PCP WISE

EU Project Synergies – Lightning Talks from Fellow Initiatives & Matchmaking for Cross-Project Collaboration

PCP WISE Webstival – Webinar 3

17 April 2025 – 10:00-11:45

Funded by the European Union

This project has received funding from the Horizon Europe Framework Programme (HORIZON) under grant agreement N° 101182917

Housekeeping rules

Welcome to the PCP WISE Webstival Opening Webinar!

Here's how to make the most of the session:

- 🔇 **Stay Muted** – Please keep your mic off unless invited to speak.
- 💬 **Use the Chat** – Questions? Thoughts? Drop them in the chat anytime!
- 🙋 **Raise Your Hand** – Want to speak? Use the raise hand ✋ feature.
- 📸 **This session is recorded** – So we can share the magic with others later!
- 📹 **Cameras Optional** – Feel free to keep your camera on if you'd like—we like seeing your faces!
- 🌍 **Be Respectful** – We're an inclusive, global community—let's keep it kind and constructive.

Agenda

10:00 – 10:15	**Welcome & PCP WISE Overview**, by Melissa Campagno, G.A.C. Group
10:15 – 10:25	**Project 1 –** MIRACA by Elco Koks, Vrije Universiteit Amsterdam (The Netherlands)
10:25 – 10:35	**Project 2 –** TransformAr by Marcos X. Álvarez, Norwegian University of Science (Norway)
10:35 – 10:45	**Project 3 –** SPACE4CITIES by Renske Martijnse-Hartikka, Forum Virium Helsinki (Finland)
10:45 – 10:55	**Project 4 –** ARSINOE Aristotle University of Thessaloniki (Greece)
10:55 – 11:05	**Project 5 –** RESIST by Catarina Pydzińska Azevedo, INOVA+ (Portugal)
11:05 – 11:15	**Project 6 –** Climateurope2 by Francisco Doblas-Reyer, Barcelona Supercomputing Center (Spain)
11:15 – 11:40	**Q&A and Interactive discussion**
11:40 – 11:45	**Final remarks & closing** by Melissa Campagno, G.A.C. Group

Welcome & PCP WISE Overview

Melissa Campagno, Innovation consultant and Project manager at G.A.C. Group
& Leader of the Impact Maximisation Work Package

10:00 – 10:15

PCP WISE ID Card

PCP WISE is a forward-looking European project developing smart, sustainable solutions to improve **water management** and **climate resilience**. Using **space technology and environmental data**, it focuses on tackling major challenges like floods, wildfires, and infrastructure risks in both **urban and rural areas.**

Through a **Pre-Commercial Procurement** process, public buyers, researchers, and innovators are working together **to create a new solution** that will help Europe better prepare for and respond to the impacts of climate change.

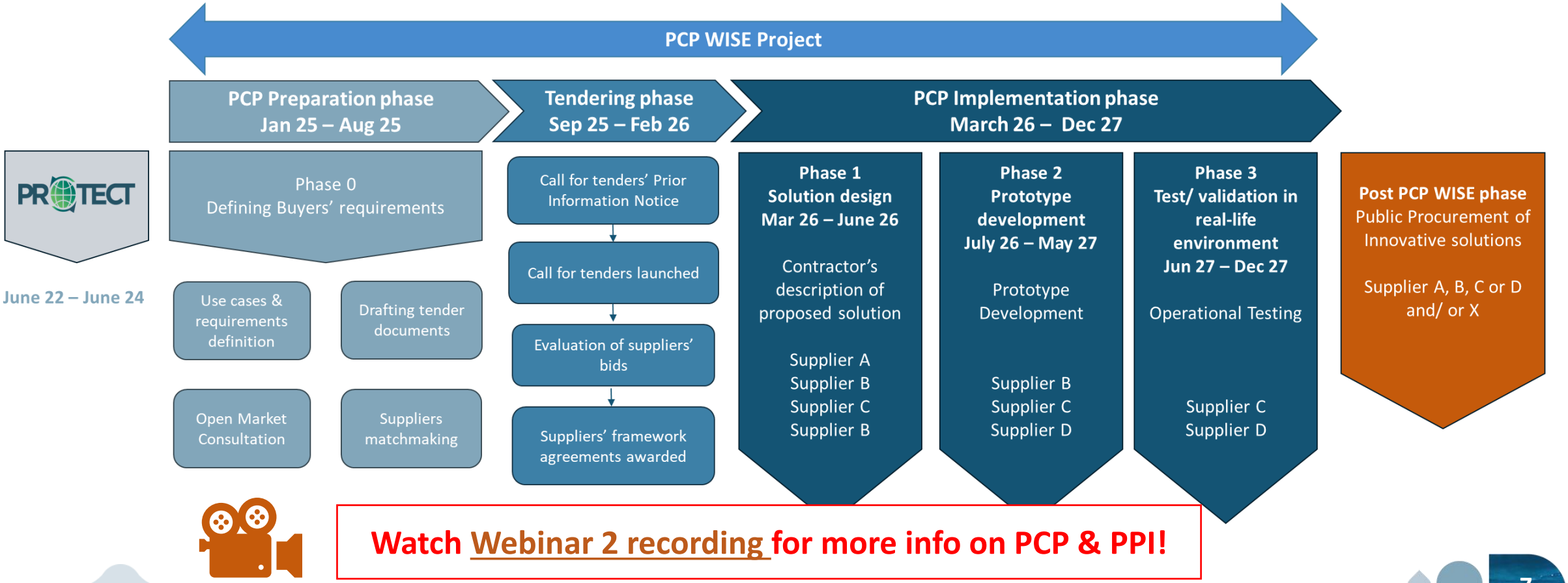
- Builds on the **PROTECT CSA** project
- 12 Public Buyers and 14 support partners
- Lead buyer: hetWaterschapshuis (Water authority in the Netherlands)
- Project coordination: Barrabés
- Duration: 36 months
- Overall budget: €19M

But what is the Pre-Commercial Procurement approach?

According to the EC's definition, "PCP challenges industry from the demand side to develop innovative solutions for public sector needs and provides a first customer reference that enables companies to create competitive advantage on the market. PCP enables public procurers to compare alternative potential solution approaches and filter out the best possible solutions that the market can deliver to address the public need".

Why a PCP? And how does it work exactly?

- Solutions needed do not exist yet (identified in PROTECT)
- PCP enables co-development in competitive R&D phases up to TRL 8



Watch Webinar 2 recording for more info on PCP & PPI!

The PCP WISE Challenge & 5 Use Cases

The overarching challenge is to control & manage our 'soil-water-vegetation-atmosphere' system to prevent extreme events & improve water distribution

Use Case 1
Urban Drought North-West EU

Use Case 2
Urban waterexcess North-East EU

Use Case 3
Rural Drought North-West EU

Use Case 4
Rural Drought & Flooding South-EU

Use Case 5
Rural Drought & Flooding North-East EU

Use case Lead

Use case Partner

PCP WISE is looking for Real Solutions for Real Needs

1. URBAN & RURAL FLOOD FORECASTING

2. WILDFIRE DETECTION & RISK MONITORING

3. INFRASTRUCTURE STRESS MONITORING

4. MULTI-HAZARD EARLY WARNING SYSTEMS

5. PLANNING TOOLS FOR SOIL & WATER

Watch Webinar 1 recording for more info on the PCP WISE use cases and expected functional and information requirements of the desired solution

Who Should Apply?
PCP WISE targets multi-disciplinary skills & expertise

Webinar 1 recording

- Main contractor (large SME: civil engineering and management, upscaling ambitions)
- Hydrology (model) skills/services dedicated to sectors
- Meteorology (short extreme events, climate scenario modeling, spatio-temporal modeling)
- Crisis (Risk/impact) skills/experience dedicated to sectors
- Remote Sensing value-adding skills/services dedicated to sectors
- ICT skills in operational information productions (upscaling) in back and front processing
- Legal & contracting skills (European standards, AI, IPR, etc)
- Research and innovation skills in the above disciplines

Get involved now & Gear up for the PCP Journey !

- OMC PIN Published — 2 April
- Webinar 4 — 22 April
- Webinar 5 — 24 April
- Webinar 6 — 28 April
- OMC Info Day — 29 May
- First OMC — 3 June (Online)
- Second OMC 12 June (Hybrid)
- Launch of Call for Tenders September

Access the OMC document and supplier Request For Information survey (RFI)

Join our Community Networking & Matchmaking platform

Project 2 – MIRACA (Multi-hazard Infrastructure Risk Assessment for Climate Adaptation)

Elco Koks, Vrije Universiteit Amsterdam (The Netherlands)

10:15 – 10:25

Presentation Deck

MIRACA PROJECT

Multi-hazard Infrastructure Risk Assessment for Climate Adaptation.

miraca

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No. 101004174.

“MIRACA, funded under the European Union's Horizon Europe program, focuses on assessing and improving the resilience of Critical Infrastructures (CI) against natural hazards and climate change impacts”

Goals & Objectives

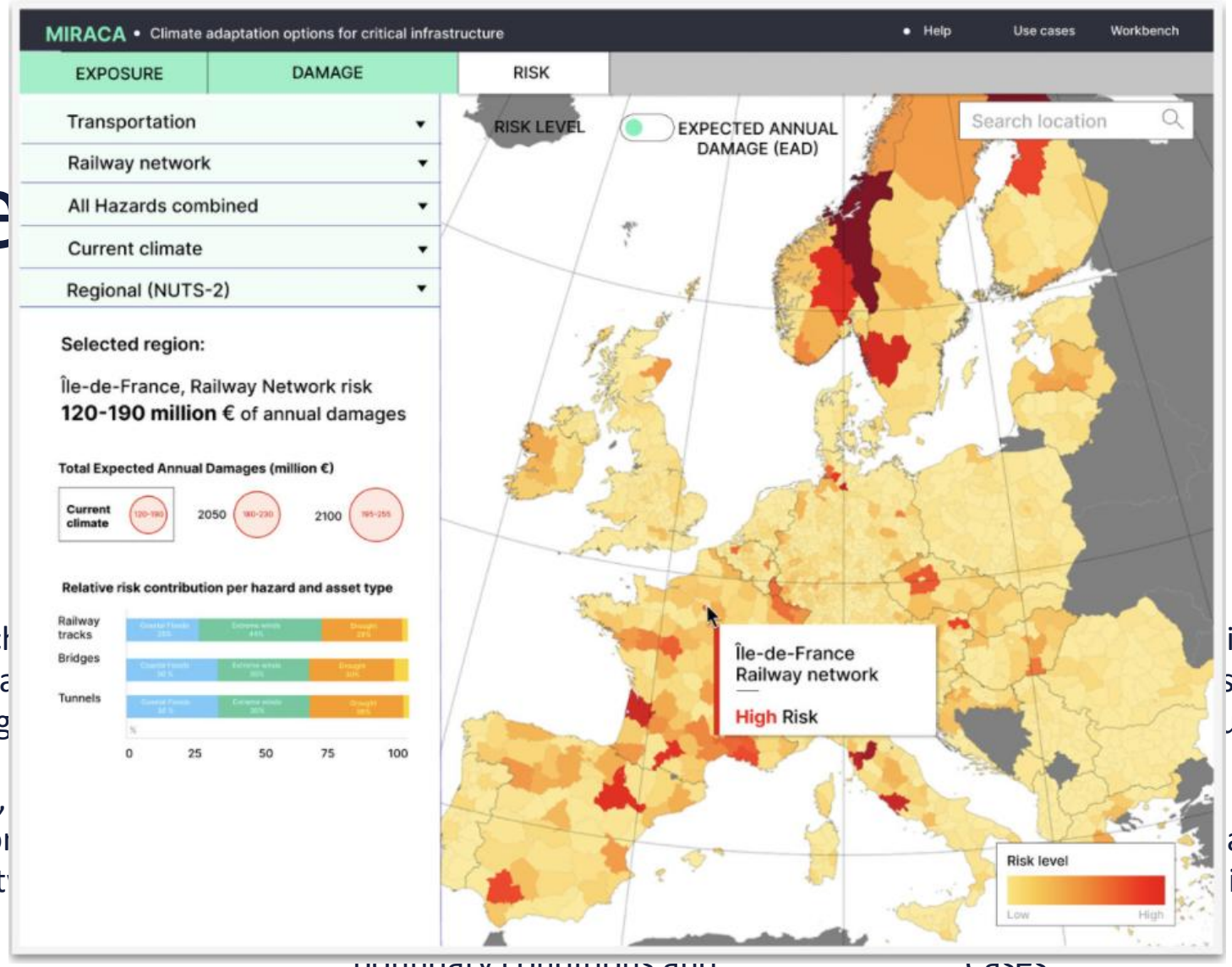
What MIRACA wants to do

The project aims to develop a comprehensive understanding of the vulnerabilities of various CIs (like energy, transport, and telecommunication networks) to natural hazards and extreme weather, and proposes methods for enhancing their resilience.

Three

A guidance on tech
economic appraisa
adaptation strateg

Considering asset,
societal adaptatio
and trade-offs bet



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in the MIRACA
the several Use
cases.

boundary conditions and
spatial settings.

Why we need MIRACA

Enable Action

To catalyse and empower the implementation of adaptation measures for Critical Infrastructure (CI) throughout Europe.

Approach Alignment

To do so, a systemic risk approach is essential and should be incorporated in climate adaptation appraisal and CI investment decisions.

Understand Adaptation

Adaptation prioritisation should move beyond the standard asset-based losses and account for indirect losses, opportunity costs and other co-benefits.

The MIRACA Technical Approach

miraca

Single and Multi-Hazard Database WP1

Hazard footprint

Asset-Level Exposure & Vulnerability WP1

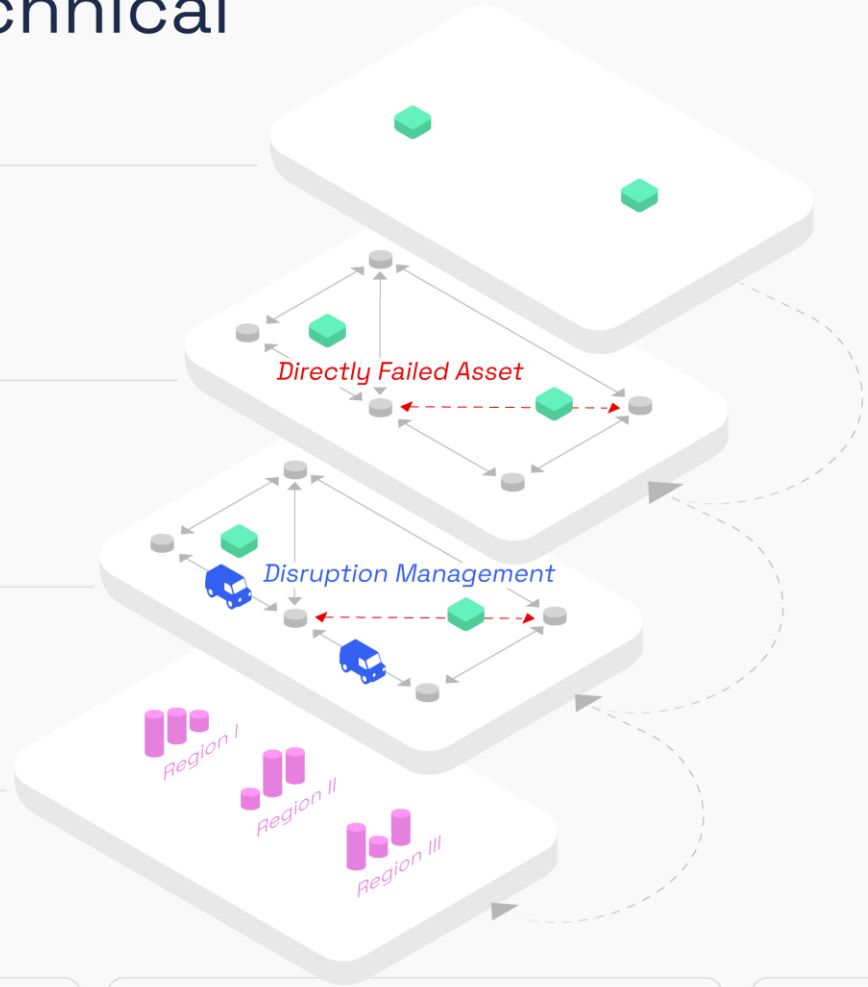
Origin/Destination

Network Failure & Service Disruptions WP2

Infrastructure Services

Systemic Risk WP3

Regional loss metrics



Adaptation Appraisal WP4

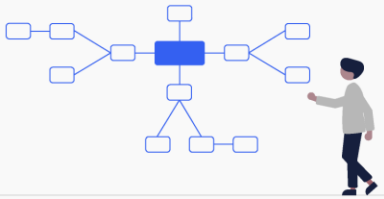
- Asset-level strategies
- System-level strategies
- Network-level strategies

