

ENVIRONMENTAL SURVEY & MEASUREMENT
VARIOUS ENVIRONMENTS

- Air quality, PM2.5
- Water quality (River, Lake, Sea, Groundwater, Waste water)
- Meteorological observation
- Noise, Vibration
- Soil pollution

SCIENTIFIC ANALYSIS
POWER OF ANALYSIS

- PM2.5
- Volatile organic compounds
- Dioxins, Pesticide, PPCPs
- Heavy metals, Ions, carbon
- Hazardous air pollutants
- Work environment measurement
- Internal environment measurement

SYSTEM DEVELOPMENT
NEW TECHNOLOGY

- PM2.5 sampler
- Air sampling Device
- Telemetry system, AMS
- Data analysis system

Business Solutions



MURATA Keisokuki Service Co.,Ltd

DRONE SERVICE
FOR EARTH ENVIRONMENT

- Aerial photography
- Image analysis
- Aerial photogrammetry
- Air quality measurement
- Meteorological observation
- Underwater

CONSULTING OF PM2.5
FOR CLEAN ATMOSPHERE

- Sampling
- Component analysis
- Data analysis
- Source contribution analysis

WIND ENVIRONMENT
CAPTURE THE WIND

- Wind environment simulation
- Wind power plant environmental simulation (Noise, Shadow, Landscape)

I . About "MURATA Keisokuki Service"

- Established : 1972
- Number of employees : About 120
- Head office : Yokohama city



➤ Our Business in Japan

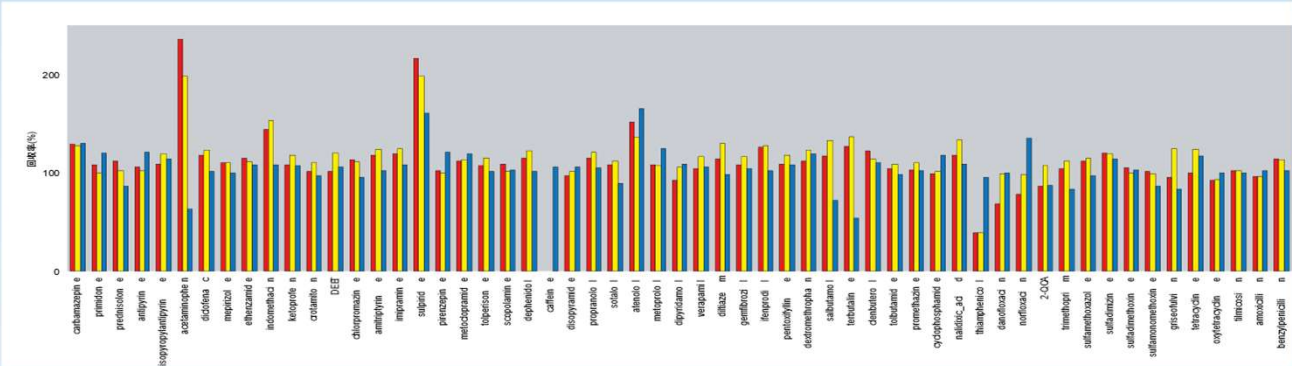
- ① **Environmental impact assessments services**
(surveys, forecasting (Wind power plant, Wind environment, Sun shading, Air quality, Noise, Vibration, Traffic, etc.), Report writing)
- ② **Environmental survey and measurement services**
(Air quality, Ground meteorology, High-rise meteorology (GPS sonde/Drone), noise, Vibration, Traffic, Soil, Water quality, Groundwater, Odor, etc.)
- ③ **Scientific analysis services**
(PM2.5, Hazardous Air, Water quality (river, sea, lake, groundwater, sewage, Factory effluent, Pharmaceuticals), Heavy metals, Dioxins, Pesticides, VOCs, etc.)
- ④ **Maintenance of environmental measurement equipment services**
(Air and Water quality monitoring station, etc.)
- ⑤ **Development of environment-related systems**
(Automatic monitoring system, PM2.5 sampler, etc.)
- ⑥ **Various consulting services**
(Environmental plan, PM2.5, GIS, Drone, Soil pollution, etc.)

