



# Innovation of Automated Driving for Universal Service (SIP-adus)

- mobility bringing everyone a smile -

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**October 27, 2015**  
**Seigo Kuzumaki**  
**Acting PD of SIP-adus**



# Challenge of road transportation

Traffic accident

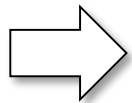


Traffic congestion

Aging society



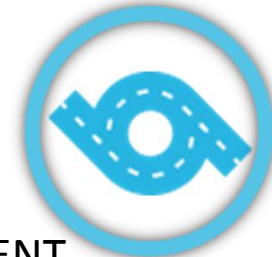
More than 1.2 million traffic-fatalities worldwide



PEOPLE



VEHICLE

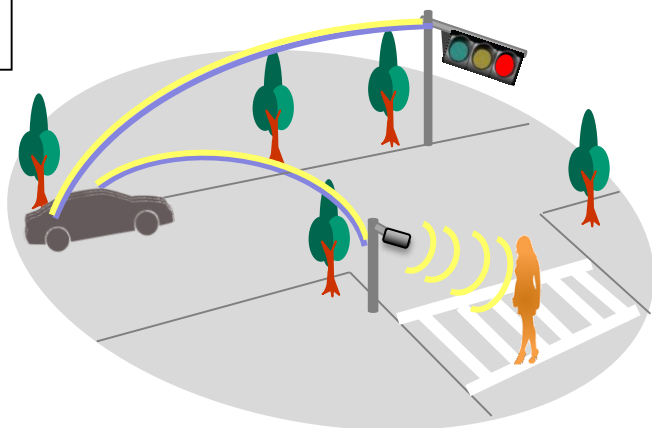


TRAFFIC  
ENVIRONMENT

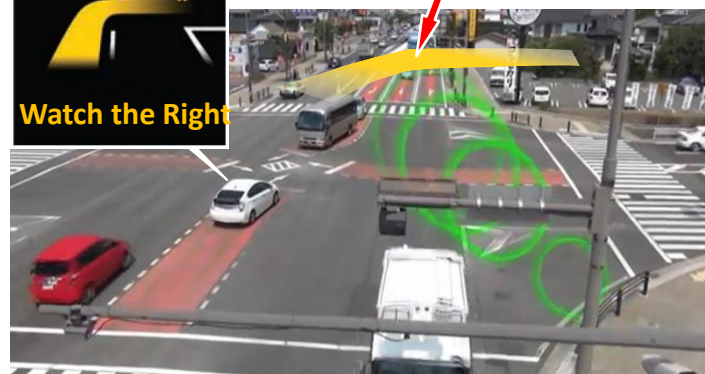
# ITS Connect



## Vehicle-to-Infrastructure (V2I)

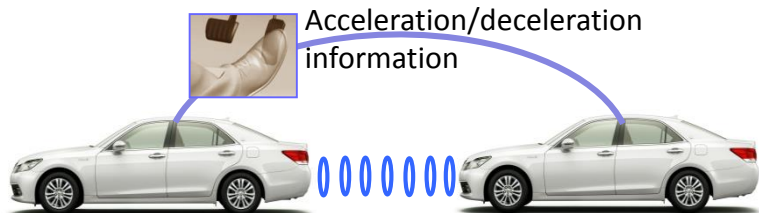


## Right-Turn Collision Caution

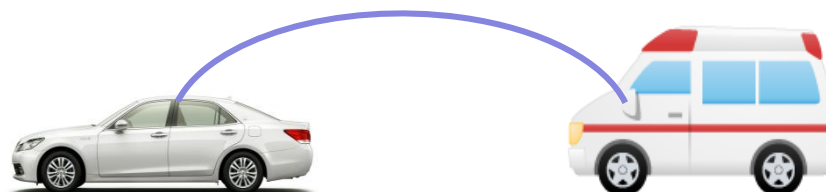


## Vehicle-to-Vehicle (V2V)

### Cooperative Adaptive Cruise Control (C-ACC)



### Emergency Vehicle Notification



**ITS connect service start form this fall in Japan for the world-first**



Cross-ministerial Strategic Innovation Promotion Program

## Innovation of Automated Driving for Universal Service (SIP-adus)

- 1.** Reducing road crashes and etc. Achieving the national goal:  
The national infrastructure for achieving the national goal
- 2.** Realizing automated driving system and becoming widely used the system:  
Turning the system into a commercial and promoting with research and development through A to Z and concurrent international cooperation
- 3.** Putting into practical use of public transportation system for next-generation:  
Developing and working with as milestone on the road to Tokyo Olympics and Paralympics

