



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



Partners



Contact!



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Building Tomorrow's Community Disaster Resilience



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



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 relevant 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.

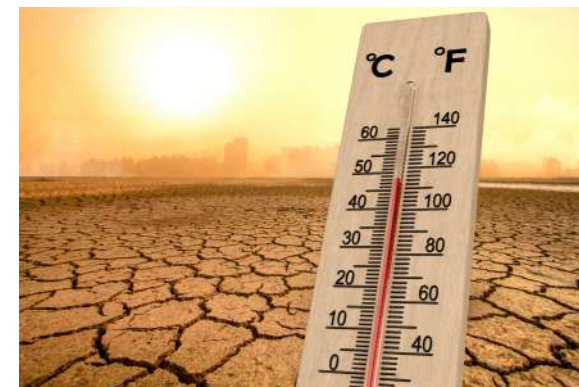


Technologies Used

SCDT | Satellites | UAVs | Data Sources



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



PANTHEON