Avoided Losses

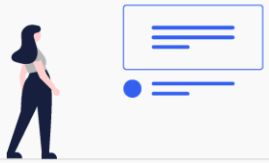
Adaptation Costs

Investment decisions

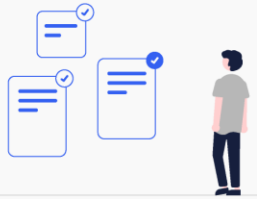
Decision-Support Toolkit WP5



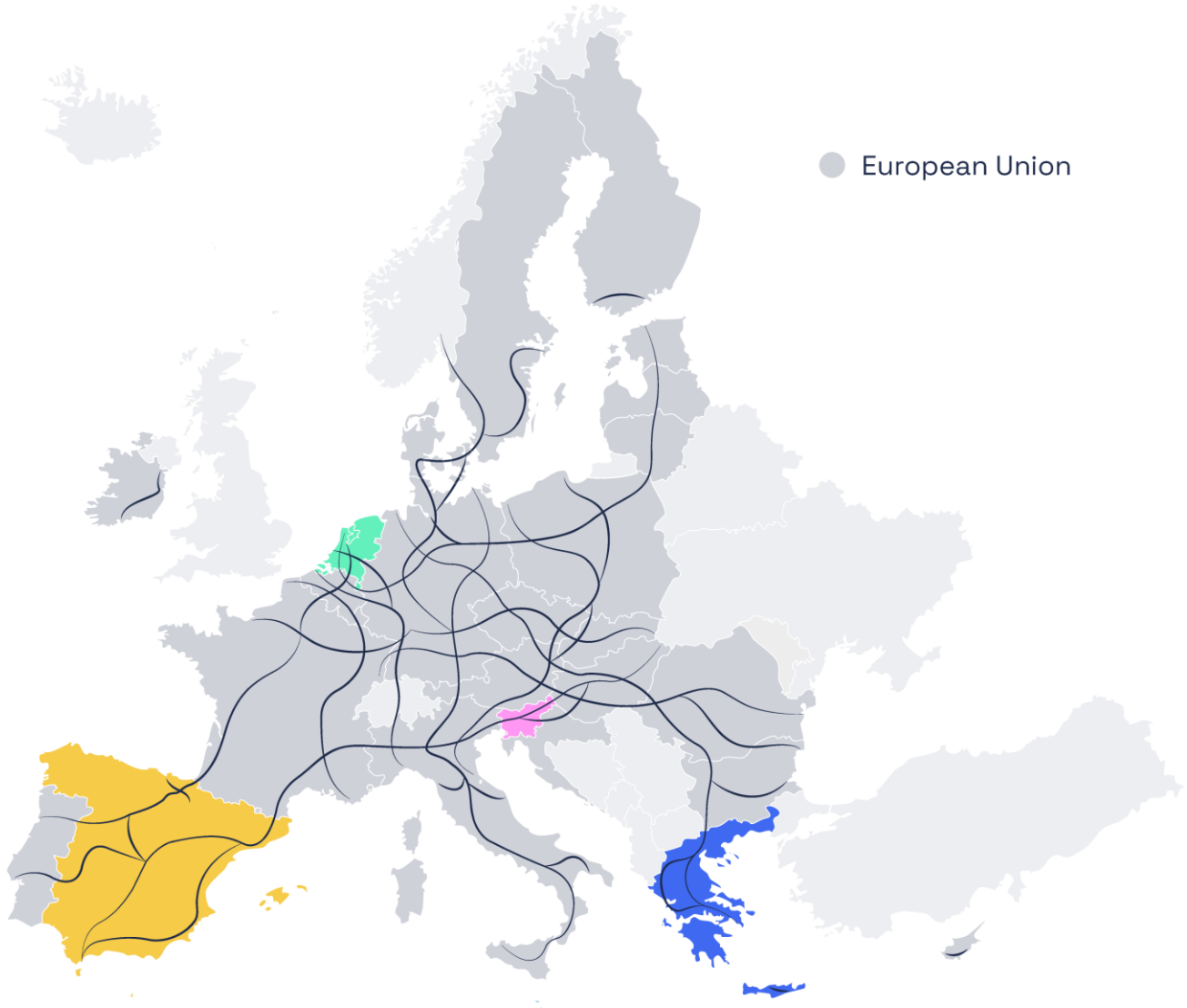
Communication, Dissemination & Exploitation WP6



Project and Data Management WP7



Use Case Overview



Use Case 1 — TEN-T Corridors

HAZARDS

Droughts · Floods · Storms

Use Case 2 — Spain

HAZARDS

Droughts · Wildfires · Heatwaves

Use Case 3 — Netherlands

HAZARDS

Floods · Heatwaves · Storms

Use Case 4 — Greece

HAZARDS

Earthquakes · Floods · Landslides

Use Case 5 — Slovenia

HAZARDS

Floods · Landslides

Project Partners

VU VRIJE UNIVERSITEIT AMSTERDAM

UNIVERSITY OF OXFORD

ARISTOTLE UNIVERSITY OF THESSALONIKI

Univerza v Ljubljani

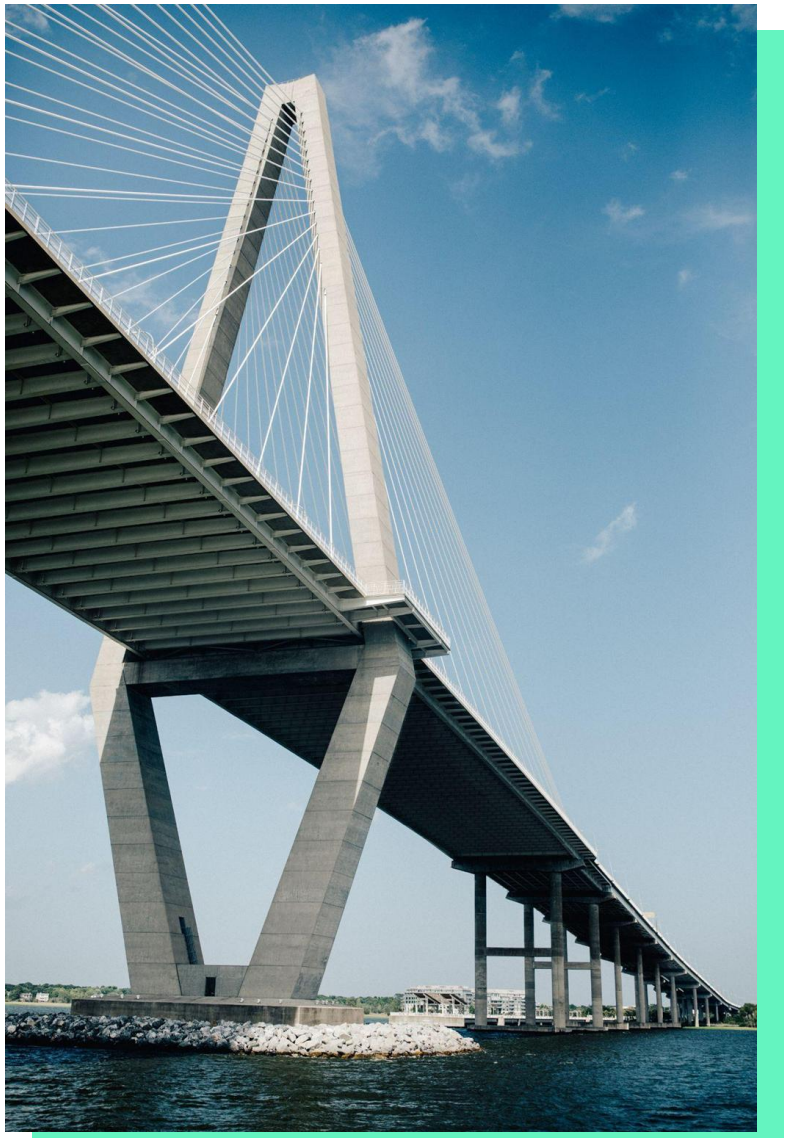
Deltares

vizzuality.

Lobelia.

A few lessons learned

- Go beyond asset-level impacts → infrastructure providers and end users are slowly embracing the system-level approach as well (even though its more complicated!).
- Climate resilience of infrastructure systems should go hand in hand with other key transformations they deal with (e.g. decarbonization).
- The hurdles within the implementation are not necessarily on the technical implementation -> they often are often organizational or due to governance structures.



Talk to us

Please engage with us, learn more on the website or talk to us in our channels.

Email

elco.koks@vu.nl

Website

www.miraca-project.eu

Social Media

miraca-project

Thank you

miraca

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Project 2 – TransformAr (Accelerating and upscaling transformational adaptation in Europe)

Marcos X. Álvarez, Norwegian University of Science (Norway)

10:25 – 10:35

TransformAr at Glance

Accelerating and upscaling transformational adaptation in Europe: demonstration of water-related innovation packages

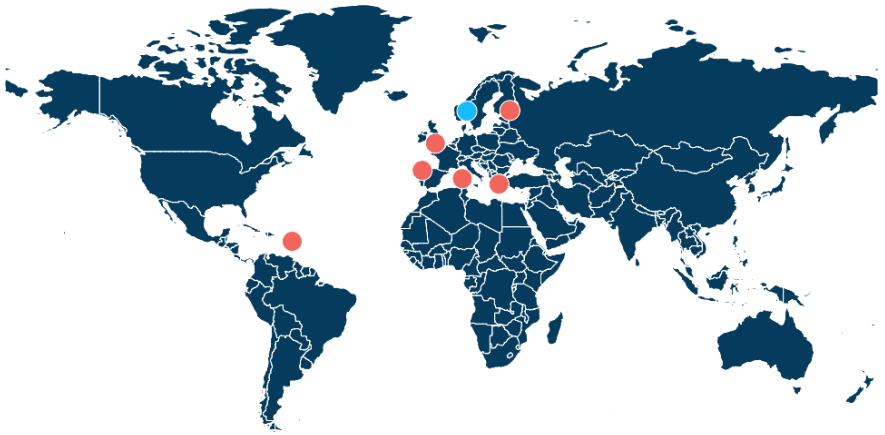
Project Mission: Empowering European communities with innovative pathways and solutions for rapid, transformational adaptation to climate change.

48	22	12	€12 730 322.50	6
Months	Partners	Countries	Project Budget	Demonstrators

Call: H2020-LC-GD-1-3-2020 - Climate-resilient Innovation Packages for EU regions (IA)

This project has received funding from the European Union´s Horizon H2020 innovation action programme under grant agreement 101036683

Challenges and Scale



6 Demonstrator Regions/Cities

+

1 Replicator

Climate Risks & Sectors	Lappeenranta	West Country	Guadeloupe	Galicia	Oristano	Egaleo
Flooding						
Drought						
Heat Waves						
Extreme Events						
Sea Rising						
Health						
Agriculture						
Fisheries						
Aquaculture						
Water						
Environment (biodiversity)						
Infrastructures						
Urban Planning						
Tourism Sector						

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Solutions and Innovations

Solutions + TA Pathways → Region-Specific Portfolios → Innovation Packages

Category of solution	Solution Name	Provider	Start TRL	End TRL	Start SRL	End SRL
TABS	TAB 1	FEUGA			2	5
	TAB 2	E3M	5	7		
	TAB 3	CMCC	5	7		
	TAB 4	ACTERRA	6	8	2	5
	TAB 5	ACTERRA	6	8		
	TAB 6	UA	6	8		
	TAB 7	ADEME	6	8	2	5
	TAB 8	CULS, LUT	6	8		
	TAB 9	UA	6	8	2	5
Behavioural change and awareness raising	NUDG	VERHAERT	7	9		
	CAF	NTNU	6	8		
	CAE	NCSRD	5	8		
	AWAR	MOE			2	5
Governance schemes	RI	UVIGO/ CETMAR	6	7		
	DSI	MOE/NCSRD	6	8		
	COAST	MEDSEA/ CMCC	6	8		
	CIH	MOE	5	7		
NBS	ICW	CULS	7	9		
	URB	LUT	5	7		
	SG	MEDSEA	6	8		
Technological and digital solutions	SWM	LUT	5	7		
	SWMM	VERHAERT	5	7		
	SCS	NCSRD	7	9		
	MRM	CETMAR	5	7		
	INTERM	CETMAR	5	7		
	ICWM	WRT	5	7		
Financial, economic and insurance schemes	AF	ADEME	6	8		
	GB	WRT	5	7		
	CEI	LUT			2	4
	INSUR	PIK	5	7		

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Digital and Technological Solutions

TransformAr

SWM: Stormwater Management System
SWMM: Digital Monitoring
SCS: Smart Climate Stations
MRM: Mussel Raft Monitoring
INTERM: Intertidal Monitoring
ICWM: Integrated Constructed Wetlands Monitoring

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22/04/2025

Mussel Raft Monitoring (MRM)

TransformAr

CETMAR
CENTRO TECNOLÓGICO DEL MAR

IoT Solution for Mussel Raft Management

Real time monitoring of Environmental conditions (i.e. temperature, wave agitation, …) potential impacts on mussel culture (real-time assessment, and long-term impact).

Production and management parameters: maintenance operations control (unfold, landslides, rope extraction, surveillance).

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This project has received funding from the European Union´s Horizon H2020 innovation action programme under grant agreement 101036683

Smart Climate Stations (SCS)

TransformAr

Low-cost local IoT network and mobile app to monitor microclimate variables

NATIONAL CENTRE FOR SCIENTIFIC RESEARCH "DEMOKRITOS"

To acquire a detailed **view of the micro-climatic conditions** in the municipality.

