# OpenEnergySim A virtual World to assess CO<sub>2</sub> emissions

Intelligent Transport System (ITS) strategies can significantly reduce CO2 emissions of vehicles. However, there is currently no low-cost yet effective method to investigate the impact of energy-saving ITS measures on driving behavior. Further, there is no convenient collaboration platform to compare the results of such "green" ITS strategies at an international level.

Therefore, we implement OpenEnergySim, an online multi-user three-dimensional (3D) simulation space, which can serve three functions in one single consistent environment:

- 1. Visualization of microscopic traffic and CO<sub>2</sub> emissions
- 2. Immersive driving of users in a simulated traffic network, where ITS measures can be applied and tested interactively
- 3. A shared real-time collaboration space aimed at international partners for studying and comparing the effects of green ITS strategies on CO<sub>2</sub> emission reduction

OpenEnergySim can provide a unique platform for green ITS which fosters international collaboration and facilitates harmonization of models in the transport domain.





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Virtual Cities



Realistic Road Environment

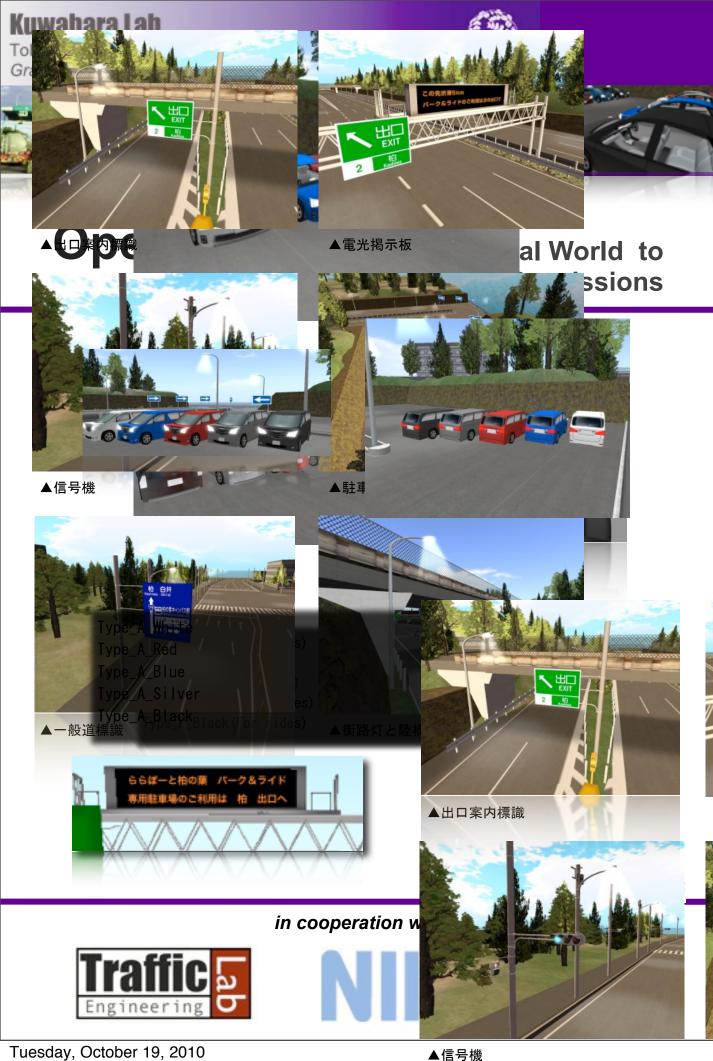


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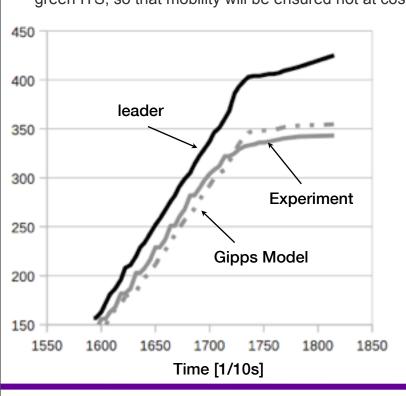




## OpenEnergySim A virtual World to assess CO2 emissions

OpenEnergySim s now utilized to collect data on driving behavior and travel behavior changes induced by ITS measures, aiming to reduce the CO2 emission from transport. While driving, a server is recording all movements to make them available to calibrate and validate traffic simulation models.

Have a look and take a seat behind the driving wheel to experience the future of large size data collection for sustainable modeling and management of our cities. Data collection for green ITS, so that mobility will be ensured not at cost of destroying the earth.





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