

# Identification of drivers and barriers for social innovation in urban mobility

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# **Objective**

Identification of drivers and barriers to implement social innovation for urban mobility in 4 cases in SMARTEES project:

- Zürich
- Groningen
- Vitoria-Gasteiz
- Barcelona















# Theoretical framing

"Social innovation is a process of change in social relationships, interactions, and/or the sharing of knowledge that broadens/deepens the engagement of individual stakeholders with energy topics and leads to, or is based on, new environmentally sustainable ways of producing, managing and consuming energy to meet societal challenges."

### Value-belief-norm theory (VBN; Stern, 2000):

- attitudinal norms, beliefs and values
- capabilities and resources social status, literacy, financial resources, time, etc.
- contextual laws and regulations, material costs and rewards, social norms, policies, etc.
- habit and routine





# Methodology

Cross-sectional data gathering Semi-structured interviews

### Analysis on clusters:

- Holistic, shared and persistent mobility planning (Zürich and Groningen)
- Urban mobility with superblocks (Vitoria-Gasteiz and Barcelona)



# Results: Cluster Zürich and Groningen

### **Drivers**

- general environmental predisposition
- behaviour-specific norms and beliefs (safety)
- benefits (i.e., improved cycling infrastructure, environment quality are valued higher than the costs, such as time or effort)
- financial resources
- social norms and expectations
- supporting policies



# Results: Cluster Zürich and Groningen

### **Barriers**

- material costs
- laws and regulations



# Results: Vitoria-Gasteiz and Barcelona

### **Drivers**

- pro-environmental attitudes
- other attitudes (e.g., willingness to engage in discussions about mobility in the city, preservation of traditions, concern for climate change and air quality)
- interdisciplinary knowledge
- (changes in) social norms
- knowledge and experience
- supportive policies (@ local, regional, metropolitan level)



## Results: Vitoria-Gasteiz and Barcelona

### **Barriers**

- (lack of) financial resources
- (lack of) human resources
- time





### **Attitudinal Factors**

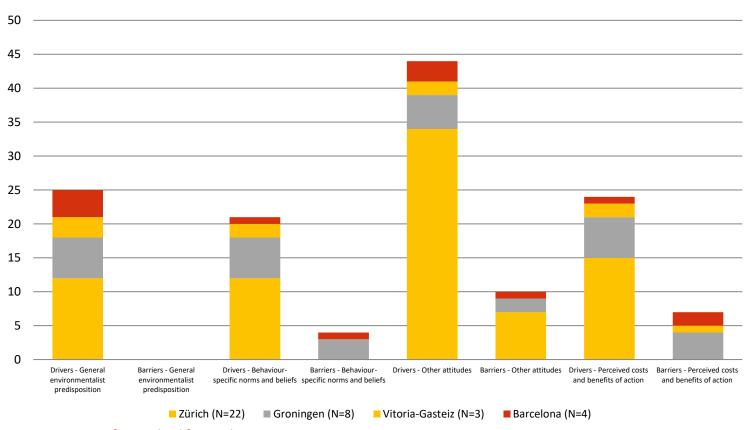


Figure. Frequency of attitudinal factors by case

### **Results**





### **Capabilities and resources**

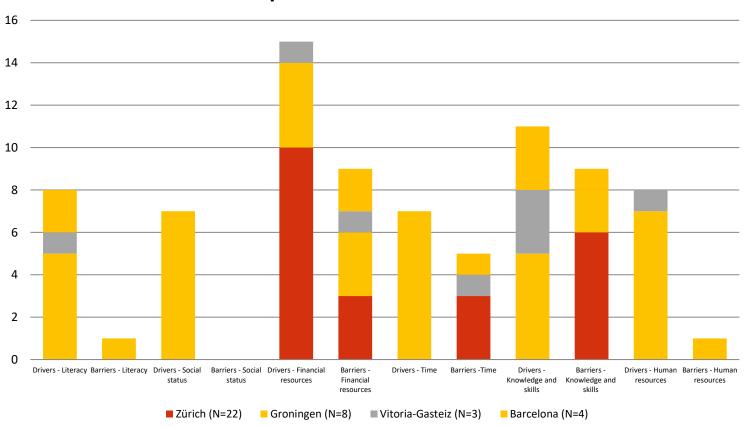


Figure. Frequency of capabilities and resources factors by case

### **Results**





### **Contextual factors**

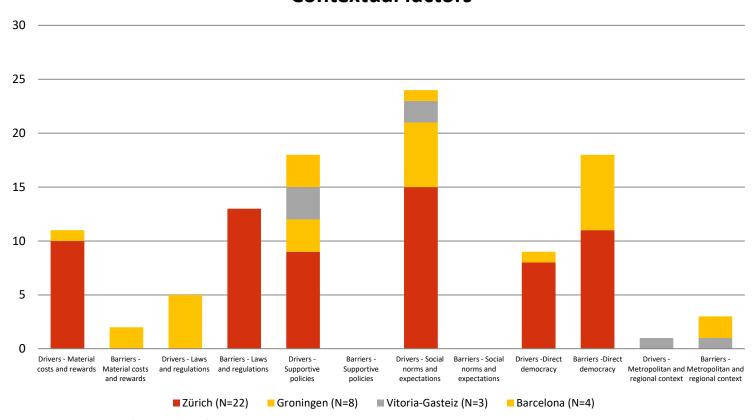


Figure. Frequency of contextual factors by case

### **Results**





### **Habit and routine**

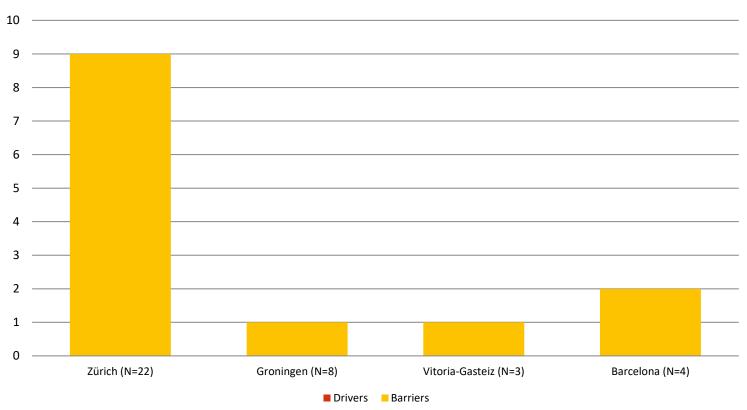


Figure. Frequency of habits and routines factor by case

### **Results**





# **Policy recommendation**



Build on existing environmental engagement or include a strategy to increase it, since almost all key actors across all cases name environmental engagement as a key driving force.



Especially in mobility related social innovations, there often is initial resistance of groups that fear for their businesses. Include such groups early on and open for trial periods of the changes to the mobility system.



Regulations and laws can be a powerful driver or barrier of social innovations. Remove ambiguities and uncertainties in regulations, create room for experimental solutions, and design policies that amplify the output of social innovations.



# Thank you!

Stay in touch!

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