



Study of the Impact of Automated Driving on Reducing Traffic Accidents and on Others (The University of Tokyo / Doshisha University)

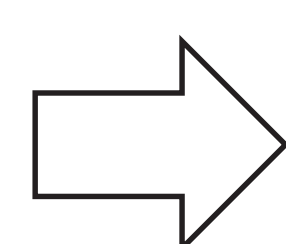
Research and development plan for Second Phase of Cross-Ministerial Strategic Innovation Promotion Program — Innovation of Automated Driving for Universal Services (System and Service Expansion)

Objective of study

Commercial development and increased diffusion of connected and automated driving (CAD) vehicles will help to reduce traffic accidents, alleviate traffic congestion, ensure mobility for vulnerable road users, resolve the driver shortage and reduce costs in logistics and passenger transport services, and resolve other social problems. The aim is to achieve a society in which everyone is able to enjoy a high-quality life.

Quantification and monetary valuation of impact (benefits and potential risks)

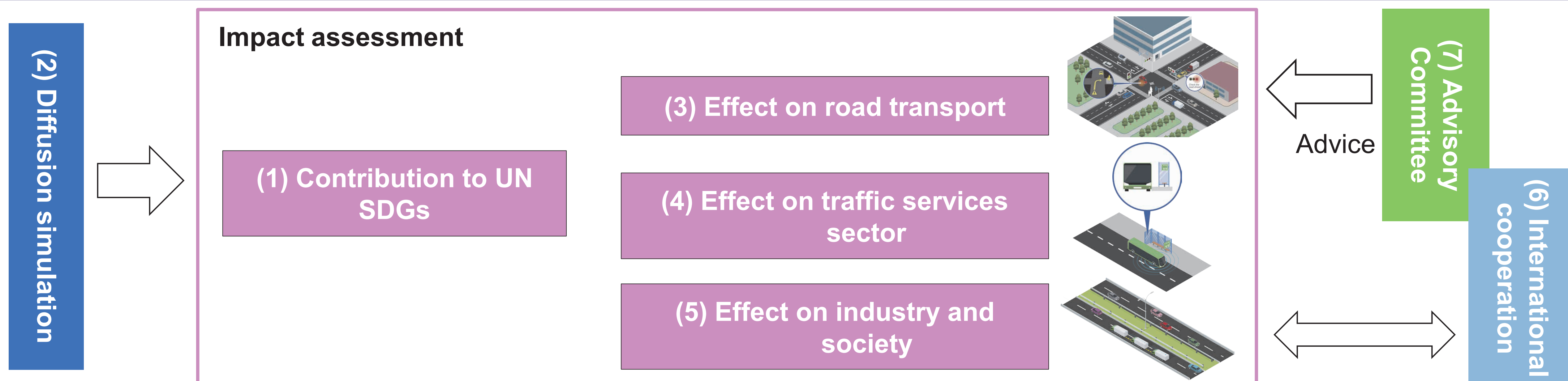
Focus on differences in impact caused by governmental policies and/or manufactures' launching strategy