➤ Our Business in Japan, Scientific analysis

● Dioxins in river water



● Medicine contained in river water

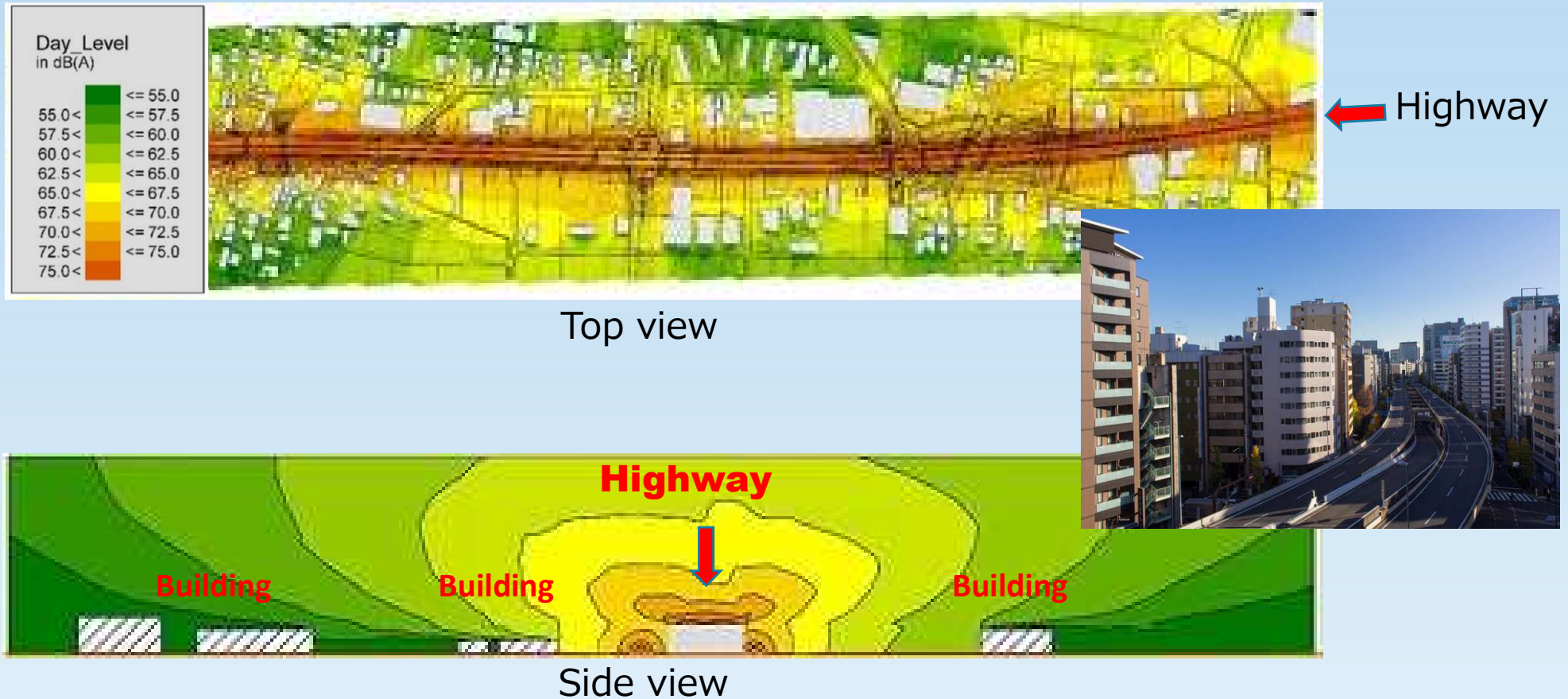


● Sewage, etc.

