Preface

How is the automotive industry responding to climate change? Because the industry is one of the highest contributors to greenhouse gas (GHG) emissions, its response is crucial to meeting net zero emissions goals.

In platooning, automated vehicles form a file in which follower vehicles are linked to and emulate the lead vehicles. The follower vehicle applies predictive models to find the optimal path. The consequent platoon can achieve increased traffic and fuel efficiency. A successful platooning system on campus vehicles may serve as a demonstration of platooning's advantages. The research team installed hardware on sensor-equipped carts and tested the sensors. The vehicles' capacity to distinguish foreign objects from leader carts, and to calculate the optimal travel path, were assessed. This project was partially successful in its software development, but the cars were unable to be used as a mode of transportation. This was due to errors in the implementation of new hardware on the cars.

How are minerals companies, energy companies, automakers, and NGOs competing to determine the place of battery-electric vehicles (BEVs) in the transport transition and the conditions under which the necessary battery minerals will be obtained? As substitutes for combustion-engine vehicles, BEVs can contribute to reductions in the greenhouse gas emissions that exacerbate the climate crisis. Yet BEVs are expensive, and their batteries incur high environmental and human costs. While automakers have largely succeeded in characterizing BEVs as climate "solutions" that on their own can make road transport sustainable, many advocacies and NGOs reply that a future of much less driving is necessary, and argue that BEVs threaten this future by reassuring drivers that electrified car dependency can be sustainable.