

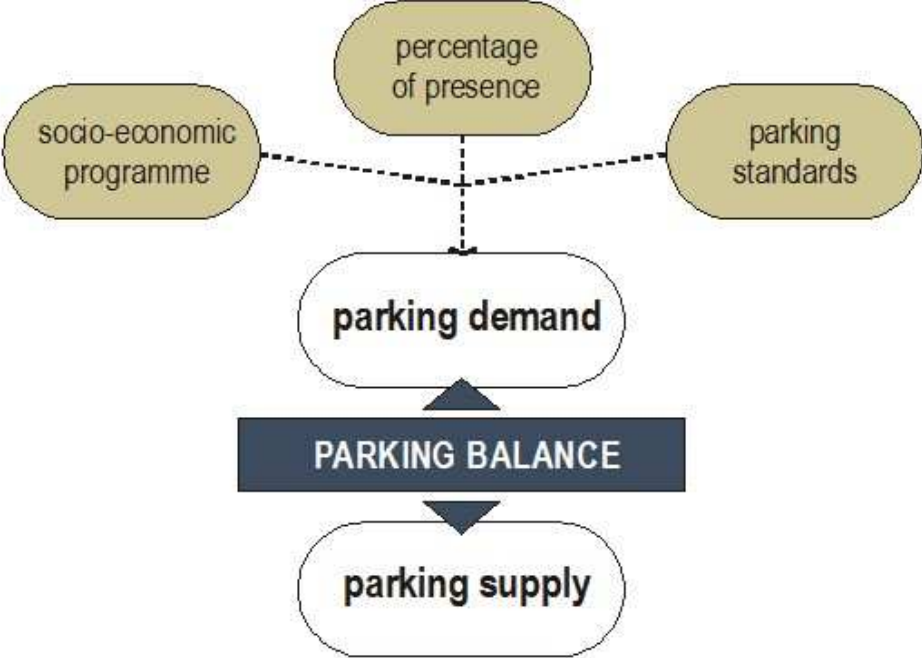
From Parking Norms To Mobility Standards For Building Projects

A Flemish Approach

Prof. Dirk Lauwers – online contribution 10 June 2021
'Parking and the built environment' session

Traditional definition of the parking problem

User – provider issue (demand and supply)



Source: UGent City Parking in Europe 2005

Traditional definition of the parking problem

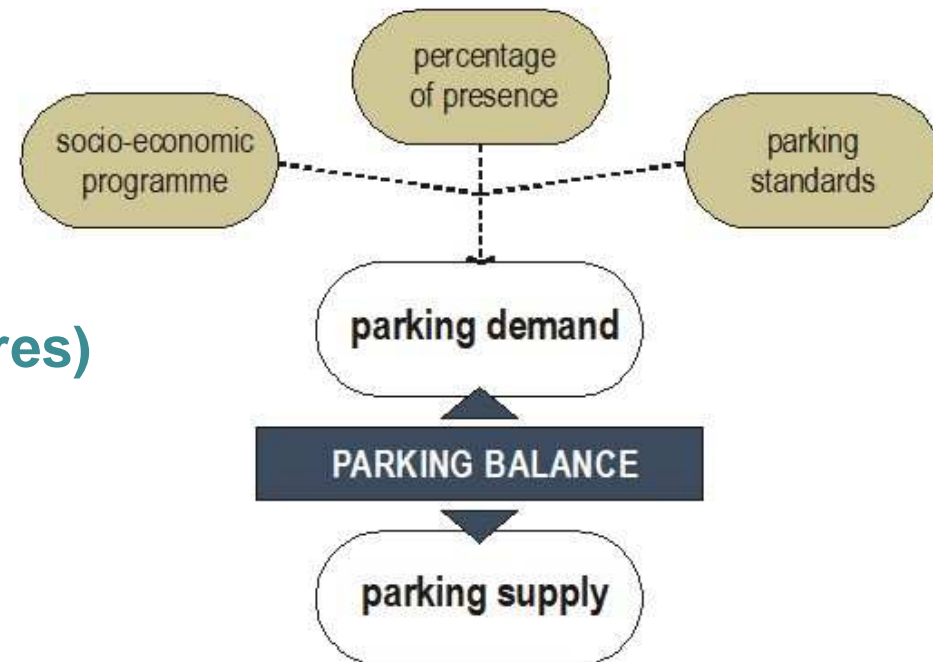
User – provider issue (demand and supply)