# Technologies for Automated driving systems

## Vehicle



Recognition

Sensor



Judgment

AI



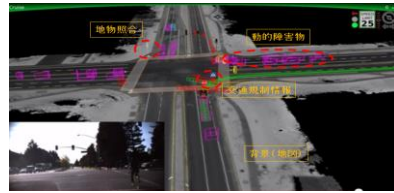
Operation

Actuator

## HMI

**Cooperation  
with Human**

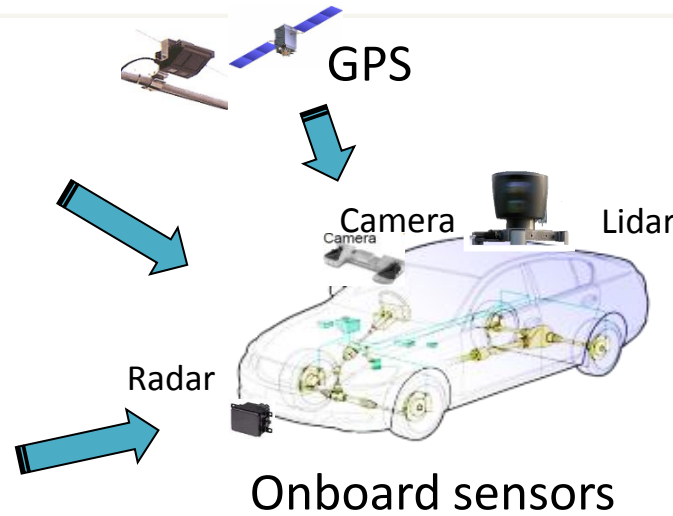
HMI : Human  
Machine Interface



Dynamic Map



ITS Anticipative Info.



