



SIP-adus Workshop 2017

on Connected and Automated Driving Systems

SIP Automated Driving System

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Program Director

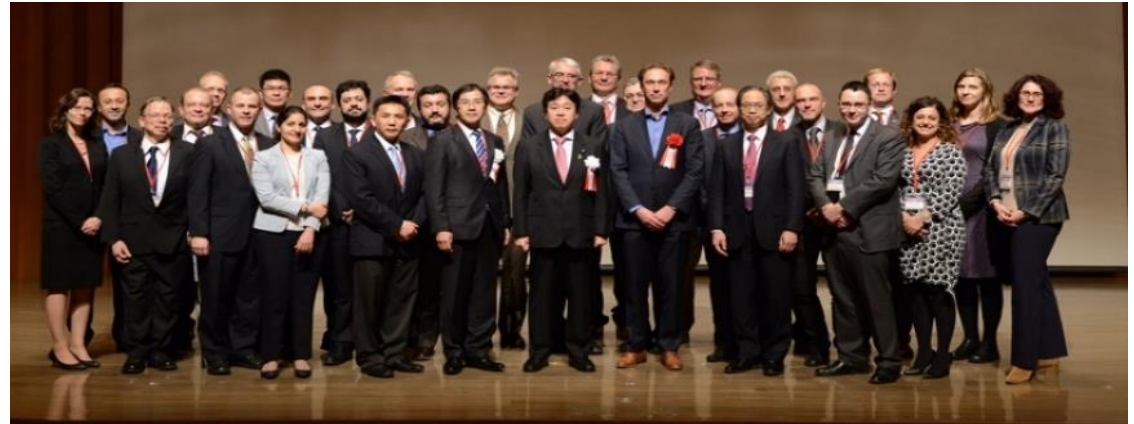
Nov.14.2017



Welcome back to SIP-adus WS!

‘Is it not delightful to have friends
coming from distant quarters?’

(The Analects of Confucius)



- **Intensive R&D program**
 - ✓ promote 5-years R&D (FY2014 - FY2018)
 - ✓ enhancing cross-ministerial cooperation

- **11 research themes**

From societal issues such as Energy, Next-Generation Infrastructures and Local Resources, including R&D for AD

- **Leadership and total Budget**

CSTI appointed Program Directors and allocates the budget for each research theme. *

* ¥50bil in total per year
(65% for SIP 11 themes, 35% for medical R&D)

adus : Automated driving systems
for universal service



Cross-Ministerial Strategic Innovation Promotion Program

Council for Science, Technology, and Innovation

Governing board
(CSTI Executive Members)

← Outside experts

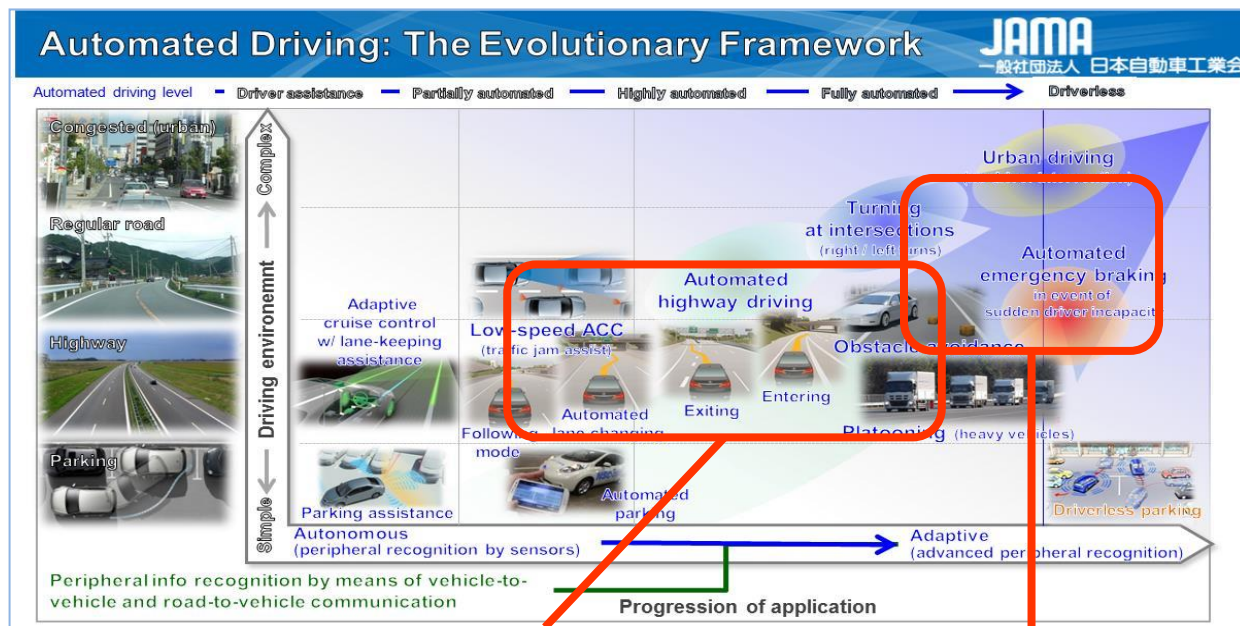
Program Director (PD)
(assigned to Cabinet Office for each policy issue)

