



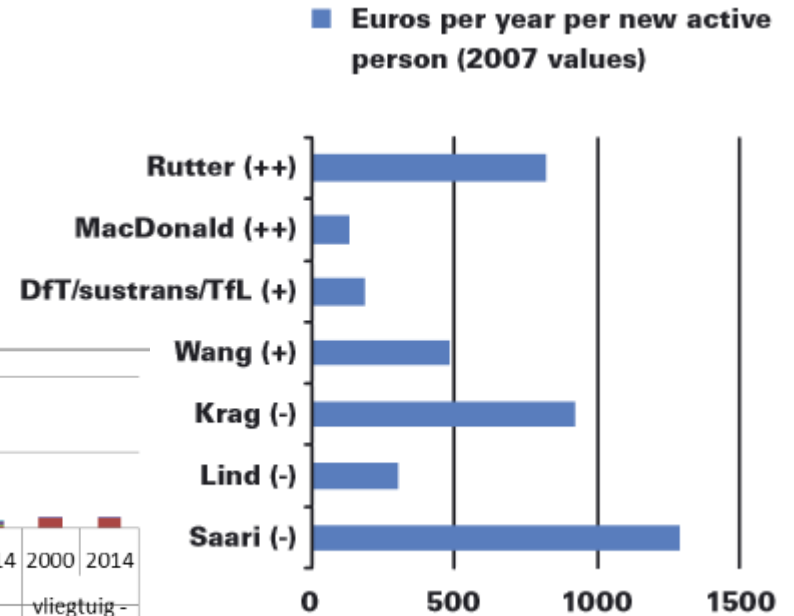
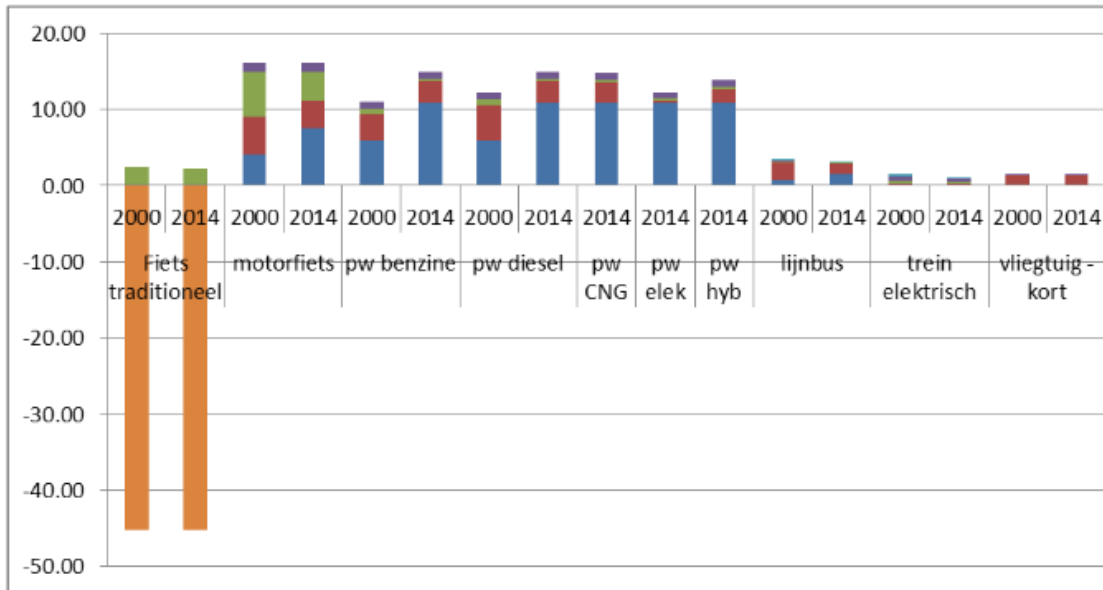
400 MILLION EURO: THE ECONOMIC VALUE OF CYCLING IN BRUSSELS IN 2020 ?

