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Editorial: Citizen engagement and innovative approaches in sustainable urban transitions

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Editorial on the Research Topic

Citizen engagement and innovative approaches in sustainable urban transitions

Cities globally face challenges and opportunities on their journey toward sustainability, tackling issues such as climate change, environmental degradation, inequality, and injustice outlined in the United Nations (UN) Sustainable Development Goals (SDGs) (UN, 2015; Pedersen et al., 2023). While local governments are pivotal, active citizen involvement remains crucial in steering this transformative journey (Elelman and Feldman, 2018; Anthony, 2023). Despite progress, understanding the collaborative role of citizens and local governments remains a central focus.

Urban sustainable development requires a comprehensive and collaborative approach (Liu et al., 2023; Servanica and Constantin, 2023), emphasizing smart and renewable solutions (Angelidou et al., 2017; Lafortezza and Sanesi, 2019; Liu et al., 2021), and promoting greening and re-naturing activities (Liu et al., 2021). In Europe, aligned with the European Green Deal priorities [European Commission (EC), 2023a], the EU climate adaptation strategy [European Commission (EC), 2021], the EU's biodiversity strategy for 2030 [European Commission (EC), 2023b], and the EU's climate ambitions for 2030 and 2050 (Council of the EU and the European Council, 2023), the European Commission (EC) advocates for demonstrating the potential of nature-based solutions (NBS) and the New European Bauhaus (NEB) to contribute to sustainable, inclusive, and resilient living spaces and communities.

This editorial explores "*Citizen engagement and innovative approaches in sustainable urban transitions*," shedding light on insights from five impactful articles. These contributions deepen our understanding of the transformative discourse surrounding sustainable urban transitions, offering valuable perspectives on how citizen engagement and innovative approaches contribute to broader sustainability development goals.

The exploration begins with Ferrari et al. investigating integrated resource comanagement in the Galapagos Islands. Advocating a holistic vision, aligning economic diversification with education and capacity-building, the study proposes a Water-Energy-Food (WEF) nexus and Adaptive Co-management (ACM) approach. Addressing gaps in institutional culture, Ferrari et al. call for an adaptive co-management framework to enhance resilience through community-based resource management. Aalmo et al. shift focus to climate adaptation and mitigation in Europe, emphasizing the need for coordination across sectors. Presenting a regional framework on multi-sectoral adaptation pathways, the article underscores the role of subnational governments in fostering resilience and advocates for NBS integration, stressing the transition toward a fair, climate-neutral, and digital Europe.

Plassnig et al. contribute insights from case studies on living labs in sustainable cities, exploring Edible City Solutions. Analyzing scaling practices across living labs, the research advocates for context-sensitive scaling strategies, emphasizing networking, sustainable business models, and the acceptance of failures in the journey toward sustainable urban food production.

Fair and Braman present a behavioral perspective on motivating change for pollinator conservation, refining education, and outreach strategies. The study emphasizes tailoring materials based on sociopsychological determinants, addressing gaps in tailored education for diverse populations.

Finally, Liu et al. assess the role of Citizen Science as a catalyst for SDGs in European Cities, identifying successful collaborations and advocating for mainstreaming citizen science into urban governance.

These articles collectively highlight avenues for citizen engagement and innovative methodologies contributing to sustainable urban transitions. The findings underscore the intricate interplay among environmental, social, and economic dimensions, emphasizing nuanced responses to challenges and opportunities in different regions.

In the pursuit of sustainable development, cities grapple with multifaceted challenges. The results emphasize the necessity of a holistic vision aligning economic diversification with education and capacity-building (e.g., Ferrari et al.). Furthermore, they recognize the potential of integrating NBS and NEB into urban planning for climate resilience (e.g., Aalmo et al.; Plassnig et al.), stress the urgent need for a collaborative approach and coordination across diverse sectors (e.g., Aalmo et al.; Liu et al.), and emphasize collaborations and co-creating solutions between citizens and cities (e.g., Liu et al.). These insights acknowledge the diverse urban environments and encourage flexibility in implementing sustainable solutions (e.g., Plassnig et al.). Moreover, they underscore the importance of tailoring education and outreach strategies and recognizing the diversity of human behaviors and attitudes toward conservation, acknowledging that a one-size-fits-all approach may not be effective (e.g., Fair and Braman; Liu et al.).

As we navigate the complex landscape of sustainable development, these studies showcase the need for collaborative, inclusive, and context-specific approaches. Policymakers, researchers, and practitioners are urged to draw inspiration from these studies and embrace adaptive and integrated strategies tailored to the unique challenges and opportunities of their respective regions.

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Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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References

Angelidou, M., Psaltoglou, A., Komninos, N., Kakderi, C., Tsarchopoulos, P., Panori, A., et al. (2017). Enhancing sustainable urban development through smart city applications. *J. Sci. Technol. Policy Manage.* 9, 146–149. doi: 10.1108/JSTPM-05-2017-0016

Anthony, B. (2023). The role of community engagement in urban innovation towards the co-creation of smart sustainable cities. *J. Knowl. Econ.* 10, 1–33. doi: 10.1007/s13132-023-01176-1

Council of the EU and the European Council (2023). *Climate Change: What the EU is Doing.* Available online at: https://www.consilium.europa.eu/en/policies/climate-change/#2050 (accessed November 20, 2023).

Elelman, R., and Feldman, D. L. (2018). The future of citizen engagement in cities – The council of citizen engagement in sustainable urban strategies (ConCensus). *Futures.* 101, 80–91. doi: 10.1016/j.futures.2018.06.012

European Commission (EC) (2021). Forging a Climate-Resilient Europe - The New EU Strategy on Adaptation to Climate Change. Available online at: https://climate.ec.

europa.eu/eu-action/adaptation-climate-change/eu-adaptation-strategy_en (accessed November 20, 2023).

European Commission (EC) (2023a). *The European Green Deal – Striving to be the First Climate-Neutral Continent*. Available online at: https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en (accessed November 20, 2023).

European Commission (EC) (2023b). *Biodiversity Strategy for 2030*. Available online at: https://environment.ec.europa.eu/strategy/biodiversity-strategy-2030_en (accessed November 20, 2023).

Lafortezza, R., and Sanesi, G. (2019). Nature-based solutions: settling the issue of sustainable urbanization. *Environ. Res.* 172, 394–398. doi: 10.1016/j.envres.2018. 12.063

Liu, H. Y., Jay, M., and Chen, X. (2021). The role of nature-based solutions for improving environmental quality, health and well-being. *Sustainability* 13, 10950. doi: 10.3390/su131910950

Liu, H. Y., Skandalos, N., Braslina, L., Kapsalis, V., and Karamanis, D. (2023). Integrating solar energy and nature-based solutions for climate-neutral urban environments. *Solar* 3, 382–415. doi: 10.3390/solar3030022

Pedersen, A. B., Hickmann, T., Renn, O., Eckert, N., Jax, K., Lepenies, R., et al. (2023). SDGs at the halfway point: how the 17 global goals address risks and wicked problems. *Ambio* 52, 679–682. doi: 10.1007/s13280-023-01837-0

Servanica, C., and Constantin, D. L. (2023). Misfortunes never come singly. A holistic approach to urban resilience and sustainability challenges. *Cities* 134, 104177. doi: 10.1016/j.cities.2022.104177

UN (2015). Transforming Our World: The 2030 Agenda for Sustainable Development. Available online at: https://sdgs.un.org/2030agenda (accessed November 20, 2023).