



Population:

- +100.000 inhabitants
- + 65.000 students
- + increasing number of jobs

Dynamic city:

20 km east of Brussels Capital
Fastest growing city in Belgium
Challenges on traffic congestion

Modal split

40% commuting/ school trips by bicycle
20% cycling in all trips

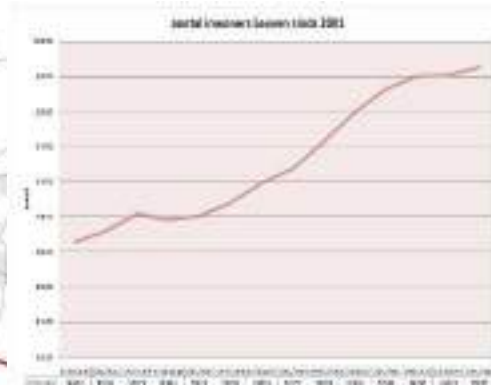
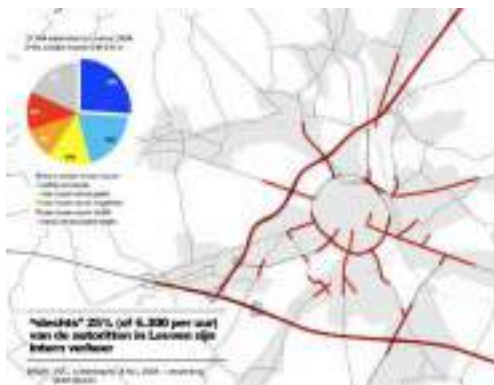
Vision and ambitions

LKN 2030





- Medal split.**





Ambitie 2030



AUTO
-20%



OV
x2

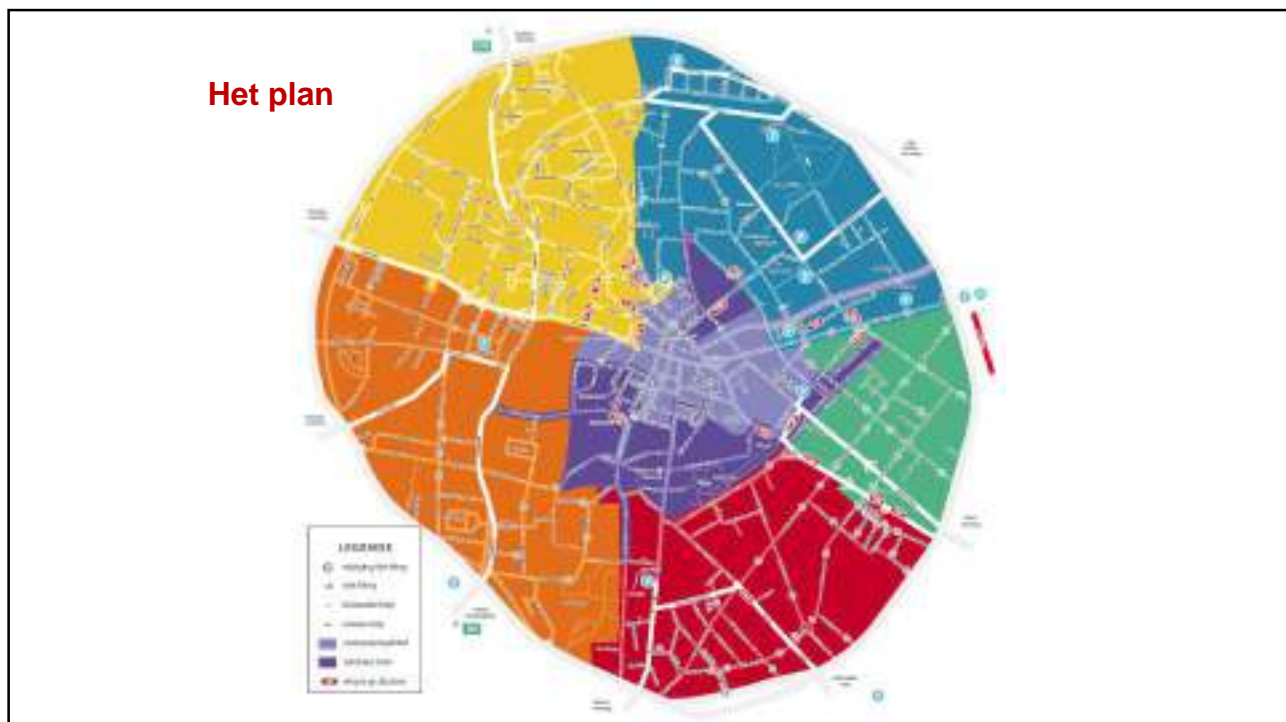


FIETS
x2

Traffic circulation plan Leuven 2016

1. Guarantee accessibility
2. Increase liveability
3. Upgrade experience value of the public domain

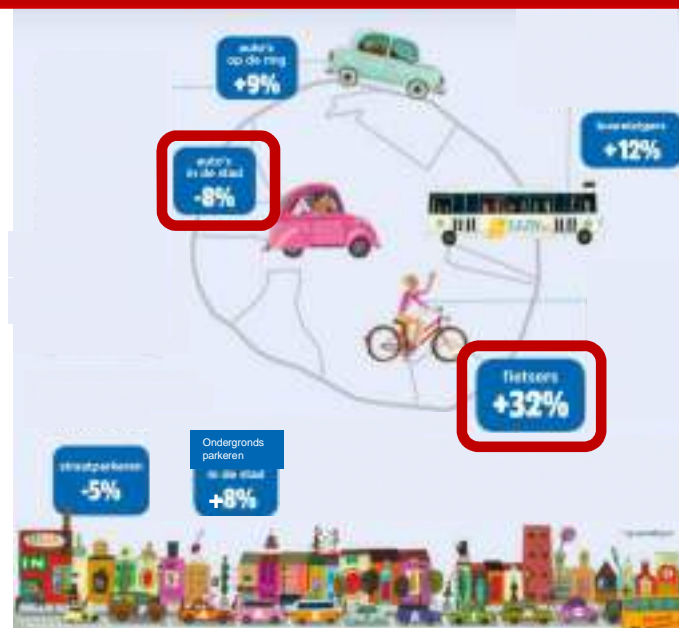






Evaluation after 3 year

- Modal Shift (2016 → 2019):
 - Car: from 63% to 49%
 - Bike: from 32% to 47%
- Visitor still are coming
- More car traffic on the ring road