Steering Committee

PD (Chairman), relevant ministries,
experts, corporations,
Cabinet Office (secretariat)

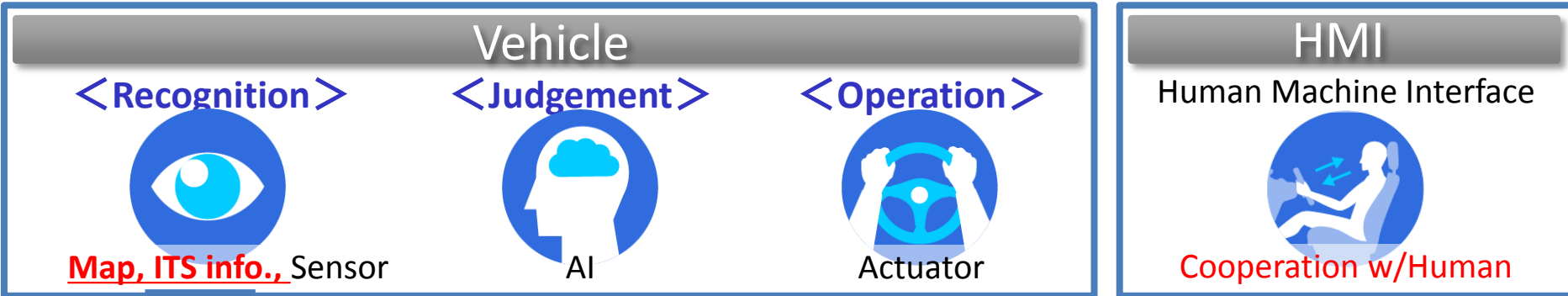
Relevant ministries and management
corporations and other researchers

- Ensuring safety and traffic jam reduction on the road
- Realization and spread of Automated Driving System
- Realization of advanced next generation public bus service for vulnerable people.



Realization of Level 2 on highway by 2020

Prioritization for next step Level 2 on regular road

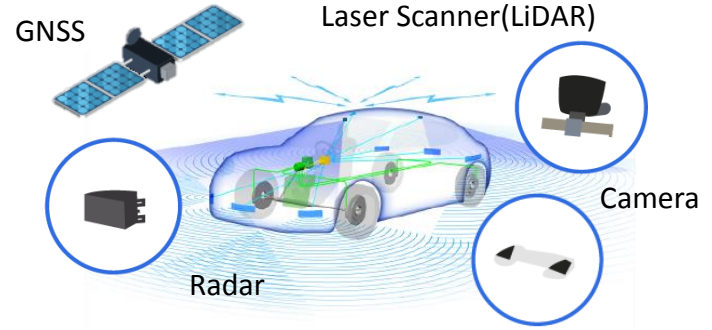
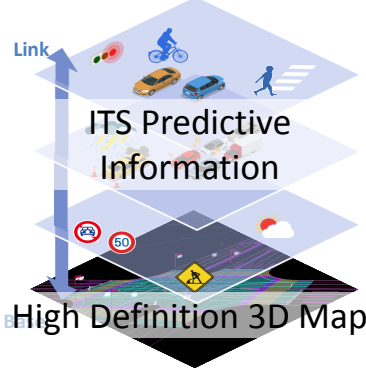


