

Micromobility
Challenges and Opportunities
The Perspective of Polis Cities & Regions

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Peer-to-peer exchange

Policy

Research

Innovation

78 Cities & regions

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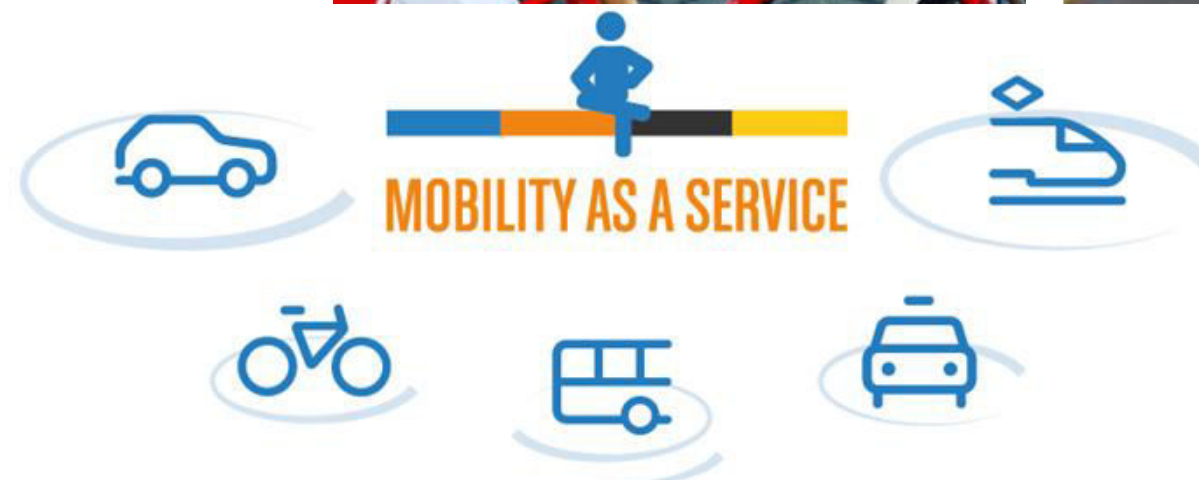
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POLIS
CITIES AND REGIONS FOR TRANSPORT INNOVATION



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Towards a transport transformation...?





System approach

Public transport &
active travel as
backbone

**Mix of modes with
multiple benefits**

Changing role of the local authority

Multi-faceted

- Policy formulation
- Rules and regulation
- Service delivery
- Traffic management

Expanding role profile

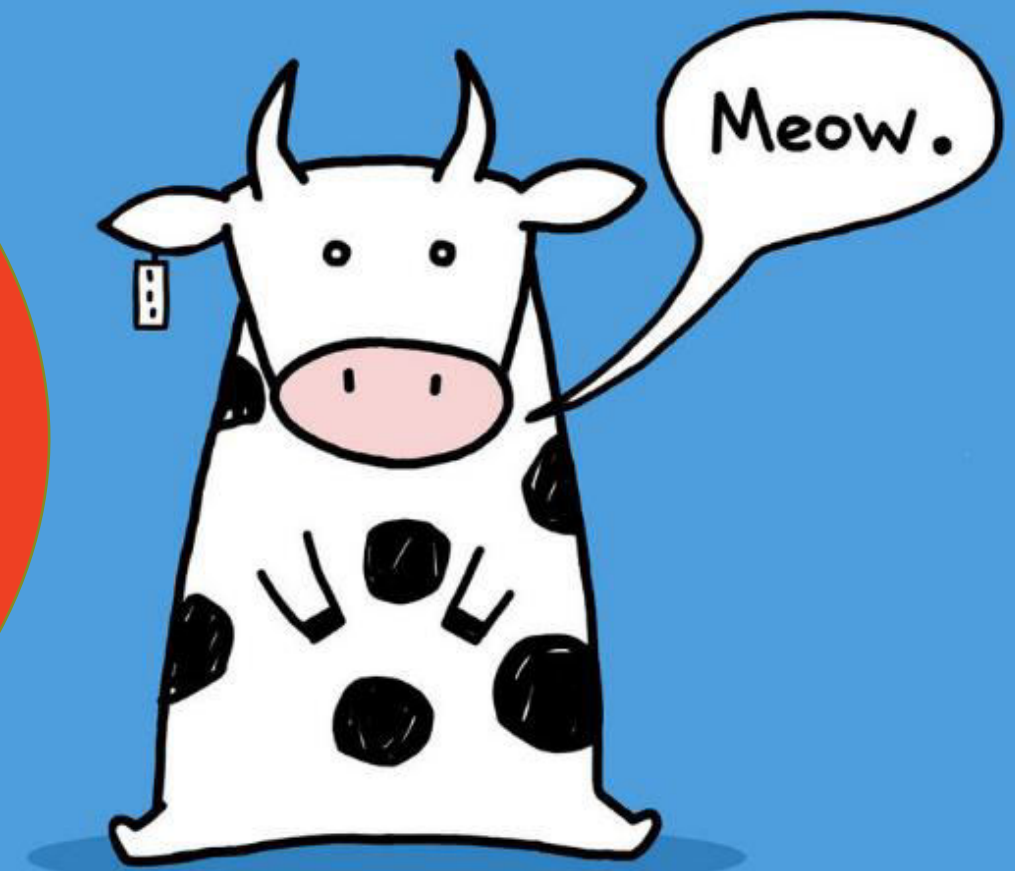
- New mobility services
- Open data

Changes in customer expectations

Technological advances

What should be the role of the local authority in the transport system of tomorrow?

© Sebastien Millon



Identity crisis.



Regulate to innovate!

Anticipate

Build understanding of possible impacts

Identify where innovation can deliver positive outcomes and where there are risks

Talk & cooperate – ppp's, new business models

Define measures - policy, financial, regulatory - to maximise opportunities and minimise disbenefit

Carrots & sticks

Lead by example

Need for public sector oversight

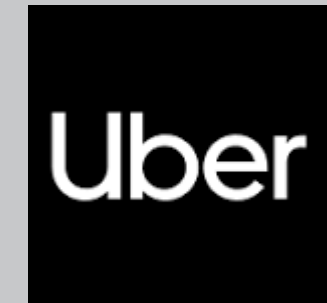
Cities should be in the driver's seat!



Dialogue

- Dublin
- Ile-de-France
- Leuven
- London
- Paris
- Manchester
- Emmen
- Madrid
- Lille
- Aarhus
- Czestochowa
- Rome
- Budapest
- Gelderland
- Norwegian Road Authority
- London Councils
- Lisbon
- Noord-Brabant
- Barcelona
- Arnhem - Nijmegen
- Brussels

- International Transport Forum
- Open Transport Partnership & Shared Streets
- German Marshall Fund of the United States

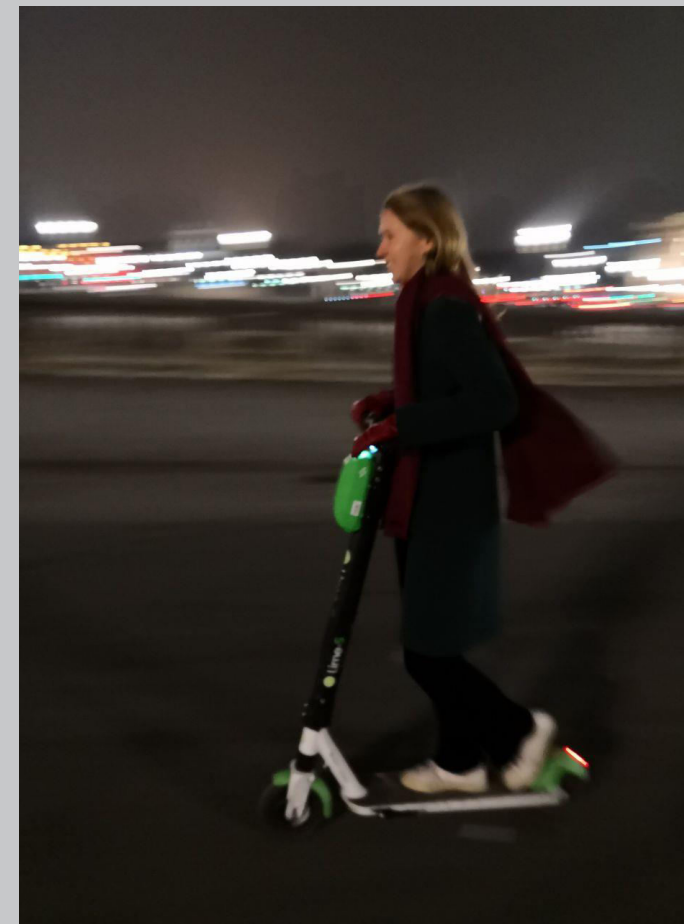




Micromobility

Linking into key policy areas & public authority interventions such as:

- Electromobility: extending range of cycling
- Urban space & parking management
- Active travel including safety & health
- Environment & congestion: Modal shift
- Data sharing and integration