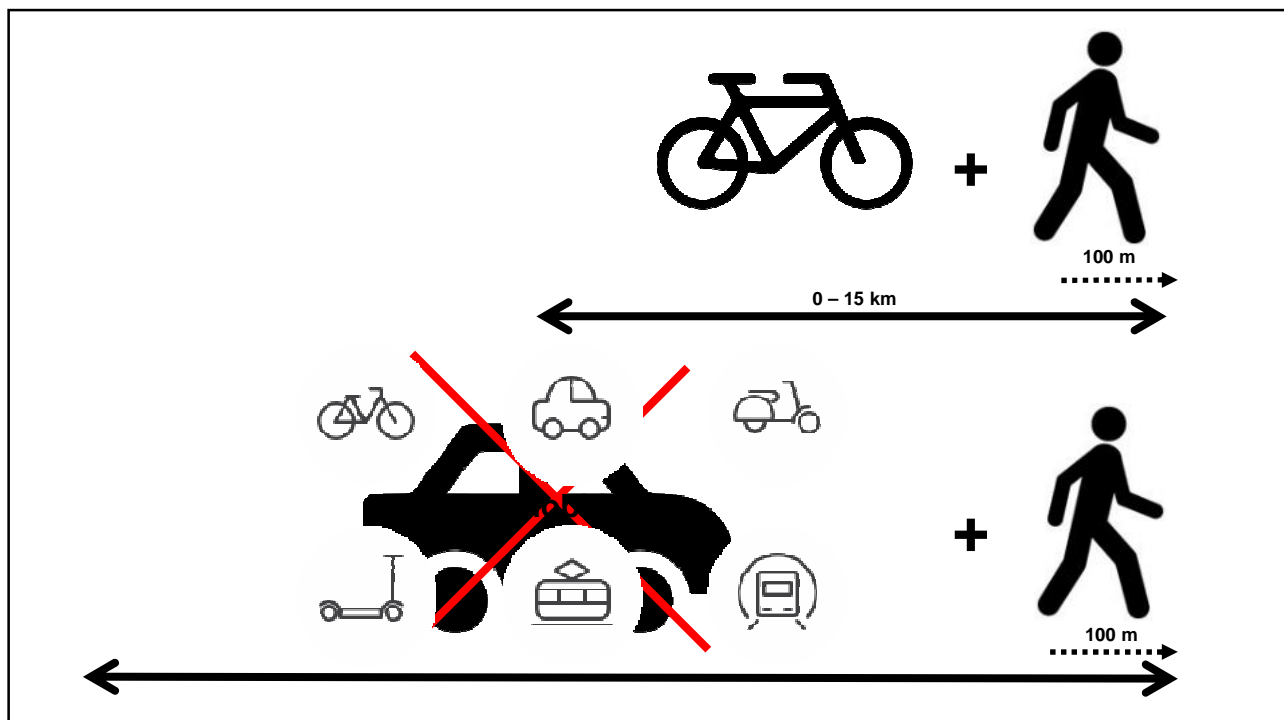
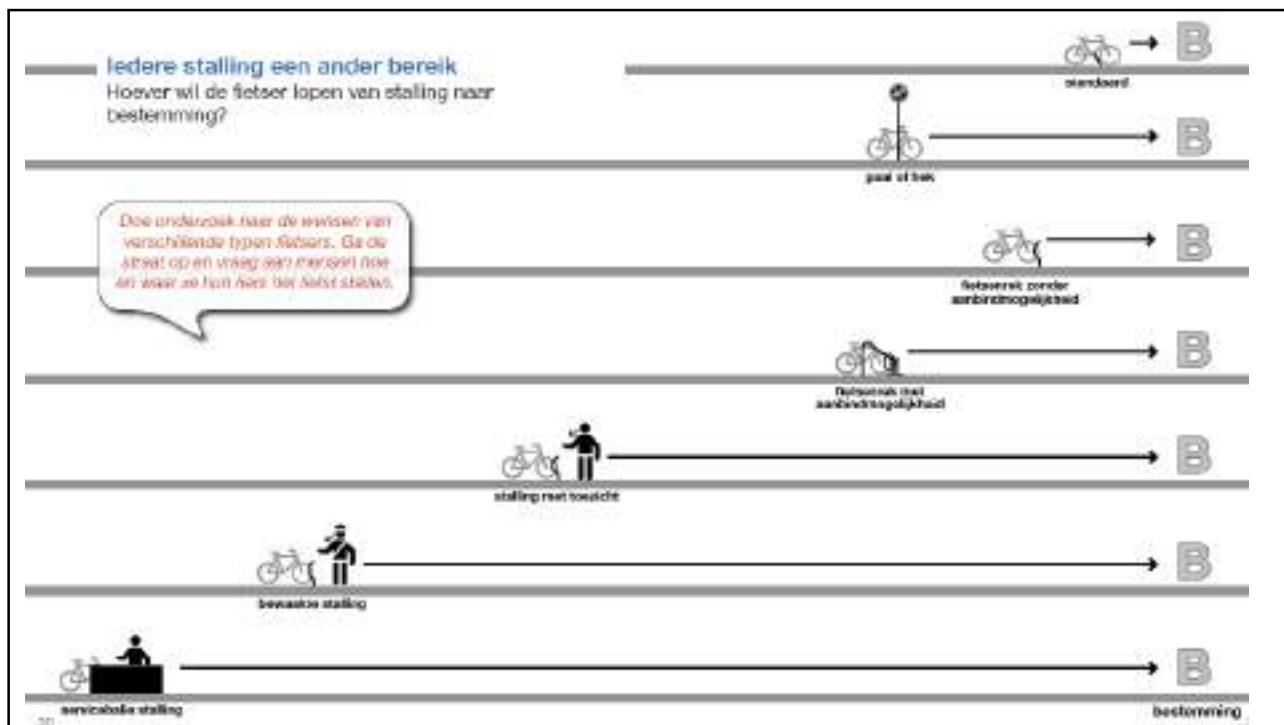




