International City Retail Experience 2018

Erasmus Centre for Urban, Port and Transport Economics

Mobility, Parking and Retail: an uneasy relationship?

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Agenda

- The context
- Parking/Mobility and Retail
- Paid Parking and Attractiveness of Shopping Areas
- The Netherlands vs. the rest of Europe
- Conclusions

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The context

Urban Retail and Parking: the problem

- Many urban areas in Europe have recently experienced problems with the retail sector such as:
  - Decreasing turnover;
  - Decreasing footfall;
  - Increasing vacancy;

- This problem affects also the parking sector for two reasons:
  - Less income for the parking sector;
  - Often parking is blamed to be the reason for the retail problem;

The development of parking policy

- Cities have followed the same development pattern in parking policy

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Mobility, Parking and Retail

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'No parking, No business'

Is it true?

Why do retailers think that parking is important?

- Because they think that the majority of their customers come by car;
- Because they think that car drivers are better customers [spend more money] than customers travelling by other modes;

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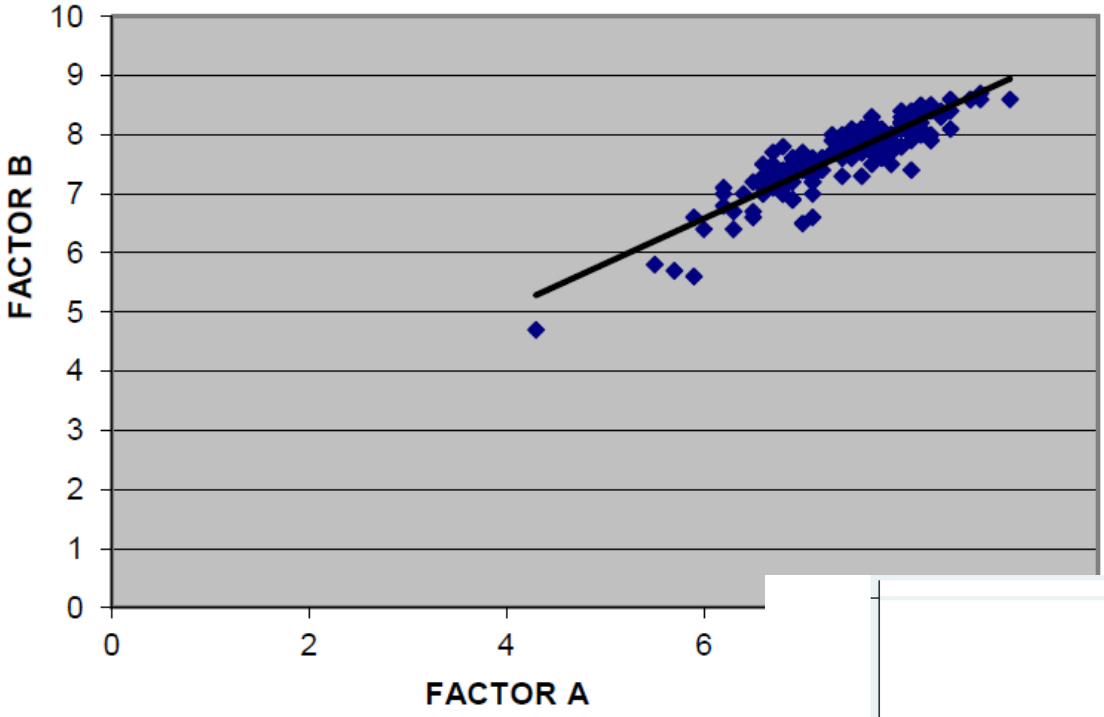
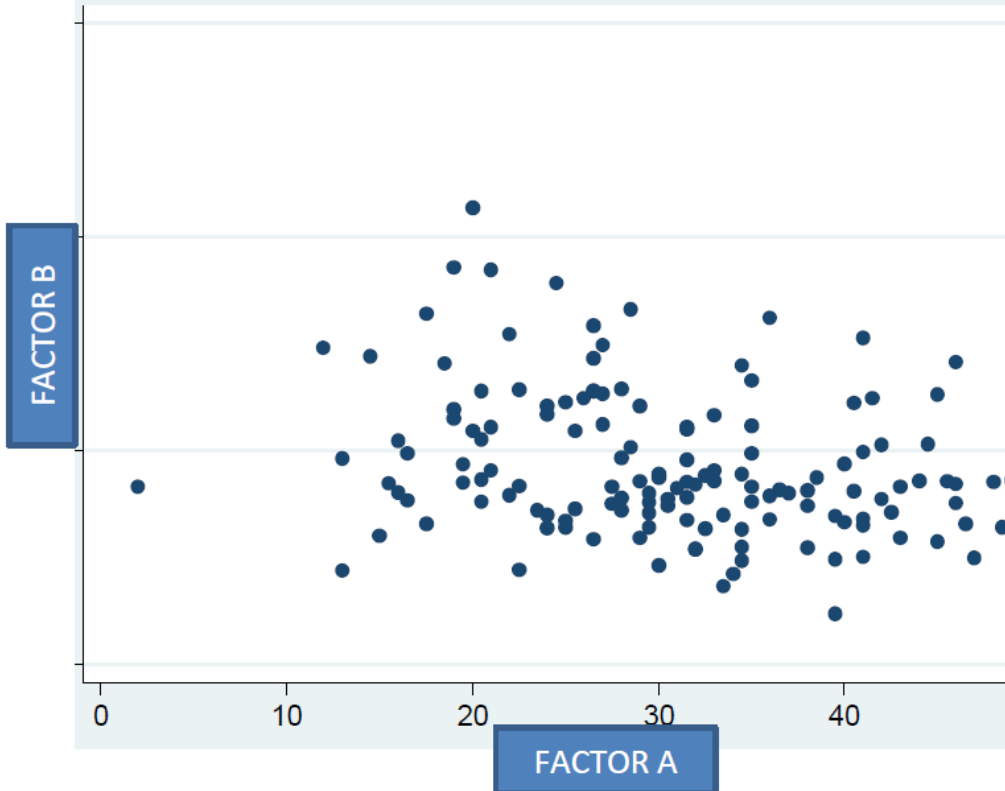
How to read the next slides…