6 commercial microclimatic stations
10 custom environmental stations
Climatic variables:

- Temperature
- Relative Humidity
- Atmospheric Pressure
- CO2 (ppm)
- PM 2.5/10 (ppm)
- Wind speed
- Rainfall

PCP WISE

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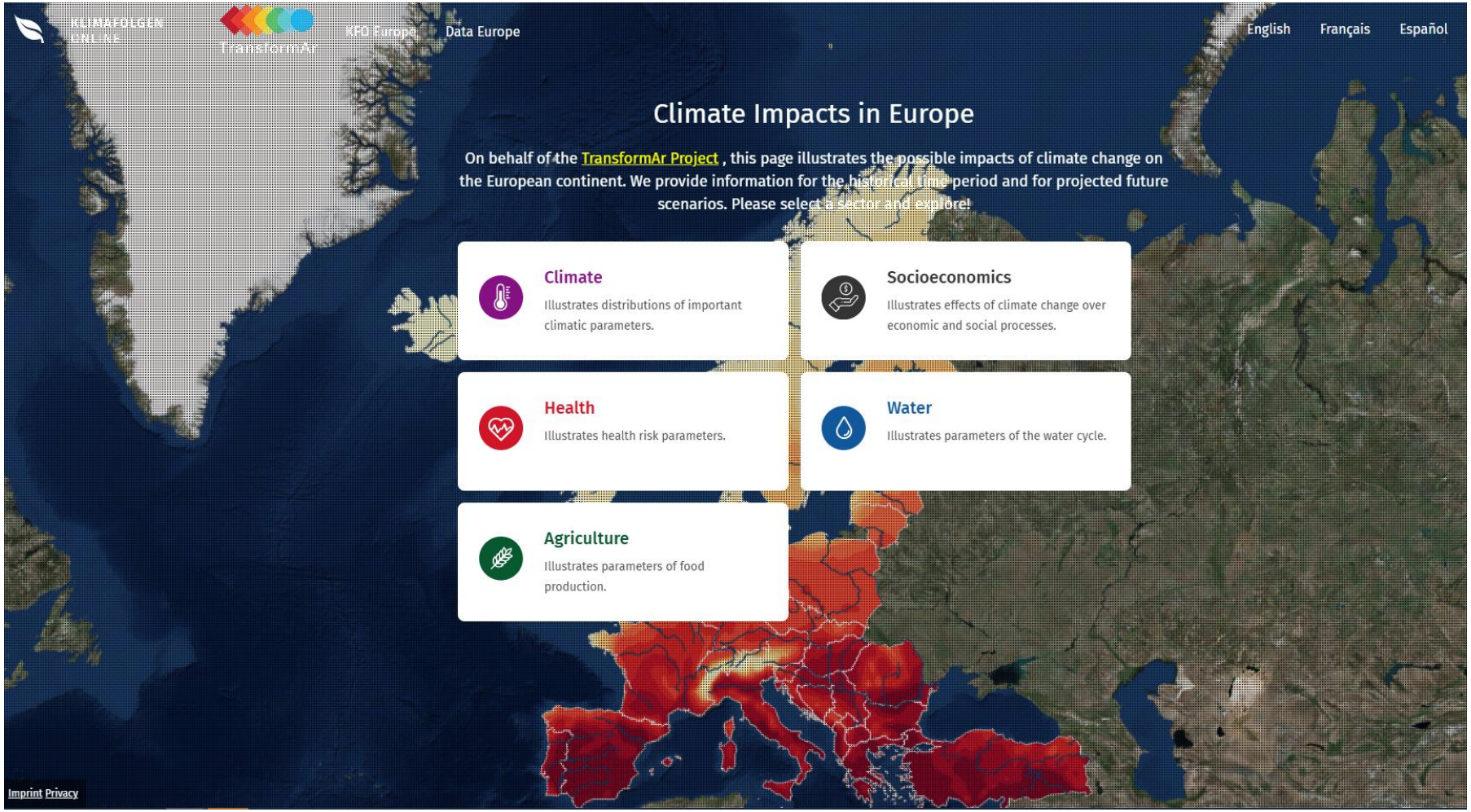
22/04/2025

Hazard Modelling (PIK Platform)



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Who's Involved?

TransformAr

The TransformAr project brings together 22 partners from 11 countries, encompassing universities, research institutes, public authorities, and private sector organizations.

Demos Duos

Demonstrator name	Demo Facilitators	Technical support partners
West Country region, UK	WRT	CZU
Guadeloupe Archipelago, France	ADEME	ACTERRA
Oristano, Italy	MEDSEA	CMCC
Galicia region, Spain	CETMAR	UVIGO
City of Lappeenranta, Finland	LAPP	LUT
City of Egaleo, Greece	MOE	NCSRD

Involvement of SMEs and startups

TransformAr includes innovative SMEs and climate tech partners such as Verhaert (EO solutions), ACTERRA (adaptation tools), E3M (empirical modelling of the nexus economy-energy-environment), and EQY (innovation management).

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22/04/2025

Lessons Learnt and Insights

TransformAr

✅ What is working well?

- Strong stakeholder engagement (e.g. mussel aquaculture in Galicia, stormwater DCEs in Finland/Norway).
- Co-creation of tools like the Resilience Index and Citizen Apps that enhance climate data usability.
- Successful awareness-raising through youth education, nudging (Guadeloupe), and real-time apps (Egaleo, Lappeenranta).

🚧 Barriers Faced

- **Data challenges:** fragmented sources, limited long-term monitoring systems.
- **Scalability:** solutions (e.g. nature-based stormwater systems) depend on local political, financial, and institutional support.
- **User adoption:** hesitation among private landowners and tourism actors; difficulty engaging certain target groups.

🤝 Data & Collaboration Needs

- Improved integration and accessibility of climate and socio-environmental data.
- Cross-sector collaboration (public-private-academic-civil society) for financing, modelling, and technical support.
- Tools and support for replicating solutions in diverse regions.

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22/04/2025

Collaboration and Synergies

TransformAr

🔍 Partners or Projects We Seek

- Climate tech startups and SMEs focused on **data integration, forecasting**, and **resilience modelling**.
- Public agencies and municipalities engaged in **nature-based solutions, adaptive governance,** and **citizen engagement**.

🚀 How PCP WISE Can Amplify Our Work

- **Support scaling** of tested TransformAr tools (e.g. Resilience Index, stormwater DCEs) through procurement pathways.
- Facilitate **cross-regional replication** of digital and nature-based innovations via living lab environments.
- Bridge **innovation suppliers and demand-side actors** to co-develop solutions that meet real-world needs

🤝 Synergy Opportunities

- **With Horizon-funded projects** on digital twins or smart cities: for shared climate data platforms & predictive analytics.
- **With Interreg-funded projects** (e.g. BALTFLOODS) and European Partnerships in HEU (AIHABs).
- **With tourism or agri-food sectors**: to mainstream climate risk reduction and sustainable water management

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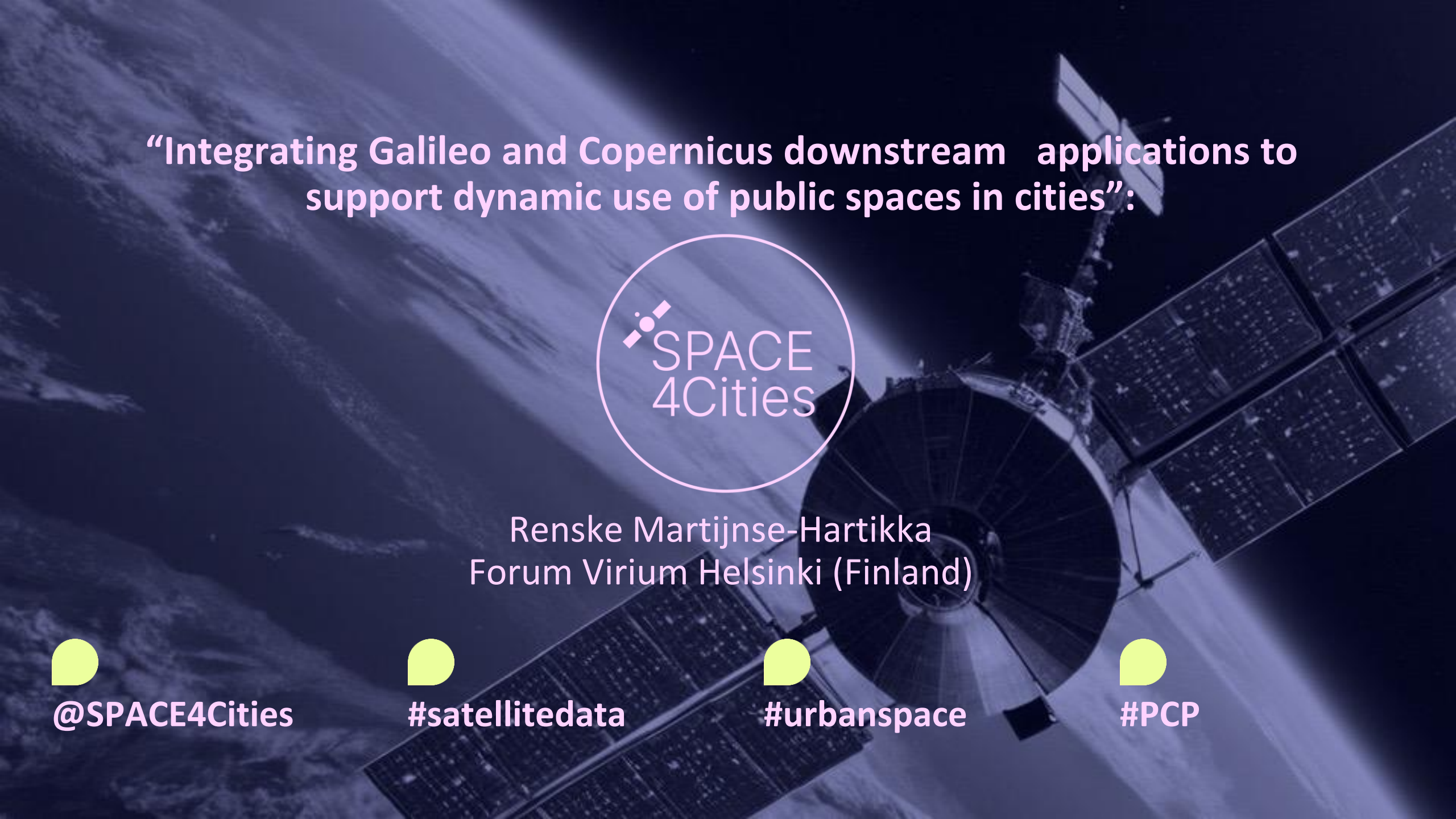
22/04/2025

Project 3 – SPACE4CITIES (Opening satellite data for city planning)

Renske Martijnse-Hartikka, Forum Virium Helsinki

10:35 – 10:45

“Integrating Galileo and Copernicus downstream applications to support dynamic use of public spaces in cities”:



Renske Martijnse-Hartikka
Forum Virium Helsinki (Finland)

@SPACE4Cities **#satellitedata** **#urbanspace** **#PCP**

SPACE4Cities mission:

Via a Pre-Commercial Procurement of innovative and smart use of satellite data, the SPACE4Cities project aims to build replicable solutions for better and more dynamic management of public areas, green spaces, transport infrastructure and city maintenance – and the overall resilience and functionality of cities and regions around Europe.

SPACE4Cities in Short

Pre-Commercial Procurement, funded by Horizon Europe, coordinated by Forum Virium Helsinki

- **Timeline 42 months: February ‘24 to July ‘27**
- **Phases:** 1. Open Market Consultation (20 Suppliers; TRL 2-3); 2. Solution Design & Prototyping (10 Suppliers; TRL 4-6); 3. Field Testing (5 Suppliers; TRL 7-8); 4. Exploitation and scaling
- **Budget:** 5.2 M€, **incl. 2.87M€ for SMEs/suppliers**
- **Who’s involved?** 5 Buyers’ Group cities (Helsinki, Amsterdam, Athens, Gent, Guimaraes) + Aerospace Valley & Open & Agile Smart Cities network
- **Piloting in 5 Buyers’ Group cities (‘26 and ‘27).** Smaller pilots in 10 Replicator cities.
    - So: The 5 winning Suppliers in Phase 3 to deploy 1 + 2 pilots

SPACE 4Cities

3 SPACE4Cities Challenges

Suppliers are required to use Copernicus EO and/or Galileo GNSS data/services as part of their proposed solutions.

Sustainable mobility

- Active Mobility
- Public Transportation
- Public space and logistics management
- Accessibility of infrastructure
- Drones in urban environments

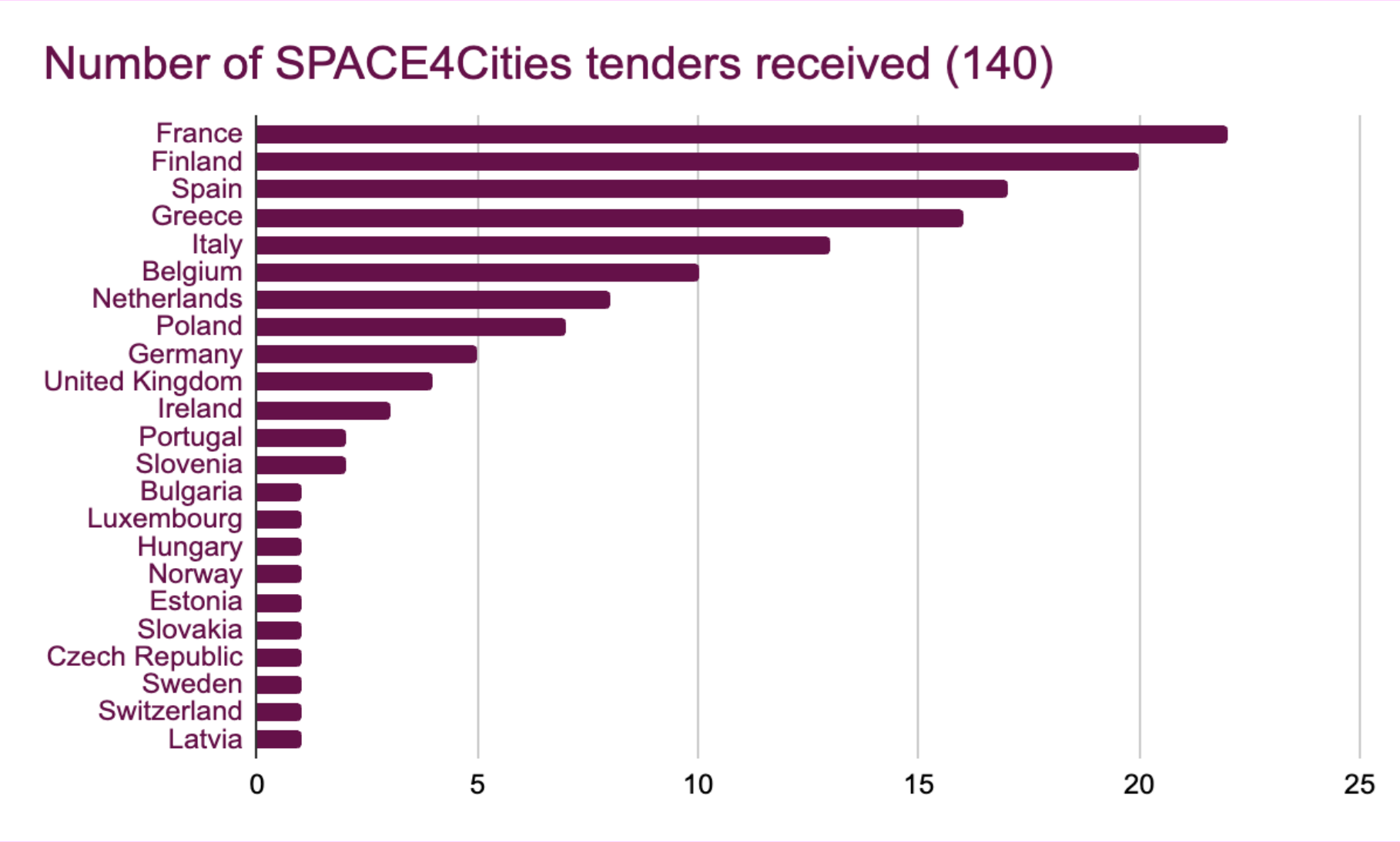
Climate Resilience

- Climate Resilience
- Environmental Risk Modelling & Prediction
- Dynamic Emissions & Air Quality Management
- Energy Transition
- Green Cities

