

SCORE: a new €10M Horizon 2020 project to increase climate resilience in European coastal cities

SCORE (Smart Control of the Climate Resilience in European Coastal Cities) is a newly launched €10 million euro Horizon 2020 project that aims to increase climate resilience in European coastal cities.

Started in July 2021, SCORE outlines a comprehensive strategy, developed via a network of 10 coastal city 'living labs', to rapidly, equitably and sustainably enhance coastal city climate resilience through an Ecosystem-Based Approach (EBA) supported by sophisticated digital technologies.

The intensification of extreme weather events, coastal erosion and sea-level rise are major challenges to be urgently addressed by European coastal cities. Deaths caused by extreme weather in Europe could rise from 3,000 a year between 1981 and 2010 to 152,000 between 2071 and 2100 if mitigation pathways are not enacted to increase the resilience of European cities and settlements, based on a study in The Lancet Planetary Health journal.

To tackle this challenge, Dr Salem Gharbia from the Institute of Technology Sligo (Ireland), will lead a consortium of international scientific institutions, cities, and SMEs to design, develop, monitor and validate robust adaptation measures in coastal and low-lying areas to protect them from increasing climate and sea level risks, including coastal flooding and erosion, to enhance their overall long-term resilience.

The SCORE interdisciplinary team consists of 28 world-leading organisations from academia, local authorities, RPOs, and SMEs encompassing a wide range of skills including environmental science and policy, climate modelling, citizen and social science, data management, coastal management and engineering, security and technological aspects of smart sensing research.

SCORE outlines a co-creation strategy, developed via a network of 10 coastal city 'living labs' (CCLs), to rapidly, equitably and sustainably enhance coastal city climate resilience through Ecosystem-Based Approach (EBAs) and sophisticated digital technologies.

The CCLs involved are: Sligo and Dublin, Ireland; Barcelona/Vilanova i la Geltrú, Benidorm and Basque Country, Spain; Oeiras, Portugal; Massa, Italy; Piran, Slovenia; Gdansk, Poland; Samsun, Turkey.

The project will involve citizen science in providing prototype coastal city early-warning systems and will enable smart, instant monitoring and control of climate resilience in European coastal cities through open, accessible spatial 'digital twin' tools.

SCORE will establish an integrated coastal zone management framework for strengthening EBA and smart coastal city policies, creating European leadership in coastal city climate change adaptation in line with The Paris Agreement.

The project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101003534.