



The National Program for Innovation

-Cross-ministerial Strategic Innovation promotion Program(SIP)-

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Cross-ministerial Strategic Innovation promotion Program (SIP)



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- Japan Revitalization Strategy
- Comprehensive STI Strategy

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National Strategies for FY2014

Three Arrows of the Economic Policies



Bold Monetary Policy



Flexible Fiscal Policy



Japan Revitalization Strategy (New Growth Strategy)

Cabinet decision on June 14, 2013

Science and Technology Policies

Comprehensive STI Strategy

- ✓ Achievement of **Council for Science, Technology and Innovation (CSTI)**
- ✓ Cabinet decision on June 7th, 2013



Closely linked



New Tools for CSTI to Foster Innovation

The two Strategies are proposing that CSTI needs to be the stronger headquarters for fostering innovation beyond borders of systems, regulations, ministries and sectors.

Three Arrows for Strengthening CSTI as HQ



Improvement of the process for policy-making
"S&T Budgeting Strategy Committee" and "Action Plans for S&T
Priority Measures"

- *Prioritized area: "Energy", "Next-generation infrastructures", "Local resources", "Health & Medical"*
- *Budget for FY2014: ¥335bil*



SIP (Cross-Ministerial Strategic Innovation Promotion Program)

- *Budget for FY2014: ¥50bil*



ImPACT (Impulsing PAradigm Change through disruptive Technologies)

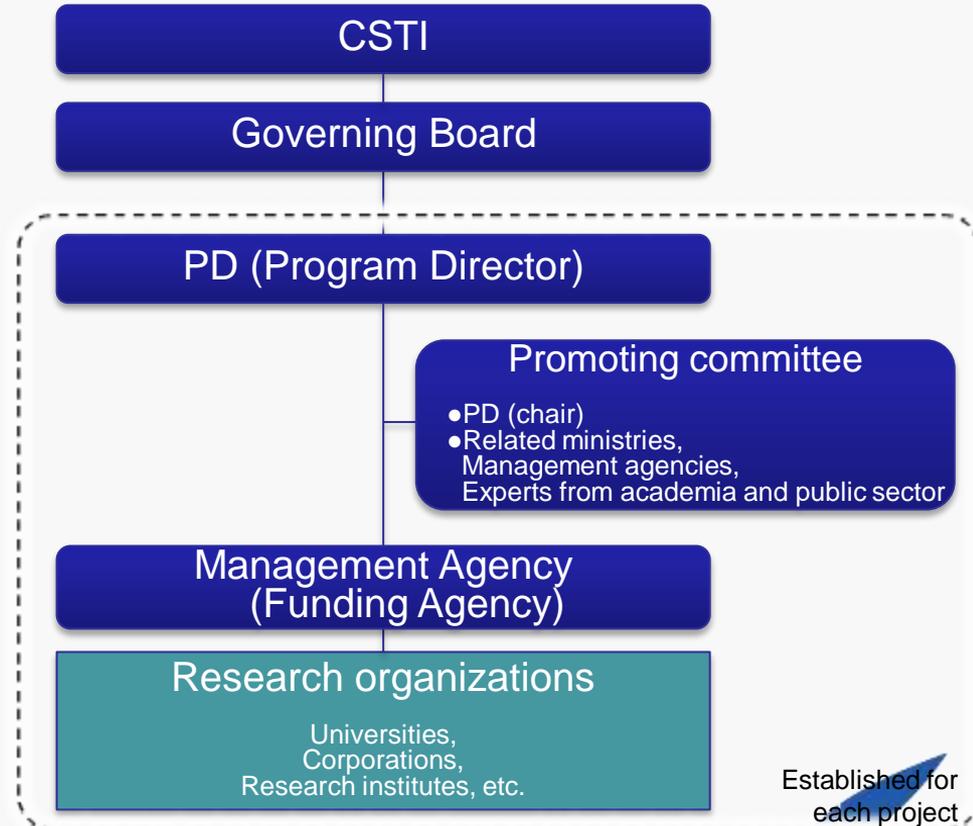
- *Budget for FY2014-2018: ¥55bil*



SIP (Cross-Ministerial Strategic Innovation Promotion Program)

- SIP is aiming to realize Innovation through promoting R&D at all stages by enhancing cross-ministerial cooperation.
- CSTI designates research themes based on the expected extent of impact to solve societal issues and enhance economic growth
- CSTI appoints Program Director (PD) for each research theme and allocates the budget.

- Governance Structure -



Established for each project



SIP (Cross-Ministerial Strategic Innovation Promotion Program)

Prioritized Societal Issues	Themes
Energy	Innovative combustion technology
	Next-generation power electronics
	Innovative structural materials
	Energy carrier
	Next-generation ocean resources development technologies
Next-Generation Infrastructures	Automated driving system
	Technologies for maintenance/upgrading/ management of infrastructures
	Reinforcement of resilient function for preventing and mitigating disasters
Local Resources	Technologies for creating next-generation agriculture, forestry and fisheries
	Innovative design/manufacturing technologies



SIP (Cross-Ministerial Strategic Innovation Promotion Program)

- Program Directors for SIP -

Innovative combustion
technology



Masanori Sugiyama
Toyota Motor Corp.

