Prize Winner
Project EYWA

EARLY WARNING FOR EPIDEMICS

EIC HORIZON prize

EYWA
Early Warning System for Mosquito Borne Diseases

European Commission

EYWA system wins the 1st EIC Horizon Prize on Early Warning for Epidemics

In April 2018, the European Commission launched **a €5 million prize for an early warning system for epidemics.**

The prize rewards the development of a scalable, reliable and cost-effective early warning prototype system based on Earth Observation data to forecast and monitor outbreaks of vector-borne diseases.

EYWA | The Winner of the EIC Horizon Prize on Early Warning for Epidemics

Developed in the context of EuroGEO Action Group "Earth Observation for Epidemics of Vector-borne Diseases - EO4EViDence", EarlY WArning System for Mosquito-borne Diseases (EYWA) is a game changer in the domain of epidemics. It transforms scientific knowledge into decision-making and contributes significantly to combating and controlling the threat of mosquito-borne diseases.

The solution enhances mosquito surveillance and control at various spatio-temporal scales and in different climatic zones, and guides day to day prevention and mitigation actions. It significantly reduces the entomological risk and results in the aversion of human cases in thousands of villages where EYWA is employed.

The technological novelty of EYWA lies in the efficient handling of multiple data sources such as entomological, epidemiological, Earth Observation, crowd and ancillary geospatial data, along with dynamic and data driven models to generate knowledge on the mosquitoes' abundance and pathogens' transmission. Thanks to data provided by Copernicus satellites and Copernicus Core Services, EYWA reliably depicts the dynamics of mosquito habitats and breeding sites. The system capitalizes on European investments in Earth observation and cloud-based data repositories and capacities (i.e. DIAS, GEOSS, NextGEOSS).

This accomplishment is a significant milestone and an exceptional example of the unlimited Earth Observation power and the societal benefits that can derive from harnessing space technology.

EYWA partners

Partner	Country
National Observatory of Athens (NOA) – BEYOND Centre of Earth Observation Research and Satellite Remote Sensing	Greece
Ecodevelopment S.A. (ECODEV)	Greece
University of Patras, Physics Department, Laboratory of Atmospheric Physics (LapUp)	Greece
Dimitris Vallianatos (i.D.Com)	Greece
Aristotle University of Thessaloniki (AUTH)	Greece

University of Thessaly (UTH), Medical School, Laboratory of Hygiene and Epidemiology	Greece
Istituto Zooprofilattico Sperimentale delle Venezie (IZSVe)	Italy
Edmund Mach Foundation (FEM)	Italy
University of Trento (UNITN), Department of Mathematics	Italy
University of Novi Sad, Faculty of Agriculture, Laboratory for Medical and Veterinary Entomology (UNSFA)	Serbia
Scientific Veterinary Institute "Novi Sad" (NIV-NS)	Serbia
Kommunale Aktionsgemeinschaft zur Bekämpfung der Schnakenplage (KABS) e.V.	Germany
Bernhard Nocht Institute for Tropical Medicine (BNITM)	Germany
EID Méditerranée	France
University of Novi Sad, Faculty of Medicine (UNSFM)	Serbia

Useful links:

- https://www.youtube.com/watch?v=RNZFRNDSBVY
- https://ec.europa.eu/info/news/eic-horizon-prize-early-warning-epidemics-commission-awards-eu5-million-winning-project-2022-jan-17_en
- http://beyond-eocenter.eu/index.php/web-services/eywa

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