

Press Release

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Research for Digitalization and Innovation
Federal Ministry of Education and Research
Germany

Bureau of Science, Technology and Innovation
Cabinet Office
Japan

Joint Press Release : “What does the car want to signal me?”

Joint research of automated driving technologies between Germany and Japan has been enhanced

Japan and Germany have pushed forward their collaboration on research activities for automated driving. The Japanese Cabinet Office (CAO) and the German Federal Ministry of Education and Research (BMBF) selected during a high-level Steering Committee meeting on January 31st joint research project ideas in areas of “human factors” and “impact assessment of socioeconomic benefits” on automated driving.

At the recent Japanese-German Summit Meeting, Chancellor Merkel and Prime Minister Abe welcomed the collaboration in automated driving. It is a promising and trendsetting area of collaboration between our countries. It highlights the close cooperation and friendship that has united Japan and Germany for a long time. A broadening to topics like cyber security or validation, modeling, simulation in automated driving will be considered. The implemented structure between CAO and BMBF suits perfectly to this.

“What does the car want to signal me?” Automated vehicles have to communicate with their external environment. Clarity of signals sent and their unambiguous interpretation is crucial for the acceptance of automated driving by citizens in both countries. Therefore, academia from Japan and Germany will jointly examine in one of the selected project ideas whether there are differences in the interpretation of communication signals between Japan and Germany and if so, how to address them.

“Don’t back the wrong horse!” Automated driving will change future mobility significantly. It offers the opportunity for a safer and more effective traffic circulation, less traffic jams and reduced road death rates. In order to seize these opportunities, appropriated framework conditions have to be set. One of the selected project ideas will develop a common tool kit which helps to better predict related transformation processes and to develop framework conditions.

1. Background

In January 2017, the Japanese Cabinet Office and the German Federal Ministry of Education and Research, which both play a central role for research and development on automated driving, have signed a Joint statement to enable scientific exchange in automated driving and to identify areas for potential research and development activities on Science, Technology, and Innovation. Following this, Cabinet Office and related ministries/agencies conducted large-scale Field Operational Tests (FOTs), starting in October 2017 and finishing in end of 2018, within its cross-ministerial Strategic Innovation promotion Program (SIP-adus). German OEM and Part suppliers of German OEMs participated.

In November 2017 and September 2018, CAO and BMBF held joint workshops, in order to discuss with experts and all relevant stakeholders of both countries R&D requirements for automated driving.

2. Outline of the enhancement of the collaboration

In order to implement the Japanese-German R&D collaboration on automated driving, CAO and BMBF have newly established a Steering Committee composed of high-level representatives and experts of the Japanese Cabinet Office, Japanese Ministry of Economy, Trade and Industry, German Federal Ministry of Education and Research, German Ministry for Economic Affairs and Energy, related ministries and agencies involved and other stakeholders. The entire structure of the collaboration consists of the Steering Committee, expert Workshops, regular meetings at working level and a Coordinating Secretariat.

The projects were selected in the area of “human factors” and “impact assessment of socioeconomic benefits”. A broadening of the R&D cooperation to “cyber security” and “validation, modeling, simulation” would be conceivable.

3. Outline of the project ideas selected

(1) Human factors

It is important to establish a communication between automated vehicles and normal vehicle drivers or other road users when automated driving with level 4 or higher will be implemented. The joint research project idea selected in this area is expected to improve the mutual understanding of potential differences in culture and behavior in Japan and Germany. The project is able to develop a disruptive approach to address and solve related challenges.

(2) Impact assessment of socioeconomic benefits

Automated driving requires significant technical innovations and it will develop societal and economic impact. This joint research project idea selected in this area is expected to develop a scientific method to quantify those impacts. It could increase the appropriate understanding and, therefore, the public acceptance of automated driving.

<For inquiry>

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