

## The challenges



### POLLUTION EXPOSURE

Increased exposure to indoor air pollutants.



### HEALTH THREATS

Increased risk of early-life respiratory diseases.



### KNOWLEDGE GAP

Limited understanding of indoor air quality pollutant sources, concentrations and monitoring strategies.



### WEAK LEGISLATIVE FRAMEWORK

Lack of standardised guidelines across European Union countries.

## The EDIAQI response

EDIAQI will pursue the following objectives:



Validate user-friendly indoor air quality monitoring solutions and provide standardised guidelines for interventions to improve indoor air quality.



Collect data on and characterize the main sources of indoor air pollutants in indoor environments.



Investigate associations between Indoor Air Quality (IAQ) and early-life diseases.



Support policy-makers in reviewing indoor air quality standards and regulatory measures for control and monitoring.



Provide science-based evidence for supporting the Zero-Pollution Action Plan of the European Green Deal.

## Partners

The EDIAQI project brings together 18 organisations, from 11 different European countries, providing a mix of interdisciplinary skills and expertise in different fields including environmental science and technology, medicine and toxicology, as well as policy design and public engagement.



Ascalia



Evidence Driven  
Indoor Air Quality  
Improvement



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ediaqi.eu



## Our goal



The goal of the project is to validate user-friendly Indoor Air Quality monitoring solutions, through a series of 4 pilots and 4 campaigns, that can help create a long-term Europe-wide knowledge base for risk factors associated with known and emerging indoor air pollutants.

The project will collect data on and characterize the main sources, routes of exposure and dispersion of chemical, biological, and emerging indoor air pollutants.



The EDIAQI team will also investigate associations between indoor air quality and early-life disease.

The evidence provided will help support relevant stakeholders to develop standardized guidelines for interventions to improve Indoor Air Quality policymakers in reviewing standards and supporting measures for regulation, control and monitoring.

## Pilots

4 pilots covering large test areas with big sample sizes to generate evidence for policy, recommendations and training:

- **Ferrara Pilot:** schools, offices, entertainment and residential building scenarios.
- **Estonian Pilot:** administrative and social care buildings, schools, kindergartens and universities.
- **Zagreb Pilot:** SCH2021 cohort, households of 200 patients, school children with asthma.
- **Filtration Pilot:** existing users of ventilation and conditioning systems.

## Campaigns

4 measurement campaigns to generate insights into Indoor Air Quality and health risk assessment:

- **Evaluation of low-cost sensors:** performance evaluation of consumer grade sensors.
- **Measurement campaign - Seville:** physical-chemical characterisation of indoor air pollutants, behavioural differences and ventilations habits.
- **Measurement campaign - Vilnius:** impact of vehicles on indoor air quality and school children exposure
- **Awareness campaigns:** raising awareness about outdoor and indoor air pollution.

## Impact

EDIAQI will create healthier, more inclusive and safer living environments in European cities and regions.

It will do this by helping to create a unified, large-scale, and long-term indoor pollution monitoring strategy, involving transdisciplinary research approaches, big-data, interoperability, and internet of things.



The impact of the EDIAQI findings will help:

- **Citizens:** to gain access to user-friendly solutions to monitor Indoor Air Quality and better understanding of complex environment and health issues.
- **Scientific community:** to better understand and respond to the challenges of Indoor Air Quality.
- **Industry:** increased competitiveness before 2030 due to improvements in technologies related to indoor air monitoring and purification.
- **Policy makers:** to support regulatory measures and improve monitoring actions.
- **European Commission:** support to the Zero-Pollution Action Plan of the European Green Deal with scientific evidence.