



# EU Adaptation Strategy – The Mission on Adaptation to Climate Change

## 2<sup>nd</sup> Destination Earth User Exchange

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DG CLIMATE ACTION*

*Bonn, 13 – 14 November 2023*



- Context
- EU Adaptation Strategy
- Mission on Adaptation to Climate Change
- How can Destination Earth and Mission collaborate?



# Extreme weather events in 2023

Paris (FR)



Lago di Garda (IT)



Rhodos (EL)



Braskereidfoss (NO)



F1 Imola (IT)



Karditsa (EL)







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EU MISSIONS  
ADAPTATION TO CLIMATE CHANGE



# Infrastructure work



including  
disaster

# EU Adaptation strategy

*Adapting to the unavoidable  
Climate impacts*

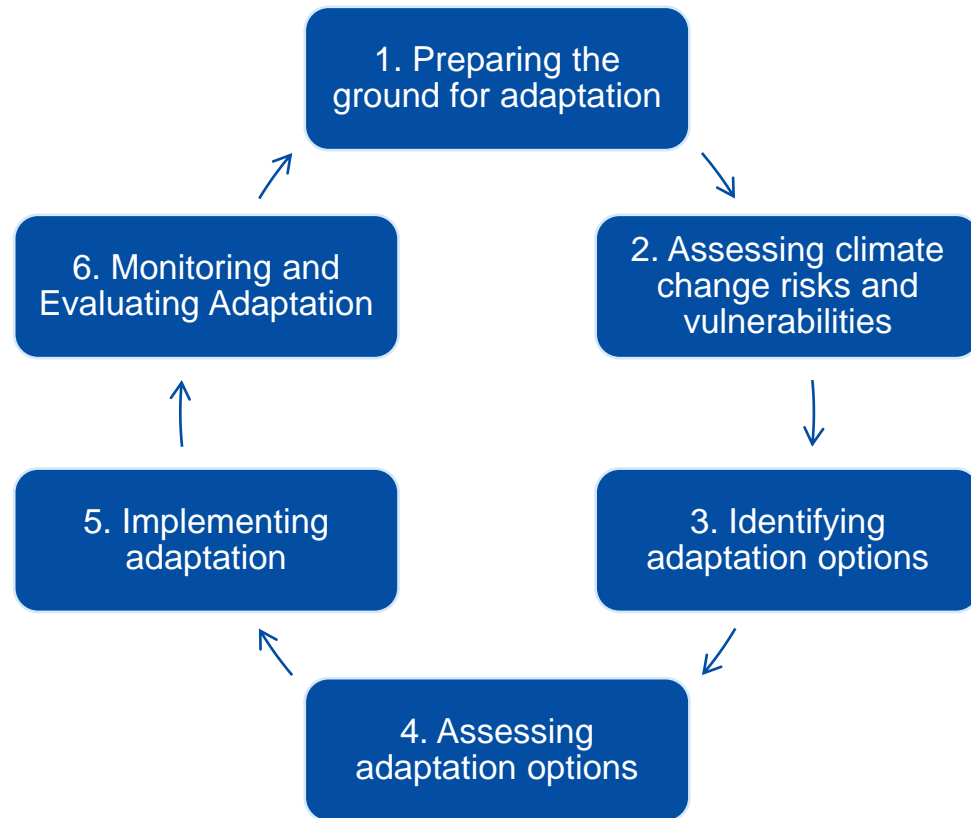


- Smarter adaptation
- More Systemic adaptation
- Faster adaptation
- Stepping up international action



# Systemic

## Guidelines on adaptation strategies and plans



Estimated adoption by the European Commission : early June 2023



# Faster

## *EU Climate Risk Assessment*

### Purpose

1. Identify **adaptation-related policy priorities**
2. Identify **adaptation-related investment priorities**
3. Support **EU policy development** in climate-sensitive sectors
4. Support conducting and updating **national and sub-national climate risk assessments**