Bruno Van Zeebroeck
Florent Verstraeten

Pro Velo R&D

TM TRANSPORT
& MOBILITY
LEUVEN

Les études disent:



TML, external costs/pkm, MIRA, 2016

Review of economic analysis of transport infrastructure and policies including health effects related to physical activity (reported in fietsverkeer juni 2008)

NI cycle highways (700km), Goudappel Coffeng

Bruno Van Zeebroeck-Florent Verstraeten, economic impact of cycling in Brussels, velocity, 16-06-2017

- **Opbrengsten: 200 mln euro / jaar**
- **Huidige investeringen: 100 mln euro / jaar**

If Brussels were different?



What economic impact for Brussels?

I IF 20% of mecanized journeys were made by bicycle

- Impacts?
- Societal gains?
- Comparison with a situation without bicycle
- Classic evaluation method
- Only **monétisable** items

II Jobs

What economic impact for Brussels?

Economic evaluation 2020 **IF** 20% cyclists

Monetizable societal gains

“Euros via monetization of physical units”

- Health 250 to 300 M
- Traffic safety +8 M
- Environment 4 M
- Congestion 10M

Annual investments 27 M

“Direct Euros”

- Household budgets $35-20=15$ M
- Financing STIB = 35 M

**1 euro invested =
17 à 19 euro return**

300 to 400 million societal gains– 55 to 60 millions “euros directs”

Societal gains 2020 – monetized effects mortality:



Health:

- 125 to 150 lifes saved
- 250 to 300 M

- WHO method
- Ready to pay to avoid dying

Traffic safety:

- 4 victims LESS
- +8 M

- Lots of pedestrians/2 wheelers
- « relatively low amount of cyclists die on road »
- Improved traffic safety

Societal gains 2020 – monetized effects emissions congestion:

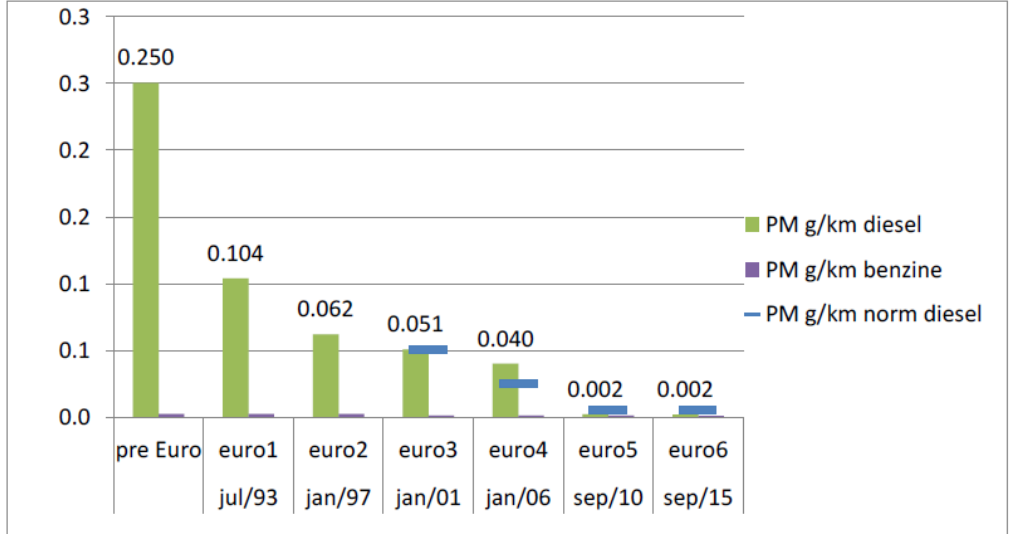


Emission 4 M EUR



Congestion 10 M EUR

- Cars get much cleaner (except NOx)



- “only” 20% ex-cardrivers
- Cycle journeys rather short

Societal gains 2020 –direct euros financing STIB

- How STIB absorbs peak hour demand?



or



or



- Cyclists will reduce
 - Exploitation costs of STIB: 70 M €
 - Public contribution to STIB: 35 M €
 - Because 40% of cyclists would have used public transport

Brussels is not really different !

