POLIS
CITIES AND REGIONS FOR TRANSPORT INNOVATION

ANNUAL CONFERENCE 2022

SESSION 4E:
MANAGING THE CURB,IMPROVING PARKING

From parking standards to mobility requirements in project development. Recommendations and practices from Flanders

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SESSION 4E: MANAGING THE CURB, IMPROVING PARKING

From parking standards to mobility requirements in project development.
Recommendations and practices from Flanders

SPEAKER

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Parking practices: in transition

Evolution of parking policies

Source: UGent, City Parking in Europe 2005

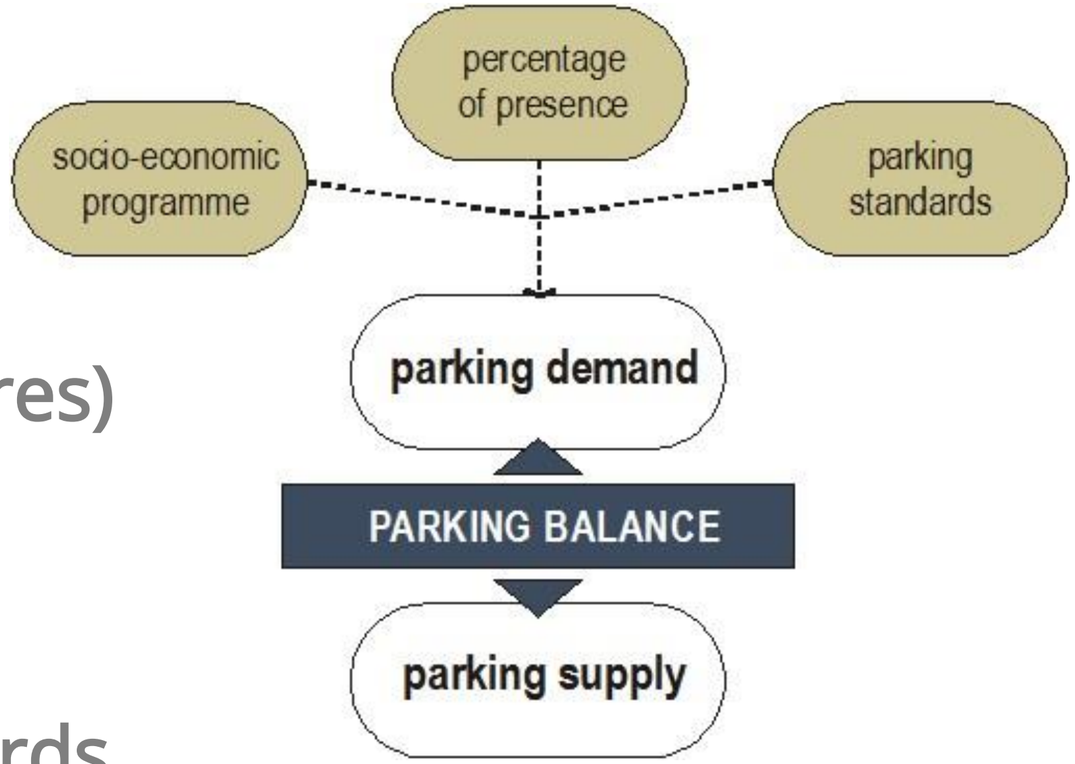
Parking standards: in transition

Traditional definition of the parking problem
User – Provider issue (demand and supply)

+

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

↓↓↓↓↓↓↓↓



Minimum parking standards

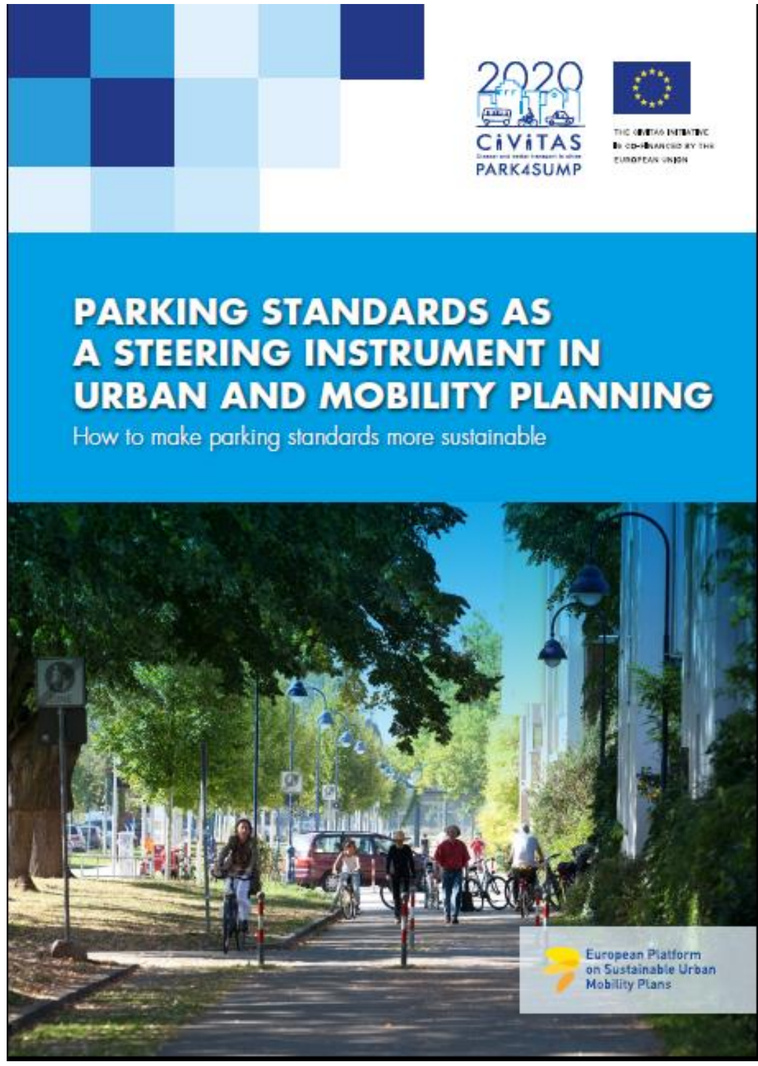
Despite their unique character, most cities follow the same