Urban Planning & Management

- Digital City Models & Data Inventories
- Policy simulation

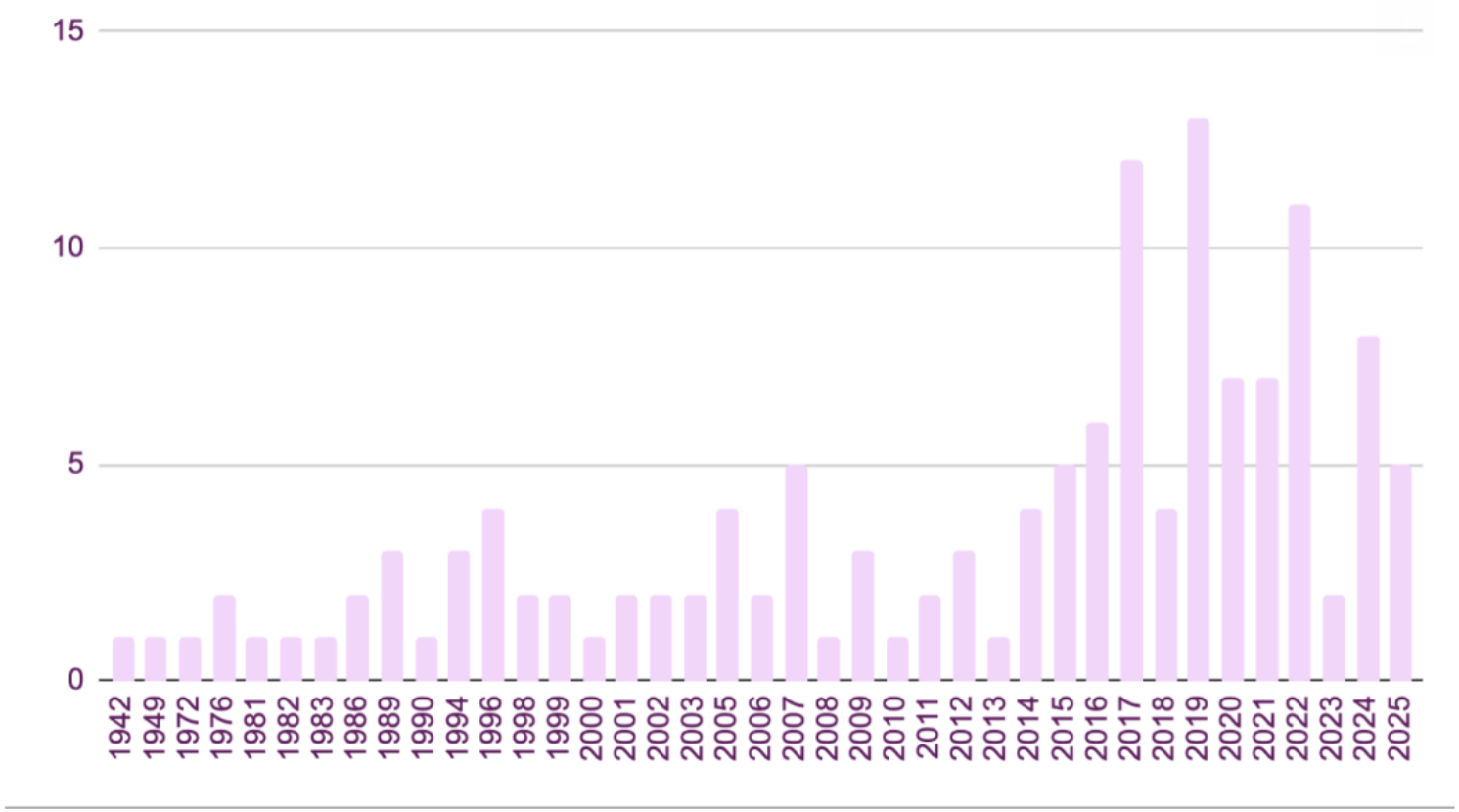
Who's involved?



SPACE 4Cities

SPACE 4Cities

Founding year of Lead tenderer organisation



SPACE 4Cities

Challenges covered in tenders

Climate Adaptation 66%

Urban Planning 48%

Sustainable Mobility 28%

To conclude

- **What worked well so far:** relatively small and effective S4C team had an active Open Market Consultation and lots of dissemination activities. This helped to receive a large number of Tenders;
- **Publication** of the winning 20 Suppliers and their solutions: end May 2025;
- Collaboration with other satellite data related projects for **joint dissemination activities**, e.g at conferences;
- **Procurers wanted!** Call for Replicator Cities / Regions will open in 2026;
- Looking for cooperation and best practices related to commercialisation after the piloting phase; funding opportunities (VC, PPI?)

SPACE4Cities

Contact:

Renske Martijnse-Hartikka, Coordinator
renske.martijnse-hartikka@forumvirium.fi

Project website
http://space4cities.eu/

LinkedIn:
http://linkedin.com/company/space4cities/

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No. 101131955.

Project 4 – ARSINOE (climate-resilient regions through systemic solutions and innovations

Prof. Giannis Adamos, Aristotle University of Thessaloniki

10:45 – 10:55

Key facts

ARSINOE

41	15	9	15	48
Partners coordinated by the University of Thessaly	European countries	Case studies in Europe	Million Euros	Months (October 2021 – September 2025)

9 case studies in Europe

Challenges

Large number (9) of (diverse) CSs in terms of content and bio-geographical regions

3 transboundary CS

CS#1: Greening the Athens metropolitan area

CS#2: Mediterranean Ports

CS#3: Main River

CS#4: Ohrid/Prespa lakes

CS#5: Canary Islands

CS#6: Black Sea

CS#7: Southern Denmark

CS#8: Torbay and Devon county

CS#9: Sardinia

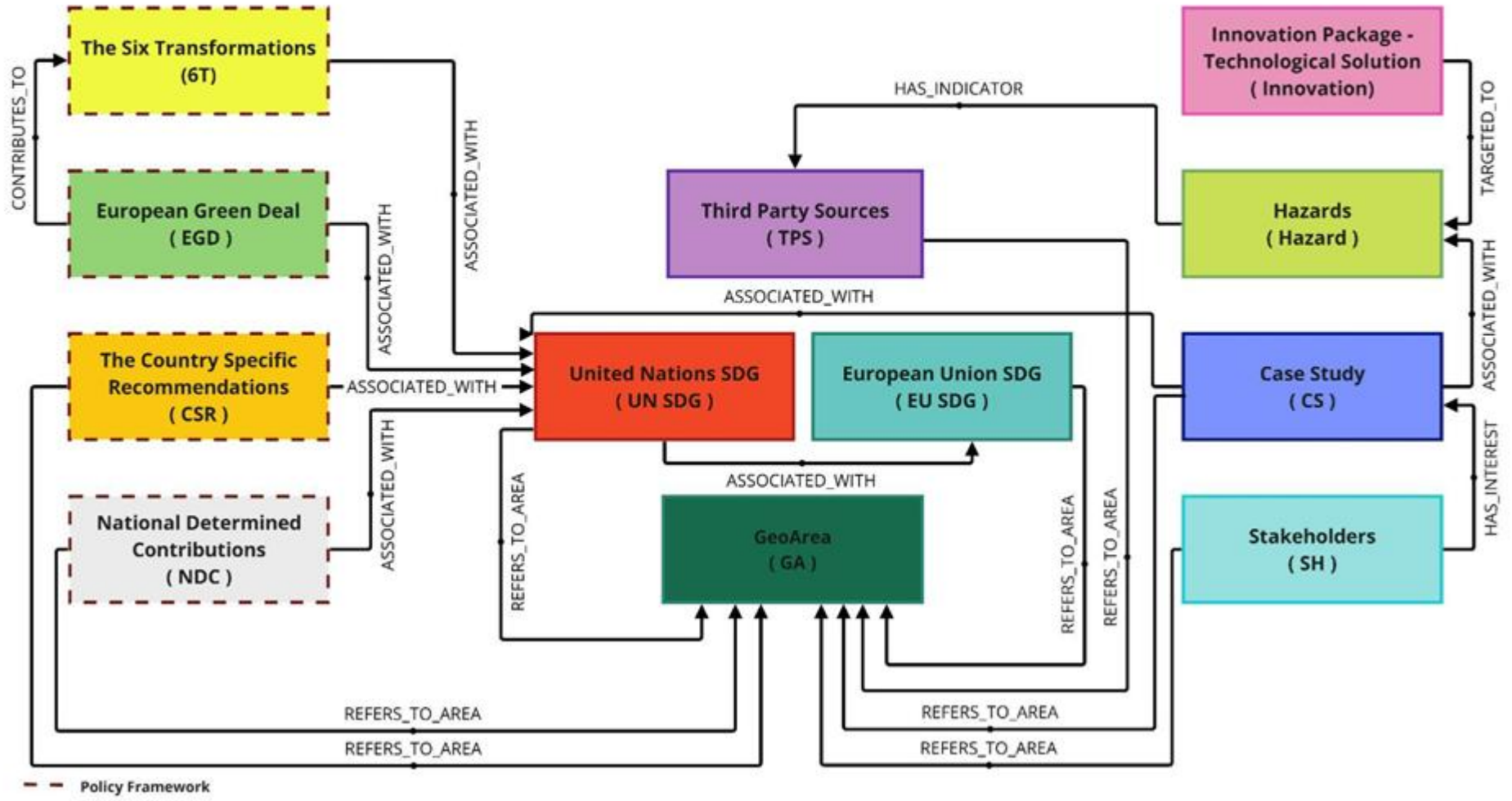
Challenges & Approaches

Climate change is complex and interconnected with other global challenges such as food security, water scarcity, biodiversity depletion and environmental degradation.

Adaptation refers to all approaches taken to adjust, prepare for, and accommodate new conditions that are created by changing climates.

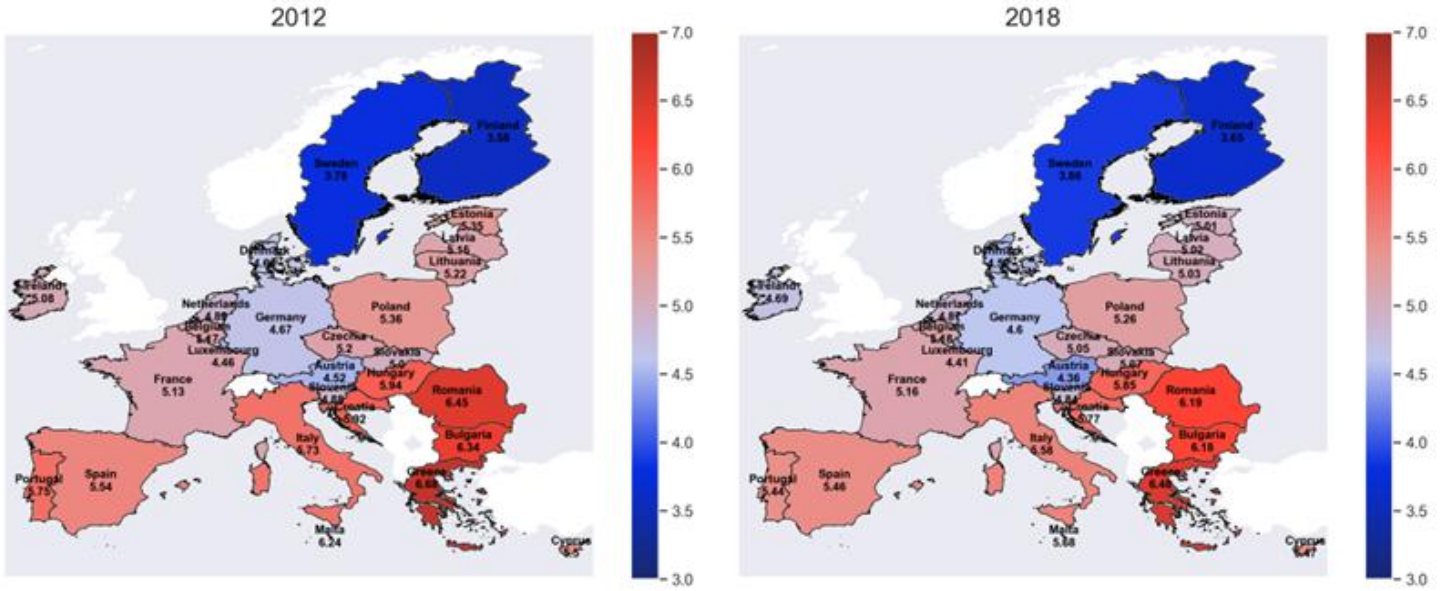
ARSINOE will apply a three-tier approach to address the growing complexity, interdependencies and interconnectedness of modern societies and economies and propose climate change adaptation solutions

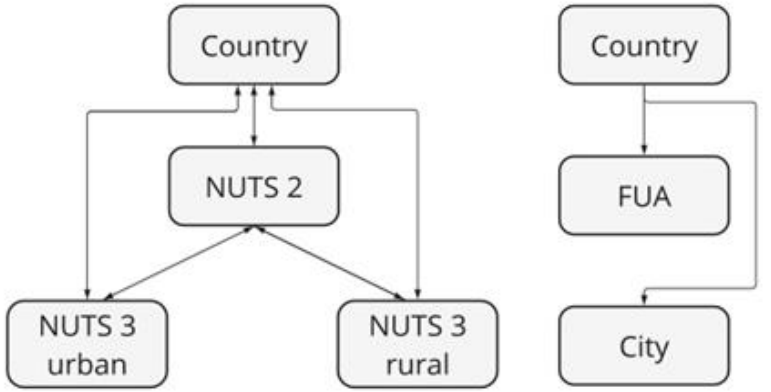
SUSTAIN GRAPH



Climate Change Vulnerability Assessment at Country Level

- **Climate change vulnerability assessment (CCVA)** based on **four dimensions**: economic, social, environmental, political
- Hazard-independent CCVA in **country level**
  - Differences in CCVA indices between the southern countries of Europe (e.g., Mediterranean region) and the central and northern countries of Europe (e.g., Scandinavian region)
- The CCVA analysis is integrated in the SustainGraph and made available at: https://sustaingraph.netmode.ece.ntua.gr/
  - Support analysis in national, regional (NUTS2, NUTS3) and cities level (FUA, City) for all EU countries
  - Continuously updated with fresh data for the latest years
  - Easy to track evolution of indicators per dimension across the years





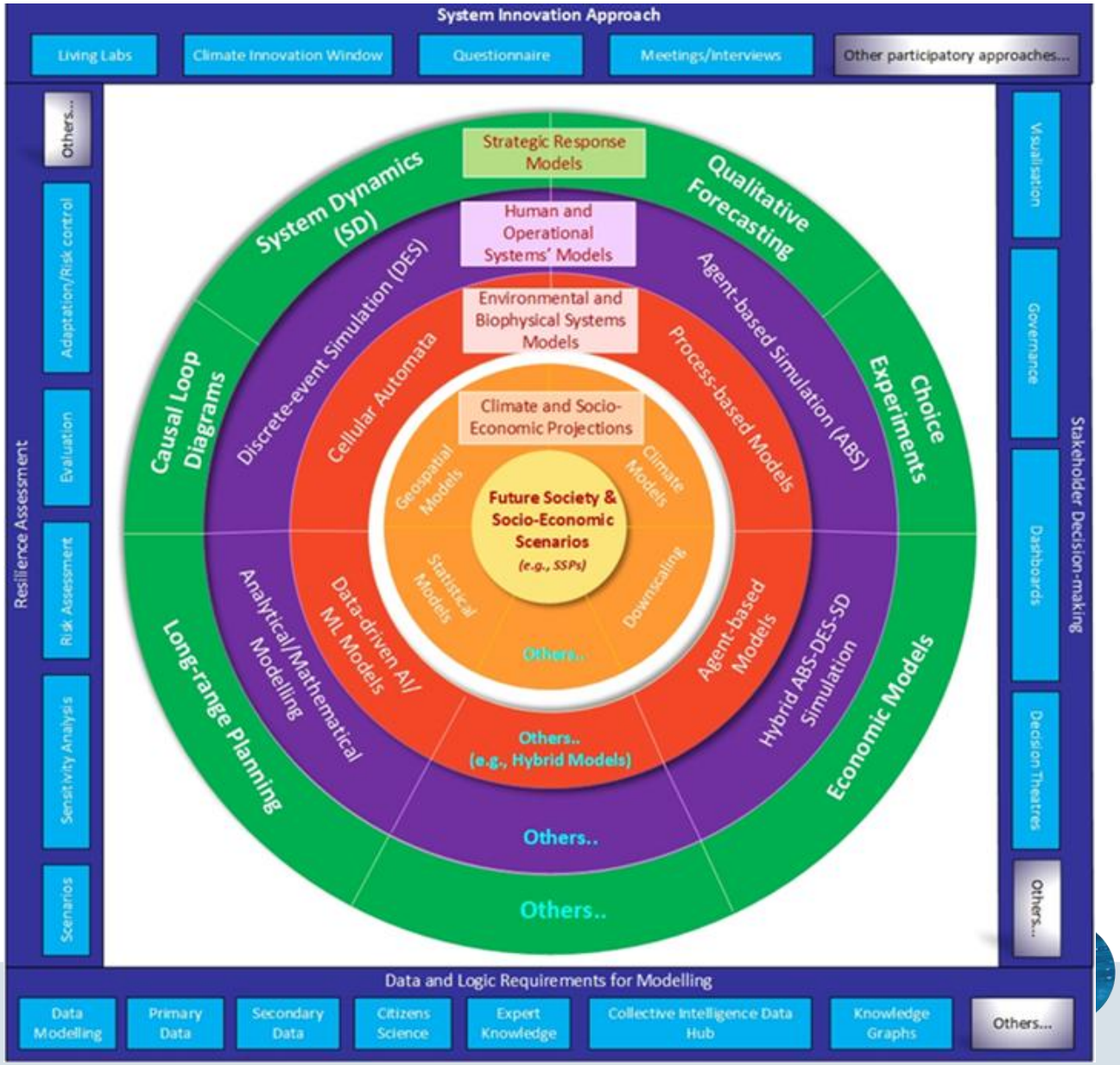
Multi-System Dynamic Modelling Framework of Resilience Assessment

Stakeholder engagement – There are multiple ways to capture the stakeholder requirements in a modelling study, for example, meetings, participatory approaches, questionnaire-based approach or a Living Lab.