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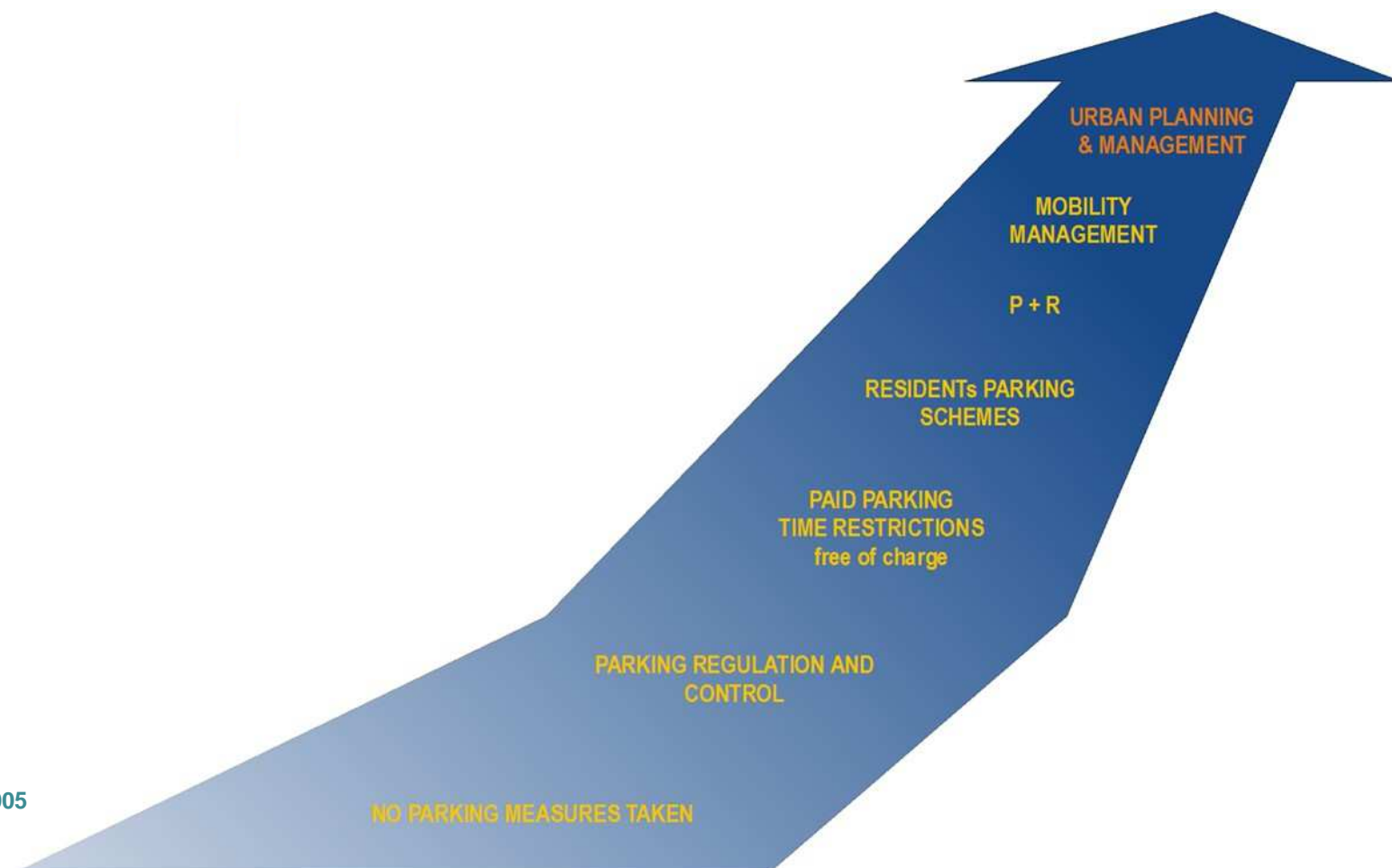
Avoiding
(newly) generated parking
demand to be transferred to
the public domain (streets, squares)



Minimum parking standards



Evolution of parking policies



Source: UGent City Parking in Europe 2005

Evolution of parking policies

From car following
to steering and integrated policy



Minimum & maximum parking standards
Multimodal (car & bicycle standards)
Accessibility approach



Source: UGent City Parking in Europe 2005

Presentation based on paper Fietsberaad.be*: 'From car and bicycle parking regulations to mobility standards'



*Fietsberaad.be is the knowledge centre for cycling in Flanders (Belgium)

<https://fietsberaad.be/documenten/cahier-nr-5-parkeer-en-stallingsnormen/>



Presentation based on paper [Fietsberaad.be](https://www.fietsberaad.be)*: 'From car and bicycle parking regulations to mobility standards'

Paper is dealing with:

- ✓ Analysis of policy evolution regarding parking standards and what is known about the relationship between mobility – parking policy and new practices
- ✓ Specified guidelines for car and bike parking standards for residential projects – depending on the location
- ✓ An integrated approach on accessibility provision:
parking spaces (bicycle and cars)
& mobility services (public transport, shared mob.)