Dynamic Map

Onboard Sensors

Key Technologies

- Localization
- Environmental recognition



Basic Tech. **Cyber Security, Simulation, Database, etc.**

In red : Area of Cooperation ⇒ Main Area of SIP-adus

SIP-adus focus on R&D in Cooperative area with Industry, Academia and Government

2014

2015

2016

2017

2018

Team building Various R&D themes

Steering committee

— System implementation WG

— International cooperation WG

— Next Gen. Transport WG

Integrated to 5 main themes

- ① Dynamic map
- ② Human Machine Interface (HMI)
- ③ Cyber security
- ④ Pedestrian traffic accident reduction
- ⑤ Next Gen. Transport

Field Operational Test



Activation of the study / technology development



An evaluation, a problem is extracted in more viewpoints



Confirmation of the practical use



International cooperation and harmonization



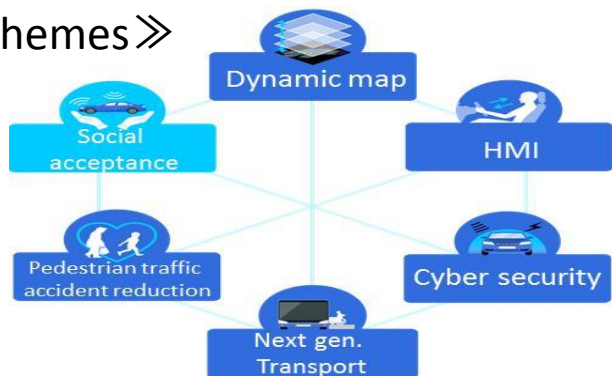
Social acceptability promotion

Implementation

《Purpose》

1. To activate the R&D
2. To prove each elemental technology
3. To enhance international cooperation and harmonization
4. To Build Social acceptance

