



**Clean air in
school!
Play & LEARN**

LEARN



Funded by
the European Union

About LEARN

LEARNIng about the status of indoor air quality in schools and its impact on the cognition of children is a priority for this EU-funded project. To that end, we will overcome the barriers of current technologies and take a bold step towards developing and deploying novel sensors to detect the presence of possibly harmful air pollutants, such as volatile organic compounds (VOCs) and ultrafine particles (UFPs).

We will measure and characterize indoor and outdoor air pollutants and evaluate the presence of biomarkers of exposure and their effect on children's cognition, while also trying to recapitulate those effects using *C. elegans* as a biosensor. Moreover, we will use advanced human-based in vitro models of lung and skin, coupled with a revolutionary multi-sensing device to investigate their mechanisms of toxicity in real-time. Novel remediation strategies will also be explored to improve indoor air quality in schools.

The scientific achievements expected to result from the LEARN project will unlock a large technological potential in indoor air quality for decades to come, leading to disruptive societal and political impacts steaming from a radical improvement in the quality of life of children in Europe and their life expectancy.

All of this will be possible thanks to a group of eleven leading research teams, unrivalled in their respective fields, from environmental epidemiologists to toxicologists, air quality specialists, systems biology, engineers, as well as citizen and social scientists.

LEARN is part of the IDEAL cluster, an EU initiative that brings together seven EU-funded projects under Horizon Europe dealing with indoor air quality and health.

Clean air in school! Play & LEARN



Funded by
the European Union

Funded 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 Union or the European Research Executive Agency (REA). Neither the European Union nor the granting authority can be held responsible for them.

