

**Towards a better understanding
of dynamics in travel behaviour**

**First results of the new
Netherlands Mobility Panel (MPN)**

**European Transport Conference
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adviseurs
mobiliteit
**Goudappel
Coffeng**

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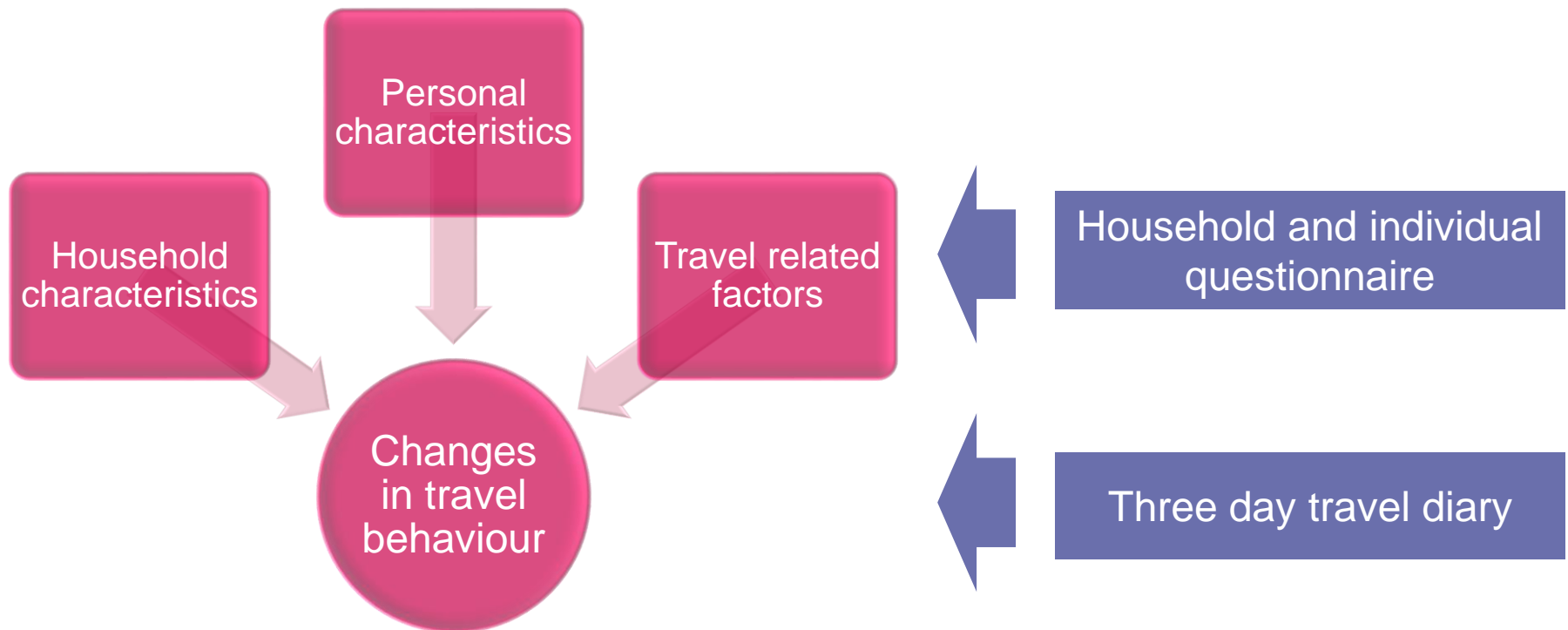
Karst Geurs

Short impression



Main objective

To map changes in travel behaviour of a specific group of people and households (e.g., adolescents, families with small children, elderly) over an extended period of time

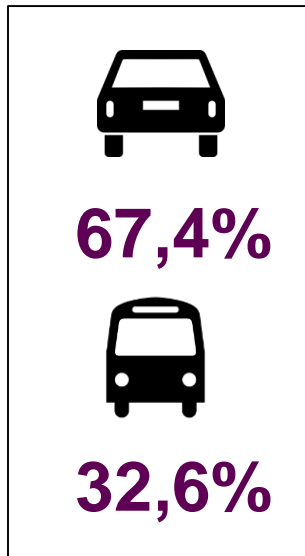


An example

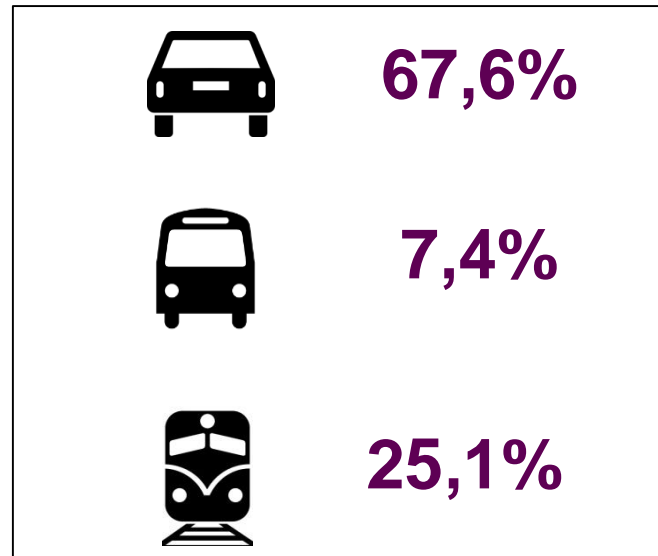
The impact of a new railway line on travel mode choice of commuters

