

## Impact



### Science:

Enhances understanding of pollutant sources and their health effects through mapping and individualised risk prediction for NCDs, supporting both research and clinical prevention strategies.

**Economy:** Contributes to reducing healthcare costs and environmental damage by enabling preventive actions, while boosting the digital health market with innovative tools and services.



**Society:** Empowers citizens and policymakers with tools, data, and insights to make informed decisions on environmental health, contributing to the EU public health frameworks and sustainability goals.

## The consortium

The ENACT consortium unites a multidisciplinary team of experts from leading European universities, research institutes, healthcare organizations, and technology companies.



## Join us and make an impact

ENACT is committed to improving our understanding of how the environment affects our health. Stay informed and get involved through our project updates, publications, and events. Together, we can build a healthier, more resilient, and sustainable future for all.

Start date: 1 January 2025

End date: 30 June 2028

Duration: 42 months

EU contribution: 7 997 612,77 €

Funded by: Horizon Europe programme

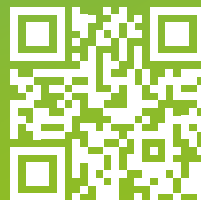
Project ID: 101157151

Consortium: 21 partners from 10 countries.



Environmental Effect on Health  
Care and Wellbeing and Active  
Interventions

[www.enact-he.eu](http://www.enact-he.eu)



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## Linking environment and health data for smarter decisions

ENACT is a European research project focused on understanding how pollution affects our health—so we can prevent diseases before they start. Using cutting-edge science, the project will develop a risk score that shows how exposure to air, noise, and light pollution may lead to chronic conditions like heart disease. This tool will help citizens, healthcare professionals, and policymakers make smarter decisions to protect health, reduce financial burden, and improve quality of life in our communities.

### Key Objectives

#### 1. Develop a comprehensive model to assess the interaction between environmental factors and non-communicable diseases (NCDs)

→ Create an exposomic risk score based on multiple environmental exposures (air, noise, light, etc.) linked to hospitalization for acute vascular and non-vascular NCDs.

→ Translate this population-level risk model to the individual level, enabling prediction of preclinical stages of disease.

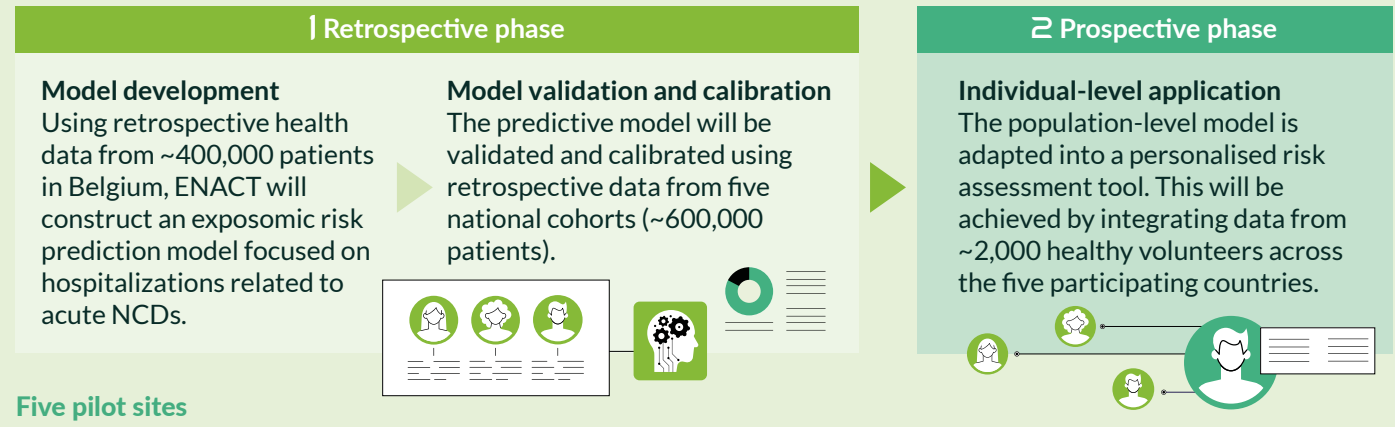
#### 2. Build a secure, federated platform for exposomic risk analysis

→ Implement a privacy-preserving platform using Federated and Distributed Ledger Technologies (DLT) to enable secure data sharing and AI model training across countries.

→ Provide a suite of services—including risk scores and visualization tools—for use by citizens, healthcare professionals, and policymakers at local, national, and EU levels.

## Methodology

### Two-phase risk model development and validation



### Five pilot sites

**Belgium (Brussels):** Air and noise pollution and hospital admissions for vascular and non-vascular diseases



**Ireland (Waterford):** UV light pollution influence on dermatological and ocular conditions



**Spain (Madrid):** Air and noise pollution influence on paediatric acute respiratory issues.



**Italy (Turin):** Indoor air filters' effect on cardiovascular and respiratory conditions.



**Bulgaria (Sofia):** Chronic cardiovascular disease risks linked to pollution



● Countries with pilot sites

● Partner countries

### Comprehensive data collection

Clinical data about hospitalization for non-communicable diseases.



●..... Air, noise, light, and climate sensors.

Wearables to track individual physiological responses and correlate with environmental stressors.