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ACADEMIC WEEKLY DIGEST

Expectations are hyped up, but how can self-driving vehicles be sustainable?

Self-driving vehicles can be tested by commuters in San Francisco, US to tourists in Macau, China. Travellers may use them to go to work, reach their hotel or visit a golf course, because they could be helpful for example to avoid miscommunication when travelling abroad. Regulators are increasingly permitting more testing to take place in their cities, which attracts interest by both proponents and opponents of such new mobility services. Benefits revolve around lower cost for ride-hailing services replacing conventional taxi rides.

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However, their longer-term environmental and wider societal impact is still unclear, including the impact on future work. According to the work of [Dr Thomopoulos](#) and colleagues, the future impact depends on:

- i) the vehicle level of automation
- ii) the type of users attracted e.g. active travellers, car drivers, public transport users
- iii) if and how self-driven vehicles will be shared within cities and tourism destinations.

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About the author

Dr Nikolas Thomopoulos is an Associate Professor in Transport and the Institute for Sustainability Programme Co-Leader for Sustainable Transport & Mobility.

This book is edited with leading experts of the international WISE-ACT network, which he chaired (2017-2022). Nikolas was recently elected WG Leader of a European network about lifelong-mobility (2024-2028).

DELIVERING SUSTAINABLE AUTOMATED AND CONNECTED TRANSPORT

Dr Nikolas Thomopoulos

The United Nations Sustainable Development Goals (SDGs) are increasingly a core objective for policy makers, practitioners and communities. Transport is the third largest greenhouse gas emitting sector and 73% of its emissions stem from road transport. Therefore, it continues to be a core focus of these policy goals with Automated and Connected Transport (ACT) featuring as a potential solution to relevant challenges. Yet, there is still a lot to be achieved in addition to the ground-breaking technological advancements achieved during the past decade.

Book chapters link documented challenges of Autonomous and Connected Transport with sustainability. In doing so, they address all three sustainability pillars, namely Economic, Environmental and Social.

The Quintuple Helix and a Living Lab approach appear as prominent options to test how can Automated and Connected Transport be sustainable.

Based not only on activities of the international WISE-ACT network, but also on input by external experts, findings of contemporary and ongoing research are summarised in a comprehensive volume.

This book highlights existing gaps and offers evidence-based recommendations for academics, practitioners and policy makers to aid in meeting sustainability goals. Such a unified overview is beneficial to developing holistic research methods and global policies for making good progress towards the SDGs.

Publication:

Thomopoulos, N., Attard, M., Shiftan, Y. (Eds.) (2024) *Sustainable Automated and Connected Transport*, Transport and Sustainability Book Series, 19, Leeds: Emerald.



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