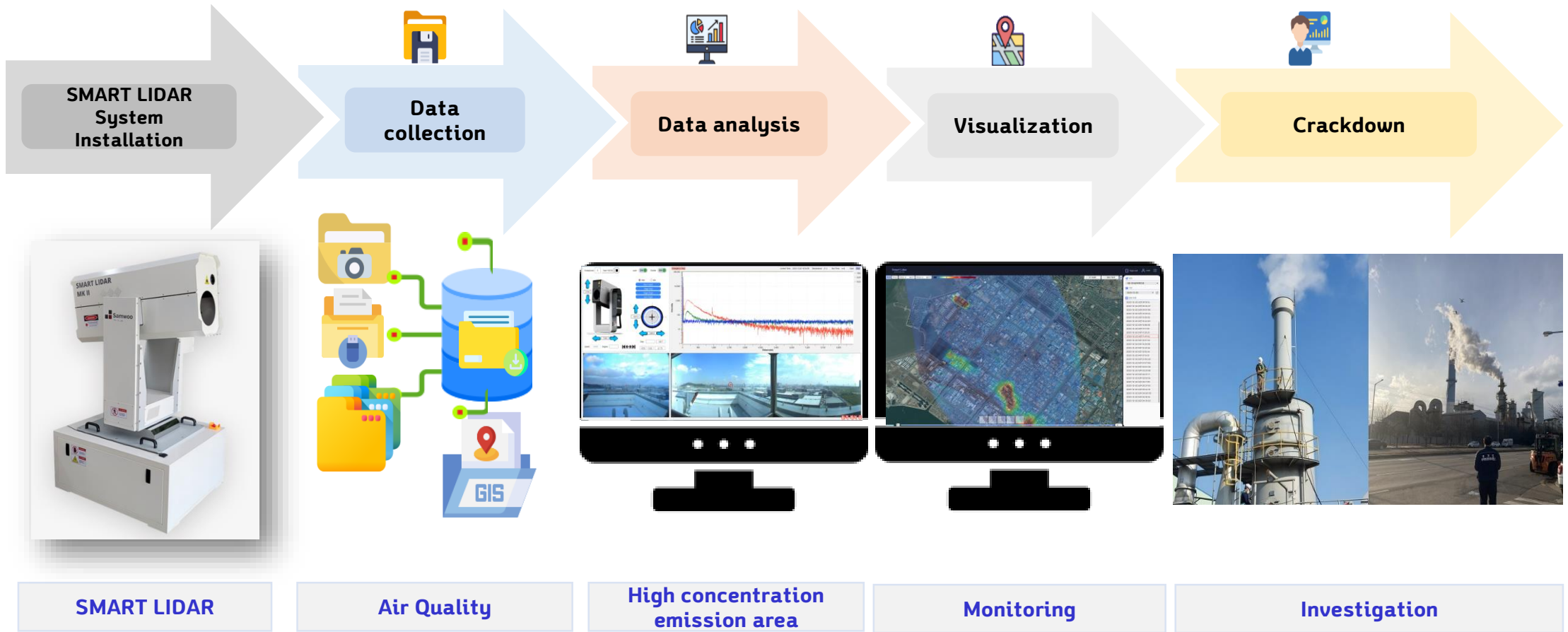


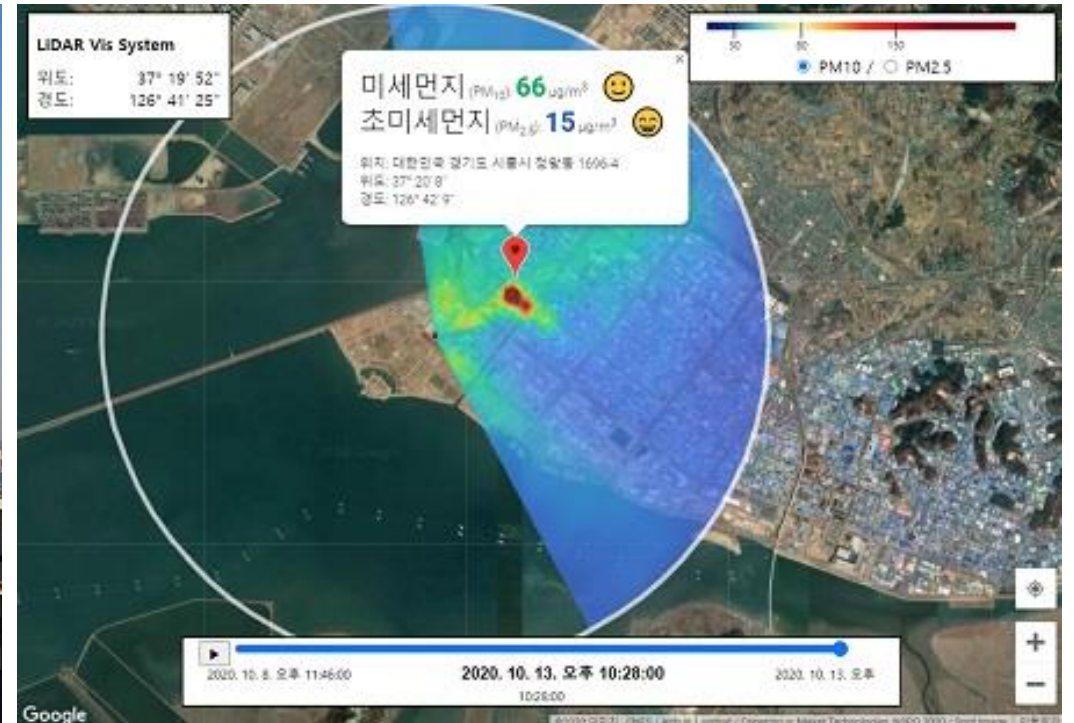
# Siheung Sihwa National Industrial Complex Illegal Air Emissions