



国際会議企画・準備状況

2014年9月26日

SIP自動走行システム推進委員会
国際連携WG



自動走行システムに関する国際会議の企画

Workshop on Connected and Automated Driving Systems

Organizer

Cross-Ministerial Strategic Innovation Promotion Program
Council for Science, Technology and Innovation
Cabinet Office, Government of Japan

Date : November 17-18, 2014

Venue : United Nations University
Shibuya Tokyo, Japan



Topics

1. Dynamic and integrated database of road network and surroundings
2. Perception of driving environment through communication
3. Sharing roles between driver and vehicle system
4. Integrated approach to reduce traffic fatality and injury
5. Next generation transportation systems with automated driving technologies



国際会議 構成案

Session 1: 走行環境のモデル化

SIP研究テーマ[I]-①地図情報の高度化技術の開発の計画と中間成果
ISO TC204/WG3 ITS database technologyの関連活動状況
欧米の自動運転プロジェクトでの検討状況(企業からの報告も考慮)

Session 2: 通信による走行環境情報の取得

SIP研究テーマ[I]-②ITSによる先読み情報の生成技術の開発の計画と中間成果
車車・路車協調サービスの構成技術、性能基準、交換メッセージの国際調和
ISO TC204/WG14 Vehicle/roadway warning and control systemsの関連活動状況
車車・路車協調サービスのための通信技術および実用化の国際動向
VtoX(歩車間を含む)通信の技術と応用

Session 3: 自動走行による都市交通の革新

SIP研究テーマ[IV]-②次世代交通システムの開発の計画と中間成果
都市交通の課題(速達性、定時制、バリアフリー)分析と革新的マルチモード交通体系
欧州の歩行者中心の都市交通システム導入の理念と実際
自動運転技術と交通流制御の統合による次世代公共交通システム

Session 4: 人と走行システムの関係

SIP研究テーマ[I]-④ドライバーモデルの生成技術の開発の計画と中間成果
自動運転(運転支援)技術の限界と走行シーンごとの運転行動の分析
人と走行システムの間での運転操作主体の推移と自動運転のレベル定義