Electromobility



Micro-Mobility

Public Transport

Vehicle-Sharing

Multimodal



The public authority as urban space manager

Land use planning -
densification

Prioritising modes
through space
reallocation

Pricing space

Parking

Dynamic kerbside
management





Active travel

Multiple gains

- cleanest modes
- fighting sedentary lifestyles
- tackling obesity
- quality of life

Collect evidence

Prioritise: Make space

- street design
- dedicated infrastructure

<p>New public square improves mobility and accommodates 700 more people during rush hour</p>	<p>Narrowing roads to reduce crossing distance for pedestrians does not increase congestion</p>	<p>Pedestrian improvements reduce bus travel time by 40%</p>
<p>New pedestrian plazas reduce journey times for taxis and buses by 15%</p>	<p>Cycling improvements lead to 45% less car traffic and faster public transport</p>	<p>Cycle highway reduces time spent in congestion by 3.8 million hours</p>
<p>Cycle highway network reduces the need for 50,000 motor vehicle journeys daily</p>	<p>Bike share programme eases congestion during city works</p>	<p>Bike share programme reduces congestion by 4%</p>
<p>New bike lanes shorten automobile travel times by 35%</p>	<p>Car-free zone leads to almost 30% fewer inner-city cars</p>	<p>Neighbourhood access restrictions lead to 10,000 fewer motor vehicle journeys a day</p>
<p>One million daily journeys could be walked in less than 10 minutes</p>	<p>6.47 million journeys made by motorised modes could be cycled in less than 20 minutes</p>	<p>School Streets programme keeps over 4,000 cars off the road during peak period</p>





Active travel

Extending the range:

- e-bikes, supercycle highways
 - Aarhus: high-quality commuter cycling routes with increase of number of cyclists using the route of 20 to 30 % in two years
- e-scooters...?
 - though not health benefits of cycling and walking...
 - where do they fit? safety concerns
 - parking





The impact of free-floating bikes on active travel

ADEME study in Paris (2018)

1/5 is a student

60% < 35 year-old

2/3 are men

68% are executives

40% never used the bicycle before

63% are now
(sometimes/often) walking
more to find an available
bike

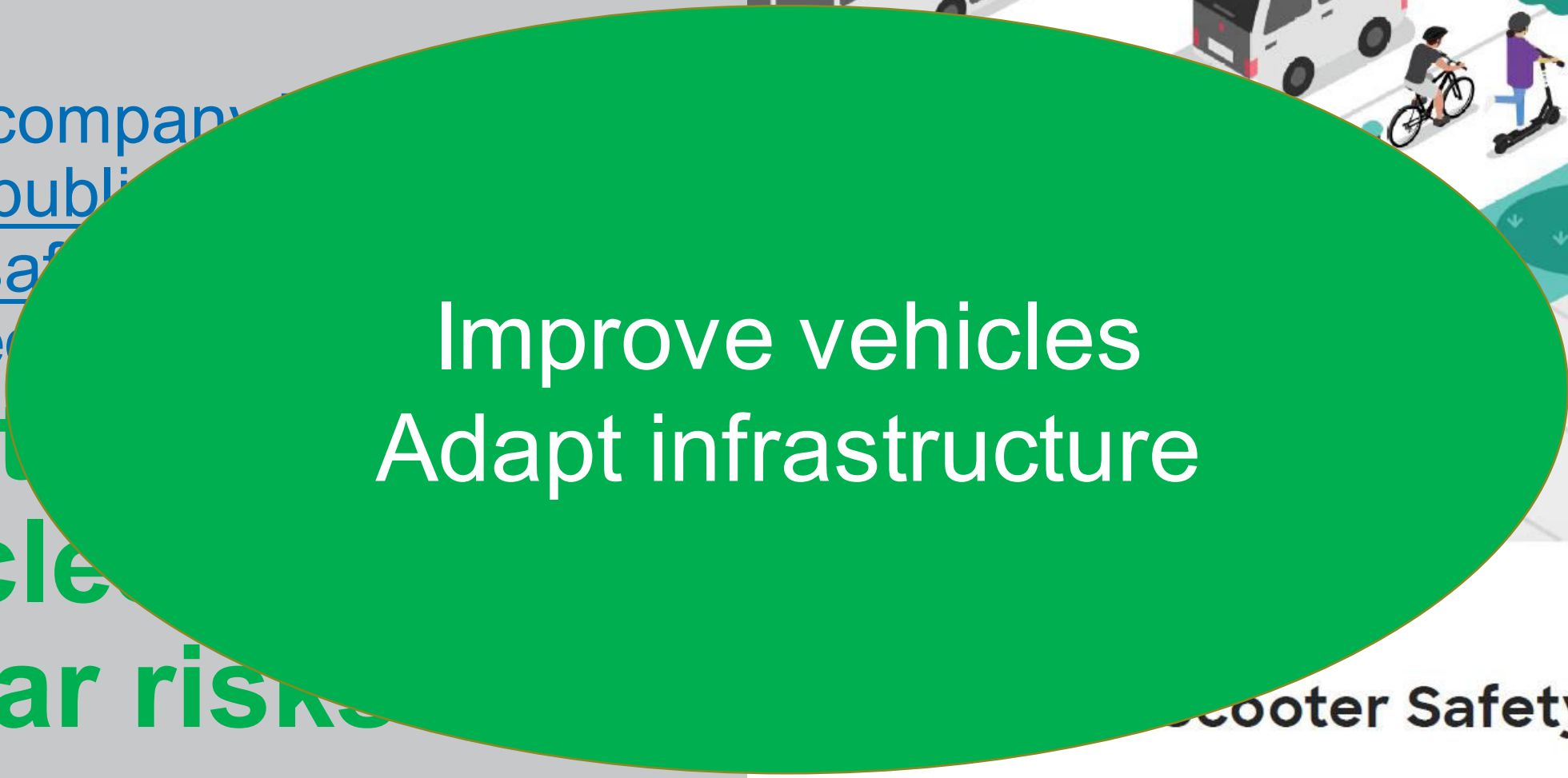
55 % had never used Vélib' before



E-scooter safety

Scooter company
recently publi
scooter saf
conclude

scooter
bicycle
similar risks



Improve vehicles
Adapt infrastructure



E-scooter Safety

Examining risks, reviewing responsibilities,
and prioritizing prevention

April 2019



Bikes

(2017 study in high-income countries)

59 emergency
department visits per 1
million miles cycled

Bird

(based on injuries reported directly to
Bird by riders)

reported an injury rate
of 38 injuries per 1
million miles for
scooters

Environment & Congestion: Modal shift?

Complement not compete with traditional mass transit

- Fill service gaps
- Specific target groups, specific areas, last mile

Modal shift

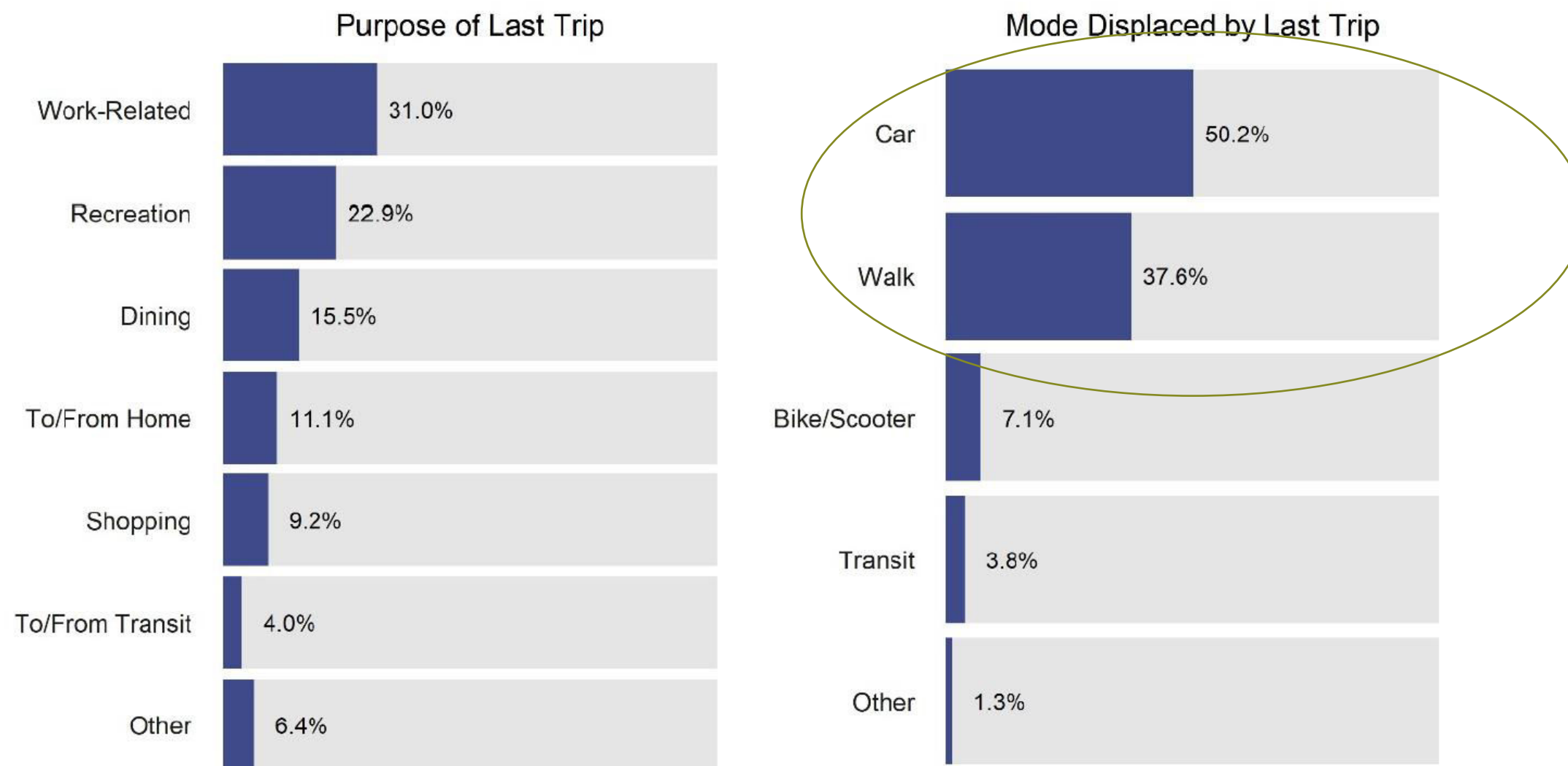
- Undesired modal shift?
- Need for evidence on actual impact of new mobility services on modal shift





