

EGU23-1976, updated on 21 Mar 2023

<https://doi.org/10.5194/egusphere-egu23-1976>

EGU General Assembly 2023

© Author(s) 2023. This work is distributed under the Creative Commons Attribution 4.0 License.



Copernicus for Urban Resilience in Europe: Final results from the CURE project

Nektarios Chrysoulakis¹, David Ludlow², Zina Mitraka¹, Giorgos Somarakis¹, Zaheer Khan², Dirk Lauwaet³, Hans Hooyberghs³, Efrén Feliu⁴, Daniel Navarro⁴, Christian Feigenwinter⁵, Anne Holsten⁶, Tomas Soukup⁷, Mario Dohr⁸, Mattia Marconcini⁹, and Birgitte Holt Andersen¹⁰

¹Foundation for Research and Technology Hellas (FORTH), Heraklion, Greece (zedd2@iacm.forth.gr)

²University of the West of England, Bristol, United Kingdom

³Flemish Institute for Technological Research (VITO), Mol, Belgium

⁴TECNALIA, Basque Research and Technology Alliance (BRTA), Bilbao, Spain

⁵Universitaet Basel, Basel, Switzerland

⁶Potsdam Institut fuer Klimafolgenforschung (PIK), Potsdam, Germany

⁷Gisat S.R.O., Prague, Czech Republic

⁸GeoVille Informationssysteme und Datenverarbeitung GMBH, Innsbruck, Austria

⁹German Aerospace Centre (DLR), Wessling, Germany

¹⁰CWare Aps, Copenhagen, Denmark

A major challenge for the urban community is the exploitation of Earth Observation intelligence in managing in the multidimensional nature of urban sustainability towards enhancing urban resilience, particularly in relation to the challenges of climate change. This study presents the ways in which the H2020 funded project CURE (Copernicus for Urban Resilience in Europe) synergistically exploited Copernicus Core Services to develop cross-cutting applications supporting urban resilience. CURE provided the urban planning community with spatially disaggregated environmental intelligence at a local scale, as well as a proof-of-concept that urban planning and management strategies development enhancing the resilience of cities can be supported by Copernicus Core Services. Here, we demonstrate the technical operational feasibility of an umbrella cross-cutting system on urban resilience, consisting of 11 specific applications. These use Copernicus core products from at least two services each as main input information, reflect the main urban sustainability dimensions and are relevant to user needs, which were identified based on a strong stakeholders' engagement. As a result, CURE is built on Data and Information Access Services (DIAS), as a system integrating these cross-cutting applications, capable of supporting downstream services across Europe, enabling its incorporation into operational Copernicus products portfolio in the future and also addressing its economic feasibility. For more information on CURE: <http://cure-copernicus.eu>