Economic evaluation 2020 **IF** 20% cyclists

Monetizable societal gains

“Euros via monetization of physical units”

- Health 250 to 300 M
- Traffic safety +8 M
- Environment 4 M
- Congestion 10M

Annual investments 27 M

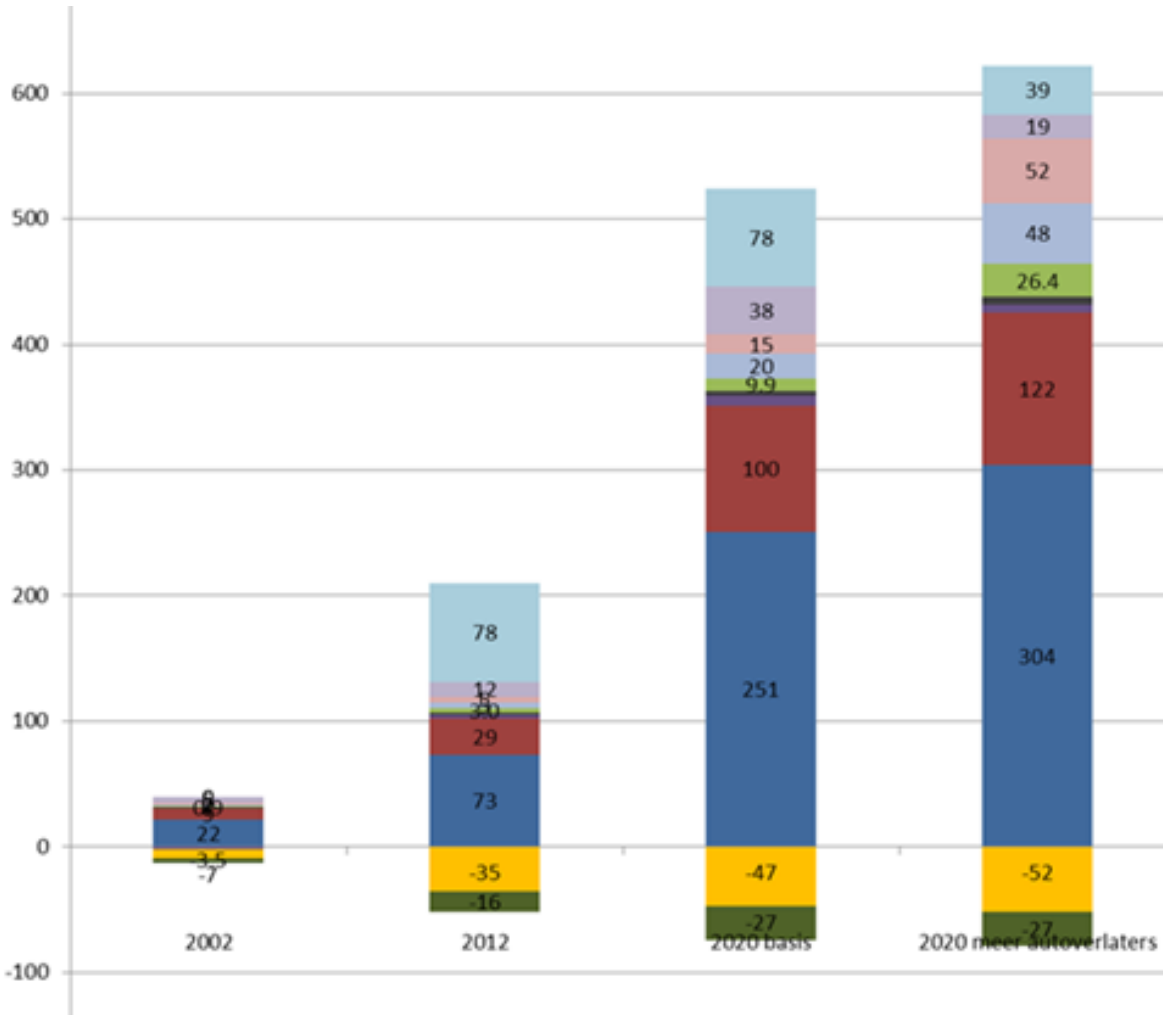
“Direct Euros”