Strong (positive) correlation between A and B

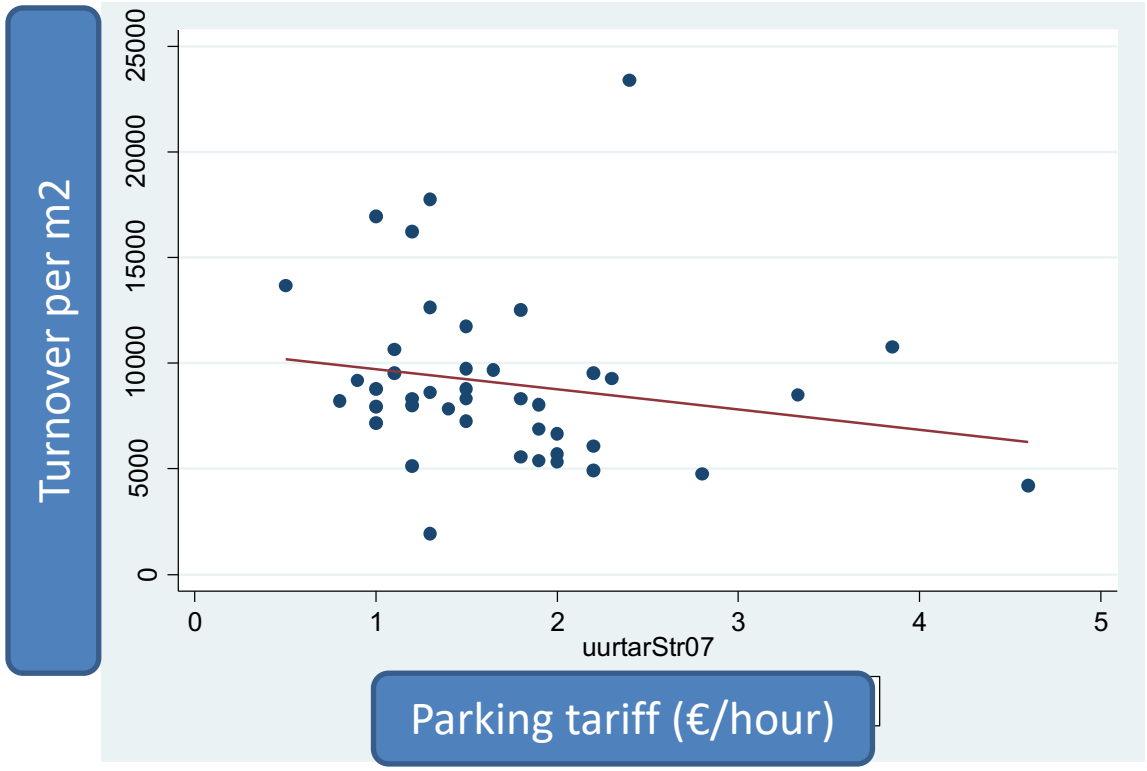
No relationship between A and B



Role of parking in shopping areas: KSO 2011

- Year: 2011
- 217 shopping areas in 158 municipalities in the Randstad;
- More than 70,000 respondents

Do Parking tariffs Explain Turnover (for *Daily Goods*)?



- Very small R^2 of regression
- No causal relationship; model not significant

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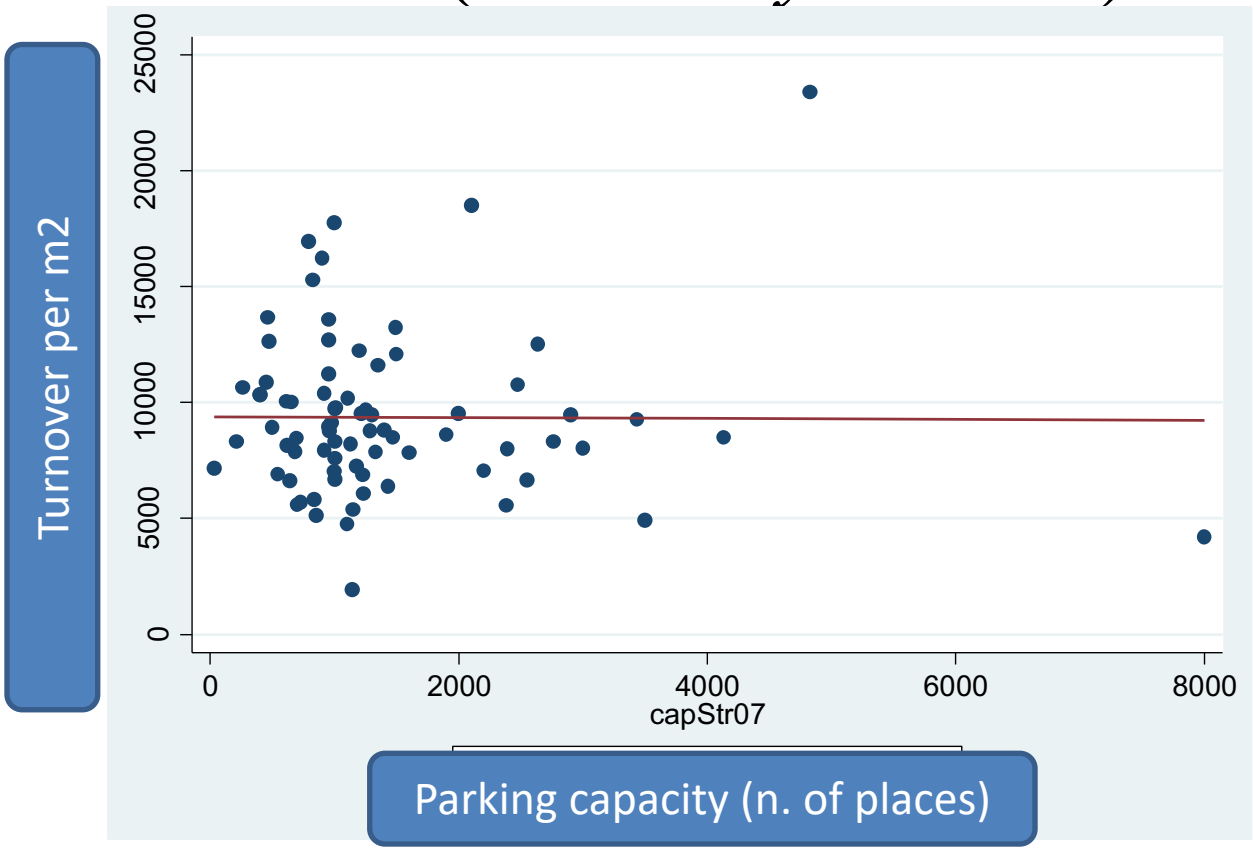
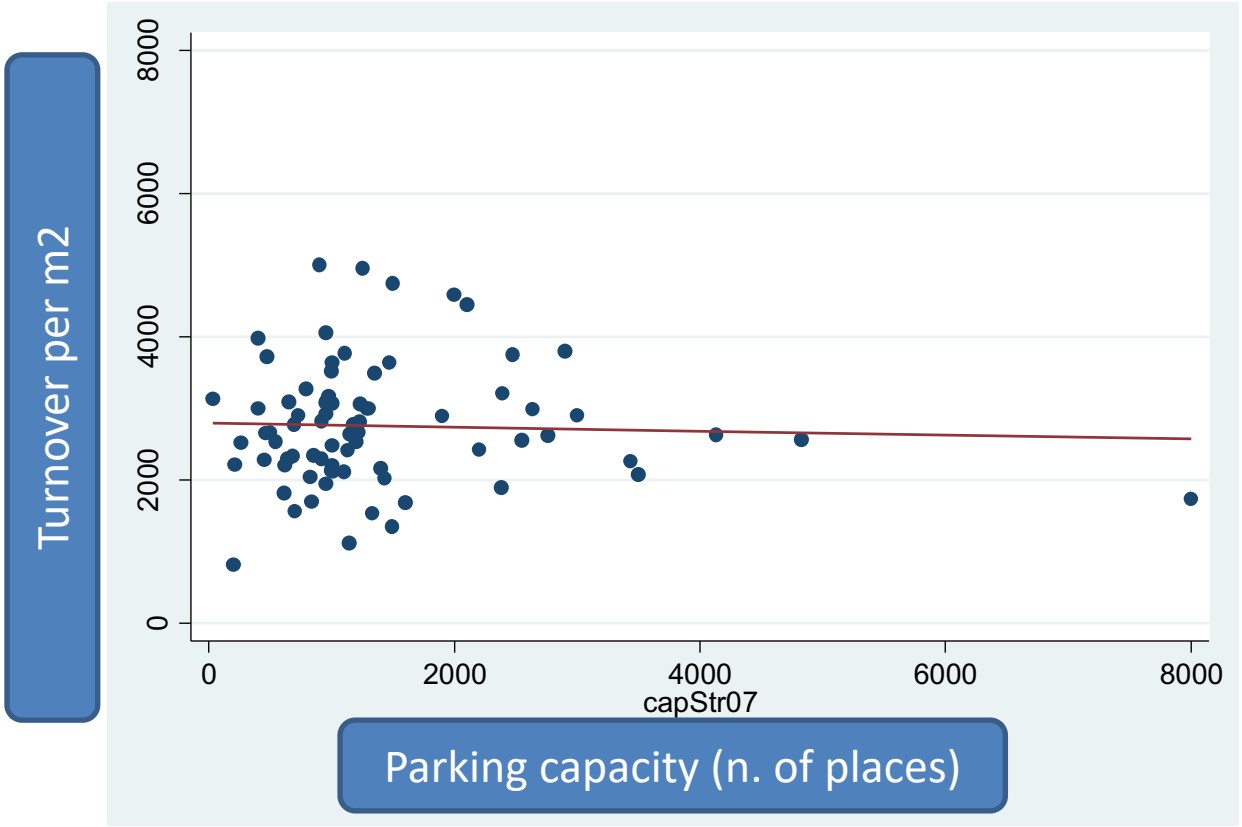
Does Parking Capacity Explain Turnover (for *Daily Goods*)?