City vision

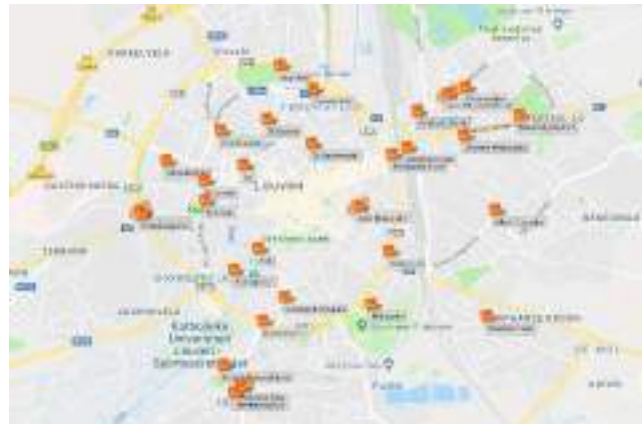
SUMP – bicycle policy plan

- Public bikes in last mile public transport chain / interchanging point (major PT-Hubs, Park and Rides)
- Bike sharing for specific target groups: (VeloKadee, Velo at school, cargobikesharing system, ...)
- **Citywide back to many sharing system ???? freefloating ?????**
- **Bicycle owner ship is KEY to higher cycle use**
- **Bicycle parking management to decrease level of bike parking pressure on public domain by:**
 - High level of bicycle parking offer: short term, long term, resident parking, ...
 - High level of bicycle parking management / enforcement (orphan bikes)



Carsharing in Leuven

- 3 per 100 inhabitants is doing carsharing = Leuven is carsharing city nr. 1 in Belgium
- Increase with ca. 20% per year
- Amount of shared cars in 2020: 204 / 124 (cambio)
- E-carsharing: 0 in 2018 – 17 in 2020

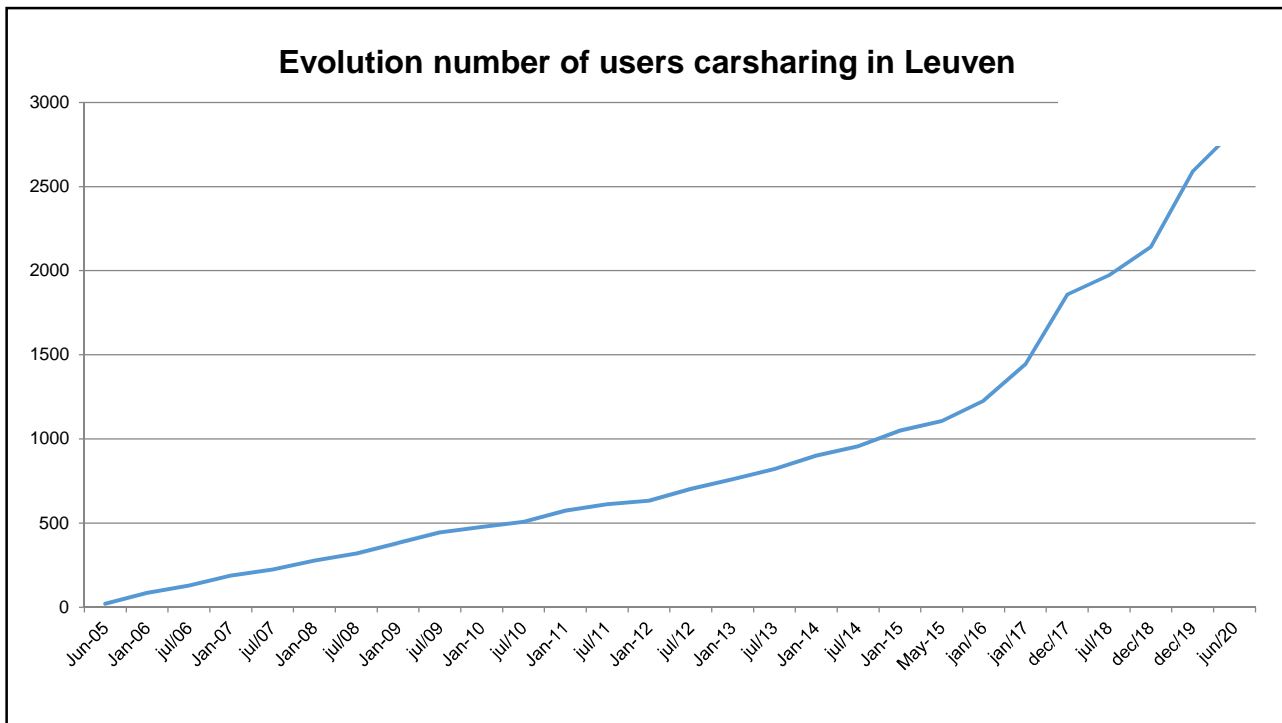


Providers with own fleet



Providers without own fleet (platforms)





Bikesharing in Leuven

- **Part of the transport chain in pre- and after trips public transport**
- **For specif target groups**
 - o *VeloKadee*
 - o *Velo at school*
 - o *Buggy Booker*
 - o *Cargobikesharing*
- **Addition to public transport**
- **Bicycle OWNERSHIP = key to bicycle USE**
- **Bikesharing ≠ solution to bicycle parking presure or more bicycle use**

Type bikesharing systems

back 2 one



back 2 many



free floating



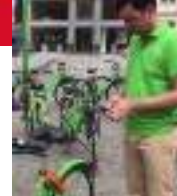
- Bovenlokaal op regionaal niveau
- Tarifiering per dagdeel
- Doelgroep: stadsbezoeker
- Vooral eenmalig