Repeated Cross-sectional design

Before



After



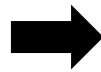
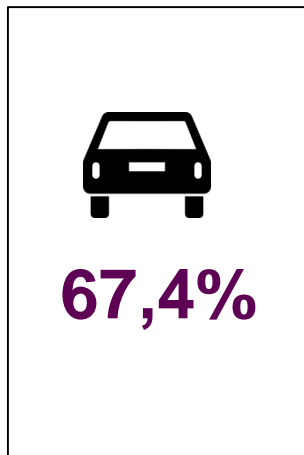
Conclusions

Car use remains the same

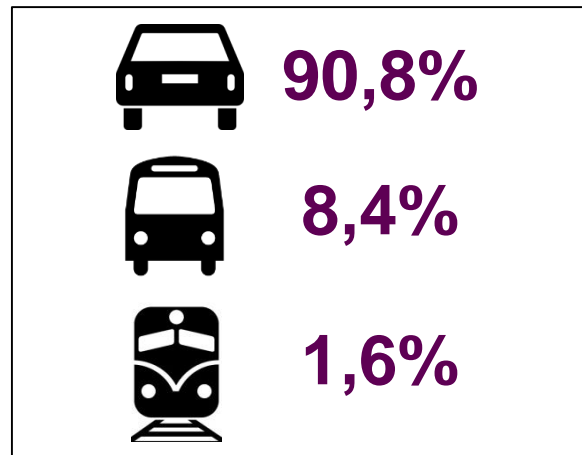
Bus use substantially declines

Panel design

Before

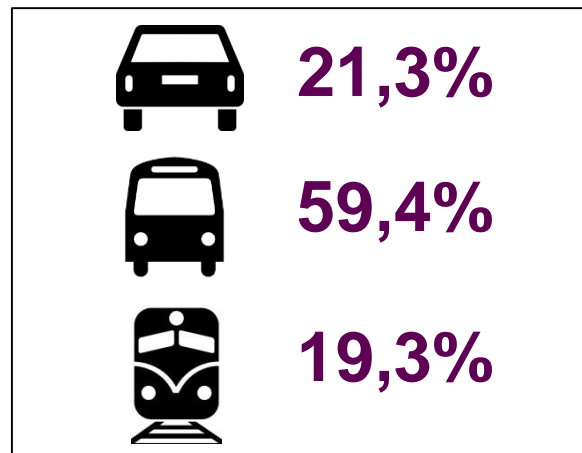
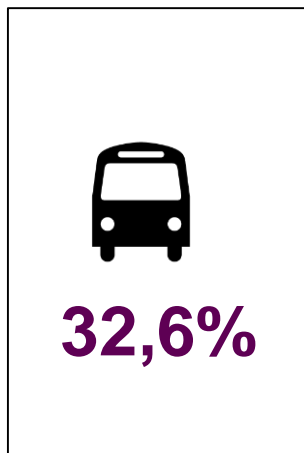


After



Conclusions

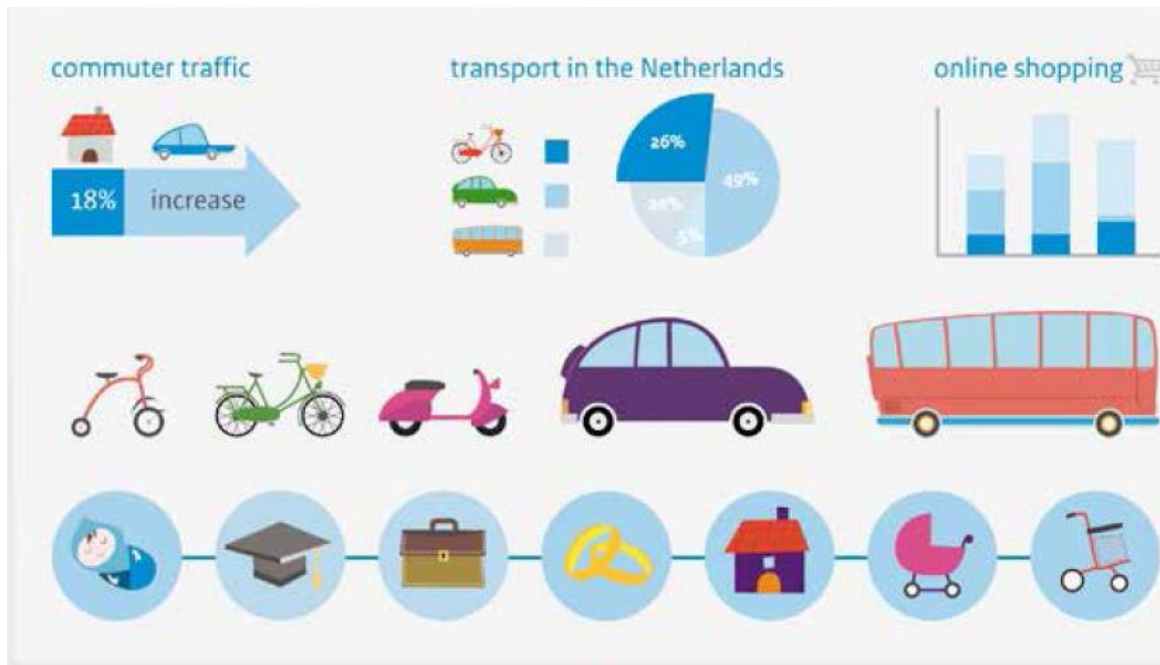
10% of car users switch to another mode, most of them to bus!