Data and logic requirements for modelling – Most models require an underpinning modelling methodology, and which are usually discipline-specific.

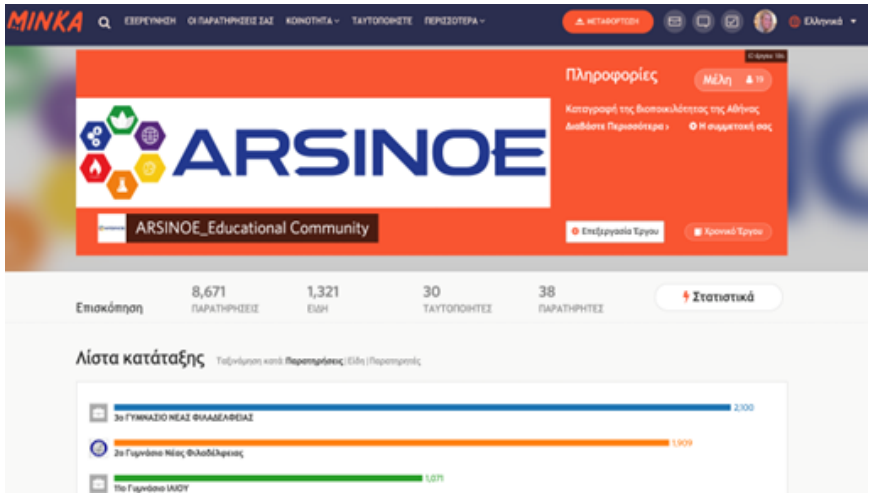
Risk assessment – Similar to the other pillars, the specific methods used for risk assessment are extensible and based on the requirements of the ARSINOE case studies.

Stakeholder decision making – A primary objective of modelling is to enable informed decision-making.



#CitizenScience for a sustainable future

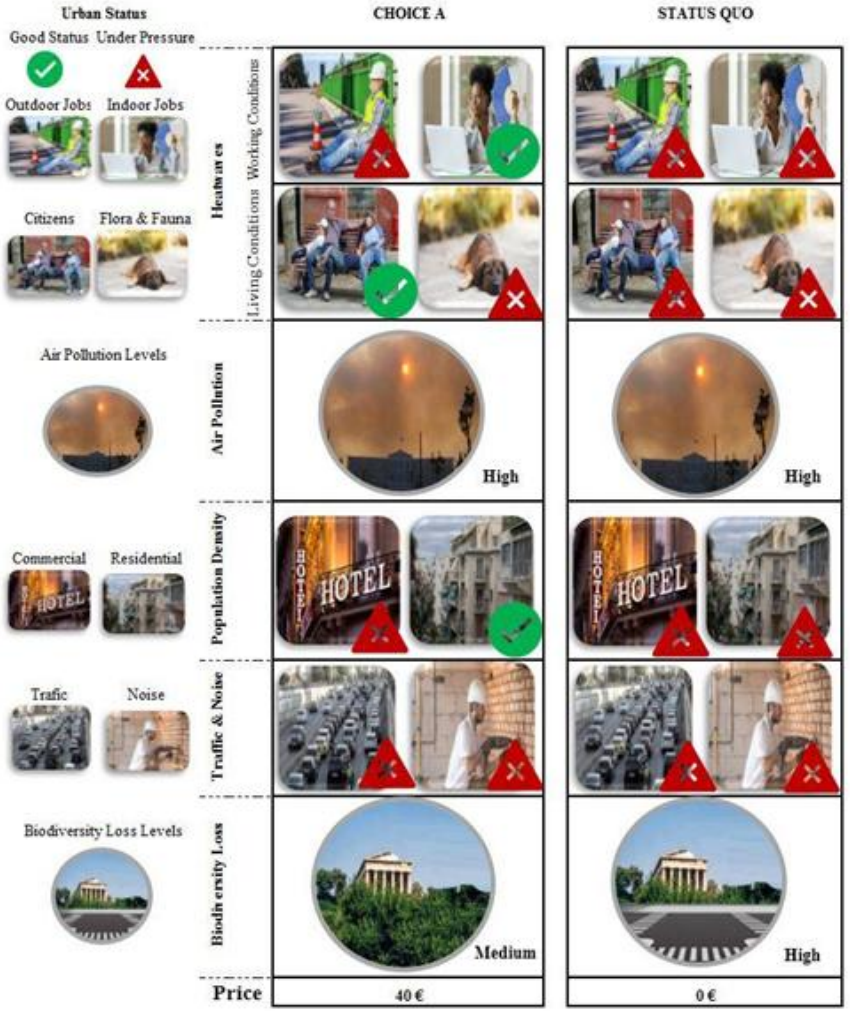
- MINKA is the first **participatory Citizen Observatory** focused on observations related to the Sustainable Development Goals (SDG) of UNESCO.
- Currently, MINKA reports **biodiversity observations** and contributes to other SDGs by **monitoring environmental data observations such as temperature**.



https://minka-sdg.org/projects/arsinoe_educational-community

Virtual Reality experiments & Choice Experiments surveys

Aim: comparison between printed and VR version

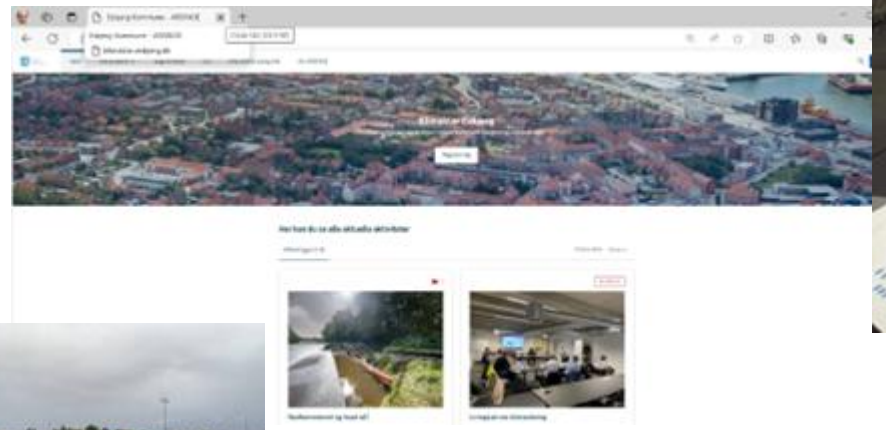


CS#7: Southern Denmark: (DTU, EM, LNH, DCA, LMU)

Multi-sectoral resilience to climate extremes, flooding, drought, climate-resilient and sustainable planning

Main achievements

- Completion of the second and third workshop of the Esbjerg **Living Lab.**
- Scoping of a **"cascading failures" model** for Esbjerg and port together with UNEXE (CS8 collaboration) through desk research and several workshops.
- New features were added to the **DTU/OS2 Damage Cost Model** according to stakeholder requests.
- Development of new **AI-based extreme sea level statistics** for Esbjerg was initiated.
- Participation in the **second tender for innovation**, evaluation and contracting three innovators.
- **Three innovation projects** were initiated.

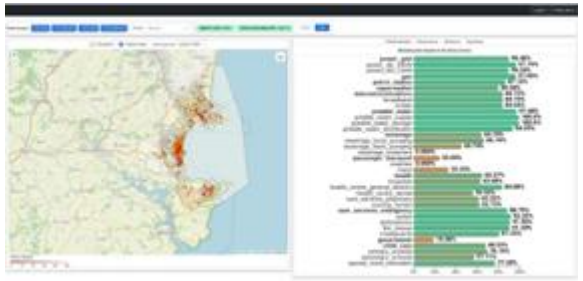


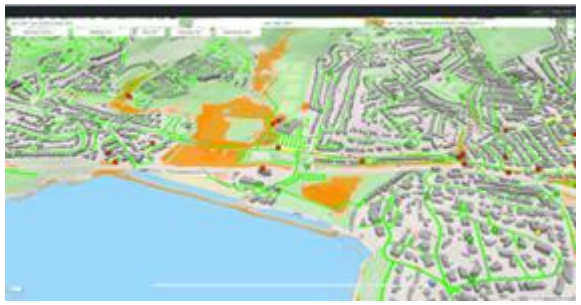
CS#8: Torbay/Devon: (UNEXE, TC, WRT, KWR)

Resilience to Flooding, Cascading Effects and Impacts on Critical Infrastructure

Main achievements

- **Innovators selected** Torbay Communities and Hyds.
- **Stakeholder engagement** LL3 & LL4 held to collaborate with local communities, collect feedback from SH about modelling and tools, and present Innovators projects.
- **Innovator workshop** between CS8 team and innovators.
- **Flood modelling** for various scenarios and interventions.
- **Cascading failure simulations**.
- **Dashboard** developed to visualise modelling results and support decision making.
- **Digital Twin** connection with real-time data.





ARSINOE Innovations

Risk assessment tool

UNEXE, TRL 5>8 Researchers, PAs (S)

MINKA: Citizen Science Platform

CSIC, TRL 7>8 Citizen science projects

Climate resilient water management model in multi-sector coupled systems

IECE, TRL 5>7 (C)

Knowledge Graphs

ICCS, TRL 4>7 Policy makers (S)

System Dynamics Models

UTH&UNEXE, TRL 6>8 Researchers (S)

Fast cellular automaton based flood risk assessment model (CAFlood)

UNEXE, TRL 8>9 (C)

Reinforcement Learning & Recommender Systems

ICCS, TRL4>7 Policy makers (S)

Hybrid Sustainability and Financial Reporting System

AEUB, TRL5>6 (C)

Climate services for drought and extreme sea levels

DTU&LMU, TRL 5>7 (S)

ARSINOE Collective Intelligence Data Hub

ATHENA TRL 5>8 (?) (?)

The ARSINOE simulation engine

UNEXE, TRL 5>7 (S)

Probabilistic framework for assessing the impacts of compound, cascading climate extremes

DTU&LMU, TRL 4>6 (S)

Serious Game and Interactive visualisation platform

UNEXE, TRL 5>8 (S) (?)

Repositories of Nature Based Solutions (NBS)

ADDMA, TRL 7>8 PAs, city planners

Innovations in Case Studies

Urban and health related indicators

CS1, TRL6

City-scale atmospheric numerical model system for NBS (Nature-Based Solution) selection

CS1, TRL7

Groundwater vulnerability

CS5, TRL4

Carbon footprint in the agriculture sector

CS5, TRL4 (?)

Plantain crops monitoring index

CS5, TRL7

Rain and air temperature datasets

CS5, TRL7 (?)

Sustainable and climate-resilient management practices for coping with multi-sectoral and environmental risks

CS7, TRL7

New crop varieties adapted to Sardinian and Mediterranean growing areas

CS9, TRL9 (C)

New animal by products amendments to be used as N-fertilizers

CS9, TRL7

Enhanced local chains for conventional and organic staple food production

CS9, TRL8 (C)

Innovative crop management

CS9, TRL5

(C) Commercial exploitation

(S) Scientific exploitation

The ARSINOE Legacy 1/2

The Climate Change & Sustainability

e-CoP to sustain our community of external stakeholders and LLs, promote results and connect problem owners with CIW solutions.

The Climate Innovation Window

A platform, one-stop-shop to sustain all the innovations developed and tested.

The ARSINOE Digital toolkit

Dashboard, Knowledge Graph & Data Hub

A one-stop-shop to sustain all the tools and knowledge developed.
Focus on **open-source** technologies for openness, interoperability and extensibility
Work in progress to support **Generative AI** processes (based on Large Language Models).

ARSINOE Series of Policy Briefs

Policy recommendations for dissemination to EC & public authorities.

ARSINOE Recommendations Portfolio

Evidence-based recommendations based on the experience & evidence from the 9 CSs.

The ARSINOE Legacy 2/2

MINKA

Citizen science platform to collect biodiversity and environmental data focused on the SDGs.

“Grano Duro”

A film produced by ARSINOE on the Durum Wheat value chain.

Funding schemes

Giving regions a plan to find funding to continue the work.

Living Labs

Built communities on local level which will continue to live after the end of the project.

Links with other initiatives & the Mission Projects

Work, tools, knowledge and innovations from ARSINOE are being used in other initiatives & Mission projects (NATALIE, ICARIA, etc.).