Innovative structural
materials



Teruo Kishi
Univ. of Tokyo, NIMS

Next-generation ocean
resources development
technologies



Tetsuro Urabe
Univ. of Tokyo, JMEC

Tech. for maintenance/
upgrading/management
of infrastructures



Yoza Fujino
Yokohama National Univ.

Tech. for creating next-
generation agriculture,
forestry and fisheries



Takeshi Nishio
Hosei Univ.

Next-generation power
electronics



Tatsuo Oomori
Mitsubishi Electric Corp.

Energy carrier



Shigeru Muraki
Tokyo Gas Co.,Ltd.

Automated driving system



Hiroyuki Watanabe
Toyota Motor Corp.

Reinforcement of
resilient function for
preventing and mitigating
disasters



Masayoshi Nakashima
Kyoto Univ.

Innovative
design/manufacturing
technologies



Naoya Sasaki
Hitachi, Ltd.



SIP Research Theme: Automated Driving System

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

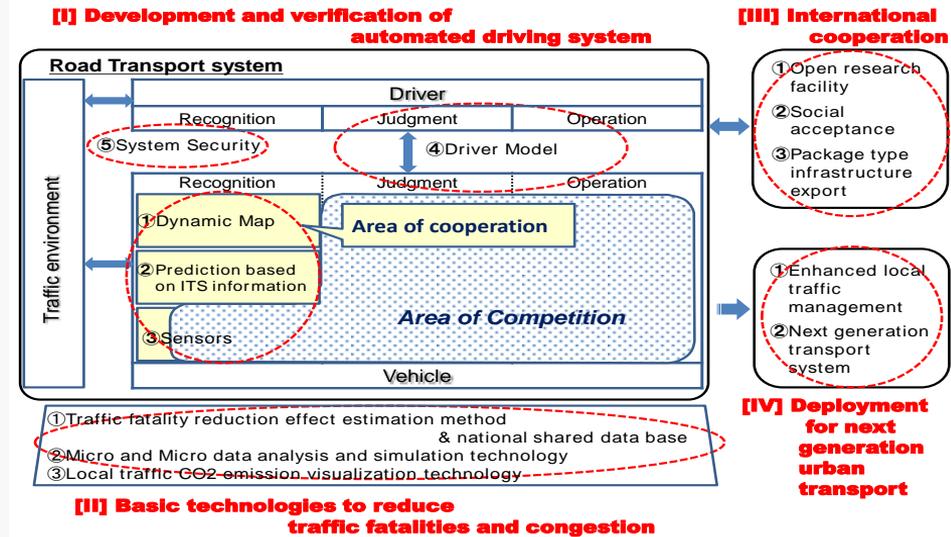
【Objective】 To achieve “Level 2” by the end of the mid-2010s and “Level 3” by early 2020s.

【Budget】 ¥2.45 Billion (for FY 2014)

■ Definition of Automated Driving Levels

Automation Level (SIP definition)	Overview	Systems to realize the level
Level 4	All functions of acceleration, steering, and braking are controlled without a driver. Driver is completely uninvolved.	Fully automated driving system
Level 3	Vehicle controls all functions of acceleration, steering, and braking. Driver intervenes in the cases of emergency	Semi automated driving system
Level 2	Simultaneous multiple functions of acceleration, steering, or braking	
Level 1	Single function, either acceleration, steering, or braking	Safe driving assistance system

■ Scope of Research on Automated Driving



SIP Research Theme: Automated Driving System

SIP Research Project is reviewed in the Promoting Committee. Currently, three Working Groups (WGs) are established to cover wide variety of topics on Automated Driving System.

Promoting Committee for SIP Automated Driving System Research Project

System Implementation WG

- ◆ Dynamic map
- ◆ Micro and macro data analysis and simulation technology
- ◆ Prediction based on information from ITS
- ◆ Sensing capability enhancement
- ◆ Human Factors
- ◆ System security

International cooperation WG

- ◆ Open research facility
- ◆ Social acceptance

Next Generation Urban Transportation WG

- ◆ Local traffic management enhancement
- ◆ Next-generation public road transport system



Workshop on Connected and Automated Driving Systems

Japanese Government is to organize a workshop to share progress of related projects on automated driving systems among experts from Europe, Americas and Asia-Pacific. Details on research projects in SIP will also be presented.

Date: November 17-18, 2014

Venue: United Nations University in 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**



Detailed program and speakers will be announced shortly

http://www.its-jp.org/english/workshop_in_japan_november2014/



Thank you!
And see you soon again in Tokyo!

<http://www.cao.go.jp>



総合科学技術・イノベーション会議
Council for Science, Technology and Innovation



内閣府

Cabinet Office, Government of Japan