19% of bus users switch to train, but also 21% of bus users switch to car after opening railway!

Why Panel survey?

For a better understanding of dynamics in mobility we need to measure behavioural changes at individual level



Main research questions

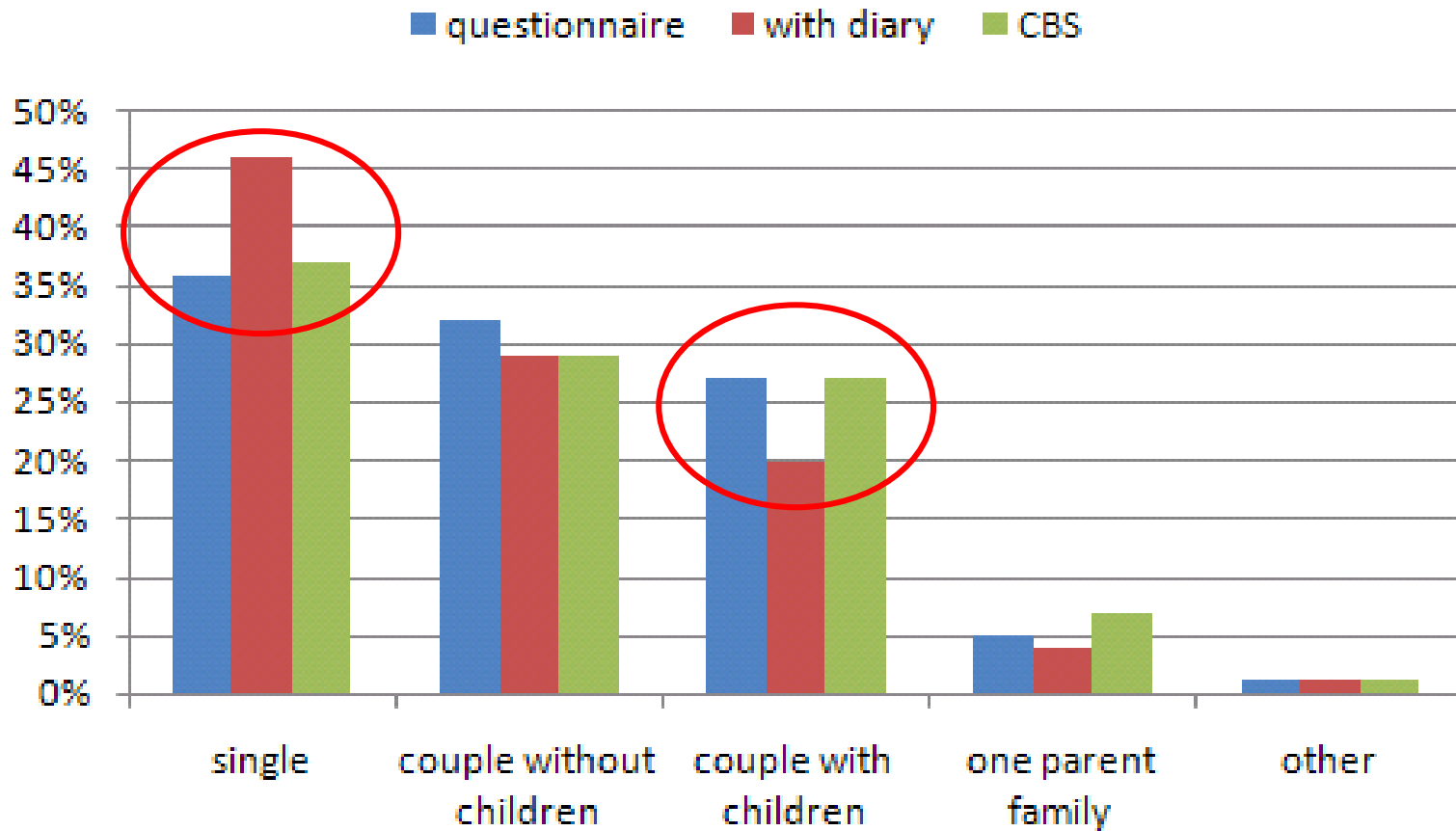
- How do **changes in people's live**, such as changing jobs, births of children and divorce, influence travel behaviour?
- How do changes in **purchasing behaviour and ownership** of cars, bicycles and public transport develop over time?
- How does people's **preferences** in terms of transport modes, homes and lifestyle influence travel behaviour?
- How do **changes in spatial environment**, such as a new train station, bicycle stall or parking regulation, influence travel behaviour?