Relationship between parking standards for cars and bike and mobility

Cars are parked 95% to 96% of the time (80% of which in/near home)

Similar to bicycles



Space needed cannot be provided on public domain

The emphasis in the paper is on parking on private domain

Relationship with street parking must also be given attention

How parking standards for cars and bikes can contribute to a future-oriented mobility policy

Vision in paper on mobility standards: aim is more bicycle trips – fewer car trips

Flemish Government Policy Agreement: #modalshift from 70% (car)/30% (sustainable modes) now to 50/50 in metropolitan areas and in the rest of Flanders 60/40 in 2030

Knowledge Centre Fietsberaad aims at 20% share of bicycles in Flanders by 2024 (now 14%)

So facilitate cycling and discourage car traffic

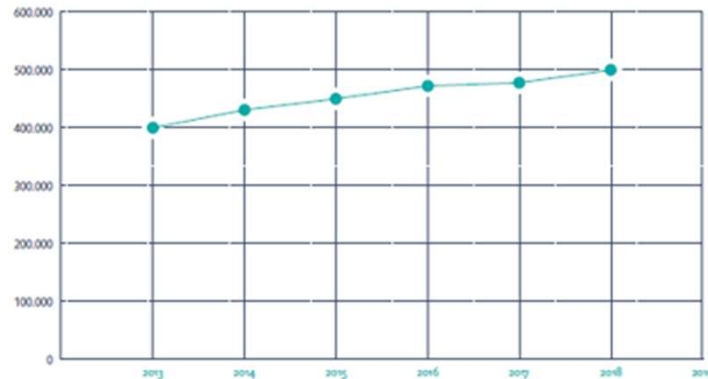
Also applies to parking for cars and bikes!



Relation between parking standards for cars and bikes and mobility. Parking standards for bikes: a recent phenomenon

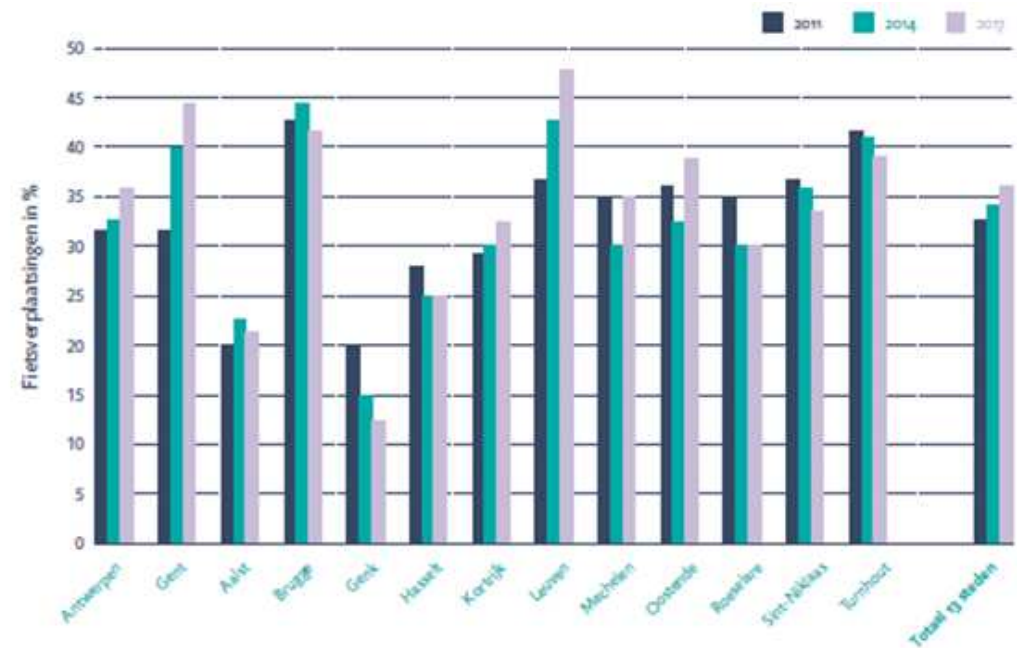
Attention to bicycle parking standards is related to rapidly increasing bicycle use and bicycle ownership

evolution of bicycle sales in Belgium



Figuur 2: Evolutie Belgische fietsverkoop. Bron: Velofolies, cijfers 2012-2019

evolution of bicycle trip in mid sized cities in Flanders



Figuur 1: Evolutie fietsverplaatsingen in de centrumsteden voor woon-werk en woon-schoolkeer. Bron: Gemeente- en stadsmonitor 2017