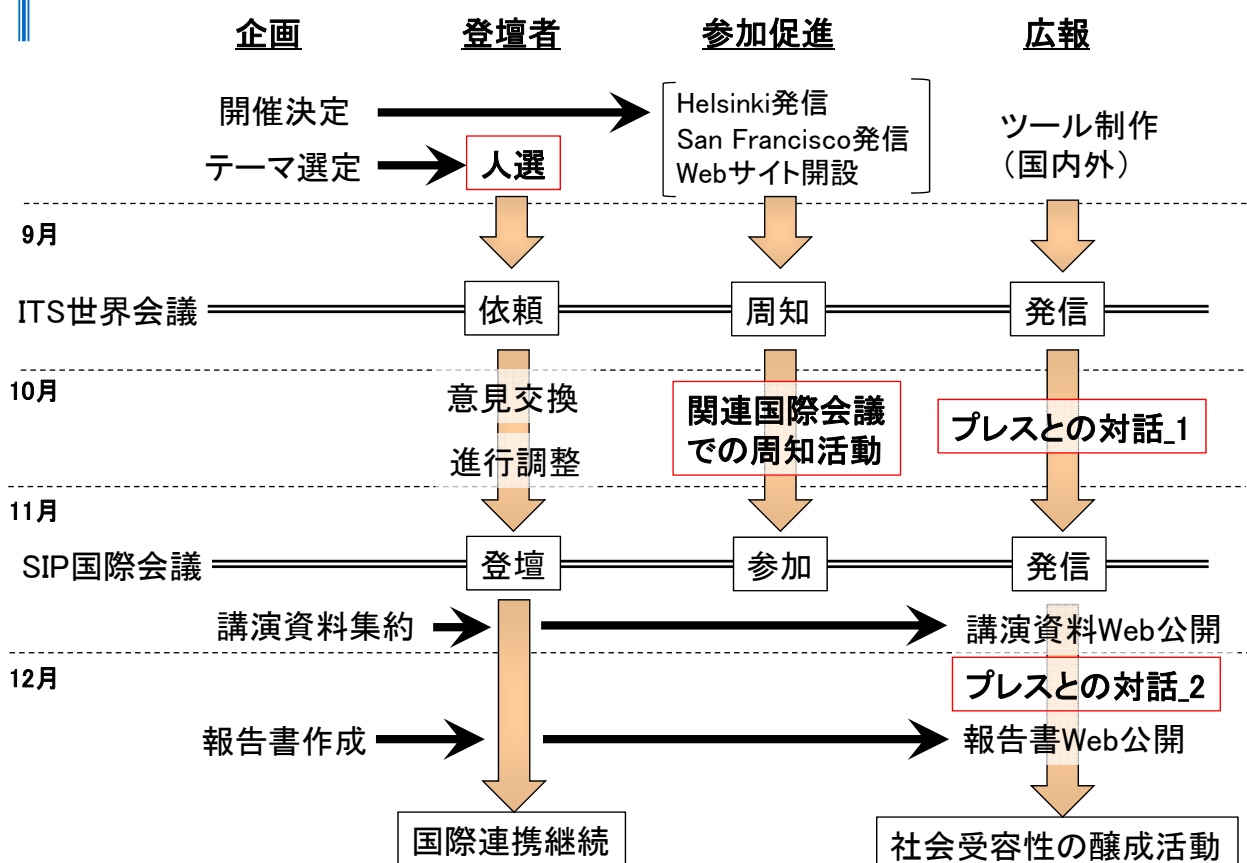
Session 5: 自動運転技術による交通事故の抑止

SIP研究テーマ[III]交通事故死者低減・渋滞低減のための基盤技術の整備
①交通事故死者低減見積り手法の開発と国家共有データベースの構築
②ミクロ・マクロデータ解析とシミュレーション技術の開発の計画と中間成果
SIP研究テーマ[IV]-①地域マネジメントの高度化の総合的交通事故対策の考え方
米国連邦運輸省Strategic Research Plan(2010-2014)-Safety Pilotの成果

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国際会議開催の準備およびフォローアップ



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SIP 自動走行システムの展示

The National Program for Innovation

Cross-ministerial Strategic Innovation promotion Program (SIP)

- Aiming to realize Science, Technology and Innovation through promoting R&D over-look from basic research to application and commercialization by cross-ministerial cooperation.
- *CSTI defined the themes to solve societal issues and achieve economic growth.
- *CSTI appoints Program Directors (PDs) for each project and allocates the budget.

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Automated Driving System in SIP

- One of ten SIP projects

Priority policy issues	Prospective subject	Description
Energy	Innovative combustion technology	Improving fuel efficiency of automobile engines
	Next-generation power electronics	Integrating new semiconductor materials into highly efficient power electronics system
	Innovative structural materials	Developing ultra-strong and -light materials such as magnesium-, titanium-alloys and carbon fibers
	Energy carrier	Promoting R&D to contribute to the efficient and cost-effective technologies for utilizing hydrogen
	Next-generation ocean resources development technologies	Establishing technologies for efficiently exploring submarine hydrothermal polymetallic ore
Next-generation infrastructures	Automated Driving System	Developing new transportation system including technology for avoidance accidents and alleviating congestion
	Technologies for maintenance/upgrading/management of infrastructures	Developing low-cost operation & maintenance system and long life materials for infrastructures
Local resources	Reinforcement of resilient function for preventing and mitigating disasters	Developing technologies for observation, forecast and prediction of natural disasters
	Technologies for creating next-generation agriculture, forestry and fisheries	Realizing evolutionary high-yield and high-profit models by utilization of advanced IT, etc.
	Innovative design/manufacturing technologies	Establishing new styles of innovations arising from regions using new technologies such as Additive Manufacturing

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Automated Driving System

Description Developing new transportation systems including technologies for avoiding accidents and alleviating congestion.

Budget ¥2.45 Billion (for FY 2014)

Program Director Dr. Hiroyuki WATANABE (TOYOTA MOTOR CORPORATION)

Automated Driving System Major Development Themes

(I) Development and verification of automated driving system

Road Transport system

Driver

Recognition Judgment Operation

System Security Driver model

Dynamic Map Predicting information by ITS Sensing capability enhancement

Area of Competition

Vehicle

(II) International cooperation

① Shared research facility
② Social acceptance
③ Package export organization

④ Local traffic management enhancement
⑤ Next generation transport system

(IV) Deployment for next generation urban transport

Area of Cooperation
= Area of SIP

① Traffic fatality reduction effect estimation method & national shared data base
② Micro and Macro data analysis and simulation technology
③ Local traffic CO₂ emission visualization technology

(II) Basic technologies to reduce traffic fatalities and congestion

Automated Driving System Development Structure

Steering Committee for SIP Automated Driving Research Project

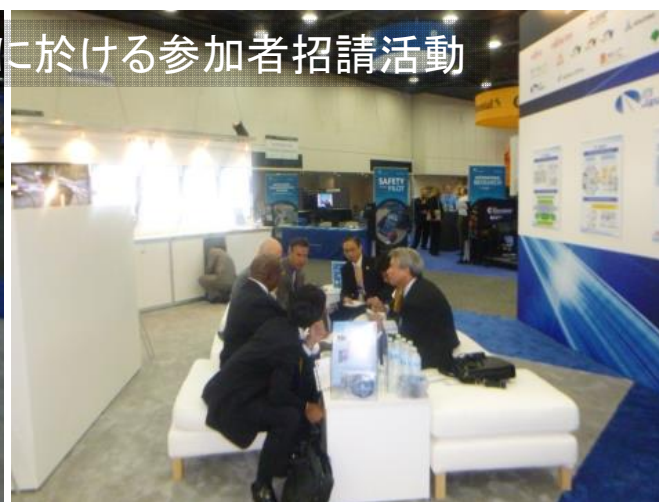
- System Implementation WG**
 - Dynamic map
 - Micro and macro data analysis and simulation technology
 - Predicting information by ITS
 - Sensing capability enhancement
 - Human Factors
 - System security
- International cooperation WG**
 - Shared research facility
 - Social acceptance
- Next Generation Urban Transportation WG**
 - Local traffic management enhancement
 - Next-generation public road transport system

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デトロイトITS世界会議に於ける参加者招請活動



Mr. Dale Thompson

Mr. Kenneth Leonard

Mr. Gregory Winfree

