praktische kennis direct toepasbaar

kennisplatform CROW

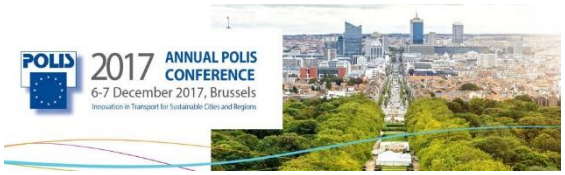
THE VALUE OF THE NEIGHBOURHOOD APPROACH; PILOTS IN REDUCE SPEEDING IN 30 KM-ZONES

Hans Voerknecht CE Delft/ Wilma Slinger, CROW

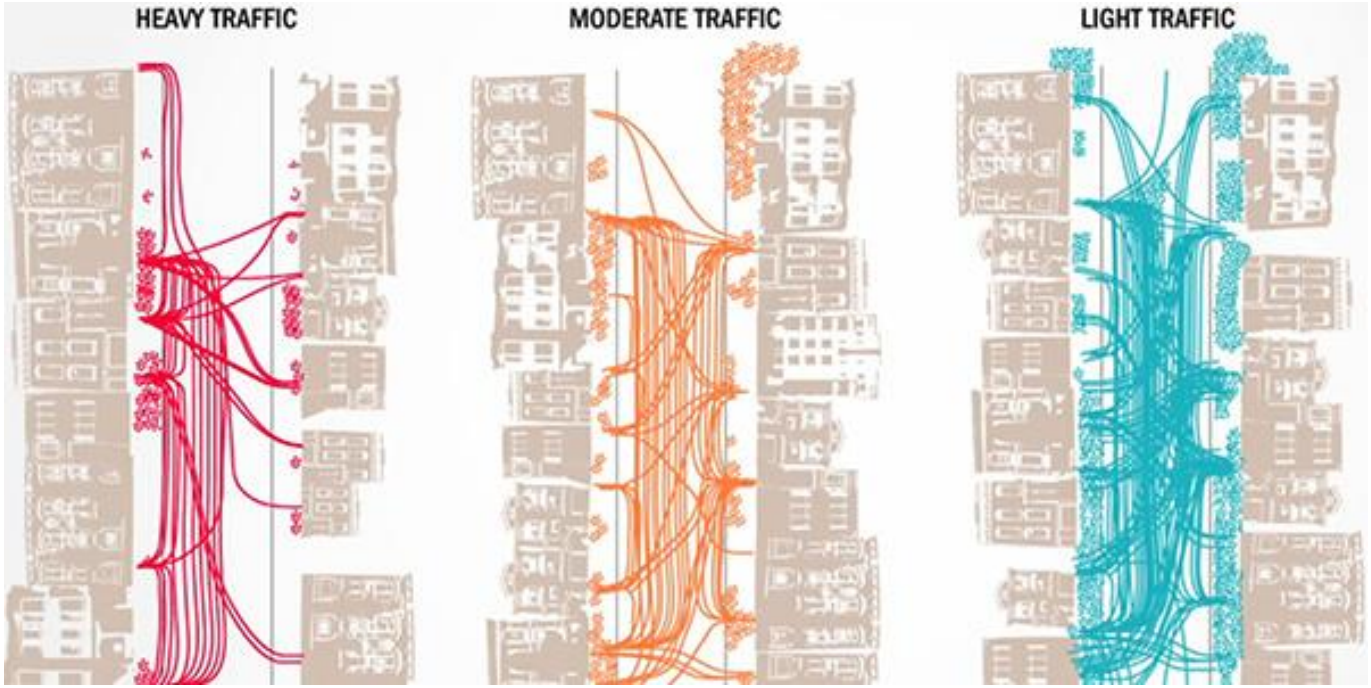
THE NEIGHBOURHOOD APPROACH

Quality of cities: exchange not movement

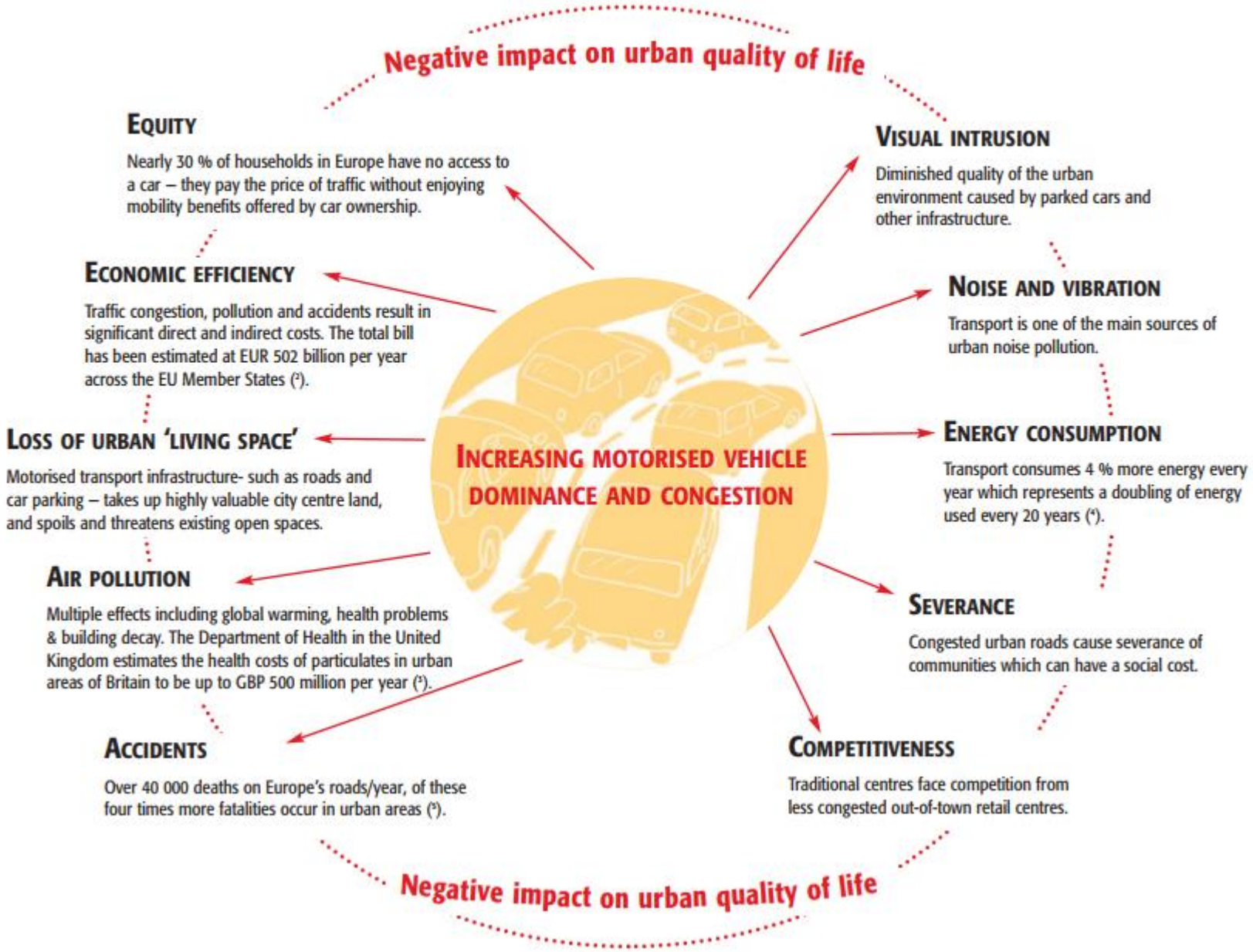
Busy streets block exchange



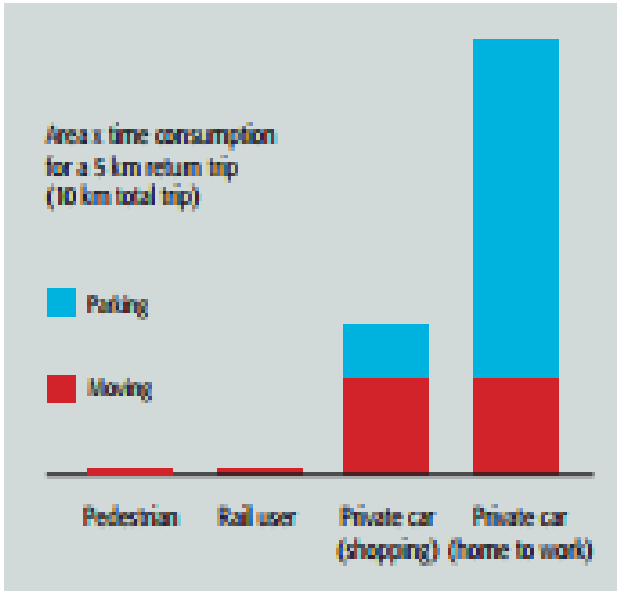
DO STREETS CONNECT?

