

ISTANBUL METROPOLITAN MUNICIPALITY

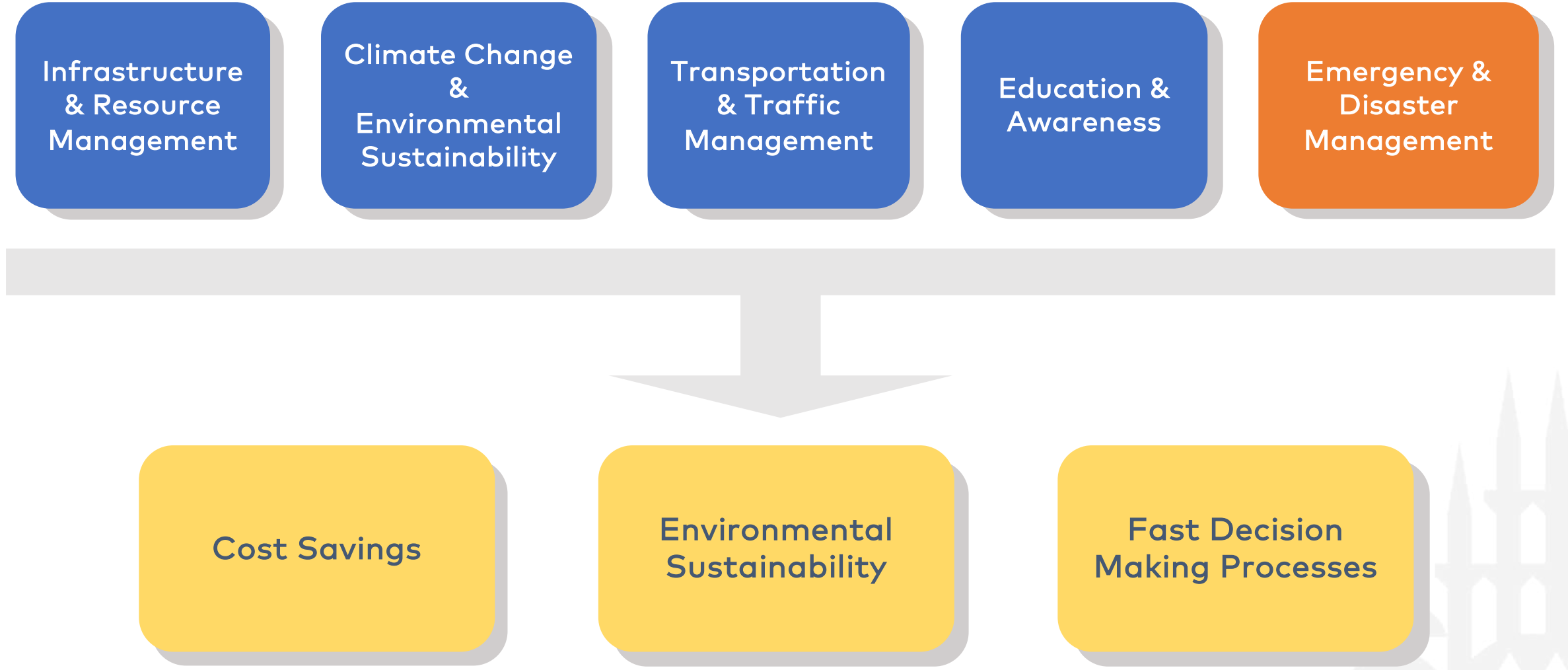
Head of IT Department
Smart City Directorate

ISTANBUL SPATIAL DIGITAL TWIN PROJECT



ISTANBUL
METROPOLITAN
MUNICIPALITY

What Kind of Digital Twin Are We Aiming for?



Disaster-specific Digital Twin Project

The disaster-specific digital twin project is a set of technologies and strategies developed to support the prediction, monitoring, analysis and response processes of real-world disasters.

This project aims to create a "digital twin" of Istanbul in a virtual environment by collecting, processing and modeling data on disaster situations.

Istanbul's digital twin focuses on studies for "Disaster", which is our country's agenda, and aims at pre-disaster risk reduction, disaster preparedness and post-disaster incident management.

