

SAKAMOTO LAB.

[Measurement and Evaluation of Sound Environment in Urban City]

Environmental Acoustic Engineering

Department of Architecture,
Graduate school of Engineering

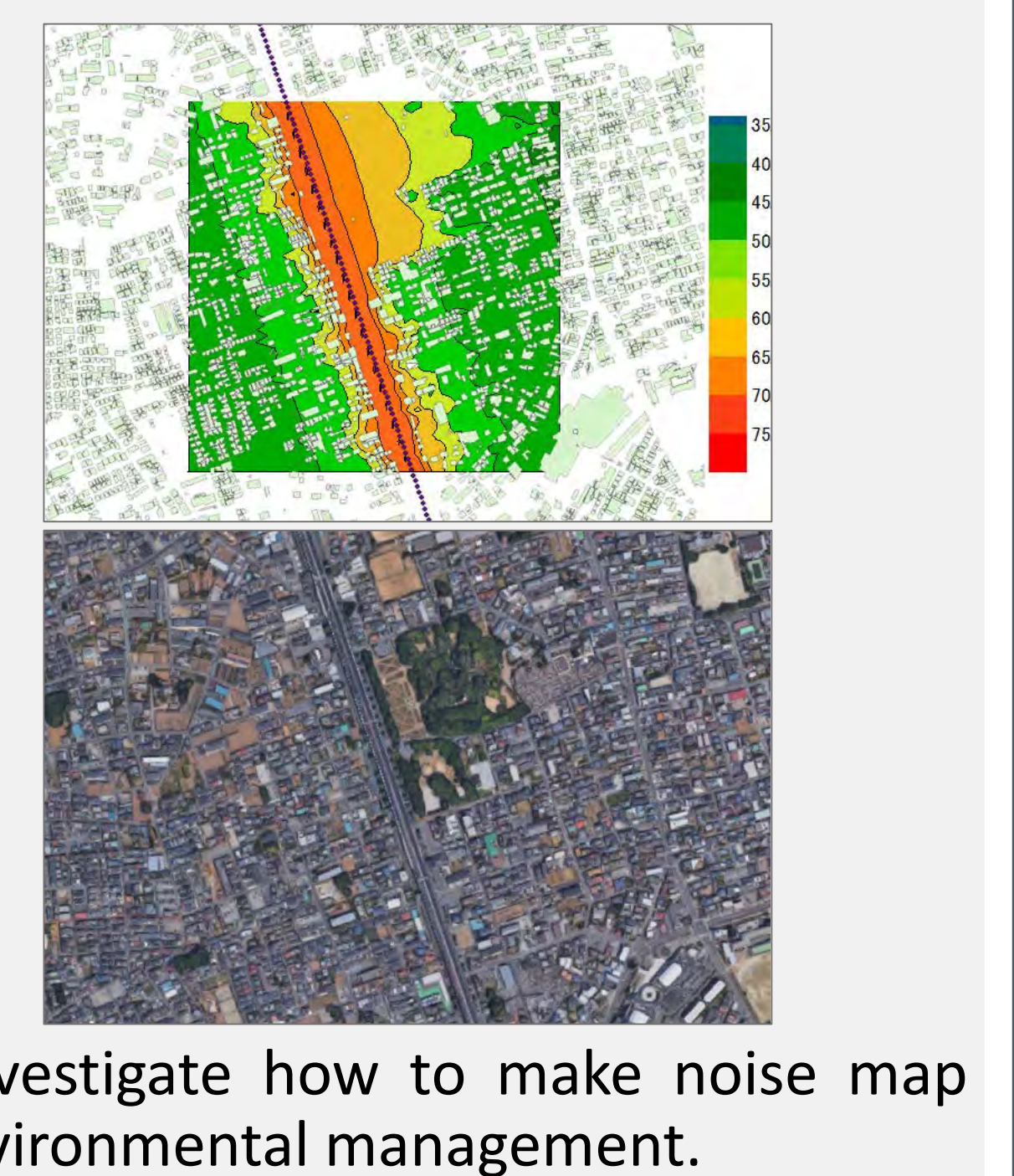