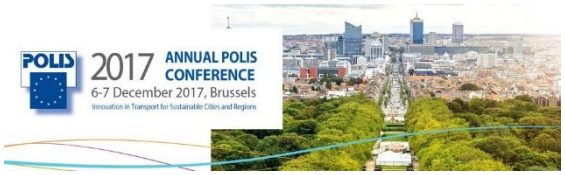


THE MAIN PROBLEMS ASSOCIATED WITH INCREASING URBAN TRAFFIC AND CONGESTION

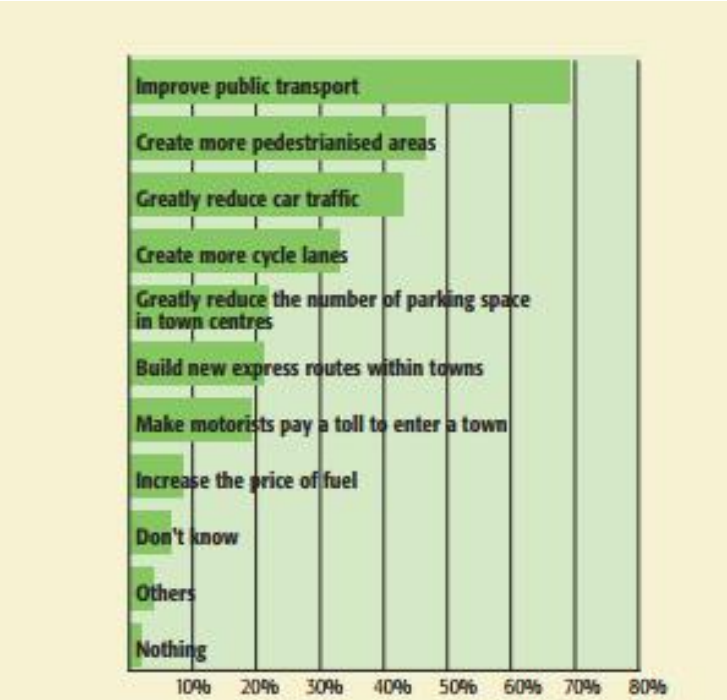


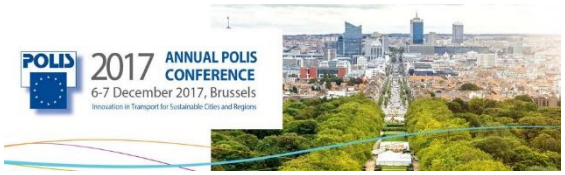
WHY DOES MOTORIZED TRAFFIC DESTROY URBAN QUALITY?





AND WE ALL KNOW IT

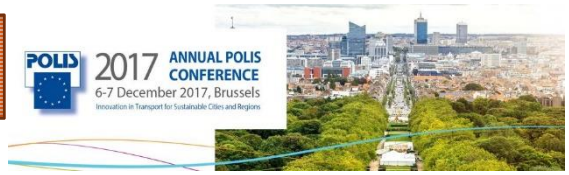




DO WE WANT TRAFFIC OR …. A LIVING?

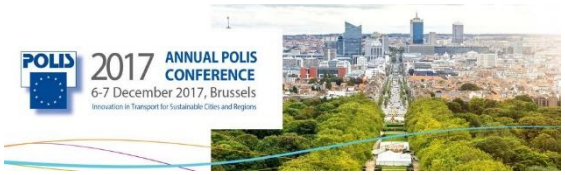
Copenhagen

Kajaani, Finland



THE CONCEPT OF TRAFFIC EVAPORATION

Seoul, South Corea



RESPONSE TO REDUCING TRAFFIC CAPACITY

Short term

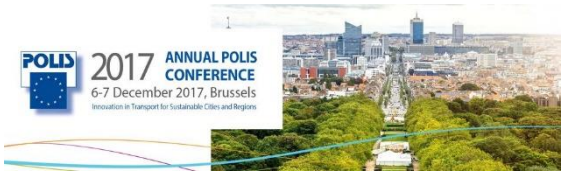
• initial cramming of roads was followed by searching for alternative routes and times to travel.

