

Harmonic Mobility Research Center

[Designing the Next Generation Transport System]

Intelligent Transport Systems

K. NAKANO [Director]² / Y.HONMA[Deputy Director]⁵ / T. OGUCHI [Director of UTmobl]⁵ / M. OGURA⁴ / S. KAMIJO³ / S. SAKAMOTO⁵ / S. SUGIURA³ / M. TOYODA³ / A.TORIUMI⁵ / Y. HIRAIWA⁵ / T. MIZUTANI⁵ / Y. YAMAKAWA² / N. YOSHIKAWA¹
 1: Dept. of Fundamental Engineering, 2: Dept. of Mechanical and Biofunctional Systems, 3: Dept. of Informatics and Electronics, 4: Dept. of Materials and Environmental Science, 5: Dept. of Human and Social Systems



<https://www.its.iis.u-tokyo.ac.jp/>

- **ITS (Intelligent Transport Systems)** is a state-of-the-art transport system that integrates various technologies in traffic, vehicles, and electronic information and communication engineering.
- The ITS Center aims to promote “harmony” among various technologies and systems related to advanced mobility to realize a sustainable future society
- In July 2018, the ITS Center took the lead in launching the Mobility Innovation Collaborative Research Organization (UTmobl) as a cross-departmental organization within the university, and since July 2019 it has been promoting it with an eight-department structure.