Modal shift

Figure 3 Travel Habits and Travel Behavior: Purpose of last trip and mode displacement



City of Santa Monica

Shared Mobility Device
Pilot Program

User Survey Results

Conducted 01-25-2019 to
02-15-2019



Modal shift

Lisbon, Portugal (EU)

Lime has worked hand in hand with officials in Lisbon to craft a solution that fits the city's unique transit needs, and it's paying off. In just two months, 53,000 riders in the Portuguese capital have traveled on Lime electric scooters.

Perhaps most striking is the number of riders here who report using Lime to commute to or from work and school. At 57%, Lisbon is the highest-rated city in this category.



53,000 RIDERS

9%

OF LIME RIDERS IN LISBON REPORTED TRAVELING TO/FROM SHOPPING OR ERRANDS DURING THEIR MOST RECENT TRIP

27%

OF LIME RIDERS IN LISBON REPORTED TRAVELING TO/FROM DINING OR ENTERTAINMENT DURING THEIR MOST RECENT TRIP

57%

OF LIME RIDERS IN LISBON REPORTED COMMUTING TO/FROM WORK OR SCHOOL DURING THEIR MOST RECENT TRIP

21%

OF LIME RIDERS IN LISBON REPORTED REPLACING A TRIP BY AUTOMOBILE (PERSONAL CAR, CARSHARE OR TAXI/ RIDESHARE) DURING THEIR MOST RECENT TRIP

21 % of Lime riders in Lisbon reported replacing a trip by car during their most recent trip



Modal shift

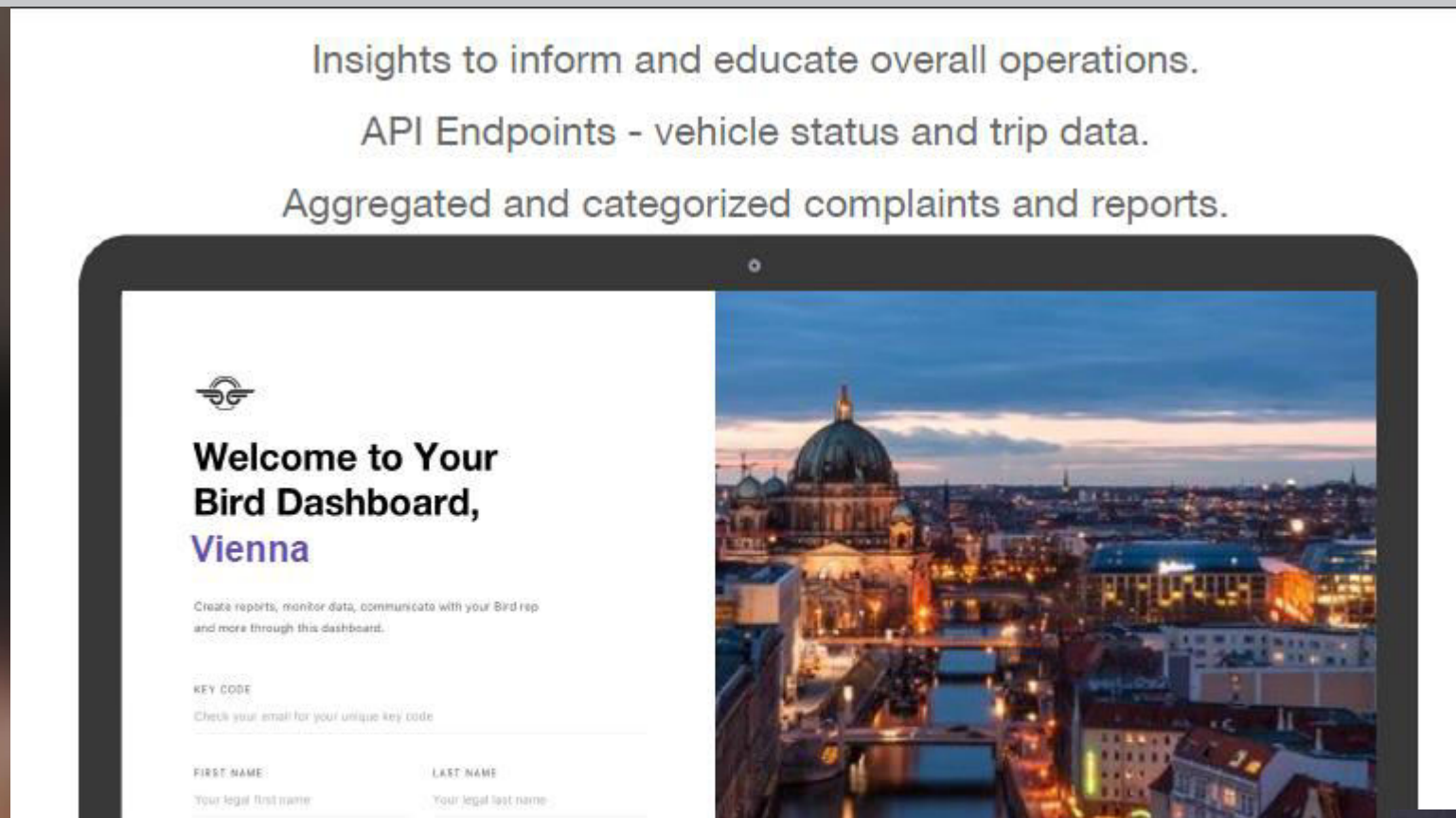
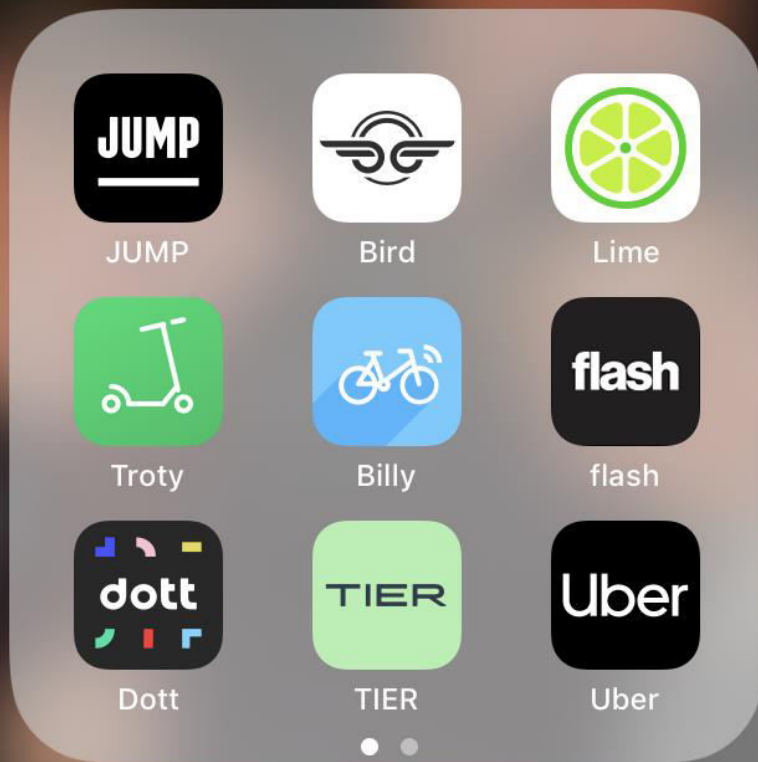
Survey by 6T among Lime users in Paris, Lyon and Marseille:

- 66% are men (cyclists: 60% men)
- 42% are tourists or visitors
- 53% higher positions, 19 % students
- 7% of users rent one every day, 1/3 once a week
- 39 % of trips during the weekend
- **How would trips have been made otherwise?**
 - 47% on foot, 29% by PT, 9% by bike; 8% by car.