Medium term

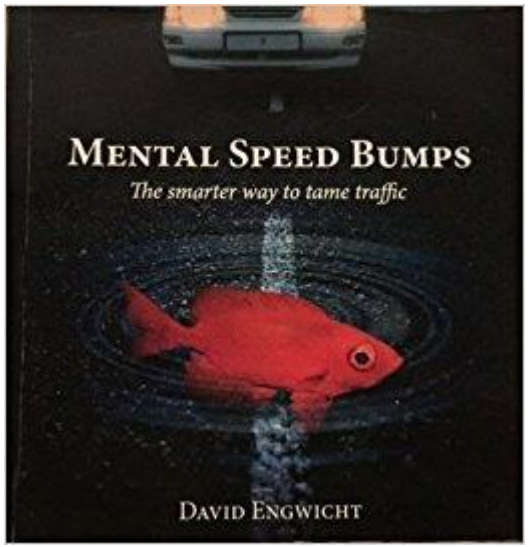
• More varied and flexible trip-planning; • changing mode of transport; • reviewing the need to travel; • trip combining.

Longer term

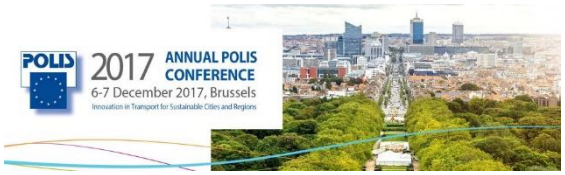
• switching locations of activities or even home or workplace.

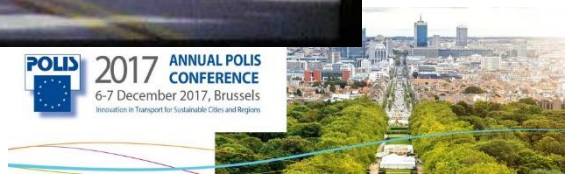


BUT NOW LET'S TURN TO THE NEIGHBOURHOODS



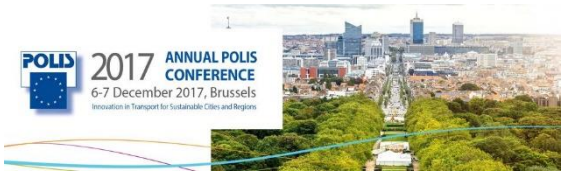
The speed of traffic on residential streets is governed, to a large extent, by the degree of psychological retreat of the residents




POLIS
2017 ANNUAL POLIS CONFERENCE
6-7 December 2017, Brussels

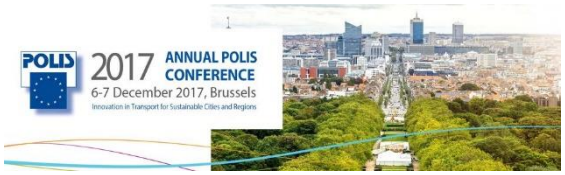
AN EXPERIMENT IN ZWOLLE (NETHERLANDS)

- In what kind of street do you want to live?



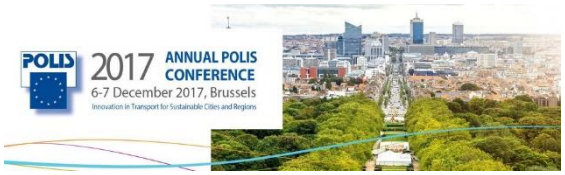
AND AFTER

- OK then, everyone chooses for the solution with no cars and maximum amount of green…
- Who is going to give up his parking place?



LET'S LOOK AT WHAT CIVITAS DOES

- CIVITAS started SUNRISE Sustainable Urban Neighbourhoods – Research and Implementation Support in Europe.
- But look at the examples: It is still planners planning neighbourhoods
- NOT
- Neighbourhoods making neighbourhoods
- AND WHAT WE NEED IS (cf. Vienna)

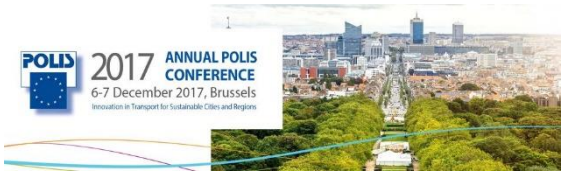



Participatory street design

Use of neighbourhood approach to reduce speeding in 30 km/zones

WHAT'S THE PROBLEM?

