

Circular Mobility Strategies in Sustainable Cities: A Systematic Literature Review

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INTRODUCTION & AIM

11 SUSTAINABLE CITIES AND COMMUNITIES



Circular economy principles have expanded into urban mobility and transportation systems (Pamucar *et al.* 2023), reinforcing the need to understand how circularity and sustainability are integrated into mobility research.

SDG 11 – Goal 11.2 reinforces the relevance of mobility in building more resilient and sustainable cities.

Main goal:

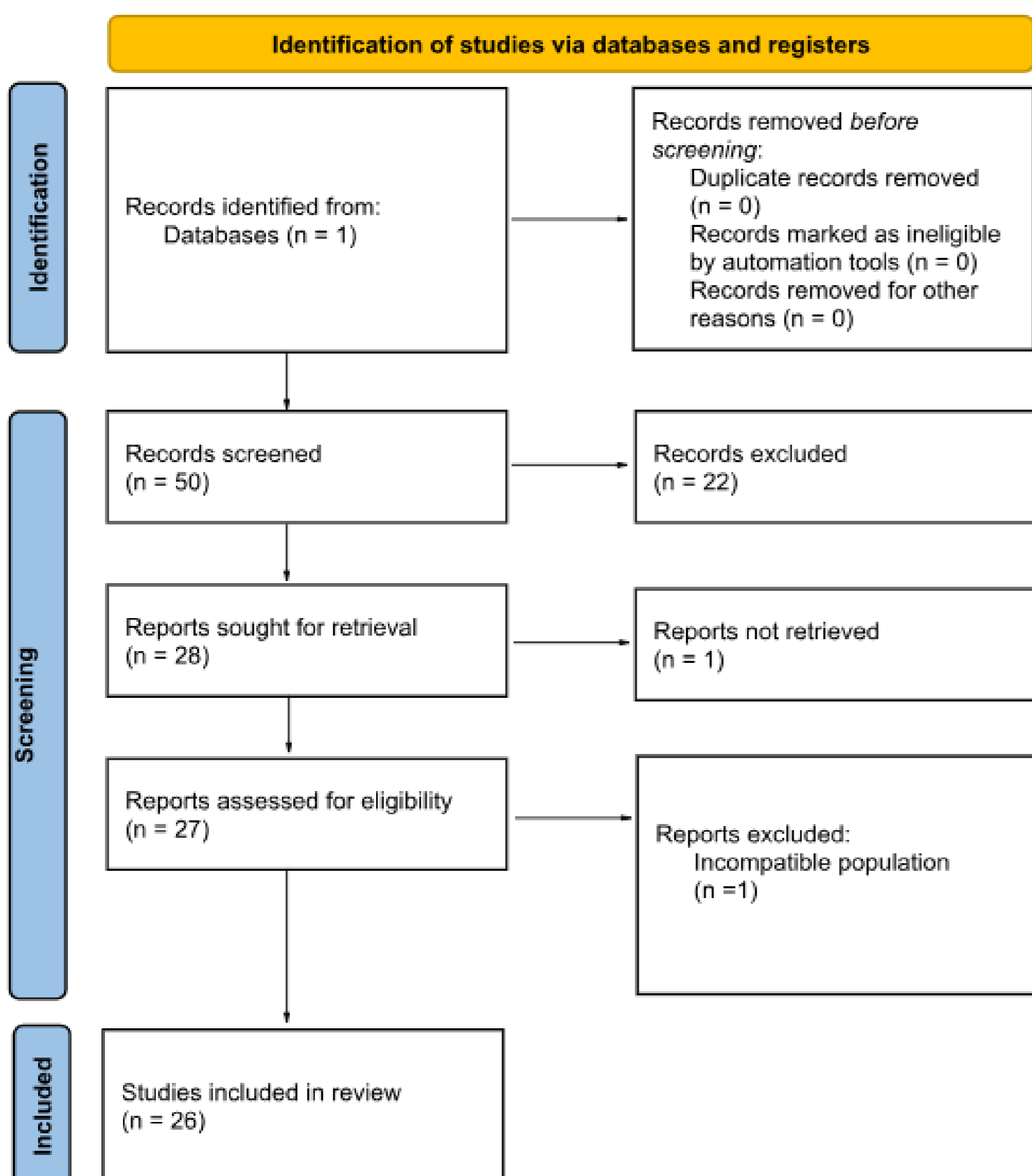
Systematically map the literature published in the Web of Science (WoS) database regarding circular mobility in sustainable cities, and identify circular economy strategies that could be adopted to promote more sustainable transportation systems

