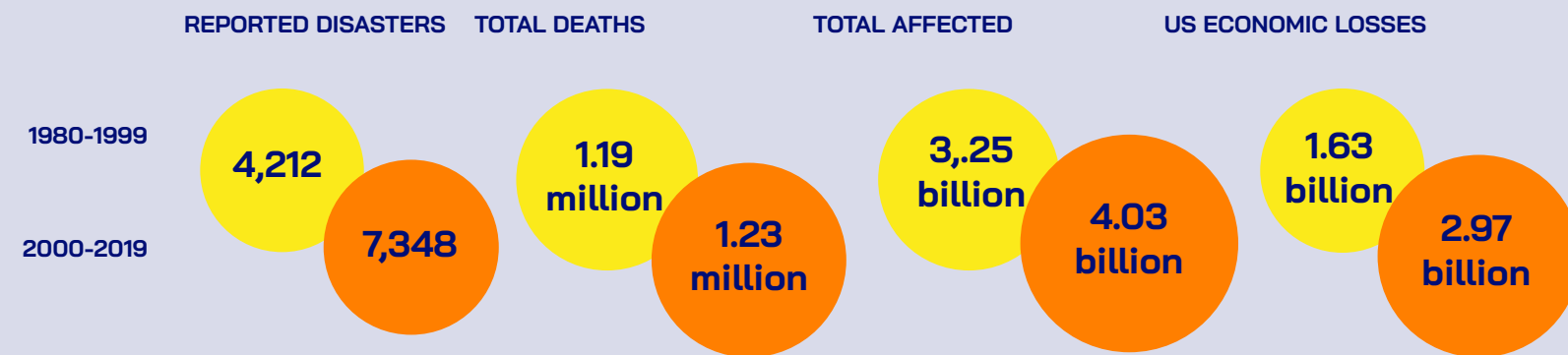


ICARIA: IMPROVING CLIMATE RESILIENCE OF CRITICAL ASSETS

WHY



Promote the use of a comprehensive asset level modelling framework to achieve a better understanding about climate related impacts produced by complex, compound and cascading disasters and the possible risk reduction provided by suitable, sustainable and cost-effective adaptation solutions.

WHAT



WHO

PROJECT PARTNERS			COPS
ORGANIZATION	COUNTRY	ROLE	CoPs (communities of practices) created in each study:
1. AQUATEC	ES	Coordinator (C)	<ul style="list-style-type: none"> Provide requirements Feedback on the methods and tools developed and implemented <p>3rd parties:</p> <ul style="list-style-type: none"> Local governments Public and private asset operators Civil society actors Other relevant stakeholders
2. UPC	ES	Transversal cross-cutting partner (TCCP)	
3. CETAQUA	ES	Case study facilitator (CSF)	
4. AB	ES	Case study facilitator (CSF)	
5. FIC	ES	Case study facilitator (CSF)	
6. IREC	ES	Case study facilitator (CSF)	
7. UNEXE	UK	Case study facilitator (CSF)	
8. DEMOKRITOS	GR	Case study facilitator (CSF)	
9. LNEC	PT	Case study facilitator (CSF)	
10. DRAXIS	GR	Case study facilitator (CSF)	
11. CERTH	GR	Case study facilitator (CSF)	
12. PLINIVS	IT	Case study facilitator (CSF)	
13. AIT	AT	Case study facilitator (CSF)	
14. AMB	ES	Risk owner (RO)	
15. SAR	GR	Risk owner (RO)	
16. VERB	AT	Risk owner (RO)	