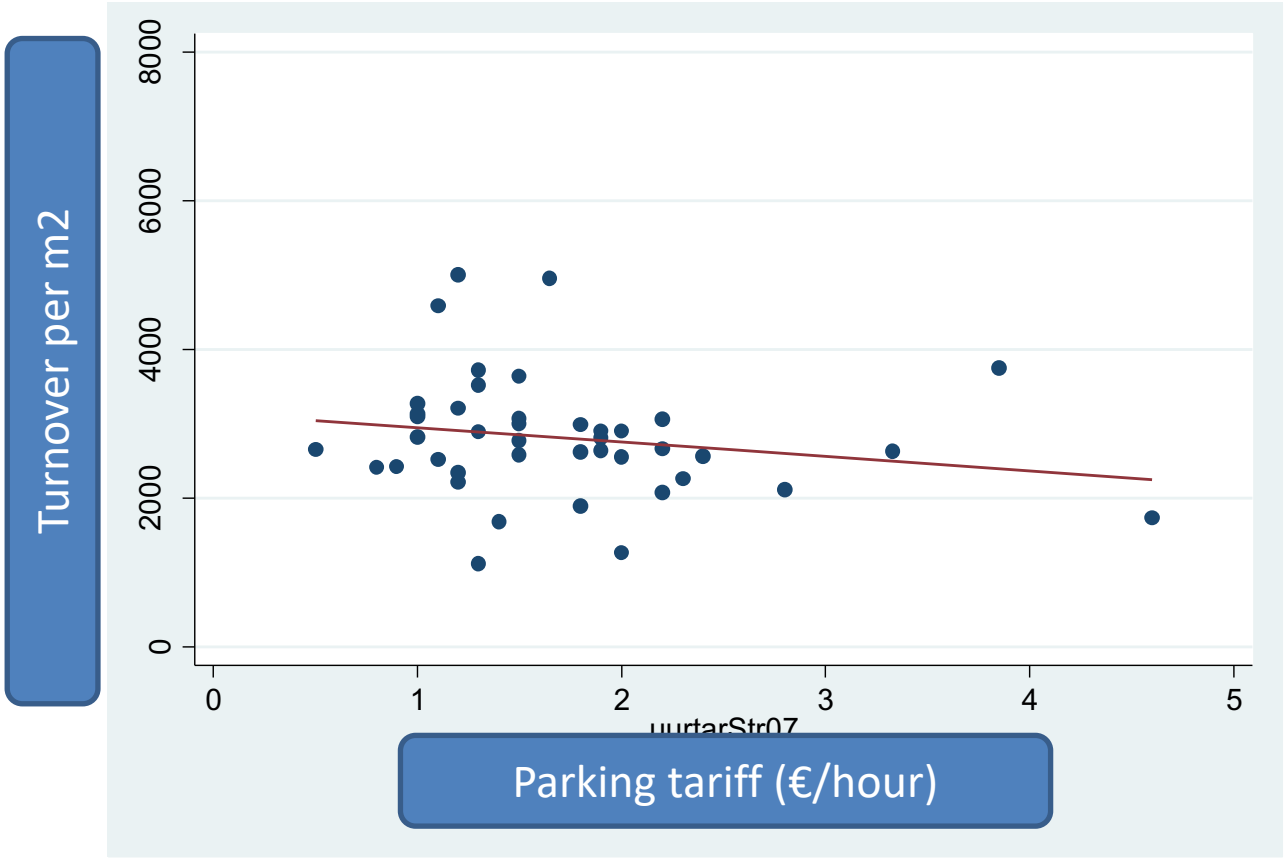
- R^2 is zero!
- No causal relationship

Does Parking Capacity Explain Turnover (for *Non-Daily Goods*)?



- Very small R^2 of regression
- No causal relationship

Do Parking tariffs Explain Turnover (for Non-Daily Goods)?