Control System Diagram



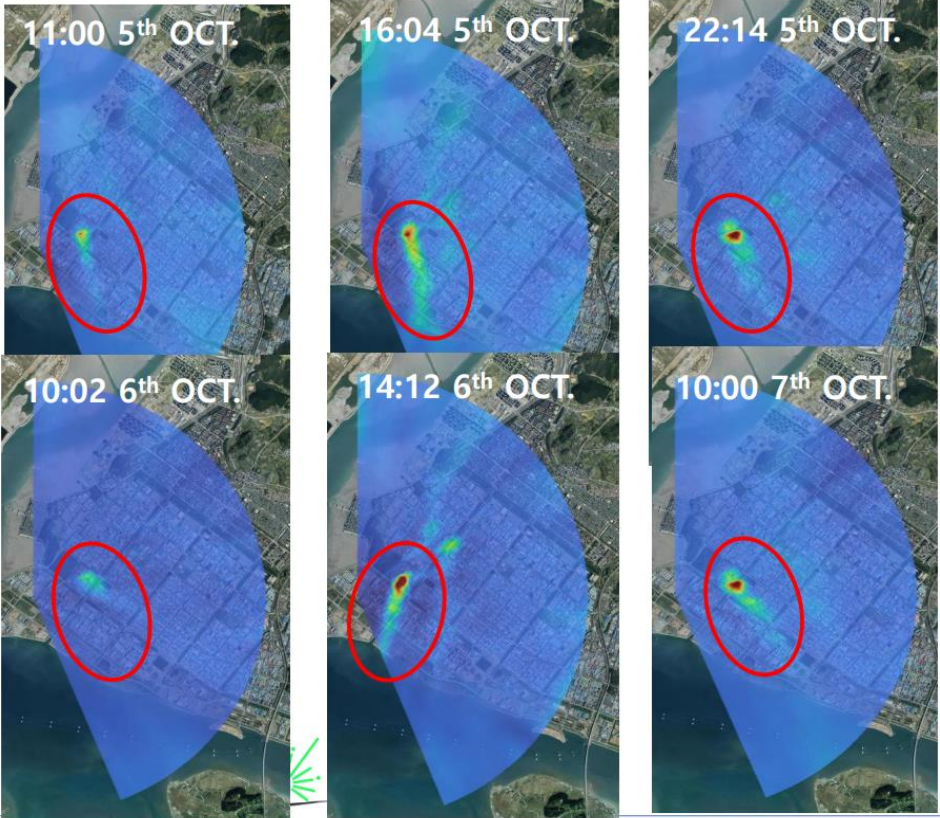
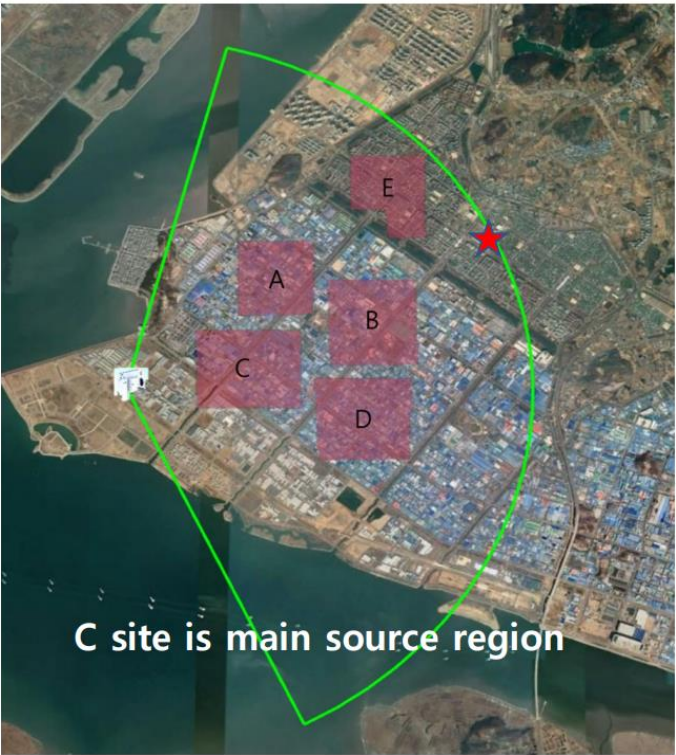
## Siheung Incineration Plant



