Human Factors：HMI and User Education

Overview

■ **Period: FY2019-FY2021 (3 years)**

■ **Research consortium**
- ・National Institute of Advanced Industrial Science and Technology (AIST)
- ・University of Tsukuba
- ・Keio University
- ・University of Tokyo
- ・Kumamoto University
- ・Tokyoto Business Service Co.

■ **Task A: External communication at low speeds**
- ・Collaboration with Ministry of Land, Infrastructure, Transport, and Tourism (MLIT) and Police Agency.
- ・Experiments at "MLIT Michinoeki (Roadside Station) demonstration experiments".
- ・Extract use-cases of external communication.
- ・Test external HMIs, road infrastructure modifications and education programs for efficient external communication.
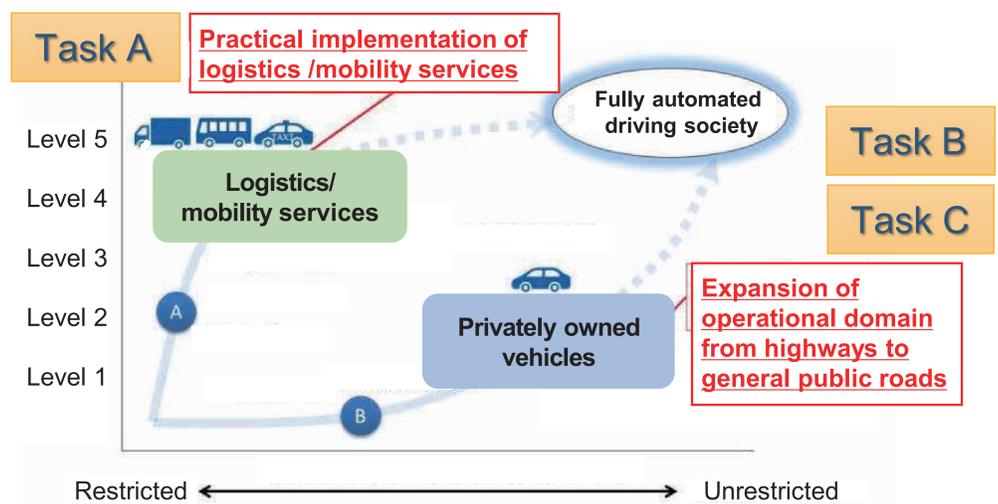

■ **Task B: Driver's interaction with the system**
- ・Collaboration with Police Agency.
- ・Investigate safe transition protocols from Level 3 and 4 to manual on motorways.
- ・Develop an evaluation method for driver's OEDR (Object Event Detection and Response) task performance.
- ・Investigate HMI, education and ODD (Operational Design Domain) for successful OEDR performance and driver-initiated takeovers with Level 2 in local traffic.

Transition protocols

■ **Task C: Education and training of users**
- ・Collaboration with Police Agency.
- ・Investigate efficient education programs for users to use automated systems safely.
- ・Test prototype programs at education opportunities at licensing offices and car-dealers.

■ **Japan-Germany Cooperation**
- ● Coordinators:
  - Satoshi Kitazaki (AIST)
  - Klaus Bengler (TU Munich)
- ● Collaboration scheme
  - ・Biannual workshops
  - ・Exchanging staff and students
  - ・Exchanging lecturing
  - ・Coauthoring papers

	Japanese members	German members
Task A: External communication	Keio U Tokyoto BS Co.	TU Chemnitz TU Dresden Ulm U TU Munich DLR
Task B: Drivers' interaction	AIST U of Tokyo	TU Munich Ulm U
Task C: Education and training	U of Tsukuba Kumamoto U Tokyoto BS Co.	TU Dresden TU Munich