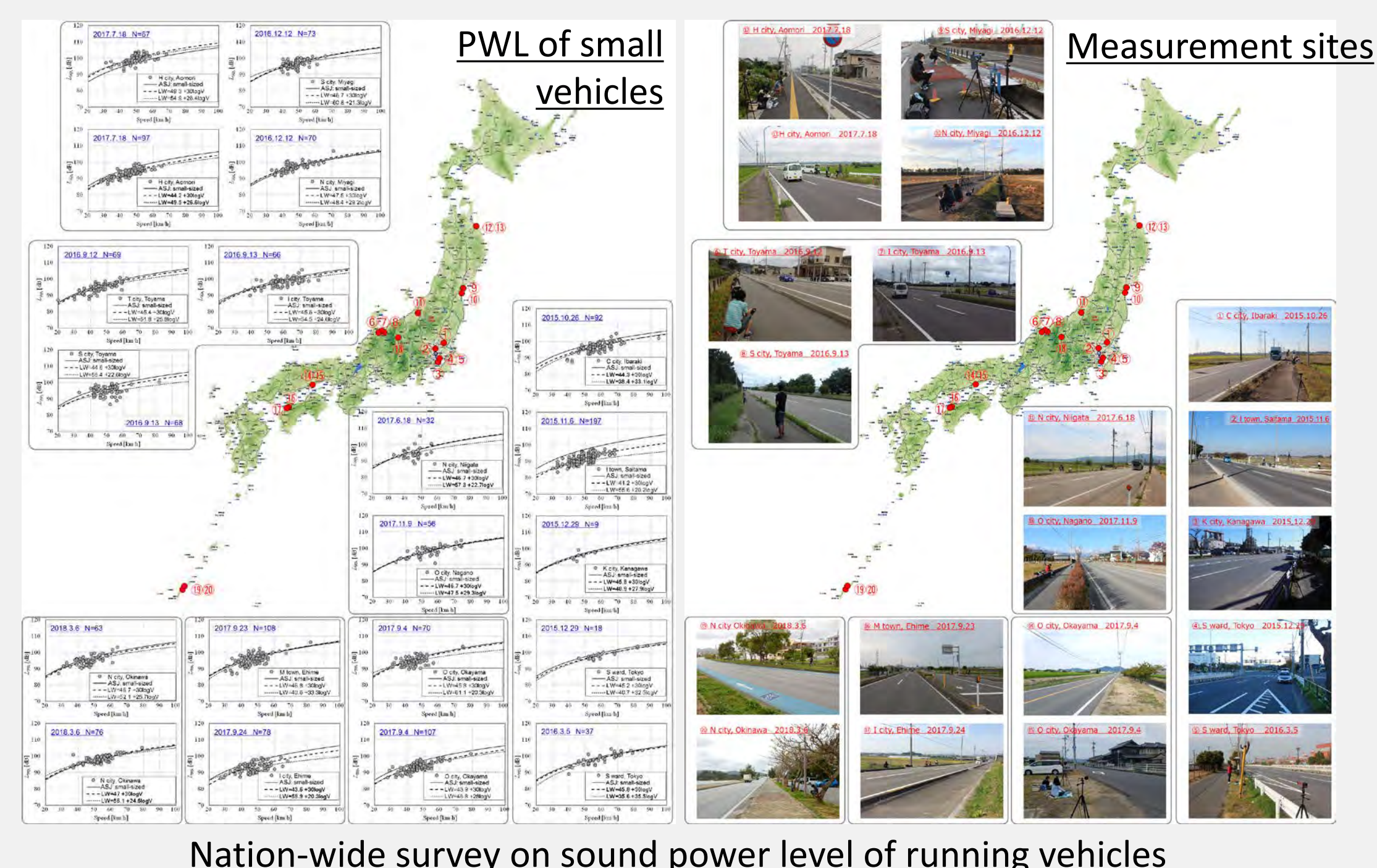
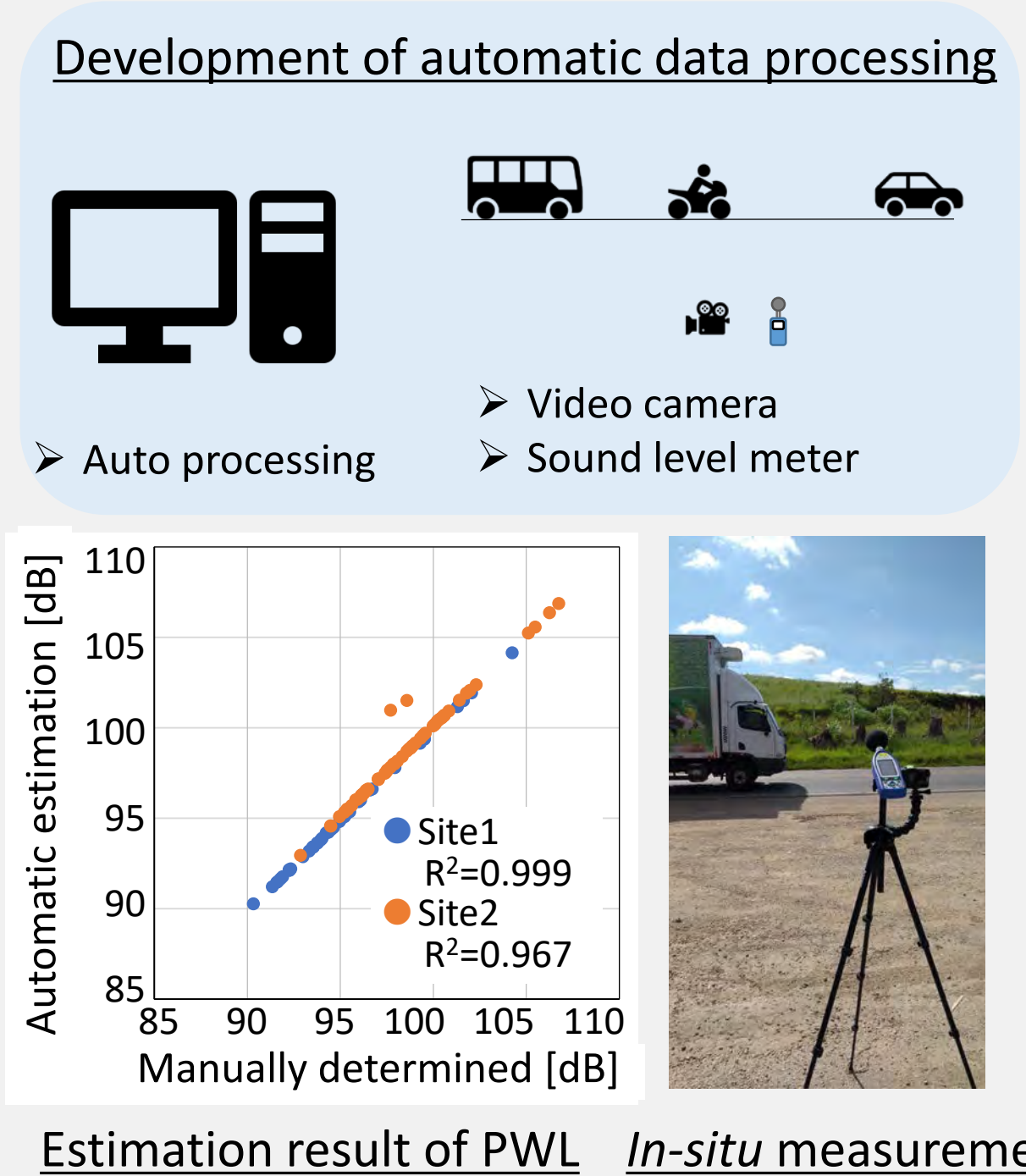
<http://www.acoust.iis.u-tokyo.ac.jp>