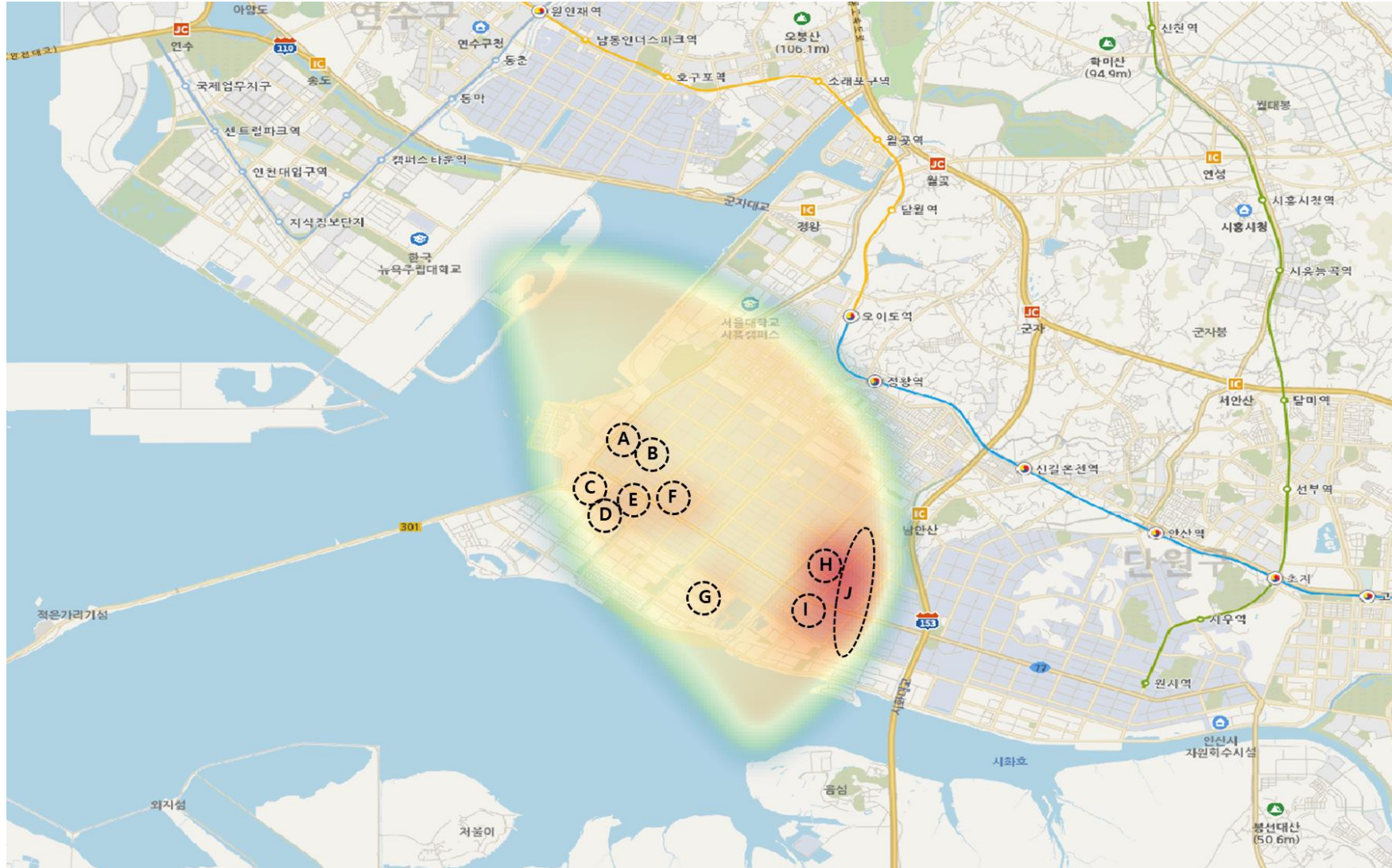
## SMART LIDAR System : analysis results