### Time Frame

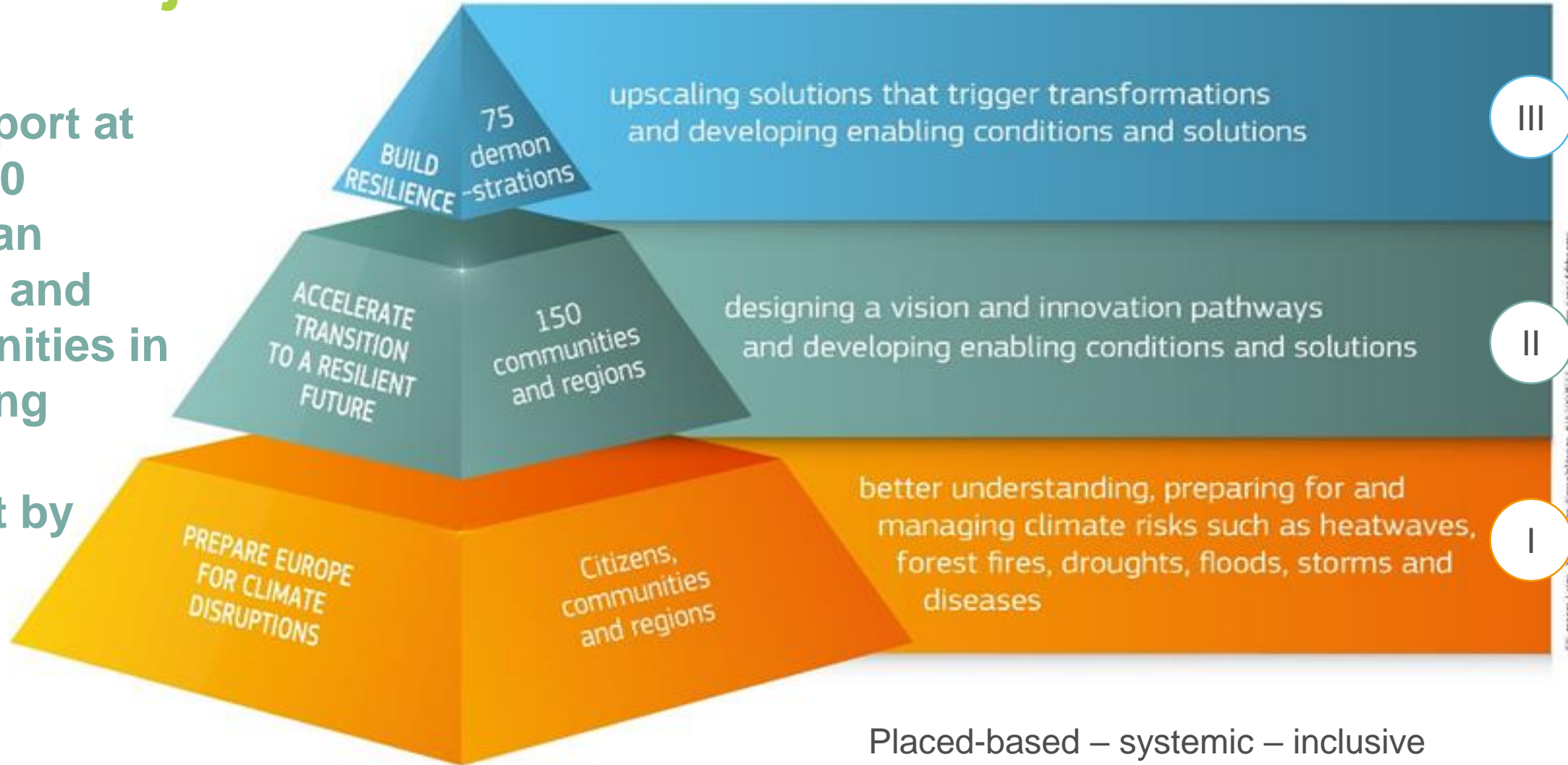
- First assessment by summer 2024
- Follow-up assessment to be published every 5 years





# Mission objectives

To support at least 150 European regions and communities in becoming climate resilient by 2030



Placed-based – systemic – inclusive



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# Key components of the Mission

