

SEKIMOTO LAB.

[Urban Relate Spatial Information – Science for City and People –]

Department of Human and Social Systems

Human Centered Urban Informatics

Department of Civil Engineering
 Department of Advanced Interdisciplinary Studies
 Center for Spatial Information Science

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

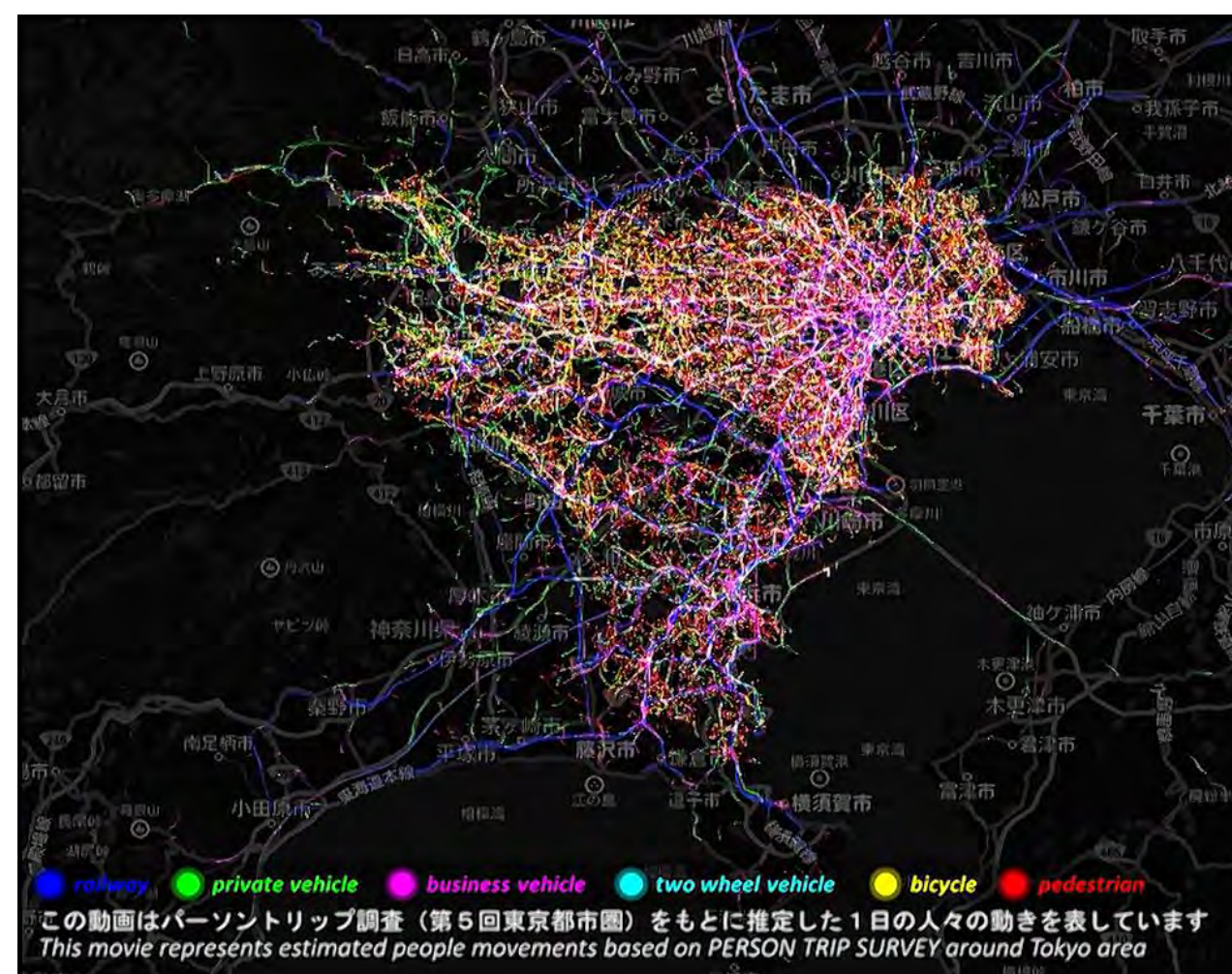
Assembling spatial information related to people, objects, and events in urban and local area helps understand past/current/future situations through compilation, analysis, and share.