- Lokaal op stadsniveau
- Tarifiering per seconde
- Doelgroep: stadsbezoeker & stadsbewoner
- Eenmalige en frequente trajecten



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- Doelgroep: stadsbezoeker & stadsbewoner
- Eenmalige en frequente trajecten



Back to one bike sharing system – Blue-Bike

1. PT-Hubs
2. Park & Ride
3. Integrated in MaaS



High service level – expensive system

Bike sharing for specific target groups - VeloKadée

VeloKadée

- Affordable 'growing-up-bike'
- 60 € per year
- 12 € for social target groups



Bike sharing for specific target groups – Velo at School

Velo at school

- Shared bikes for short school trips
- Replacement of bus trips
- 495 € per bike – full service contract
- Local social economy company Velo vzw



Bike sharing for specific target groups – ‘Buggy Booker’



Nederland

Amsterdam
Arnhem
Breda
Delft
Den Bosch
Den Haag
Ede
Eindhoven
Enschede
Groningen
Haarlem
Hengelo
Leeuwarden
Leiden
Maastricht
Nijmegen
Rotterdam
Tilburg
Utrecht
Wageningen
Zwolle

België

Antwerpen
Brussel
Gent
Leuven

Onze beloftes



Je Swapfiets werkt altijd

En als je Swapfiets stuk is, zorgen we dat er binnen 1 dag een werkende bij jou thuis staat.



Levenslange garantie

Zolang je abonnement loopt, zorgen wij voor het onderhoud van je Swapfiets en maken wij alles wat stuk is.



Te gekke service

Gaat je fiets stuk? De Lido of mail: dan komen wij hem voor je fixen.

Bike sharing for specific target groups – Cargobike sharing



- Start up civil cooperation energy – shared e-mobility
- e-cargobike for every neighbourhood
- Cargoroo system

Aan wie
propre lucht
wil in Leuven



Jouw elektrische buurtbakfiets

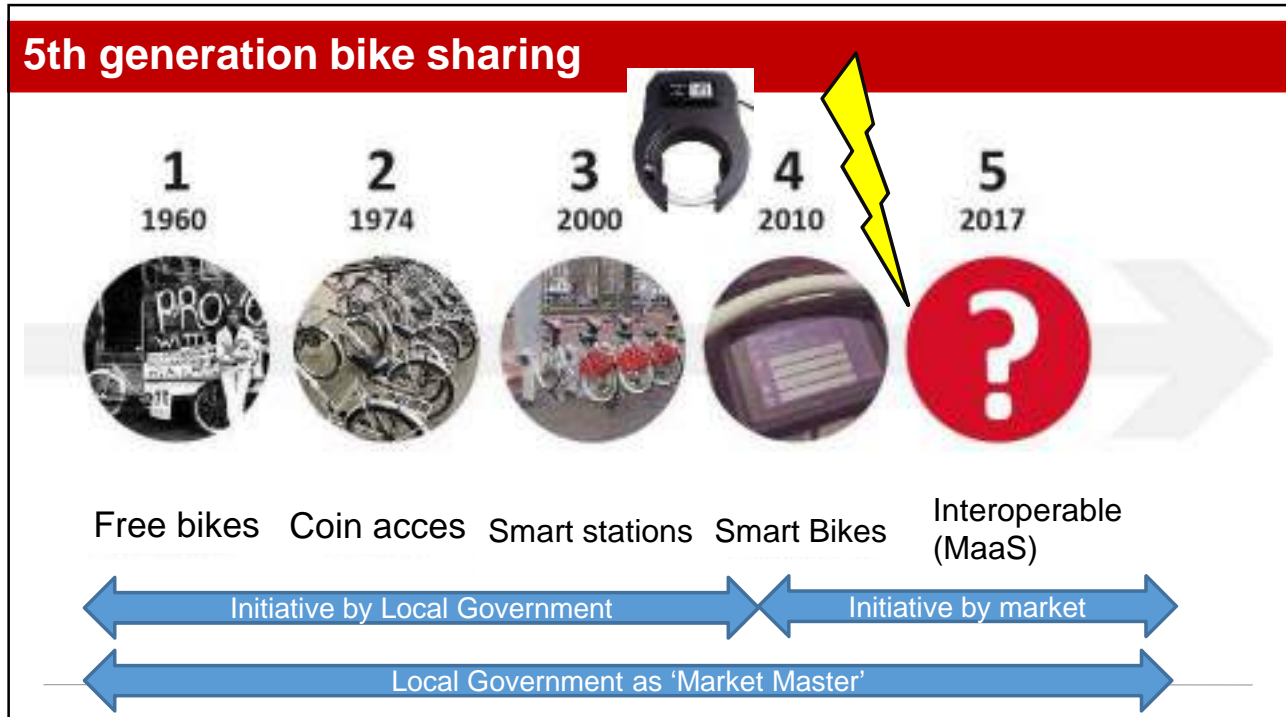
Registreren





Free floating is suggesting door to door





Why the Chinese are coming?

- Recent capital injections:
 - Ofo – 580 milj \$
 - Mobike – 410 milj \$
 - Bluegogo – 65 milj \$
 - ...
 - Investors: Didi, Alipay, WeChat, ...
 - 50 milj shared bikes by end 2018 in Chinese cities
 - Taking the European and American market
1. **Online payment platforms** are the major trigger for investors.
(New banks, Ofo asked bank licence in Luxemburg)
 2. **Data and behaviour of users** are the second trigger for investors.
(In Smart Cities data = money)
 3. **Advertisements via Smartphones/apps** are the third trigger for investors.

The quality / **service level of the mobility product** and the **quality of our public domain** is/was a minor trigger for investors.

Why the Chinese are leaving?



Mythes (1): More bicycle use because of bike sharing ?