Population Density



Urban Planning



Disaster-specific Digital Twin Project

Earthquake Scenario



Air Quality



Camera Viewing



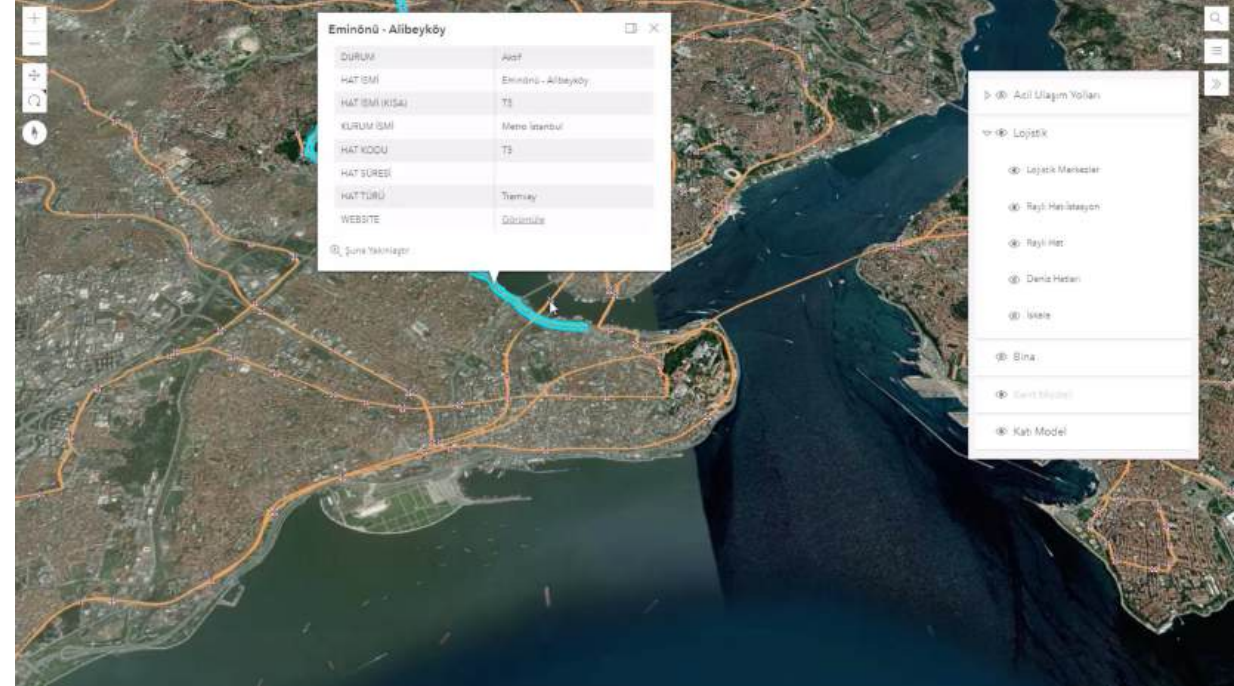
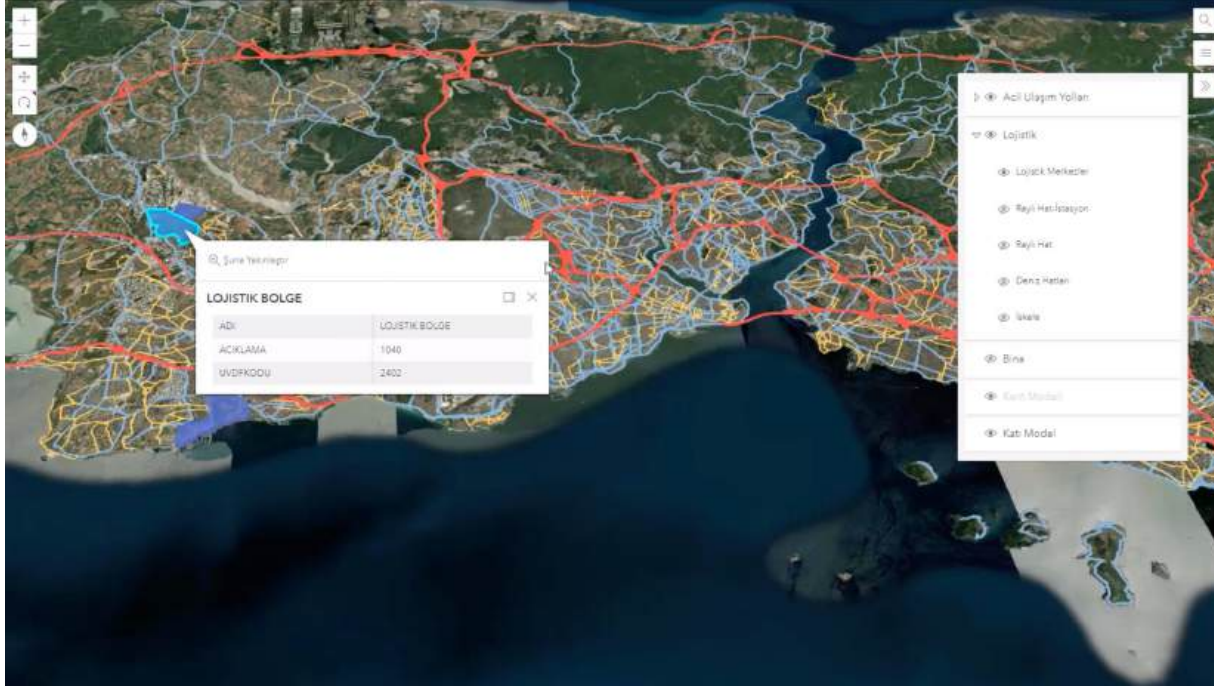
Natural Gas Distribution



