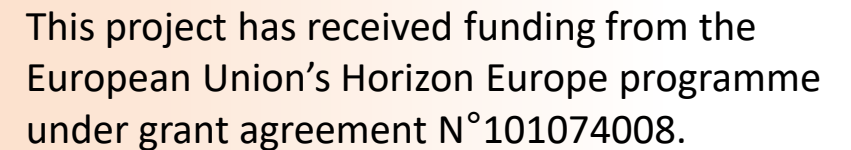
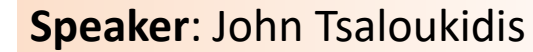




International Hellenic University – Global Catastrophic Risk Event 03-04/04/2025



The PANTHEON focus will be on utilising Smart City Digital Twin (SCDT) tech & other emerging innovations to...

advance the existing risk assessment methods

mitigate potential vulnerabilities

build a strong community disaster resilience foundation

To achieve these improvements, the PANTHEON consortium will work on...

- ⚙️ a **smart city digital twin environment** entailing components suitable for simulations, training and evaluation of the behaviour of sub-systems, threats and the human factor.
- ⚙️ an **early Detection and Situational awareness environment** that can assist authorities with being alert about imminent incidents even in remote and hazardous locations.
- ⚙️ an **integrated intelligent subsystem** employing collaborative sensing from earth observations and UAV technology.

Pantheon Steps

- Step 1: Mapping and assessment of natural and anthropogenic hazards, that affect the pilot areas of the project, Greece and Austria.

Greece		Impact				
		Very Low	Low	Moderate	High	Very High
Likelihood (Hazard)	Almost certain - Very High			Heatwaves		Wildfire
	Likely-High					
	Possible-Medium			Cyber Attack	Earthquake / Flood	
	Unlikely-Low		Landslide	Terrorist Attack		
	Rare-Very Low					