Bike sharing suppliers promise MORE cycle use with LESS bikes

Following exercise nuances this impact for the Leuven inner city:

- ☐ +/- number of inh., students, employees, visitors = 70.000
- ☐ Number of trips per day = 3,5 (OVG Flanders)
- ☐ Bike share in modal split city centre Leuven = 41 %

TOTAL NUMBER OF CYCLE TRIPS IN CITY CENTRE LEUVEN = **ca. 100.000**

- ☐ 1.000 public bikes
- ☐ 5 trips per day per bike (= high level of public bike use).

TOTAL NUMBER OF PUBLIC BIKE TRIPS IN CITY CENTRE LEUVEN = **ca. 5.000**

Public bikes represent max. 2% of all trips in city centre of Leuven or 5% of all cycle trips
To catch all cycle trips in the city centre of Leuven you need min. 20.000 public bikes.
95% of cycle trips will always be done by personal private/lease bikes

Mythes (2): More public bikes – Less bicycle parking pressure

▪ Also freefloating bikes need parking facilities / public space !!

Ex. At 4h30 p.m. the number of riding shared bikes will be very low. The free floaters also need 1 to 1 parking space

▪ Station based public bikes guarantee space to park the bikes.

▪ Can free floating offer the same service level?

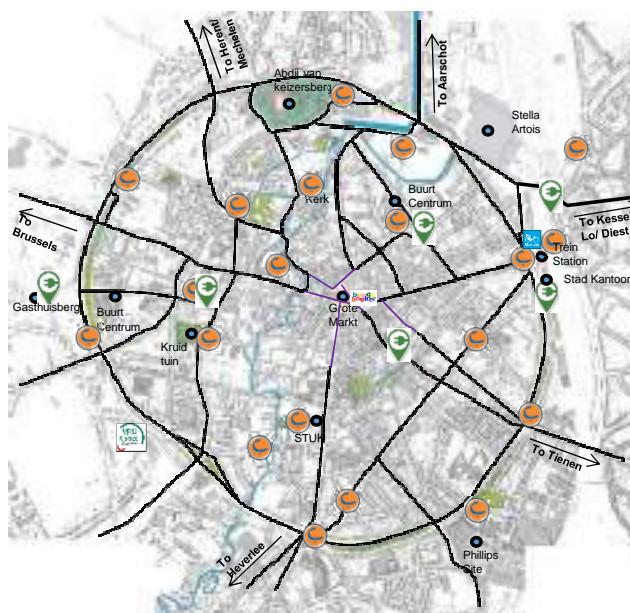
- What at public spaces with a high bicycle parking pressure?
- What guarantee to have a bike for the return trip?
- You need a much higher density of freefloating bikes to offer the same service level as station based public bikes.

▪ There is no experience yet that existing cyclists massively change the 'personalized' bike for a public bike.

Conclusions:

- In a cycling city like Leuven bicycle ownership still is the key to more cycle use.
- Bike sharing is a welcome addition to the public transport offer for both inhabitants as visitors (= demand responsive public transport)
Ex. 25% of the Velo-trips in Antwerp are taking place between 22:00 and 6:00, as an alternative for the lacking public transport at that time.
- Bike sharing is an eye opener for new target groups that are not used to cycle.
- Like in carsharing, the shared bicycle is a welcome addition in the complete transport offer.
Vb. 1 maal per week gaan winkelen met een deelbakfiets.
- Shared bikes can replace the (second) station bike, sporadically used student bikes, the second bike, ...and in this perspective they can have a positive impact on parking pressure

Spatial clustering shared mobility services - e-HUBs



Cambio car share at more than 30 locations in and around inner city



Blue-bike (180) at Railway Station



Shared kid's bike



Pram/buggy on shared basis at Grote Markt



Vehicle charging points (Total 15 existing locations, 6 in inner city)

Another 32 locations are under planning - in and around inner city



An implementation of Cargo bike share and Free-Floating bike share system are in process

Spatial clustering of (e-)shared mobility at MobiPoints (Interreg eHUB project)





Media

Leuvenaars bepalen mee locaties buurtmobipunten

Donderdag 3 oktober 2019 — De komende drie jaar komen er, verspreid over Leuven, vijftig mobipunten. Dit zijn locaties waar je verschillende vormen van deelmobiliteit zoals een deelbakfiets en een deelwagen vindt. De hele maand oktober kunnen Leuvenaars op www.leuvenmaakhetmee.be aangeven waar zij een buurtmobipunt wensen en welke vervoersmiddelen op die locatie volgens hen belangrijk zijn. De stad gaat vervolgens in overleg met de buurt voor de concrete uitwerking.

Er komen verschillende types mobipunten in Leuven. De grootste mobipunten zijn echte vervoersknooppunten, bijvoorbeeld aan het station, waar veel mensen vertrekken en aankomen en



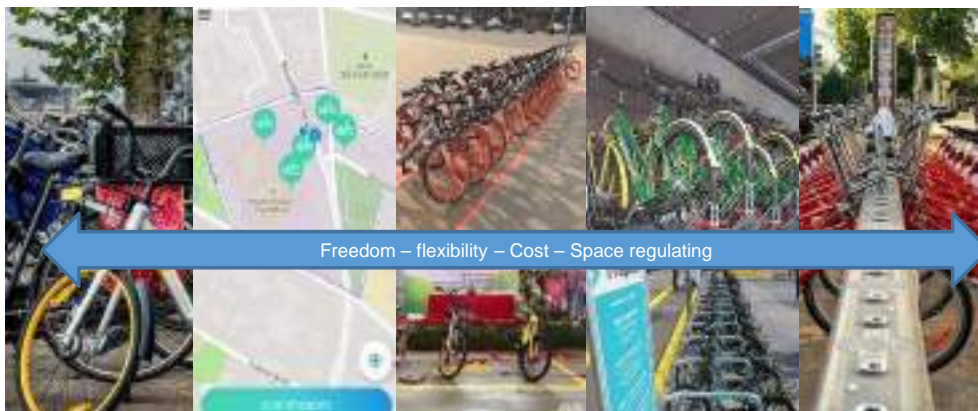
David Dessers
schepen van mobiliteit, klimaat en duurzaamheid, landbouw en consumptie, stad Leuven
david.dessers@leuven.be



