The project has received funding from the LIFE Programme of the European Union under GA number LIFE19 ENV/GR/000100

LIFEVISIONS
InnoVative photocatalytIc paintS for healthy envirOnment and eNergy Saving

InnoVative photocatalytIc paintS for healthy envirOnment and eNergy Saving «VISIONS»

Real Scale Applications

Project Coordinator:

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Application of Photo-Paints in Demo-Houses prototype demonstrator

- **The semi-industrial photo-paints** will be applied on the surface of 1m x 1m panels (up-scale coatings)
- The up-scale coatings panels will be placed in one of the Demo Houses, the so call **''Green House''.** The other one will be considered as reference: the **"Conventional House".** Houses will be fed with air pollutants in order to achieve the required pollution level (close to real indoor conditions). By activating the photocatalytic building material (turn on the light) hopefully the pollution level in the 'Green House' will be reduced comparing with the conventional one.

- **The overall energy consumption** for the operation of the HVAC systems which are required for the mechanical ventilation of the houses necessary to retain the air quality at levels will be continuously measured during the "reference" and "treated" scenarios under consideration

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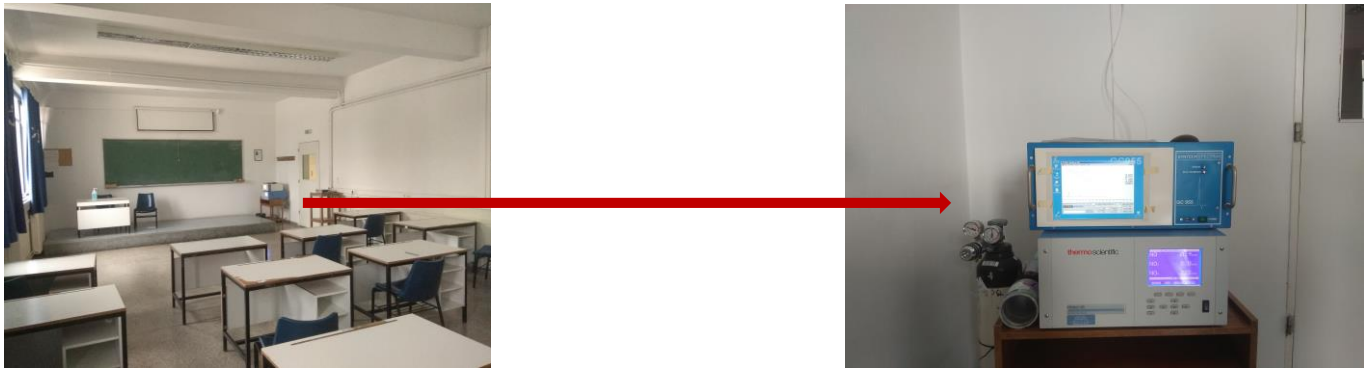
Application of the most promising Photo-Paint in real life conditions. The case of Hellenic Naval Academy (HNA) Buildings

<u>The de-polluting efficiency of the photo-paint will be estimated through 2 approaches:</u>

- Install air quality and environmental monitoring systems (passive organic (BTX) and inorganic (NOx) samplers), temperature and humidity recorders) in the HNA Buildings **prior and after the application of the photo-paint** for **12 months each period**. ***A restriction of this approach*** could be the variations in outdoor air quality and meteorological conditions during the different sampling periods. In order to eliminate the effect of the above restrictions, the monitoring will take place for one year in order to include all seasons while the outdoor concentration will be taken under consideration on the final results.



- **A second approach** to evaluate the efficiency of the photo-paints will be also applied. **IAQ differences between "reference" rooms** and **"green" rooms** which are located **on the same level** and where the same **activities** took place will be measured. The outcome of this approach, which overcomes the restrictions of the previous one) will be compared and at the end of the day will verify the outcome of the 1st approach.

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http://lifevisions.gr/

LIFE VISIONS Facebook page

The project Facebook page is available as LifeVisions. (@LifeVisionsGR)

LIFE VISIONS Twitter account

The project Twitter account is available as LifeVisionsGR, (@gr_visions)

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