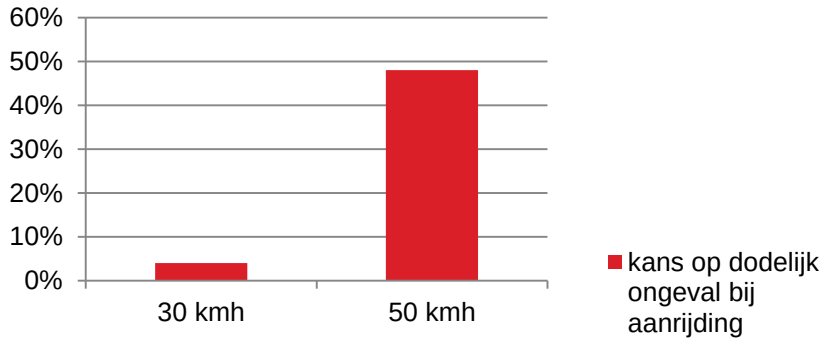
- Complaints about speeding in 30 km-zones in Top 3 traffic complaints in every municipality
- Only physical measures do not help (some people just love to take speed bumps and chicanes at high speed)

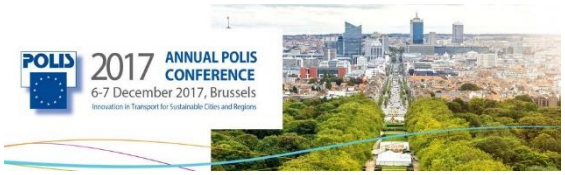


INTRODUCTION OF THE NEIGHBOURHOOD APPROACH

- Suppose the inhabitants themselves decide to slow down
- Joint actions and approach bottom-up
- Awareness raising, intrinsic motivation.
- But: Most car drivers feel ridiculous, driving ‘only’ 30
- But also:

Mortuality by accident car-bike/pedestrian





INTERLUDE: CBA-TOOL

INPUT	
Gebiedskenmerken	
Aantal km nieuw in te richten 50 km/u-wegen	1
Verkeersintensiteit (auto's per dag)	2000
Aandeel vrachtverkeer	3%
Nieuwe situatie	
Percentage naleving limiet 30 km/u	100%
Kosten	
Kosten herinrichting per km (€)	60.000
Beheerskosten (€)	-
Verkeersveiligheid	
Aantal ernstige slachtoffers per km 50 km/u-wegen per jaar (doden en ziekenhuisgewonden)	0,25
Effect 50 -> 30 km/u (% aantal slachtoffers)	-25%
Trendmatige ontwikkeling aantal slachtoffers (% per jaar)	-0,5%
Geluid	
Aantal gehinderden per km	150
Geluidsniveau 50 km/u-wegen (dB)	56
Effect 50 -> 30 km/u (% geluidsniveau)	-10%
Luchtkwaliteit	
Effect 50 -> 30 km/u (% emissie)	
- CO2	-9%
- NOx	-35%
- PM10	-11%
Trendmatige ontwikkeling emissies	
- CO2	-1%
- NOx	-7%
- PM10	-0,4%
Brandstofverbruik	
Effect (% brandstofverbruik)	-10%
Trendmatige ontwikkeling brandstofverbruik	-0,4%

RESULTATEN MKBA

Kosten (€)		Baten	Effecten (30 jaar)	Waardering (€)
Inrichting	60.000	Verkeersveiligheid	-1,3 slachtoffers	425.174
Beheer	-	Geluid	-5,6 dB	657.246
		Luchtkwaliteit		36.622
		- CO2	-338.613 kg	
		- NOx	-3.185 kg	
		- PM10	-98 kg	
		Leefbaarheid		PM
		Reistijd	292.000 uur	-835.533
		Brandstof	-187.055 liter	144.461
Totaal	60.000	Totaal (exclusief leefbaarheid)		427.969

Netto contante waarde (€): 367.969
Baten-kostenverhouding: 7

Toelichting op input en alternatieve waarden

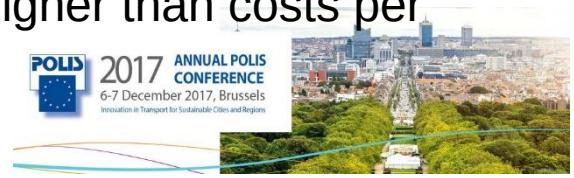
Gebiedskenmerken
- Aandeel vrachtverkeer: landelijk is het aandeel *3%* (alle wegen)

Nieuwe situatie, percentage naleving limiet 30 km/u:
- Bij Duurzaam Veilige inrichting is het effect maximaal: *100%.*
- Voor sobere inrichting kan worden uitgegaan van een nalevingspercentage van ca. *60%*
- Voor niet-ingerichte 30 km/uur-wegen kan worden uitgegaan van nalevingspercentage van ca. *40%*

Kosten
- Inrichting: defaultwaarde Duurzaam Veilige inrichting is *€60.000*, sobere inrichting : *€30.000* (SWOV-kengetallen)
- Beheer: dit betreft het verschil in beheerskosten tussen een 50 en een 30 km/uur-weg. Als default wordt aangenomen wordt dat de beheerskosten niet verschillen, dwz *geen extra beheerskosten*

