

SHELTER Project

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The quality of being able to return to a previous good condition after something bad happens is called

resilience

Sustainable

Historic

Environments

holistic

reconstruction through

Technological

Enhancement &
community based

Resilience

Shelter

Is a project dedicated to research,
funded by the European Commission



The aim of Shelter is to:

- increase **resilience** of historic areas
- to improve their reconstruction after a disaster

How? with:

- research
- people
- Technology



How much time we have?

4 years of work together

(June 2019-May 2023)

Shelter

Who we are?

23 partners

8 Small Companies
10 Research Organisations
5 Public Bodies



Shelter

from 9 countries



5 Open Labs

Shelter

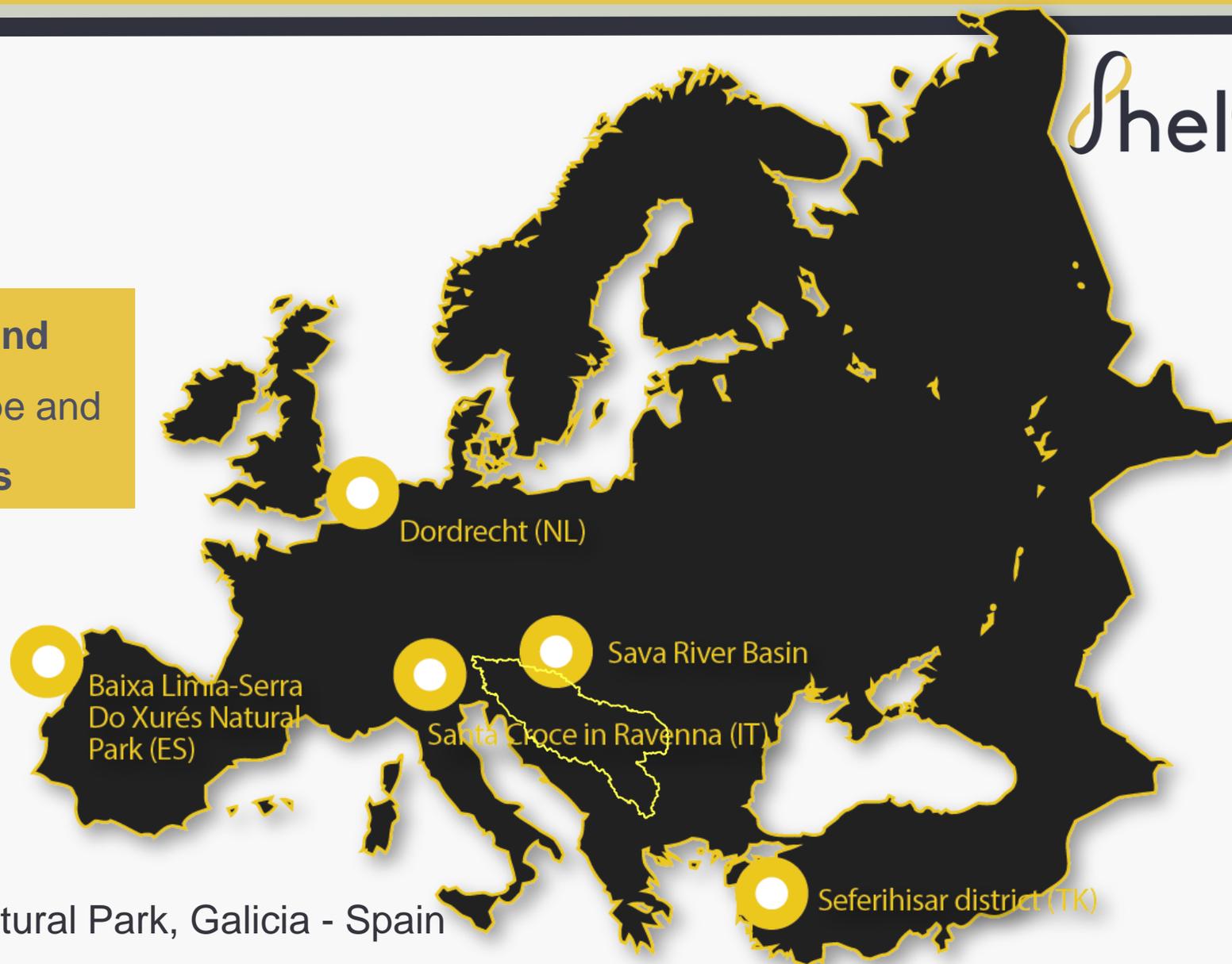
representative of main climatic and environmental challenges in Europe and different heritage's typologies