- Very small R^2 of regression
- No causal relationship

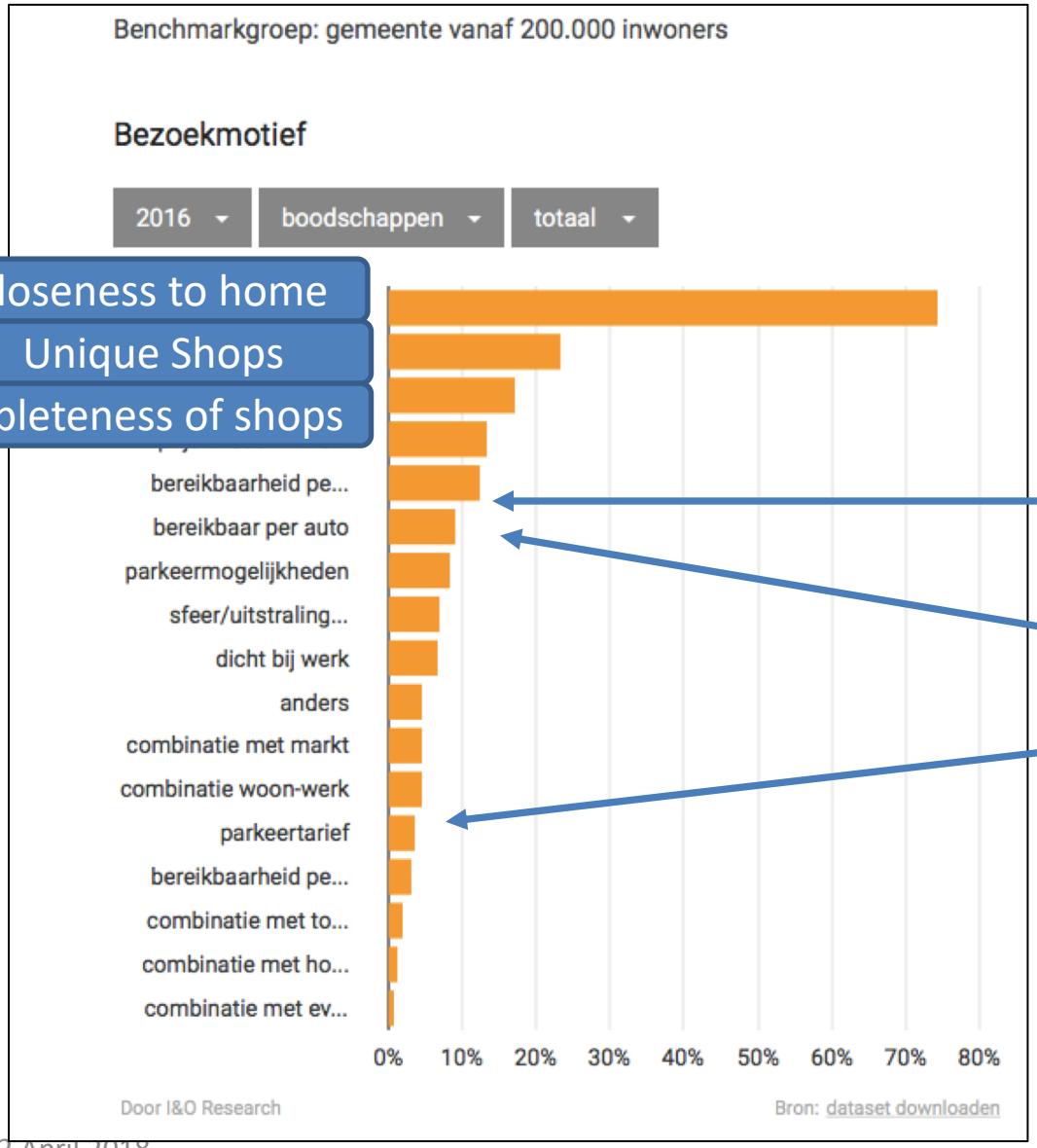
What Characteristics Do Shoppers Consider?

Rank	Motive	Mentioned by
1	Closeness to home	60%
2	Completeness of shops	38%
3	Completeness of products	25%
4	**Parking**	18%
5	**Accessibility by car**	16%
6	Amthmosphere	14%
7	Product pricing	13%
8	**Parking tariffs**	5%

- In total: 12 shopping motives included in the survey
- Parking and accessibility by car among the top5 motives
- Still, only important for around every 6th person in the survey

The turnover of shopping areas is not correlated to the modal split of the visitors!!!!

KSO 2016 (www.kso2016.nl)



Closeness to home

Unique Shops

Completeness of shops

Accessibility by bike

Accessibility by car

Parking tariff

Has paid parking a negative influence on shopping areas?

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Paid parking in the Netherlands 2005-2014

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
aantal gemeenten	467	458	443	443	441	431	418	415	408	403
gemeenten met betaald parkeren	140	142	141	144	144	146	144	142	139	140
% gemeenten betaald parkeren	30.0	31.0	31.8	32.5	32.7	33.9	34.4	34.2	34.1	34.7

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Ouder-Amstel	0	0	0	0	0	0	0	0	0	1
Hellendoorn	0	0	0	0	0	0	1	1	1	1
Diemen	0	0	0	0	0	1	1	1	1	1
Zevenaar	0	0	0	0	0	1	1	1	1	1
Hardenberg	0	0	0	1	1	1	1	1	1	1
Heerhugowaard	0	0	0	1	1	1	1	1	1	1
Maasgouw	.	.	0	1	1	1	1	1	1	1
Meerssen	0	1	1	1	1	1	1	1	1	1
Nieuwegein	0	1	1	1	1	1	1	1	1	1
Dinkelland	1	1	1	1	1	1	0	0	0	0
Delfzijl	1	1	1	1	1	1	1	0	0	0
Simpelveld	1	1	1	1	1	1	1	0	0	0
Lochem	1	1	1	1	1	1	1	1	0	0
Veendam	1	1	1	1	1	1	1	1	0	0

Witte and Mingardo (2016)

Onderzoek Verplaatsingen in Nederland (OViN)