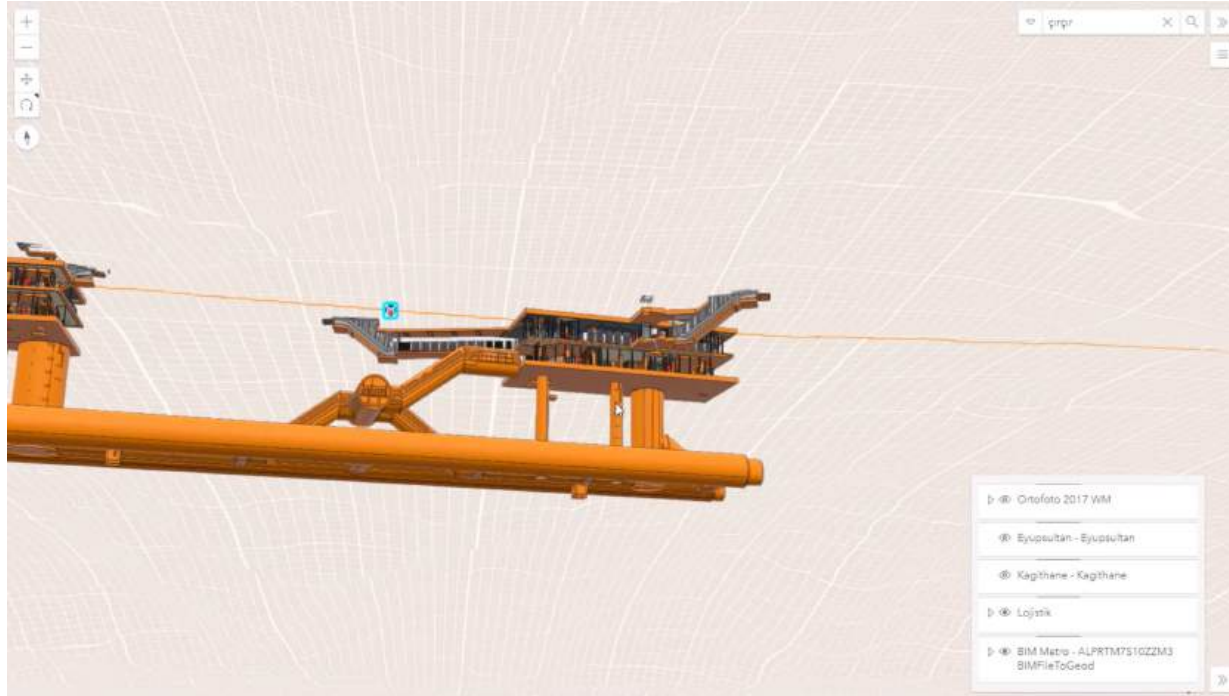
Disaster Management Scenarios

- Road Closure Analysis Customized for Emergency Scenarios
- Emergency Transportation
- Natural Gas Infrastructure
- Flood Analysis
- Integration of Damage Analysis of Critical Structures (Hazturk)
- Assembly Areas
- BIM Integration
- Art buildings, Hospitals
- Ground Characteristics
- Building Inventory
- Protected Areas

