

# SIP-adus Workshop 2021

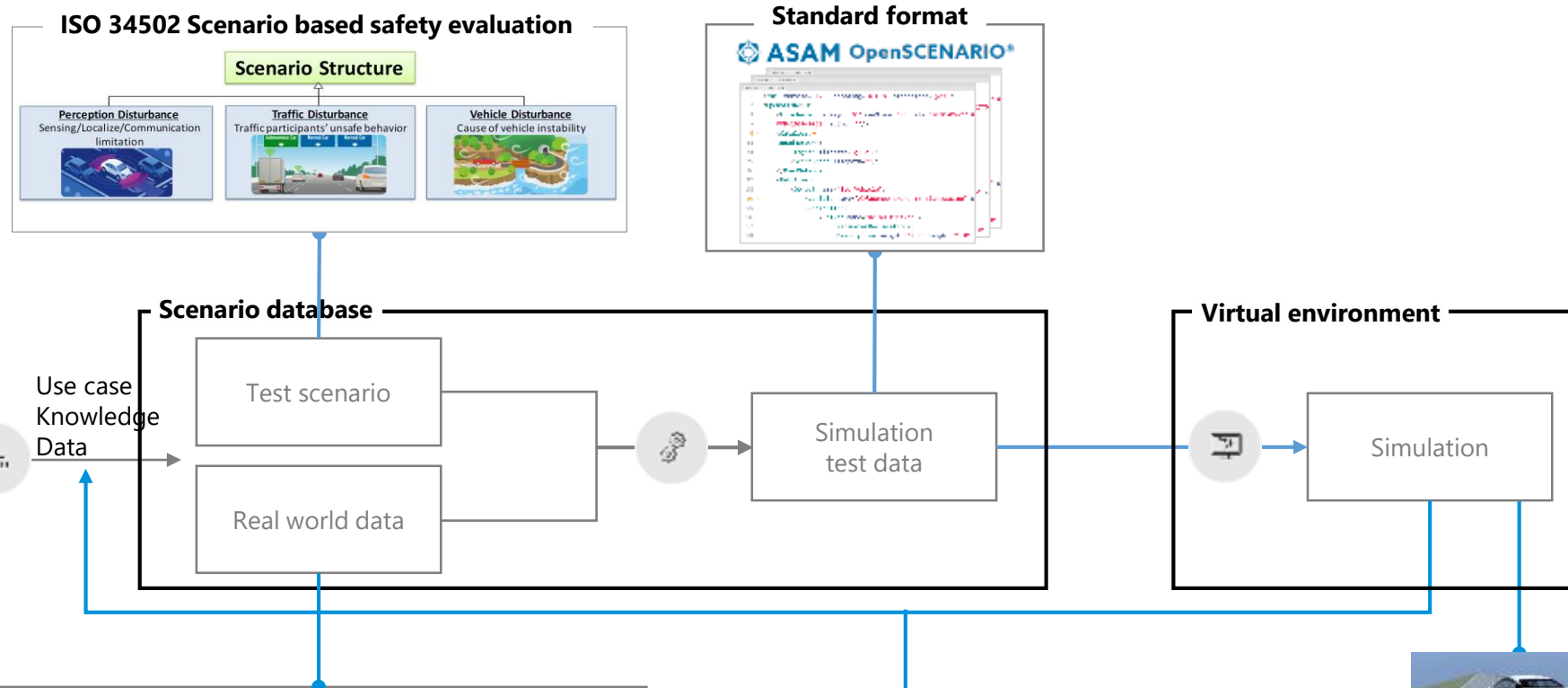
## AD Safety Assurance

Satoshi Taniguchi

Lead of SIP-adus Safety Assurance



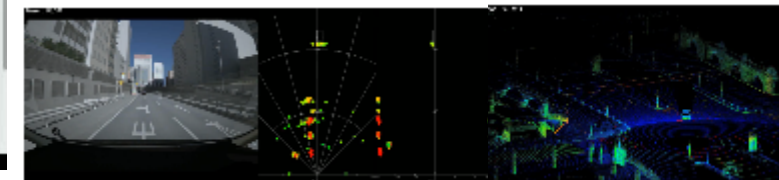
# Japan AD Safety Assurance Platform DIVP/SAKURA/JAMA



Camera

Radar

LiDAR



**Accident data**

**Traffic flow data**

**Parameter distributions**



# Safety Assurance Plenary Session Speakers

Name	Affiliation	Title	Contents
Dr. Frank Gruson	VIVALDI Continental	Virtual Validation of Radar Sensors for Assisted and Automated Driving	Radar is the key technology for assisted and automated driving. To develop new generations of radar sensors, virtual validation allows us to design even better radar antenna and system concepts in a shorter development time by leveraging the power of high definition digital maps and automatic scenario generation.
Dr. Matthias Hein	VIVALDI TU Ilmenau	Simulation toolchain for safety assurance with focus on automotive radar	Sensor modelling in combination with virtual verification is key to safety assurance of automated and connected driving functions. We describe the open standard-based approach of the German-Japanese VIVID consortium and the underlying simulation toolchain. Reference data for challenging traffic objects are provided for radar sensors.
Dr. Jacobo Antona-Makoshi	SAKURA JARI	A scenario database linked to a virtual platform for automated driving safety development and evaluation purposes	The SAKURA scenario database is being specifically developed to flexibly adapt to the related international standards, regulations and consumer testing programs and is linked to the DIVP virtual platform. Together, the database and virtual platform will contribute to ensure a safe deployment of Automated Driving vehicles.
Dr. Hideo Inoue	DIVP Kanagawa Institute of Technology	Driving Intelligence Validation Platform (DIVP®) for automated driving safety assurance	The DIVP® is developing simulators to create virtual models consisting of driving environments, spatial propagation, and sensors that are highly consistent with the actual phenomena. The goal is to efficiently assure the safety of automated driving under many environmental scenarios.
Mr. Roland Galbas	VVMETHODS Bosch	VVM - Towards a comprehensive framework for AD safety assurance	This presentation covers the large-scale German VVMETHODS project that combines simulations and real world tests to demonstrate the safety of automated vehicles and to set standards for the establishment of safety verification in the industrial development process. The presentation shows the current status of the VVMETHODS overall methodology to prove and measure safety in complex urban environment.
Mr. Chan Lieu	Aurora	Overview of Aurora's Safety Case Framework	Aurora has released the first self-driving Safety Case Framework that applies to both autonomous trucks and passenger vehicles. The Safety Case Framework is an effective and efficient path to safely pulling the safety driver and it is an imperative component for any company looking to operate without a safety driver and safely deliver commercial-ready self-driving vehicles at scale