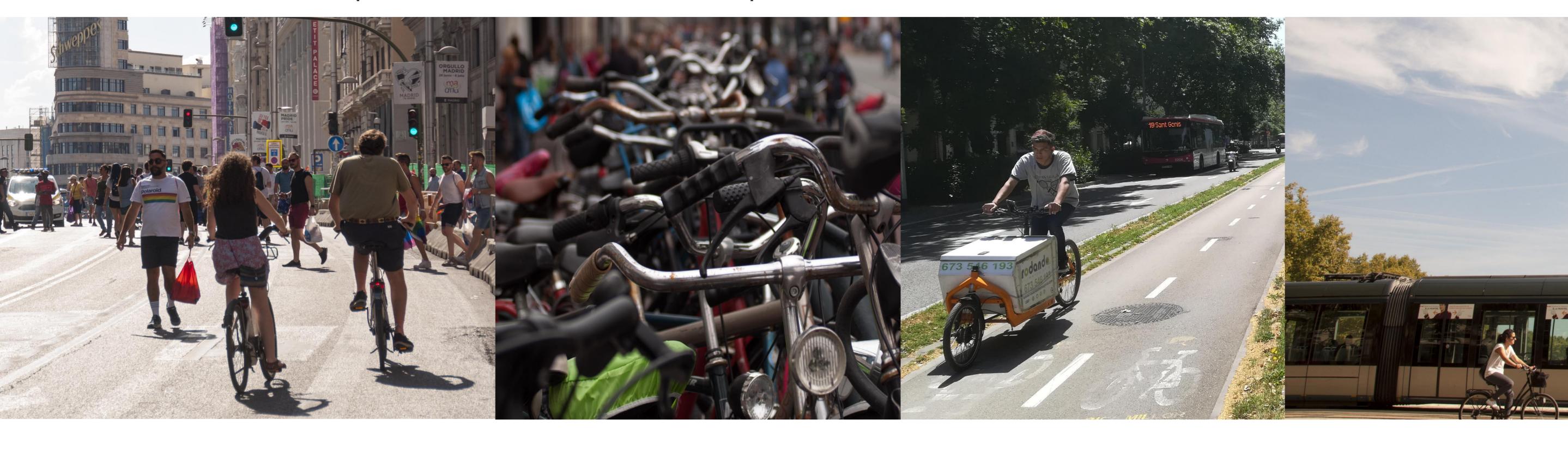


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How can cycling mitigate the impact of disruptive events on mobility systems?

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BACKGROUND

Designing resilient traffic systems that allow sustainable mobility in the face of disruptive events will be a key task for decision-makers all over the world in the coming years. The SARS-CoV-2 pandemic has shown that external events can massively influence which modes of transportation people use for their daily commutes. For reliable transportation systems, these short-term behavioral changes can present themselves as a major challenge. Can cycling help mitigate this impact and thus contribute to resilient traffic systems?

METHOD

To be able to predict how different events impact the usage of different travel modes we designed an online survey capturing experiences with disruptive events. Acquired via residents' registration offices in various participating municipalities, participants are interviewed about events that have influenced their mobility in the past. 15,000 people will be invited to the survey.

RESULTS

By structuring the reported events and their impact on mode choices, a comprehensive list of disruptive even classes will be compiled. We expect cycling to be one of the more resilient modes of transport regarding most disruptive events.

Disruptive Event I dis Juptiv i vent I

1. Special, usually sudden event that affects or changes how people travel in everyday life. 2. Fundamentally changes traffic habits and thus creates a new situation. 3. Can happen either intentionally or unintentionally. 4. Can be man-made, natural disasters, and of other origins.

Disruptive Events What events have you	u experienced within the last three years that changed how you were mobile in the short
r long term?	
ultiple selection pos	ssible
Pandemic (Coronavir	rus)
Temporary failure of	traffic infrastructure (bridge, road, path, rails closed)
Permanent dismantli	ing of transport infrastructure (dismantling of bridges, train stations, roads, paths, rails, etc.)
Temporary failure of	a private means of transport (damage to car, bicycle, no fuel available, etc.)
Temporary failure of	public transport (strikes, weather-related cessation of rail traffic, etc.)
Expansion of infrastr	ructure (new bike path, road, etc.)
Improved public tran times, etc.)	nsport options (more frequent bus trips, new car-sharing offer, better public transport departure
Extreme weather even	ent (flood, heat wave, storm, etc.)
Negative financial ch	nanges (price increases, job loss, etc.)
Positive personal fina	ancial changes (fuel discount, salary increase, etc.)
Positive financial cha	anges in public transport (9-euro ticket, 49-euro ticket, better tariffs,)
☐ Move to another city	
job change	
☐ Changes on site (clos	sure of shops, supermarkets, cultural institutions, etc.)
other	
	You have indicated that a
remporary randi	re of a private mode of transport (damage to car, bicycle, no fuel available, etc.)
had an imna	act on your everyday mobility. Please answer the following questions related to this event
had an impa	act on your everyday mobility. Please answer the following questions related to this event.
	act on your everyday mobility. Please answer the following questions related to this event. to describe the event that changed your daily mobility in more detail?
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