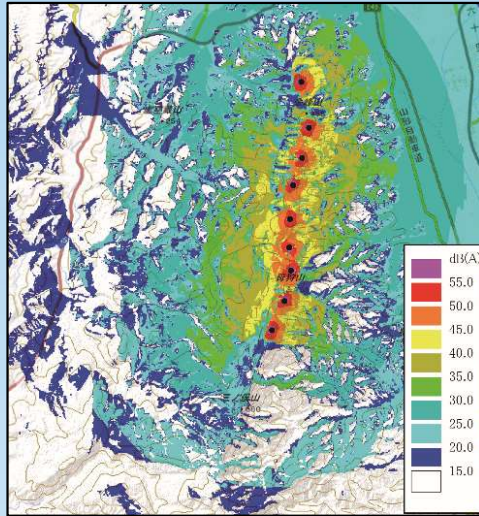


➤ Environmental impact assessments

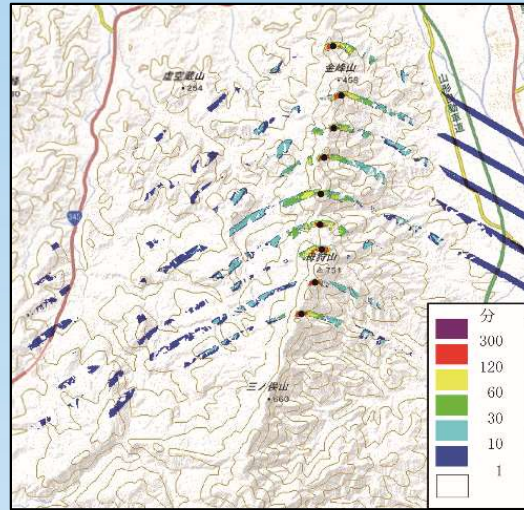
● Noise simulation (Road traffic noise)



