

## Commonalities of the projects

These seven projects share common goals and approaches in their pursuit of improving indoor air quality and promoting better health. Some of the key commonalities among these initiatives include:

### Interdisciplinary Research

All projects adopt interdisciplinary approaches, bringing together experts from various fields. This collaboration enables a holistic understanding of indoor air quality and its impact on health.

### Advanced Monitoring Systems

The projects emphasise the development and implementation of advanced monitoring systems.

### Health Impact Assessment

Each project focuses on assessing the health impacts of indoor air pollutants. By conducting rigorous research, collecting data from real-life scenarios, and studying vulnerable groups, such as children and high-risk patients, they aim to understand the adverse effects of poor indoor air quality on human health.

### Solutions and Interventions

These initiatives aim to provide practical solutions and interventions to improve indoor air quality.

### Stakeholder Engagement and Dissemination

The projects prioritise engagement with relevant stakeholders, including policymakers, educators, and the public.

### Technological Advancements

Cutting-edge technologies, such as artificial intelligence algorithms, multi-sensing platforms, and user-friendly monitoring solutions, are employed across the projects.



Co-funded by  
the European Union

This work has received co-funding by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Health and Digital Executive Agency (HaDEA). Neither the European Union nor the granting authority can be held responsible for them.

#### Project funded by



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs,  
Education and Research EAER  
State Secretariat for Education,  
Research and Innovation SERI

This work has received funding from the Swiss State Secretariat for Education, Research and Innovation (SERI) [grant number 22.00324].



UK Research  
and Innovation

This work has received funding by UK Research and Innovation (UKRI) under the UK government's Horizon Europe funding guarantee [grant number 10038689 and 10042425].



Australian Government  
National Health and  
Medical Research Council



This work has received funding support from the Australian National Health and Medical Research Council (NHMRC) [grant number APP2017786 and APP2008813 and 2022/GNT2017837].

# IDEAL

## INDOOR AIR QUALITY HEALTH

The European Cluster to improve and safeguard health and well-being of citizens in indoor environments.



[https://twitter.com/IDEAL\\_CLUSTER](https://twitter.com/IDEAL_CLUSTER)

<https://www.linkedin.com/company/ideal-cluster/>

[www.idealcluster.eu](http://www.idealcluster.eu)

By sharing these commonalities, these projects collectively contribute to advancing scientific knowledge, informing policy decisions, and creating healthier indoor environments for the well-being of individuals and communities.



## Projects

Welcome to the world of **indoor air quality research and improvement projects!** We present to you a **collection of seven innovative initiatives focused on enhancing indoor air quality and its impact on human health.** These projects employ **advanced technologies, interdisciplinary approaches, and collaborative efforts to create healthier living environments.**

**K-HEALTHinAIR** is an interdisciplinary research project dedicated to understanding chemical and biological indoor air pollutants and their effects on human health. By leveraging artificial intelligence algorithms and advanced data analysis, the project aims to develop accurate monitoring systems and provide solutions for improved indoor air quality.

**SynAir-G** investigates the interactions between indoor air pollutants and their impact on childhood health and wellbeing. Through the development of comprehensive multipollutant monitoring systems and eco-friendly interventions, this project aims to create a safe and healthy school environment. The generated knowledge will be shared with stakeholders in accessible formats.



**LEARN**



TwinAIR



**EDIAQI** Evidence Based Indoor Air Quality Improvement

**LEARN** focuses on evaluating indoor air quality in schools and its impact on children's cognition. By utilising novel sensors, biomarkers, and human-based in vitro models, LEARN aims to understand the toxicity mechanisms of air pollutants and explore air filtration as a remediation strategy. The project's outcomes will contribute to improving air quality and enhancing children's quality of life.

**TwinAIR** introduces innovative technological solutions to improve air quality in various indoor settings such as residences, workplaces, transportation, hospitals, and schools. By raising community awareness and supporting policy-making, TwinAIR strives to enhance public health and promote healthier living environments.

**InChildHealth** aims to identify determinants of indoor air quality and their health impacts on environments occupied by children. Through an integrated risk assessment tool and citizen science approach, the project will provide guidelines, recommendations, and training materials to improve indoor air quality and reduce disease burdens.

**INQUIRE** focuses in identifying chemical and biological determinants of indoor air quality and developing strategies for healthier homes in Europe. By understanding the sources and promoting healthier indoor environments, INQUIRE aims to enhance the overall wellbeing of individuals and communities.

**EDIAQI** strives to create healthier and safer living environments by validating user-friendly indoor air quality monitoring solutions. Through data collection, characterization of pollutants, and investigating associations with early-life diseases, EDIAQI aims to support policymakers in developing standardized guidelines and measures for improved indoor air quality.

## Cluster Working Groups



Science Translation for Policy and Practice



Data Analysis/Management and Protection



Communication and Dissemination



Health Outcomes



Sensors



In vitro Models



Guidelines

→  
Join us in this journey towards improved indoor air quality and better health!

These projects contribute to the **advancement of knowledge, technology, and regulations in the field of indoor air quality.** By implementing their findings and recommendations, we can create **healthier, more sustainable, and inclusive living spaces for everyone.**