THANK YOU

Prof. Giannis Adamos
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+30 6973218076

ARSINOE
CLIMATE-RESILIENT REGIONS THROUGH SYSTEMIC SOLUTIONS AND INNOVATIONS

info@arsinoe-project.eu www.arsinoe-project.eu ARSINOE_EU ARSINOE_EU ARSINOE_EU ARSINOE EU

Project 5 – RESIST (Regions for climate change resilience through Innovation, Science and Technology

Catarina Pydzińska Azevedo, INOVA+

10:55 – 11:05

RESIST

Regions for climate change resilience
through Innovation, Science and Technology

RESIST

Catarina Pydzińska Azevedo

INOVA+, Portugal

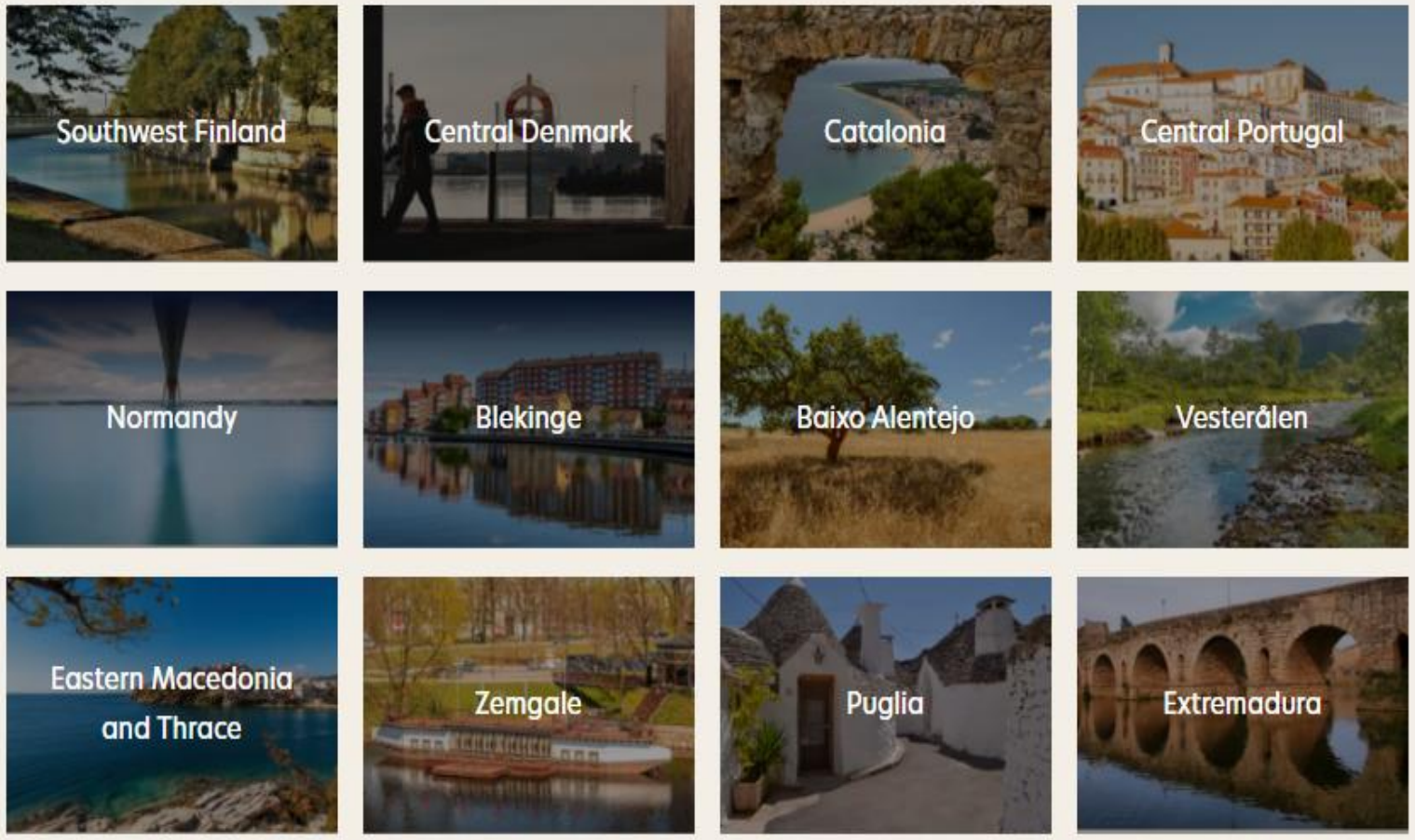
catarina.azevedo@inova.business

17 April 2025

RESIST

Regions for climate change resilience through Innovation, Science and Technology

RESIST Consortium - 60 partners
INOVA+ - RESIST operational coordinator
SINTEF - RESIST strategic coordinator
Duration - 1 Jan 2023 – 31 Dec 2027
RESIST budget ~ 26.7 M€



RESIST aims to strengthen the resilience, accelerate the transformation and increase adaptive capacity of 12 climate-vulnerable regions in Europe, implementing **4 Large-Scale Demonstrators** with **quintuple-helix partnerships**, and transfer of know-how and innovative solutions to **8 Twin Regions.**

Co-funded by the European Union

RESIST – Climate challenges

Aim: Twin transition - green and digital - needed to prepare for and adjust to both the current effects of climate change and the predicted impacts of the future.


RESIST climate vulnerable regions in 2023

Central Portugal

Vesteralen

Wildfires, soil erosion, droughts, heatwaves

Extremadura

Catalonia

Floods, droughts, heatwaves, wildfires

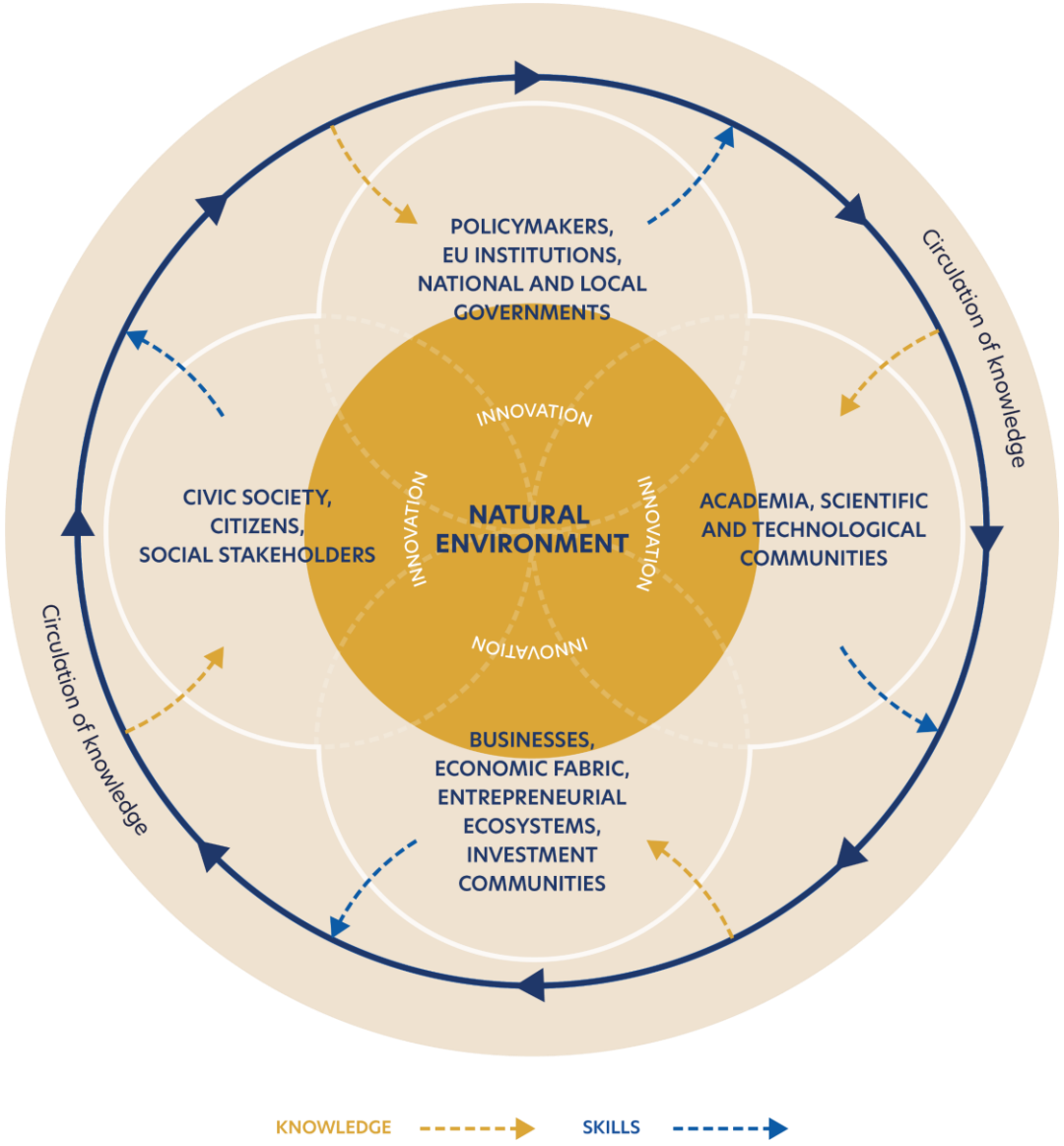
Puglia

Baixo Alentejo

Southwest Finland

Central Denmark

Meaningful collaborations



RESIST

CENTRAL DENMARK
- REGION MIDTJYLLAND
- NIRAS
- NATURSTYRELSEN
- AU VIA UC

SOUTHWEST FINLAND
- VARSINAIS-SUOMI VALONIA
- LUKE
- CITY TURKU
- TUAS UTU

CENTRO PORTUGAL
- COMISSÃO REGIÃO CENTRO
- BLC3 FOREST WISE
- CIM COIMBRA CIM MÉDIOTEJO
- IPP MÉDIOTEJO 21

CATALONIA
- DEP. INTERIOR DE GENERALITAT
- HYDS
- TERRASA BLANES
- UPC UOC

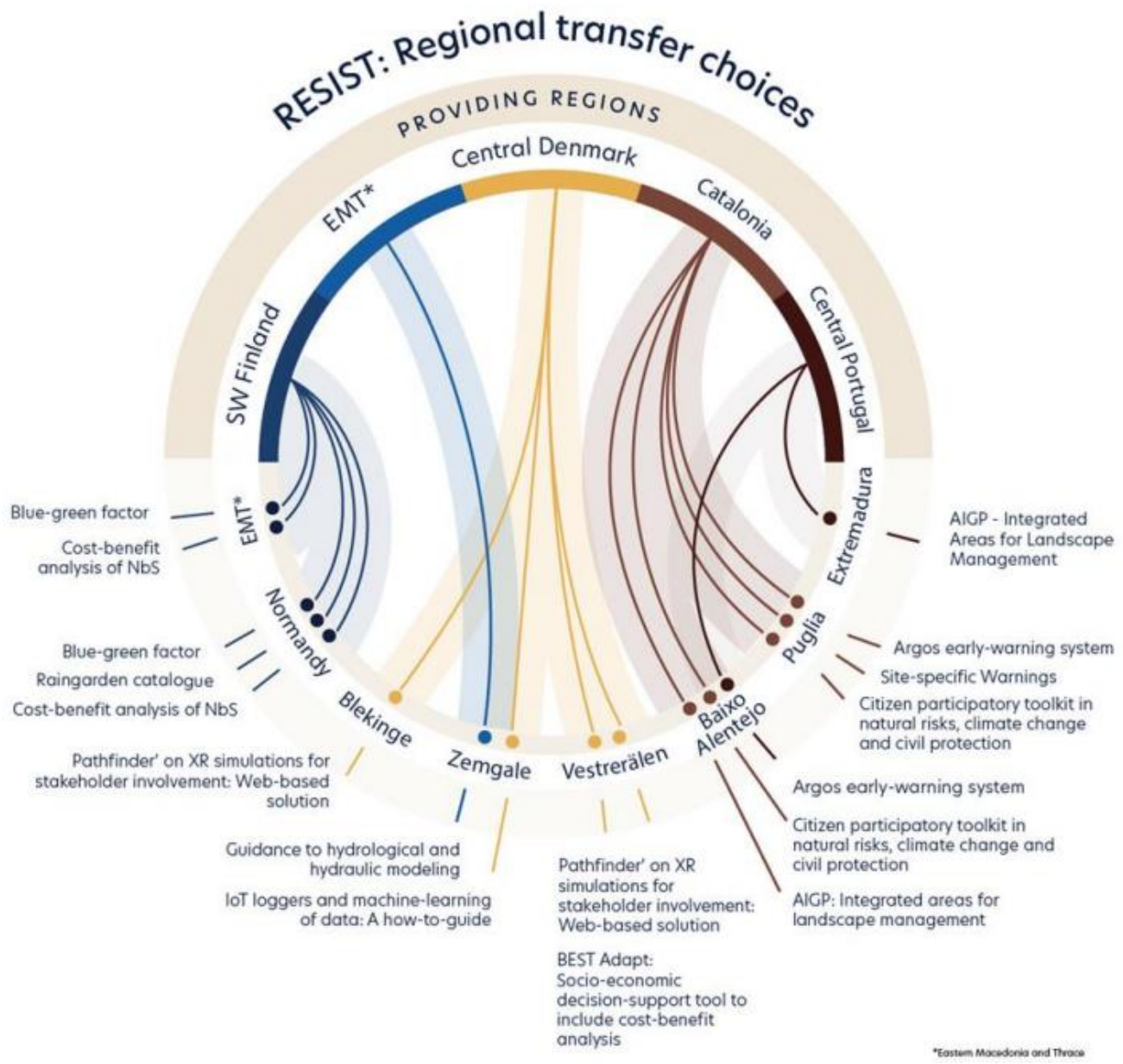
Horizontal partners:

1 SINTEF: Trondheim, Norway
2 INOVA+: Matosinhos, Portugal
3 ESF: Strasbourg, France
4 ADELPHI: Berlin, Germany
5 AUGMENTCITY: Ålesund, Norway
6 KUL: Leuven, Belgium
7 ERRIN: Brussels, Belgium
8 SERN: Brussels, Belgium
9 FASTTRACK: Porto, Portugal
10 ZSI: Wien, Austria
11 REVOLVE, Barcelona, Spain

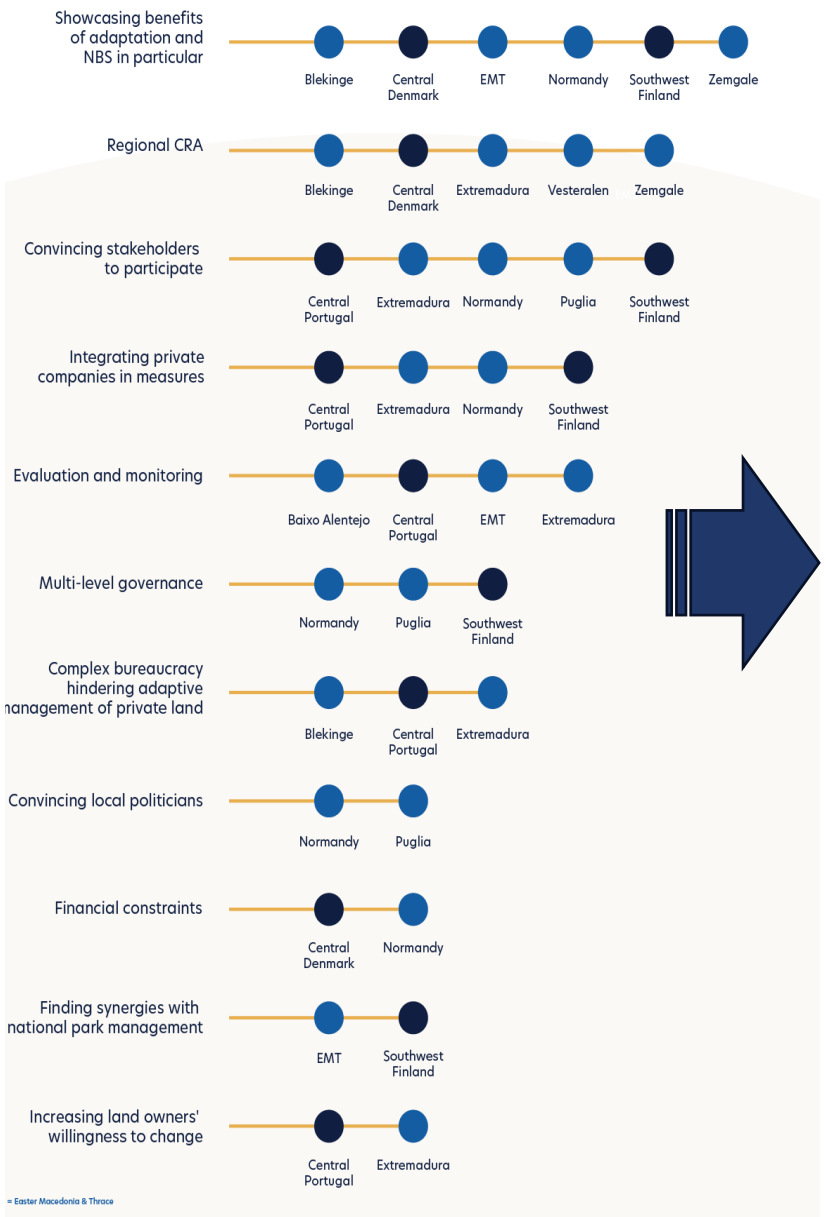
Dissemination partners:

12 ACCENT-SUD: South of France
13 CEDES: Portugal
14 ODESSA UNIVERSITY: Ukraine

RESIST Solutions Transfers

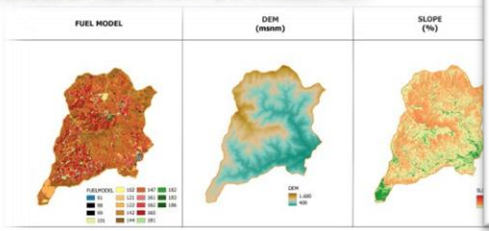


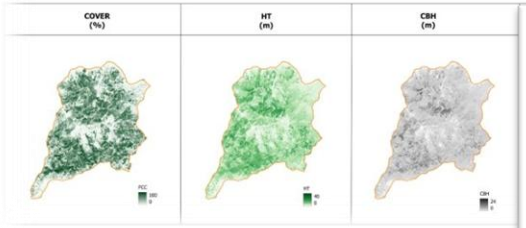
Common regional challenges and needs within RESIST



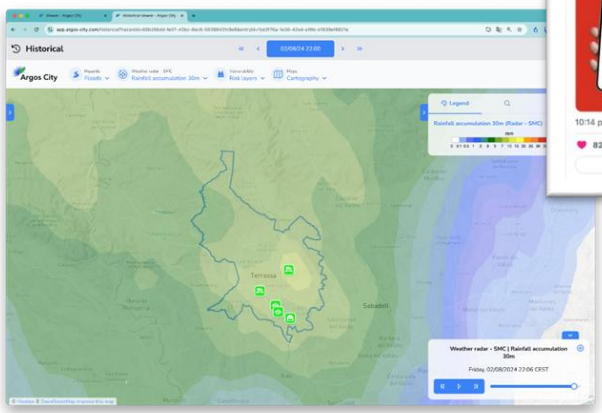
TRANSFER PLANS

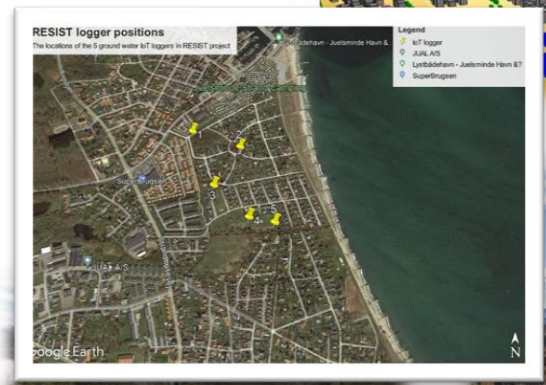
Zone inondée à l'état actuel (modélisation)
Zone inondée à l'état projeté (scénario 2) (modélisation)





RESIST

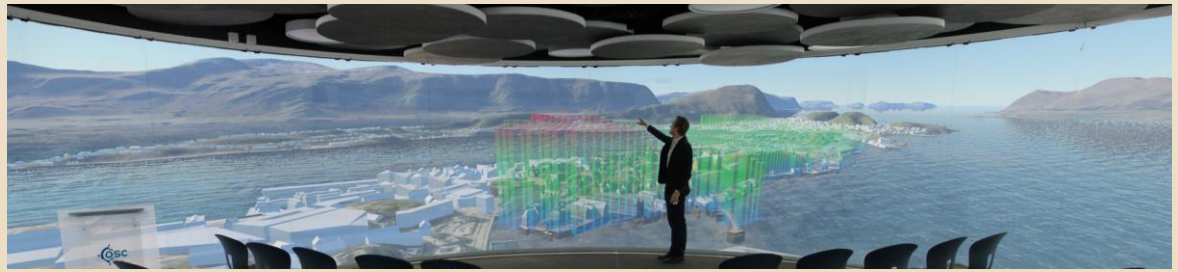




RESIST Graphical Digital Twins

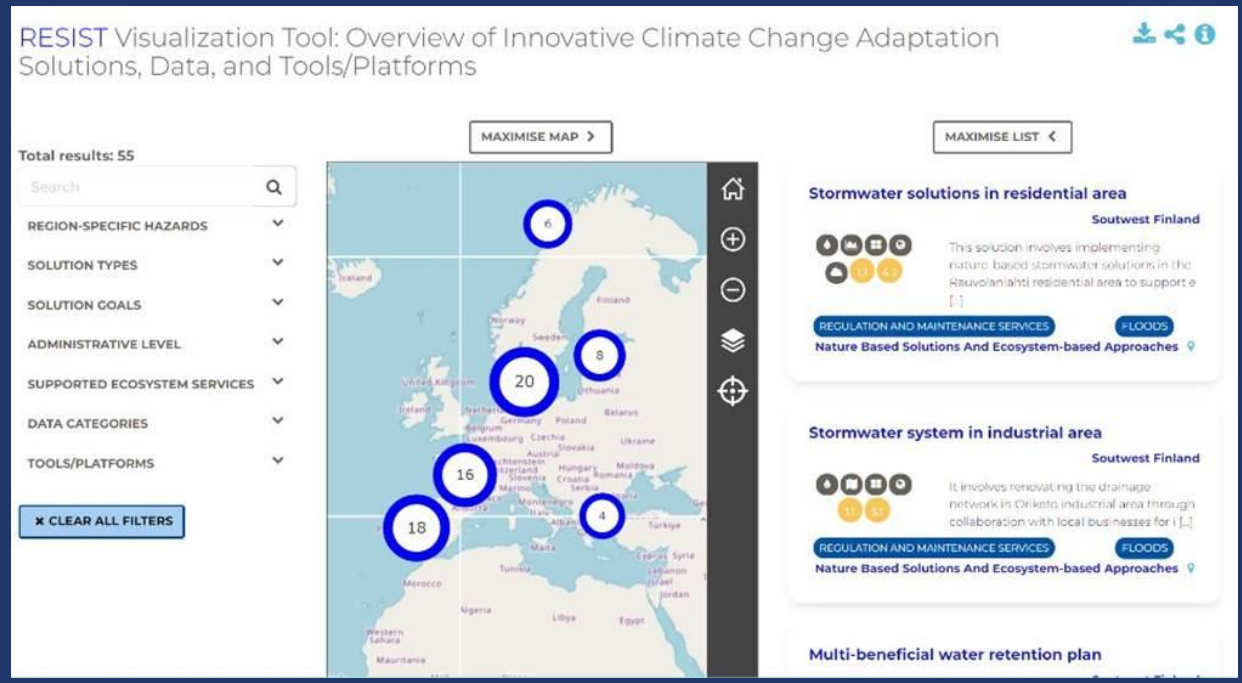
A Digital Twin is a 3D virtual representation of a real-world system like a city. The platform helps breaking silos by bringing all data in one unique place

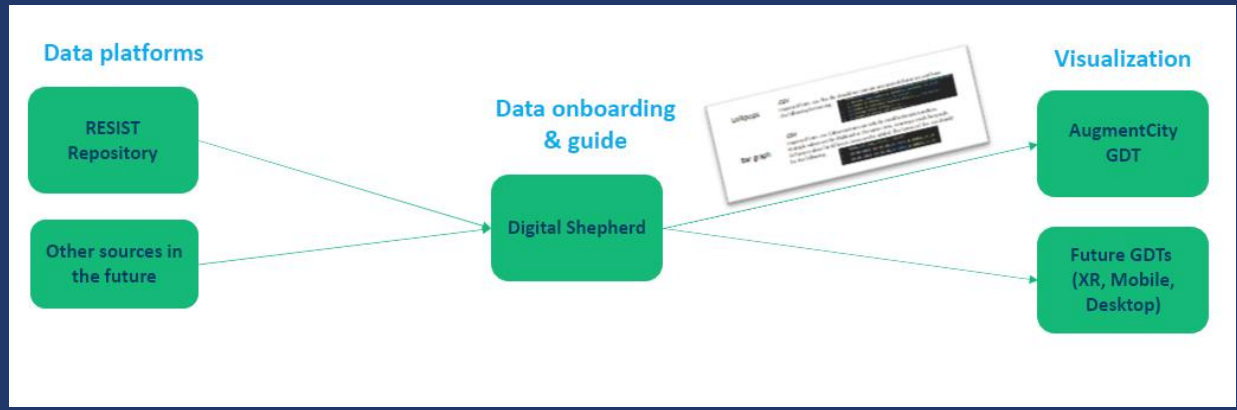
Urban Planning | Mobility | Energy | Climate impact | Net Zero



Graphical Digital Twin made for all 12 Regions in RESIST

Repository of CCA Solutions, Data and Tools





Co-funded by the European Union

RESIST

Many dimensions of project developments and activities

Technical Framework

Needs Assessment > Transfer Plans

Development of innovative solutions for LSD

Graphical Digital Twins framework and deployment

Repository of innovative CCA solutions & GUI

Collaboration and Networking Platform

Networking and Mutual Learning: Community of Practice (& CoI)

Fostering exploitation of innovative solutions

Collaboration with other entrepreneurial ecosystems

Project coordination and policy relations

External Relations & Collaboration with other projects

4 Large-scale collaborative demonstrators

Twinning activities for climate-resilient innovation

Maximizing impact

Social impacts through transformative social innovation

Digital Communication & Outreach

RESIST

Regions for climate change resilience through Innovation, Science and Technology

RESIST Project

Regions for climate change resilience through innovation, science and technology

Environmental Services · Oslo · 3K followers · 2-10 employees

YouTube PT

Search

RESIST Project | Horizon Europe Project

by REVOLVE

Playlist · 19 videos · 869 views

RESIST is a five-year EU funded project that has emerged from the need to make regions more resilient to cli ...more

Play all

1 

Sharing Climate Solutions From Southern Europe | RESIST

REVOLVE • 203 views • 1 month ago

2 

Media Insights: Advancing Climate Emergency Reporting in European Newsrooms

REVOLVE • 38 views • 3 months ago

3 

Media Insights: Advancing Climate Emergency Reporting in European Newsrooms - COP29

We Don't Have Time • 6.9K views • Streamed 3 months ago

4 

Climate Challenges in Norway's Arctic | RESIST

REVOLVE • 212 views • 5 months ago

RESIST

About Regions Know-how Media & events

WP1 Technical Framework

WP2 Collaboration and Networking Platform

WP3 Large Scale Demonstrators and Twinning Activities

3.1 **Large-scale Demonstrator in SW Finland with Twinning in Normandy and East Macedonia** | Led by RCSF

D3.1 Benchmark analysis regulatory measures in FI – Download

D3.4 Transfer plans of solution – Providing regions in LSDT1 – Download

3.2 **Large-scale Demonstrator in Central Denmark with Twinning in Blekinge and Zemgale** | Led by RM

D3.12 Transfer plans of solution – Providing regions in LSDT2 – Download

3.3 **Large-scale Demonstrator in Catalonia with Twinning in Puglia and Baixo Alentejo** | Led by INT

D3.19 CAT CCA transfer plans to twins – Download

3.4 **Large-scale Demonstrator in Centro Portugal with Twinning in Vesterålen and Extremadura** | Led by CCDRC

July 23, 2024

RESIST 4th Consortium Meeting in Vesterålen

Read +

RESIST

April 2, 2024

Join RESIST's Growing Community

Read +

December 20, 2023

A year of building resilience together – RESIST 2023 wrapped

Read +

September 28, 2023

RESIST Shines at London Climate Technology Show

Read +

June 29, 2023

Building Resilience to the Climate Crisis: Introducing RESIST

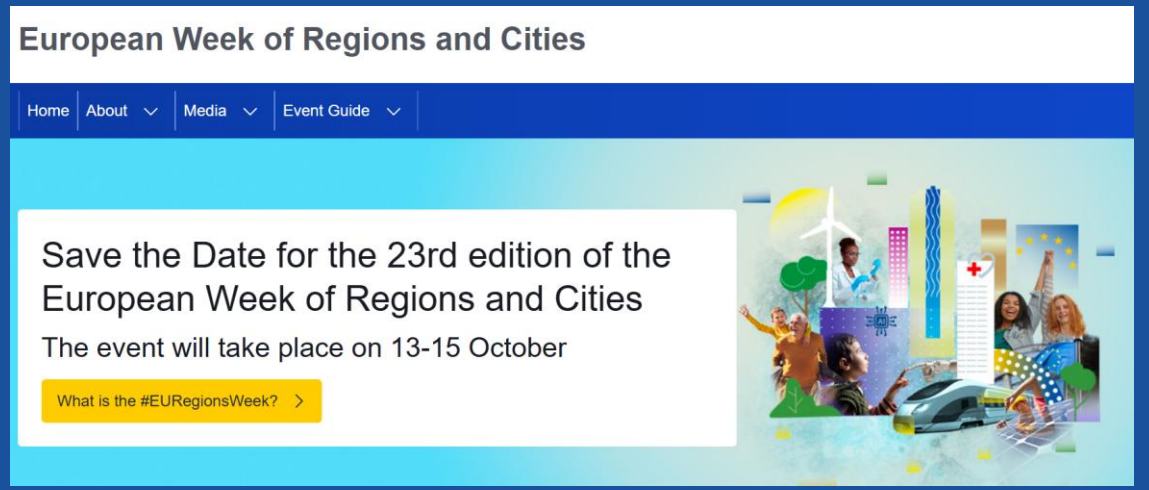
Read +

March 30, 2023

RESIST Kicked Off on January in Coimbra

Read +

Meet us also in person when you get a chance!



THANK YOU!

Catarina Pydzinska Azevedo
E-mail: catarina.azevedo@inova.business

Co-funded by the European Union

Project 6 – Climateurope2 (Supporting and standardising climate services in Europe and beyond)

Francisco Doblas-Reyer, Barcelona Supercomputing Center

11:05 – 11:15

Climateurope2

Supporting and standardising climate services by supporting a community of practice

Francisco Doblas-Reyes (ICREA and Barcelona Supercomputing Center)
on behalf of the Climateurope2 project partners

22 January 2025

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No 101056933. The sole responsibility for the content of this document lies with the Climateurope2 project and does not necessarily reflect the opinion of the European Union.

Climateurope2 project

Climate services are the **provision of climate information** to **assist decision-making** by individuals and organisations. The service involves **appropriate engagement**, **access mechanism**, and **responsiveness to user needs**. They build on that fact that climate is just one out many other drivers.

Standardising

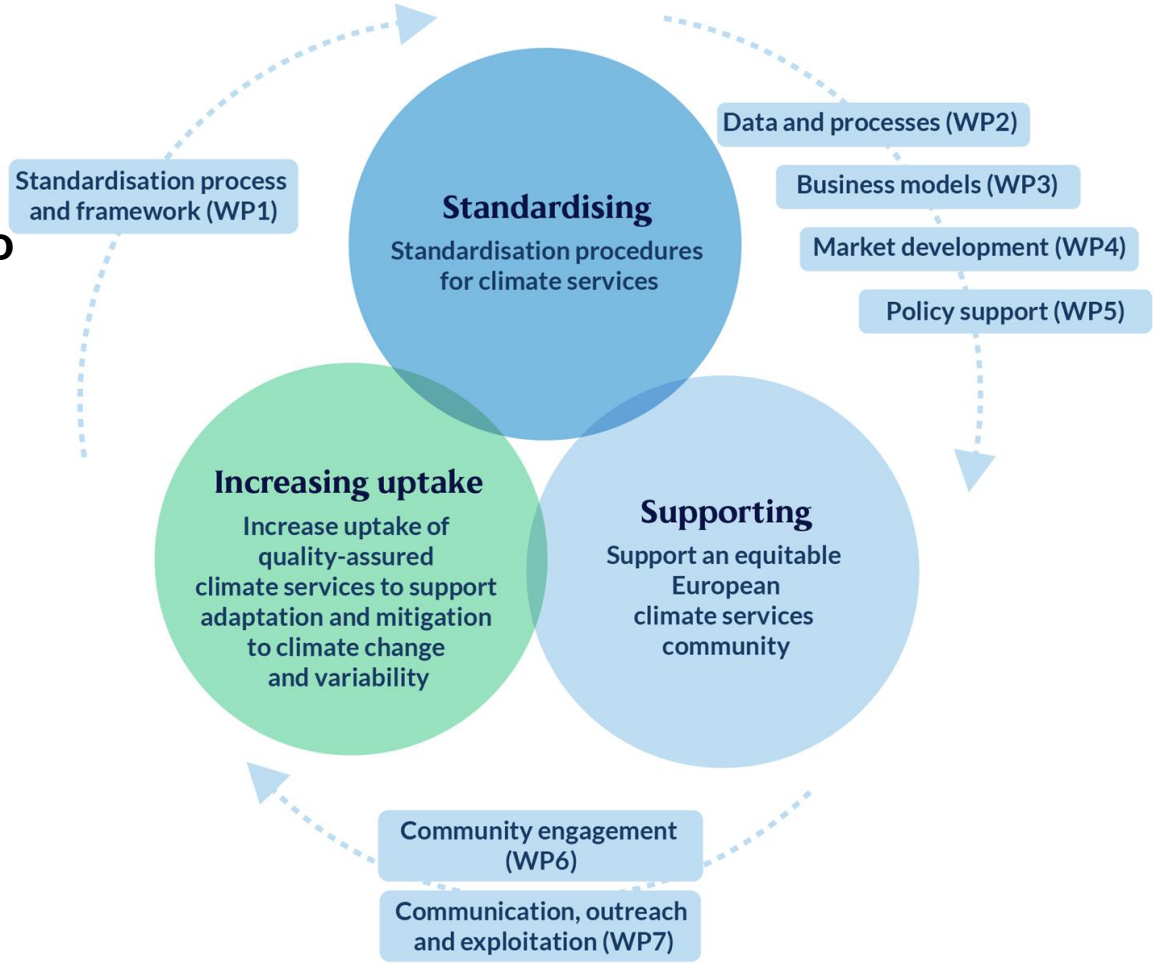
Development of standardisation procedures for climate services

Supporting

Support of an equitable European climate services community

Increasing uptake

Enhancement of the uptake of quality-assured climate services to support climate adaptation and mitigation



CSA Horizon Europe, Sep 2022-Feb 2027

Standards

Standards are specifications, measurable requirements, processes or performance conventions, aimed at achieving consistency in processes, products, and services. They are developed through consensus by legitimate organisations (ISO, CEN, ASTM, etc.) to ensure conformity and quality.