Measurement and Evaluation of Sound Environment in Urban City

Sounds surround our life. Sakamoto laboratory treats various issues on acoustic control, measurement, prediction and assessment, in order to realize better sound environment. Evaluation and measurement of acoustical environment will be introduced.

- ◆ **Room acoustic design** : Acoustical design of auditoria, Speech privacy, Classroom acoustics
- ◆ **Building acoustics** : Sound insulation of building façade
- ◆ **Acoustic measurement** : Impulse responses, Sound insulation, Sound reflection and absorption
- ◆ **Development of prediction methods** : Numerical analysis
- ◆ **Development of sound field simulation** : 6 channel recording-reproduction system
- ◆ **Subjective evaluation** : Concert halls, Living environments, Public spaces, Offices, Healthcare facilities, other small spaces such as a car cabin
- ◆ **Environmental noise** : Prediction model of road traffic noise, Wind turbine noise, Equipment noise

Prediction and evaluation of road traffic noise Our laboratory contributes to developing Japanese road traffic noise prediction model.



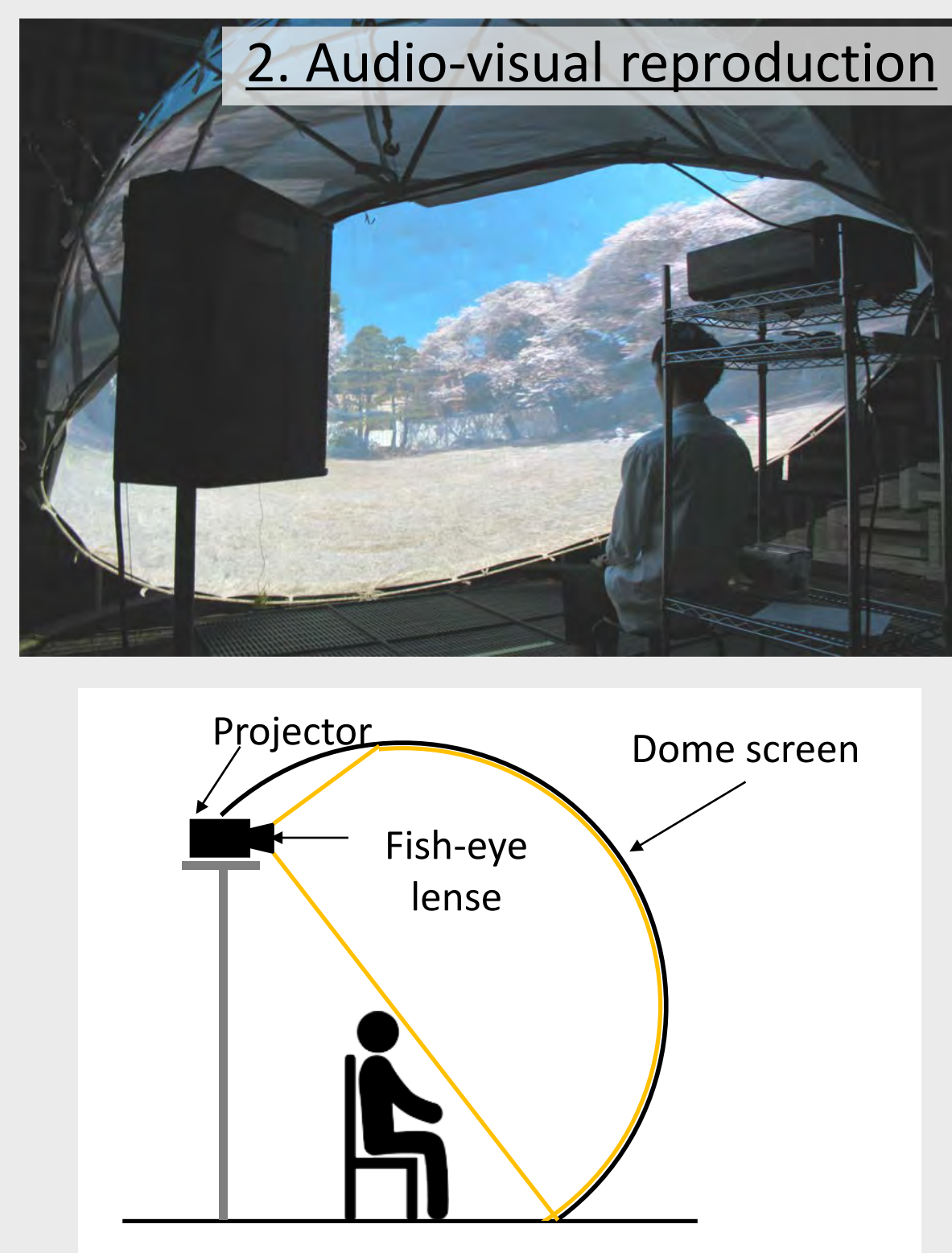
Audio-visual interaction for evaluation of environment

1. 3-D Sound field simulation system

2. Audio-visual reproduction

1. Three dimensional sound field reproduction system using 6-channel loudspeakers has been build in anechoic room.

2. Audio-visual interaction on evaluation of environment is investigated using combination system of 6-ch. loudspeakers and dome projector.



Subjective evaluation of noise with tonal components