Relation between parking standards for cars and bikes and mobility. Changing insights into car parking standards

First national traffic regulations in Belgium January 1900: *parking not allowed on public roads* (so parking always on private property)

In municipal regulations: both loading and unloading when vehicles (carriages, car mobiles) with (waiting) coachman/driver in it allowed

Allow parking was a requirement of motorists-associations but only allowed when reviewed in 1925 (after 'experiments' in Brussels, including Rue de la Loi, with growing list of allowed streets)

Only in 1934 'more technical' regulations: distinction between 'stationary' (with driver in car) and 'parking' (without driver in car)

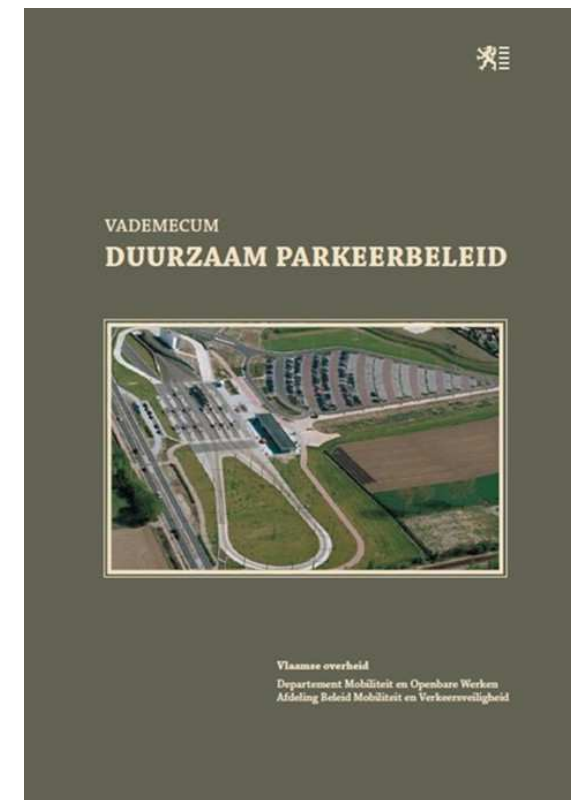


pic. La Belgique automobile 1902

Relation between parking standards for cars and bikes and mobility. Changing insights into car parking standards

Following the (first) National Urban Planning Act (1962) the binding 'Administrative letter Minister De Saeger' provided minimum car parking standards for new constructions to be applied in special zoning plans and allotment permits

After the transition of spatial planning to regional competence (1981) the Flemish Government took over the guideline but abolished it at the beginning of this century (since then parking standards are a full municipal competence. Most municipalities adopted higher car parking standards since then.



Relation between parking standards for cars and bikes and mobility. Changing insights into car parking standards

ECF

Referring to Climate goals

Recommendations: formulate on national level:

- Maximum car parking standards

- Minimum bike parking standards

Avoiding development in areas with low density (car oriented)

Coordination with parking policies on public domain



Relation between parking standards for cars and bikes and mobility. Changing insights into car parking standards

International research

D. Shoup:

High cost of free parking! (for society)

he advocates a maximum standard

flexible parking requirement idw developer

Food for thought: why only payed parking
in urban areas and free in suburban areas?
infrastructure cost in sprawl area?



Relation between parking standards for cars and bikes and mobility. Changing insights into car parking standards



Food for thought: why only payed parking in urban areas and free in suburban areas?
infrastructure cost in sprawl area = 9,5 times higher than in urban core areas



