



**HARMONIA: Combining
reflection and action**

The role of HARMONIA as a Support System for Improved Resilience and Sustainable Urban areas to cope with Climate Change and Extreme Events.



The **HARMONIA** project will empower Climate Change mitigation and adaptation measures by providing a platform dedicated to urban environments. This Integrated Resilience Assessment Platform (IRAP) will allow urban stakeholders to not only understand but also visualise the effects of Climate Change.

Using Satellite and auxiliary data available on GEOSS, DIAS, urban TEP and other services, HARMONIA will:

- **Incorporate** multi-disciplinary knowledge and assessments
- **Address** hazards connected to Climate Change
- **Address** geological hazards (geohazards)
- **Identify and define** intervention necessity indices



How it will be done



HARMONIA leverages a wealth of existing Earth Observation (EO) Datasets and services – including GEOSS, Copernicus and ESA data and services.

This will be capitalised with ensemble modelling of socio-economic and in-situ data to deliver an Integrated **Resilience Assessment Platform (IRAP)**.

IRAP is a system that allows stakeholders to model a range of planning options against a number of CC scenarios.

The IRAP platform will address multi-hazard risk factors and help streamline the process of preparing for, and responding to, Climate Change-related hazards.



The Goal



Urban areas are particularly vulnerable to the effects of Climate Change. **The HARMONIA IRAP platform** will focus on two types:

- **Natural and manmade hazards** intensified by CC, including urban flooding, soil degradation and geohazards (landslides, earthquake, ground deformation).
- **Manmade hazards**, such as heat islands, urban heat fluxes, air quality, gas emissions.

The IRAP platform will offer a user-friendly knowledge base, dispensing detailed information on a local neighborhood and street level. This will support local decision making and foster a wide range of applications dedicated to climate adaptation and mitigation, generating important long-term socioeconomic benefits.



A multicultural team

- 22 partners
- 11 countries
- 4 research institutes
- 1 NGO
- 4 municipalities
- 9 companies





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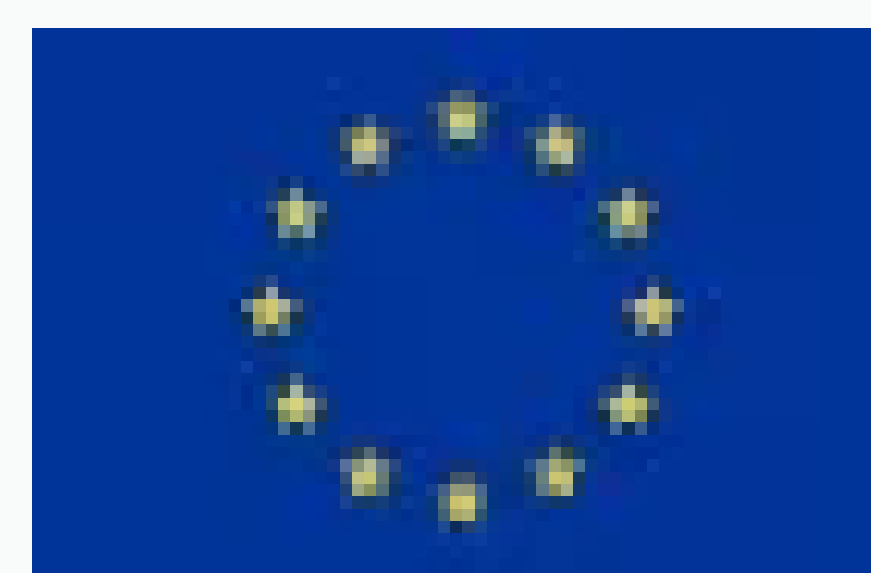
The Harmonia project



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The HARMONIA project has received funding
from the EU Horizon 2020 research and innovation programme under agreement
No. 101003517.