Evidence-based decision making

Mobility services

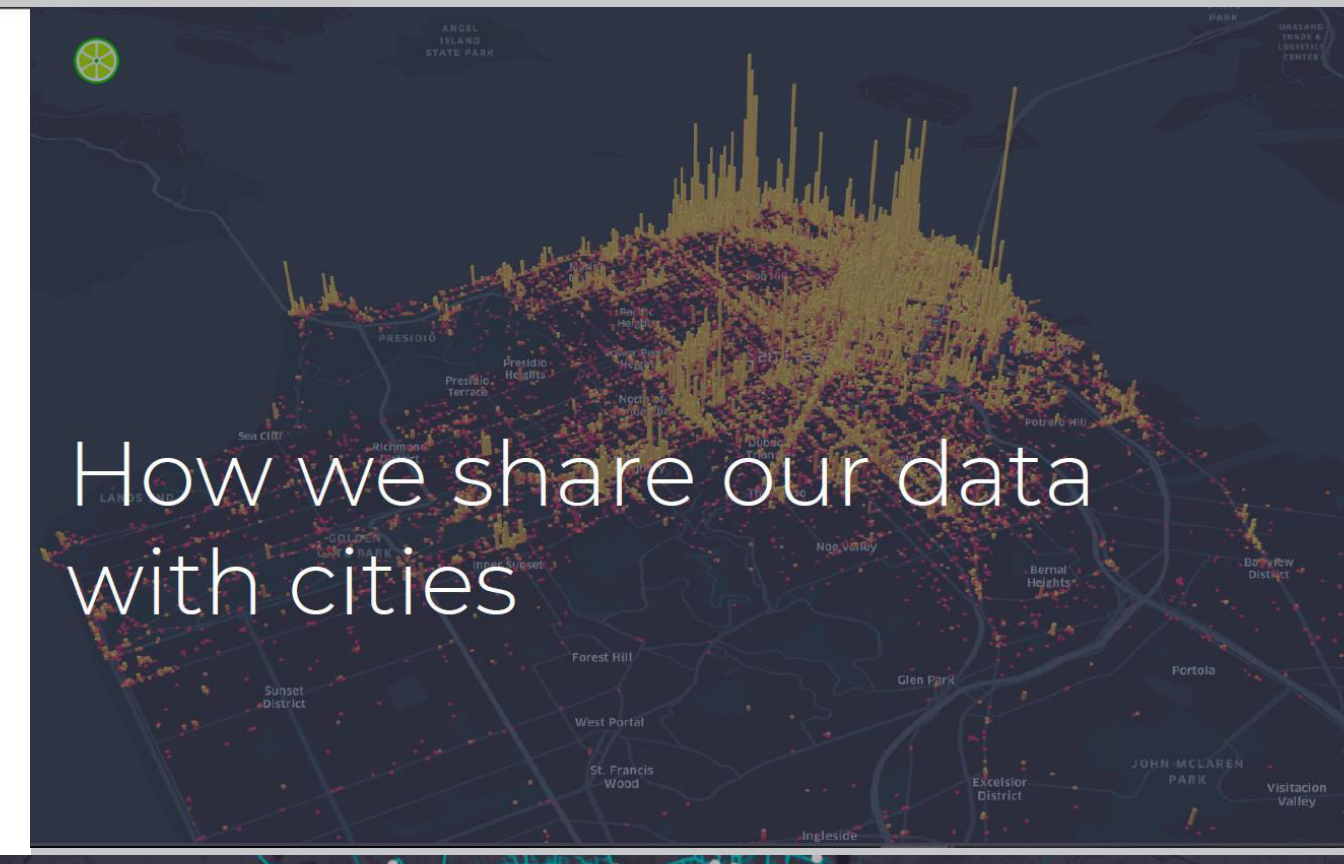


flash Flash - Pitch

DATASHARING FOR THE GREATER GOOD

Monthly data reports according to city needs

- top 10 most used streets without cycling lane
- % of trips starting/ending at PT stations
- accident spots
- etc...





Bikesharing

Public sector
Procurement

Private sector
Regulation

Dumb bike schemes



Dumb docked schemes



Smart docked schemes



Smart dockless schemes

Linked to stations, no intelligence

Recognising bikes & users, collecting data

Freefloating, dockless, smartphone apps, no infrastructure



Courtesy: bitride <http://www.bitride.eu>



Courtesy: BikeMI Comune di Milano





e-Scooters

- Massive and fast deployment, take-up & investments
- Infrastructure: where does it fit?
- National legislation to be adapted first
- Safety concerns
- First / last mile
- Street clutter?





Street clutter!



Governance & Regulation

First wave of dockless bikesharing

- Disruptive: lack of dialogue & cooperation with the city
 - Overnight and massive deployment
 - No prior agreement
 - No integration with local city strategy and potential competition with traditional schemes
 - Overcrowding urban space and bike parking, blocking the way of pedestrians
- Not adapted to the European market:
 - Low-quality bikes
 - Bad communication with customers

 **negative externalities requiring regulation**





Regulation

... aiming to maximise potential and minimise negative externalities

Different models / steps, or combinations of them:

- Hands-off approach
- Providing regulatory ground-rules
- Requiring operational permits/licences
- Contracts for concessions
- Pilots / demonstrations
- **Banning / not allowing operations**

Service providers are not against regulation, on the contrary!





Examples

Toulouse

- Deployment strategy & charter for free-floating bike and scooter shares
- Protect public interest: quality of service; management of public space
- Fixing desired volume of vehicles in circulation, fee to be paid to use public space
- Compliance with rules as prerequisite for deployment

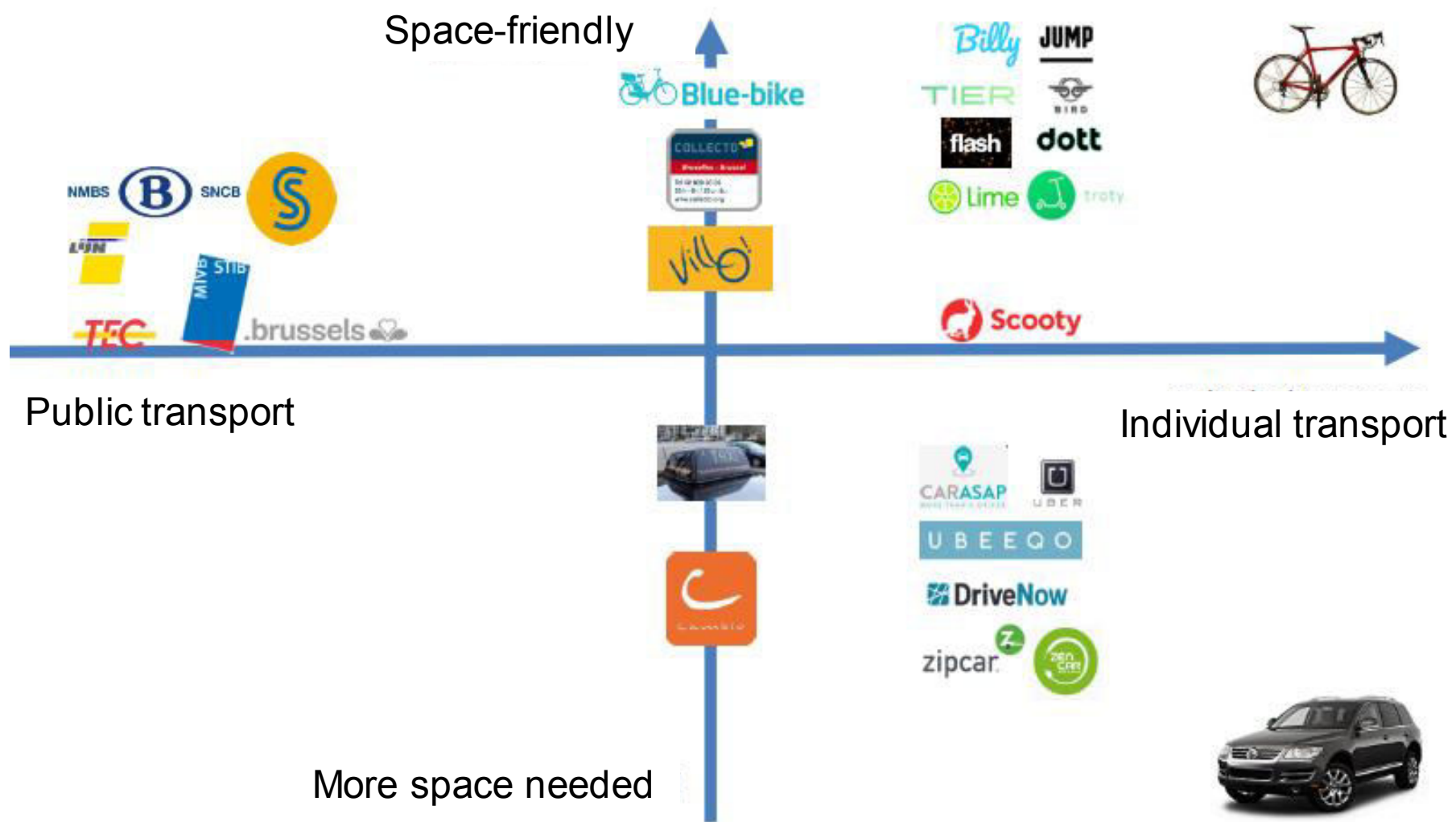
Bologna

- Tender through competitive dialogue
- Incentives structure
- Service obligations
- Mutual data sharing
- Revenues known and shared beyond certain threshold
- One operator selected of 3 bidders
- Positive results

And...