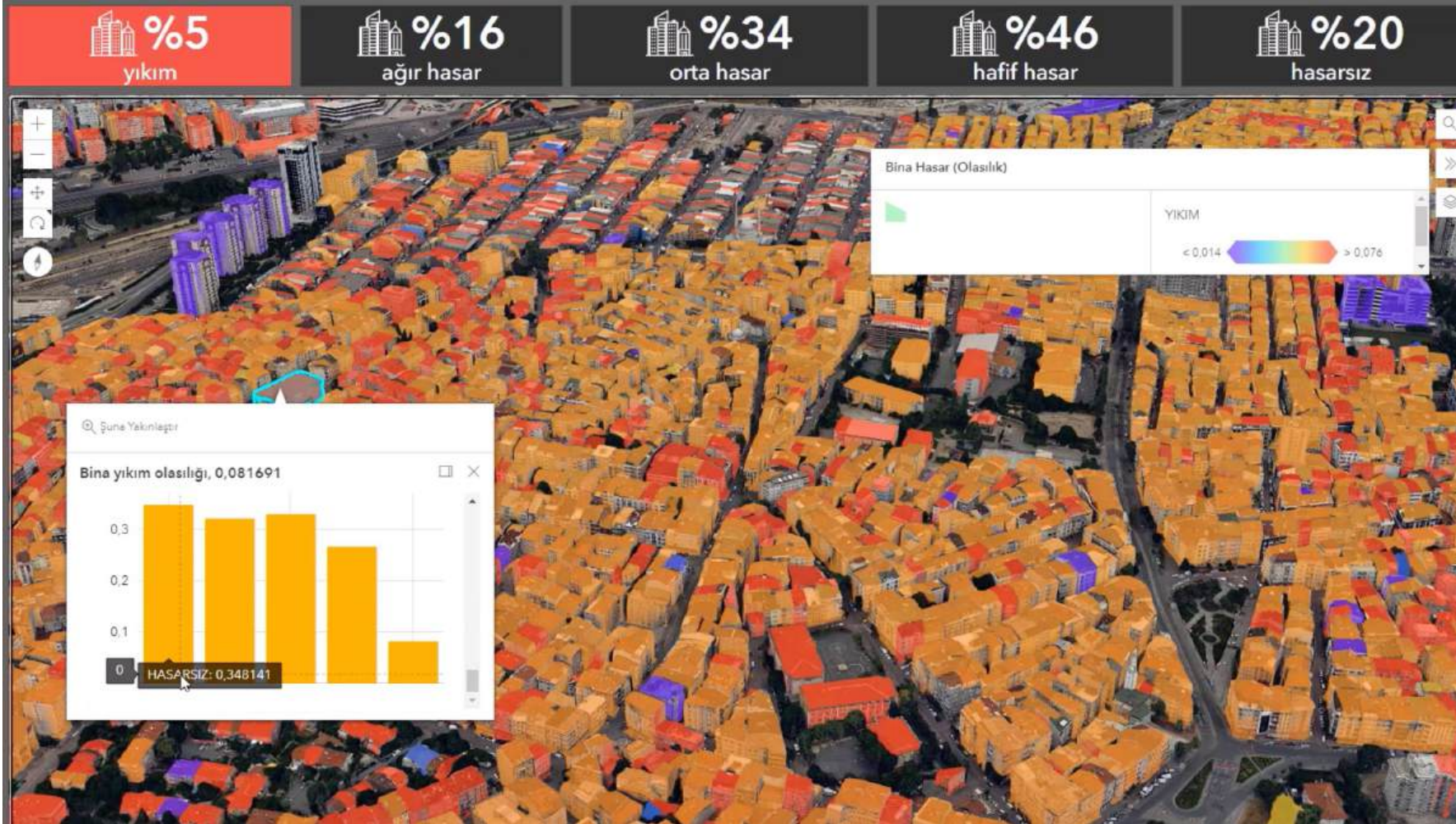
Logistics Centers



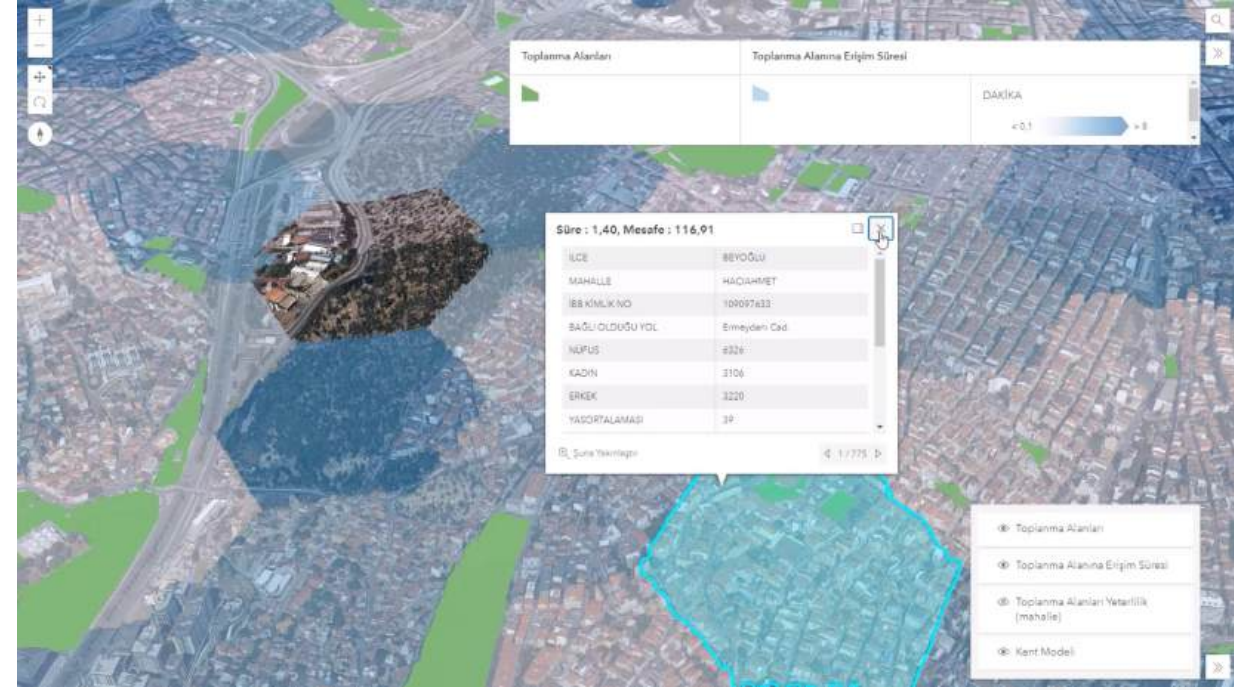