Basic data for fostering social acceptance

Use in corporate management and policymaking

Overall configuration of study



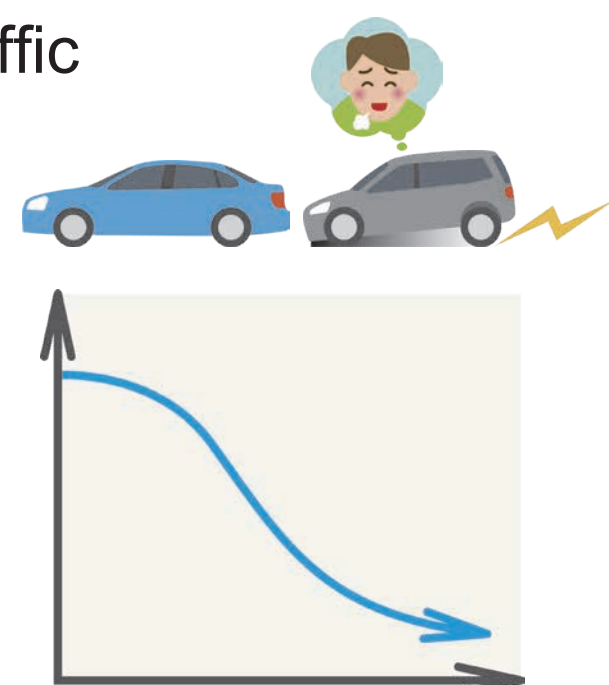
Study items

(1) Relevance of CAD to SDGs

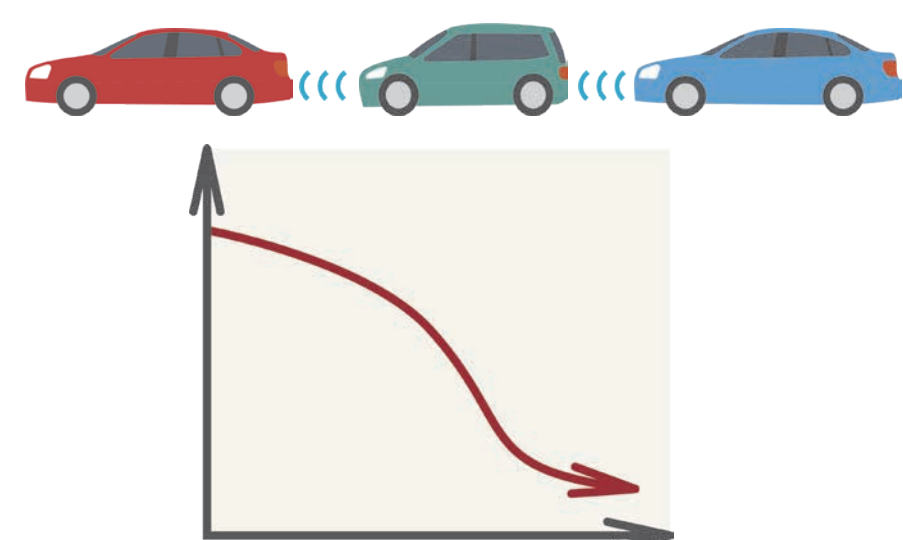
(2) Simulation of CAD vehicle diffusion

(3) Effect on road transport

i. Estimation of effectiveness in reducing traffic accidents



ii. Estimation of reduction of traffic congestion and reduction of CO2 emissions



(4) Effect on traffic services sector

- i. Ensuring mobility for vulnerable road users and in depopulated areas and other locations with poor access to transport
- ii. Reduction of costs and resolution of driver shortage in logistics and passenger transport services
- iii. Change in ownership and usage of vehicle, and the structure of consumers' choice

(5) Effect on industry and society

- i. Effect on whole automobile industry due to change in vehicle ownership structure and other effects
- ii. Contribution to growth of the total factor productivity of the Japanese economy

(6) Formation of organization for international cooperation

(7) Convening of Advisory Committee

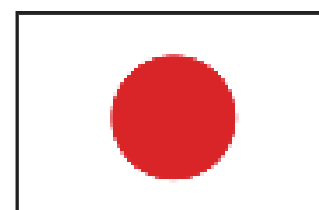
Japanese-German research co-operation on connected and automated driving

Objectives of Collaboration

- Understanding of influencing factors on CAD diffusion and model building for CAD diffusion projection.
- Explore and understand the concept of "social acceptance" in the context of CAD.
- Comparisons on CAD social acceptance and diffusion between Japan and Germany: Similarities and Differences.

Collaboration Partners

【Japanese Partners】



Institute for Technology, Enterprise and Competitiveness, Doshisha University
Institute of Industrial Science, The University of Tokyo/
Mobility Innovation Collaborative Research Organization, The University of Tokyo
Kagawa University, Nagoya University, Nanzan University, University of Tsukuba

【German Partners】



Institute of Transport Research, German Aerospace Center (DLR)
Institute for Technology Assessment and Systems Analysis (ITAS), Karlsruhe Institute of Technology (KIT)
Chair and Institute of Urban and Transport Planning (ISB), RWTH Aachen University
BMW Group