Towards standards for push and pull modal shift policy

How to make parking standards more sustainable?

www.PARK4SUMP Civitas2020

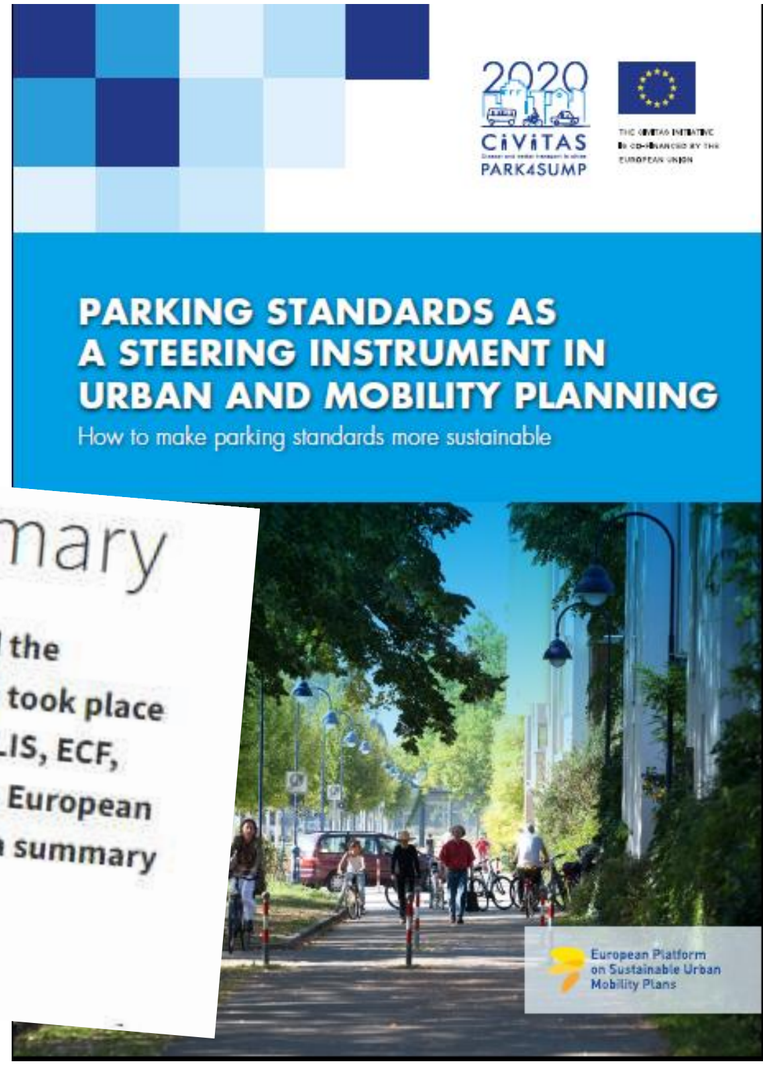
‘Parking spaces in new urban development projects may no longer be oriented to expected future demand, but should achieve modal split targets with a view to sustainable urban development’



Towards standards for push and pull modal shift policy

How to make parking standards more sustainable?

www.PARK4SUMP Civitas2020’



Relationship between parking standards for cars and bike and mobility

Changing insights into car parking standards

ECF (European Cyclist Federation, 2018, 2021)

Referring to Climate goals

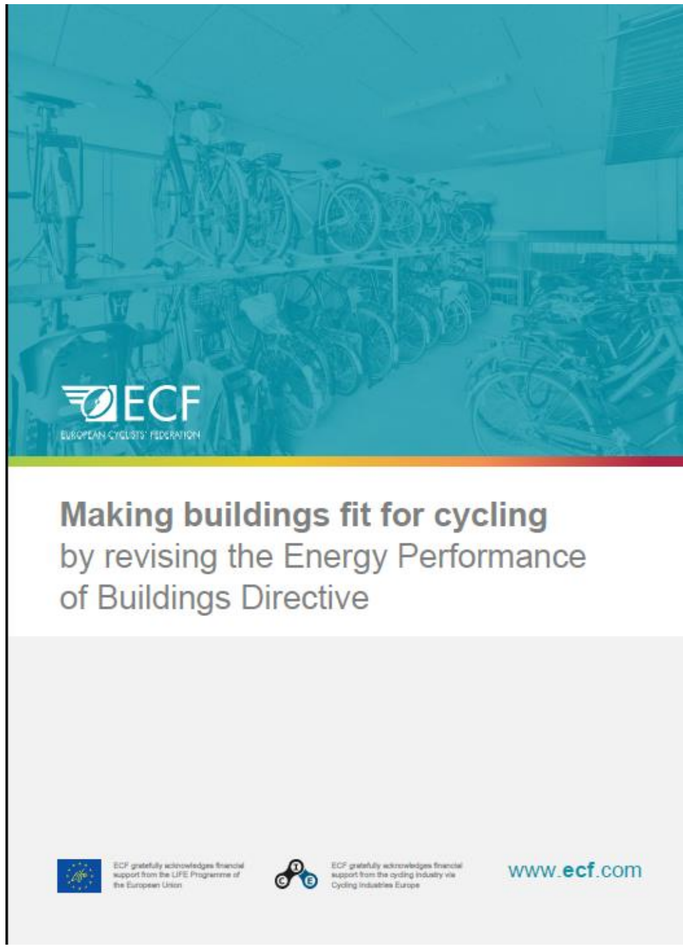
Recommendations: formulate on national level:

Maximum car parking standards

Minimum bike parking standards

Avoiding development in areas with low density (car oriented)

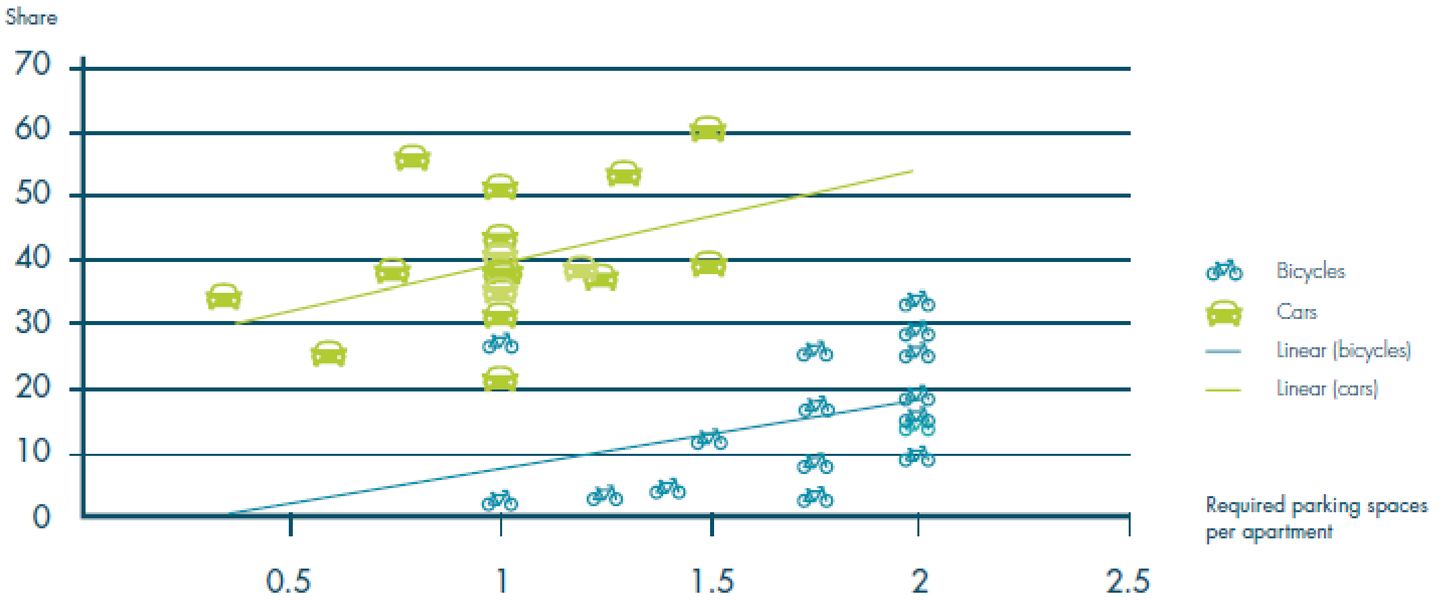
Coordination with parking policies on public domain



Relationship between parking standards for cars and bike and mobility

Changing insights into parking standards

ECF



Making buildings fit for cycling
by revising the Energy Performance of Buildings Directive

ECF gratefully acknowledges financial support from the LIFE Programme of the European Union
ECF gratefully acknowledges financial support from the cycling industry via Cycling Industries Europe

www.ecf.com

Presentation based on paper:

‘From car and bicycle parking regulations to mobility standards’

Developed and published by Fietsberaad.be
(Flemish knowledge centre for cycling)
https://fietsberaad.be/documenten/cahier-nr-5-parkeer-en-stallingsnormen/

Presentation based on paper:

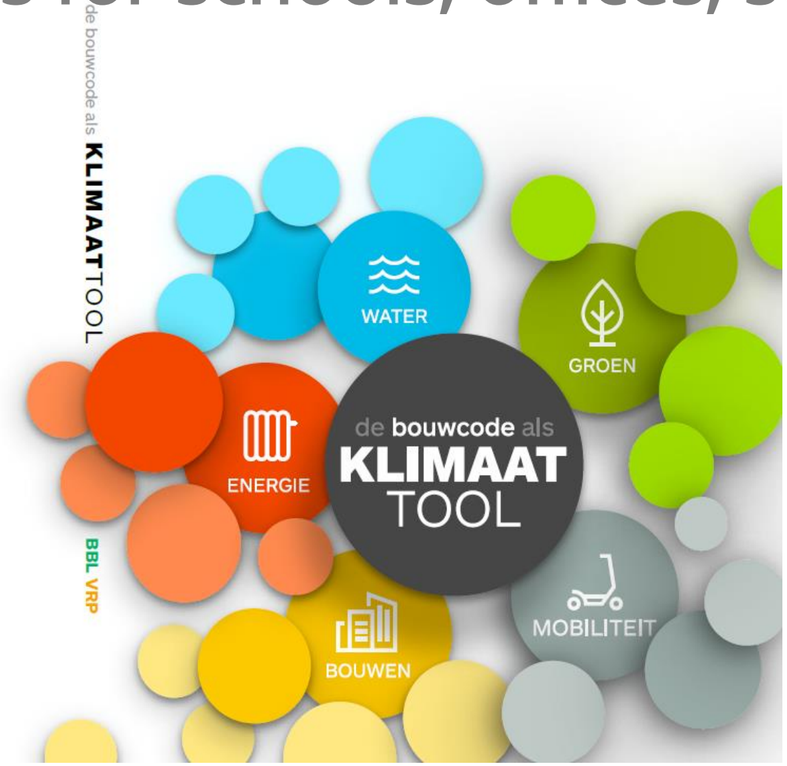
‘From car and bicycle parking regulations to mobility standards’

