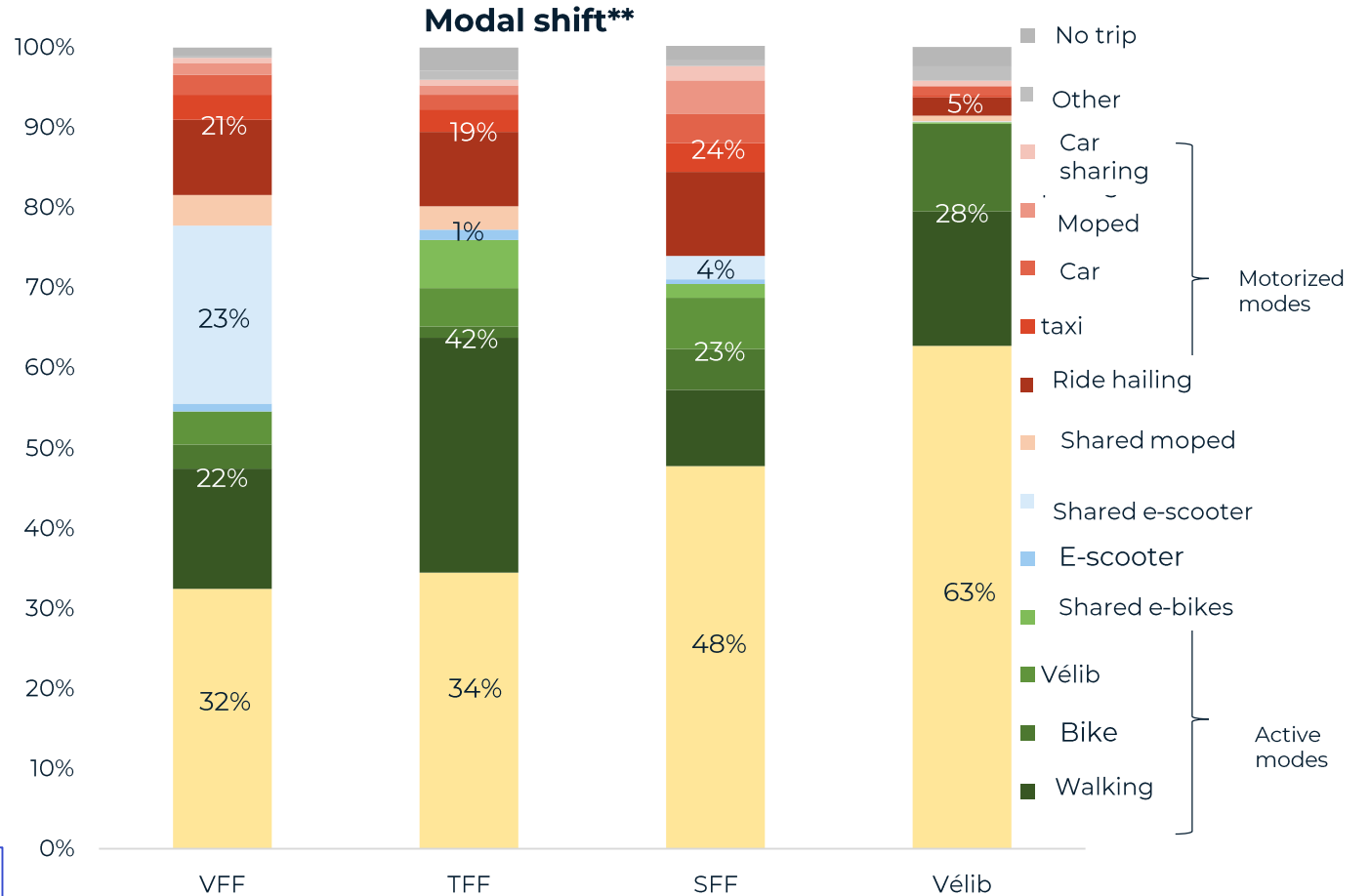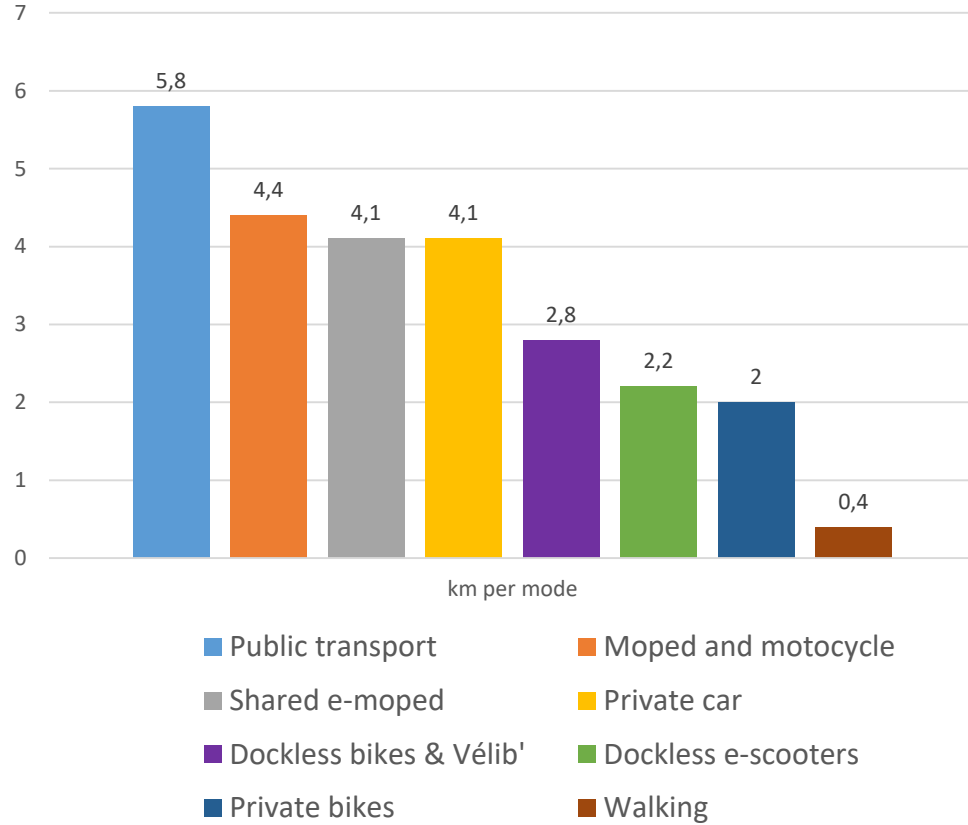# Still, non-compliance with parking obligations