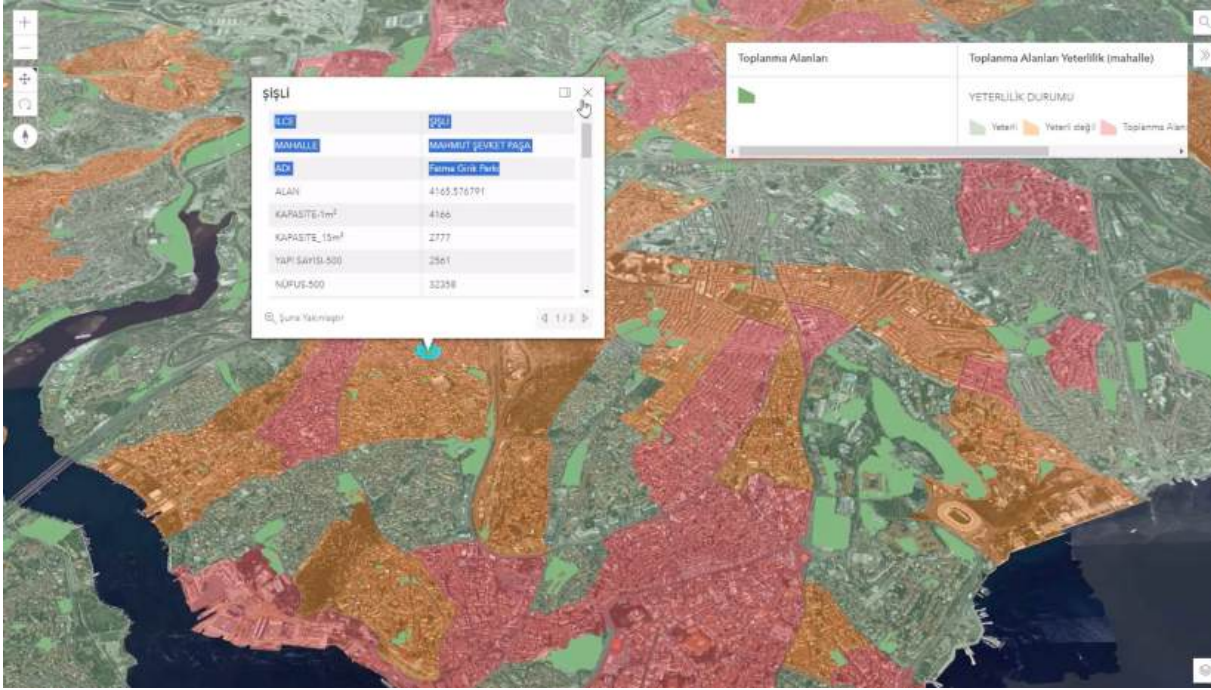
Building Information Models