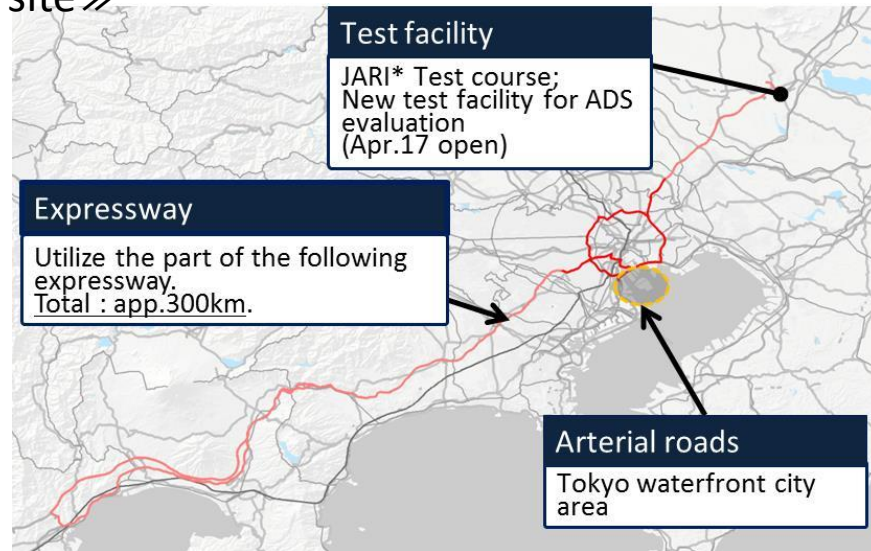
《Themes》



《Period》

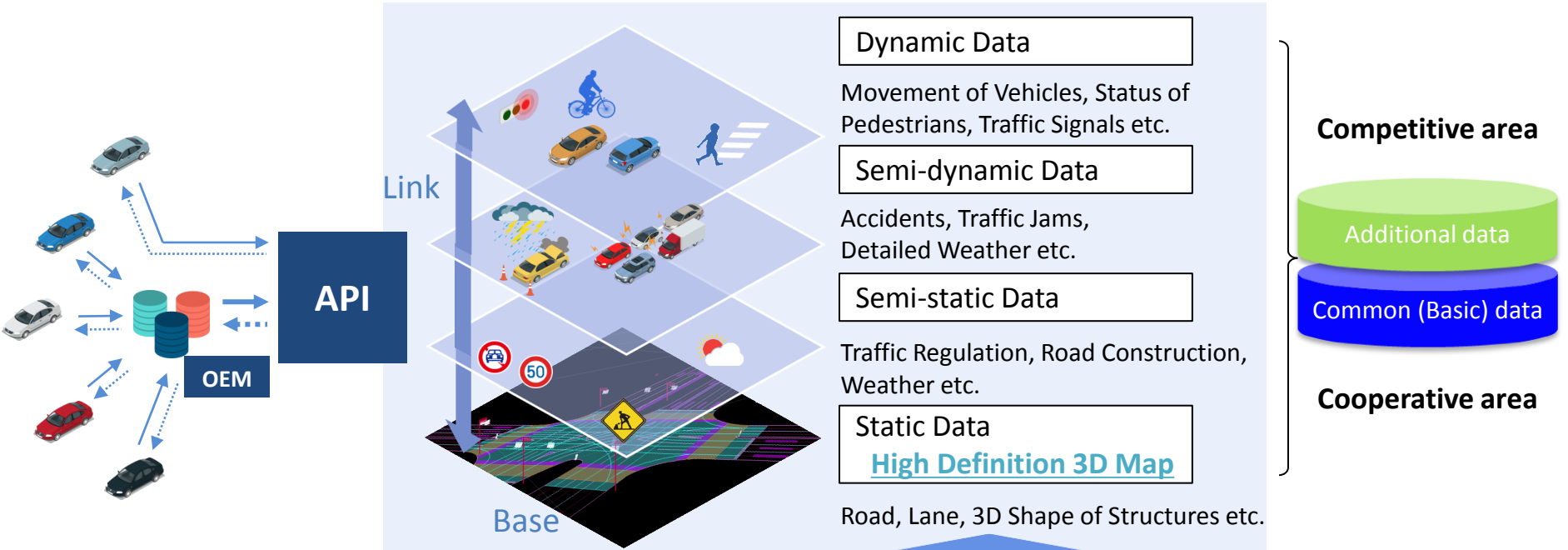
Autumn 2017 ~ beginning of 2019

《Test site》



《Participant》