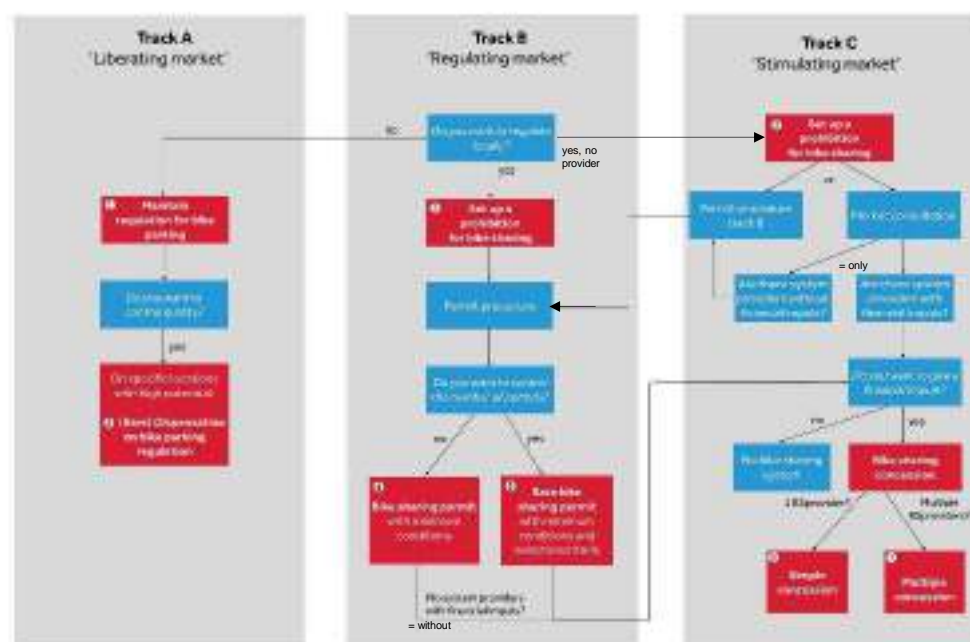
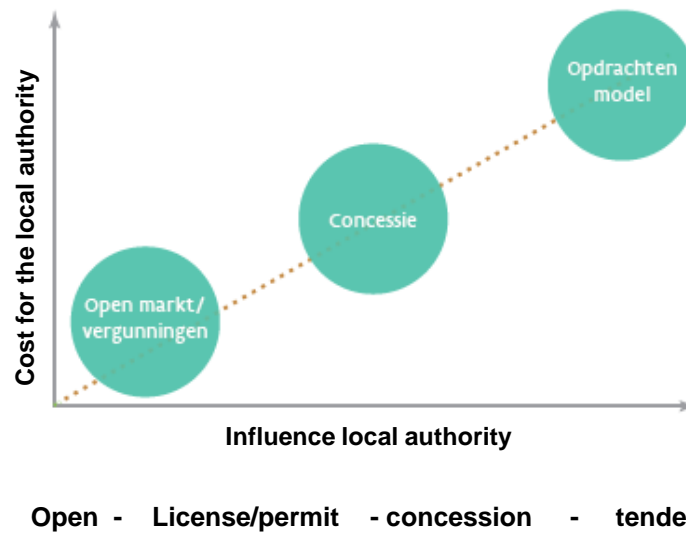


Local government as 'market master'

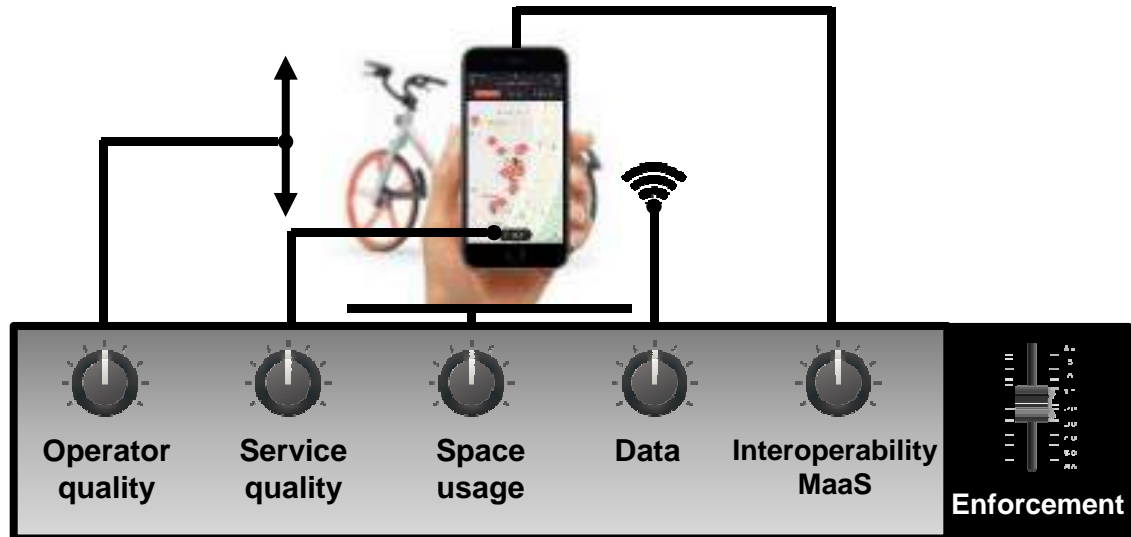
Free Parking Drop Zone Parking Zone Reserved parkingspace Stations