We study on discovering and solving wide variety of social-issues with such spatial information.

➤ Estimating People Flow in Combination of Sensing and Behavior Modeling

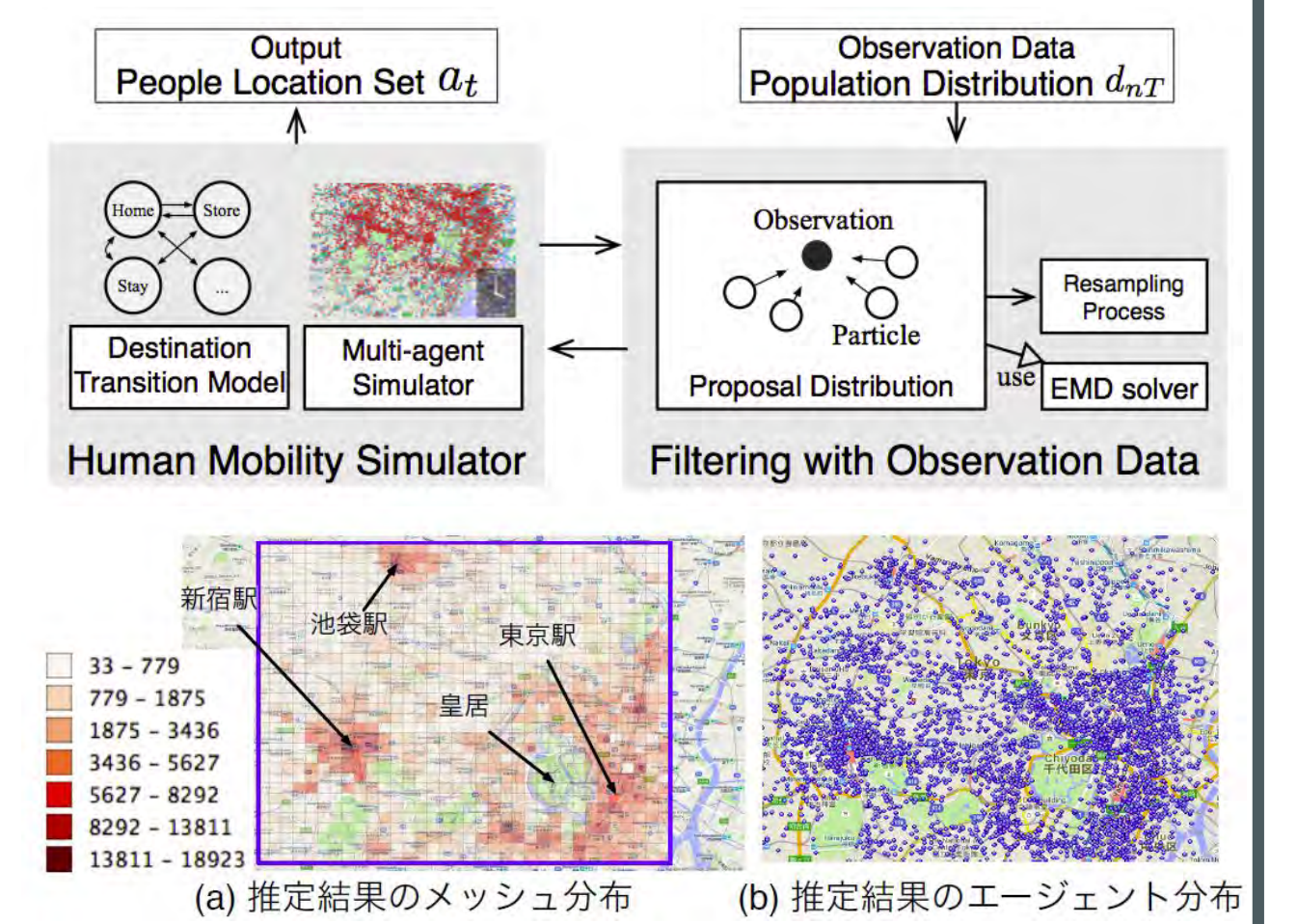
People Flow dataset

We develop datasets for people mass movement and provide the datasets to researchers and the general public.