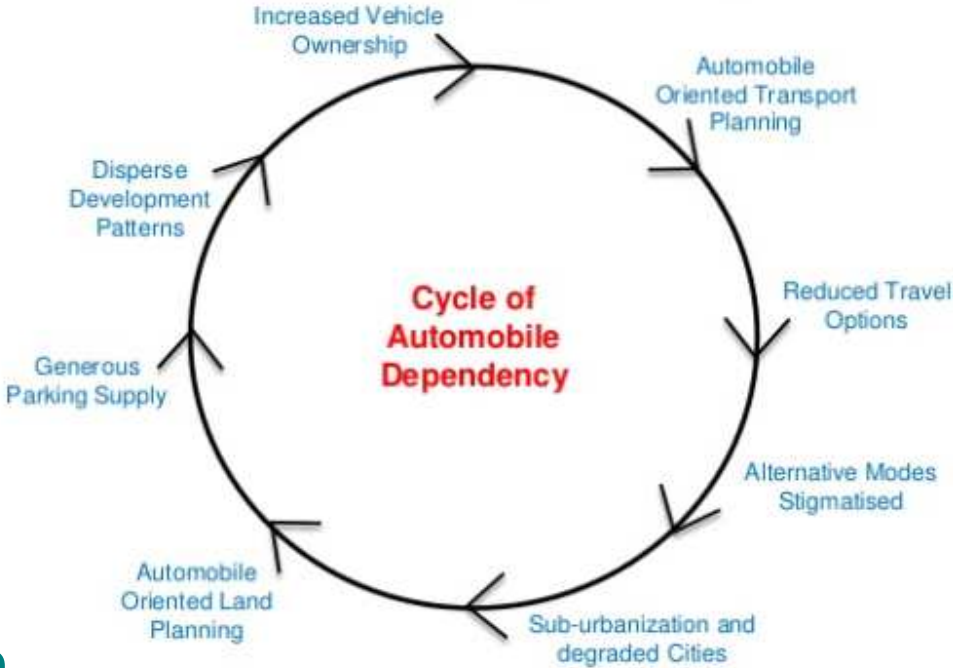
Relation between parking standards for cars and bikes and mobility. Changing insights into car parking standards

Car trips and car availability

besch	Frequency	Percent	Cumulative Frequency	Cumulative Percent
ja	416.4618	31.62	422.2834	31.62
neen	894.7891	67.94	1317.072	100.00
geen antwoord	5.821601	0.44	5.821601	0.44