Survey characteristics

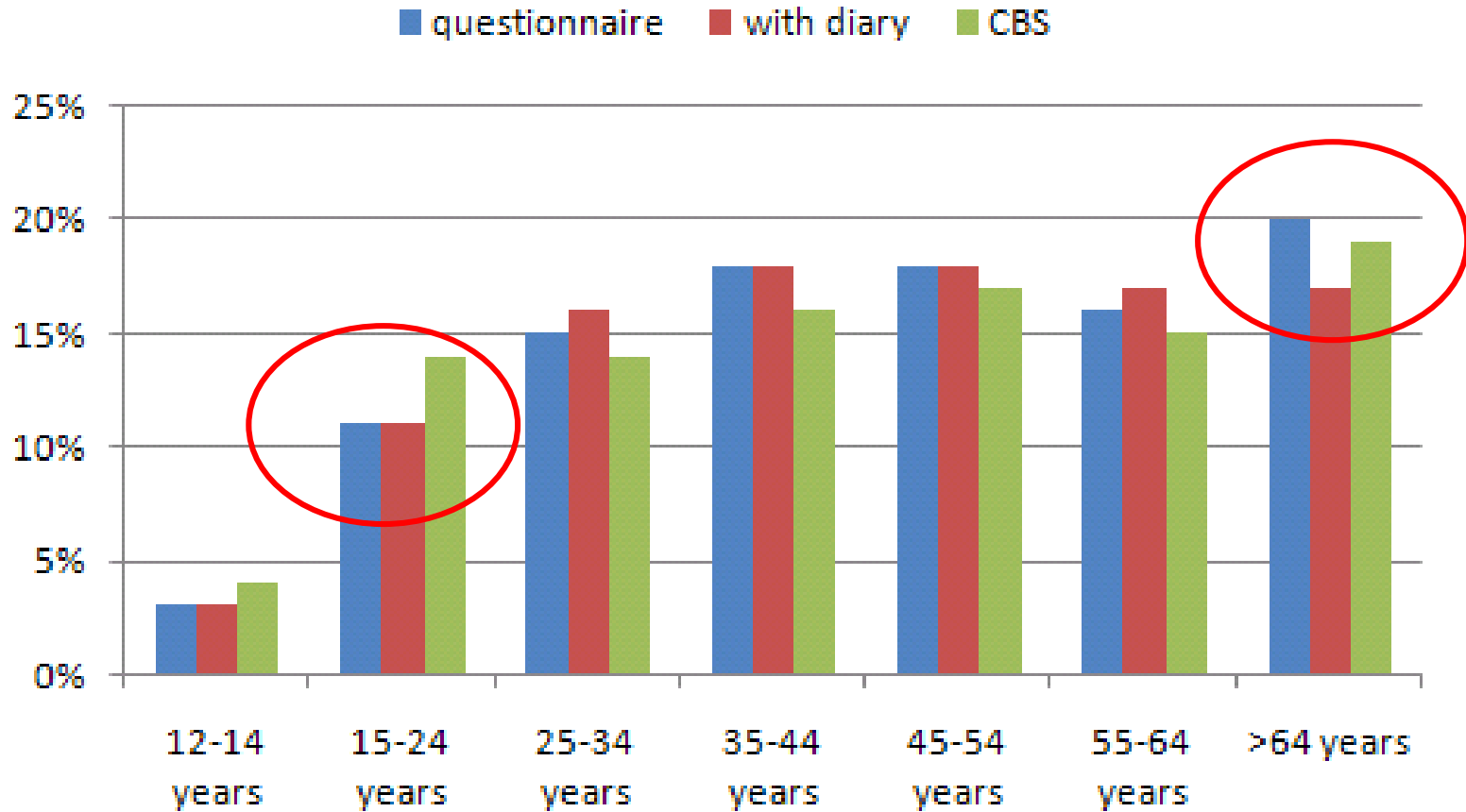
- **Household and individual questionnaire:**
 - Socio-economic characteristics
 - Travel related data
 - Special topic
- **Three day travel diary (location based):**
 - Travel mode
 - Distance, travel time
 - Purpose