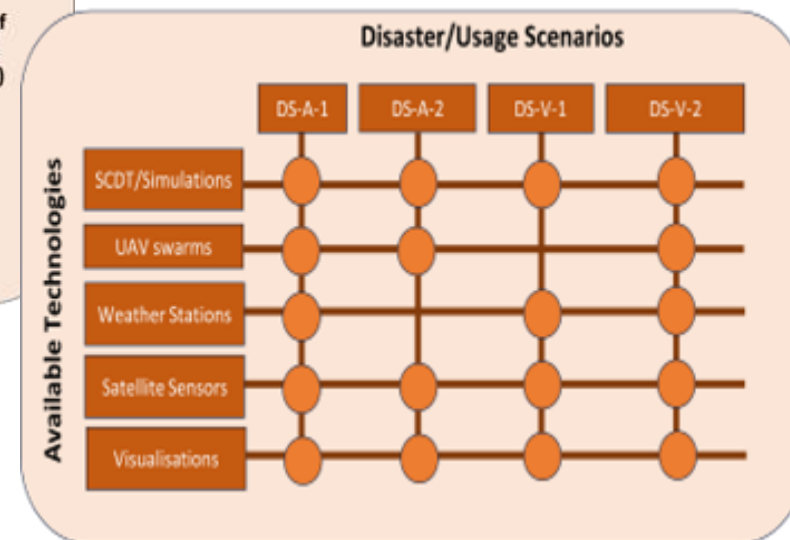
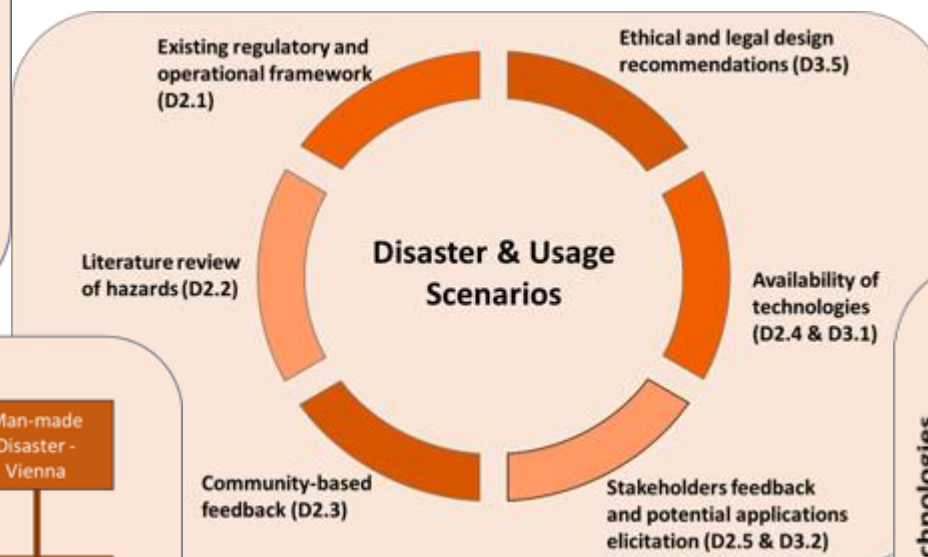
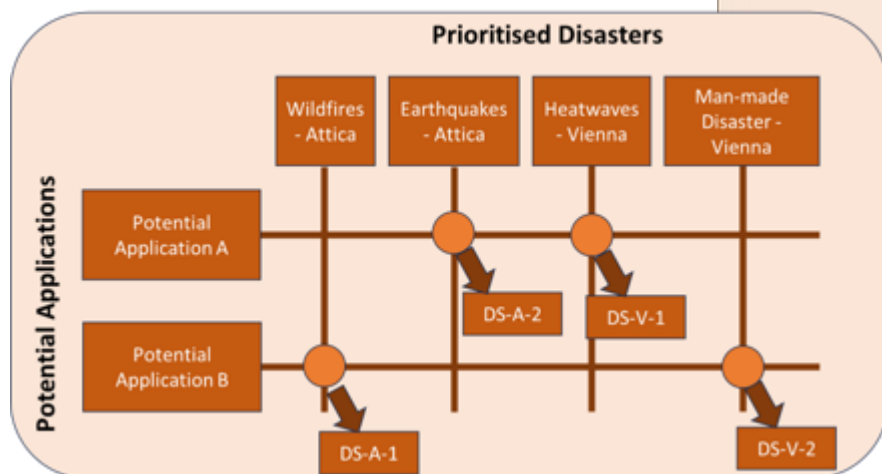
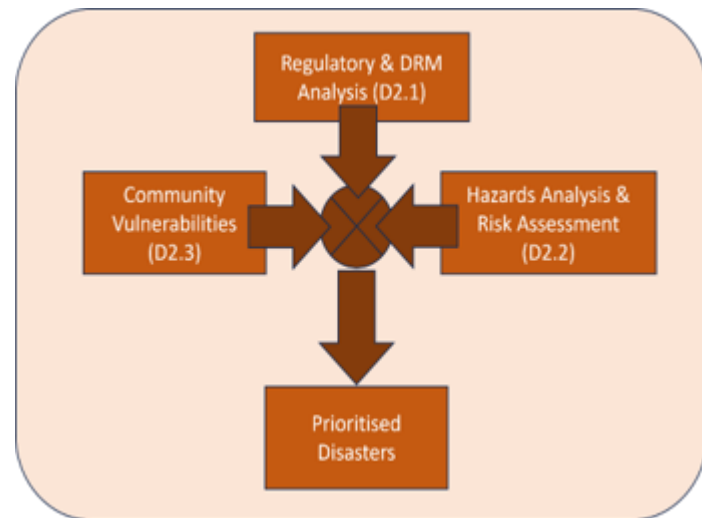
Austria		Impact				
		Very Low	Low	Moderate	High	Very High
Likelihood (Hazard)	Almost certain - Very High					
	Likely-High				Heatwave	
	Possible-Medium		Earthquake / Flood	Wildfire	Technological Accident / Terrorist Attack / Cyber-attack	
	Unlikely-Low					
	Rare-Very Low		Landslide / Avalanche			

