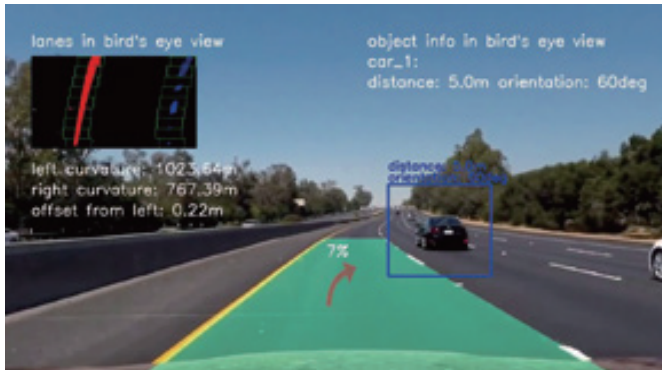# Car-free Street Mapping Solution
## using drone and machine learning

Geo-spatial information (image) filmed by drone and aviation equipment are
automatically processed (mosaic, color adjustment) on a real-time basis
Analysis and result report are provided

**4S Mapper**

# We manufacture HD Safety Map for autonomous vehicle.

Road Safety Index of Seoul City is grade D. We could not ignore the road safety issue among many urban issues because road safety is directly linked to citizen's safety. Especially, the life of workers working on the road and enhancing efficiency of acquiring existing information to provide more accurate and safe information to citizens are the most important.



# What is Car-free Street Mapping?

4S Mapper's Road Maintenance and Management Solution eliminates car on the road in the images using machine learning technique to reveal the current status of the road hidden underneath the car. It is a service showing current status including cracks on the road and potholes as it is. Mapping real road without automobiles can be used to produce simulation HD Map for autonomous vehicles and safety maps of general roads. You can use up-to-date data using drone and machine learning technique to easily produce maps rather than using high cost exclusive sensor or manpower.

## Drone recorded images are directly delivered to mobile device

### DaaS Pano
DaaS : Drone as a Service

Drone recorded 360 degree panorama image will be automatically processed on cloud platform on a real-time basis into a HTML5 format and automatically delivered to users to view on various mobile devices and computers.

### DaaS 3D

Drone images recorded to build 3D geo-spatial information are automatically processed on cloud platform and produced into 3D map. It can be used to identify geography, facilities and many other areas. Analysis results are provided in reports.

## Facility maintenance and management for SmartCity

### DTM ML
DTM : Drone to Mapper or Drone Traffic Mapper

Drone and machine learning can film all lanes and directions on the road. At the same time, it overcomes the limitations of data acquisition by lanes provided by existing equipment and effectively identifies pavements of the road.

### DTM AI

Convergence of Drone, AI, and Big Data enables status prediction of various facilities. It can be the basis to build a Status base management optimization system, integration and connection with existing system.



Autonomous Vehicle

HD Safety Map (HD Map)

Road and Facility Maintenance Solutions