

ARCH Hyperion Hyperion





What's the Task Force about?

New Challenges for Europe's Cohesion

R&I Task Force established by the Horizon 2020 projects **ARCH**, **HYPERION**, and **SHELTER** in 2021.

Aims to bridge the gap between sustainable urban development, resilience planning, and heritage management.

By bringing together **research projects**, **practitioners**, **and policymakers** to

→Identify and discuss **challenges**, **opportunities**, **and best practices** for resilient historic districts

 \rightarrow Give **recommendations** to researchers, practitioners, policymakers, funding bodies, and other for addressing challenges and opportunities as well as **better take-up of best practices**.

 \rightarrow Increase **awareness** of the role of historic districts in resilience planning – with their unique value and importance

With the end goal to **coordinate efforts on climate resilience** in accordance with **protection and preservation of heritage**.





What's the Task Force about?

New Challenges for Europe's Cohesion

°ARCH



3 SISTER PROJECTS

Topic LC-CLA-04-2018: **Resilience and sustainable reconstruction** of historic areas to cope with climate change and hazard events

Starting 19 June 2019

Budget around 6,000,000 euros





ARCH at a glance

New Challenges for Europe's Cohesion

Type Timeframe Budget **Partners** Fraunhofer



H2020 Research & Innovation Action

June 2019 – August 2022



ControlContr		ARCH pilo	ARCH pilot cities		New Challenges for Europe's Cohesion	
			Camerino	And the second		
Hazards		Extreme precipitation, pluvial flooding, extreme temperatures, erosion	Earthquakes, mass movements, extreme precipitation, air pollution	Subsidence, extreme temperatures, wave action, sea level rise, insects & microorganisms	Extreme temperatures, extreme precipitation, sea level rise, coastal erosion, insects & microorganisms	
Pilot site(s)	Old town centre, Devin castle ruin	Old town centre, Santa Maria in Via Church, Ducal Palace	World Heritage Site Speicherstadt & Kontorhausviertel	Huerta de València & Albufera de València	
Heritage t	туре	Historical nuclei, historic and monumental buildings, archaeological sites	Historical nuclei, historic and monumental buildings, movable heritage	Historical nuclei, historic and monumental buildings, groups of separate or connected buildings	Cultural landscapes	



HYPERION at a glance

New Challenges for Europe's Cohesion

A Decision Support System for Improved Resilience and Sustainable Reconstruction of historic areas

Budget 5 997 728.75 € **Timeline** June 2019 to November 2022

Partners 18

ENGINEERING +

DEVELOPMENT

ILMATIETEEN LAITOS METEOROLOGISKA INSTITUTET NISH METEOROLOGICAL INSTITUTE

COUNTY COUNCIL

MINISTRY OF CULTURE AND SPORTS







HYPERION test sites – use cases

- Granada
- Rhodes

•

- Tonsberg
- Venice









New Challenges for Europe's Cohesion

Use case classification

Timing **Pre-event** Trans-event Post-event Knowledge None Given damage Given hazard **Time frame** Short term Long term





#EURegionsWeek

SHELTER at a glance

New Challenges for Europe's Cohesion

Sustainable Historic Environments hoListic reconstruction through Technological Enhancement & community based Resilience

Data-driven and community-based Resilience of Historic Areas

Budget 5.999.451 € Timeline 4 years (June 2019-May 2023) Partners 23







SHELTER Open Labs

- Ravenna
- Seferihisar
- Dordrecht
- Baixa-Lima
 - Sava river basin

New Challenges for Europe's Cohesion

5 Open Labs with different

→Scales
→Mix of hazards
→Cultural and Natural Heritage
→Governance structures
→Experience and availability of data and tools

to maximize replicability















R&I Task Force **Process**

For researchers / industry professionals

New Challenges for Europe's Cohesion

Kick-off Meeting: June 23, 2021

 \rightarrow Policy perspective for resilient historic urban districts

- \rightarrow Scientific gaps in achieving resilience for historic urban districts
- → On-the-ground challenges for resilient historic urban districts

Second Meeting: December 14, 15 2021

- → problems, opportunities, and best practices from their daily practice, as well as methods and tools
- \rightarrow MIRO board exercise in the 3 thematic areas

Third Meeting: June 3, 2022

- \rightarrow Validation of the identified challenges
- \rightarrow MIRO board exercise linking challenges with recommendations

Presentation for feedback:

- → Symposium: Heritage for the Future / Science for Heritage: A European Adventure for Research and Innovation (March 15-16, Paris)
- → Urban Agenda CCH final event (Rome, 2022-06-21)