Market 'regulation': liberating - regulating - stimulating

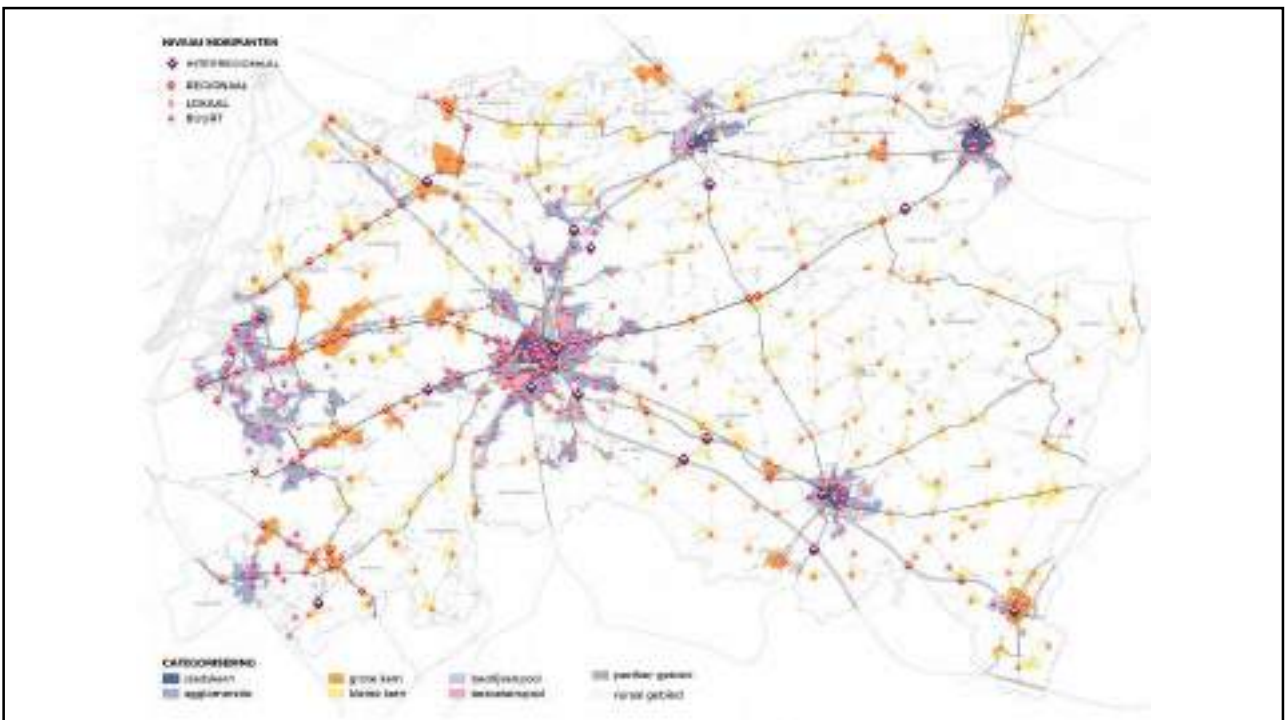


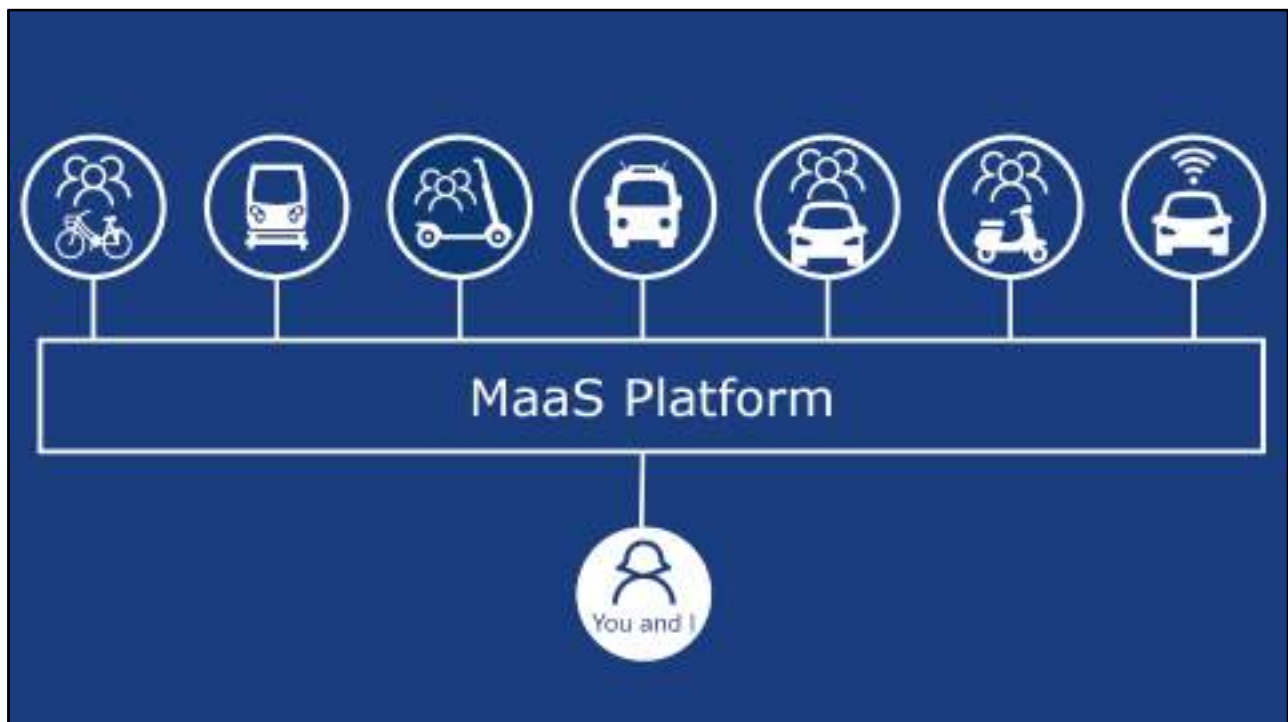
Bikesharing policy – buttons!





Same approach for e-steps





A graphic showing several interlocking gears of different colors (green, pink, yellow, blue, purple). Each gear contains a white icon representing a different mode of transport: a person walking, a car, a bus, a tram, a bicycle, a scooter, and a car with a Wi-Fi signal. Below the gears, the text "Mobility-as-a-Service (MaaS)" is written.