Centraal Bureau voor de Statistiek

Impact betaald parkeren op winkelbezoek met de auto 2005-2014

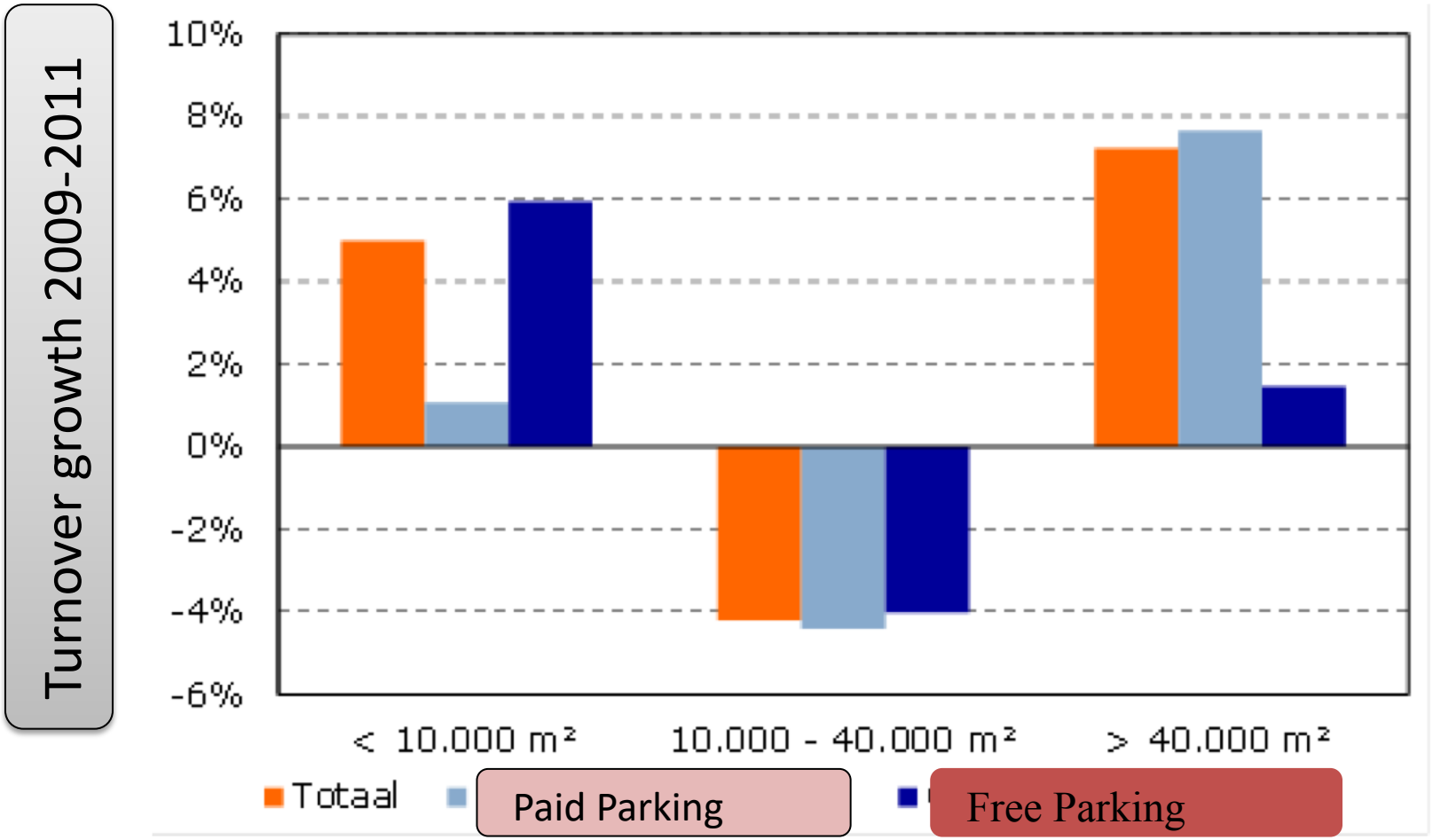
Dependent variable: # shoppers travelling by car

	M1	M2	M3	M4	M5
Betaald parkeren	-0.0045	-0.0102	-0.0082	-0.0052	0.0888
	(0.0245)	(0.0272)	(0.0273)	(0.0295)	(0.0936)
HH inkomen		**-0.0044****	0.0019	**-0.0080*****	-0.0031
		(0.0018)	(0.0058)	**(0.0026)**	(0.0022)
Bev. dichtheid		-0.0001	0.0000	0.0000	-0.0001
		(0.0001)	(0.0001)	(0.0001	(0.0001)
				(0.0060)	
BetParkXHHink					-0.0030
					(0.0027)
Intercept	**0.5179*****	**1.1578*****	**0.8274*****	**1.1954*****	**1.0795*****
	(0.0107)	**(0.2016)**	**(0.2707)**	**(0.2369)**	**(0.2137)**
N (N*T)	3033	2694	2694	2371	2694
R2 within	0.0000	0.0102	0.0135	0.0112	0.0107
Time FE	nee	nee	ja	nee	nee

Paid parking has no influence on the number of shoppers going by car

Witte and Mingardo (2016)

Turnover growth 2009-11 per size of the shopping area (Rabobank, 2013)



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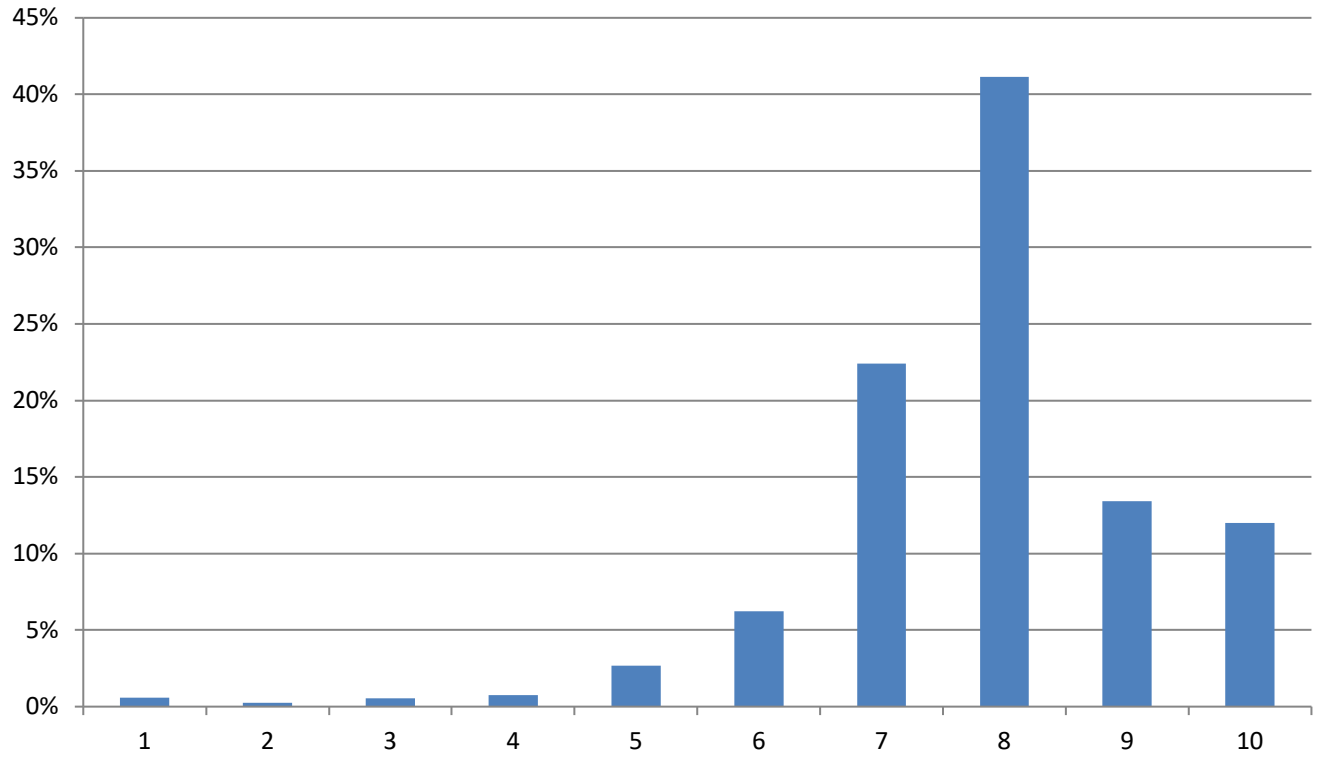
Considering your most recent trip for shopping reasons, are you satisfied with parking? (1-10)