Verkeersveiligheid:
- Het aantal geregistreerde doden en ziekenhuisgewonden op 50 km/uur-wegen is naar schatting gemiddeld *0,25 per km*. Dit is gebaseerd politieregistratie (0,12 slachtoffers per km) en de aanname dat 50% niet wordt geregistreerd.
- Duurzame Veilige inrichting heeft een effect van *25%* reductie van slachtoffers. Lagere effecten van sobere inrichting (15%) en niet -ingericht

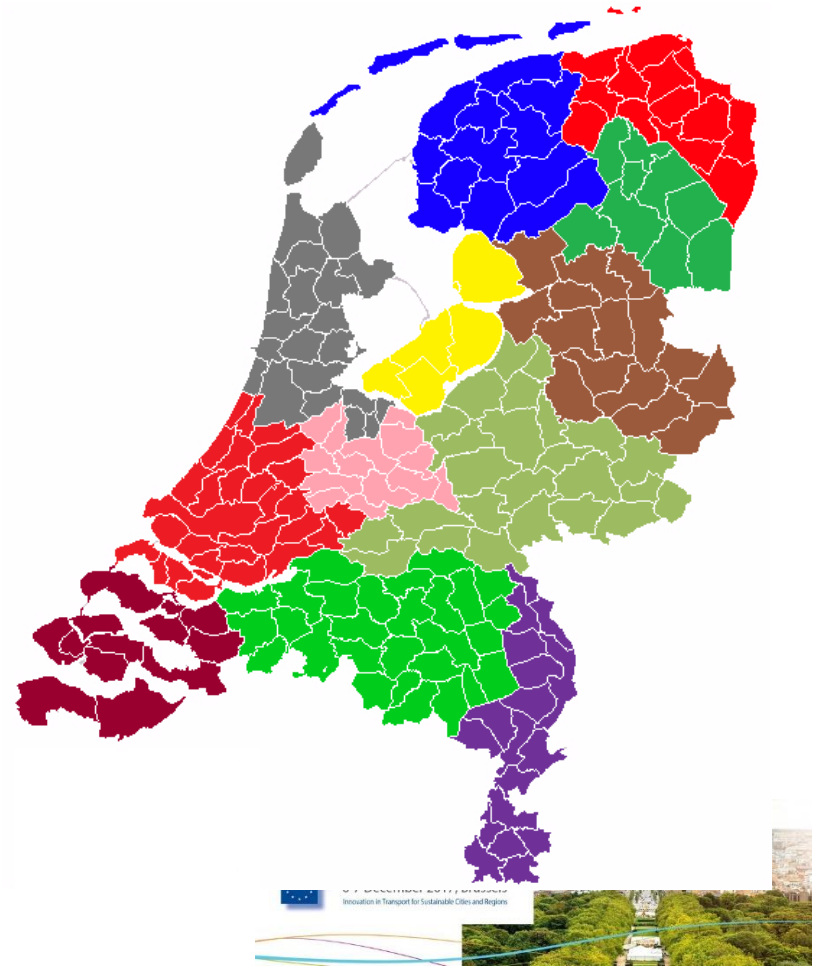
Benefits of 30kmh in stead of 50 kmh about €450.000 higher than costs per km



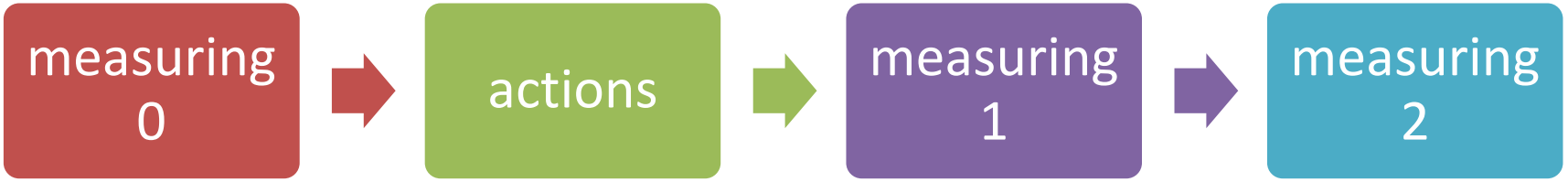
SO WE TRIED IT!

