

What is climAir?

ClimAir is an EU-funded project dedicated to enhancing our understanding of the intricate links between climate change, air pollution, and non-communicable respiratory diseases. By employing advanced Artificial Intelligence tools, **ClimAir** aims to develop innovative solutions that promote healthier environments and improve public health outcomes.

The project focuses on gathering comprehensive data on climate change, air pollutants, and the prevalence of respiratory diseases. This data-driven approach enables the development of AI-powered tools designed to support health workers, urban planners, and policymakers in making informed decisions to mitigate the impacts of climate change on respiratory health.



Partners

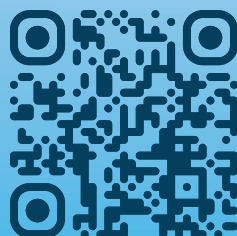


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climAir

Artificial Intelligence for Cleaner Air:

Understanding the Link Between Climate Change, Air Pollution, and Respiratory Health in Europe

Programme:

HORIZON.2.1.2 - Environmental and Social Health Determinants

Topic:

HORIZON-HLTH-2024-ENVHLTH-02-06-two-stage
The role of environmental pollution in non-communicable diseases: air, noise and light and hazardous waste pollution

Grant Agreement ID:

101156799

Start – End Date:

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Data-Driven Solutions to Improve Air Quality & Public Health



Innovation

ClimAir harnesses advanced Artificial Intelligence techniques, including Federated Learning, to explore the intricate relationships between climate change, air pollution, and non-communicable respiratory diseases. By integrating diverse environmental and clinical data, ClimAir aims to develop a user-friendly web application that offers reliable information on disease incidence predictions, educational resources, and policy guidelines.

Objectives

Comprehensive Data Integration:

Collect and harmonise data from electronic health records, pollution monitoring stations, and climate databases across nine European medical centres.

Mechanistic Understanding:

Conduct studies to elucidate how pollutants and climate factors affect human health at molecular and systemic levels.

AI Model Development:

Utilise Federated Learning to train AI models that predict health impacts without compromising patient privacy.

Decision Support Tools:

Develop a web-based platform to assist healthcare professionals, urban planners, and policymakers in making informed decisions.



By integrating interdisciplinary research and innovative AI methodologies, ClimAir seeks to provide robust scientific evidence to inform policies and actions that mitigate pollution-related health risks.



Impacts

Policy Influence:

Provide robust scientific evidence to inform policies aimed at mitigating pollution-related health risks.

Improved Public Health:

Enable targeted interventions to reduce the incidence of respiratory diseases linked to environmental factors.

Educational Resources:

Offer training courses and guidelines to raise awareness and understanding of the health impacts of pollution.

Privacy-Preserving Research:

Implement data analysis methods that protect individual privacy while allowing comprehensive research.