API : Application Program Interface

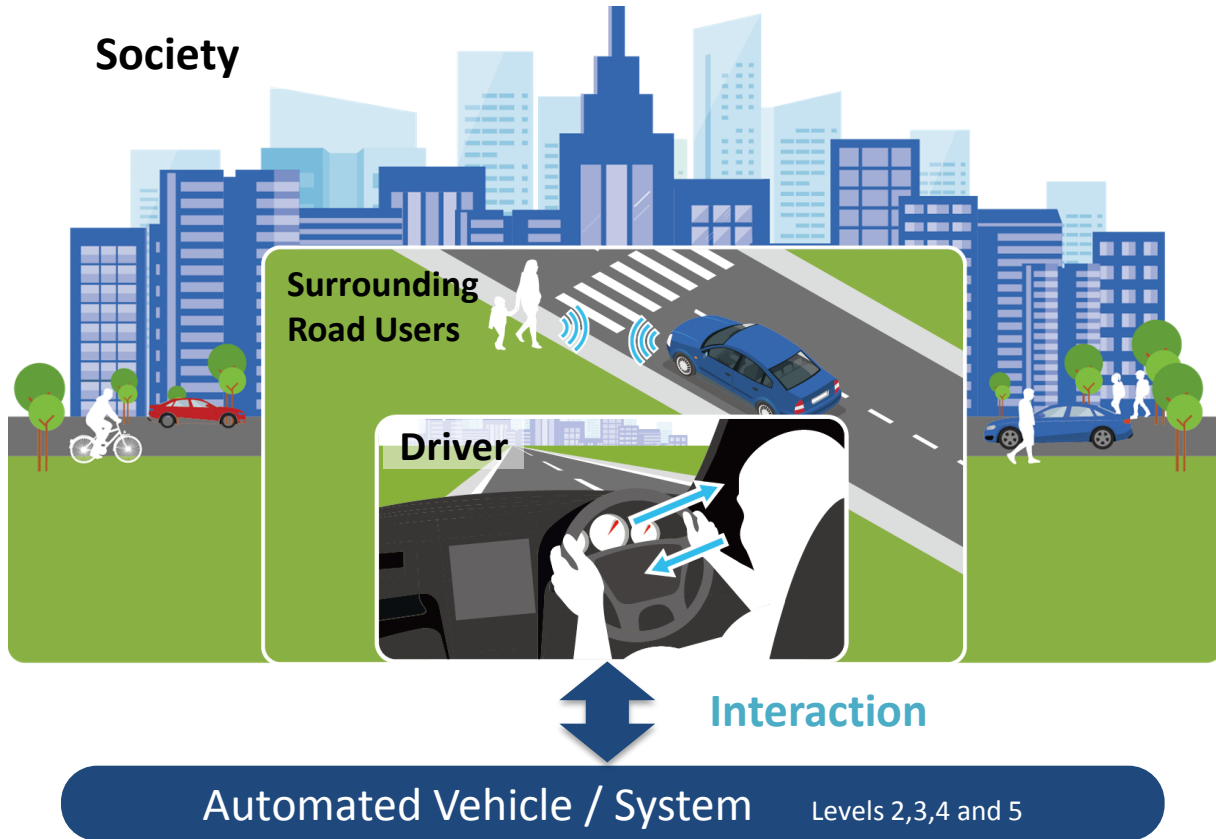
Digital Mapping

3D Common Platform Data

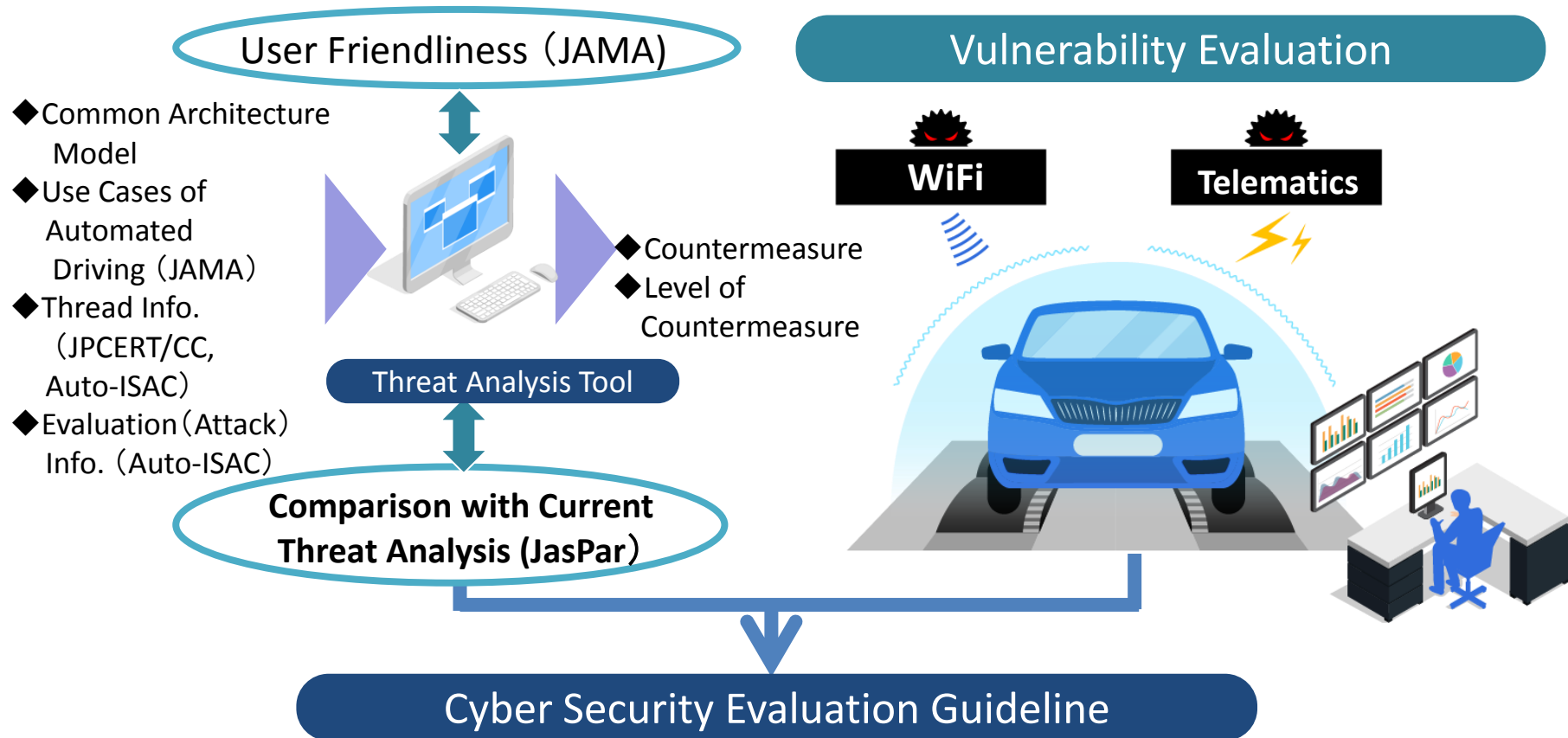
Point Clouds, Graphics, Probe Data etc.

