



ResCult



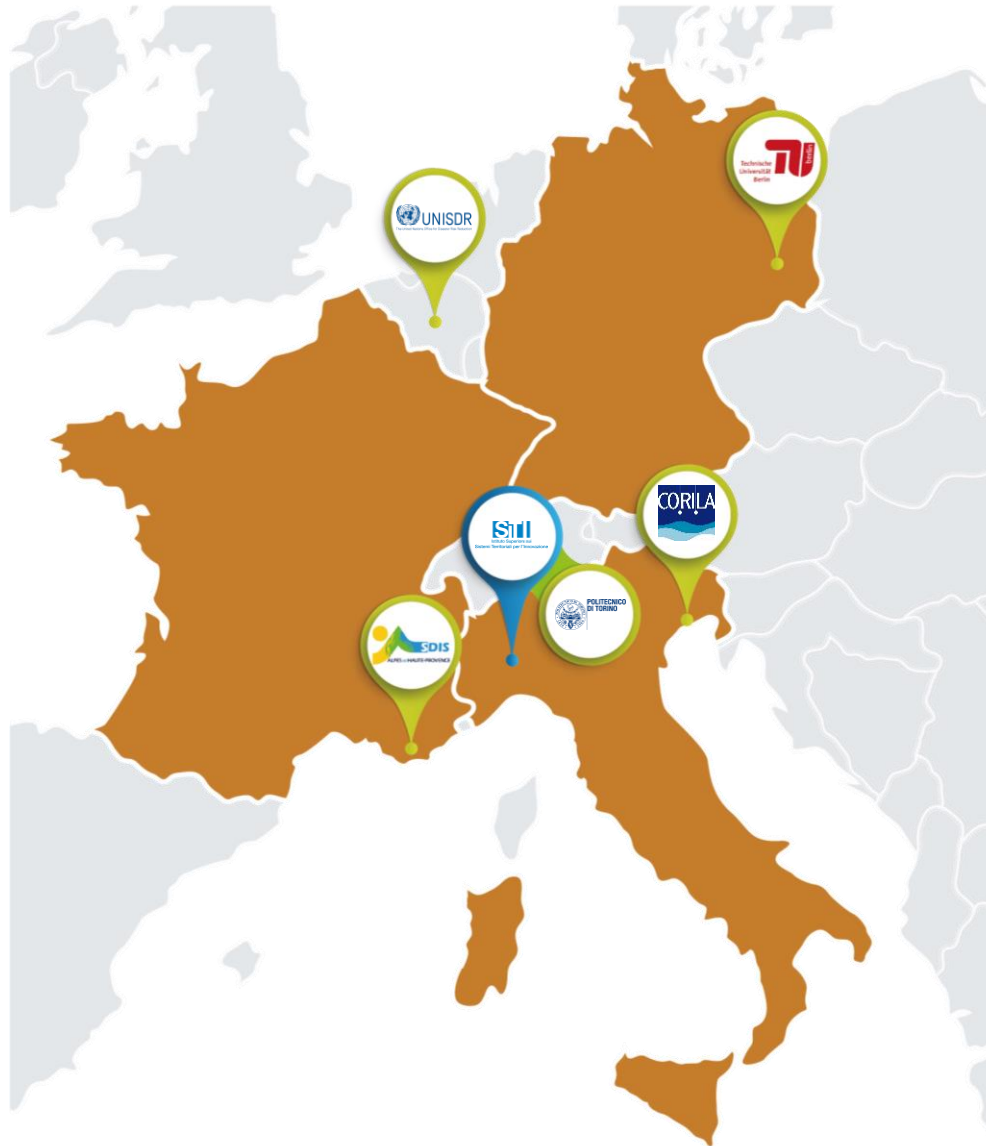
(Increasing **Resilience** of **Cultural** heritage: a supporting decision tool for the safeguarding of cultural assets)



POLITECNICO
DI TORINO



Funded by European Commission, DG-ECHO
Humanitarian Aid And Civil Protection



SiTI - Istituto Superiore sui Sistemi Territoriali per l'Innovazione (coordinator)

UNISDR – The United Nations Office for Disaster Risk Reduction

TUB – Technische Universität Berlin

POLITO – Politecnico di Torino

CORILA – Consortium for managing research activities in the Venice Lagoon system (IUAV is affiliated partner of CORILA)

SDIS 04 – Service Départemental d'Incendie et de Secours des Alpes de Haute-Provence



CH protection and
management
entities



Emergency
operators



Citizens & local
communities



Governmental
Authorities



Research
centres

PROJECT'S DURATION:
18 months

Budget:
800 k€

EC co-financing:
75%

The need of increasing **Cultural Heritage Protection**

"Historia testis temporum, lux veritatis, vita memoriae, magistra vitae, nuntia vetustatis."