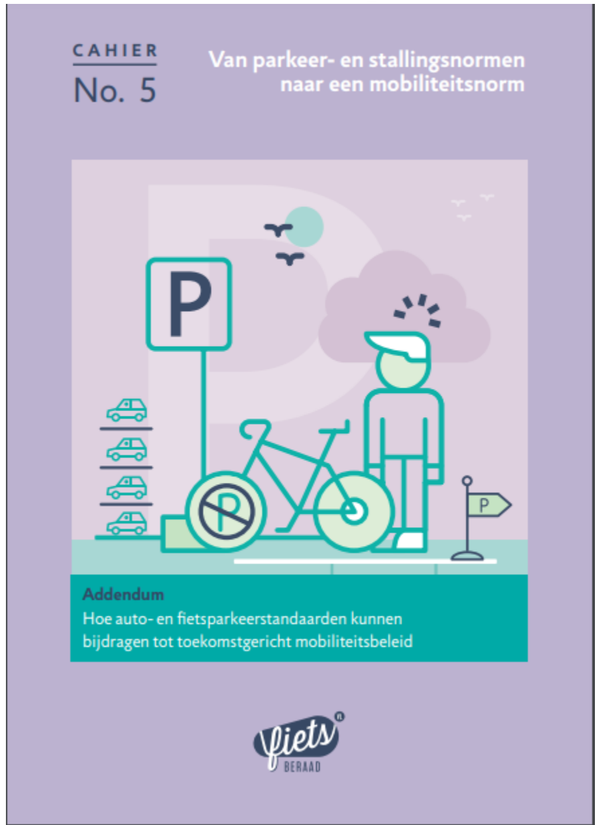
And further research and recommendations

- On building regulations as a climate tool
- On standards for schools, offices, supermarkets and sports areas

“De toolbox biedt een kapstok om met verschillende diensten en de bevoegde schepenen een grondige oefening op de bouwcode te maken. Het leidt tot een heel interessante oefening waar iedereen aan tafel uitgedaagd wordt over de sectoren heen na te denken over lokaal ruimtelijk klimaatbeleid.”

JAN DE GOLS
[DUURZAAMHEIDSAMBTENAAR MEISE]





From parking standards to mobility requirements in project development

Approach 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 and traffic attracting projects – depending on the location**
- ✓ **An integrated approach on accessibility provision:**
  parking spaces (bicycle and cars)
  & mobility services (public transport, shared mobility)
- ✓ **A methodology leading at determining an integrated accessibility package for urban development projects**

Parking standards for cars and bikes and mobility: modal shift

Aim is more bicycle trips – fewer car trips

Flemish Government Policy Agreement 2019: #modalshift from 70% (car)/30% (sustainable modes) now to 50/50 share in metropolitan areas and in the rest of Flanders 60/40 by 2030

New covenant between government, provinces and municipalities aims at 20% modal share of bicycle trips in Flanders by 2025 (2019: 14%)

So facilitate cycling and discourage car traffic

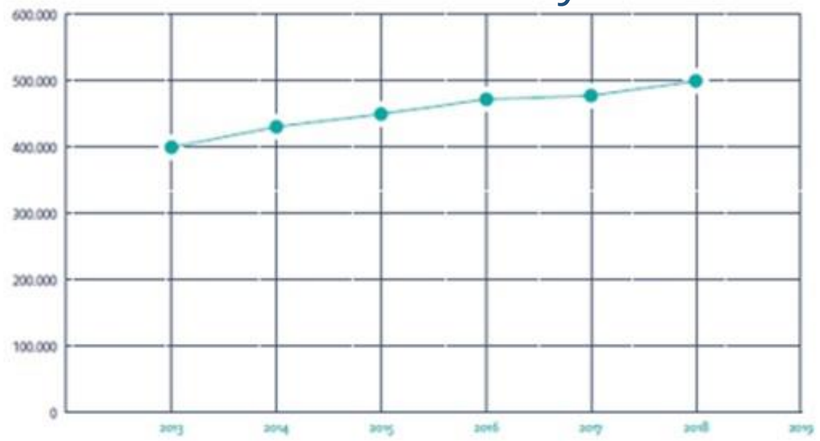
Also applies to parking for cars and bikes!

Changing approach parking standards for cars and bikes and mobility

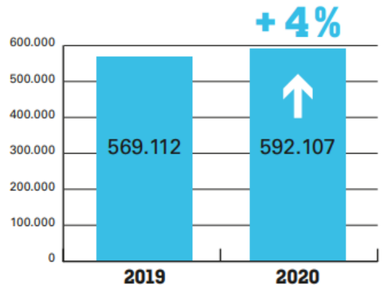
Parking standards for bikes: a recent phenomenon