Dynamic map Platform Co. was established in 2017

《Goal》 To establish and commercialize a dynamic center function, and standardization



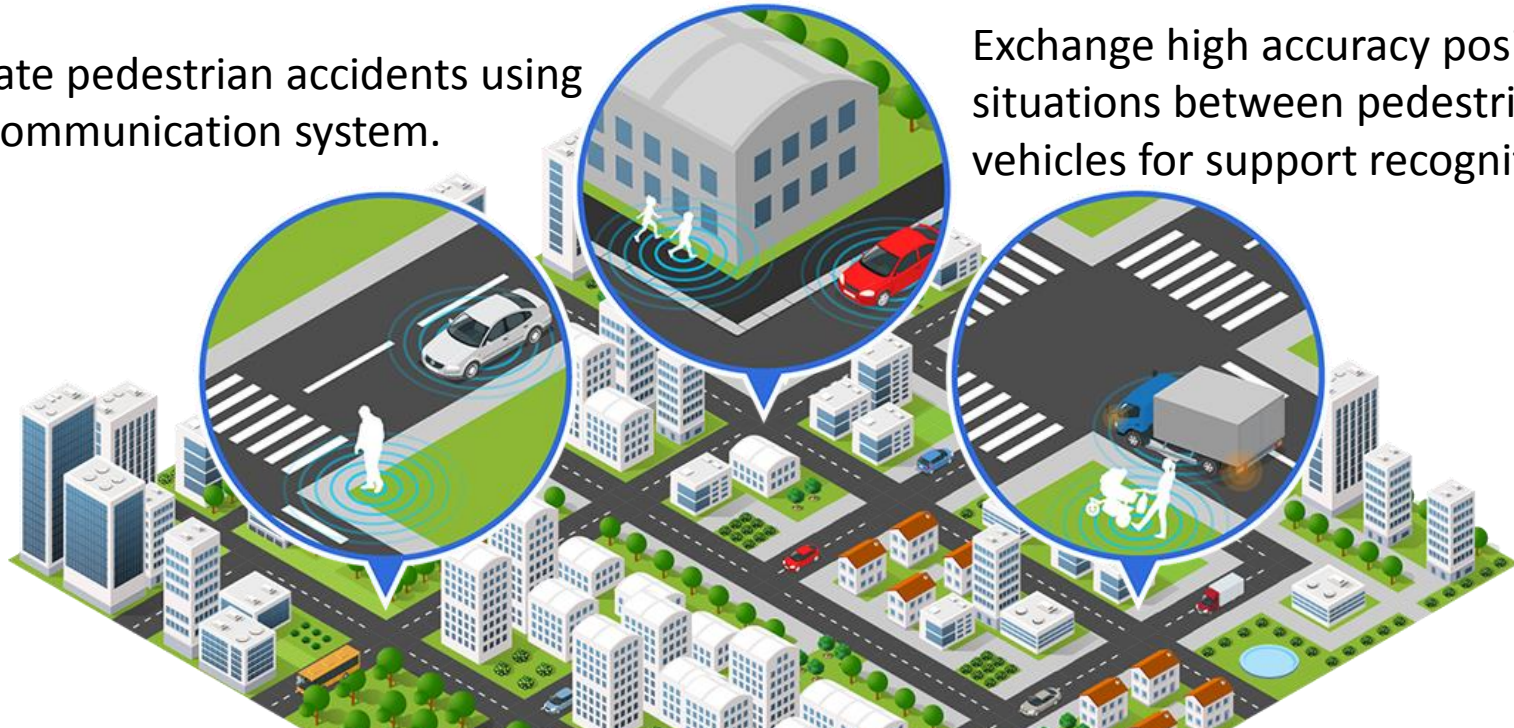
《Goal》 To establish HMI guideline for level 3 and standardization



《Goal》 To establish evaluation method at vehicle and component level and standardization