● Simulation of Wind power plant



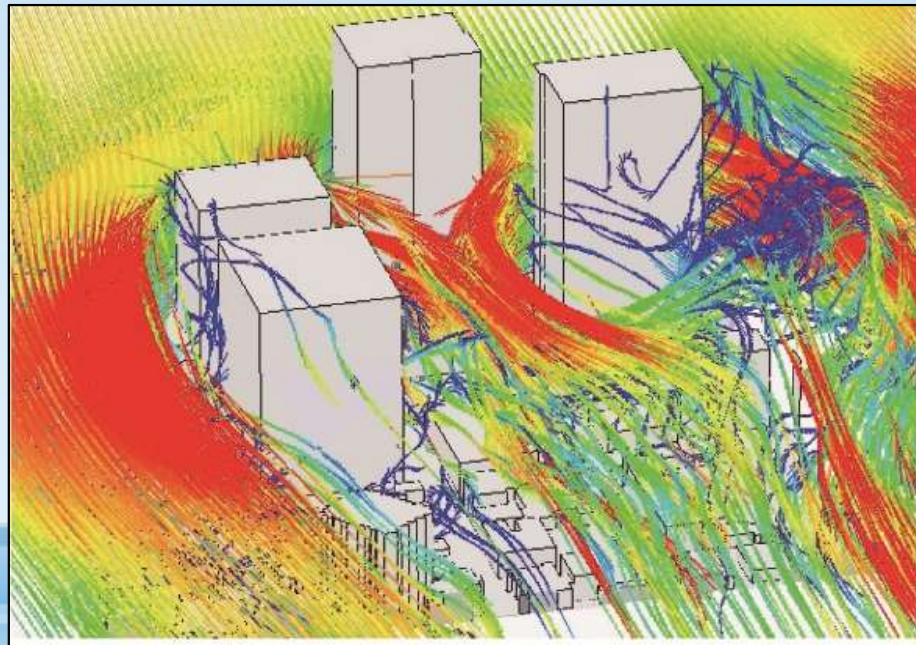
Noise



Shadow of windmill



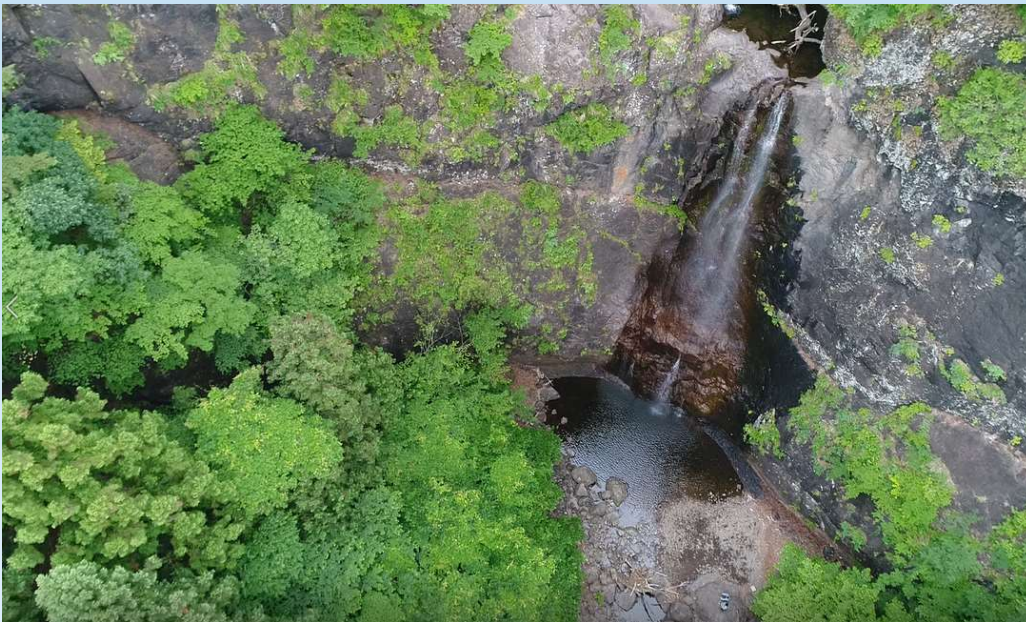
● Simulation of Wind environment



● DRONE service



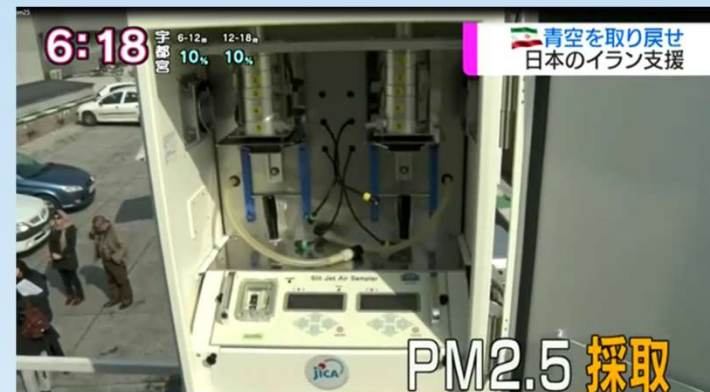
- **Meteorological Survey**
- **Air Pollution Measurement**
- **Aerial Photography**
- **Surface temperature Measurement**
- **Creating 3D models from terrain data**



➤ Development of environment-related systems

● PM2.5 sampler

JICA technical cooperation projects
in Iran, Mongolia, and Mexico.