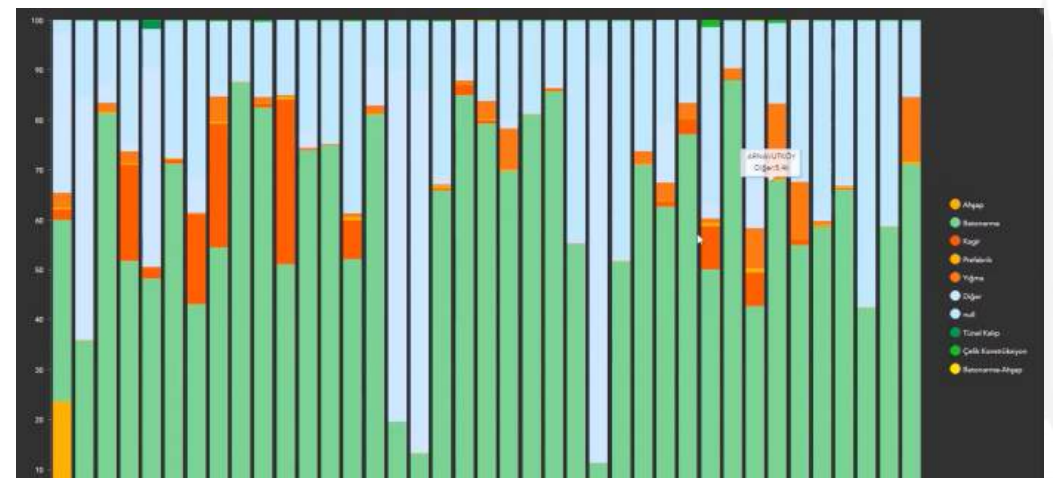
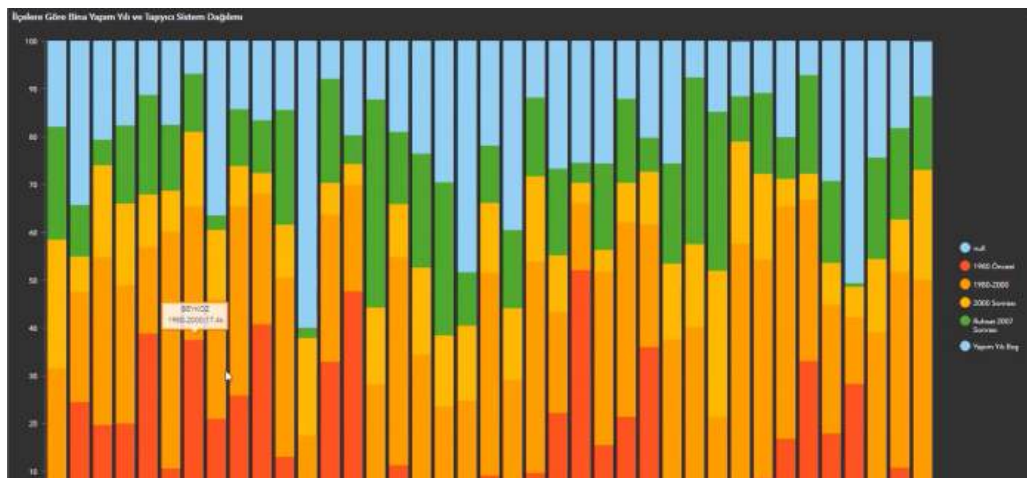