- London code of practice
- Paris code of conduct
- UK accreditation scheme for operators
- Dublin byelaws for dockless bikeshare
- Madrid sustainable mobility ordinance
- Flemish/Dutch framework for free-floating bikeshare

Brussels

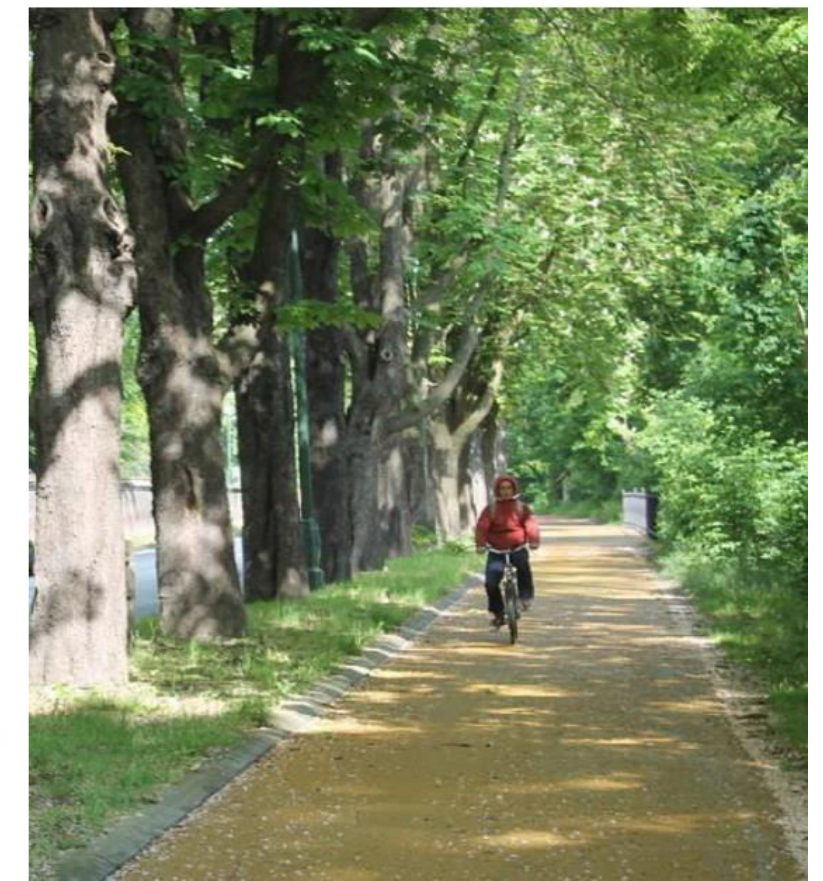


BIKE POLICY IN BRUSSELS

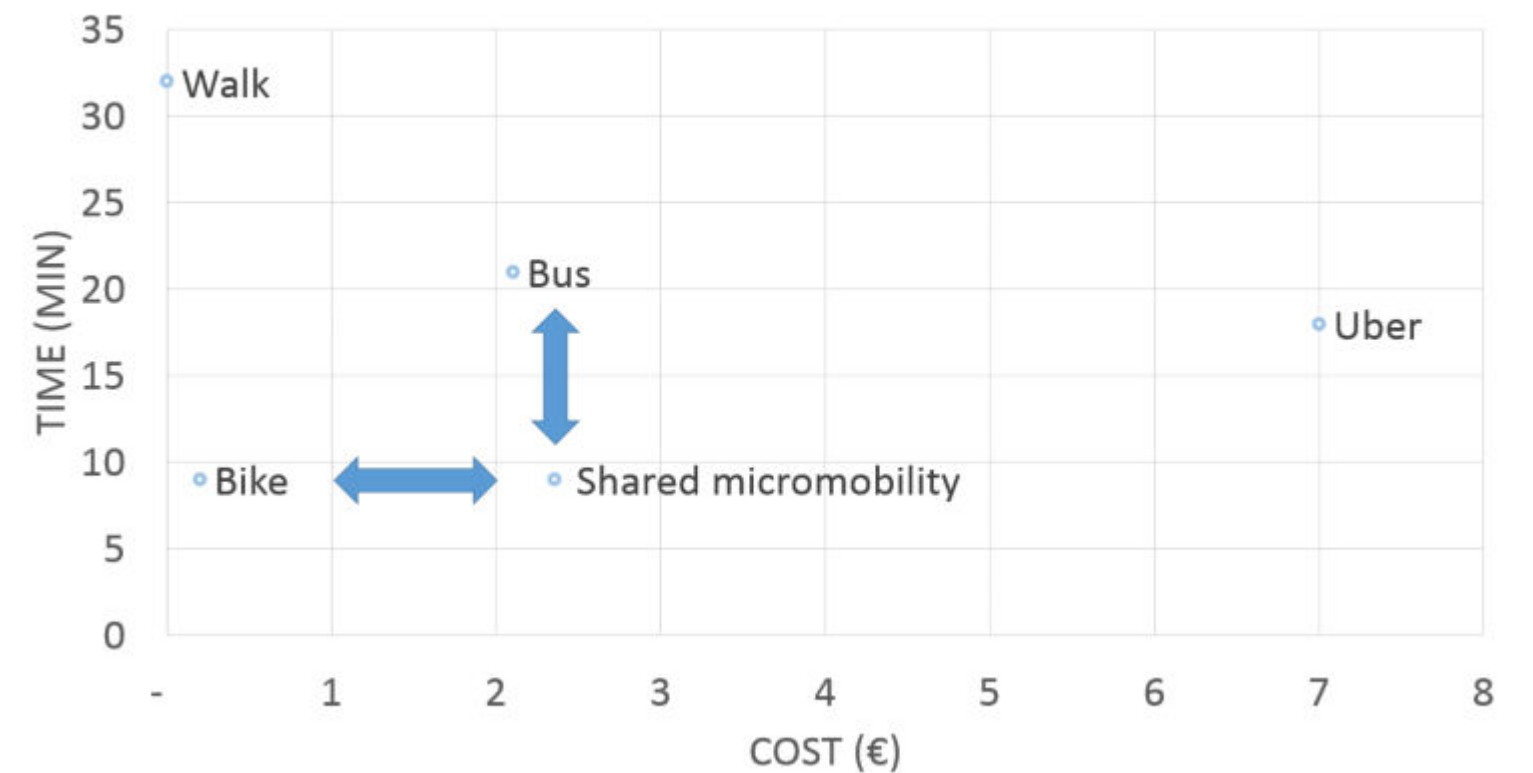
2005 : make the bike visible

2015 : dedicated infrastructure
 80km separated bike lanes
 2020 Secured bike parkings
 Bike racks at & in metro stations
 Implementation zone 30

2020 : integrate cycling services



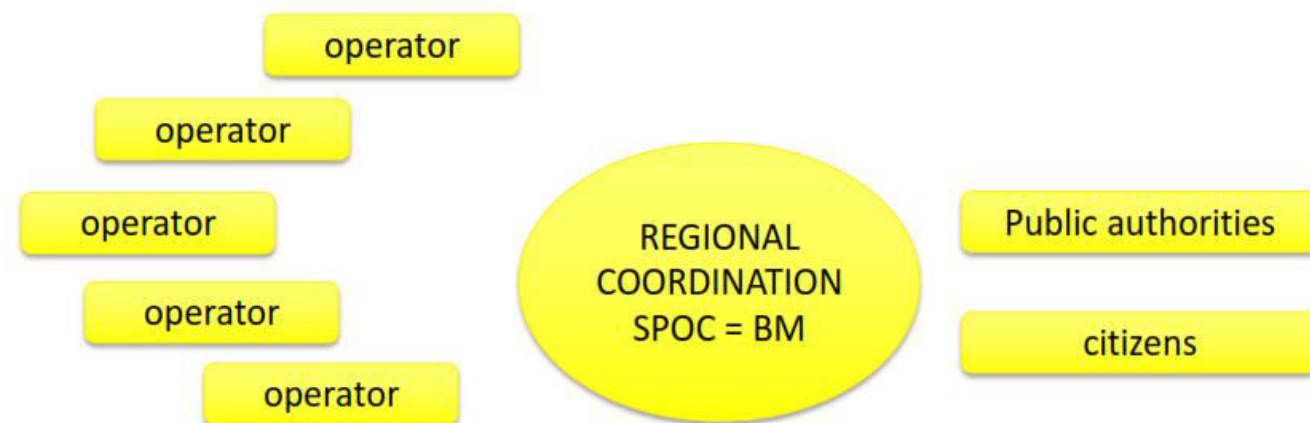
3 kilometer in Brussels





Brussels

- Regulatory framework for micromobility since 1 February: “Welcoming City”
 - Licensing system
- Responsibility lies with the operator
 - Co-responsibility with the user
- Brussels region
 - Awareness raising
 - Monitoring