Data Assimilation Method Approach

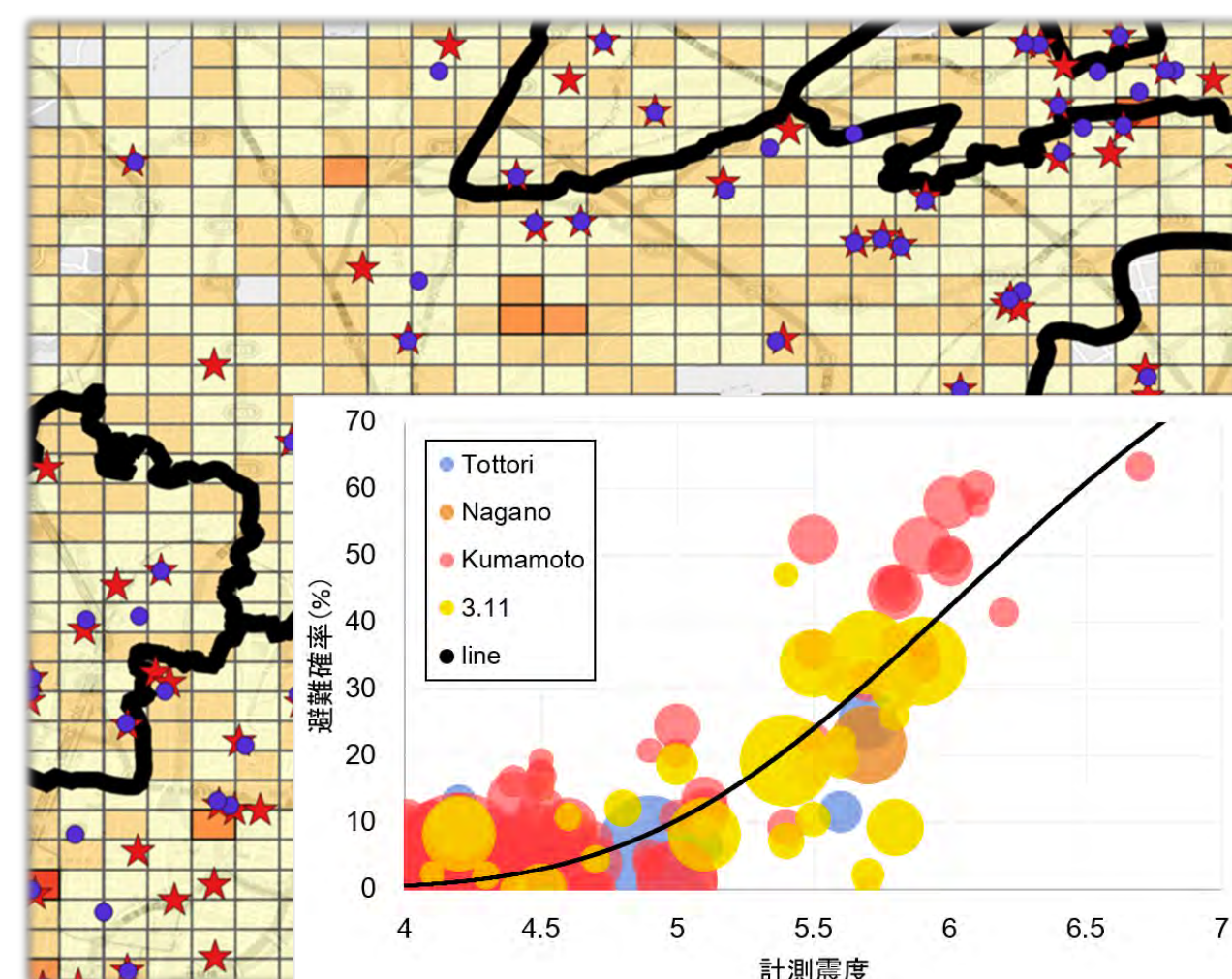
We realize highly accurate human flow estimation by assimilating observation data into behavior model.