WAVE 1	Questionnaire	Travel diary
Households	3.572	1.978
Individuals	6.126	3.996

Sample distribution households



Sample distribution individuals

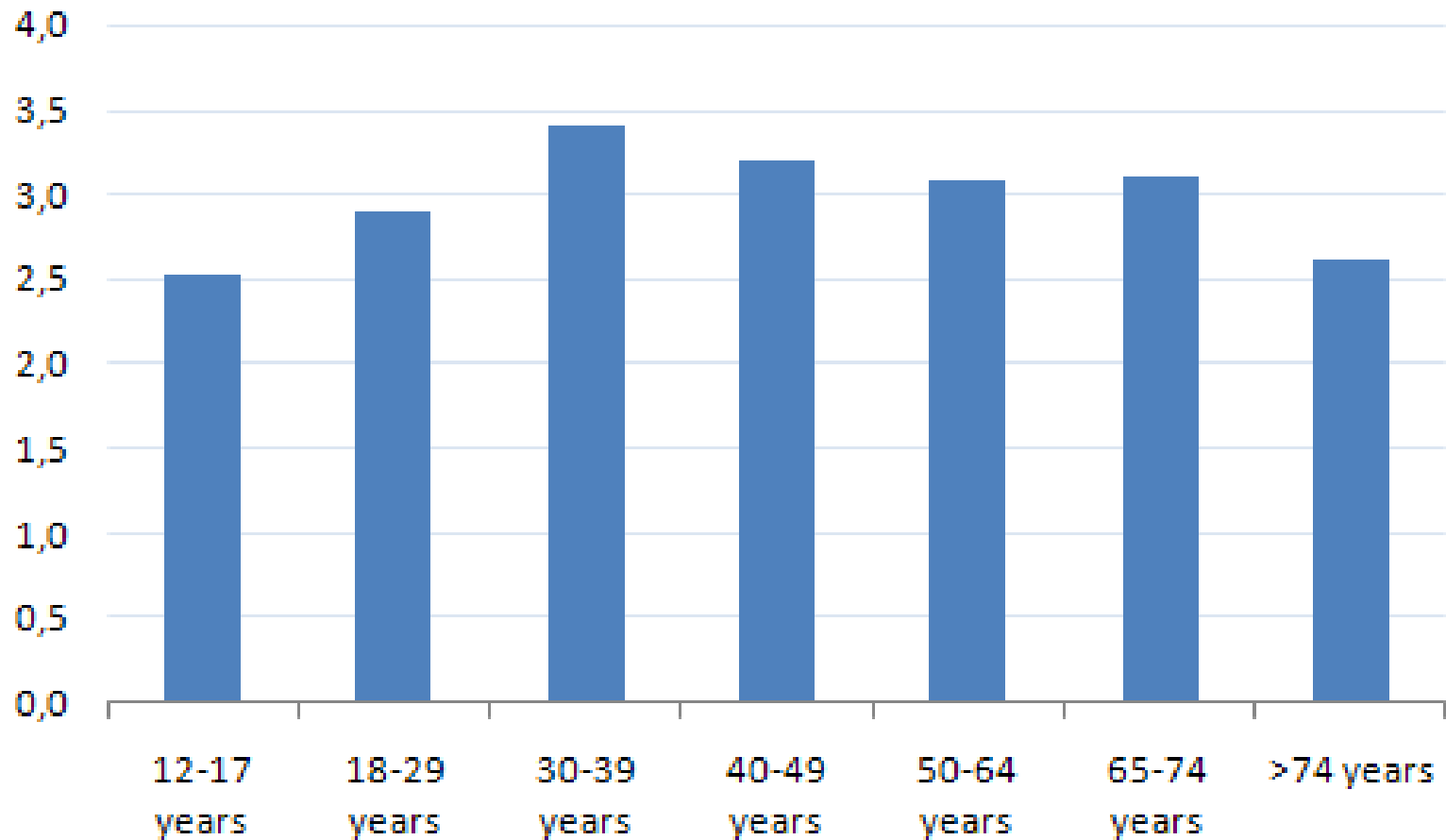


Daily Mobility

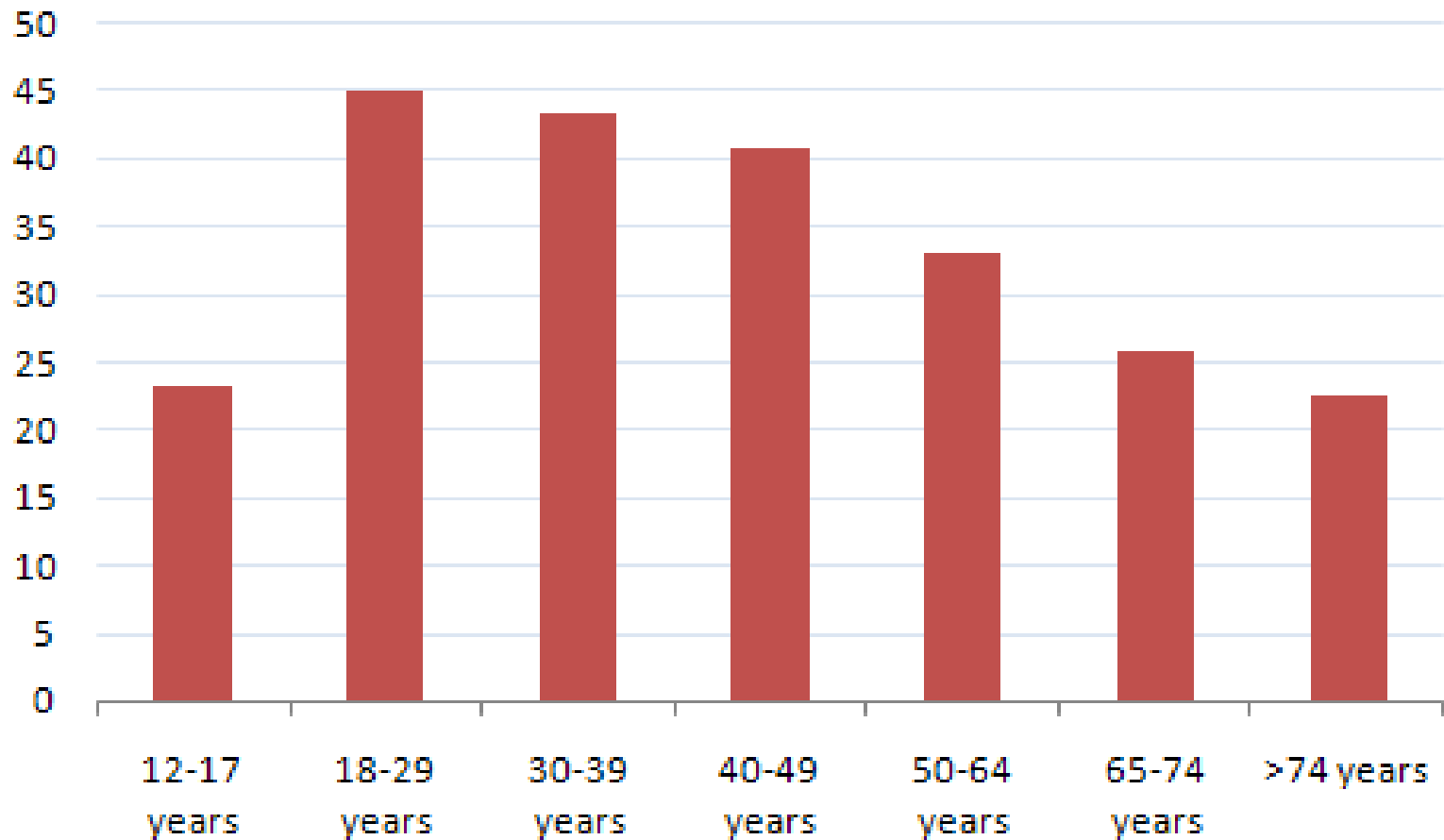
WAVE 1	MPN	NTS (OVIN)
Trips pp pd	3,1	2,6
Distance pp pd	35,6	32,8
Travel time pp pd	65,3	63,3

- **Location vs. trip based diary**
- **More short trips < 1,0 kilometer**
- **Especially more short walking and cycling trips**