KABINET VAN MINISTER PASCAL SMET
CABINET DU MINISTRE PASCAL SMET

A WELCOMING CITY

STEP 1
LEGAL BASIS CAR SHARING

STEP 2
MODERN TAXIPLAN

STEP 3
LEGAL BASIS CYCLOPARTAGE

STEP 4
PREPARING MaaS-ERA



LICENSING SYSTEM:

BALANCED FRAMEWORK

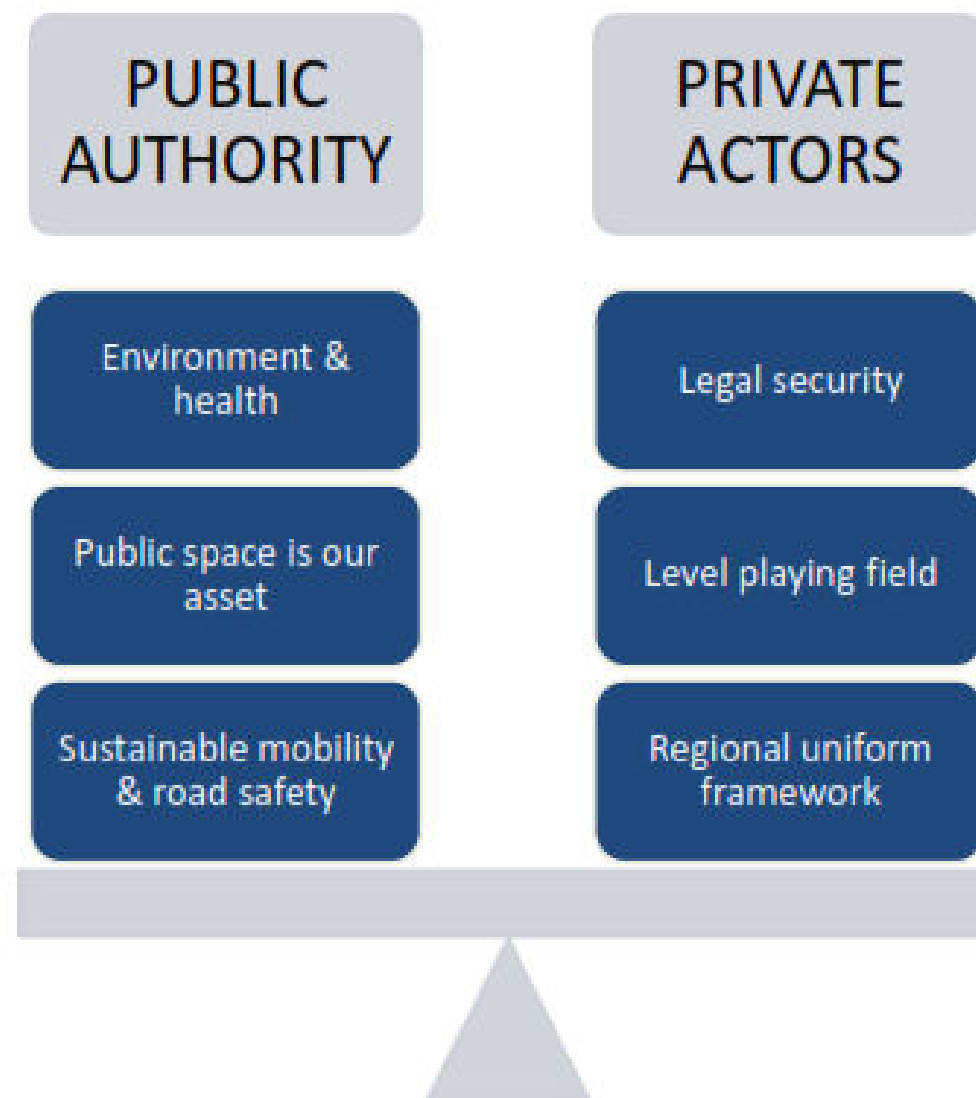
LIMITATION IS POSSIBLE, BUT NOT ACTIVATED YET

LICENCE CONDITIONS

e.g. quality, number of bikes

OPERATING CONDITIONS

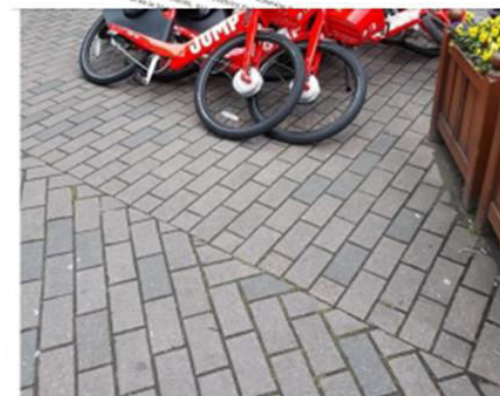
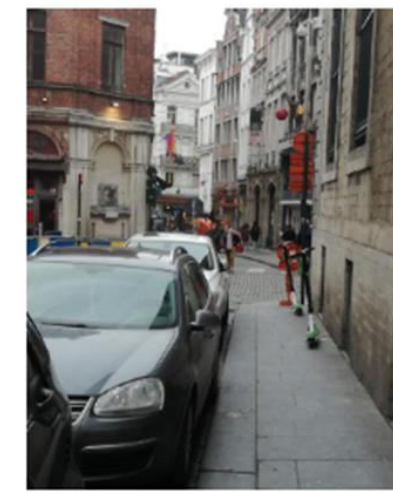
e.g. NPZ, concentration zones



CYCLOPARTAGE REGULATION MISE EN APPLICATION

Respect Code de la Route

No Parking Zones : defined with local authorities



L'échevine de la Mobilité Catherine Moreville (Ecolo) est bien consciente du problème. "Je peux comprendre le ras-le-bol de la population qui voit ces nouveaux modes de transport débarquer du jour au lendemain de manière anarchique dans la commune. Le souci est que ces nouveaux modes de transport doivent être régulés par la Région, ce qui a en partie été fait par l'ordonnance régionale mais les communes ne reçoivent aucun moyen financier supplémentaire pour encadrer les sociétés de free-floating", explique Catherine Moreville.

"On demande qu'au niveau régional, il y ait une taxe qui soit prélevée sur les opérateurs privés afin qu'ils contribuent au développement de l'infrastructure dans l'espace public, comme cela se fait dans d'autres villes européennes. Je suis pour ce



Brussels

Licence conditions:

- considering goals of public interest

Operating conditions, minimum:

- Parking in accordance with traffic regulations
- Prohibited zones (e.g. Grand Place)
- Vehicles meet technical conditions
- Concentration zones (e.g. stations)

Penalties in case of problems or non-compliance

Options now and later

? Number of vehicles * technical conditions* reporting to administration * open data * insurance * advertisement * charging infrastructure * green power * coverage * minimum price * language * number of operators?

Daily enforcement

- Dialogue & monitoring
- Complaints
 - 24h tolerance
 - Monitoring by administration
 - Interventions (retribution)