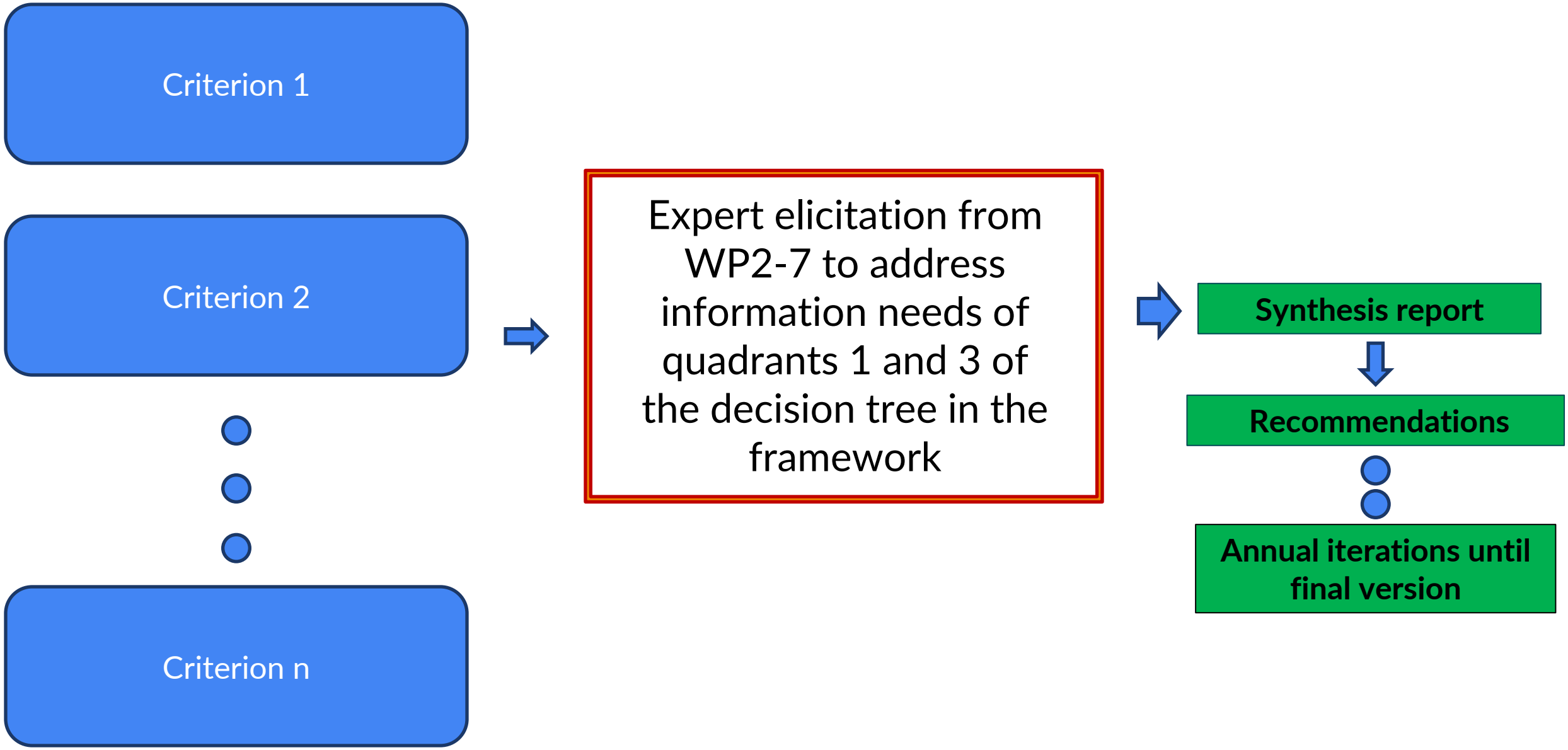
Challenges

- Lack of widely agreed, auditable criteria for climate services limits transparency, trust, and equitable market growth.
- Fragmented guidance and best practices lacking comprehensive coverage and consensus.

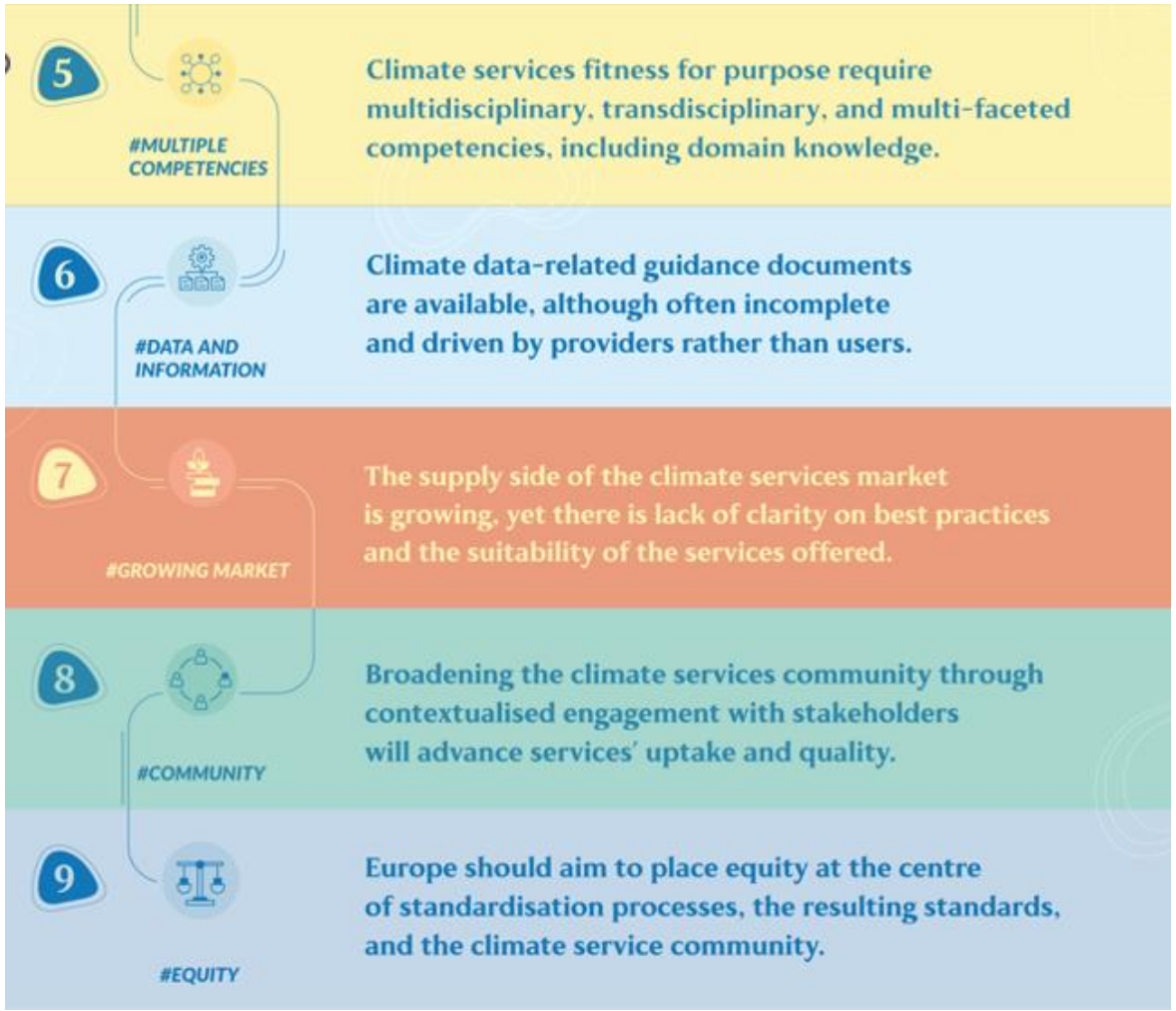
Path forward

- Involvement of all relevant actors in creating comprehensive, consensus-based standards.
- Equitable participation to build two-way trust between providers and users.
- **Climateurope2**'s approach focuses on addressing these gaps by fostering robust standardisation frameworks.

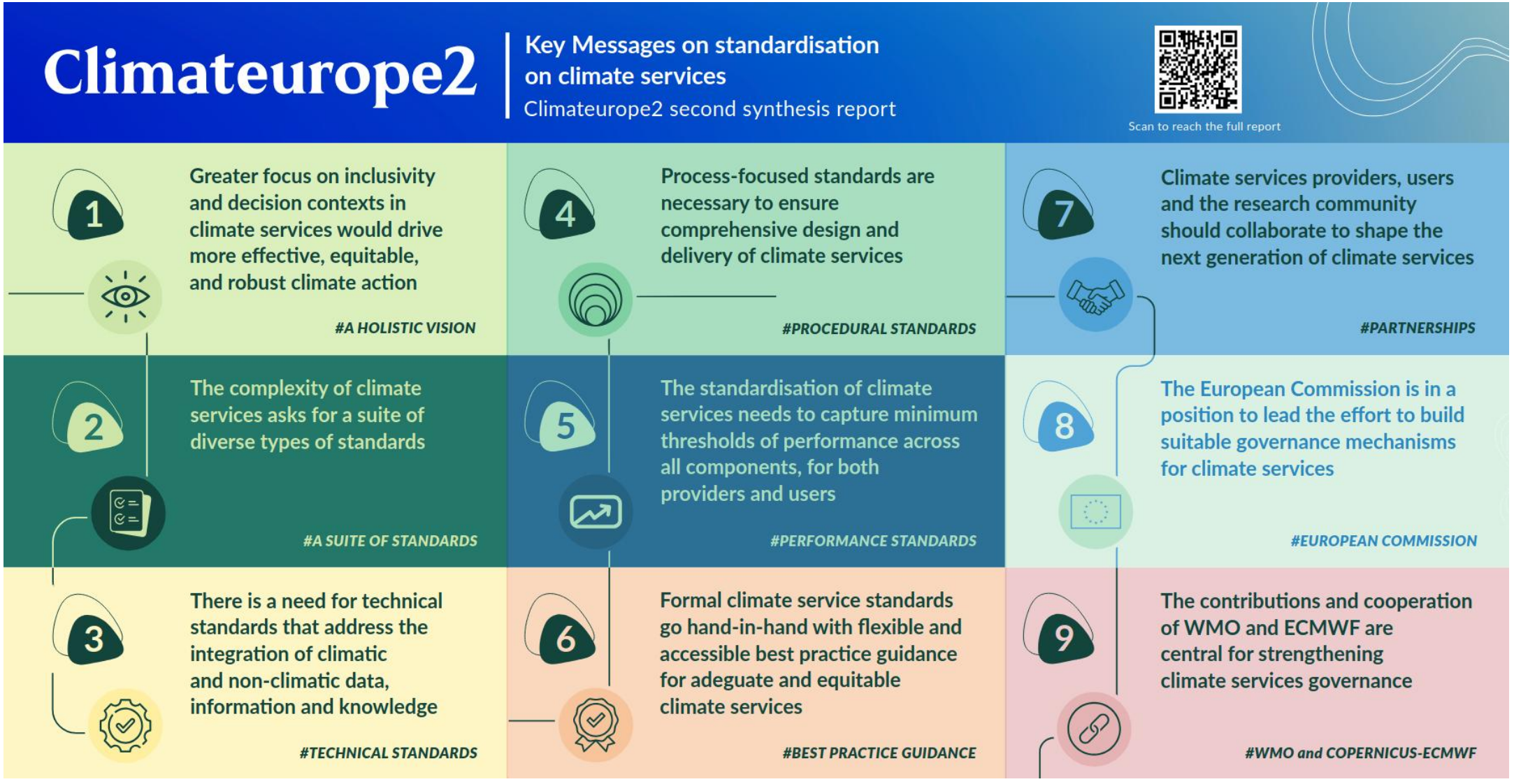
Climate services components


Criterion 1
Criterion 2
Criterion n
Expert elicitation from WP2-7 to address information needs of quadrants 1 and 3 of the decision tree in the framework
Synthesis report
Recommendations
Annual iterations until final version

Key messages (ed 1)



Key messages (ed 2)



Certification, labelling, etc.

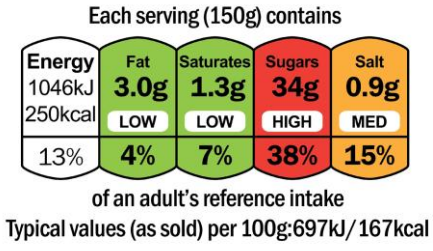
List of agreed terms

Term	Definition	Source
Certification	Third-party attestation related to an object of conformity assessment, except accreditation.	ISO 17000
Quality assurance	Part of quality management focused on providing confidence that quality requirements will be fulfilled.	ISO 9000

NB: **Accreditation**: The system of rules, procedures and management for carrying out certification, which must always be provided by an independent or third party provider.

Verification	Confirmation, through the provision of objective evidence, that specified requirements have been fulfilled. The term "verified" is used to designate the corresponding status.	ISO 9000

Labelling: Demonstration of compliance. A label or symbol that conveys a product or service has been verified by an independent party such that discloses information or meets requirements. e.g:, food safety labelling; DNV Seal; ecolabels; descriptions of use or side effects…etc



SP Pharma Paracetamol Tablets 200's Bottle
18cm x 6.5cm

Community activities

Engagement innovation

European Commission | Climateurope2

INFORMATION

https://climateurope2.eu/
https://earth.bsc.es/climateurope2

CONNECT

contact@climateurope2.com
climateurope2.eu

@climateurope2

climateurope2

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Q&A & Cross-Project Synergy Discussion

11:15 – 11:40

Let’s Connect the Dots

🚀 What could your project benefit from?

If you could **team up** with PCP WISE or any of the projects presented today, what kind of **collaboration/ support** would you look for?
(e.g., tech validation, data sharing, joint pilots)

🎁 What could your project offer?

What’s one **project insight**, resource, or tool you could share to support others?
(e.g., methodologies, frameworks, lessons learned, open-source tools)

Final Remarks & Closing

11:40 – 11:45