02 Which micromobility (MM) should be enhanced in a dense city like Paris?

How to boost active & more sustainable MM modes where public space is rare?

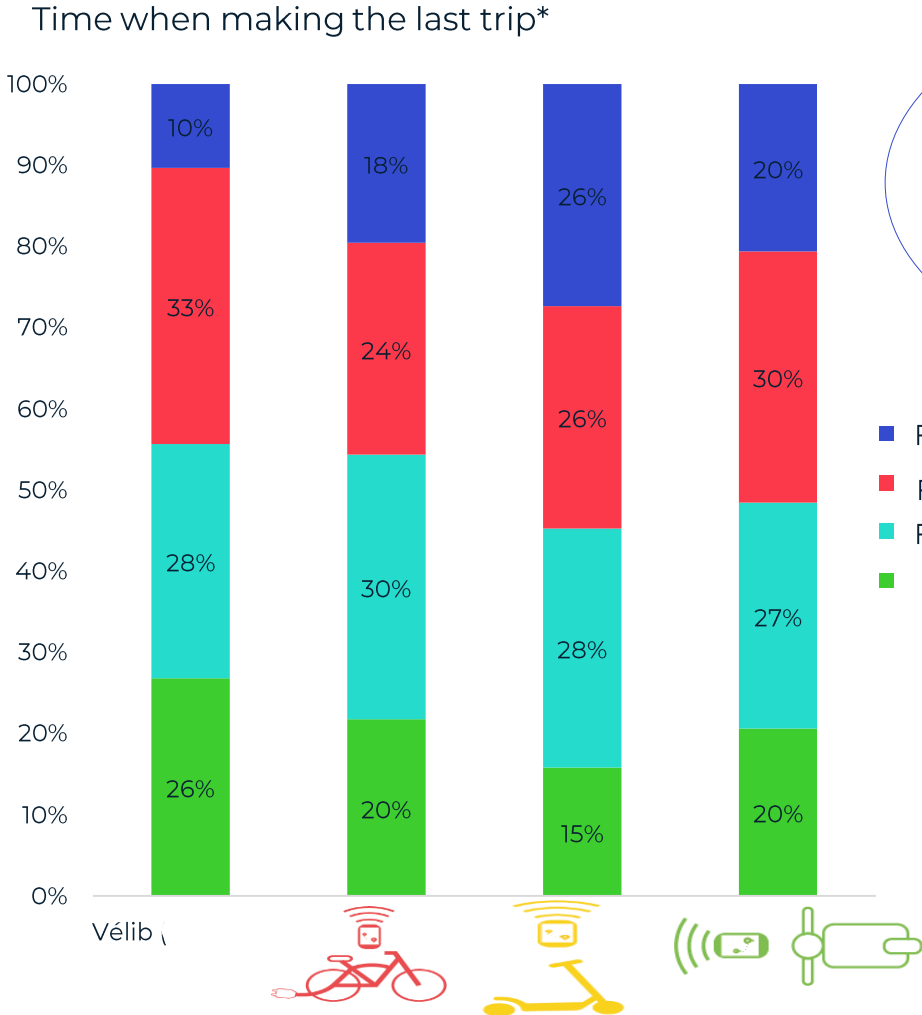## Average trip distances per mode (km)*

Bar chart (km per mode):
- Public transport: 5,8
- Moped and motocycle: 4,4
- Shared e-moped: 4,1
- Private car: 4,1
- Dockless bikes & Vélib': 2,8
- Dockless e-scooters: 2,2
- Private bikes: 2
- Walking: 0,4

Legend:
- Public transport
- Moped and motocycle
- Shared e-moped
- Private car
- Dockless bikes & Vélib'
- Dockless e-scooters
- Private bikes
- Walking

Uses and users are different when comparing shared e-scooters with owned e-scooters

Modal shift**

Stacked bar chart values:

	VFF	TFF	SFF	Vélib
	32%	34%	48%	63%
	22%	42%	23%	28%
	23%	1%	4%	5%
	21%	19%	24%	

Legend (top to bottom):
- No trip
- Other
- Car sharing — Motorized modes
- Moped
- Car
- taxi
- Ride hailing
- Shared moped
- Shared e-scooter
- E-scooter
- Shared e-bikes
- Vélib — Active modes
- Bike
- Walking

Note de lecture : Sur 100 déplacements en VFF, 32% aurait été réalisés en TC en l'absence de ce mode.

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Which shared MM should be increased to improve daily commute?

Shared e-scooters are mostly used in the evening & by night

Time when making the last trip*

	Vélib	🚲	🛴	🛵
From 9 PM to 7 AM	10%	18%	26%	20%
From 5 to 9 PM	33%	24%	26%	30%
From 11 AM to 5 PM	28%	30%	28%	27%
From 7 to 11 AM	26%	20%	15%	20%

Legend:
- ■ From 9 PM to 7 AM
- ■ From 5 to 9 PM
- ■ From 11 AM to 5 PM
- ■ From 7 to 11 AM

52% of trips done by shared e-scooters are mostly done in the evening and by night for leisure purposes.

Vélib' is mostly used during peak hours and specially in the evening for commuting.

Legend (pie charts):
- ■ Work
- ■ Leisure
- ■ Personal business
- ■ Studies
- ■ Shopping
- ■ Escorting
- ■ Other

Shared e-scooters

- 39% Work
- 31% Leisure
- 15% Personal business
- 9% Studies
- 4% Shopping
- 1% Escorting
- 1% Other

Shared bikes

- 56% Work
- 19% Leisure
- 15% Personal business
- 8% Studies
- 2% Shopping
- 1% Escorting
- 0% Other

