



# STARS

Shared mobility opporTunities And  
challenges foR European citieS



UNIVERSITY OF GOTHENBURG

## Underlying factors of the behaviour change towards sharing mobility

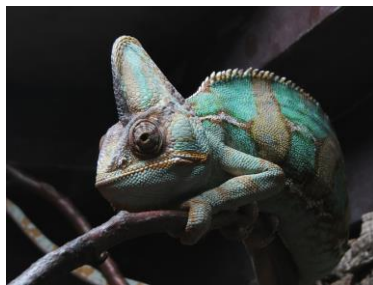
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Car sharing expert workshop, Bremen, 24th January 2019



This project has received funding from the Horizon 2020 programme under grant agreement n°769513

## Behaviour change

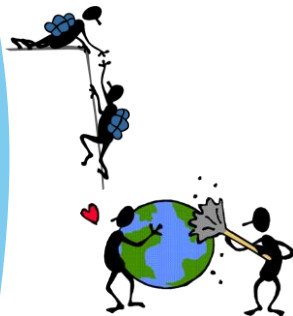


- ★ "It's not the strongest of the species that survives, nor the most intelligent, but the one most responsive to change."

Charles Darwin, 1809



## Barriers for change



### ★ Lack of motivation or...

- Status quo bias
- Uncertainty
- Goal conflicts
- Normative influence
- Structural limitations
- Etc.



## Motivational influence on



### ★ Perceptions



### ★ Decisions



### ★ Behaviours



## Underlying factors?



- ★ Psychology
  - The interaction of thoughts, emotions and behaviour
  - How individual factors interact with a social context
- ★ Reasoned versus automatic (conscious vs. unconscious)



## Intentions and habits



- ★ Intentions are part of an behavioural plan.

They are influenced by what we would like to and/or ought to do.



- ★ Habits are routinized behaviours which relies on cues (automatic).



## Norms, perceptions of contextual factors, knowledge and experience influence...



- ★ Feelings of control
- ★ Trust
- ★ Attitudes
- ★ Emotions
- ★ Etc.



## Values and attitudes can influence



- ★ General concerns and lifestyle choices

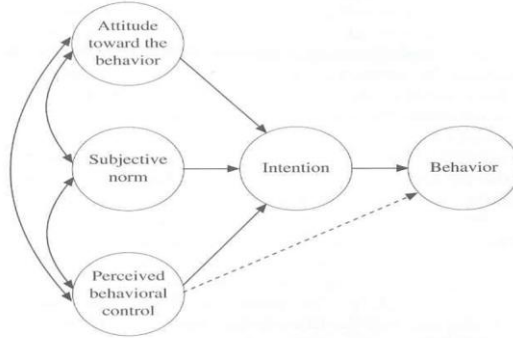


- ★ Specific evaluations of options



# Theory of Planned Behaviour

Influencing factors:



Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.  
 Gardner, B., & Abraham, C. (2008). Psychological correlates of car use: A meta-analysis. *Transportation Research Part F: Traffic Psychology and Behaviour*, 11(4), 300-311.



# Technology acceptance model (TAM)

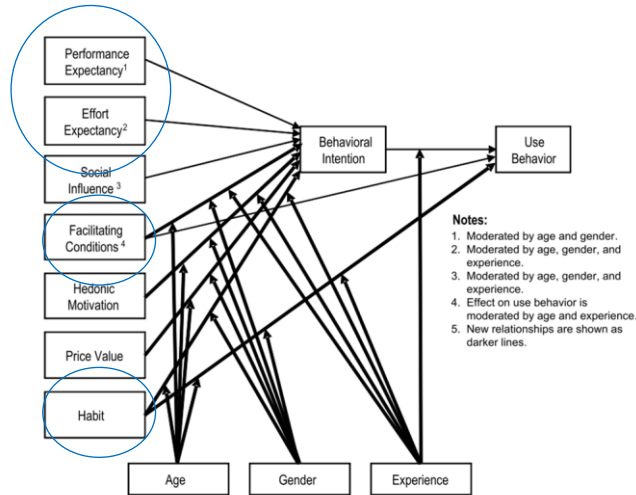


Figure 1. Research Model: UTAUT2

Venkatesh, V., Thong, J., & Xu, X. (2012).