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

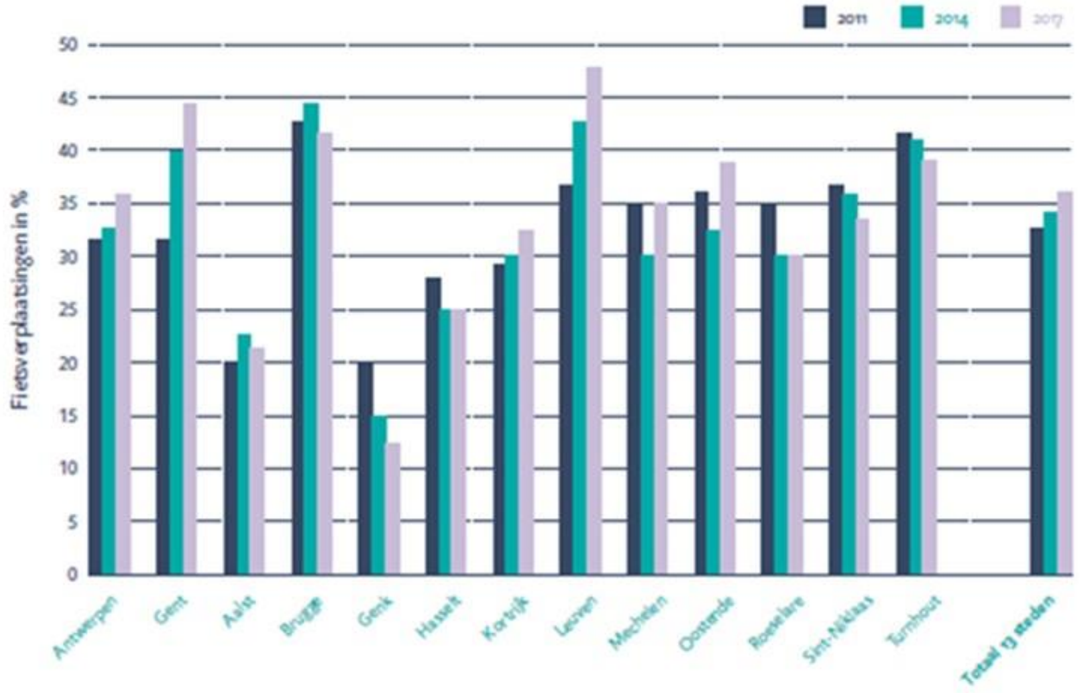
evolution of bicycle sales in Belgium



Figuur 2: Evolutie Belgische fietsverkoop. Bron: Velofollies, cijfers 2013-2019



evolution of bicycle trip in mid sized cities in Flanders



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

Changing approach 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, cars) with (waiting) coachman/driver in 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)

pic. La Belgique automobile 1902

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

Changing approach parking standards for cars and bikes and mobility

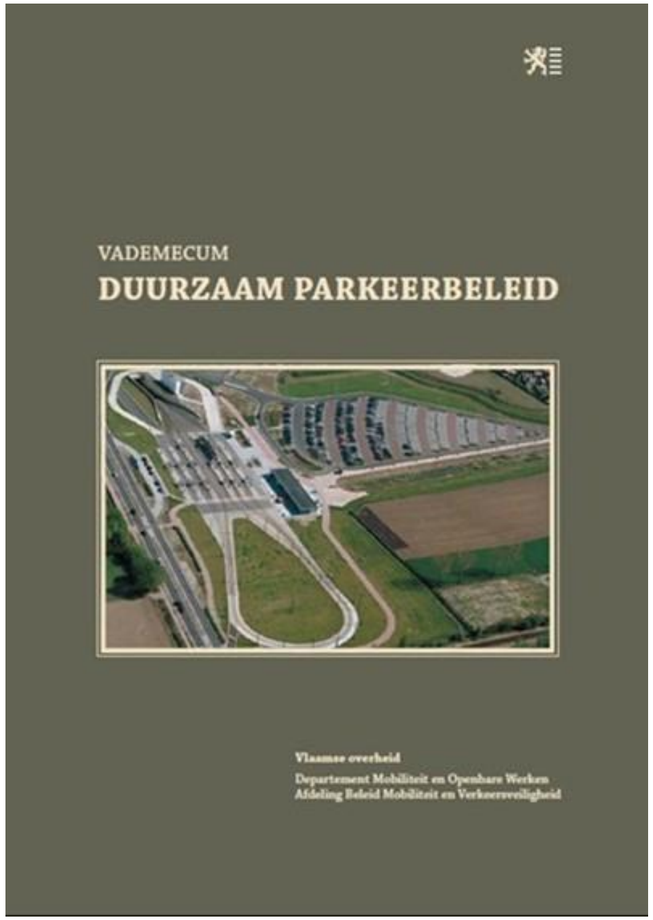
Changing insights into car parking standards

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 minimum car parking standards.



Changing approach parking standards for cars and bikes and mobility

Cost of mobilty infrastructure

Flemish research

Food for thought: why only payed on street parking in urban areas and free parking in suburban areas?

Quid infrastructure cost in sprawl area?

= 9,5 times higher than in urban core areas!