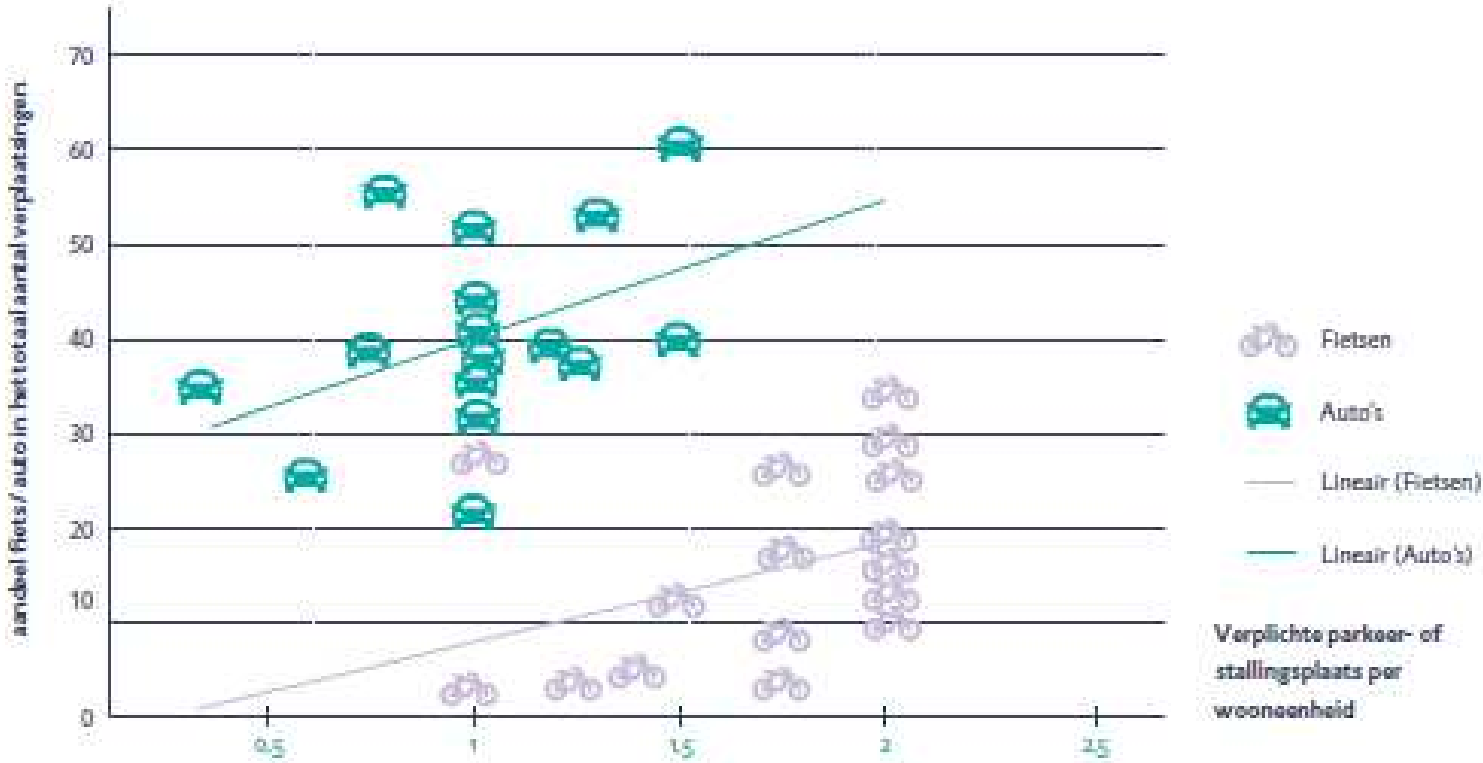
Source: OVG, 2019

In Flanders only 1/3 of people travelling by public transport or bike are 'free choice travellers' 2/3 don't have a car available when they start their trip



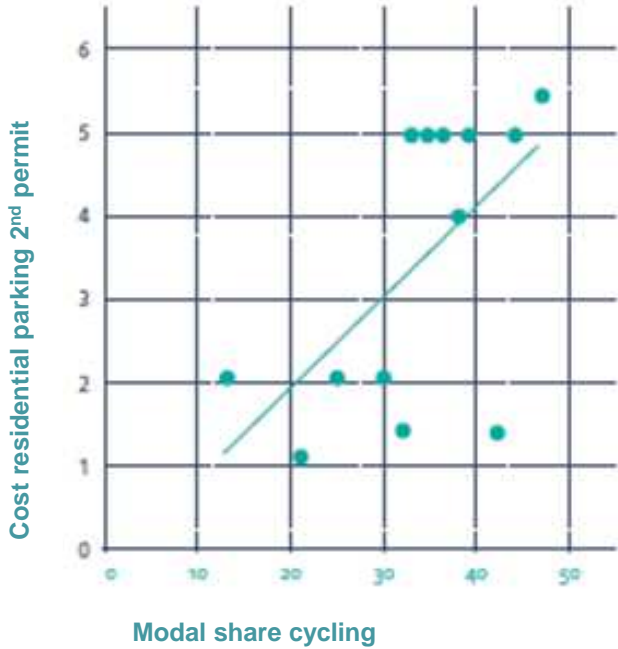
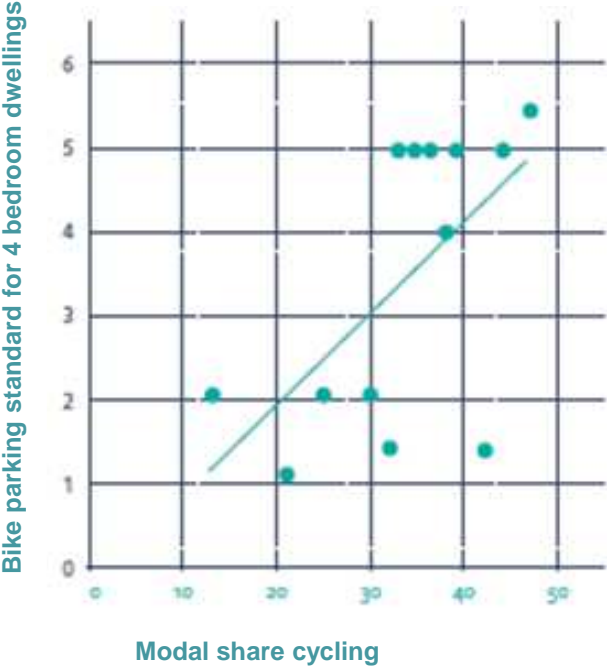
Victoria Transport Policy Institute, "Evaluating Transportati

Relation between parking standards for cars and bikes and mobility. Modal shift: an issue of ‘push and pull’



Source: ECF 2018

Relation between parking standards for cars and bikes and mobility. Modal shift: an issue of ‘push and pull’



Source: Fietsberaad 2019

Relation between parking standards for cars and bikes and mobility. From vehicle ownership to shared mobility



Two most successful shared bike systems in Flanders (introduced in 2011)