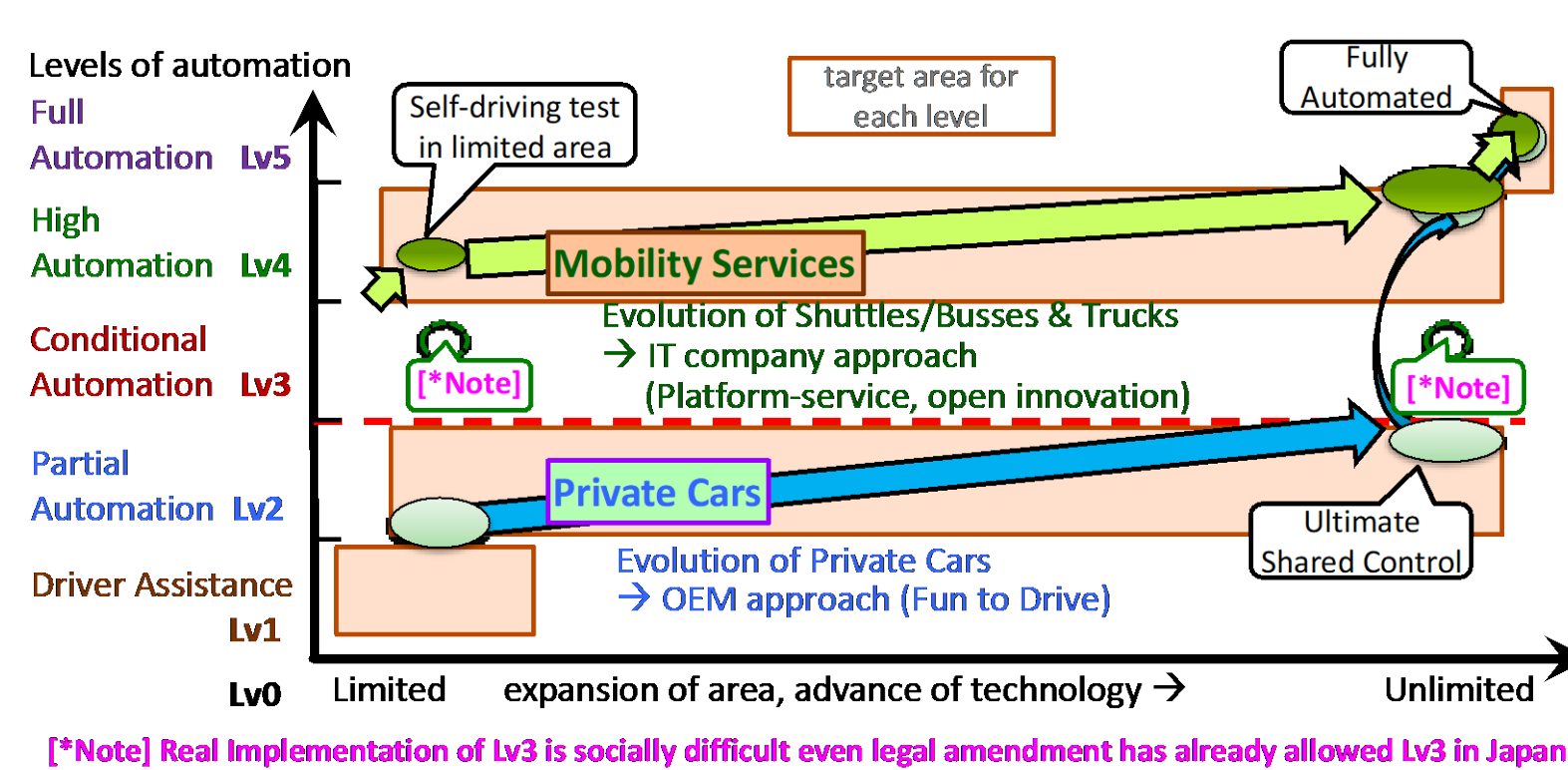


Research and Developments on ITS

Societal implementation of automated driving

Assessment of bipolarized mobility innovation scenarios, cross-field academic collaboration

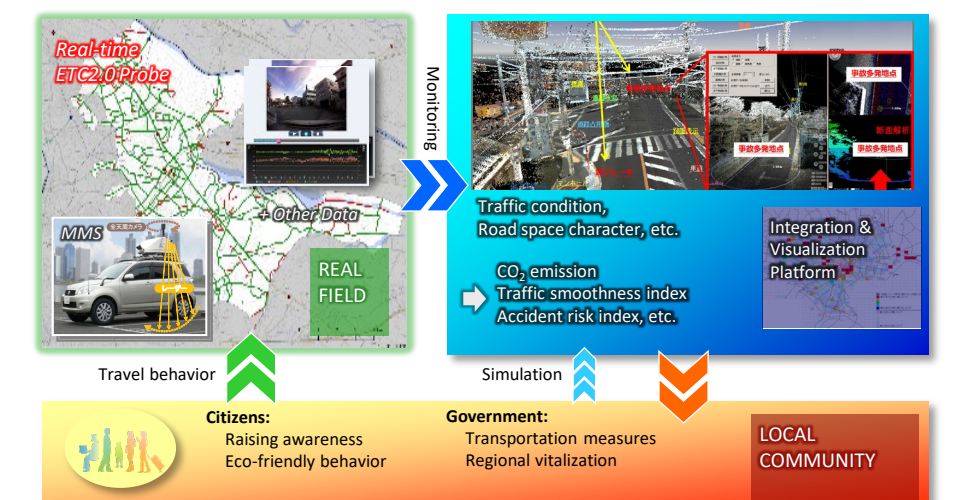
Automated Driving emerging scenario proposal and the Impact Analysis



Kashiwa ITS FOT Model City

ITS research activities launched for environment-friendly transport society in Kashiwa City, which is designated as one of the ITS FOT model cities by the Cabinet Office of Japan

Kashiwa ITS Smart City

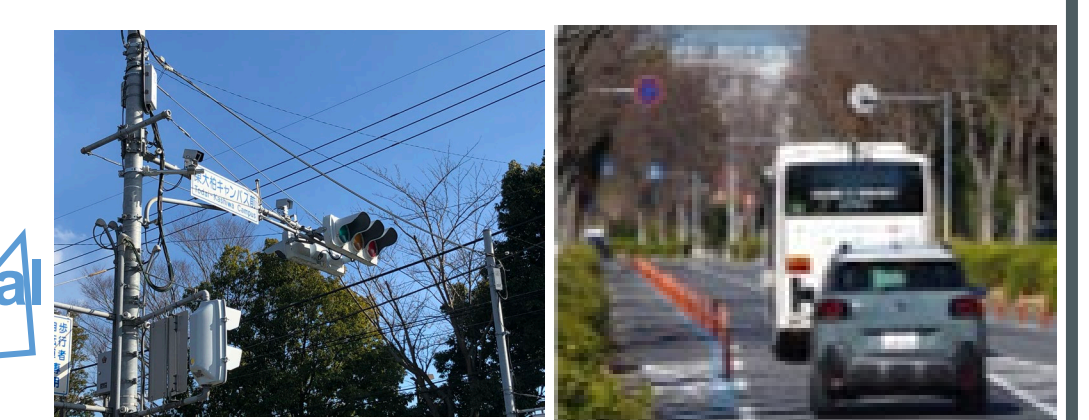


Field test of automated driving bus (2019.11~)



Level 4 automated driving (Specified Automated Operation) has commenced on January 13, 2026, on a section of the route between the University of Tokyo Kashiwa Campus and Kashiwanoha-campus Station.