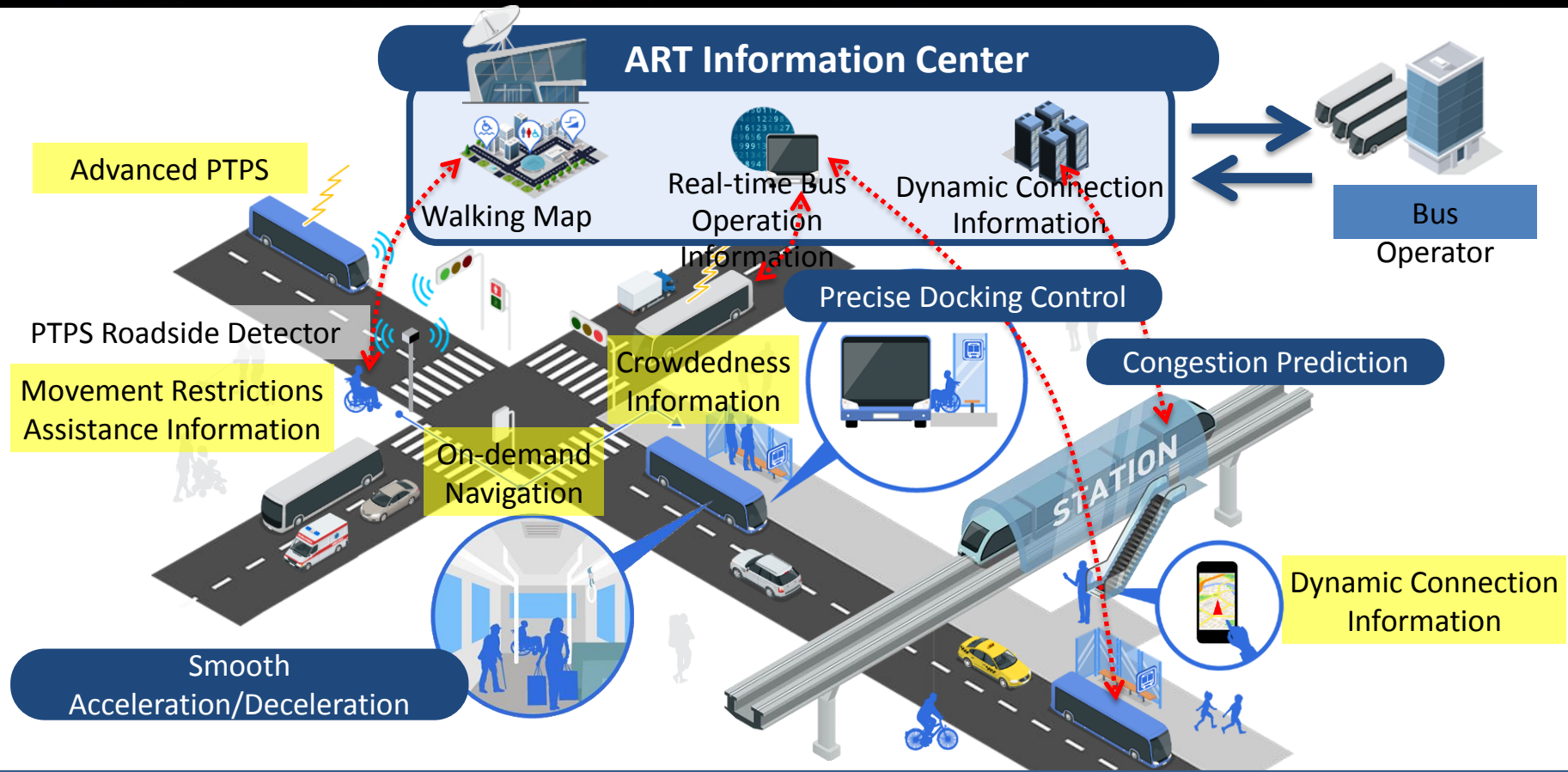
Mitigate pedestrian accidents using V2P communication system.

Exchange high accuracy positions and situations between pedestrians and vehicles for support recognition.



Evaluate system performance and effectiveness under real traffic world.

《Goal》 To develop technology and personal handy phones for pedestrian localization



《Goal》 To develop next gen. Advanced Rapid Transit and show its demonstration drive

■ Experts assigned in Focused areas

1. Dynamic Map
2. Connected Vehicle
3. Human Factors
4. Impact Assessment
5. Next Generation
Transport
6. Cyber Security



SIP-adus Workshop

Please enjoy 'hot' discussion and your stay!

Mobility bringing everyone a smile!



Thank you for your attention!