Cicerone

"History is the witness that testifies to the passing of time; it illumines reality, vitalizes memory, provides guidance in daily life and brings us tidings of antiquity."

security

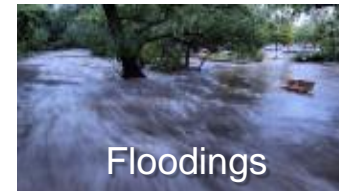
constantly threatened

Art pieces as:

- Witnesses of people's history
- Religious symbols
- Material catalysts of culture
- Universal value and heritage of Mankind
- High market value
- Investment assets

Natural Disasters

Manmade Threats



Floodings



Earthquakes



Fires



Extreme conditions



Terrorism



Counterfeit



Theft / Looting



Illegal trade



Armed Conflicts



Vandalism

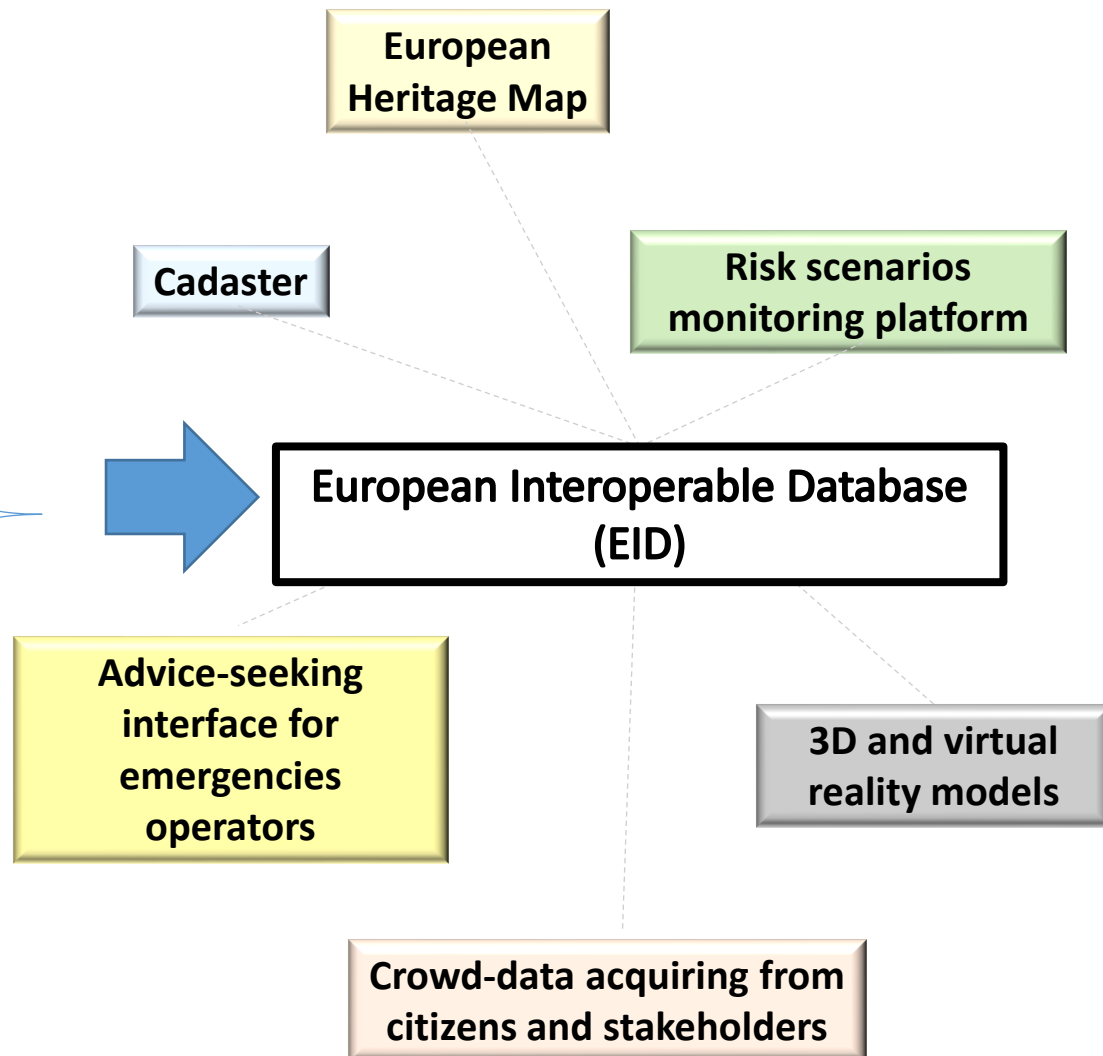
OBJECTIVES

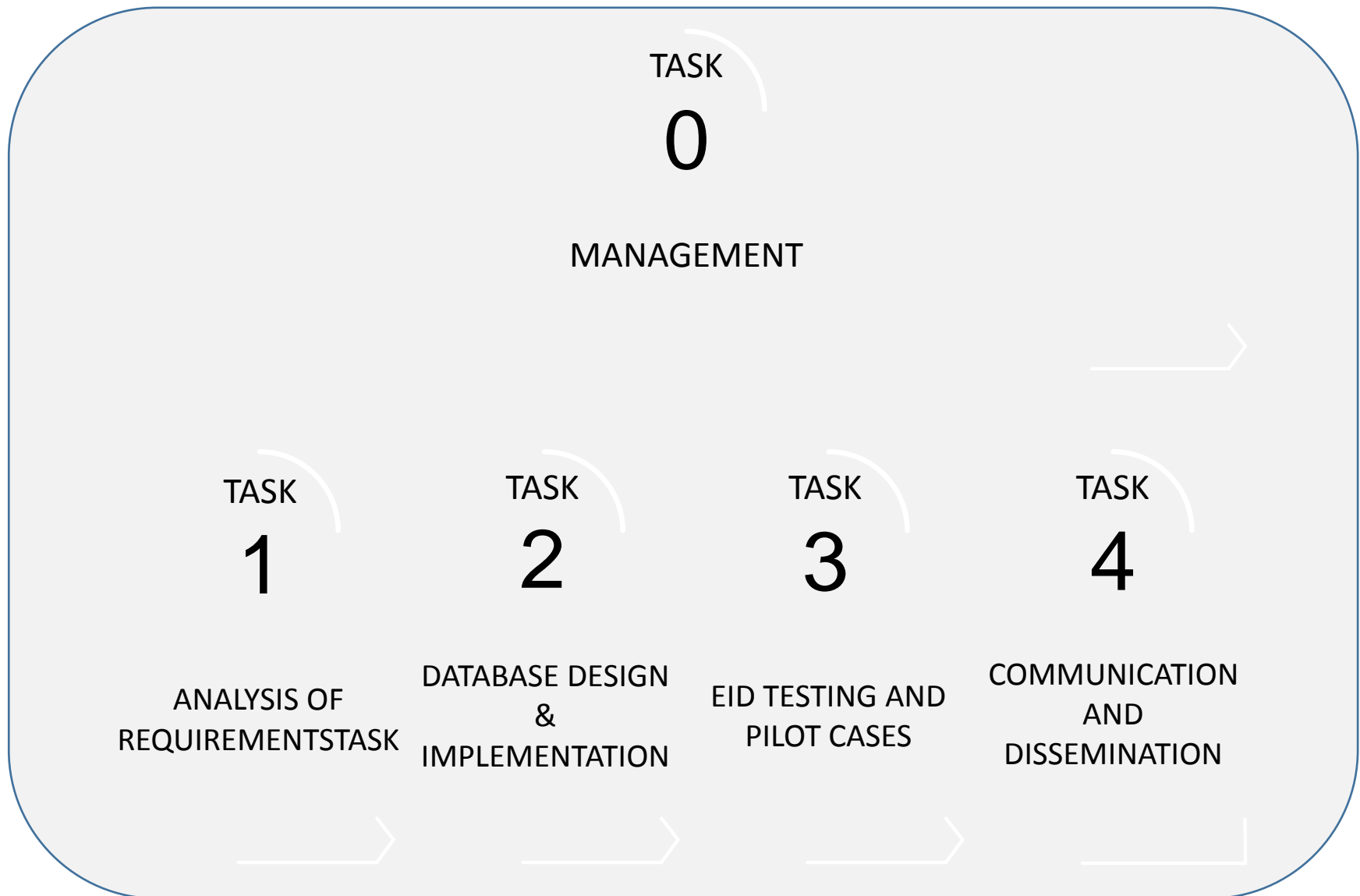
Enhancement of the capability of **Civil Protection Bodies** to understand/prevent/mitigate disasters impacts on Cultural Heritage.