City of Things - MoDi
Third-party payment system for MaaS

The New Drive
Urban Budget software-makers

LENS

AGENTSCHAP
INNOVEREN &
ONDERNEMEN

imec

Why introduction via MaaS-app

- › To stimulate shared mobility (temporarily)
- › Local accents in a generic system
- › To stimulate the business model B2C shared mobility
- › Uniform applicable via MaaS applications

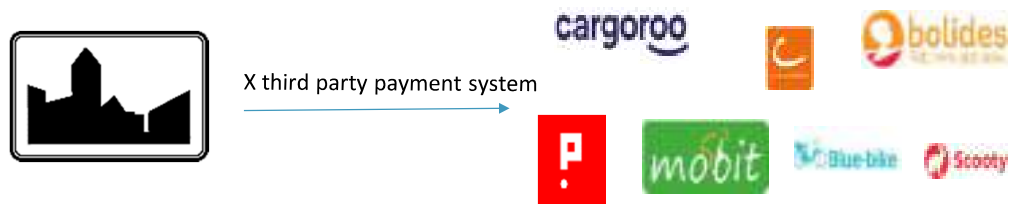


Third-party payment systems are currently ad-hoc and mono-modal

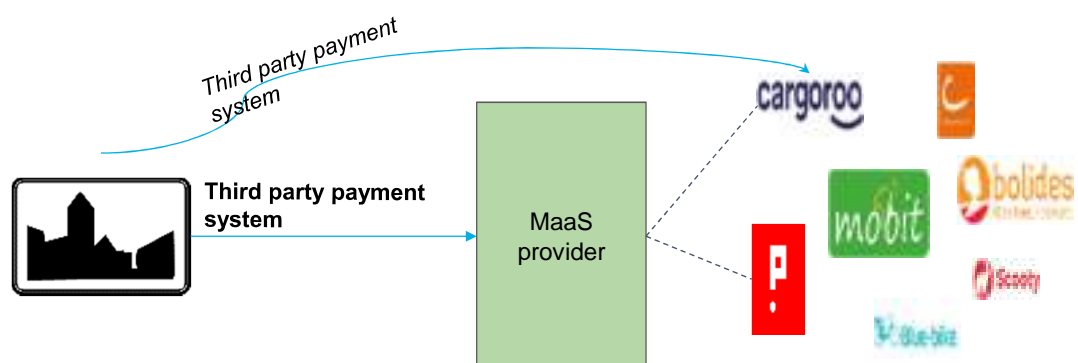
- Genk
 - › Free payment cards for new inhabitants / discount for inhabitants
- Deinze
 - › Free Blue-Bike rides
- Schoten
 - › Mobit-coupon for events (discount for 10 rides of 20mins)
- Leuven
 - › P + Bus parking system: per parking ticket you receive a ticket for 4 people to take the bus

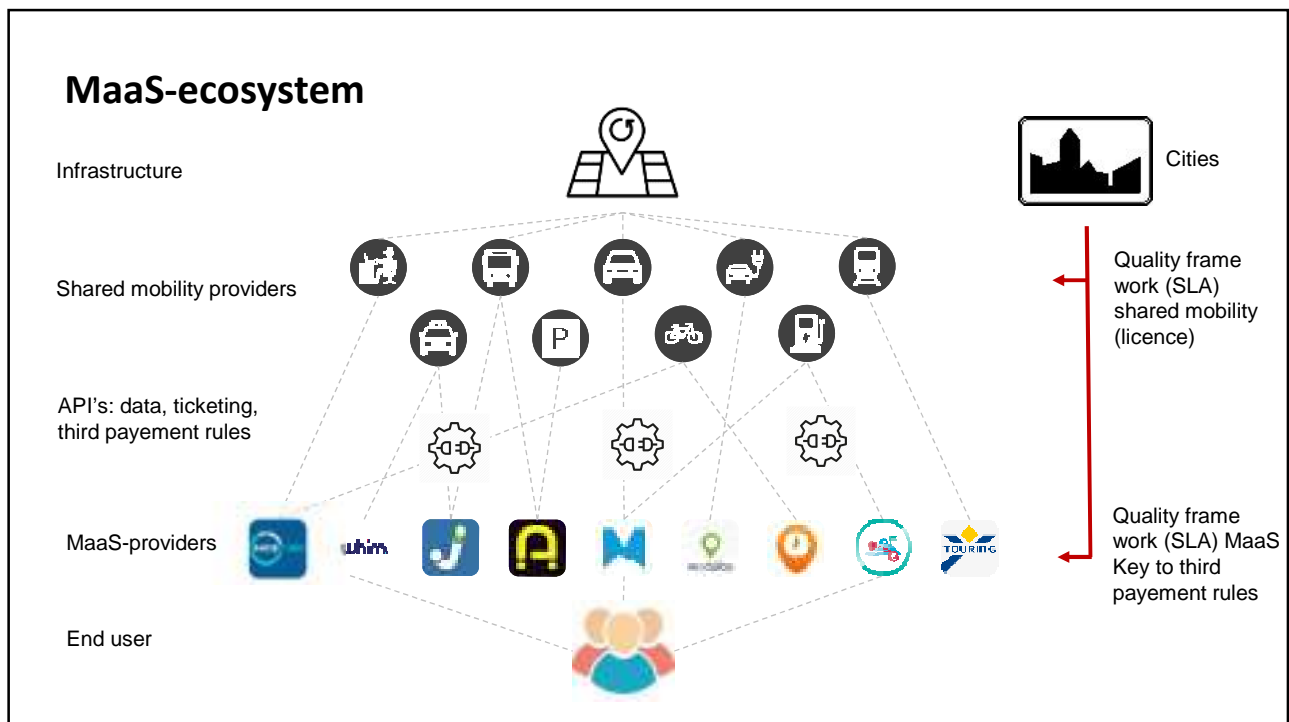


Increasing number of transport providers
→ silo-effect and a lot of administration



How to describe and validate multi-modal rules
in a uniform manner?





code the curb

The Shared-Use City:
Managing the Curb

A European Partnership Project
Project 1





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