3 Urban

- Ravenna, Italy
- Seferihisar, Turkey
- Dordrecht, Netherlands

2 Cross-border

- Baixa Limia-Serra Do Xurés Natural Park, Galicia - Spain
- Sava River Basin, South East Europe



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 821282

Resilience in historic areas is
a **challenge**

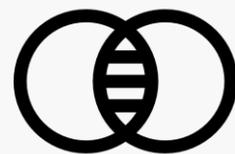
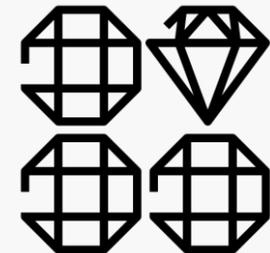
*Fragmented
laws*



*Higher
vulnerability*



*Unique
Historic Areas*



*We need to find **solutions**
compatible with materials,
cultural values and traditional
lifestyles*



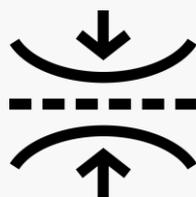


Resilience in historic areas is an **opportunity**

Historic areas are living examples of resilience. They have survived during centuries!



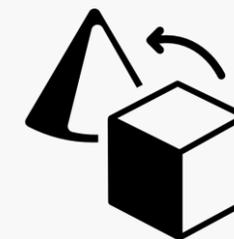
We need to learn from their capability to:



*take advantage
of **natural
resilience***



*link resilience
with
sustainability*



*use it for
transformation*





What does **resilience** mean for us in SHELTER?

Shelter

- *dynamic view of the future*
- *risk, uncertainty and surprises are going to be normal*

...but we can use them to build a more sustainable future!