➤ Unravelling People Movement in Specific Contexts

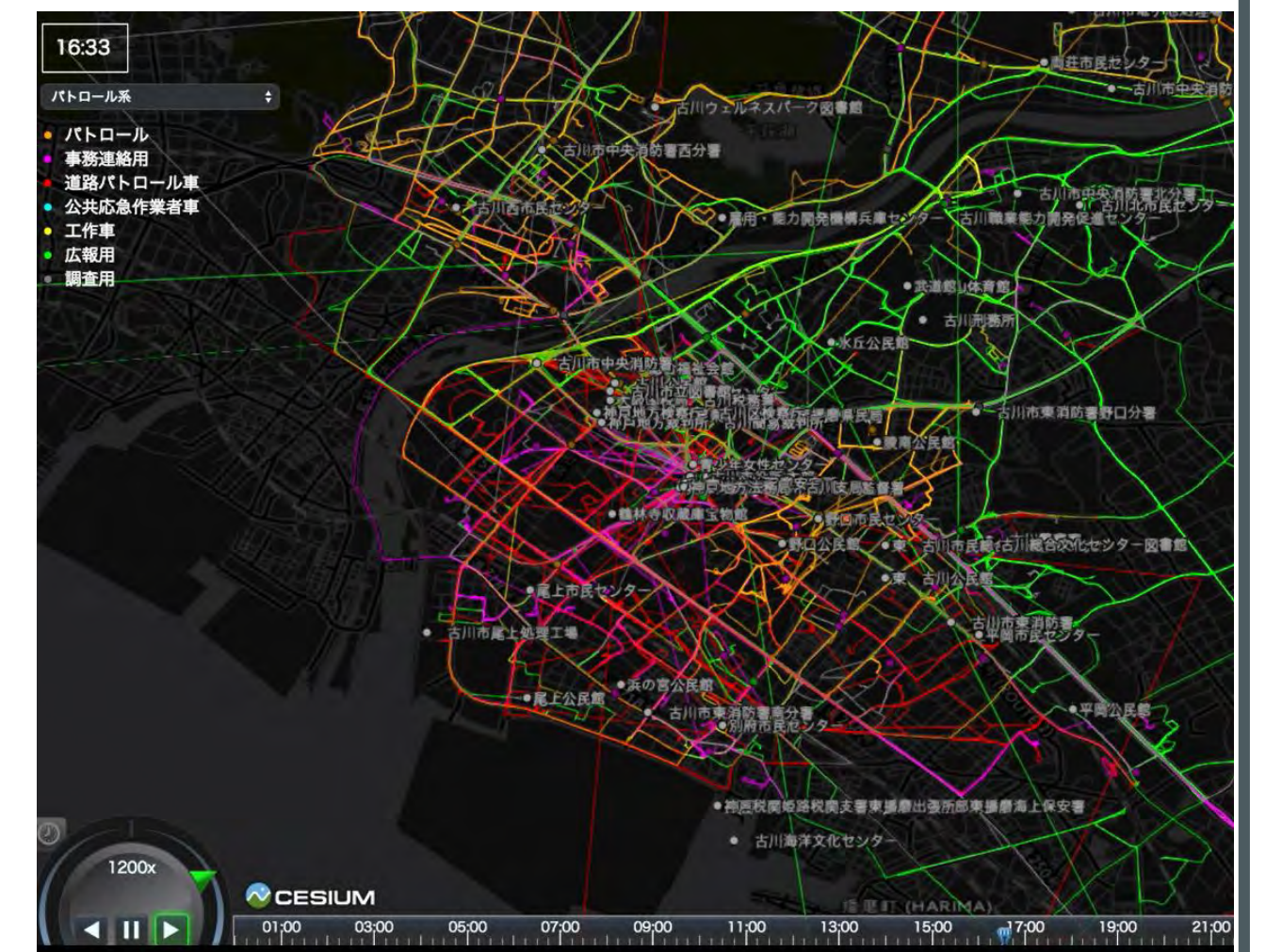
Human Movement Analysis in Disasters

We analyze irregular human behavior after disasters using location information.