Research & Innovation  
EU-funded projects

Mission Management,  
Mission Owner's Group

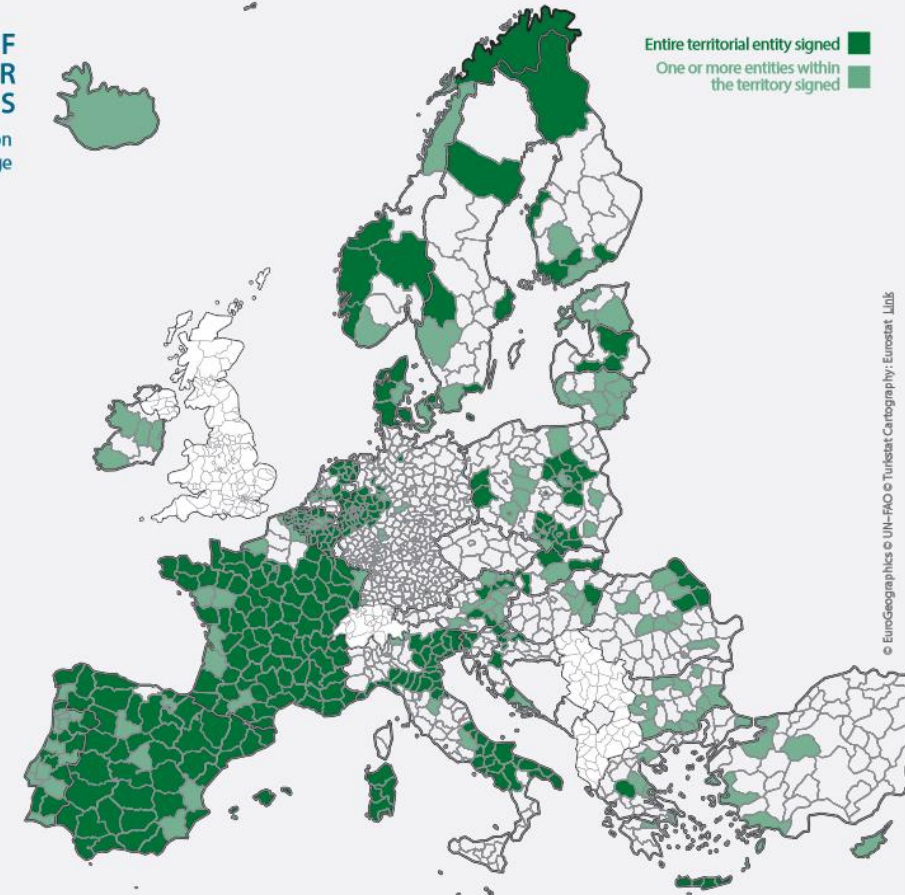
308 Regions & local authorities  
Committing with a Charter

Mission Implementation Platform

- Community of Practice
- Support to regions
- Communication
- Monitoring

MAP OF EUROPEAN CHARTER SIGNATORIES  
EU Mission on Adaptation to Climate Change

Entire territorial entity signed   
One or more entities within the territory signed 



0 500 1000 km

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Interreg 



# R&I community : Horizon Europe

objectives



**2021 call** – 9 running projects ([LINK](#))

- (obj I) **A climate risk assessment framework** (20 M€)
- (obj II) Local climate resilience pathways (30 M€)
- (obj III) Large-scale demonstrator (50 M€ )
- 2 Enabling conditions: engagement, **asset-level modelling**

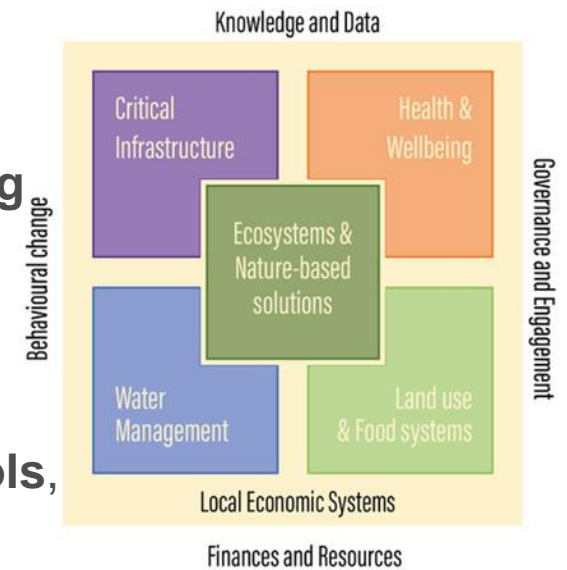
**2022 call** – 16 projects ([LINK](#)), incl 4 under grant agreement

- 3 enabling conditions: finance, insurance, **user-driven tools**,
- 1 key system: local economic system
- (obj III) Test and demonstrate – NBS (+90 M€)

**2023 call** – evaluation, 3 under grant agreement

- (obj III) Test and demonstrate transformative solutions -- 5 key systems (138 M€)

Enabling conditions & key systems







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# Thank you!