# Air Emissions Monitoring and Enforcement



## Identification of Illegal Emission Hotspots through Heatmap Analysis



# Introduction to SMART LIDAR Operation Sequence and Monitoring



## SMART LIDAR MK-II

### Product Characteristics

- Expressed the mass concentration of Particulate Matter(PM<sub>10</sub>, PM<sub>2.5</sub>) in real time with spatial resolution of 30m in a wide area (5km radius)

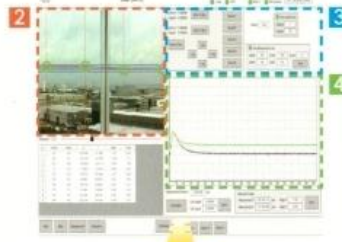
 <b>Observation Distance</b> Less than 5km radius	 <b>Method of Observation</b> 360° Scanning	 <b>Spatial resolution</b> 30 Meter	 <b>Angular resolution</b> Within 10°
 <b>Observation peride</b> Within 30 Min	 <b>Continuous Observation</b> 24 Hours	 <b>Real-time Visualization</b>	

### Application

- Provides high-resolution fine dust concentration In a city center
- Monitoring of dust emission In a industrial complex
- Monitoring of Illegal Incineration in Rural Areas
- Monitoring of dust emissions in harbors and ships
- Early detection of forest fires
- Visual distance observation(RVR, MOR, SOR, SVR, VOR, etc.)

## OPERATION SEQUENCE

### 1 Running control software



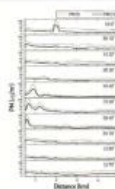
### 2 Panorama shooting - Select a measurement target point



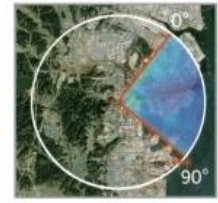
### 3 LIDAR Observation - Data transfer to our web server



### 4 Data Analysis (Patent registered analysis method)



### 5 Visualization Representation



## Real-time visualization

## MONITORING FINE DUST

Fine Dust(PM<sub>10</sub>) 249 (µg/m<sup>3</sup>)  
 Ultrafine Dust(PM<sub>2.5</sub>) 126 (µg/m<sup>3</sup>)

Monitoring of Industrial complex emissions

Fine Dust(PM<sub>10</sub>) 129 (µg/m<sup>3</sup>)  
 Ultrafine Dust(PM<sub>2.5</sub>) 46 (µg/m<sup>3</sup>)

Monitoring of dust emissions in harbors and ships

Fine Dust(PM<sub>10</sub>) 284 (µg/m<sup>3</sup>)  
 Ultrafine Dust(PM<sub>2.5</sub>) 105 (µg/m<sup>3</sup>)

Monitoring of Illegal incineration in rural areas

Monitoring the distribution of high-resolution fine dust