Onboard sensors



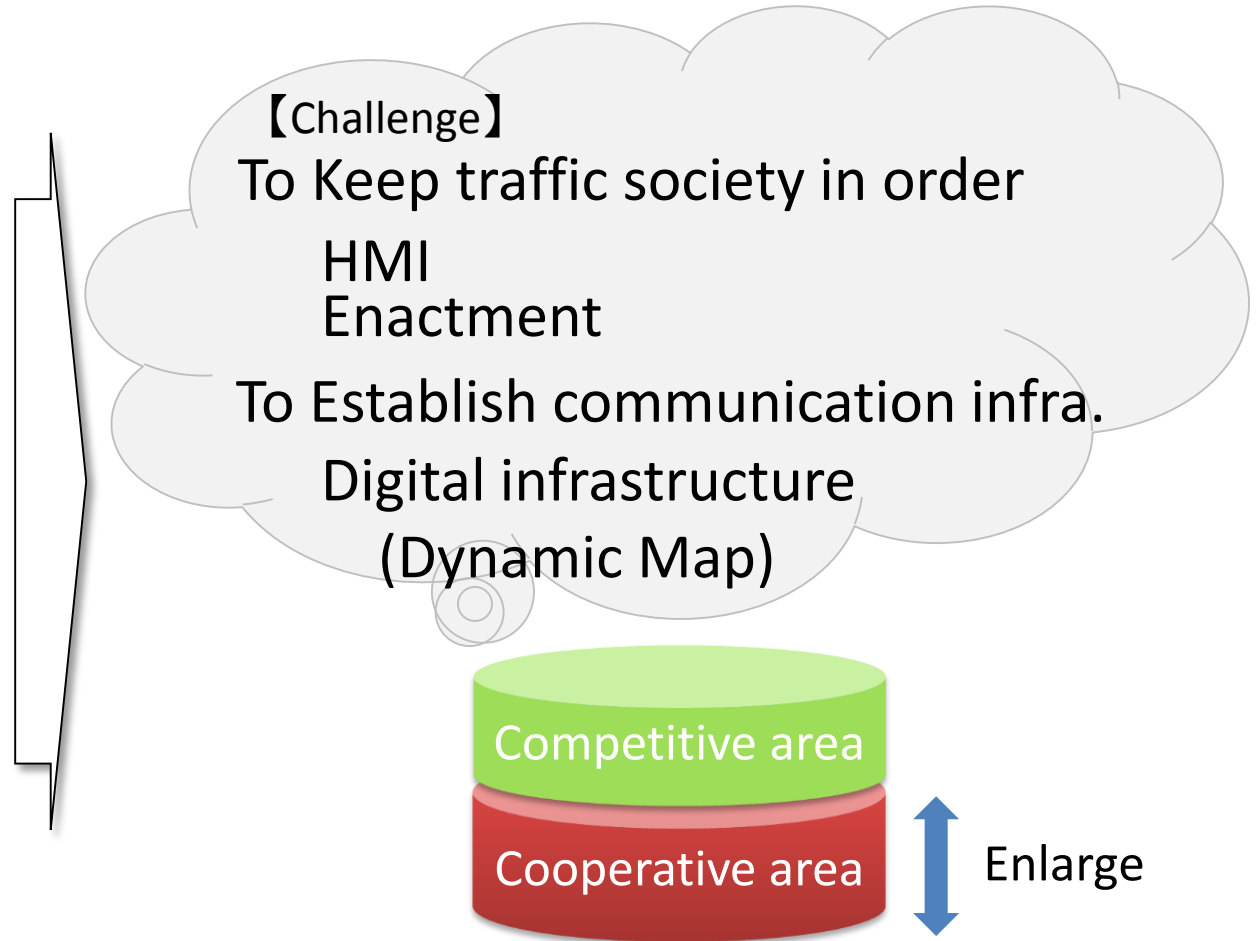
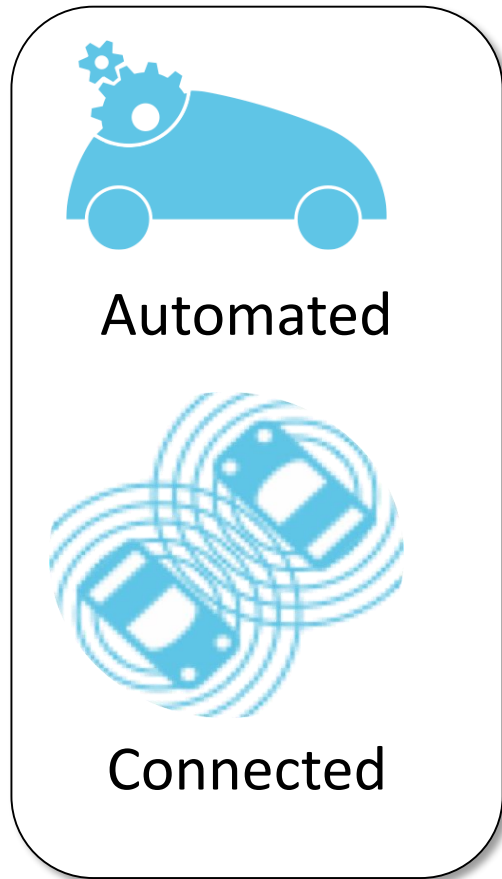
Interface to secure  
safety and smoothness

Basic Tech.

Security, Simulation, Database, etc.