- Household budgets $35-20=15$ M
- Financing STIB = 35 M

**1 euro invested =
17 à 19 euro return**

300 to 400 million societal gains– 55 to 60 millions “euros directs”

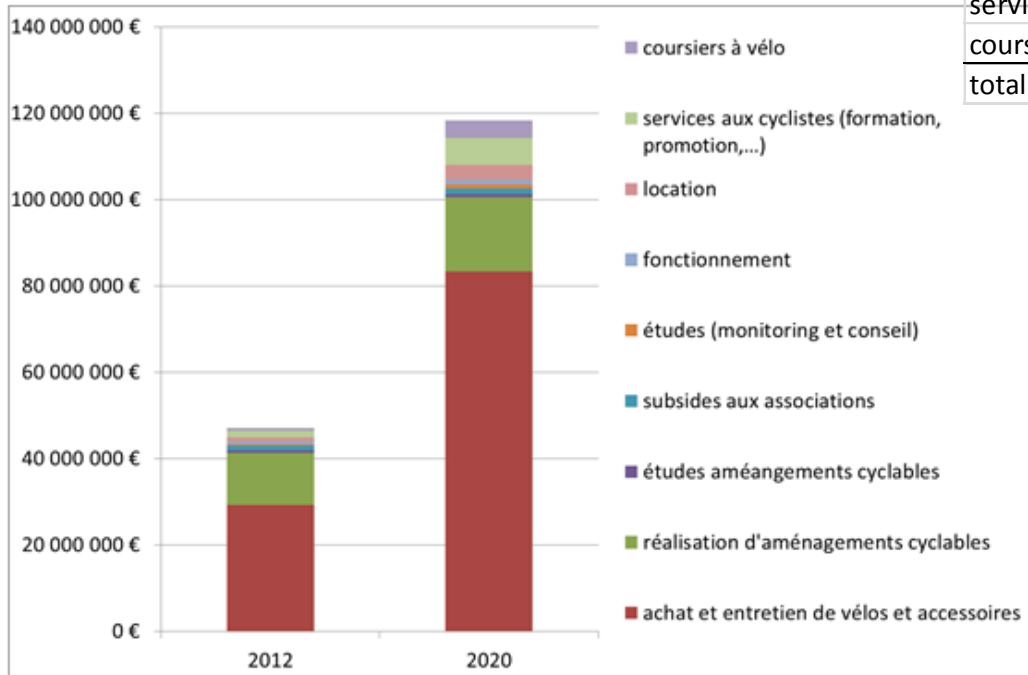
Sensitivity analysis



- Including more uncertain effects:
 - Morbidity (100M)
 - Accidents – injured (coût 50M)
- Scenario with + modal shift away from car
- Gains up to 600 M
- Benefit cost ratio between 7 and 8

Even more, creation of economic activity

Turnover and subsidies of the cycle economy



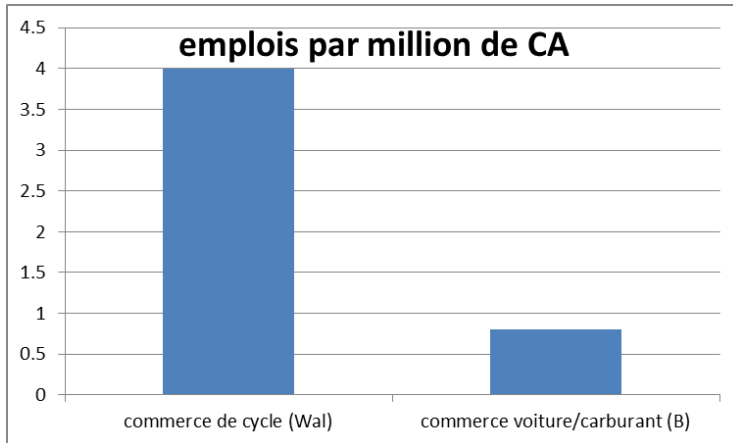
Ratio private/public 2 in 2012, 3 in 2020

