Project name and abbreviation: Co-Creative Improved Understanding and Awareness of Multi-Hazard Risks for Disaster Resilient Society (C2IMPRESS).
Programme: Horizon Europe.
Project duration: 1 October 2022 – 30 September 2025.
Budget: € 4 175 836,25.

C2IMPRESS in a nutshell:

Compound weather and climate extremes encompass a wide range of events, including concurrent climate extremes and various high-impact non-standard events, such as droughts coupled with heat waves. These extreme weather and climate events can have devastating consequences. The EU-funded C2IMPRESS project aims to increase public awareness of multi-hazard risks. It shifts the focus from the traditional 'hazard-centric' approach to a novel 'place and people '-centered integrated multi-hazard risk and resilient assessment framework. The project develops several breakthrough innovations, including a multi-hazard risk intelligence network platform supported by robust Earth System Dynamic Intelligence and a suite of technologies to empower citizens and society with climate actions

Europe and the world lack data, understanding, and awareness of compound weather and climate extremes. Insufficient governance also affects the related vulnerability, risk, and resilience of people, communities, and places. The C2IMPRESS project brings a radical paradigm shift to disaster and hazard research and innovation by offering a suite of innovative models, methods, frameworks, tools, and technologies that are holistic and robust enough to provide fine-grained spatiotemporal qualitative and quantitative data, locally appropriate solutions, and better prediction with lower uncertainty on risks of single or multiple hazards from extreme weather events like floods and wildfires under different climate change scenarios.

Breakthrough innovations from the C2IMPRESS project include the System-of-Systems for Multi-Hazard Risk Intelligence Network (SoS4MHRIN) platform, supported by robust Earth System Dynamic Intelligence (ESDI) and Information Physical Artificial Intelligence (IPAI). Additionally, the project develops innovative agent-based models, polycentric risk governance, multi-actor decision support microservices, and a suite of citizen engagement technologies and tools. These innovations incorporate a novel co-design and co-creation approach for socio-technical innovations, knowledge production, and validation, empowering citizens and society with climate actions for a sustainable transition to a just, risk-resilient society.

With these social and technical innovations, the C2IMPRESS project provides a better understanding and public awareness of multi-hazard risks, the associated multidimensional impacts, vulnerabilities, and resilience of extreme weather events in four case study areas in Europe and Türkiye.

More information about the project: https://www.c2impress.com/.
More information on CORDIS: https://cordis.europa.eu/project/id/101074004.