Public Vehicle Analysis

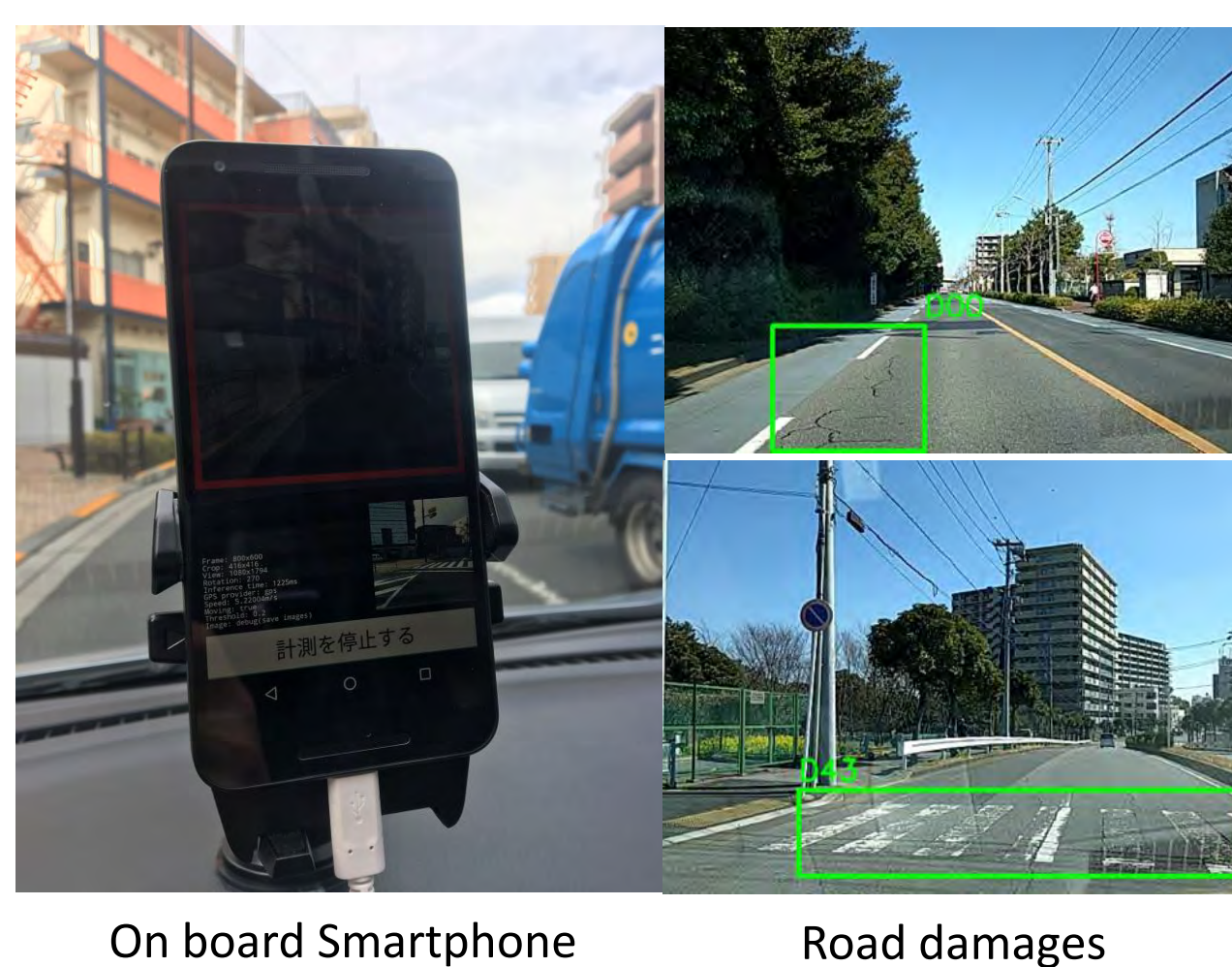
We analysis public vehicle use with GPS data and the possibility of use optimization.