[#EUmissions](#) [#HorizonEU](#) [#MissionClimateAdaptation](#)

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# The pillars of CLIMAAX



## **Framework for regional CRA**

→ supporting civil protection and climate adaptation

## **Toolbox and pilots**

→ testing data needs and diversity of requests

## **Cascading fund**

→ Financial support for >50 regions

# **CLIMAAX**

Climate ready regions



# MIRACA

## Towards asset level modelling of climate risks and adaptation

MIRACA- Multi-hazard Infrastructure Risk Assessment for Climate Adaptation

48 months, start 01/01/2023, ~2 M€

Coord. Vrije Universiteit Amsterdam; 7 partners (of which one from UK)

**5 use cases** covering a variety of locations, infrastructure types and natural hazards:

UC1 - flood and windstorm impact on the **Trans-European Transport Network (TEN-T) Corridor**

UC2 - heatwaves, drought and wildfire impact on essential goods/services supply in **Spain**

UC3 - flood impact on telecommunication and electricity in the **Netherlands**

UC4 - societal risk of geohazards through schools and hospitals in **Greece**

UC5 - landslide and flood impact on power and gas network reliability in **Slovenia**

**Main outputs/outcomes:** based on a multi-hazard climate risk assessment framework, the development of an evidence-based decision-support toolkit, consisting of:

- I. a guidance on technical and economic appraisal of adaptation strategies
- II. a technical decision-support workbench
- III. an online interactive viewer





# RISKADAPT

## Towards asset level modelling of climate risks and adaptation

**RISKADAPT: Asset Level Modelling of RISKS In the Face of Climate Induced Extreme Events and ADAPTtation**

36 months, start 01/01/2023, ~2,5 M€

Coord. RISA Sicherheitsanalysen GMBH (DE), 18 partners (of which 4 associated)

4 pilots considering different multi-hazard scenarios:

- **Greece:** Landmark Polyfytos road bridge: corrosion worsened by climate change.
- **Nordic Region:** energy transmission grids' vulnerability to wind-icing hazard & corona discharge loss
- **Trieste (Italy):** high-rise hospital building, subjected to high winds with and without wind driven rain.
- **Hong Kong:** glass window damage in high-rise buildings due to high wind flows and wind driven rain

**Main outputs/outcomes:** a public platform to support decisions regarding adaptation to induced compound events at the asset level:

- I. Model dependencies between infrastructures providing better understanding of the nexus between climate hazards and social vulnerabilities and resilience.
- II. Identify gaps in data and advance climate science to predict climate change forcing on the structure of interest
- III. Develop a new model to assess climate risk combining technical risk assessment with assessment of social risks applicable for each asset of interest



# ICARIA

## Towards asset level modelling of climate risks and adaptation

ICARIA: Improving ClimAte Resilience of critical Assets

36 months, start 01/01/2023, ~2,3 M€

Coord. CETAQUA, Centro Tecnológico del Agua (ES); 14 partners (one from UK)

3 pilots considering different multi-hazard scenarios:

- **Barcelona metropolitan area (ES):** anticipated impacts of future compound extreme weather events on the city will be studied
- **South Aegeon region (GR):** sustainability and resilience of infrastructure in tourist regions with extreme seasonal population fluctuations will be addressed
- **Salzburg region (AT):** resilient 100% renewable electricity production is foreseen to be examined

**Main outputs/outcomes:** a framework to promote the use of asset level modelling to achieve a better understanding on climate related tangible direct and indirect impacts. The project will:

- I. Focus on both critical assets and infrastructures that were not designed to consider potential climate changes
- II. Implement cutting edge methods regarding climate scenario building, assets level coupled models and multi-risk assessment approaches and replicate them in three EU regions
- III. Provide a decision support tool allowing authorities to compare several adaptation solutions to improve climate planning on strategic assets

