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YNU, LocaliST, Yokosuka City, Mobileye, Marubeni, ESRI Japan Commence the Joint development of sensing system equipped with Mobileye's automotive camera-based safety, mapping technology and edge AI

Marubeni Corporation (hereinafter, "Marubeni"), Institute of Urban Innovation in Yokohama National University (hereinafter, "YNU"), LocaliST, Co., Ltd. (hereinafter, "LocaliST"), Mobileye Vision Technologies Ltd. (hereinafter, "Mobileye"), ESRI Japan Corporation (hereinafter, "ESRI Japan") and Yokosuka City (hereinafter collectively, "Consortium") hereby announce the start of joint development for sensing system equipped with Mobileye's automotive camera-based safety, mapping technology and edge AI (hereinafter "Technology") as a part of "Yokosuka x Smart Mobility Challenge" (*).

The Consortium will roll out more than a dozen units of commercial vehicles equipped with the Technology, and will develop a sensing system that continuously collects and accumulates data on road assets such as road surface conditions and on the position and volume of pedestrians and bicycles.

As the spread of COVID-19 increases the dependence on private vehicles, the Consortium will contribute to the realization of a more human-centered, safe and secure walking and cycling environment by combining the data obtained from this initiative and other existing data with a multi-evaluation of road safety. Furthermore, the chronological analysis of pedestrian traffic volume allows for the verification of the effectiveness of stay-at-home orders during a pandemic, and also enables risk assessment by hotspot analysis.

In 2021, as a first step, the Consortium will introduce more than a dozen edge AIs (drive recorders) mounted on garbage trucks and public vehicles to an area that covers about 100km of roadway in Yokosuka City, and conduct a demonstration experiment to collect, analyze, and visualize the accumulated data.

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(*) "Yokosuka x Smart Mobility Challenge" is an industry-academia-government collaboration project led by Yokosuka City with the aim of solving regional issues by utilizing state-of-the-art mobility and information and communication technology.

<Example of roadside status data collection>
Condition of road assets, pedestrian traffic, bicycle traffic, car driving behavior

The Consortium's next step will be to include major logistics companies and expand the range, number and types of experimental vehicles to further develop the system and verify the utility of the collected data.

Furthermore, in order to visualize and share the roadside situation data collected from this initiative, the Consortium is considering cooperation with the 3D city model "PLATEAU" developed by the Ministry of Land, Infrastructure, Transport and Tourism.
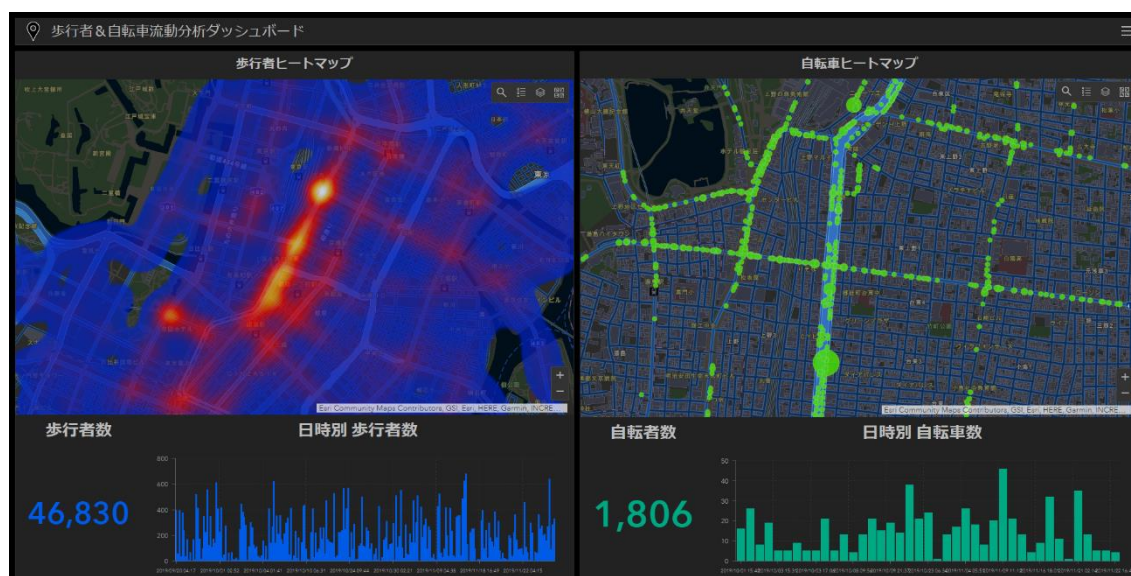

Picture : Image of Visualization of the roadside situation data

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<Roles of Consortium Members>

Company Name	Rules and Functions
Marubeni	Business feasibility verification of roadside sensing system and data utilization
YNU	Professional advice, facilitation of the entire initiative
LocaliST	Analysis and visualization of collected roadside situation data
Yokosuka City	Providing demonstration fields and experimental vehicles (e.g. garbage trucks and other public vehicles)
Mobileye	Providing roadside situation data collection technology by edge computing
ESRI Japan	Providing GIS software for analysis and visualization of spatial data

<Contact Information>
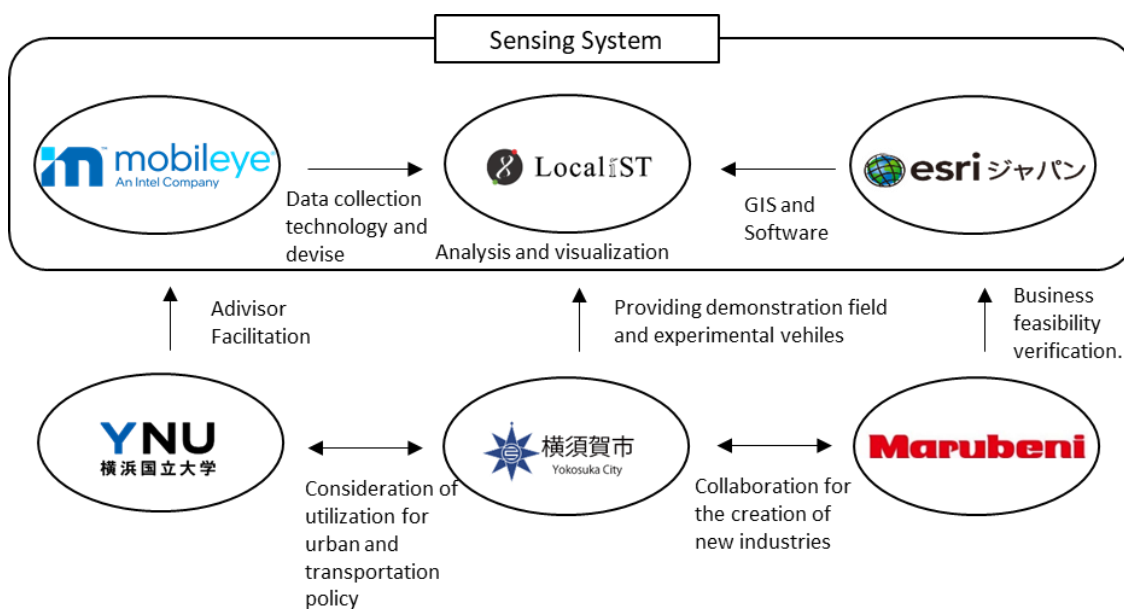
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