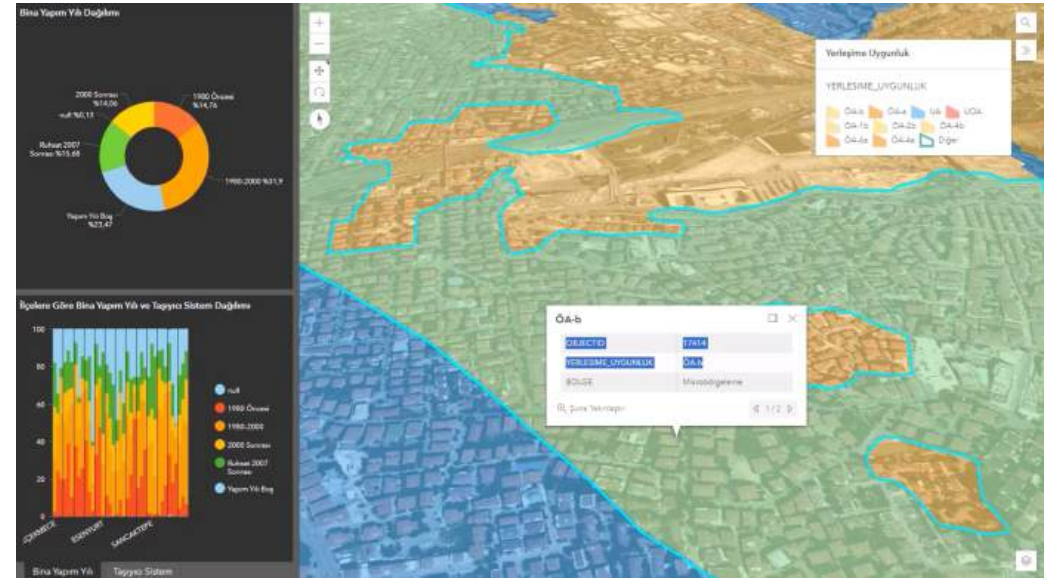
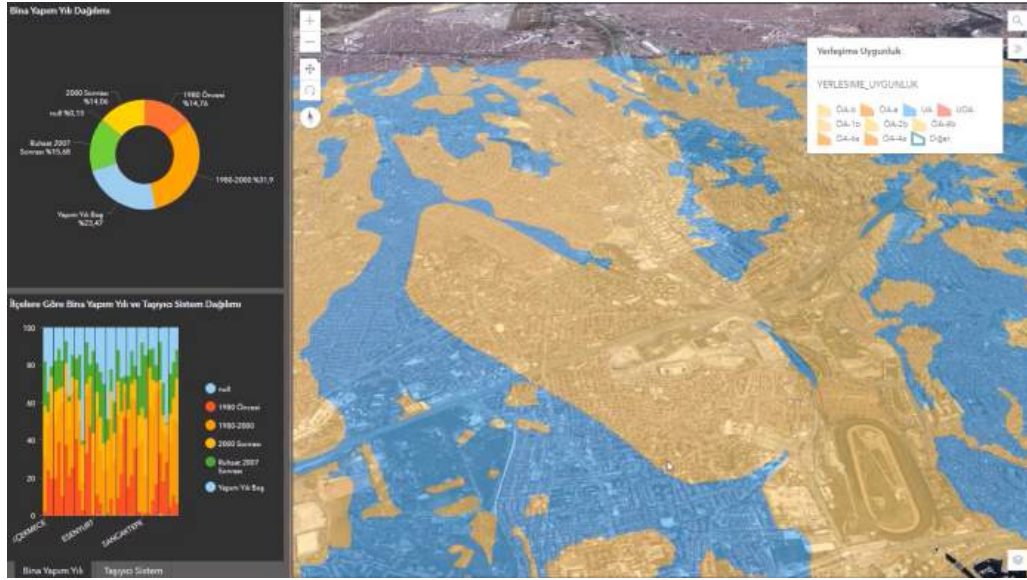
Rapid Response – Early Warning System