PARTICIPANTS

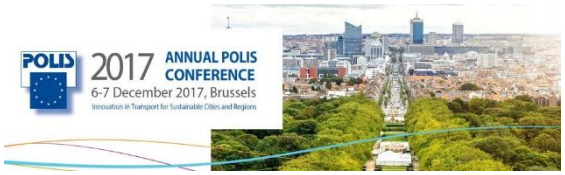
- Groningen
- Leeuwarden
- Houten
- Nijkerk
- Rotterdam



STEPS



Measuring two topics:
- speeds
- feelings about road safety



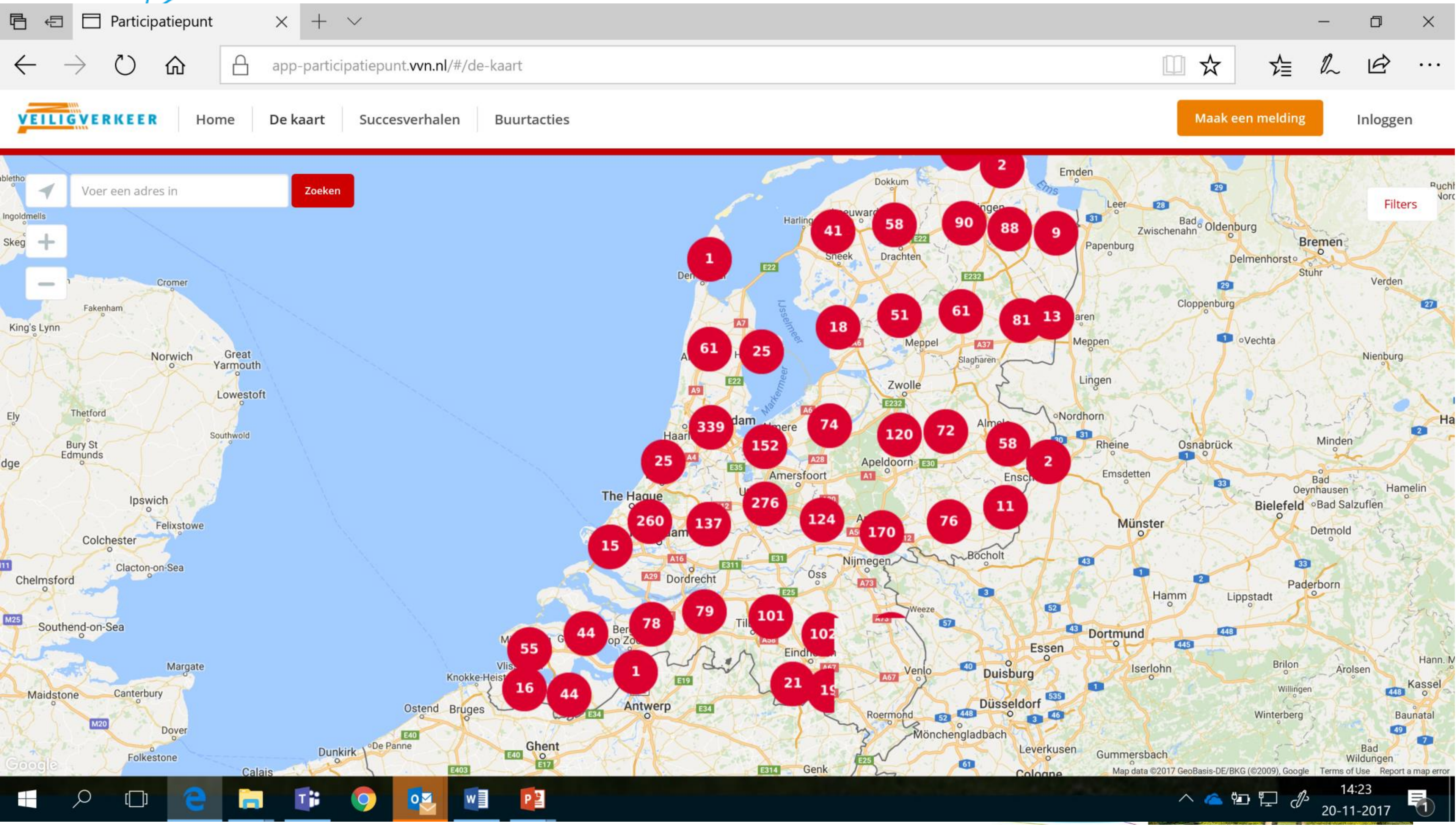

EEN KWARTIER VOOR EN NA SCHOOL
ROND HET MIXXVELD FIETS AAN DE HAND


30
30

CONCLUSIONS SO FAR

FOLLOW UP

- Manual, questionnaire
- Summer 2018 publication of results
- Seeking connection with other initiatives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Home
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Succesverhalen