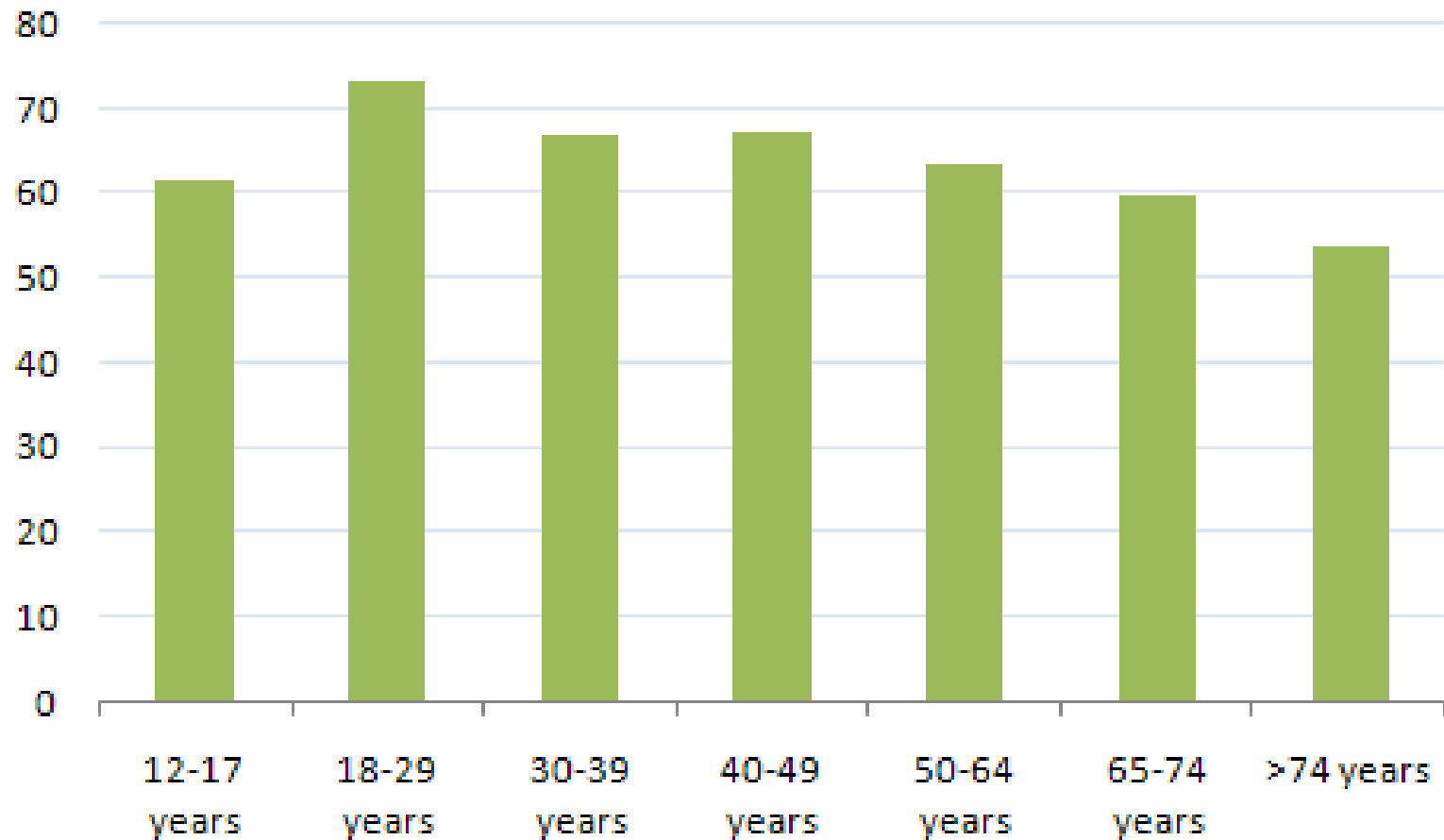
Number of trips per person per day



Distance (km) per person per day



Travel time (min) per person per day



Preferences vs. actual behaviour

- Travel mode choice for home-based work trips

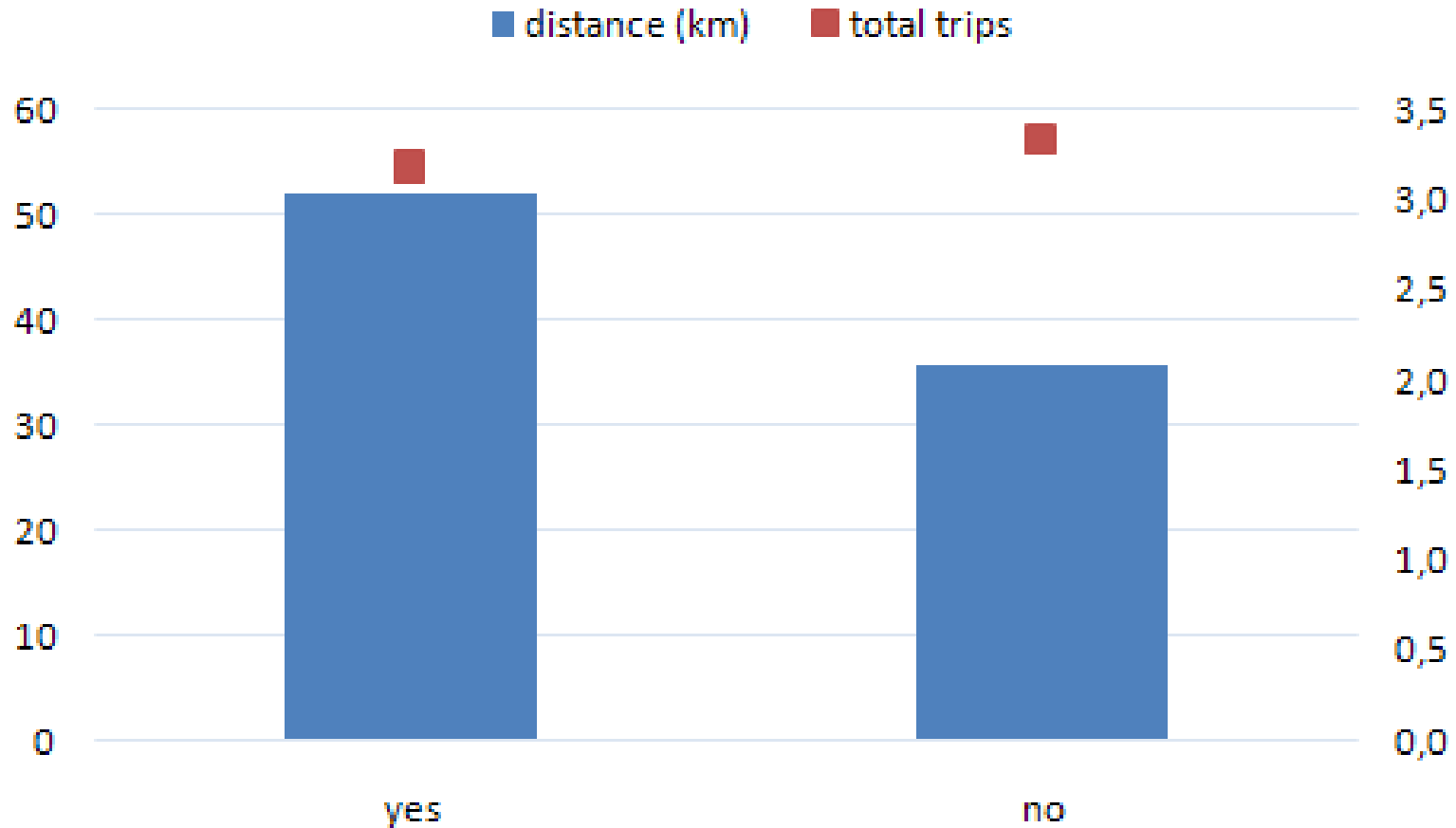
	Actual behaviour		
Stated preferences	Car	Public Transport	Cycling
Car	93	4	3
Public Transport	11	87	3
Cycling	30	8	62