Increase **cooperation and interoperability between EU member states** for the sake of protecting Cultural Heritage (information sharing, interoperable protocols, best practices dissemination, alignment with EU policies/standards)

Improvement of the **Disaster Risk Reduction strategy** (for prevention and resilience), according to the principles of **Sendai Framework**.

OUTPUTS







INSPIRE



International
standards for
Cultural
Heritage
Classification



National and
Regional
Databases

European Heritage Map



Ministers

Museums

Municipalities

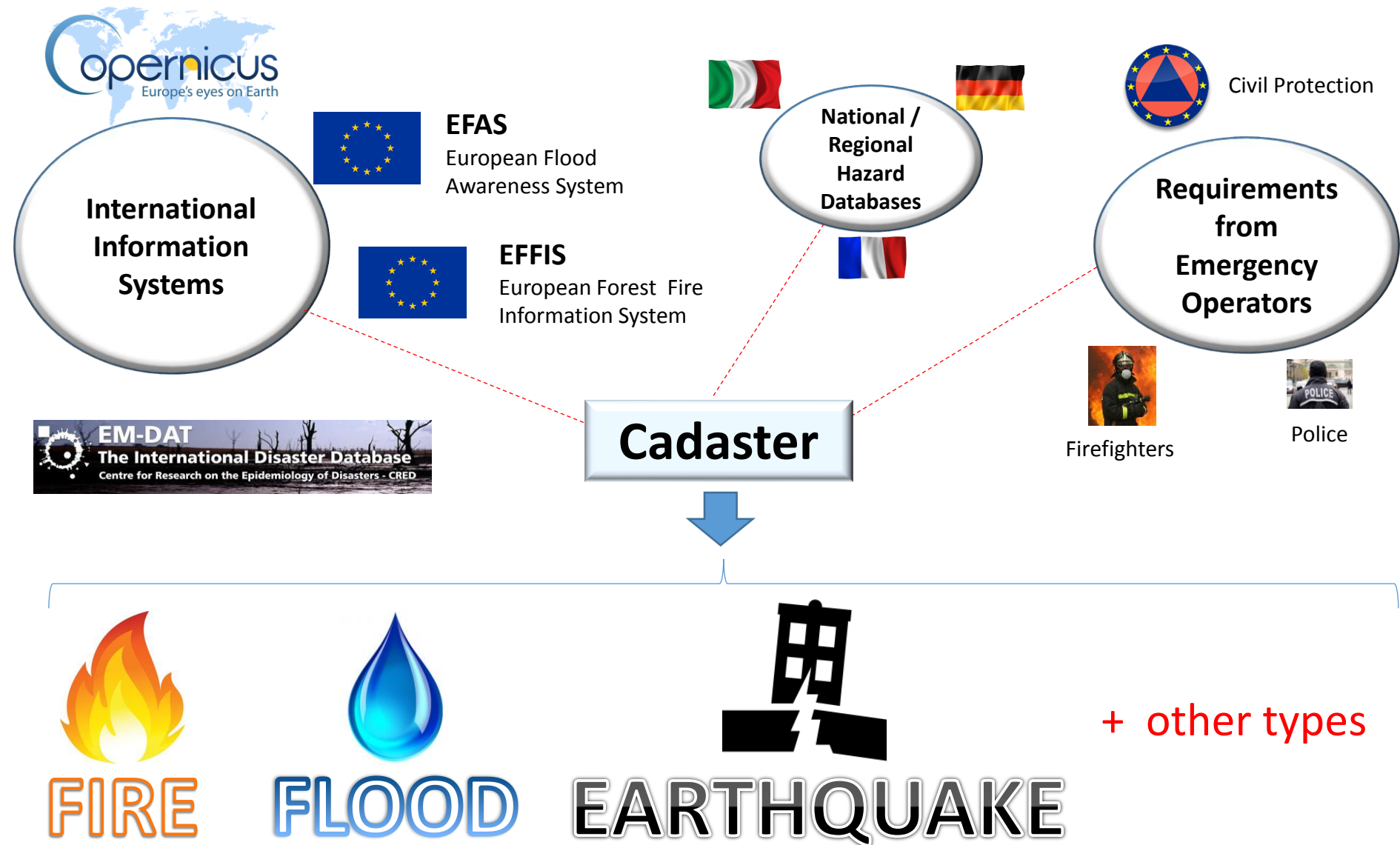
Monuments

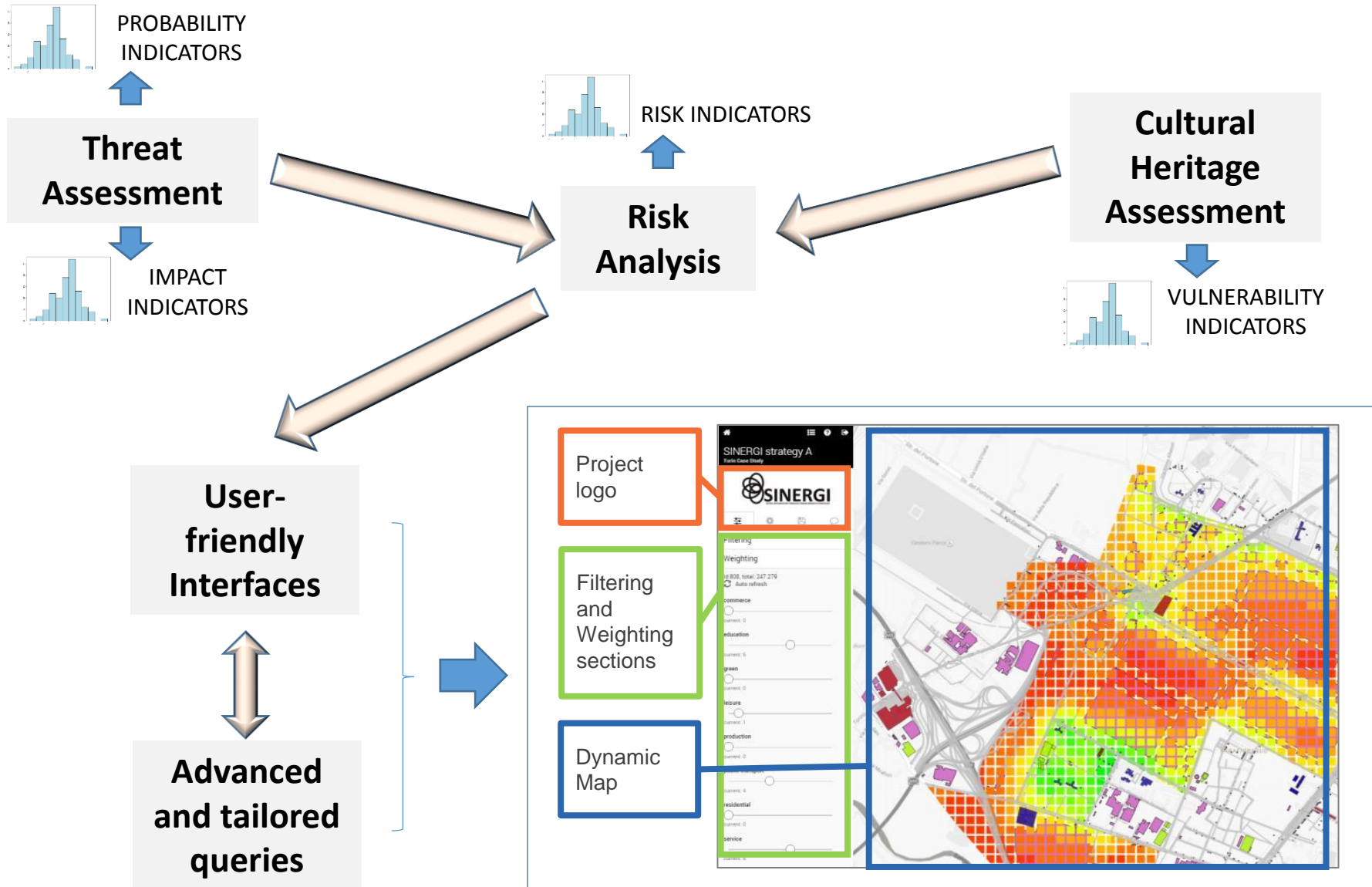
Political
Authorities

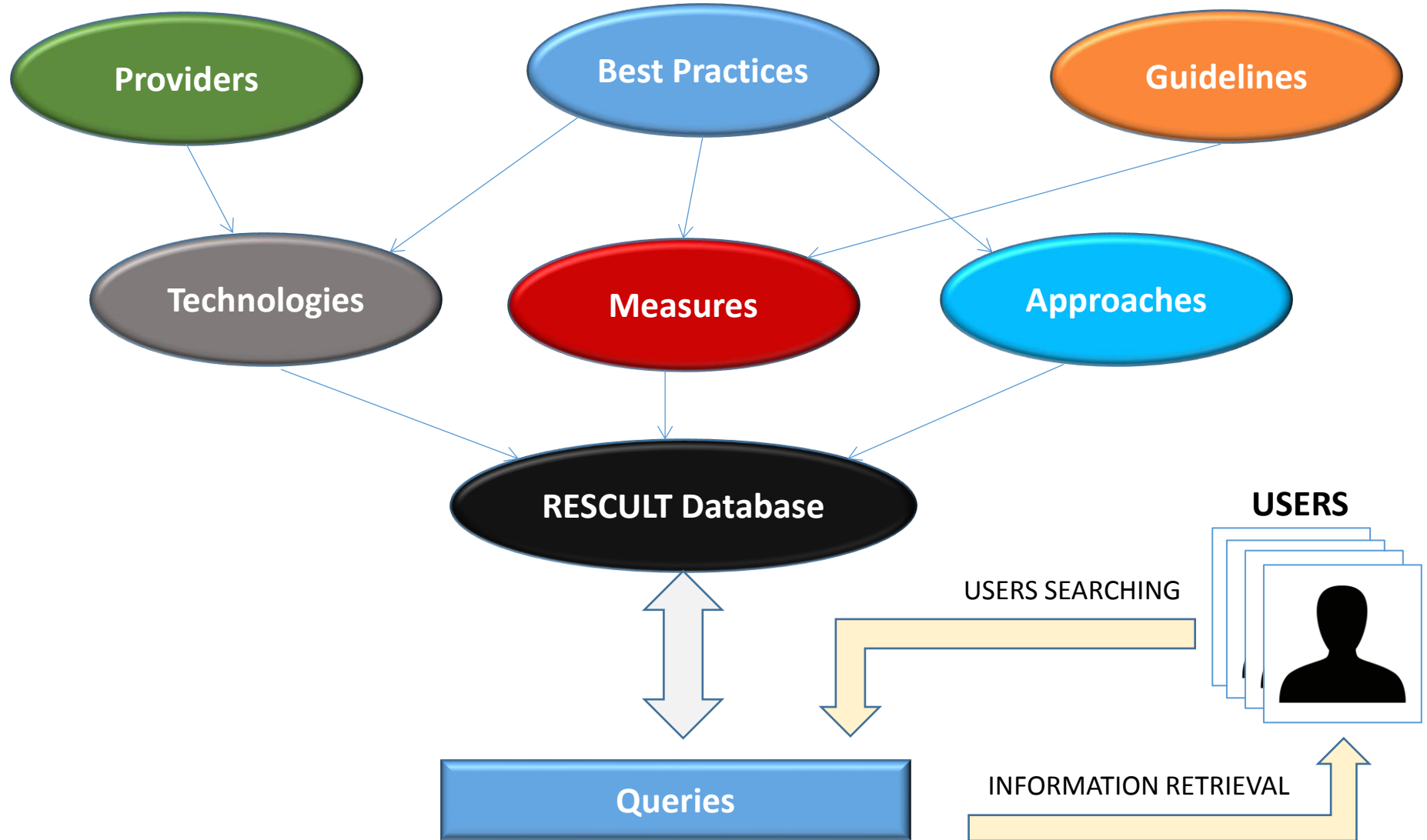
*Cultural Heritage
associations*

*Archeological
sites*

Cultural
Heritage
owners









360° Photo



Photogrammetry



EID



VR & Graphic Engine Modelling



Laser Scanning



An overall view of the **VR LAB** located in SiTI

CAPTURING

PROCESSING



VR suit and gloves



Camera