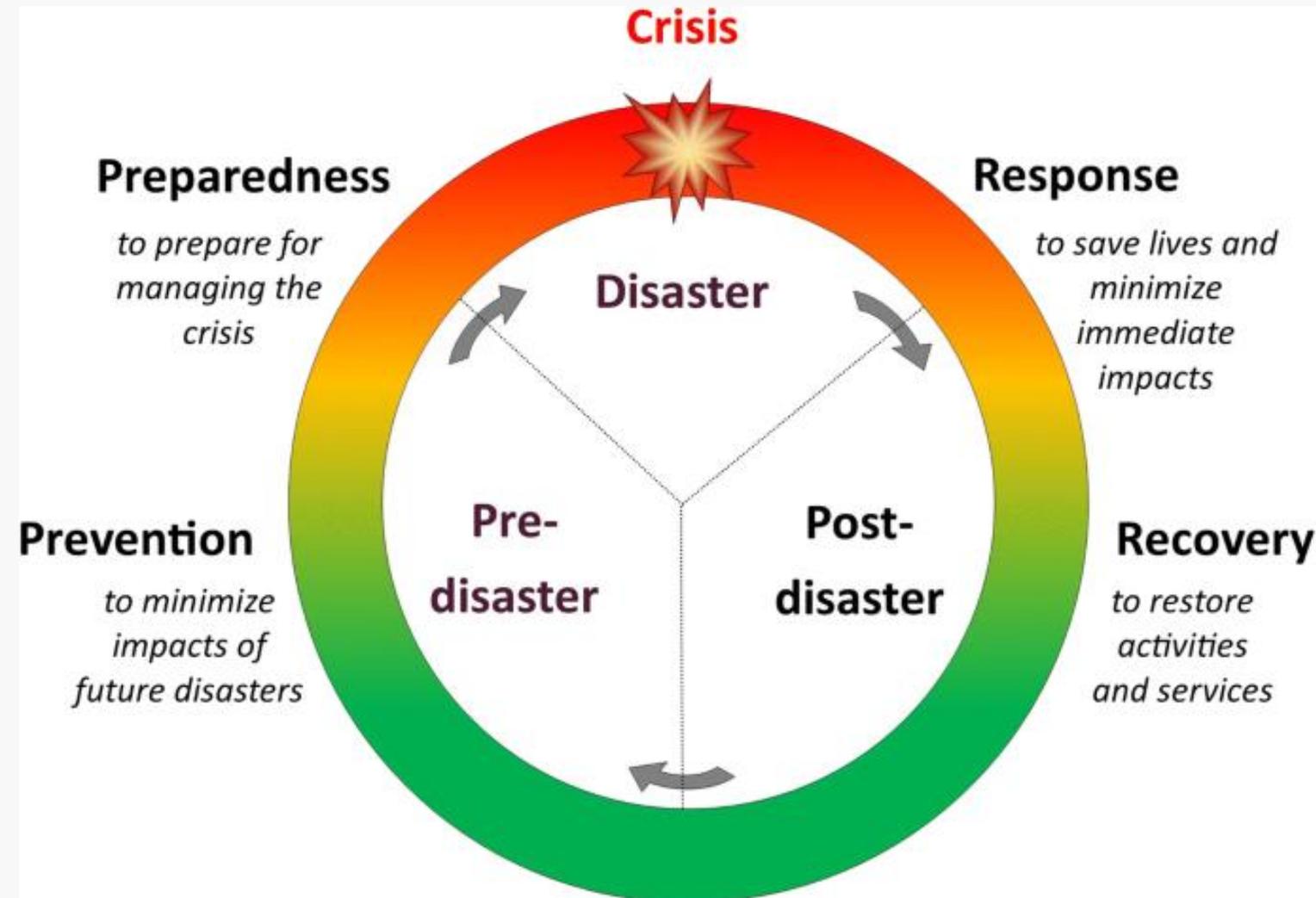


Disturbances cannot be an unexpected event anymore, we must expect them, accept them and use them for transformation



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How can we reduce disaster risk?



Disaster risk management

Is the application of disaster risk reduction **strategies** to

- prevent new disaster risk,
- reduce existing disaster risk
- manage residual risk.

Contributing to the strengthening of resilience and reduction of disaster losses.

Our challenge is to develop tools for all the phases of disaster risk management

The hazards in Shelter



Earthquakes



Floods



Subsidence



Wildfires



Heat wave



Storms



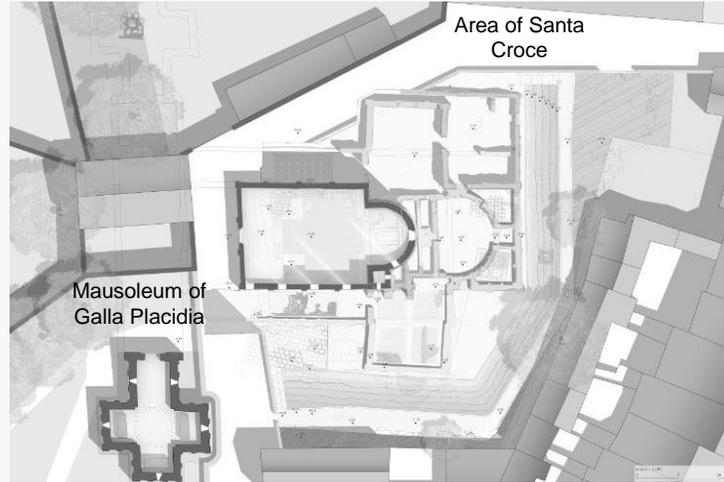
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Let's make a virtual journey to our 5 open Labs



Area of Santa Croce Ravenna, Italy

- Church and archaeological area next to UNESCO World Heritage sites
- Lack of cooperation among the 2 owners and the manager of the area
- No early warning system or emergency plans available for the area



Seferihisar - Turkey

- Port town of Sigacik characterised by **fortress walls and historical protected buildings** which are in deteriorating condition
- In the coastline there is located **Teos archaeological site**
- On the hills, there are villages that accommodate **historical buildings** and **sustain authentic rural practices**



Dordrecht - Netherlands

- Part of the **historic city centre** which includes almost 800 listed buildings
- characterised by the **long stretches outside the dikes** which includes the historic port area
- Small scale flooding occurs regularly, but larger floods are rare
- With climate change the risk is expected to increase

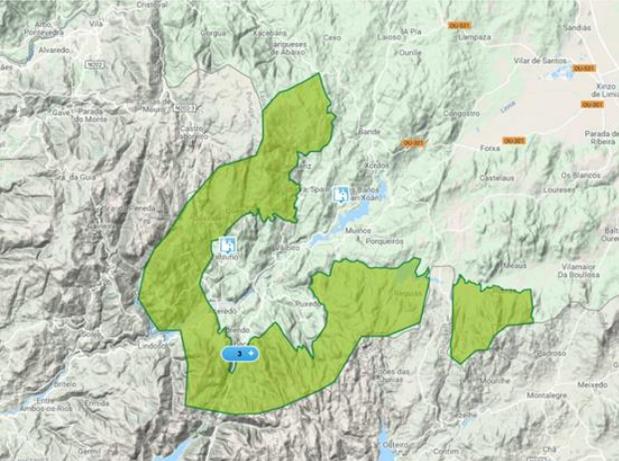


Baixa Limia - Serra Do Xurés Natural Park

Galicia, Spain



- The Natural Park has an **area of about 30.000 hectares**
- important set of **natural habitats and species of significance** for the conservation of the existing biodiversity
- **Natural and built heritage** coexist in the Park.



