

Research Project

CURE: Copernicus for Urban Resilience in Europe

Third-party funded project

Project title CURE: Copernicus for Urban Resilience in Europe

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Project start 01.01.2020

Probable end 31.12.2022

Status Completed

A major challenge for the urban community is the exploitation of the Copernicus products in dealing with the multidimensional nature of urban sustainability towards enhancing urban resilience. Combined information from Copernicus Core Services, namely the Land Monitoring Service (CLMS), the Atmosphere Monitoring Service (CAMS), the Climate Change Service (C3S) and the Emergency Management Service (EMS), can provide valuable information to address the multidimensionality of urban resilience. Moreover, the urban planning community needs spatially disaggregated environmental information, at local and city scales. Such information, for all urban environmental parameters, is not directly available from the above Copernicus Core Services, while several data and products from contemporary satellite missions consist valuable tools for retrieving urban environmental parameters at local scale. Therefore, cross-cutting applications among the above Copernicus Core Services may address urban resilience, if they also cope with the required scale with the exploitation of third-party data, in-situ observations and modelling, as appropriate. The main goal of the proposed project CURE (Copernicus for Urban Resilience in Europe) is to synergistically exploit the above Core Services to develop an umbrella cross-cutting application for urban resilience, consisting of individual cross-cutting applications for climate change adaptation/mitigation, energy and economy, as well as healthy cities and social environments, at several European cities. CURE will use DIAS (Data and Information Access Services) to develop a system for integrating these applications, capable of supporting operational applications and downstream services across Europe in the future. CURE will develop synergies with EuroGEOSS and Climate-KIC and provide scenarios on how the developed system could potentially be integrated into the existing Copernicus service architecture, addressing also its economic feasibility.

Financed by

Commission of the European Union

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