360°



Workstation



Interactive scenarios

VISUALIZING



Mobile viewer



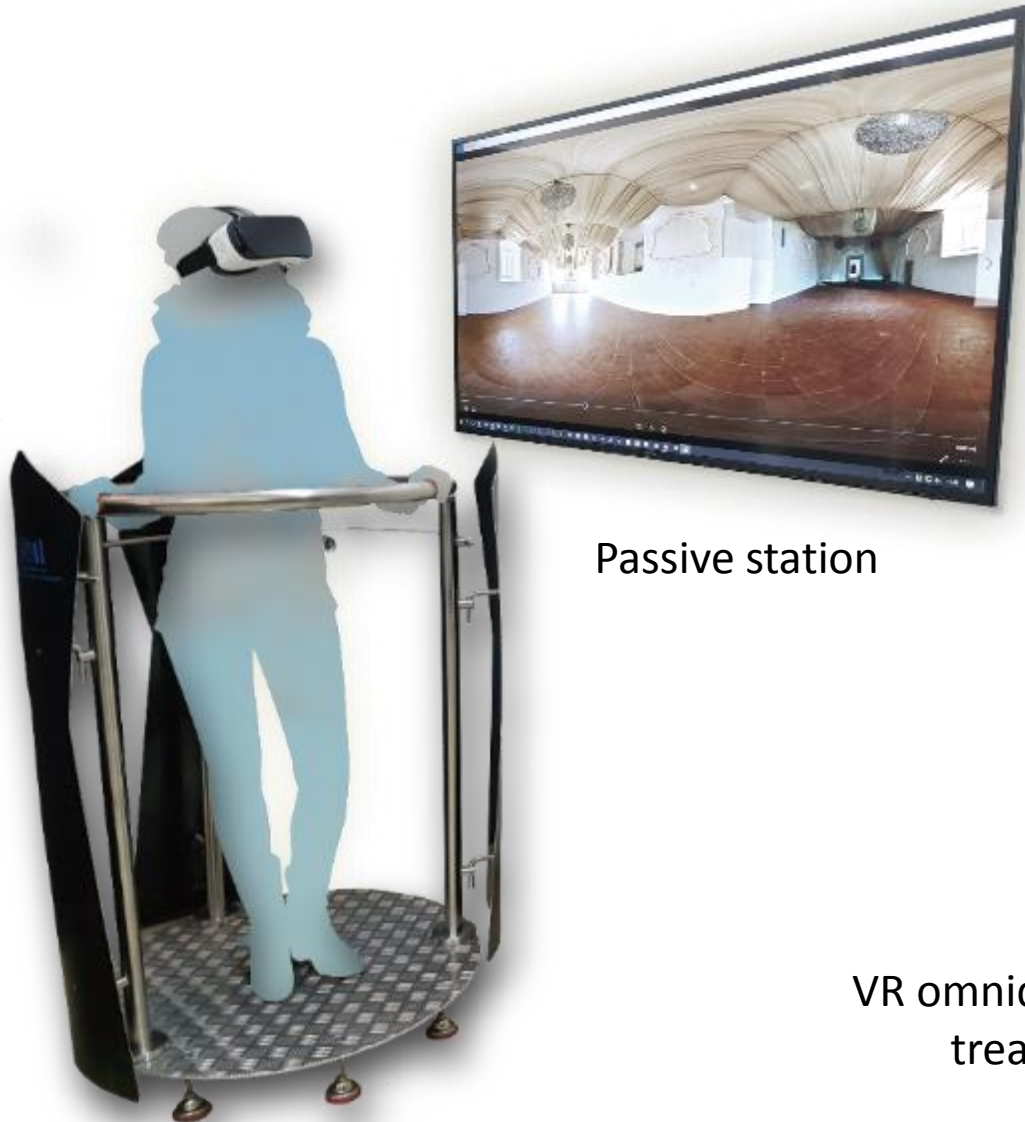
Cardboard



Tethered viewer



VISUALIZING



Passive station



VR omnidirectional treadmill

The (EID) - Crowd data acquiring Platform



CITIZENS

INTER-COMMUNICATION



Civil Protection



Red Cross

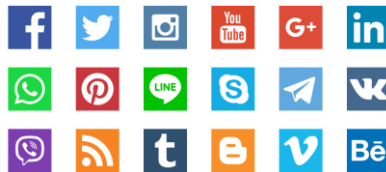


Firefighters



Police

EMERGENCY OPERATORS



Social Network



Call Centers



EMS Platforms and
Mobile apps



Santa Maria dei Miracoli Church,
Venice (Italy)

The **Santa Maria dei Miracoli Church** is a major touristic site in the city of Venice, Italy and of great religious importance. Dating back to the late 15th century the church is not only architecturally significant but contains a number of important artworks as well. Their vulnerability especially to flooding will be studied.