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Sava River Basin – South-Eastern Europe



**MEHMED PAŠA SOKOLOVIĆ BRIDGE,
PLITVICE LAKES NATIONAL PARK,
STEĆCI MEDIEVAL TOMBSTONES GRAVEYARDS,
PREHISTORIC PIL**

https://www.youtube.com/watch?v=09k882kuRAI&t=1s&ab_channel=%D0%9A%D0%BE%D0%B7%D0%BB%D0%BE%D0%B2%D0%B0%D0%AE%D0%BB%D0%B8%D1%8F



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Sava River Basin – South-Eastern Europe



 **SAVA RIVER BASIN**
IS OFTEN VERY AFFECTED BY EXTREME FLOOD EVENTS WHICH CAUSE HUGE LOSSES

6 COUNTRIES SLOVENIA • CROATIA • BOSNIA AND HERZEGOVINA • SERBIA • MONTENEGRO • ALBANIA	16% OF COUNTRIES' POPULATION LIVES WITHIN FLOOD AREAS (1.4 MLN OF 9 MLN)
2ND LARGEST DANUBE SUB-BASIN (97.7K KM ²)	5,8% FLOOD AREAS OF THE TOTAL RIVER BASIN AREA

SAVA OPEN LAB
ACTIVITIES COORDINATED BY



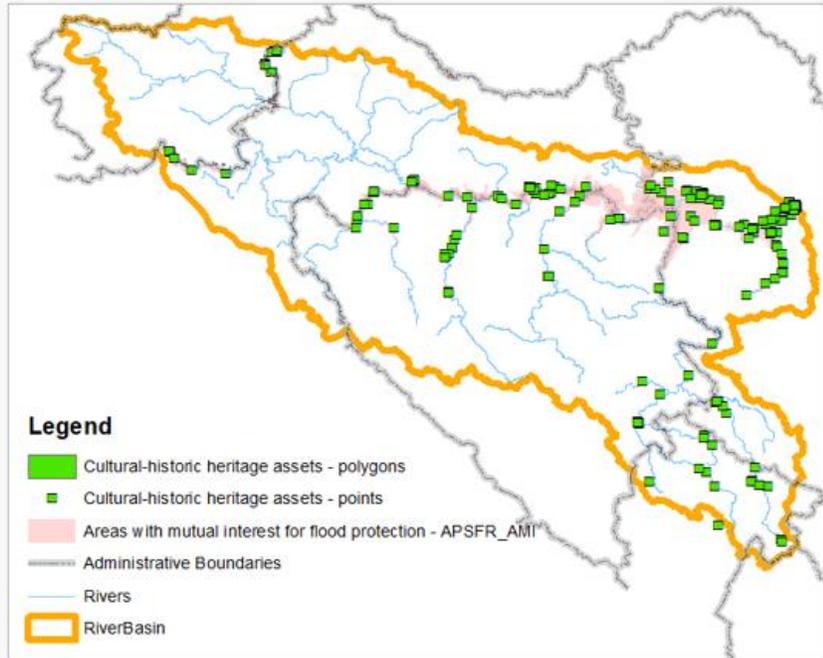
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Sava River Basin – South-Eastern Europe



What we have done:

- 37 stakeholders meet twice/ three times per year during workshops to discuss the project activities
- 12 task Group experts nominated (from 12 institutions from 5 countries), will make sure the results of the project will be used after the end
- At the moment data of more that 1210 cultural heritage assets in the Sava River basin have been collected and they can be visible in the SAVA GIS



TOTAL

286

SOLUTIONS WERE IDENTIFIED TO BE INCLUDED IN RESILIENCE DASHBOARD

FLOOD RISK

50

SAVA GIS:

DATA COLLECTED ON CULTURAL HERITAGE WITHIN THE FLOOD HAZARD AREAS WILL BE CONSOLIDATED IN THE GEOGRAPHICAL INFORMATION SYSTEM GEOPORTAL (SAVA GIS) FOR THE PURPOSE OF ITS FUTURE PROCESSING AND MANAGING

1210

CULTURE HERITAGE ASSETS WERE COLLECTED WITHIN THE FLOODING AREAS WITH TRANSBOUNDARY (BASIN) IMPORTANCE

Country	Cultural Heritage Assets
SLOVENIA	500
CROATIA	250
BOSNIA AND HERZEGOVINA	180
SERBIA	130
MONTENEGRO	150

Disaster Type	Count
flood	50
storm	25
subsidence	60
earthquake	65
heatwave	50
wildfire	40

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KNOWLEDGE PRODUCTS

SHELTER WIKI

DATA LAKE



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But SHELTER family is not alone!

We work together with other colleagues
in other countries for the same purpose:

Protecting cultural heritage





https://www.youtube.com/watch?v=TXy01f9Zt_U&ab_channel=TheSHELTERProject



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Thank you!

Contact us

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