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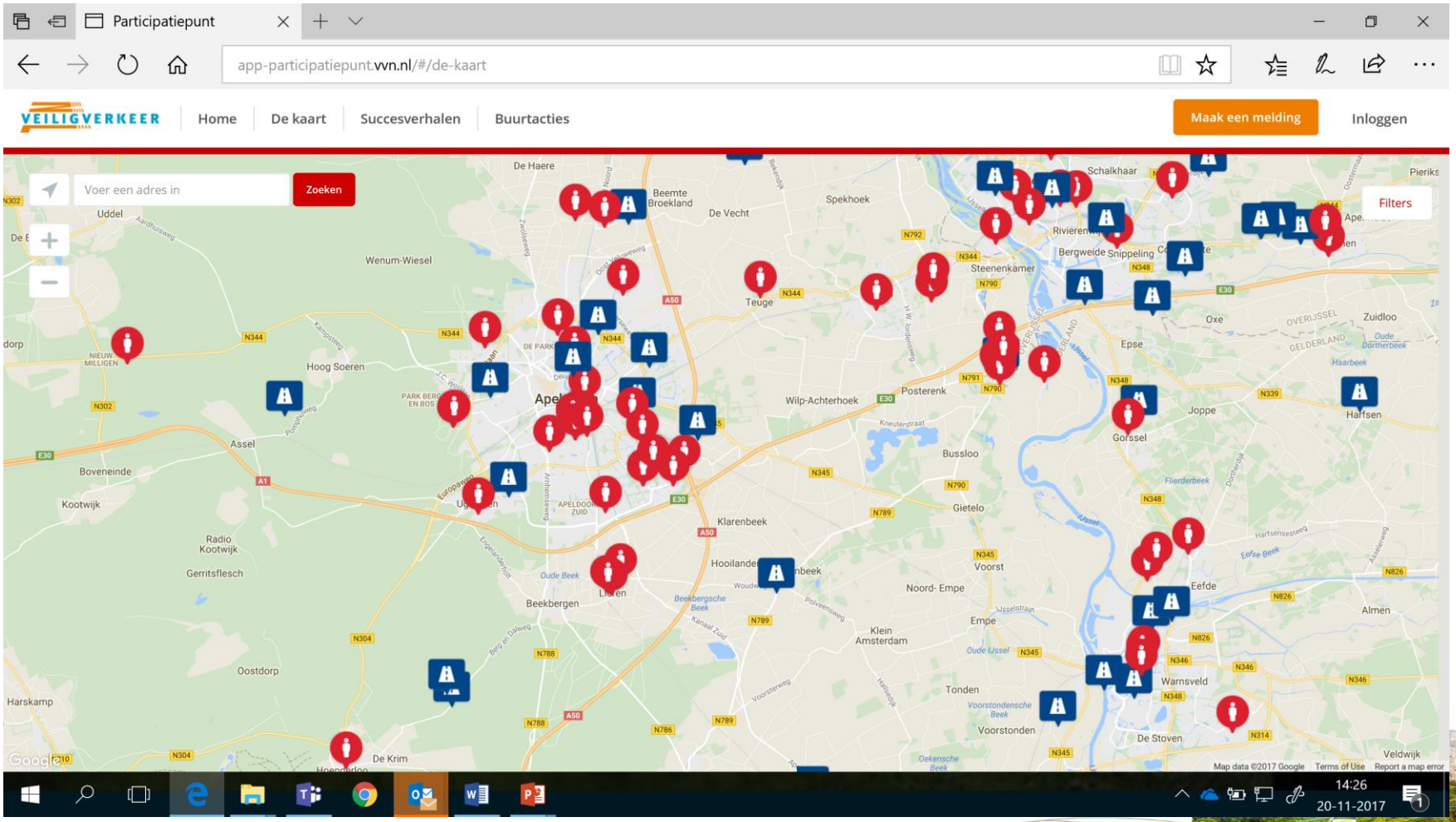
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QUESTIONS?

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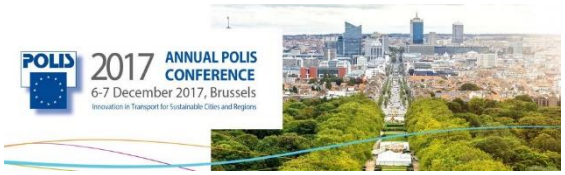

DISCUSSION

- Do we really need physical measures like chicanes and speed bumps for a few excesses (mostly neighbours)?
- This neighbourhood approach is a golden opportunity for improving the relationship with the neighbourhood

- This neighbourhood approach should be default for reducing speeding instead of physical measures