Risk	Low	Moderate	High	Very High
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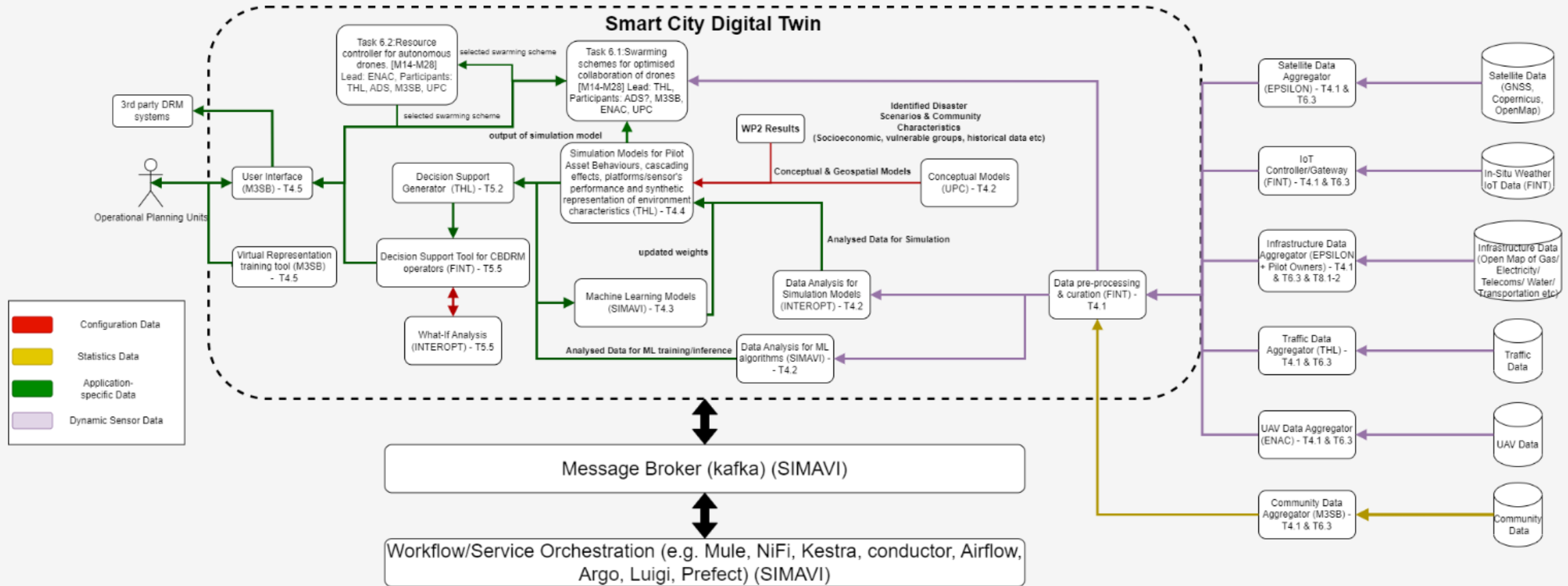
Pantheon so far

- Analysis of the EU, national (Greece and Austria) and regional (Attica Region, Vienna Province) disaster management regime, i.e., civil protection plans and initiatives and disaster management strategies.
- Community vulnerability and capacity assessment with a focus on social vulnerability.
- Definition of use cases based on literature review and technological developments.

- **Use case 1:** Planning and early warning according to simulations: Models and simulations based on big amounts of data are being used to estimate the evolution of disaster scenarios thus supporting the development of emergency plans, giving prognosis or serve as early warning systems through continuous monitoring.
- **Use case 2:** Training and exercises: Bridging the gap between expensive large-scale exercises and abstract table-top exercises, the SCDT facilitates cross-organisational trainings increasing the mutual understanding of needs during disaster response and shedding light on blind spots.



SCDT Architecture



Next steps for the 3rd year of the Project

- Finalisation of the SCDT systems and of each component.
- Detailed scenario building and elaboration of the Use Cases with the participation of PANTHEON's end users.
- Exercise planning and conduct in Greece and Austria, followed by the evaluation from the end users' perspective.

For further information you can visit the official of the [PANTHEON Website](#).

PANTHEON contacts:

John Tsaloukidis: j.tsaloukidis@kemea-research.gr

Anna Tsabanakis: anna.tsabanakis@twi.gr

Mike Karamousadakis: mike.karamousadakis@twi.gr

Thank You!



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