The **Prehistoric Museum of Quinson** aims at retracing the human adventure in Provence, restoring the results acquired for several decades by the scientists. It contains large amount of archaeological furniture collections dated from the Paleolithic, Neolithic and Bronze Age.



Prehistoric Museum,
Quinson (France)



Convent of San Nicola,
Tolentino (Italy)

The **Convent of San Nicola a Tolentino** in the Marche region of Italy contains architectural heritage such as the Basilica of St. Nicolas and numerous artworks from the 14th to the 17th century. The vulnerability of the complex especially to earthquakes will be assessed.



upcoming USER FORUM

Venice, 29 November 2017

RESCULT Website: <https://rescult-project.eu>

Registration form links: <https://rescult-project.eu/news-events/first-user-forum-in-venice/>

Title * **Surname** **Name ***

Sector **Company Role** **Company name**

Company address: street **ZIP** **City**

Email address * **Telephone**

☐ I'd like to be mentioned as Expert in RESCULT publications related to the USER FORUM

☐ All given data will only be treated within the framework of RESCULT Project *

Attendees can be mentioned as contributors in **RESCULT Official Publications**



(upcoming) Cultural Heritage in the Digital Era
closed-door event, invitation by the European Commission
(Bruxelles, Belgium, 25 October 2017)

**Innovation in the intelligent
management of Heritage Buildings**
COST ACTION TD1406, 4th MC meeting
(Valletta, Malta, 26 September 2017)



World Reconstruction Conference 3
(Bruxelles, Belgium, 6-8 June 2017)

**Global Platform for Disaster Risk Reduction
Conference**
(Cancun, Mexico, 22-26 May 2017)



Synergies between RESCULT project and Civil Protection Bodies



- RESCULT can **contribute to the implementation of Sendai Framework**, supporting Regions in the process of “*Avoiding generation of new risks and mitigating existing ones*” and “*Building Back Better*” (also including the re-activation of touristic flows after a disaster).
- RESCULT can **increase Emergency Operators capability to deal with disaster management**, sharing information on existing European best practices in terms of approaches, procedures, technologies, devices, and data collection processes during emergencies.
- RESCULT can **share tools** for the frame-working, management, visualization, consulting and sharing of data and related data services to support disaster risk management.
- RESCULT can contribute in **reducing the existing gaps between regional perspectives and national/international policies**, through the realization of case studies to test RESCULT tools and through creation of national/international networks to foster the dissemination of lessons learnt by emergency operators.



THANK YOU FOR YOUR ATTENTION

Massimo Migliorini *Coordinator of RESCULT Project*

Security and Business Models for Energy Networks and Infrastructures

SiTI – Higher Institute on Territorial Systems for Innovation

Via Pier Carlo Boggio 61

10138 Torino

Italy

Tel +39 011 1975 1558

Mobile: +39 339 57 32 462

Email: migliorini@siti.polito.it

www.siti.polito.it