

Output factsheet: Pilot actions

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Lead partner	National Public Health Center
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Responsible partner (PP name and number)	National Public Health Center - LP
Project website	http://www.interreg-central.eu/Content.Node/InAirQ/InAirQ.html
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Summary description of the pilot action explaining its experimental nature and demonstration character

Before the preparation of the national (local and regional) action plan, project partners have been analyzed and studied all the possible measures to improve indoor air quality in school buildings. Italian, Slovenian and Hungarian partners have conducted feasibility studies.

Italian partners, Fondazione LINKS (former-SITI) and Fondazione per la Scuola, prepared a study on protocols development for equipment maintenance, correct behavior and tried to find the best and healthiest solutions for Italian schools. The selection of a solution is based on the data gathered during diagnostics, i.e. after the analysis of the monitoring campaign results and the classroom questionnaires. The diagnostics may have determined that the problem was either a real or a perceived indoor air quality problem, or a combination of multiple problems. Italian feasibility study proposed some specific applications and actions to prevent the spreading of existing pollutants, ranging from basic measures to complex ones. Proposed measures have to be followed by the group or stakeholders who must rank the activity and the feasibility assessment on a three-leveled scale (high, medium, low). The proposed actions were: source removal, source reduction/substitution, ventilation, exposure control, air cleaning, regular monitoring campaigns on air quality, education and training.

Slovenian partner NIJZ has examined the actual outdoor and indoor environment in a third school, which participated in the measuring campaign. Here further independent measures and surveys have been run. In several parameters the selected school seemed better model in its typical problems, than the partner OS-KDK. That is why the pilot activity has covers another schools. Furthermore, partner school's assumption was that an independent, third party feasibility study provides more flexibility in exploration work from architectural, physical planning to the daily cleaning and maintenance routine and the results gained are easier to accept by the teachers and the parents of the OS-KDK. The study has ranked the actions need to be implemented and after the verification of OS-KDK generalized for all Slovenian schools.

The Hungarian partner Várpalota has prepared a two-volumed handbook, which has been tailored to the local schools. However, the first volume gives a general overview about the Hungarian school buildings as a whole. Presents the typical architectural failures and solutions may have health impacts. The study describes the most important elements of the indoor environment (humidity, temperature) and comfort, and presents optimal values to achieve as a goal. The document deals with two typical school types in Várpalota. A SWOT analysis explores

recent state of these two institutes. Finally, the first volume drafts four alternatives to control the CO₂ and humidity level in the classrooms. These technical and mechanical solutions are good bases of further development and renovation projects the municipality intends to participate. The second volume of the feasibility study starts at the planning and manage of air quality improvement projects. The document sums up the sources of the potential air pollutants inside and close to the schools building. The study counts the threats and health risks of the HVACs and the classroom furniture and other building materials (e.g. flooring, textiles, paints and other chemicals). Both volumes offer easy-to-implement solutions for the selected schools.

NUTS region(s) concerned by the pilot action (relevant NUTS level)

Pilot activities have been implemented in Turin, Ljubljana and Várpalota.
ITC1, Piemonte region (Piemonte)
ITC11 Turin (Torino)
SI041 Central Slovenia Statistical Region (Osrednjeslovenska statistična regija)
HU213 Veszprém county (Veszprém megye)

Expected impact and benefits of the pilot action for the concerned territory and target groups

The feasibility studies on the application of measures and on the use of new technologies aimed at reducing indoor air pollution in schools in general has led to interesting results, linked both to the specific need to protect the health of children and to the national context in relation to the theme of indoor air quality and school management.

First, it must be underlined that, as in the other Central European countries, even in the partner countries where the pilot activities applied, there is no specific legislation concerning both monitoring and management of indoor air quality, both in public and private buildings. In recent years, some progress has been made with the approval of US and other European standards and protocols that collect a series of regulations aimed at governing the use of materials and substances in the public places.

The measures identified and the alternative solutions presented because of the studies done in the context of InAirQ project in order to improve the indoor air quality in schools have a variable feasibility in relation to the reference context and to the stakeholders to be involved. In general, actions of an intangible nature, such as campaigns to increase awareness, manual (natural) ventilation (e.g. open windows), are more feasible than others. Such efforts cost far less than what could be hypothesized for material measures (substitution/reduction of polluting sources, automatic ventilation systems, exposure control), and because they involve a number minority of stakeholders, generally limited to the scholastic reality in which the campaign is to be carried out.

Sustainability of the pilot action results and transferability to other territories and stakeholders

The Italian, the Slovenian and the Hungarian partners presented this study in various occasions such as conferences, EQFs and capacity building trainings.

In our opinion, the results of the feasibility studies and the methodology used can be very useful for all Central European schools and local decision makers in order to improve indoor air quality in schools. All materials are easily accessible and available online (official webpage of the project, national Facebook webpages) and available to be shared.

Lessons learned from the implementation of the pilot action and added value of transnational cooperation

The development of the methodology on feasibility study for the development of protocols for equipment maintenance and application of new and healthiest technologies for IAQ improvement has been drafted together among all project partners and EQF members and the results obtained were very optimistic. The benefit of the cooperation was a key aspect for optimal results.

The most important lesson learnt from the implementation of the pilot action is that each country acts in a different context, but often the problems related to this issue are identical and the solutions to be adopted to deal with them are convergent, even if not identical.

References to relevant deliverables and web-links If applicable, pictures or images to be provided as annex

The Italian report on the Feasibility study conducted is available on the official website of the InAirQ project (<https://www.interreg-central.eu/Content.Node/InAirQ/InAirQ.html>) under the deliverable references (D.T3.3.6-D.T3.3.8 respectively). The reports contain detailed information on the main activities, the achieved result as well as some explanatory pictures, graphs and tables.