➤ Monitoring Urban Infrastructure Rapidly and Cheaply

Road Monitoring

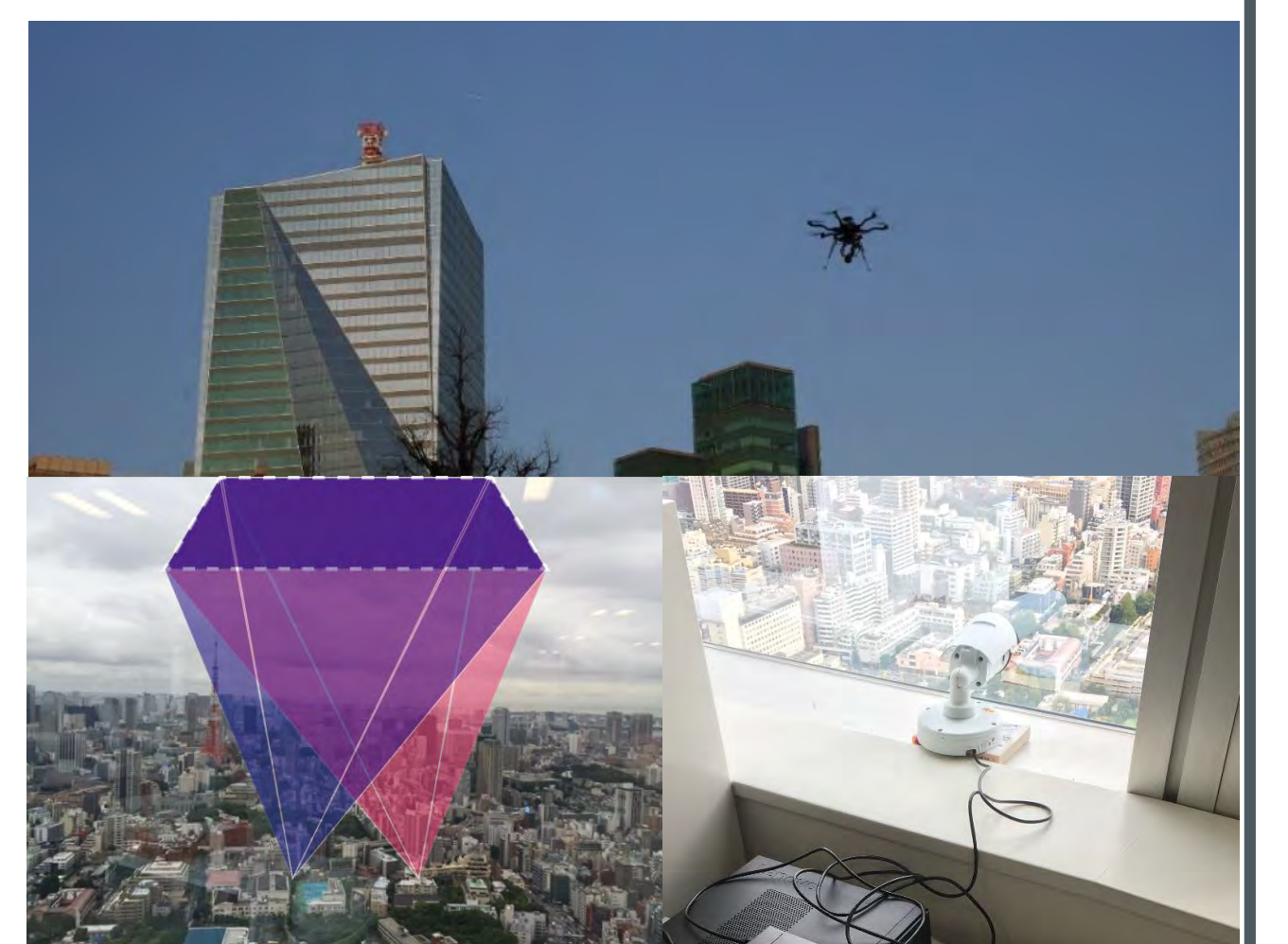
We monitor road damage by image processing using smartphone and deep learning.