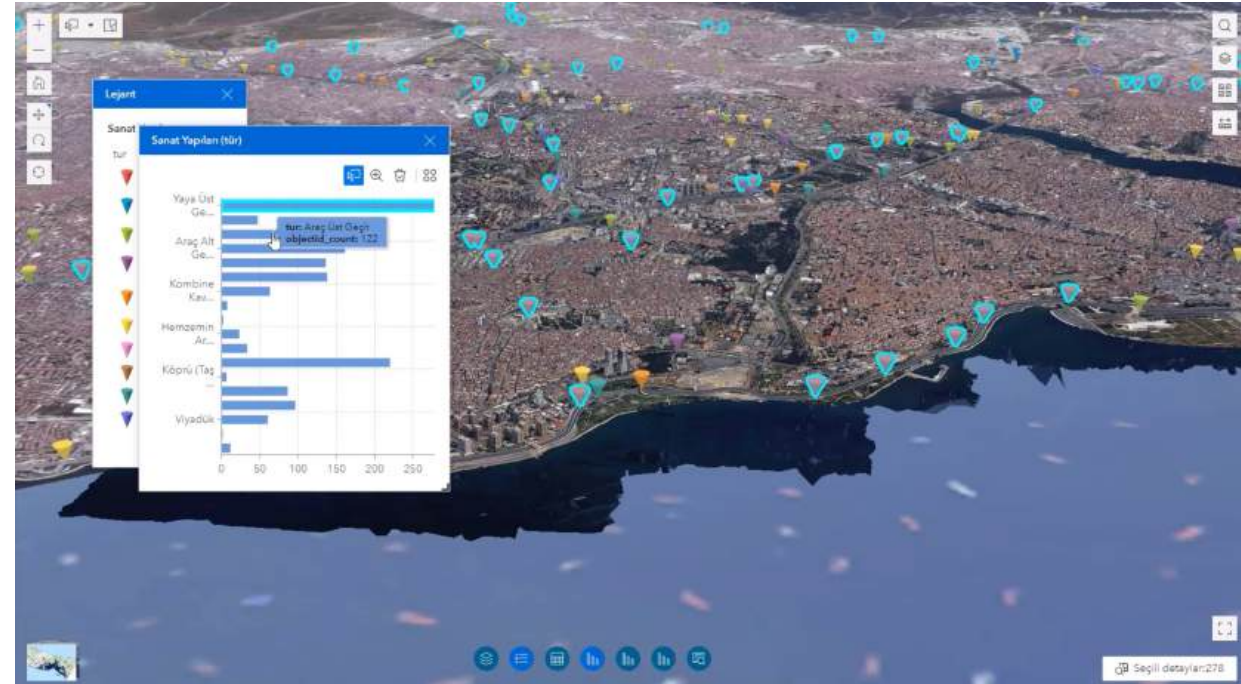
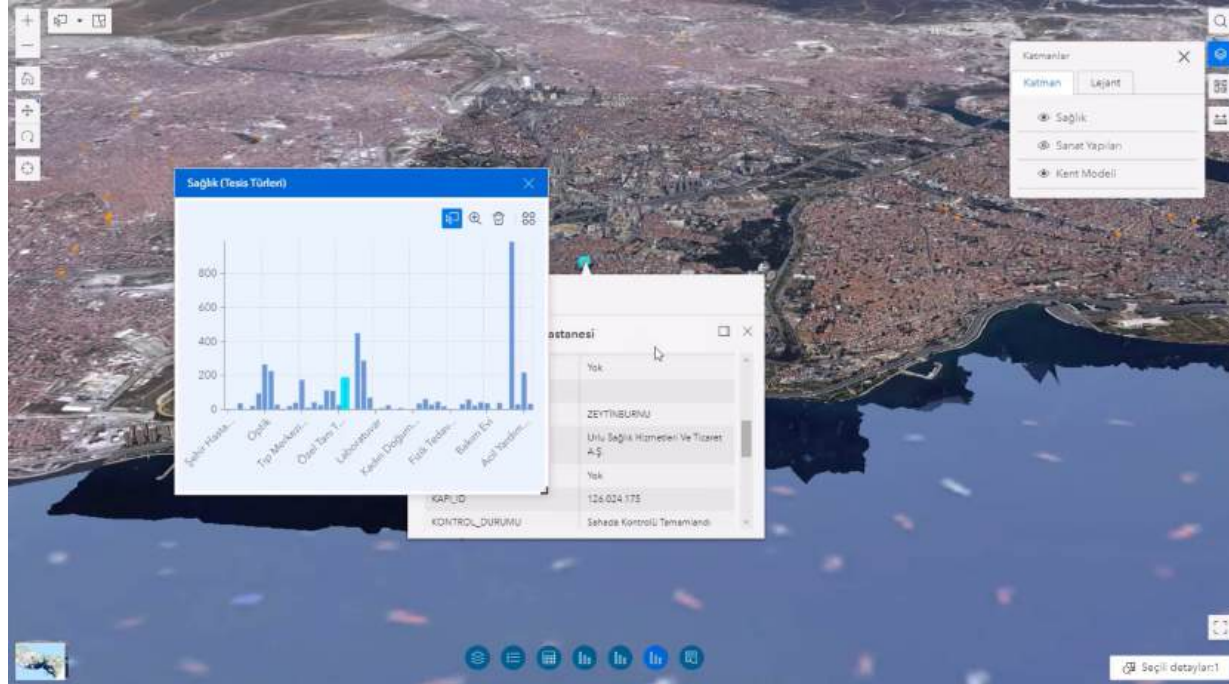
Gathering Areas



Ground Inspection



Important Buildings



Infrastructure Networks



Protected Areas