METHOD

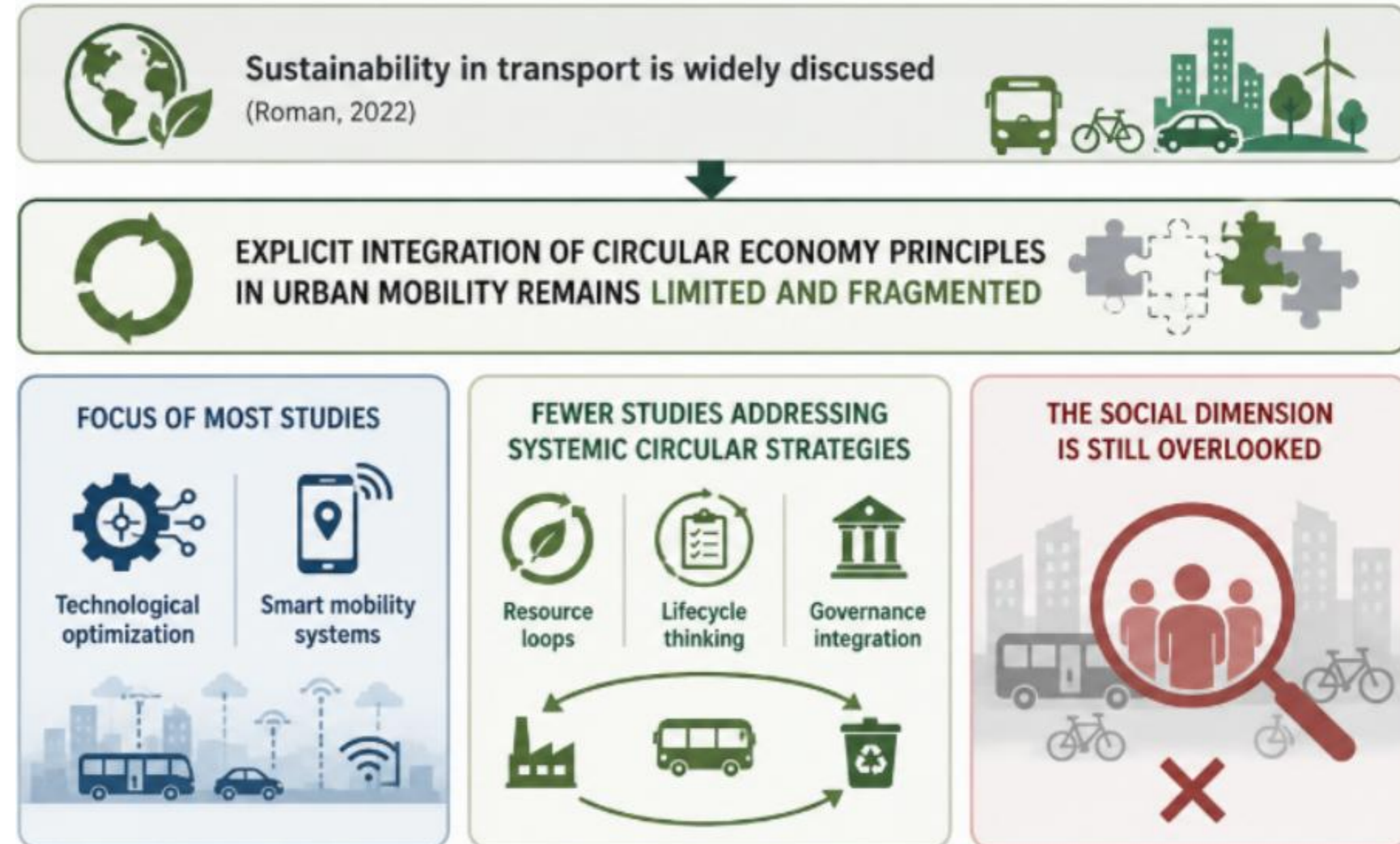
Systematic literature review: PICO-structured search strategy & PRISMA protocol

Search: February 2026 – WoS database – only paper published in journals (no extra refinement)

Strings: “(circular econom*) AND (cit*) AND (mobilit*)” AND (sustainab*)”



RESULTS & DISCUSSION



- The literature highlights the need for more integrated, systemic, and socially inclusive approaches to circular mobility;
- Few studies provide specific governance frameworks or policy guidance for implementing circular mobility strategies;
- Environmental impacts represent the predominant discussion theme identified across the reviewed studies.

CONCLUSION

These findings revealed the absence of frameworks to support more integrated and systemic circular mobility policies in sustainable cities. The identified gaps can guide future studies in this field.

REFERENCES

- Ghisellini, P., Cialani, C., & Ulgiati, S. (2016). A review on circular economy: The expected transition to a balanced interplay of environmental and economic systems. *Journal of Cleaner Production*, 114, 11–32. 10.1016/j.jclepro.2015.09.007
- ONU BRASIL. Objetivos de Desenvolvimento Sustentável (ODS). [S.l.], 2025. Available at: <https://brasil.un.org/pt-br>. Access in: 29 nov. 2025.
- Pamucar, D., et al. (2023). A decision analysis model for smart mobility system development under circular economy approach. *Socio-Economic Planning Sciences*, 85, 101474. <http://dx.doi.org/10.1016/j.seps.2022.101474>
- Roman, M. (2022). Sustainable transport: A state-of-the-art literature review. *Energies*, 15(23), 8997. <https://doi.org/10.3390/en15238997>
- United Nations Environment Programme (UNEP). (2022). What you need to know about Stockholm+50. Available at: <https://www.unep.org/pt-br/noticias-e-reportagens/reportagem/o-que-voce-precisa-saber-sobre-estocolmo50>. Access in: 11 fev. 2026.