Survey among Yellowbrick users (N=9,553)

yellowbrick®

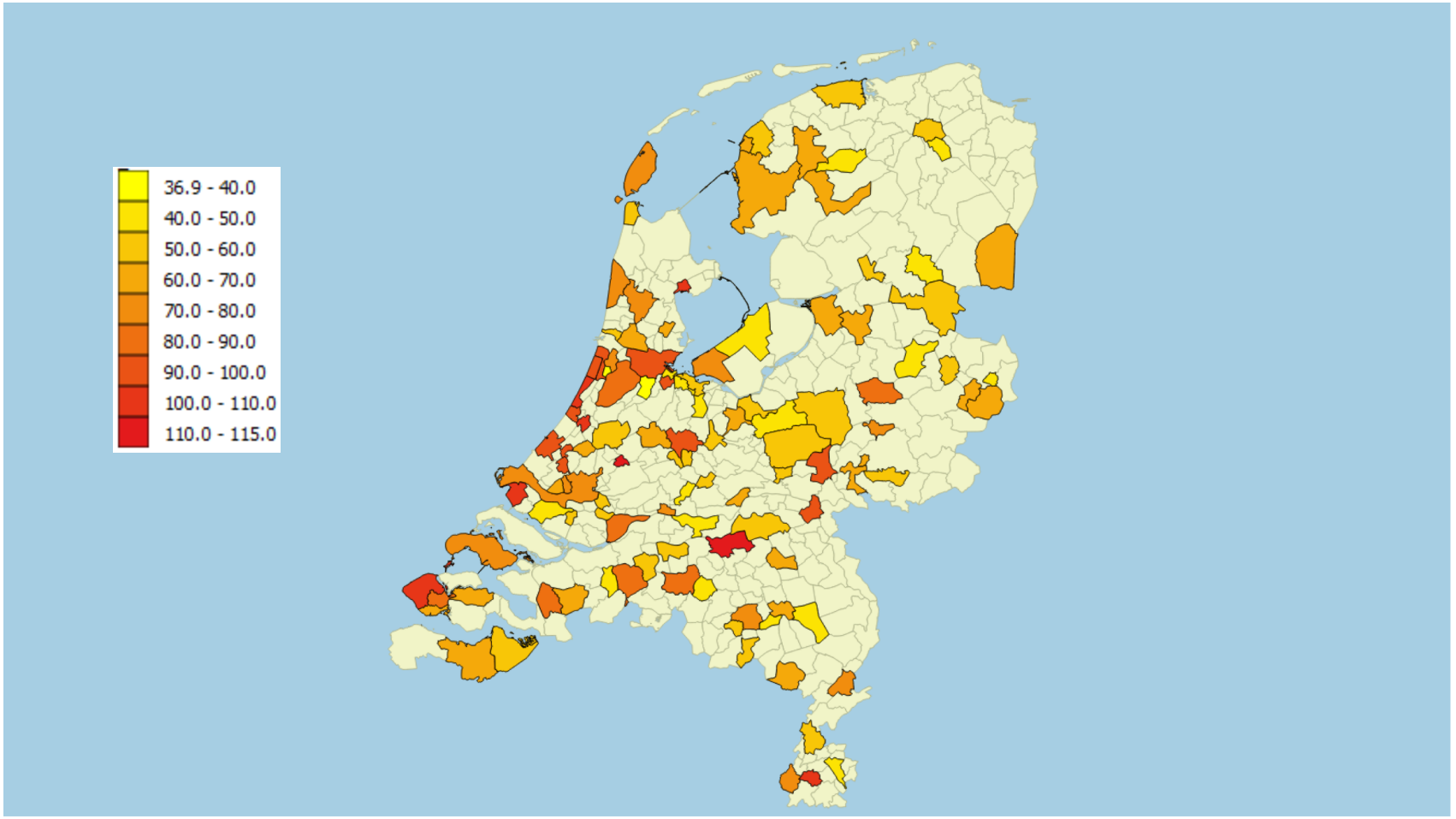
Factors that might explain the satisfaction with parking

	effect on satisfaction	max impact
men	insig.	
age	+	+0.35
Low income	insig.	
Shopping trip: functional	-	-0.16
Shopping trip: daily	-	-0.14
Parking off-street (garage)	-	-0.13
Origin: locals	-	-0.12
Destination <20k inhabitants	insig.	
Destination 50-100k inhabitants	-	-0.19
Destination 100-250k inhabitants	-	-0.18
Destination >250k inhabitants	-	-0.18
Availability of a free space	+	+0.58
Clear parking tarif	+	+0.22
Free parking	insig.	
Parking fee	-	-0.55

Parking duration and expenditures of shoppers in the Netherlands (Witte and Mingardo 2017)

- Transaction data Yellowbrick (116 cities; **approximately 45 milion mobile parking transactions**)
- Parking duration, fee, socio-demografic variables
- 2004-2017
- Transactions on Saturdays

Average parking duration in minute on Saturday (2016)



Model 1: relationship duration of the stay and expenditures

	effect op bestedingen	maximale impact
verblijfduur (uren)	+	+€51,10
laag inkomen	-	-€26,32
betaald werk	+	+€14,93
winkeltrip: doel[1]	+	+€17,07
winkeltrip: fun[1]	+	+€30,36
herkomst lokaal	-	-€9,56
bestemming <20k inwoners[3]	-	-€37,10
bestemming 50-100k inwoners[3]	insig.	
bestemming 100-250k inwoners[3]	insig.	
bestemming >250k inwoners[3]	insig.	

[1]referentie: dagelijkse boodschappen; [3]referentie: 20-50k inwoners

There is a strong relationship between the duration of the stay and the expenditure of visitors

Model 2: price sensitivity at micro (individual) level

		M2a			M2b			M2c	
	coeff.	SE	p	coeff.	SE	p	coeff.	SE	p
Tariff	11.407	0.147	0.000	12.241	0.147	0.000			
LnTariff							0.183	0.003	0.000
Cons	63.460	0.293	0.000	71.066	6.950	0.000	4.097	0.082	0.000
Hour FE?		no			yes			yes	
Month FE?		no			yes			yes	
Year FE?		no			yes			yes	
R2-within		0.0039			0.0237			0.017	
n		318780			318780			318780	
N (n*t)		1839028			1839028			1839028	

Research Question: does a higher parking fee lead to a shorter stay (at individual level)?