On board Smartphone Road damages

Sky Monitoring

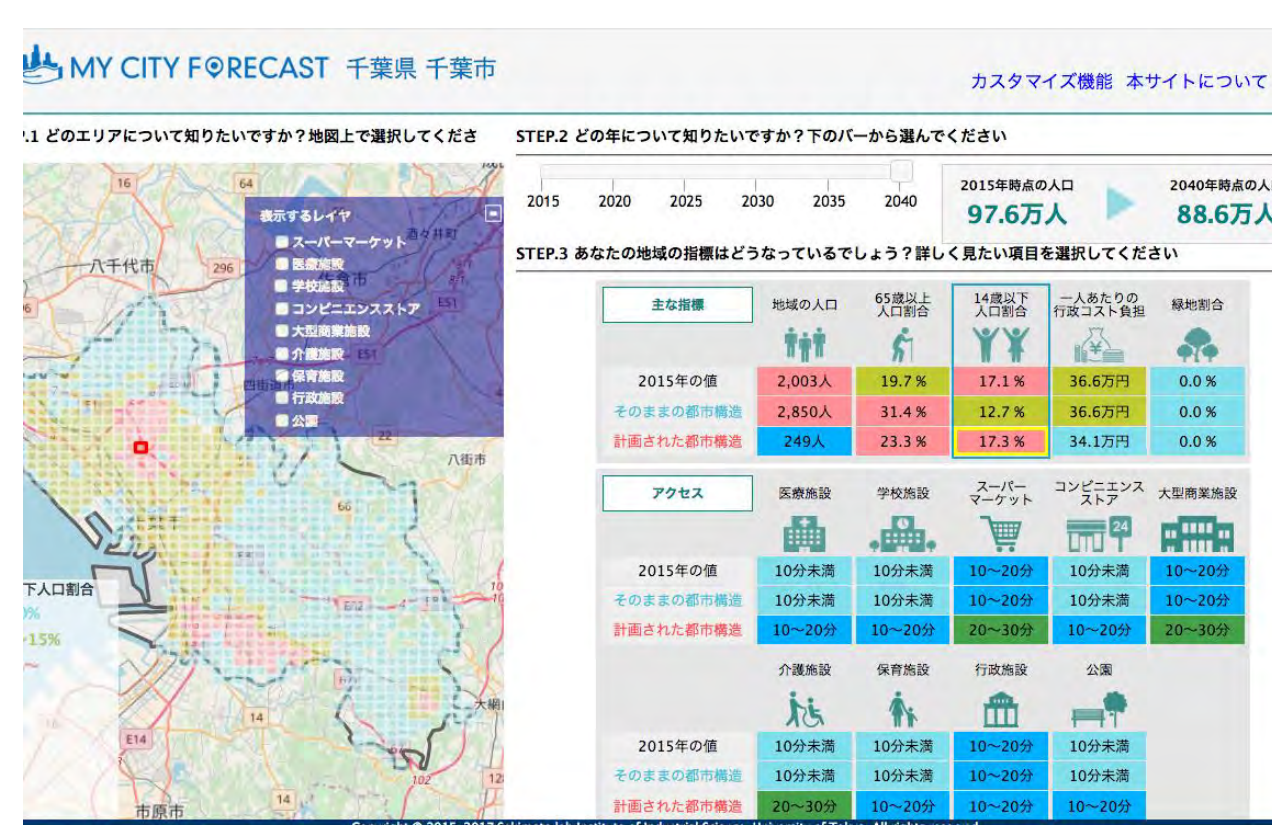
We observe the sky by image monitoring and classify flying objects.



➤ Operating Cities by Designing and Establishing Information Distribution

Urban Planning Simulator

We simulate future urban structure and visualize the results with familiar indicators.



<https://mycityforecast.net>

Distribution of Geospatial Information

We promote distribution of geospatial information held by the public and private sectors.



<https://www.geospatial.jp>