équivalents temps plein	2012	2020
achat et entretien de vélos et accessoires	76	216
réalisation d'aménagements cyclables	35	50
études aménagements cyclables	3	4
subsides aux associations	27	27
études (monitoring et conseil)	4	16
fonctionnement	14	22
location	30	110
services aux cyclistes (formation, promotion,...)	25	98
coursiers à vélo	16	120
total	230	664

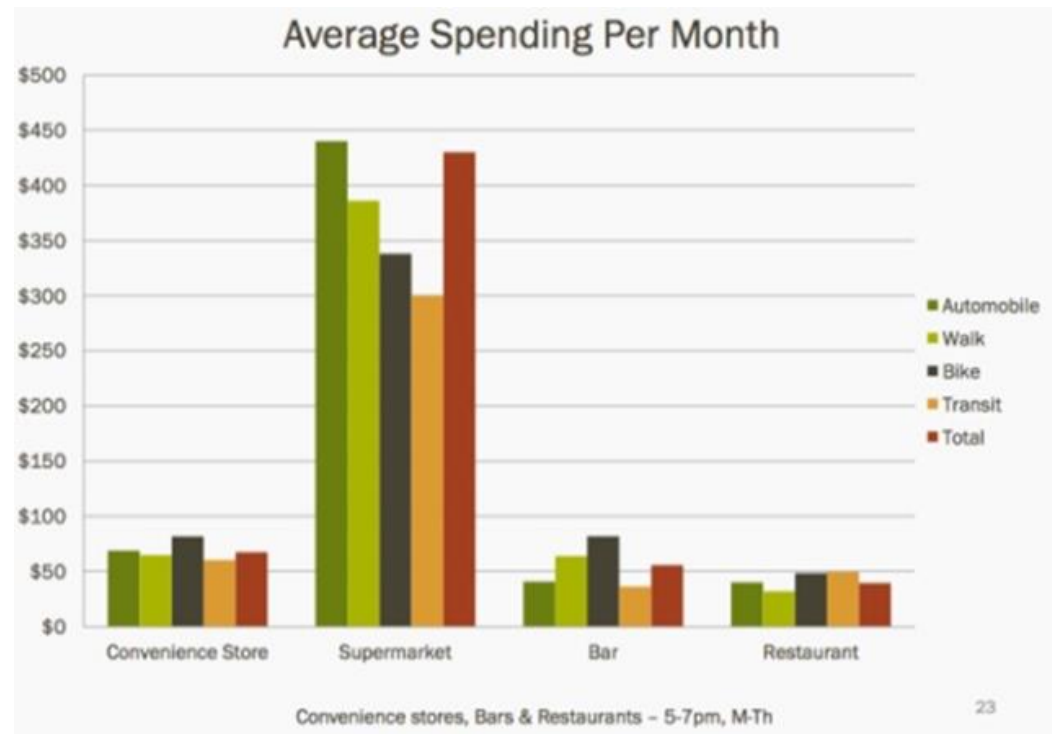
FTE of the cycle economy

**large uncertainty for 2020 estimates

Et en plus,...



More jobs per EUR spent



Cyclistes spent more locally?

