



## Wildfire Management in Athens

### Simulation Targets

Simulation of wildfire scenarios & assessment of cascading effects.  
Decision support for prevention & resource allocation.

### Simulation Key Stakeholders

Hellenic Fire Service  
Hellenic Police, Municipalities, & Prefectures

### Technologies Used

SCDT | IoT Sensors | Satellites | UAVs | Data Sources



## Earthquake Resilience in Athens

### Simulation Targets

Simulation of earthquake impacts based on key variables  
Decision support for resource deployment  
Enhancement of situational awareness with real-time data

### Simulation Key Stakeholders

Hellenic Police – Traffic control, hazard prevention, resource coordination.  
Hellenic Fire Service – Rescue, disaster units, situational awareness, risk prevention.  
National Centre of Emergency Assistance (EKAB) – Medical triage, evacuation.  
Volunteer Organisations – Rescue, security, evacuation.

### Technologies Used

SCDT | Satellites | UAVs | Data Sources



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## Heatwave in Vienna

### Simulation Targets

Simulation of heatwave scenarios & tracking cascading effects.  
Prediction of resource usage & identification breaking points in healthcare systems.  
Optimisation of operational planning for personnel, equipment & emergency response.

### Simulation Key Stakeholders

Human Resources Managers – Monitor resource usage during heatwaves.  
Volunteer Coordinators – Simulate patient transport & hospital strain.  
Command Center Employees – Identify intervention strategies using real-time data.

### Technologies Used

Google Solar API | IoT Sensors | Sentinel Satellite Imagery | Geospatial & Health Data



## Cyber-Physical Disaster in Vienna

### Simulation Targets

Simulation of cyber-attacks (e.g., on a power plant) causing physical disasters (e.g., forest fires) without expensive real-life drills.  
Accommodation of realistic training for better preparedness.  
Solidification of disaster response & resilience strategies.  
Protection of vulnerable populations in the respective areas.  
Testing of emergency coordination & resource management.

### Simulation Key Stakeholders

First Responders – Lead disaster response, rescue & evacuation.  
Healthcare Providers – Provide medical care & manage hospital resources.  
State Authorities – Oversee management & enforce safety policies.

### Technologies Used

GIS, Weather, IoT, Cybersecurity | Neo4J, UAVs, IoT Sensors | Fire & Infrastructure Impact

# Building Tomorrow's Community Disaster Resilience

Community-Based Smart City  
Digital Twin Platform for Optimised Disaster Risk Management operations and Enhanced Community Disaster Resilience



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