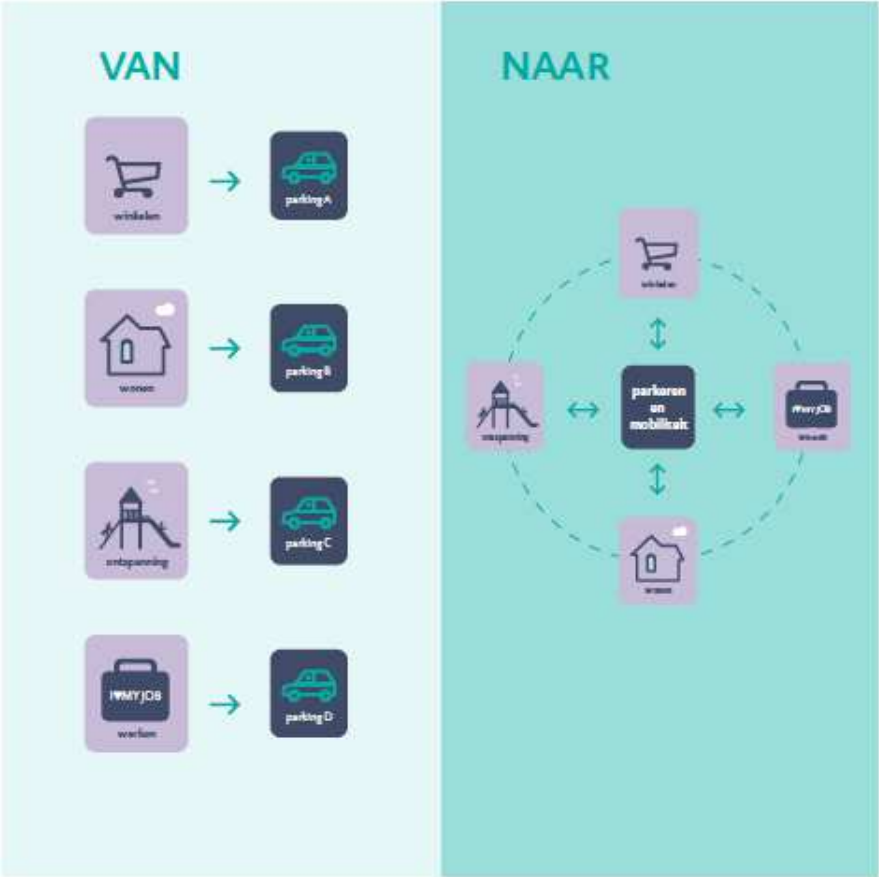
Blue Bike related to railway stations. Back to one system



Velo system in Antwerp: back to many system

Best score for Velo: 26.850 trips/day, in average each bike is used for 4,5 trips/day. Since 2011 more then 40 mio trips made in total.

Relation between parking standards for cars and bikes and mobility. Toward flexible and shared parking facilities



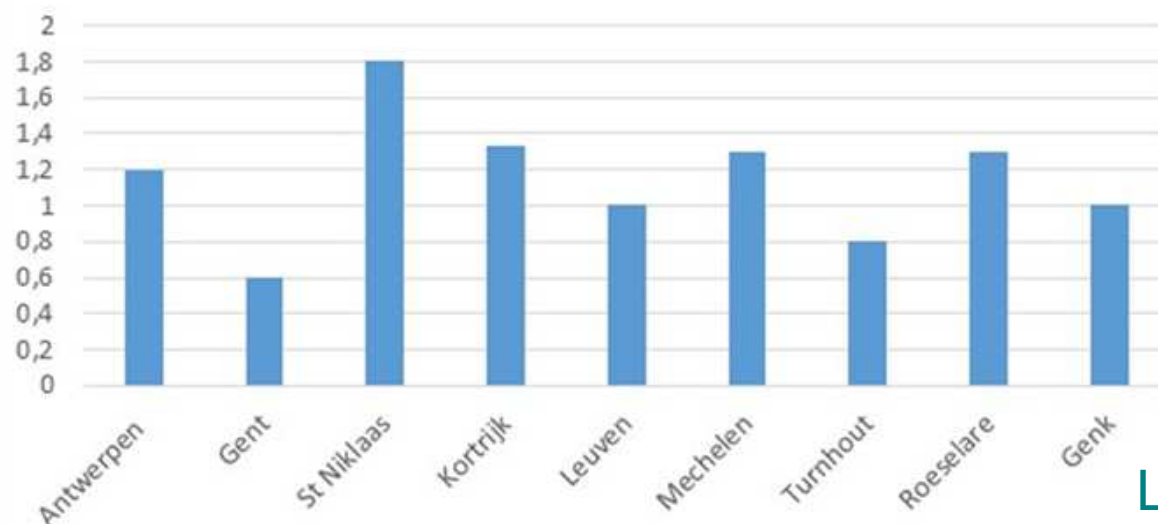
Figuur: Evolutie monofunctioneel gericht parkeren naar parkeren gericht op meerdere functies. Bron: City parking in Europe, 2004