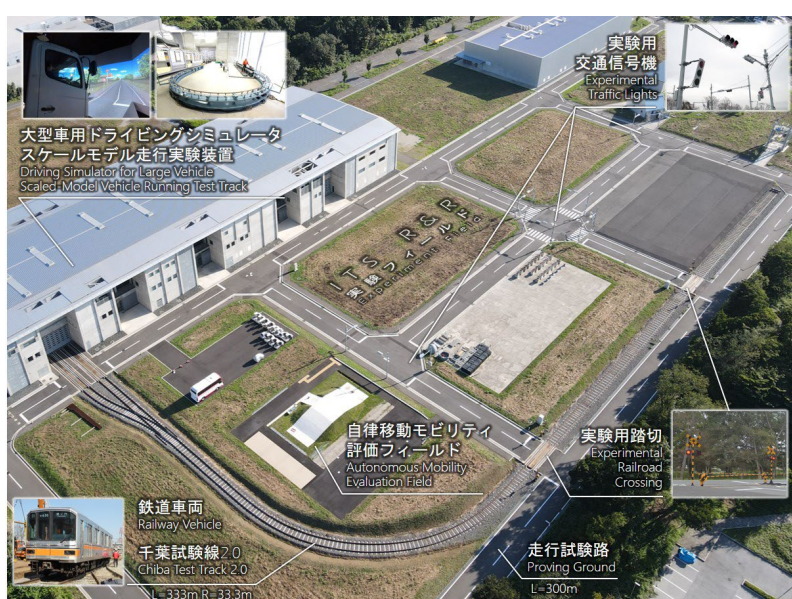
Infrastructure-cooperative systems and road improvements to expand automated driving.



Investigation of the acceptability of automated driving and ELSI (Ethical, Legal, and Social Implications) Study

ITS Experiment Field

Experiment fields for automobiles and trains and a driving simulator for large vehicle.



