

When Behaviour Meets Planning: Towards Sustainable Mobility for All

When we think about urban mobility, our minds often go directly to infrastructure: streets, cycle lanes, buses, tramlines, and technology. Yet, as highlighted during the first S.M.ALL online webinar, infrastructure alone is never enough. The missing link in creating truly inclusive and sustainable mobility systems is human behaviour, that is the way people actually use, perceive, and adapt to the city around them. For decades, urban planning has been dominated by “hard” interventions: investments in roads, transport networks, and vehicles. These remain necessary, but evidence shows that without addressing behaviour, even the best infrastructure fails to deliver its full potential. Daily mobility choices are shaped by habits, routines, social norms, and perceived comfort. Recognising this dimension means integrating behaviour change strategies into planning, moving towards what the in the S.M.ALL webinars we called “*soft planning*.” Take for instance a new cycle lane. If residents do not feel safe using it, or if cycling is not perceived as socially accepted, the infrastructure may remain empty. Similarly, a modern bus line will not reduce car dependency if timetables are not trusted or if driving is still seen as the default option. What really determines success is not only the physical investment, but whether people are ready, and willing, to change their daily routines.

As Patrick Geddes reminded us, “*Town planning is not mere place-planning, nor even work-planning. If it is to be successful it must be folk-planning.*”



Empty bike lanes, SOURCE: https://www.reddit.com/r/phoenix/comments/n711qr/new_bikes_lanes_on_3rd_ave_bw_indian_school_osborn/

The concept of “nudging” has gained ground as a tool for shifting behaviours without restricting freedom of choice. From encouraging walking and cycling to reducing car dependency, nudges can take the form of small design pinches, information framing, or changes in the default options available to citizens. As experts at the webinar emphasised, nudging is most effective when embedded in a broader planning strategy, complementing physical investments and policy regulations: Nudging as a planning strategy.

Nudges in a nutshell

Definition: “subtle changes in the way choices are presented that influence behaviour without restricting options or significantly altering economic incentives”

- Types of nudges

- Default / passive Bias-Make sustainable travel easiest
- Active Nudges: capture attention and encourage specific actions
- Generalised Nudges: broad-based interventions aimed at influencing the behaviour
- Personalization-Tailored for seniors, women, youth, people with special abilities
- Time-Based Nudges: interventions that occur at specific moments when people are more open to change
- Event-Based Nudges: designed around local festivals, etc
- Sensory Nudges: sound, sight, or even smell, can influence transport behaviours
- Gamification-Reward and track progress
- Visual Cues and Informational Nudges: provide immediate feedback to travellers



Chatzivaity I, Elisei, P., As highlighted during the first S.M.ALL online webinar “*Shifting Minds, Shaping Cities: Nudging Behaviour for Sustainable Mobility*” (URBACT, 2025), infrastructure alone is never enough.

International case studies showed how behavioural science can support inclusive mobility: delicate design changes at pedestrian crossings, visual cues in public transport, or community challenges promoting active mobility. These interventions prove that the everyday experience of mobility can be shaped towards sustainability not by force, but by enabling healthier, more inclusive choices. A recurring message from the peer exchange among cities was the importance of co-creation. Behavioural change cannot be imposed from above. Instead, it must emerge from dialogue, experimentation, and a shared sense of ownership. In the S.M.ALL partner cities, practical exercises in designing nudge policies clearly showed the value of co-creation. When residents are directly involved, policies gain legitimacy because people recognise their voice in the process. At the same time, solutions become more creative and better adapted to the local context. Most importantly, co-creation gives communities a sense of ownership, making projects not only smarter but also more widely accepted, and therefore more sustainable in the long run.

Lastly, nudging is not without its challenges. Ethical concerns must be addressed openly: how do we distinguish between empowering citizens and manipulating them?

The answer lies in transparency, inclusiveness, and constant monitoring. Evaluation frameworks are needed to measure impact and ensure that interventions truly serve the public good, without reinforcing inequalities or exclusion.

For example, a campaign that encourages people to cycle more is positive only if safe infrastructure exists and if all groups, from children to the elderly, can realistically benefit from it. Otherwise, a well-meant nudge risks privileging only the young and fit, while leaving others behind.

The conclusion of the webinar was clear: nudges can open the door, but systemic change requires combining behavioural insights with governance, policy, and infrastructure. Sustainable mobility for all is not just a matter of new roads or buses, it is about enabling a cultural shift in how we inhabit and move through our cities.

Hangzhou

Hangzhou Public Bicycle System:

Scale: Over 80,000 bicycles and 3,000+ docking stations

Integration: Fully integrated with the city's metro and bus systems

SUSTAINABILITY

- Reduces emissions: Encourages modal shift from cars to bikes, cutting urban air pollution.
- Smart integration: The system is connected to smartcards used for buses and metros, simplifying multimodal trips.
- Dynamic expansion: Uses demand data to expand docking stations and adjust supply.

INCLUSIVENESS:

- Affordability: First hour of use is free, with minimal charges thereafter—making it accessible to low-income groups.
- Coverage in all districts: Bikes are available across urban and peri-urban areas, supporting mobility in lower-income and underserved zones.
- Accessible design: Includes low-frame bicycles for women and elderly users; stations are sited near schools, hospitals, and markets.

Nudging Features

Ease of use: Simple smartcard system and mobile apps eliminate barriers to entry.

High visibility: Red bikes placed strategically in public view normalize cycling.

Data feedback: Real-time usage stats are public, reinforcing social norms of bike use.



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The case studies presented, from Athens, Bologna, and Bucharest to Addis Ababa, Bogotá, Brisbane, Nairobi and Hangzhou, demonstrate that this challenge is both local and global: very different contexts face similar barriers, and all can benefit from integrating behavioural perspectives into mobility planning. The S.M.ALL project calls urban planners, local authorities, and citizens to embrace this integrated perspective. Only by bridging infrastructure, behaviour, and governance can we create mobility systems that are inclusive, sustainable, and truly transformative.

The game of Walk-Ride-Repeat

Bologna launched a gamified app ("Bella Mossa" meaning "good job") that rewarded residents for sustainable trips.



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Finally, **Accessibility must be the guiding principle** in this transition: reducing spatial inequalities, ensuring equal access to green technologies for mobility, and including all citizens, both able-bodied and persons with disabilities, as active participants in shaping the cities of tomorrow.

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