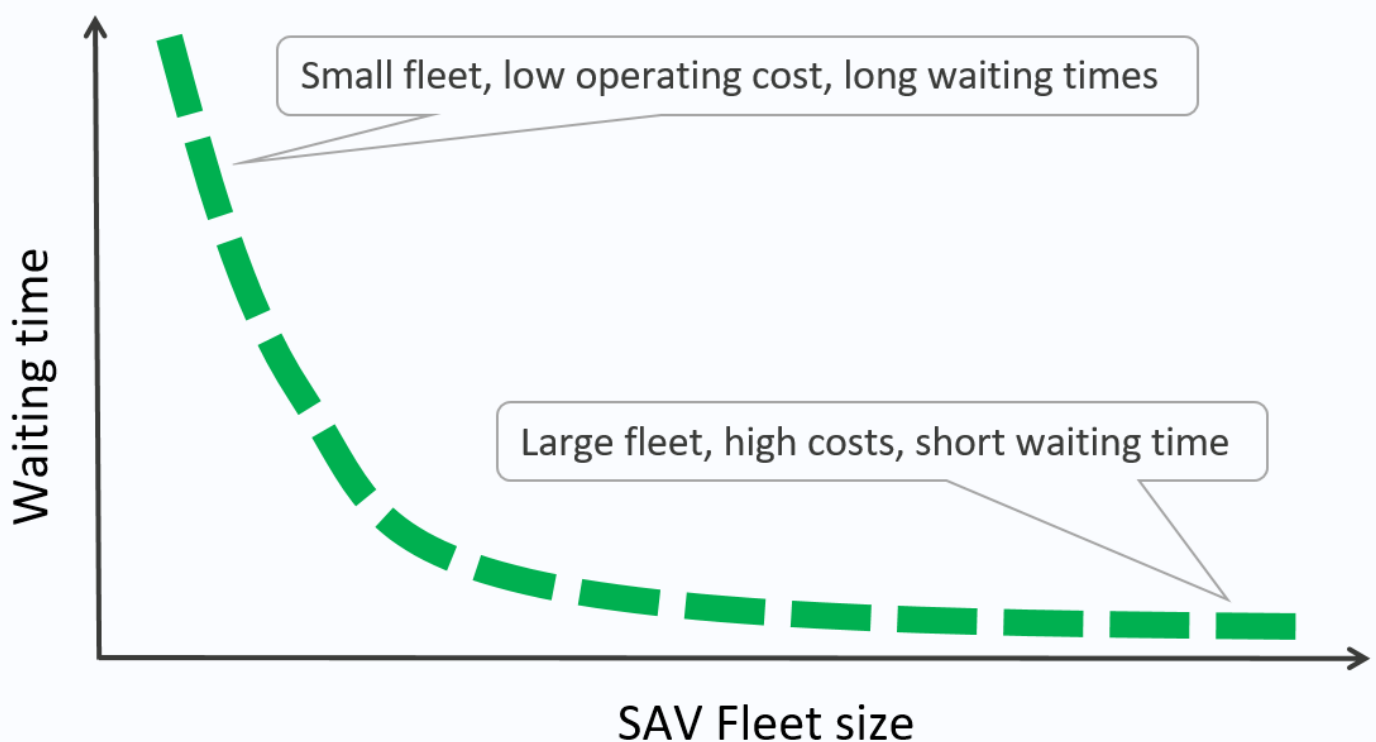


Would Automated Vehicles Displace Other Urban Transportation Modes?

Itzhak Benenson¹, Golan Ben Dor¹, Eran Ben Elia²

¹*Department of Geography and Human Environment,
Porter School of the Environment and Geoscience, Tel-Aviv University, Israel*

²*Department of Geography and Environmental Development,
Ben-Gurion University of the Negev, Israel*



Abstract:

Shared Automated Vehicles (SAVs) have the potential to revolutionize the urban transport landscape by reducing congestions, air pollution, and traffic accidents. However, low Level of Service (LOS) and inability to satisfy travellers' requests can jeopardize the potential adoption of SAVs as a new sustainable mode.

We investigate the potential of SAV with the open source MATSim system that is the only multi-agent simulation environment enabling co-evolution of the transportation system and travellers' behaviour. Extending MATSim for assessing the future of the SAV in the Tel-Aviv Metropolitan area, we reveal the inherent relation between the cost of the SAV fleet and its LOS. This relation is dictated by the very nature of the urban space and is valid for every big city. Our reply to the question in the title is, thus, "NO."