Changing approach parking standards for cars and bikes and mobility

Changing insights into car parking standards – car dependency

Flemish & international research

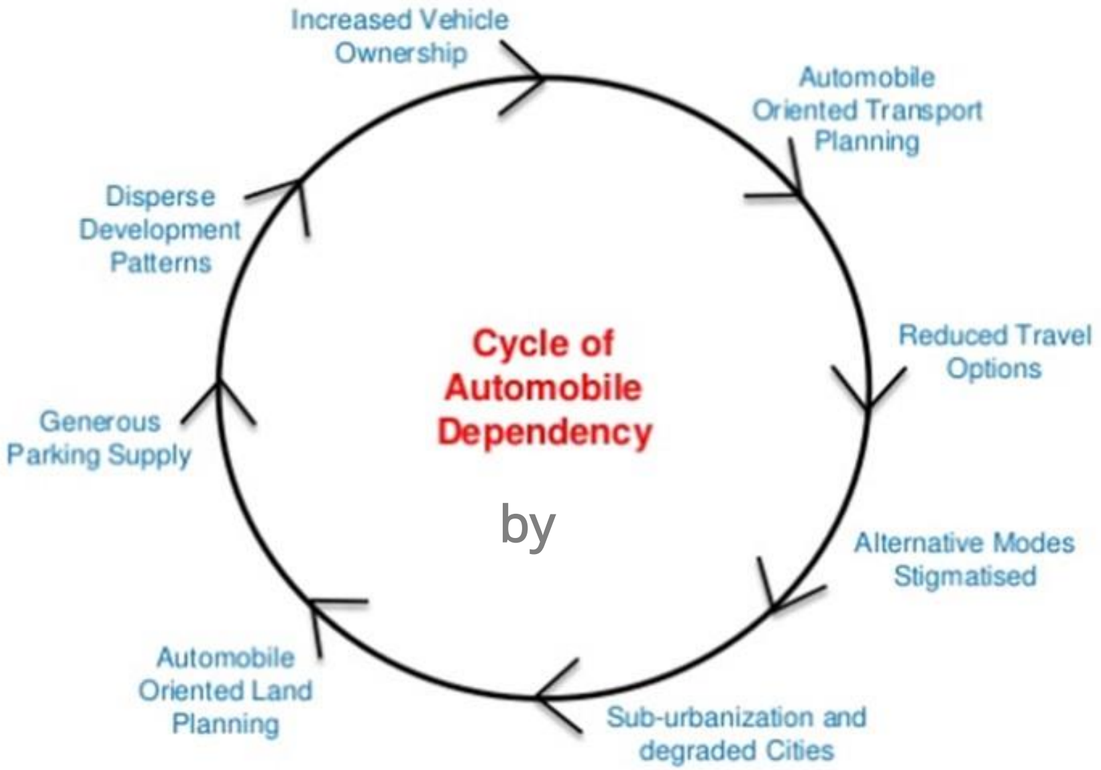
Car trips and car availability

besch	Frequency	Percent
ja	416.4618	31.62
neen	894.7891	67.94
geen antwoord	5.821601	0.44

In Flanders only 1/3 of people travelling 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 Transportation Land Use Impacts"

Changing approach parking standards for cars and bike and mobility

From vehicle ownership to shared mobility

Two most successful shared bike systems in Flanders introduced 2011
Best score for Antwerp 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.

Blue bike near (more than 50) railway stations in B.

Brand new innovation:
regional
shared e-bike system
in Antwerp region

Changing approach parking standards for cars and bike and mobility

From vehicle ownership to shared mobility

Fast growing niche market – substituting potential individual parking

(e.g. city Ghent regulation: 1 shared car parking = 4 individual parking

Car sharing is on the increase

- 25 JANUARY 2022

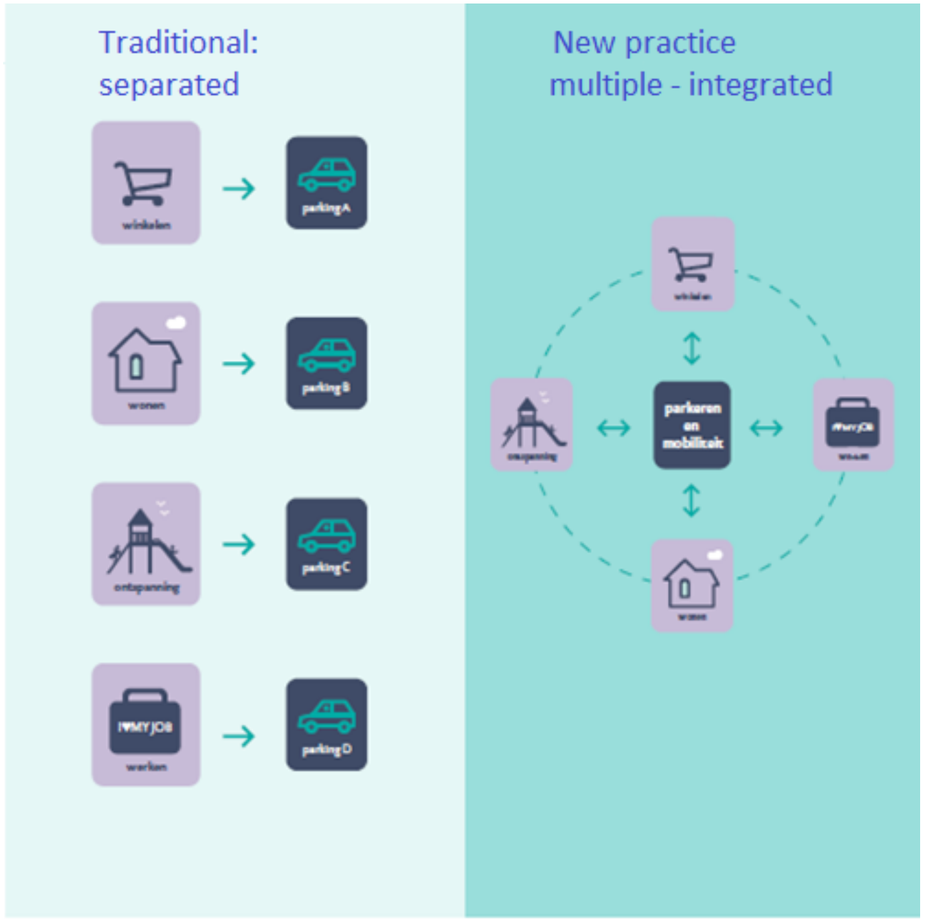
In five years, the number of car sharers has risen to 194,000, a sevenfold increase. According to Autodelen.net, this is just the beginning. Currently, 2.5% of driving license holders in Belgium are already car-sharing, while in Brussels the figure is as high as 8%. All figures, facts and trends from 2021 can be found in the annual report of Autodelen.net.