**• In red : Area of Cooperation ⇒ Main Area of SIP**

# International cooperation



**International cooperation is necessary to clear many challenges such as technical, legal, and ethnical issues.**

# Collaboration

## SIP-adus Focused themes

- 1) Dynamic Map
- 2) Connected Vehicle
- 3) Security
- 4) Impact Assessment
- 5) Human Factors
- 6) Next Generation transport

ACADEMIA

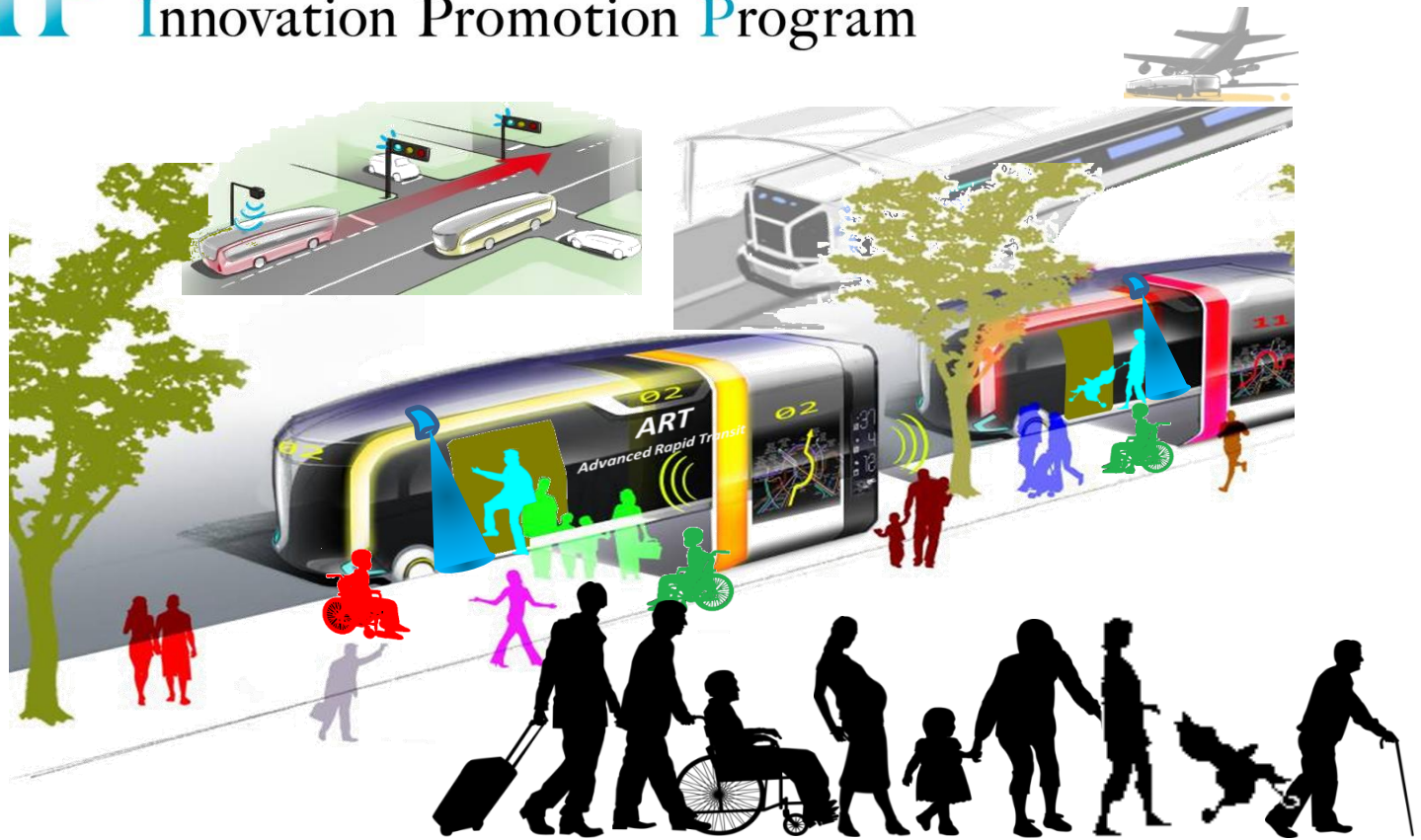


GOVERNMENT

INDUSTRY

**Cooperation between academia, government and industry is critical in addition to international cooperation.**

# SIP Cross-ministerial Strategic Innovation Promotion Program



mobility bringing everyone a smile!