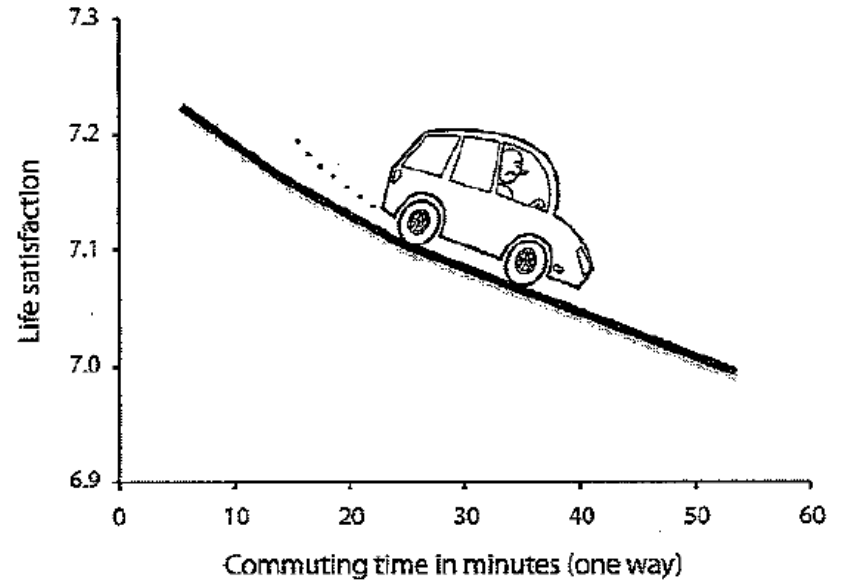
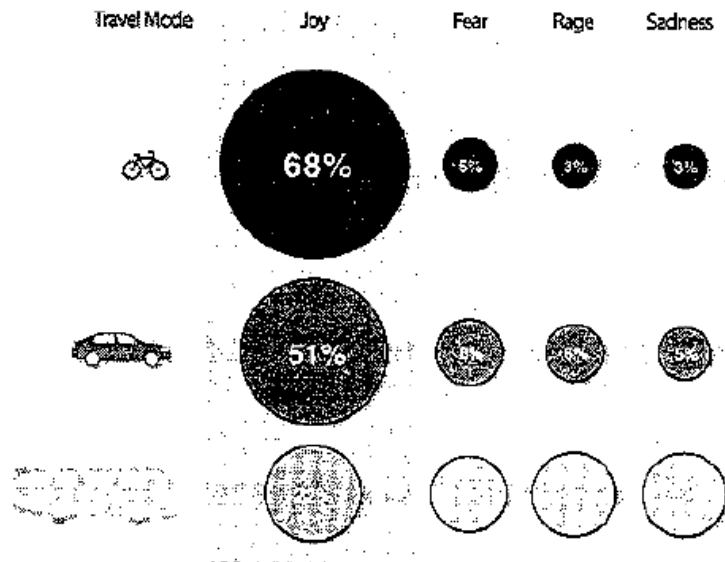
! Elements to confirm

Didn't we forget something?

The non-monetisable

MOBILICITIES I

Percentage of commuters reporting these emotions in the Netherlands:



The non monétisable

Elements contributing to happiness:

social relations



health



also: equality - trust – auto-determination – jobs/recognized occupation

What if you need to choose between autonomous vehicle and a bicycle?

**IT'S NOT ABOUT
CYCLING.**

**IT'S IMPROVEMENT, MODERNISATION,
HEALTH, QUALITY OF LIFE, ETC.**

THE BICYCLE IS MERELY THE MOST EFFECTIVE TOOL IN OUR TOOLBOXES



**MIKAEL COLVILLE-ANDERSEN / CEO COPENHAGENIZE DESIGN CO.
WWW.COPENHAGENIZE.EU**

 **@copenhagenize**

Remember

- Return on investment up to 17
- -150 lifes saved each year
- 15 millions gains for households
- Gains for public transport company STIB
- More fun
- Less stress



Would investing in Brussels tunnels really have a higher return on investment?



“Cycling is the low hanging fruit in mobility policy, it hangs probably to low to be seen by car drivers”

Bruno Van Zeebroeck – bruno.vanzeebroeck@tmleuven.be

Florent Verstraeten - f.verstraeten@provelo.org

<http://tmleuven.be/project/fietsenbrussel/index.htm>