PARKEERPLAN GENT 2020

Nota Parkeerrichtlijnen Fiets en Auto

Changing approach parking standards for cars and bike and mobility

Towards flexible and shared parking facilities



Figuur 7: Evolutie monofunctioneel gericht parkeren naar parkeren gericht op meerdere functies. Bron: City parking in Europe, 2004

Flexible car and bike parking regulation

Towards integrated mobility standards

A conceptual framework for housing projects

Provide balanced multimodal accessibility level

Per type of area : location in the municipality: core/station area,
fringe area around core/sub-core and other areas
distinguished between cities and smaller towns and villages

Car parking requirement tailored to the project but not 'a la tète du client'
therefore within **minimum and maximum range of the parking standard**

Car parking requirement also depending on

accessibility profile of area
carrying capacity of roads for additional traffic
(modal shift …) ambition of the municipality
car and bike sharing – public transport offer

Towards integrated mobility standards

Recommended standard values for housing projects

Provide balanced multimodal accessibility level

Proposed mobility standards for car parking dwellings/flats < 100m²				
Type of municipality	Regional city		Small city or town	
Location	min	max	min	max
Core / Station area	0	0,75	0,50	1
Edge around core area / Sub-core	0,25	1,25	0,75	1,50
Other (dispersed settlements)	0,50	1,50	1	1,75

Proposed mobility standards for car parking dwellings/flats > 100m²				
Type of municipality	Regional city		Small city or town	
Location	min	max	min	max
Core / Station area	0	1	0,50	1,50
Edge around core area / Sub-core	0,25	1,50	0,75	1,75
Other (dispersed settlements)	0,50	1,75	1	2

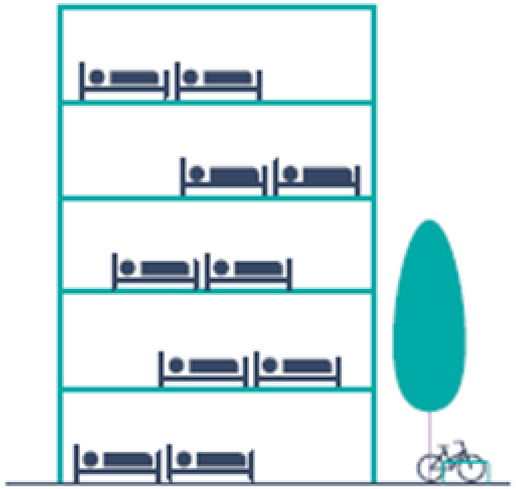
Towards integrated mobility standards

Recommended tandard values for housing projects

Provide balanced multimodal accessibility level
Bike parking standards – minimum – overall value

‘1 bike parking per pillow’

larger projects: provide extra places (10%)
for outsized bikes (cargo-bikes, e-bikes etc.)



Towards integrated mobility standards

A conceptual framework for traffic-attracting projects and facilities

Car parking standards – minimum and maximum range + Bike parking standards – minimum values

Four step methodology

1 determine the number of visitors/users of a facility (optional)	2 determine reference values for car and bike parking based on the current modal split
4 determine accessibility package tailored to the project	3 determine standard values for car and bike parking based on the *desired* modal split

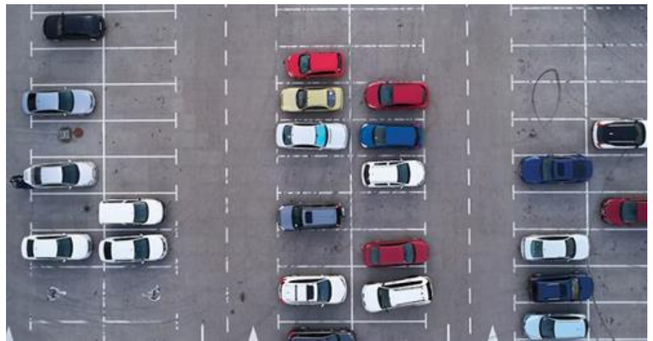
↘

modal shift factor

↙

Methodology proposed for step 4

- ✓ Project-specific parking and parking space requirements based on standard values
- ✓ Align with parking supply in the neighbourhood (private, public, on street)
- ✓ Possibilities of shared mobility (supply of shared cars and bicycles)
- ✓ Facilitating cycling (building new cycle facilities)
- ✓ Facilitating public transport - collective transport use (extra public transport services)
- ✓ Facilitating sustainable goods transport (logistics programme)
- ✓ Reducing accessibility by (individual) car (downgrading car infrastructure)



Tables proposed in paper with standard values (step 3) for schools, offices, supermarkets, sporting areas

Towards integrated mobility standards

A conceptual framework for traffic-attracting facilities

Car parking standards – minimum and maximum range + **Bike parking standards** – minimum values

Use of step-by-step plan by municipalities

Method 1: (e.g. smaller municipalities)

Take over relevant standard values from step 3 tables

=> own municipal regulation/building code

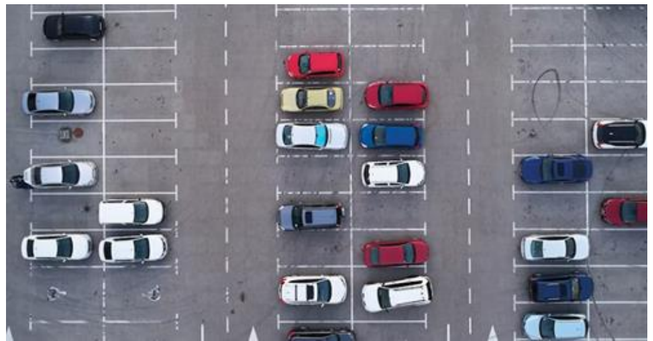
Method 2:

Determine own values based on application of steps 1, 2, 3 of the step-by-step plan

=> own municipal regulation/building code

In all municipalities (after defining parking standards by method 1 or 2): apply step 4: define parking requirements per project (accessibility package tailored to the project