#EURegionsWeek

For praticioners:

What problems do you face when assessing conitoring, and evaluating risk and resilience



R&I Task Force White Paper



Paving the Way for Climate Neutral and Resilient Historic Districts



New Challenges for Europe's Cohesion

Authors

Daniel Lückerath, Aitziber Egusquiza, Saioa Zorita, Sophia Silverton, Gemma Garcia, Emilio Servera, Alessandra Bonazza, Igone García & Antonis Kalis

Establishing

- The Framework→ Historic Districts as Social-Ecological-Technical Systems, Resilience Concepts & their Relationship with Disaster Risk Management and Climate Change Adaptation
- 2. Policy landscape for resilience and historic districts
- 3. Challenges + Recommendations



Recommendation from the task force



CHALLENGE 1 Data & Assessment

New Challenges for Europe's Cohesion

 \rightarrow How can we manage the **large amount of heterogeneous data**?

- → How can we quantify the social, cultural, and economic value
 and the loss of these values of heritage and how can we include?
- → How can we translate the complex topic of resilience (DRM+ CCA+HM +social-ecological aspects of organization, financing...) into operative and easy to use models, methods, and tools?







RECOMMENDATIONS Data & Assessment

- → **Improve access** to reliable data with **harmonised formats**, gathered in a consistent way across multiple scales
- → Advance the harmonization of methods, the integration of heritage values and subsequently enhance the usability and reliability of information.
- Provide more and better training, education, and capacity building







CHALLENGE 2 Fragmentation

- → How can we **breakdown the silos** on national, regional, and local level between DRM, CCA, and HM?
- → How can we consolidate methodological concepts across the fields of DRM, CCA, and HM?
- → How can we **mainstream DRM, CCA of CH** into European, national, regional, and local policies?







RECOMMENDATIONS Fragmentation

- → Harmonisation and **standardisation** of terminology and practices
- → Co-ownership of the resilience goals and management strategies.
- \rightarrow Raise **awareness** at policy level \rightarrow make it a priority!







CHALLENGE 3 Local Knowledge

- → How can we better include local / community knowledge and the use of traditional techniques into DRM, CCA, and HM?
- → How can we **integrate narratives / storytelling** with more quantitative approaches?







RECOMMENDATIONS Local Knowledge

- \rightarrow Engagement techniques for **participative methods**,
- → more research into **mixed-method approaches**
- → Incorporation of **narratives and storytelling**
 - \rightarrow as a means for **better engagement**
 - \rightarrow a way to include **diverse knowledge** in assessments approaches







CHALLENGE 4 Governance

- → How can we **better communicate** highly complex approaches / results to a broader audience?
- And how can we facilitate real ownership of research outputs by end-users?
- → How can we include and do justice to the diverse viewpoints, interests, and expectations of the many diverse stakeholder groups and their perceptions of what as heritage value?
- → How can we engage people to take responsibility?
- And how can we achieve a state where the **governing** institutions support people taking responsibilities?
- How can we manage the resource / attention
 "competition" between multiple different initiatives?







RECOMMENDATIONS Governance

- → Better and more tailored engagement techniques
- → Engage local communities **on their terms**
- Co-identify what is protection worthy, which risk levels might be acceptable, and how to cope with the dynamic nature of development in municipal districts
- → Shift the focus of policy and research-policy strategies from the often strong and narrow economic-technological aspect to a focus on the whole social-ecological-technical system
- → Research projects need to be designed to be more inclusive







CHALLENGE 5 Role of CH

 \rightarrow Getting from theoretical concepts to **actionable strategies**

→ CH heritage as a powerful contributor in the resilience narrative

 \rightarrow not merely an asset to protect, but a part of the solution CH as a driver to change

 \rightarrow a driver to support transformational changes

 \rightarrow Urgency for change

 \rightarrow the need to change within the CH sector







RECOMMENDATIONS Role of CH

- Need to make better use of the heritage sector + CCI, in creating momentum for climate and disaster action
- → Using the **unique values of heritage** and the potential loss of these as a **communication tool** for creating **urgency + hope**
- → Involve routinely the culture and heritage sectors in climate resilience planning → to ensure actions are in line with the community-agreed protection goals + local traditions
- → Heritage sector need to move away from its strict focus on preservation → make engagement with DRM, CCA, and urban planning colleagues an integral part of its practices
- → Establishment of a joint resilience team or office at local level → official mandate to coordinate the resilience planning process across all involved departments