Shared mopeds

- 67% Work
- 13% Leisure
- 13% Personal business
- 4% Studies
- 1% Shopping
- 1% Escorting
- 1% Other
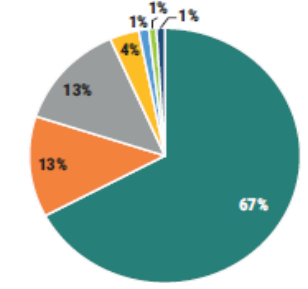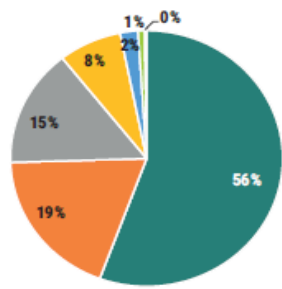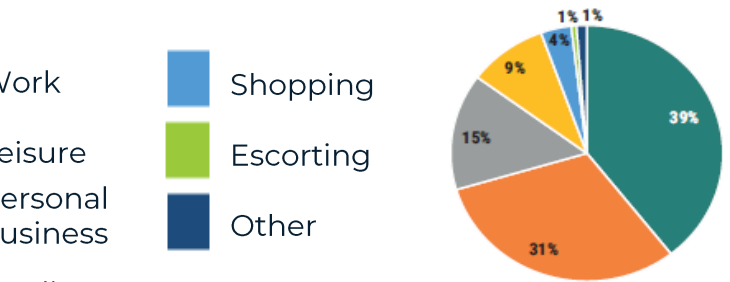
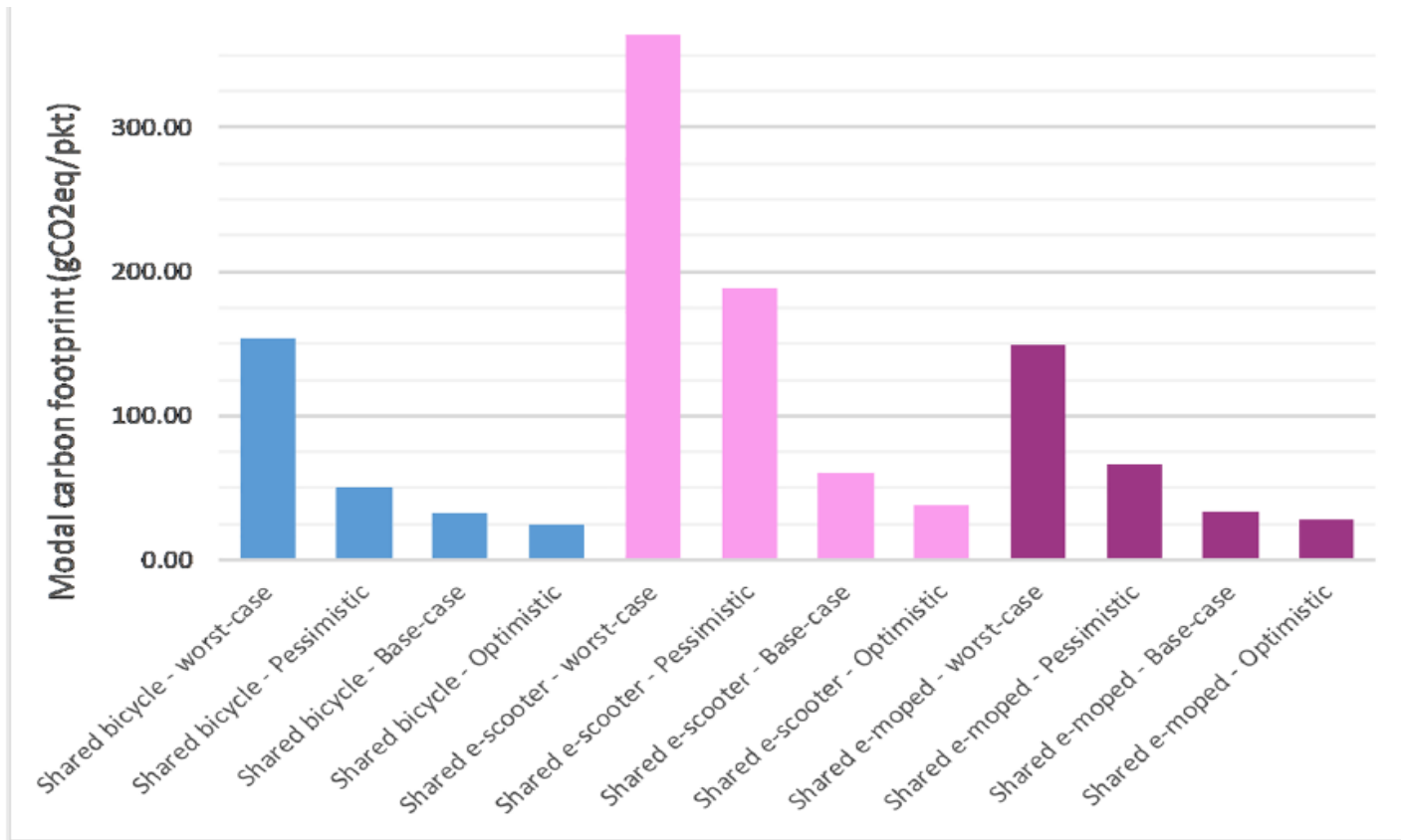Mopeds followed by bikes are mostly used to commute**

PARIS

Which shared MM should be enhanced to reduce environmental impact?

In Paris, shared bikes have a better environmental impact followed by mopeds

Carbon footprint of the shared micromobility modes depending on lifespan scenario*

Fig. 4. Carbon footprint of the shared micromobility modes depending on the lifespan scenario.

How do batteries affect the environment?

What are the associated costs?

*« Transportation Research Part D - Environmental performance of shared micromobility and personal alternatives using integrated modal LCA « - Anne de Bortoli

2023 IMPACTS - Paris

Merci

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Celebrities like Amelia Earhart | European suffragettes | Middle-aged businessmen | Mailmen and police officers