For special projects/locations, a specific study has be carried out, e.g. standardized EIA



Towards integrated mobility standards

Recommended standard values for traffic-attracting facilities: example secondary schools

Bike parking standards – minimum values short and long term

Car parking standards – min and max range

Places /100 students

Proposed mobility standards for bike parking secondary schools

Type of municipality	Regional city		Small city or town	
Location	Short term	Long term	Short term	Long term
Core / Station area	45	55	30	37,5
Edge around core area / Sub-core	50	60	27,5	35
Other (dispersed settlements)	30	37,5	20	25

Proposed mobility standards for car parking secondary schools

Type of municipality	Regional city		Small city or town	
Location	min	max	min	max
Core / Station area	0	2,5	0	3,5
Edge around core area / Sub-core	2,5	4,5	3,5	4,5
Other (dispersed settlements)	4,5	5,5	4,5	5,5

Towards integrated mobility standards

Recommended standard values for traffic-attracting facilities: example offices

Bike parking standards – minimum values
Car parking standards – min and max range
Places /100 m² gross floor area

Proposed mobility standards for bike parking offices

Type of municipality	Regional city	Small city or town
Location		
Core / Station area	0,75	0,5
Edge around core area / Sub-core	0,9	0,6
Other (dispersed settlements)	n.a.	n.a.

Proposed mobility standards for car parking offices

Type of municipality	Regional city		Small city or town	
Location	min	max	min	max
Core / Station area	0	2,9	0	3,6
Edge around core area / Sub-core	1,8	3,6	2	3,9
Other (dispersed settlements)	n.a.	n.a.	n.a.	n.a.

Towards integrated mobility standards

Some practices: Ghent
Building code with min-max range
car parking & min. bike parking standards
Projects e.g. Gantoise housing (300 units)
standard 0,6 pp/dwelling

STAD GENT

PARKEERPLAN GENT 2020

Nota Parkeerrichtlijnen Fiets en Auto

Tabel 2 Autoparkeerrichtlijnen

	FUNCTIE	normslag	rode zone	oranje zone	gele zone	groene zone	witte zone	zuidelijke mozaiek	Aandeel bezoekers in totaal
wonen	sociale huurwoning	wooneenheid	max. 0,4	0,4 - 0,6	0,4 - 0,6	0,4 - 0,6	min. 0,4	-	excl. bezoekers
	studentenwoningen	wooneenheid	0	0	0	0	0	-	excl. bezoekers
	serviceflats/assistentiewoningen	wooneenheid	max. 0,4	0,2 - 0,6	0,2 - 0,6	0,2 - 0,6	min. 0,4	-	0,15 per woning
	woning / studio's	wooneenheid	max. 0,6	0,6 - 0,8	0,6 - 0,8	0,6 - 1	0,8 - 2	-	excl. bezoekers
	bezoekers	wooneenheid	0	0	0	min. 0,1	0,2 - 0,5	-	
werken (incl. bezoekers)	kantoren zonder baliefunctie	100 m² bvo	max. 1,5	0,7 - 2	0,7 - 2	2 - 3	3 - 4	max. 2,7	5%
	arbeidsintensieve/bezoekers-extensieve bedrijven (industrie, garagebedrijf, laboratorium, werkplaats, etc.)	100 m² bvo	max. 0,7	0,3 - 1	0,3 - 1	0,9 - 1,5	1 - 1,9	max. 0,9	5%
	arbeidsextensieve/bezoekers-extensieve bedrijven (loods, opslag, groothandel, transportbedrijf, etc.)	100 m² bvo	max. 0,3	0,1 - 0,4	0,1 - 0,4	0,3 - 0,4	0,4 - 0,9	max. 0,36	5%
commercieel (incl. bezoekers)	detailhandel, supermarkt	100 m² verkoopsopp	0	1 - 2,5	1 - 2,5	2,5 - 4	3 - 4,5	max. 2,7	85%
	grootschalige detailhandel	100 m² verkoopsopp	/	/	/	4 - 6	5 - 7	max. 4,5	85%
	commerciële dienstverlening (kantoren met baliefunctie)	100 m² verkoopsopp	max. 0,7	0,3 - 1	0,3 - 1	1,5 - 3	2,5 - 4	max. 2,25	20%
	Andere (vb. showroom, weekmarkt, winkelcentrum e.d.)	100 m² verkoopsopp	per ontwikkeling te bepalen						
Andere	per ontwikkeling te bepalen								

ECOWIJK GANTOISE GENT
2016 — 2018

Towards integrated mobility standards

Some practices: Turnhout, Sint Pieters (Secondary and primary school)
Built on second floor extra bike parking
Place for more than 1000 bikes
Car free school street
Modal share students: 90% bike

Sint-Pietersinstituut Turnhout

Towards integrated mobility standards

Some conclusions regarding the Flemish recommendations

The proposed methodology and standard values can serve as inspiration for municipal building codes.
To move away from a demand-driven (or even growth-enhancing) car traffic policy and towards modal shift

Link with urban spatial planning remains a local challenge!
Location policy is a crucial factor that, in addition to mobility standards, also determines the modal split in a municipality.

The proposed methodology and standards are still in a phase of development.
They have been tested by a number of experts, but further practice will have to show whether they are feasible and what the preconditions are for the broader mobility and land use policy.

Internationally, there are experiences in some cities (Rotterdam, Utrecht, Stockholm, Freiburg, Umea, …) **with low standards for parking, especially near homes. In our own country, there are interesting examples of modal shift policies at destinations** (e.g. Ghelamco stadium in Ghent) through parking requirements and multiple use of space (Sint Niklaas, also with a view to greening the streets).

Thanks for the attention

Let’s talk

Further contacts:
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