

RESIST – Regions for climate change resilience through innovation, science and technology

Summary

Over the last few years, the planetary climate emergency has become socially widely admitted and the urgency to adapt and react in front of climate change effects has passed from being considered a scientific discussion to being a social priority with huge political implications. The problem is more urgent than ever and has again been placed at the centre of the EU agenda in 2020 by an agreement by EU leaders to reduce CO₂ emissions by 55% until 2030. Such an ambitious objective, implying both the adoption of new innovations, policies and measures and the phase-out of inadequate ones, and with strong community engagement, can only be achieved through experimentation and demonstration.

RESIST will adopt a new practical framework in which climate adaptation pathways will be tested in four EU regions with different socioeconomic profiles: Southwest Finland, Central Denmark, Catalonia and Central Portugal. Each region will test adaptation solutions to five key climate challenges: floods, droughts, heatwaves, wildfires, and soil erosion, and will bring together civil society, business, policymakers and the research community to work towards its future resilience.



Figure 1. Wildfires.

RESIST will strengthen the resilience, accelerate the transformation and increase the adaptive capacity of 12 climate-vulnerable EU regions, implementing 4 large-scale demonstrators of resilient innovations for Climate Change Adaptation (CCA). This project will promote the transfer of know-how and innovative solutions to 8 twin regions (of which 4 less developed regions) through both physical mutual-learning activities and innovative immersive digital twins. RESIST will contribute to the EU agenda on CCA, through intervention in 3 main areas:

- Promote and demonstrate an innovative, more participative approach to resilience and CC adaptation in 4 demonstrators and 8 twinning regions (including 5 less developed regions in total) demonstrating >12 new solution lines, accelerating

regional resilience and helping reach the adaptation mission;

- Co-design and contribute to the development of new regional measures, policy instruments and social and technological solutions in 12 regions involving 22m citizens, increasing awareness/resilience by 10% and levels of green investments by 20%, reducing economic losses due to natural hazards such as floods by 14% and climate protection gap by 50%;
- Reduce time-to-market/risk for >100 new CCA Solutions from providers across Europe, offering them scale-up for their products.

Work packages

- **WP1** – Technical Framework for Climate-resilient Demonstration;
- **WP2** – Collaboration and Networking Platform;
- **WP3** – Large-scale collaborative demonstrators and Twinning activities for climate-resilient innovation;
- **WP4** – Maximizing impact: Communication, Outreach and Transformation through Social Innovation;
- **WP5** – Project management, coordination and policy relations.

Our regions

RESIST is working with a group of twelve regions across Europe to increase their resilience to the effects of climate change. Southwest Finland, Central Denmark, Catalonia and Central Portugal are the leading regions in the RESIST Project. They have been selected because of their high level of vulnerability to climate change and their experience in climate change adaptation (CCA).

These four regions will lead the way for the twinning regions in the implementation of innovative solutions to tackle climate-related challenges. Each of the leading regions is paired with two equally vulnerable regions with less experience in CCA. Normandy (France), Eastern Macedonia and Thrace (Greece), Blekinge (Sweden), Zemgale (Latvia), Puglia (Italy), Baixo Alentejo (Portugal), Vesterålen (Norway), Extremadura (Spain) are the eight twinning regions.

These regions, like many across Europe, are facing increasing floods, heatwaves, wildfires, drought, soil erosion and rising sea levels because of climate change. Local and regional governments and citizens are at the forefront of



Project Reference

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Leading Institution

SINTEF AS (Norway)

Partners

INOVA+ – Innovation Services SA (Portugal), Fondation Européenne de la Science (France), Adelphi Research Gemeinnützige GMBH (Germany), AugmentCity AS (Norway), Katholieke Universiteit Leuven (Belgium), Zentrum für Soziale Innovation GMBH (Austria), European Regions Research and Innovation Network (Belgium), Associacio Revolve Mediterraneo (Spain), Startup Europe Regions Network (Belgium), Varsinais-Suomen Liitto (Finland), City of Turku (Finland), Turun Ammattikorkeakoulu Oy (Finland), Turun Yliopisto (Finland), Luonnonvarakeskus (Finland), Perifereia Anatolikos Makedonias Kai Thrakis (Greece), Dimokritio Panepistimio Thrakis (Greece), Enora Innovation Etaireia Psifiakon Technologion Kai Ergon Kainotomias Idiotiki Kefalaioxiki Etaireia (Greece), Region Normandie (France), Centre d'Etudes et D'Expertise sur les Risques l'Environnement la Mobilité et l'Aménagement (France), Office Français de la Biodiversité (France), Region Midtjylland (Denmark), Aarhus Universitet (Denmark), Naturstyrelsen (Denmark), VIA University College (Denmark), NIRAS AS (Denmark), Blekinge Läns Landsting (Sweden), Blekinge Tekniska Hogskola (Sweden), Zemgales Planosanas Regions (Latvia), Departament d'Interior – Generalitat de Catalunya (Spain), Universitat Politècnica de Catalunya (Spain), Fundació per a la Universitat Oberta de Catalunya (Spain), Hydrometeorological Innovative Solutions (Spain), Ajuntament de Terrassa (Spain), Ajuntament de Blanes (Spain), Regione Puglia (Italy), Tecnopolis Parco Scientifico e Tecnologico Scarl (Italy), Comunidade Intermunicipal do Baixo Alentejo (Portugal), Itecons – Instituto de Investigação e Desenvolvimento Tecnológico para a Construção, Energia, Ambiente e Sustentabilidade (Portugal), (continued)

facing these climate-related impacts. The project is bringing together these stakeholder groups along with the research community and businesses to build long-lasting resilience pathways to climate change impacts.



Figure 2. Methodologic approach.

Partners (continued)

Comissão de Coordenação e Desenvolvimento Regional do Centro (Portugal), Comunidade Intermunicipal da Região de Coimbra (Portugal), Comunidade Intermunicipal do Médio Tejo (Portugal), Associação BLC3 – Campus de Tecnologia e Inovação (Portugal), ForestWISE – Laboratório Colaborativo para a Gestão Integrada da Floresta e do Fogo (Portugal), Instituto Politécnico de Portalegre (Portugal), Fundación FUNDECYT – Parque Científico Y Tecnológico de Extremadura (Spain), Universidad de Extremadura (Spain), Vesterålen Regionråd (Norway), Andfjord Salmon AS (Norway), MedioTejo21 – Agência Regional de Energia e Ambiente da Região do Médio Tejo e Pinhal Interior Sul (Portugal), Associação para um Centro de Estudos em Desenvolvimento Sustentável (Portugal), ACCENT SUD – Association pour la Coopération Culturelle et l'Economie Numérique Transrégionale avec l'Europe du Sud (France), Odeskij Nacionalnij Universitet Imeni I.I. Mechnikova (Ukraine), Consejería de Agricultura, Desarrollo Rural, Población y Territorio – Junta de Extremadura (Spain), Fasttrack Action Lda. (Portugal), Stiftelsen Museum Nord (Norway)

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26 682 827.75€

CERIS

Coimbra Hub: 115 000.00€

Project Website

<https://resist-project.eu/>