- Not every respondent uses preferred mode
- 38% of people with cycling as preferred mode use another way to travel from home to work
- 10% of car users might willing to switch if circumstances change

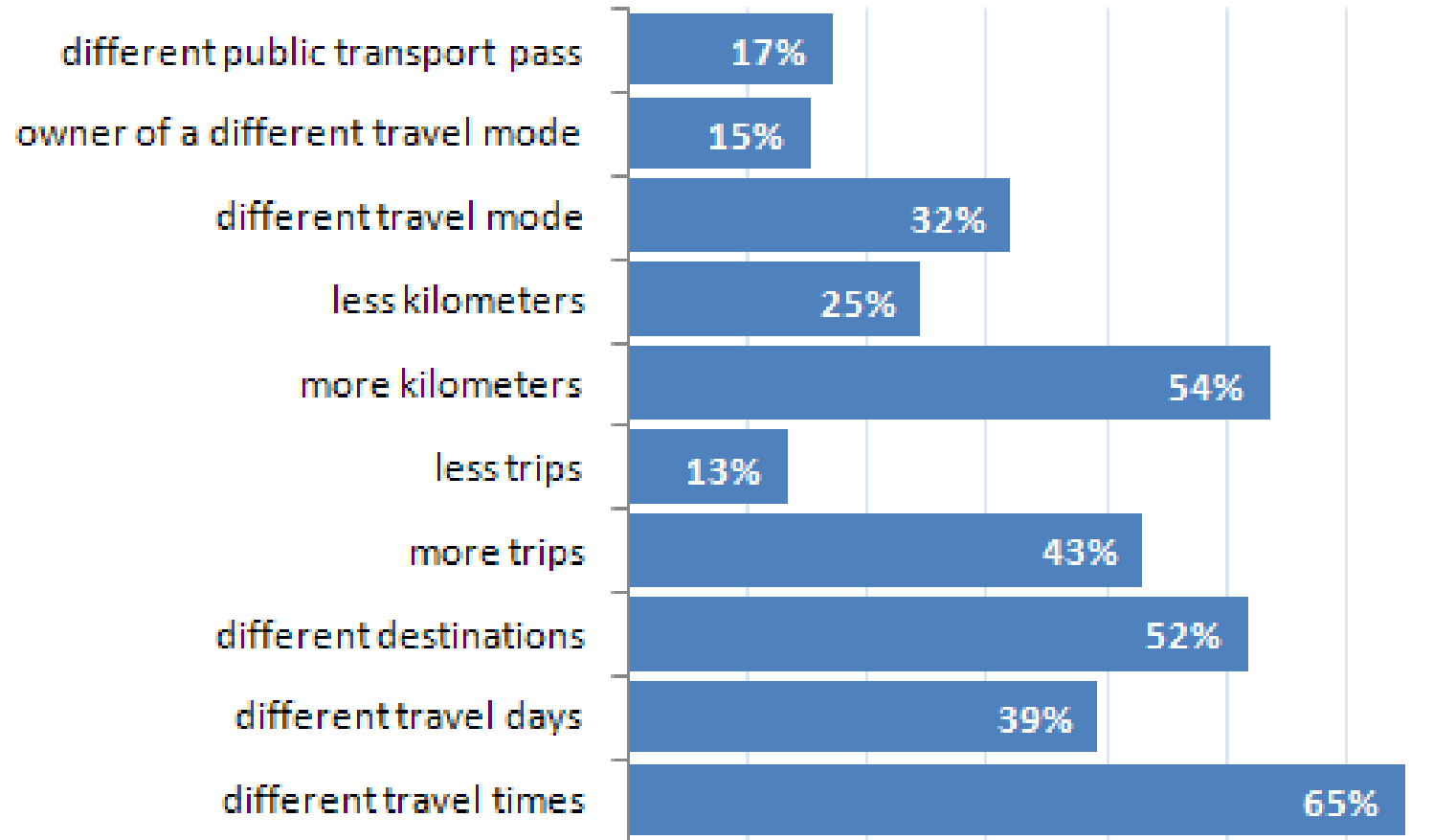
Life-events and travel behaviour

Life-event	Took place last 24 months (n=1.691)
Changed working hours/days	29%
New job	26%
Job location changed	22%
Quit working / lost job	18%
Moved out	15%
Another school / changed education	15%
Child was born in household	11%
Some in household moved out	7%
Went living together	6%
Divorced / broke up relationship	6%
Someone in household died	2%

Having a new job: daily mobility



Having a new job: changes in travel behaviour



Future research

- **Monitor changes in travel behaviour**
- **E-shopping and travel behaviour**
- **Dynamics in travel mode choice**
- **Attitudes and preferences of transport modes**
- **Young adults and travel behaviour**
- **Reliability of travel information**
- **Improve strategic long-term traffic and transport models**



Mobility Panel
Netherlands

TO BE CONTINUED.....