Outcome: There is no significant negative relationship between parking fees and duration of the stay

Model 3: price sensitivity at macro level

		M3a			M3b			M3c	
	coeff.	SE	p	coeff.	SE	p	coeff.	SE	p
Tariff	-3.988	0.323	0.000	-3.181	0.411	0.000			
LnTariff							-0.025	0.010	0.013
Cons	110.079	0.818	0.000	112.185	3.563	0.000	4.377	0.056	0.000
Month FE?		no			yes			yes	
Year FE?		no			yes			yes	
R2-within		0.0004			0.0009			0.0076	
n		9555			9555			9555	
N (n*t)		437683			437683			437683	

- Though there is no reaction at micro level, there might be a reaction at macro level (= parking area)
- At macro level there is a weak negative relationship between parking fees and duration of the stay
- Price elasticity of 0,08 = 10% increasing in the parking fee leads to 0,8% shorter average duration of the stay (very price inelastic!!)

Take-away

- There is no evidence that visitors hurry their shopping and hence reduce expenditures when parking tariffs increase

- Some visitors do reduce their visit frequency, but with a very limited price sensitivity

Is the Netherlands different from the rest of Europe?

RESOLVE project

Project at a glance

€ 2,038,757.00

from 1 Apr 2016 to 31 Mar 2021

THEME

Low-carbon economy

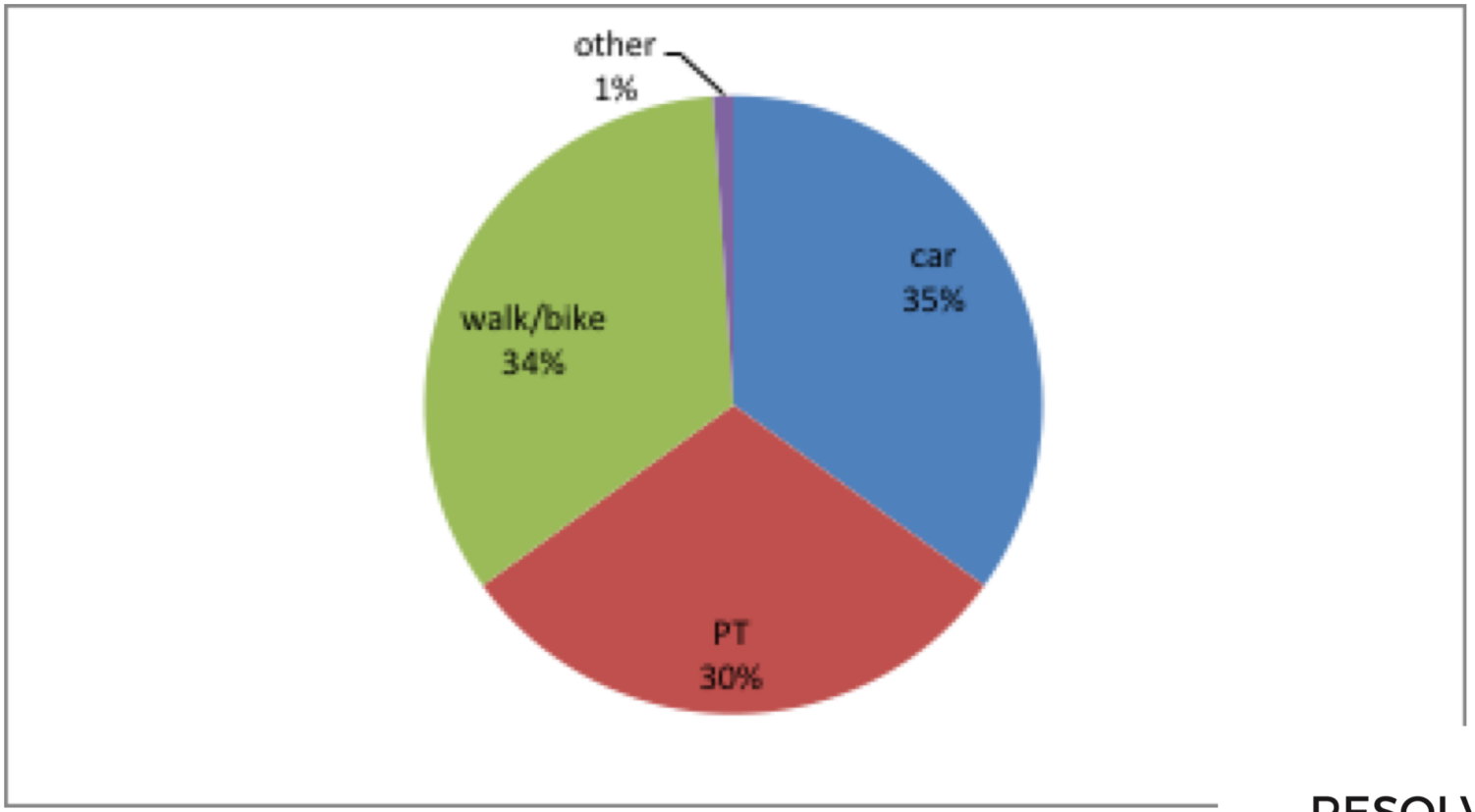
RESOLVE is co-funded by the INTERREG EUROPE programme and is composed of 9 partners coming from the Netherlands, Italy, United Kingdom, Slovenia, Sweden, Portugal, Poland and Czech Republic.