B. Russo
AQUATEC proyectos para el sector del agua and Technical University of Catalunya (UPC)

A. de la Cruz
AQUATEC proyectos para el sector del agua;

M. Guerrero
CETAQUA, Water Technology Center

D. Pacheco
CETAQUA, Water Technology Center

M. Leone
Universita degli Studi di Napoli Federico II

B. Evans
University of Exeter

R. Salgado
Laboratorio Nacional de Engenharia Civil (LNEC)

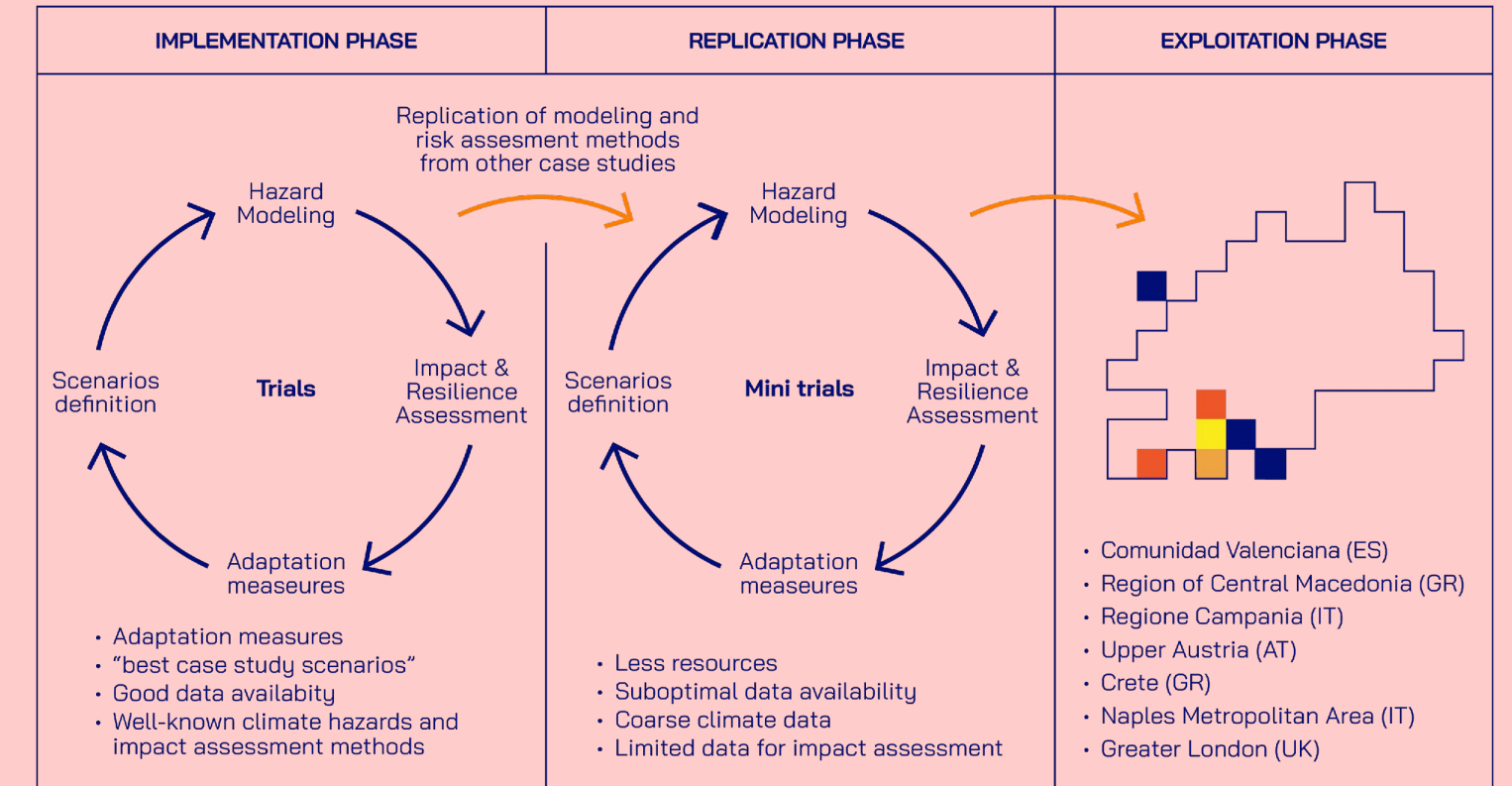
D. Havlik
Austrian Institute of Technology GMBH (AIT)

T. Sfetsov
National Center For Scientific Research "Demokritos"

WHERE

	BARCELONA METROPOLITAN AREA		SOUTH AEGEAN REGION		SALZBURG REGION	
	Trial	Mini trial	Trial	Mini trial	Trial	Mini trial
Hazards	Floods, Storm surges	Heat waves, Forest fires, Droughts, Storm winds	Heat waves, Forest fires, Droughts, Storm winds	Floods, Storm surges	Floods, Storm surges	Heat waves, Forest fires, Droughts, Storm winds
Assets/services	Properties, Natural areas, Transport, Water assets, Electricity assets, Waste assets	Properties, Natural areas, Transport, Water assets, Electricity assets, Waste assets	Properties, Natural areas, Transport, Water assets, Electricity assets, Waste assets	Properties, Natural areas, Transport, Water assets, Electricity assets, Waste assets	Properties, Natural areas, Transport, Water assets, Electricity assets, Waste assets	Properties, Natural areas, Transport, Water assets, Electricity assets, Waste assets
Tangible impacts	Flood Damage	Water demand / supply, Energy demand / supply	Flood Damage	Water demand / supply, Energy demand / supply	Flood Damage	Water demand / supply, Energy demand / supply

HOW



KEY OUTCOMES

- Technological results:**
- Climate Multi-Hazard modeling tools
 - Holistic climate resilience assessment tool
 - Portfolio of adaptation solutions
 - Decision Support System for adaptation to extreme and compound events with cost-effective measures.
- Scientific results:**
- Project framework for climate multi-hazard holistic assessment at a regional level
 - Regional climate projections in long term considering the local socio-economic dimension
 - Methods for mending the data gaps and uncertainty analysis for the risk and impact models
 - Climate-related multi-risk tangible impact assessment method
 - Multi-risk and resilience assessment for the 3 case studies
 - Replication, sustainability and explorations of ICARIA results.

CURRENT SCENARIO	BUSINESS AS USUAL (BAU)	ADAPTATION SCENARIOS (MANY)
<p>Data: Climate, Asset, Vulnerability functions</p> <p>Multi-hazard modelling</p> <p>Assessment: Risk, Resilience</p> <p>Results: Expected annual damage (EAD), Risk maps, Resilience metrics</p>	<p>Data</p> <p>Multi-hazard modelling: Climate modeling for long term projections</p> <p>Assessment</p> <p>Results</p>	<p>Data</p> <p>Multi-hazard modelling: Climate modeling for long term projections, Portfolio of adaptation solutions</p> <p>Assessment</p> <p>Results</p>
<p>Scenario comparison</p>	<p>Results: Costs-benefit analysis (CBA), High Risk reduction (%), Resilience increase, Best scenario</p>	<p>Users: Decision makers, Asset and service managers, Other stakeholders</p>

More info: www.icaria-proect.eu