Large-Scale Experiment and Advanced-Analysis Platform, Kashiwa Campus

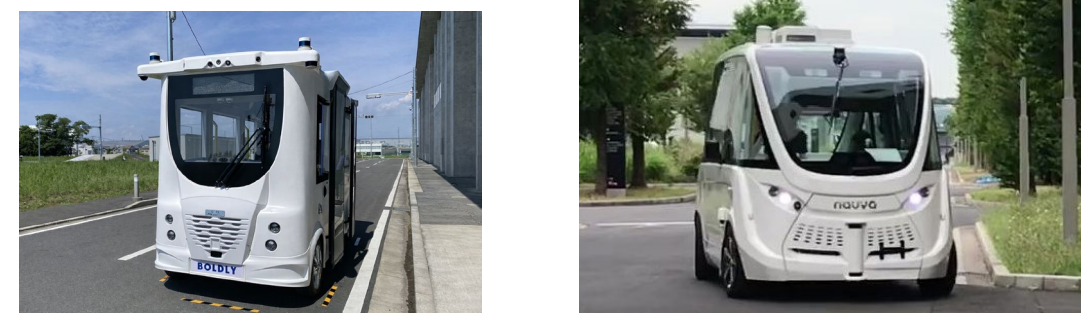
Next-Generation Infrastructure

Autonomous Traffic Signal System



Technological studies on AVs

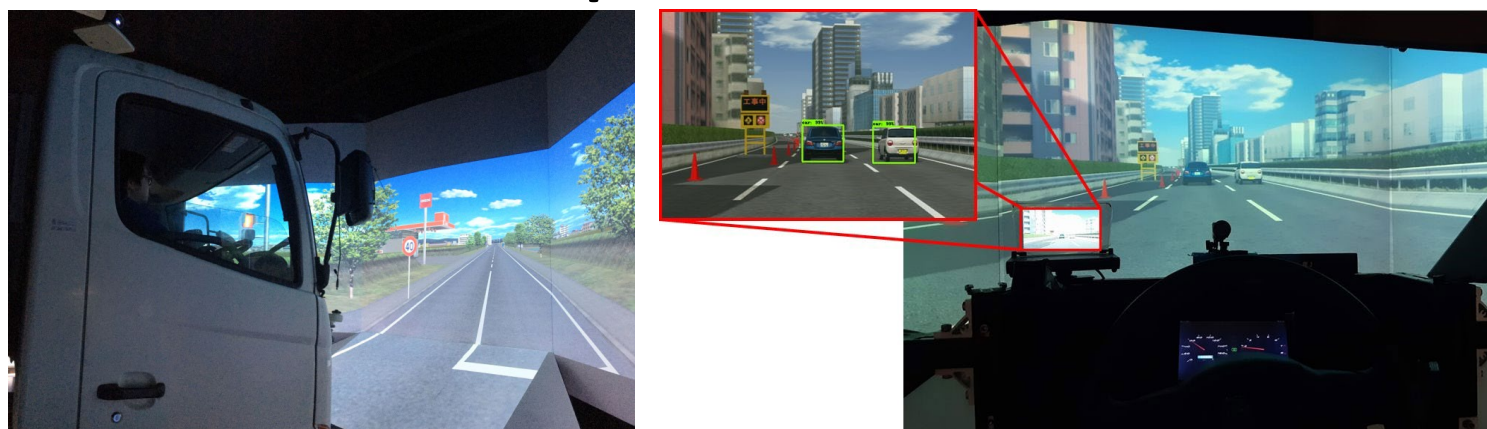
Driving test of automated driving buses



Sensing

Promoting research on human-machine interfaces, driver state monitoring using driving simulators, and underground infrastructure sensing.

Driver simulator experiment



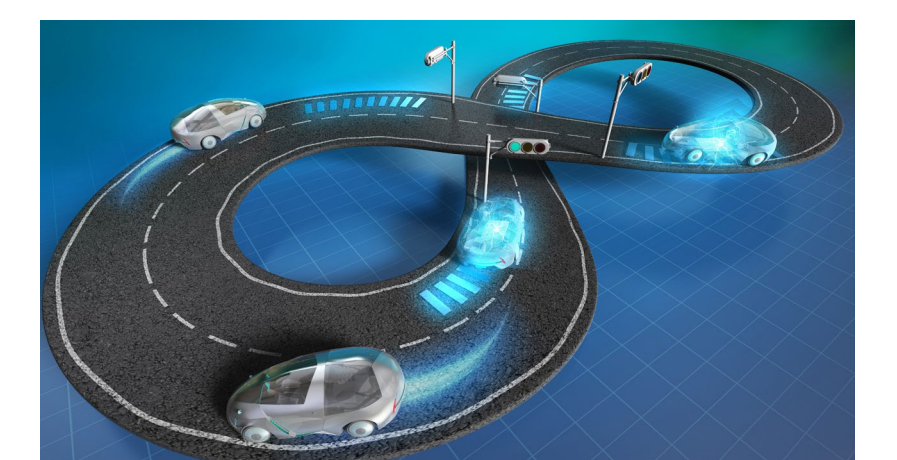
Underground infrastructure sensing



Low-Carbon Mobility Vision

Strategic deployment of EV infrastructure using Dynamic Wireless Power Transfer (DWPT)

Mathematical Optimization of DWPT Locations
Compact Batteries, Smarter Energy Use



Human Resource Development and Social Return Activities

ITS Seminar

Series of seminars organized about two times a year, and ITS based on needs from local areas as well as central administration promoted

Lectures

Not only lectures for students but also a special lecture "UTmobl Forum" (once a year) for private sectors organized for developing human resource in ITS industry

Research Committee

Informal discussions about latest ITS topics hosted every month inviting speakers from academia, industry, and government



Global Collaboration

ITS Center hosts an international symposium every year and exchanges faculty members and students with other universities and institutes through international collaboration as well as domestic collaboration.