Evolution of parking standards for cars and bikes in Flanders

Varying and changing standards in Flemish cities

Car parking standards in medium sized cities

For Housing in downtown areas



Large variation (between 0,6 en 1,8)

Source: Fietsberaad.be

In most cities adaptation of parking standards is in study/consideration now

Evolution of parking standards for cars and bikes in Flanders

Regulation of residential street parking

Wide variety of rates

Usually low rates
even free

More permits than available places
is the rule (sometimes +50%)

So residents ‘pay’ in search time

Bewonerskaarten: prijs per jaar

Stad	1ste kaart	2de kaart
Aalst	€ 31,50	€ 120
Aachen	€ 30	€ 30
Antwerpen	gratis	gratis
Asse	€ 25	€ 25
Blankenberge	€ 125	€ 125
Brussel	€ 10	€ 50
Diepenbeek	€ 50	€ 200
Gent	gratis	€ 250
Kortrijk	gratis	€ 50
Izegem	€ 60	€ 120
Leuven	€ 60	€ 300
Mechelen	gratis	gratis
Stockholm centrum (SE)	€ 1225	€ 1225
Turnhout	gratis	€ 125
Sint-Niklaas	€ 5 (voor 3 jaar)	€ 105
Utrecht centrum (NL)	€ 343 (wachtdijst)	geen
Zurich blauwe zone (CH)	€ 293	€ 293

Evolution of parking standards for cars and bikes in Flanders

Regulation of residential street parking

New policy in development



New practice example:
City of Sint Niklaas – Paterskerk housing project
Social housing, standard parking standard:
1 P per 3 dwellings



Will be lower

1. But no right for on street residential parking permit for project residents (address of project not included in the blue zone)
2. Promotors have to offer an advantageous shared car formula for residents
2. Private parking facilities have to be open for larger public



Conclusion of the paper: Proposal for a conceptual framework for car and bike parking

Provide balanced multimodal accessibility level

Car parking standards: minimum (can be zero) and maximum standard per type of area, distinguished between cities and smaller towns and villages

location in the municipality: core/station area, fringe area around core/sub-core and other areas

Parking requirement tailored to project but not 'a la tête du client'

therefore within min. and max. range of standard

Also depending on

- accessibility profile of area

- carrying capacity of roads for additional traffic

- (modal shift ...) ambition of the municipality



Conclusion of the paper: Car parking standards for housing

Woning/appartement < 100m²

Type gemeente	Centrumsteden		Kleine steden en dorpen	
	min	max	min	max
Ligging				
Kerngebied/Stationsomgeving	0	0,75	0,5	1
Rand rond kern/(subkern)	0,25	1,25	0,75	1,50
Overig	0,5	1,50	1	1,75

Woning/appartement > 100m²

Type gemeente	Centrumsteden		Kleine steden en dorpen	
	min	max	min	max
Ligging				
Kerngebied/Stationsomgeving	0	1	0,5	1,50
Rand rond kern/(subkern)	0,25	1,50	0,75	1,75
Overig	0,5	1,75	1	2

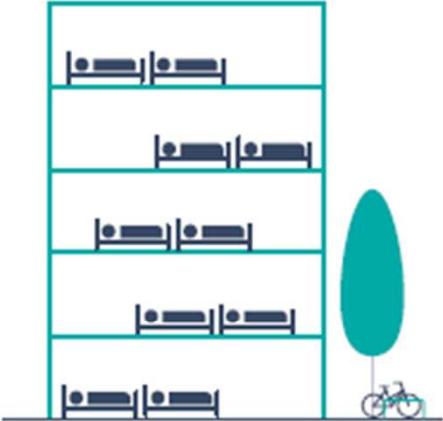


Conclusion of the paper: Bike parking standards for housing

‘1 bike parking per pillow’



Het aanbevolen ambitieniveau is minimaal één stallingsplaats per hoofdkussens te voorzien. Het aantal hoofdkussens ligt vast in de project- of bouw aanvraag.



Voor grotere projecten is het wenselijk om ook een aantal plaatsen te voorzien (op maat van het project en de omgeving) voor buitenmaatse fietsen (cargobikes, fietskarren, tandems, ...). Daarbij stelt Fietsberaad Vlaanderen voor om het totale aantal met 10% te verhogen.

larger projects: provide places for oversized bikes (cargobikes, ebikes etc.)



Conclusion of the paper: Towards mobility standards for housing & other projects

- See balanced multimodal accessibility level (within car, bike parking standards ranges + mobility services (shared, public transport))
- Formulation of mobility standards for shopping, offices, schools: work in progress (new paper in preparation, similar to housing standards)



Conclusion : Towards mobility standards

Ready for debate! Q & A?

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