PM2.5 sampler used in Iran
(NHK News, February 16th, 2019)



● Automatic monitoring system (AMS)

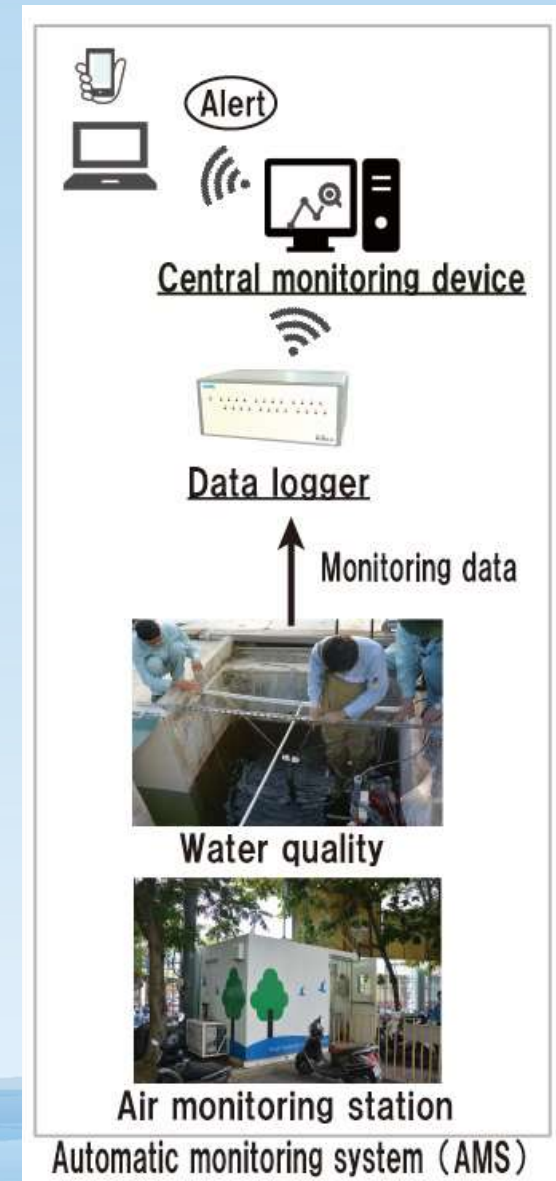
➤ Main applications

- Real-time monitoring
- Water quality, Air quality, and Meteorology.

➤ Features

- Early detection of abnormalities.
- Notice of Exceedance of Water / Air quality standards.
- Prompt response in case of trouble.
- Preventive maintenance based on data analysis.

⇒ Overseas deployment
(JICA project → Other projects)

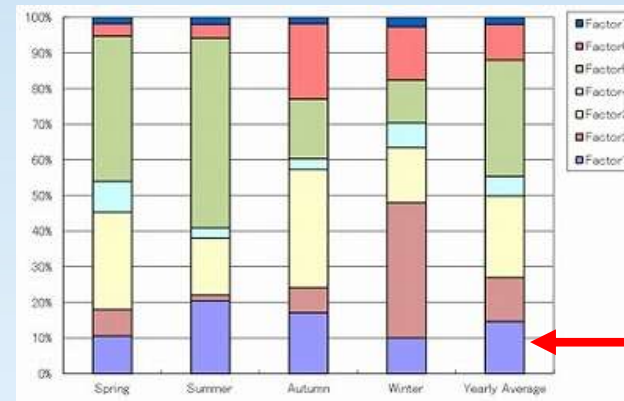


● PM2.5 consulting service : Providing PM2.5 measurement service and source contribution analysis service

- Simple PM2.5 Monitoring Equipment (MCAS-PT)
 - PM2.5 Sampler
 - PM2.5 Automatic continuous measurement equipment
- MURATA provides PM2.5 sampling, component analysis, and source contribution analysis services to support source control measures.



Simple PM2.5 Monitoring Equipment
(MCAS-PT)



Automobile exhaust

Source contribution analysis

II. MURATA's efforts under city to city cooperation between Yokohama and Da Nang, Vietnam



➤ **2018-2019 :
JICA Project (F/S)**



➤ **2018, 2019, 2021 :
Da Nang Urban Development Forum**

➤ **2020-2021 : Participation in the Inter-city
Cooperation Project (MOEJ)**

Support for developing Danang's "10-Year Environment City Plan"



➤ **Around 2022-2025 :
Next JICA Project**



Contact information



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