# The STARS online survey 2018

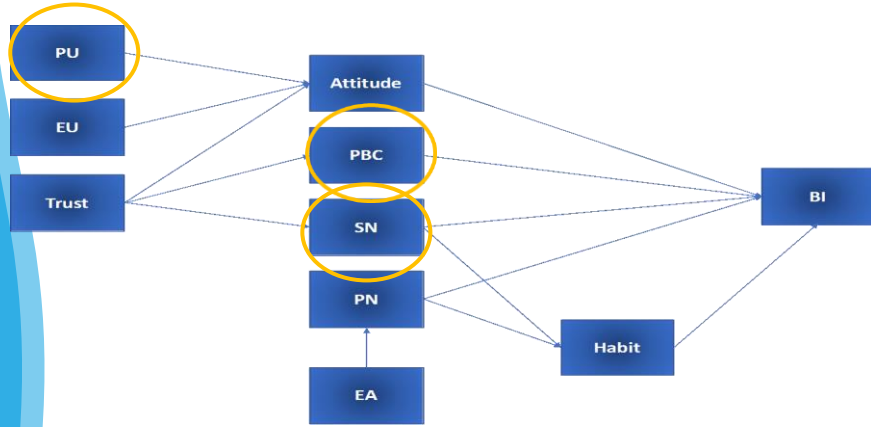


Samples nationalities					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Belgium	73	1.1	1.1	1.1
	France	28	.4	.4	1.5
	Germany	86	1.3	1.3	2.7
	Italy	3696	54.2	54.2	56.9
	Spain	14	.2	.2	57.1
	Sweden	2889	42.3	42.3	99.5
	Other country	36	.5	.5	100.0
	Total	6822	100.0	100.0	

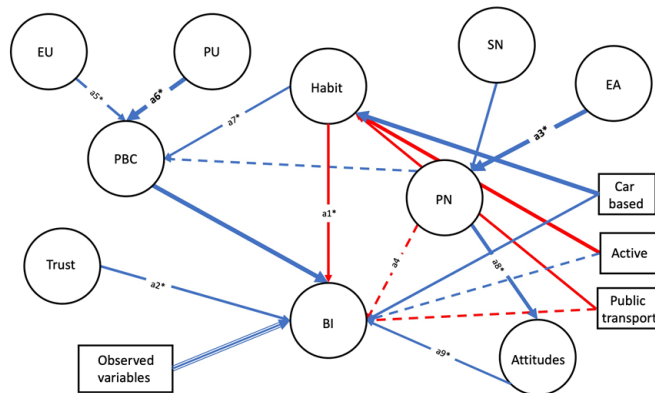


Construct	Measure
Attitudes (ATT)	Overall evaluation of car sharing and implementation in society <b>positive-negative</b> + evaluation of <i>comfort, costs and environmental friendliness</i>
Perceived Behaviour Control (PBC)	<b>Belief about personal control</b> -It would be possible for me to use car sharing for my regular trips -I am sure that I could choose car sharing for my regular trips during the next week
Perceived usefulness (PU)	The degree to which using car sharing will provide benefits -Using car sharing services would be a useful mode of transport. -Using car sharing would help me to accomplish activities that are important to me
Ease of use (EU)	The perceived ease of using car sharing. -I would find car sharing easy to use. -It would be difficult to book a car at the car sharing website/app
Subjective Norms (SN)	Social approval or disapproval of car sharing -People who are important to me... -think that I should use car sharing instead of other modes of transportation -like that I use car sharing.
Trust (T)	Perception of low risk and high trustworthiness. -I think it provides good service. -I think it is predictable
Environmental awareness (EA)	Environmental concern or attitude towards it.
Personal norms (PN)	A moral obligation guiding the behaviour.
Habits	A script-based choice guiding decision making when the circumstances are constant.

Results of regression analysis of behaviour intention to use car sharing in the next six months, *-I will become a member of..., -I plan to use car sharing*



Results of a structural equation model



RMSEA = .062 (CI = [.060, .063]) 90%, SRMR = .046, CFI = .919,  $\chi^2(d.f. = 482) = 4088.259, p < 0.001$



## Conclusions

- ★ Underlying factors measured in STARS influence behaviour change intention as both barriers (strong **habits**) and by strengthening the motivation (attitudes, environmental concern, norms, control).
- ★ **Perceived usefulness** of car sharing influence **behaviour control** which has the strongest direct effect on intentions to use car sharing.
- ★ This is something we can “easily” improve.



# Thank you

## Get in touch for more information!



All of the reports of the project will be available for download on the STARS website: [www.stars-h2020.eu](http://www.stars-h2020.eu)



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