SERIOUS PROBLEMS

1. Warning
2. Fine
3. Suspension of licence
4. Withdrawal of licence

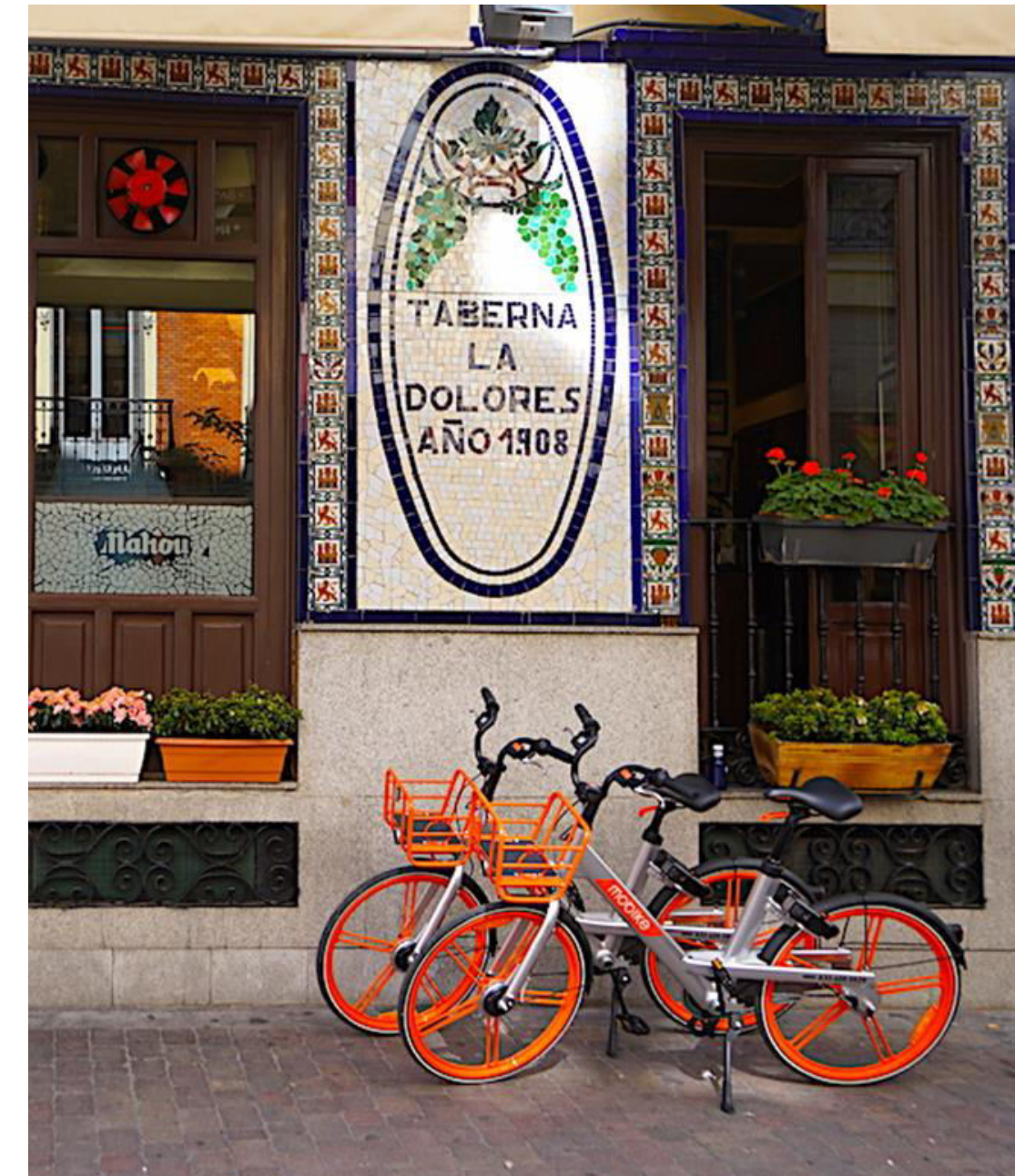
Madrid

New sustainable mobility bylaw – Oct 2018

- New definition for “new personal mobility vehicles”
- Regulation of new mobility services through authorization/concessions/licences
 - Prerequisites: riders & 3rd parties insurance, geolocation, geofencing-enabled apps

Accompanying measures:

- 30 km/h speed limit on 85% of the streets
- Pedestrian priority in 20 km/h streets
- New cycling rules (turning right on red lights, move against traffic in certain streets...)



Picture: EMT Madrid



Madrid

E-scooter rules:

- Prohibited on sidewalks, bus lanes, streets with more than 1 lane in each direction, main ring roads
- Allowed on cycle lanes, streets with 30km/h speed limit
- Parking: areas reserved to motorcycles and bicycles, if not available then general parking area of the road and, in the last case, on the sidewalks
- Minimum age: 15 (under 16 helmet mandatory)
- Minimum equipment: bell, brakes, lights and reflective elements

EMT MADRID 22/2/2019

22/02/2019 El Ayuntamiento concede 18 autorizaciones a servicios de patinete eléctrico compartido - Ayuntamiento de Madrid

Todas las noticias

Las empresas autorizadas tienen un plazo máximo de dos meses para implantarse en la capital

El Ayuntamiento concede 18 autorizaciones a servicios de patinete eléctrico compartido

Escuchar 12/02/2019

- El Consistorio ha autorizado 8.610 patinetes de los 108.094 solicitados por 25 empresas
- Se otorgan autorizaciones para todos los distritos y barrios
- La autorización persigue una implantación equilibrada y segura de estos nuevos servicios

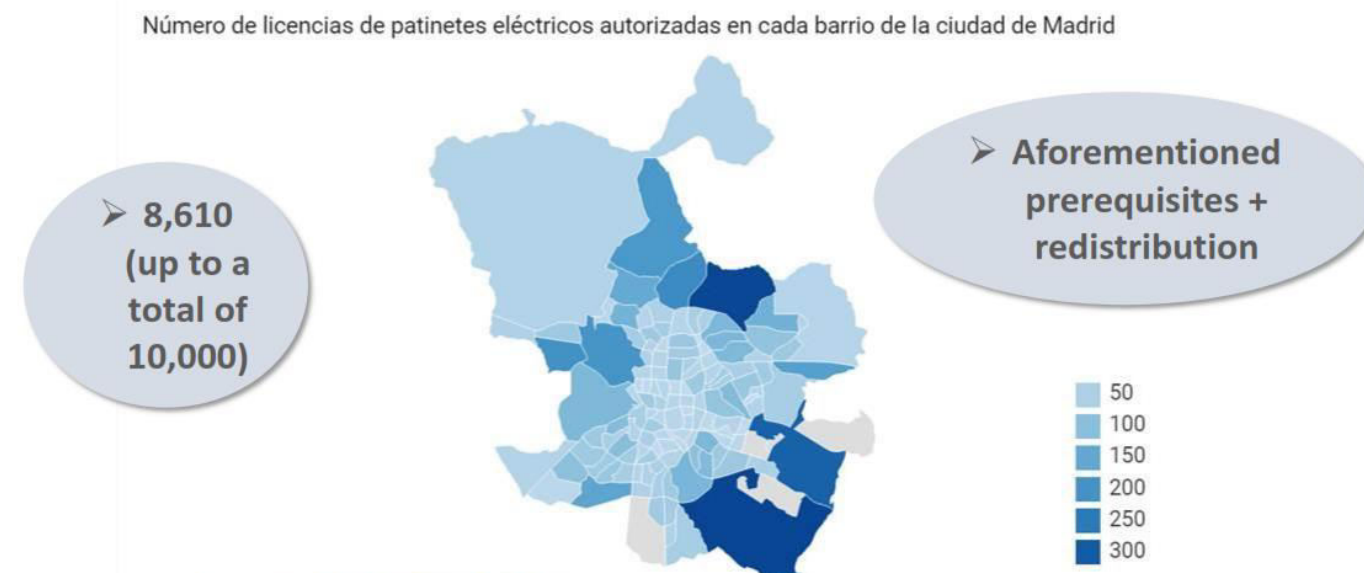
108.094 solicitados por 25 empresas

En la concesión de estas autorizaciones se ha tenido en cuenta la superficie transitable en patinete eléctrico por distrito para establecer toques máximos en cada uno de ellos de tal forma que aseguren la convivencia con el

DISTRITO	NRO. SOLICITANTES	PATINETES SOLICITADOS	CAPACIDAD MÁXIMA	PATINETES CONCEDIDOS
CENTRO	20	6.951	360	310
ARGANZUELA	19	4.971	260	212
RETIRO	20	3.718	190	166
SALAMANCA	21	5.190	265	210
CHAMARTÍN	22	7.290	380	348
TETUÁN	22	6.538	365	278
CHAMBERÍ	21	4.677	215	160
FUENCARRAL-EL PARDO	20	10.107	925	823
MONCLOA-ARAVACA	20	9.799	800	726
LATINA	16	4.256	570	465

Las 18 empresas que han recibido la autorización son: Acciona, Eskay, Voi, Taxify, Scoot, Koko, Ufo, Rideconga, Flash, Mobike, Ari, Tier, Alma, Lime, Mott4u, Wind, Jump Uber, SJV Consulting. Por el contrario, se les ha denegado el permiso por no cumplir los requisitos a Bird, Donkey, Movo, Cabcar, Cabify, Taxir y Mygo.

EMT MADRID Number of e-scooter licences by neighbourhood



Fuente: Ayuntamiento de Madrid - Created with Datawrapper





Paris

Code of Conduct signed by all dockless bikeshare providers:

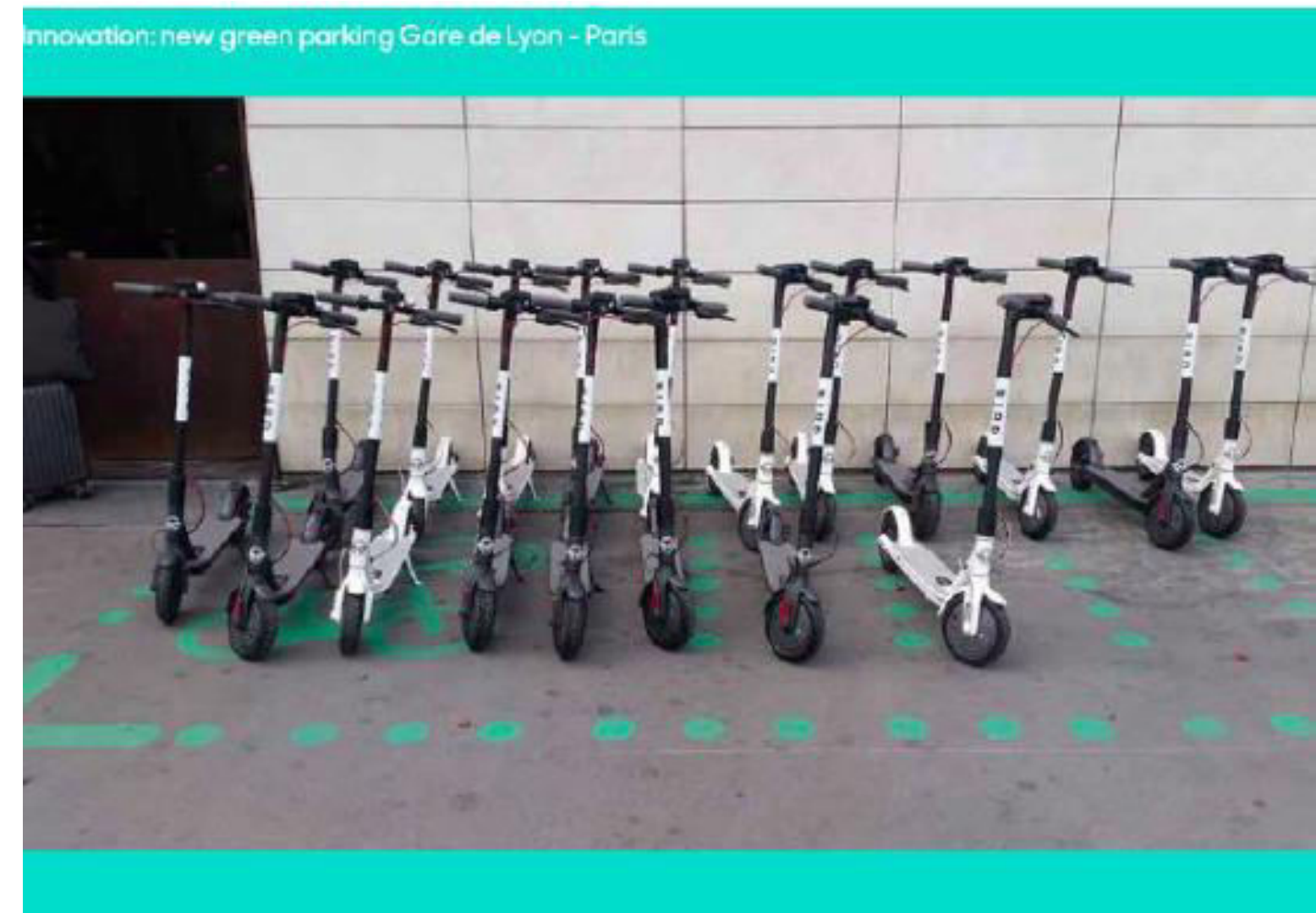
- Revised annually
- Parking and bicycle circulation in accordance with traffic laws
- Requirements on quality of bicycles and rental conditions
- Operators' commitments to maintenance
- Participate in regular meetings to adapt to local needs
- Inform city about intentions regarding deployment of fleet
- Provide free data on deployment and use of service, to analyse flows and optimise the cycling network and parking spaces
- City commits to 10,000 bicycle parking spaces during the current political mandate, increasing number to more than 40,000 by 2020





Paris

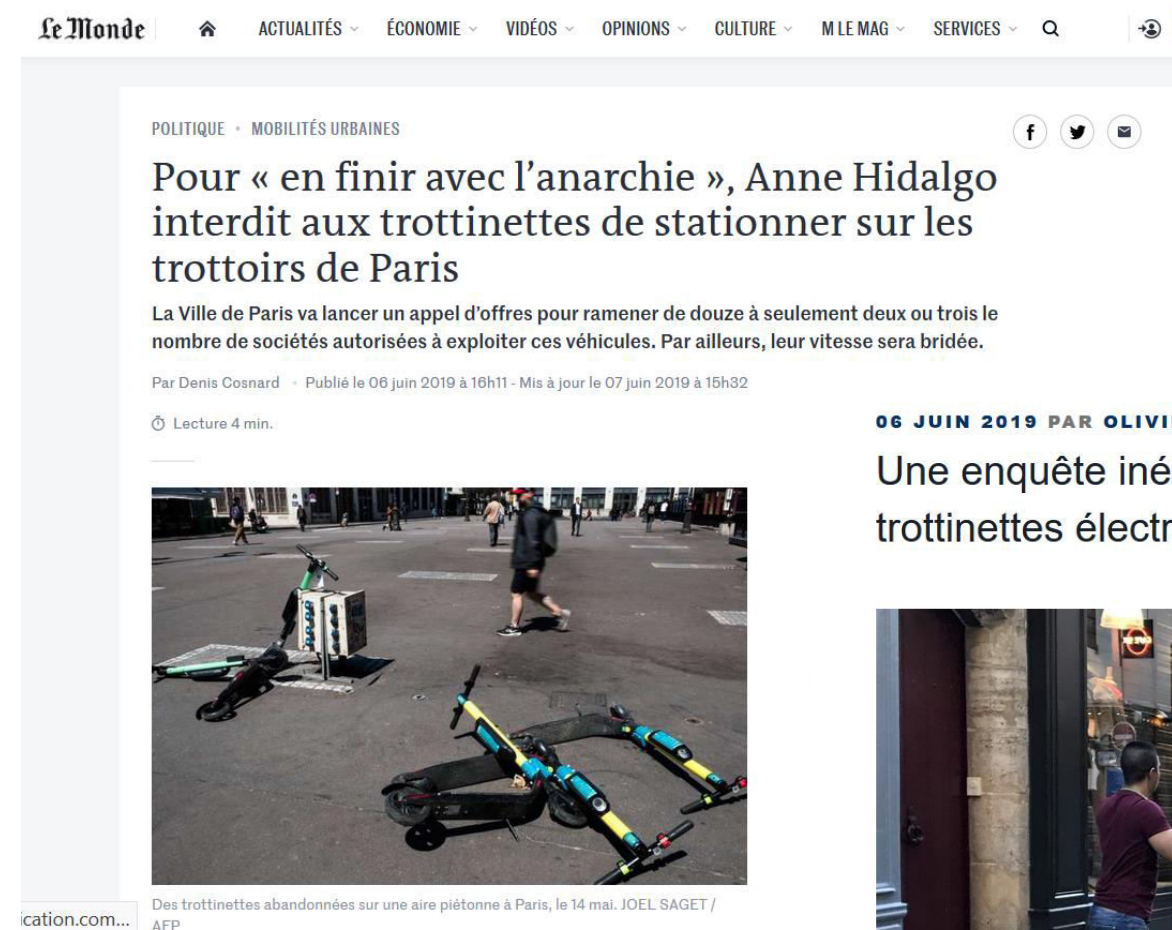
- e-scooter operators invited to sign until end of May 2019
- Over 20.000 e-scooters in the streets of Paris – up to 35.000 - 40.000
- Fee for companies, increasing according to number of scooters deployed (50 to 65 euros per scooter)
- e-scooters banned from sidewalks, fine / confiscation
- City will create specific areas for parking e-scooters through self-explanatory painted markings – approx. 2500 places during 2019; eventually make parking mandatory in these areas.



Paris

Latest development to address related challenges:

- Launch call for tender in a few months to limit to 2-3 authorised e-scooter operators instead of the current 12
- 12 000 to 15 000 e-scooters should be enough to meet needs and avoid too many problems
- Call for tender to include social and environmental requirements



06 JUIN 2019 PAR OLIVIER RAZEMON

Une enquête inédite sur les utilisateurs des trottinettes électriques





Onwards & Upwards

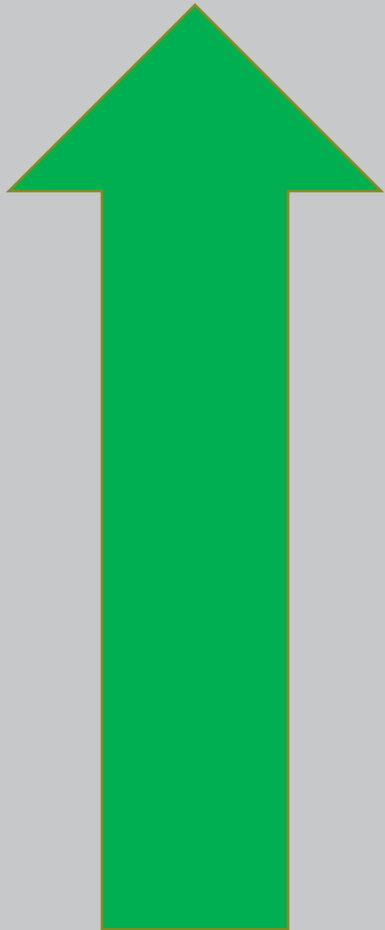
Mobility service operators engaging in more dialogue and cooperation

Still relatively new arrangements

Trial & error in regulatory forms and business models - sandboxing

Ranging from cars to bikes, scooters and more modes to come? Or modes to disappear, consolidation...

If regulated well and integrated with mobility policy and goals, new mobility services can complement additional transport offer (off-peak, remote, target groups) or provide a first/last-mile solution.





Thank you!



Want to join Polis? 😊

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