Partners

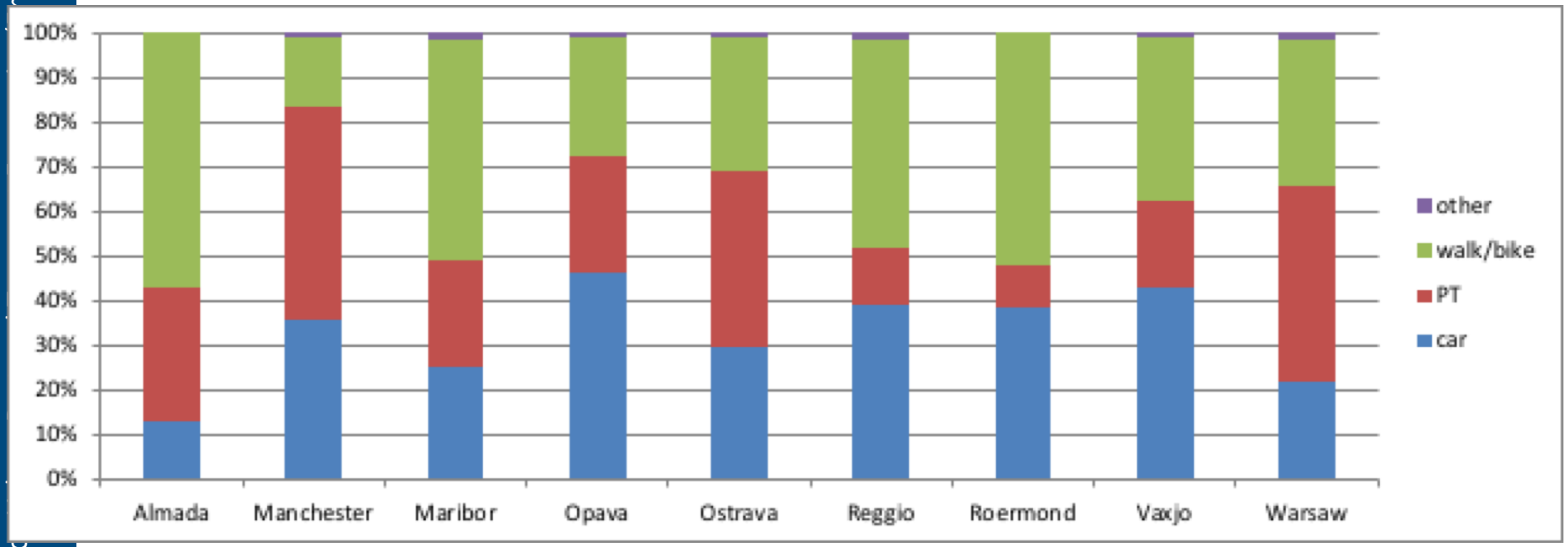
1) City of Roermond (NL) - **lead partner**
2) Department of Regional, Port and Transport Economics (RHV BV) (NL)
3) Municipality of Reggio Emilia (IT)
4) Transport for Greater Manchester (UK)
5) Maribor Municipality (SI)
6) Kronoberg County Administration Board (SE)
7) Almada City Council (PT)
8) City of Warsaw (PL)
9) Moravian-Silesian Region (CZ)

https://www.interregeurope.eu/resolve/

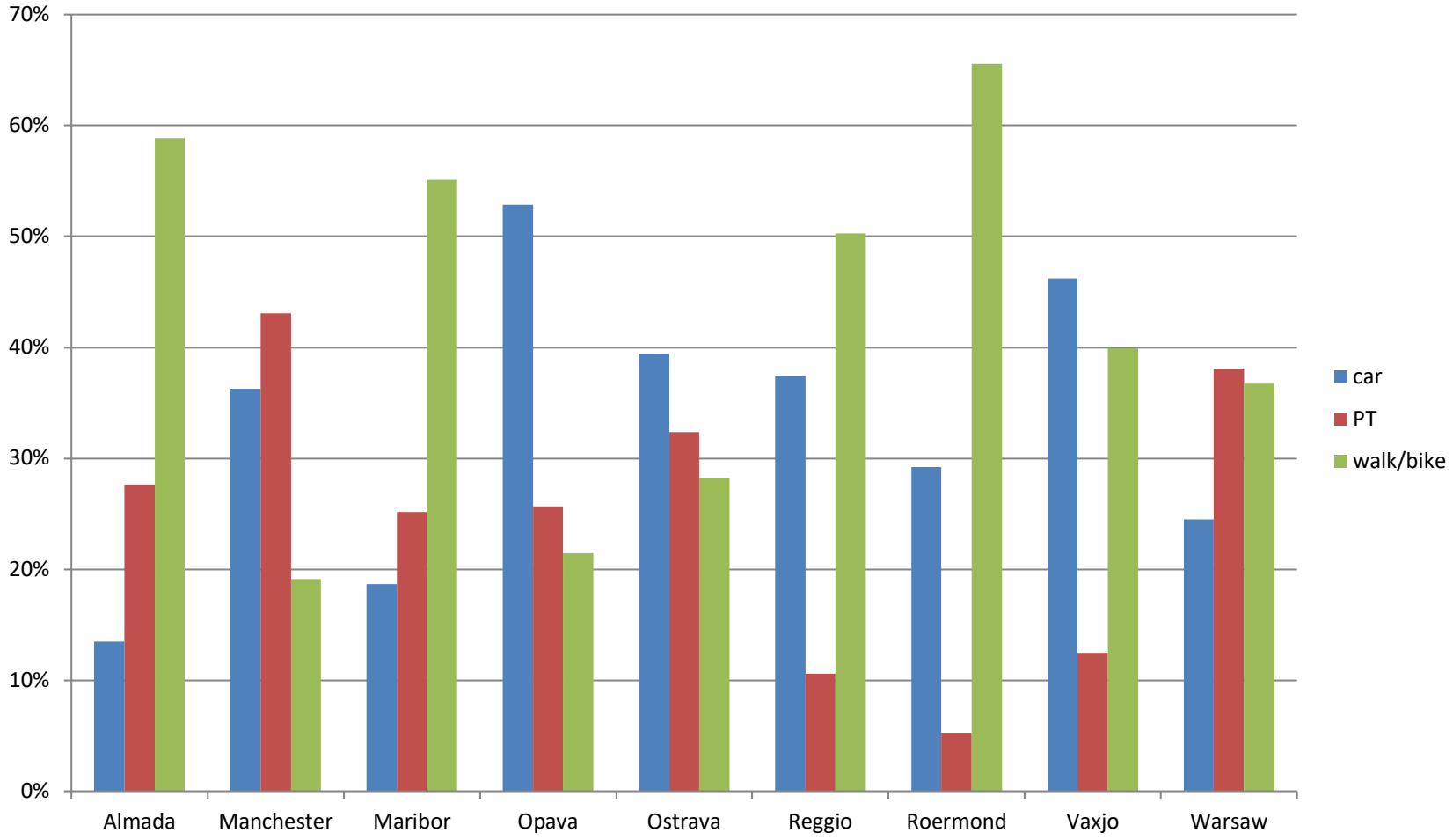
Modal split shoppers (all cities)



Modal split shoppers per city



Average shopping spending per trip multiplied by mode share multiplied by visit frequency



Conclusions

Retail and Mobility

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- Most of retailers are afraid/against any kind of policy that might reduce car use in city centers
- The debate between retailers and policy makers is usually based on emotions
- Taking (investment) decisions based on emotions is usually not a good idea!

Retail Crisis

There are three main reasons why traditional retail in cities is having a difficult time:

a) In the last years we have been through one of the deepest economic crisis since decades;

b) Internet has dramatically changed consumer behavior;

c) We increased retail supply (n. of shops) at the time we needed the least (a+b)

Do they offer free parking?

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Can't see the wood for the trees

if someone can't see the wood for the trees, they are unable to understand what is important in a situation because they are giving too much attention to details

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THANKS

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