Uncompromised ambient air quality in resource-efficient buildings

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European alliance of more than 40 allergy, asthma and chronic obstructive pulmonary disease (COPD) national patients’ associations representing more than 30% of European citizens living with these diseases

Patients’ participation in every decisions influencing their health, partnership & sharing knowledge

Official stakeholder in the European Chemicals Agency
In OECD countries, people spend on average 90% of their time in indoor environments.

Under the principle of the fundamental right to health, everyone has the right to breathe healthy indoor air (WHO, The Right to Healthy Indoor Air, 2000).

BUT

Several sources of pollution regularly breach such a right:

- **Outdoor air:** combustion, industrial pollution, traffic, pollens – causing 50% of IAQ burden of disease (EnVIE project)
- **Building:** building materials, furnishing, equipment, consumer products
- **Ventilation system:** ventilation, air-conditioning
- **Humans:** occupants and their activities
2 million healthy years are lost in the EU every year due to poor indoor air quality (IAIAQ project)

Figure 1. Burden of disease at the baseline (2010) in EU-26 divided into indoor and outdoor source components (left) and fractions associated with different diseases (right).

Source: HealthVent report
INDOOR AIR QUALITY AND THE LUNGS

People with allergy and respiratory diseases are particularly affected (first to react and worsening of symptoms)

Sources
- Smoking
- Cooking
- Household chemicals
- Ground on which buildings are built (radon)
- Building materials
- Heating and cooling
- Bedding and furnishings
- Moisture and dampness
- Pets

Lung effects
- Irritated nose and throat
- Increased chance of respiratory symptoms such as cough
  - Worse asthma
  - Worse COPD
- Lower lung function
- Lung cancer

Lung effects
- Carbon monoxide poisoning and death
- Difficulty breathing (dyspnoea)
- Intoxication
- Pneumonitis
- Inflammation of the lung airways
- Shortness of breath
  - Allergic reactions
  - Nasopharyngeal cancer
Loss of 9% of productivity due to offices’ poor indoor air quality
Carpeting and less ventilation reduce typing speed and proofreading accuracy by 4%
64 million students and 4.5 million teachers are affected by bad indoor air quality in Europe with impact on absenteeism, learning and student performance, as well as behaviour
Social exclusion
“Fragrances are increasingly being used in places frequented by the public. Another aspect of this trend is the habit of making fragrances long-lasting – a disaster if you have asthma and someone near you is using such products! This pungent odour makes it hard for people with asthma and allergy to remain in the vicinity. They are forced to leave or in the best case to take more medication to be able to stay.”

Joanna Bottema – Astmafonds (The Netherlands), EFA Book on Respiratory Allergies: Raise Awareness, Relieve the Burden
Poor indoor air quality mistakenly believed to be a private problem.

THEREFORE

No proper legislative text adopted on IAQ…

EU Expert Group on IAQ established by DG SANCO in 2006, now not active anymore

Joint Research Centre dedicated website

Energy Performance of Building Directive and Construction Products Regulation: buildings and construction materials should guarantee a good quality of the indoor air, but nothing binding is established

Seventh Environment Action Programme: call for developing EU strategy and IAQ levels in line with WHO recommended guidelines

...although EU research and public health funding allocated to IAQ projects

LACK OF EU INTEREST

Tomorrow will be canceled due to lack of interest.
- Inclusion of indoor air quality requirements in the national regulations of all European countries, especially for schools and kindergardens, and in line with WHO guidelines
- Inclusion of indoor air quality auditing in the review of EPBD, IAQ in the energy certificate
- Harmonised construction products labelling criteria
- Common regulation in Europe on health-based ventilation rates, harmonising calculation practice among countries
- European guidance on proper scope, design, construction, maintenance and inspections of ventilation systems
- Inclusion of indoor air quality considerations in health and safety at work legislation
− Inclusion of patients’ organisations in IAQ decision-making
− Development of new EU policies promoting sustainable buildings considering distance with industry, big roads, etc.
− Stricter comprehensive and sectorial legislations tackling ambient air pollution (e.g.: transport, industry)
− Labelling of consumers products
− Establishing national indoor air quality help-lines
− Banning of smoke in all public places
− No fragrance or scents in public buildings
− Separate heating and ventilation systems (reducing ventilation, not turning it off)
− Introduction of sensing devices for the monitoring of indoor air quality
SAVE THE DATE

25 April 2017 | 18:00-20:00 | European Parliament, Brussels

A political Call to Action on allergy and asthma in Europe
Launch Event Hosted by MEP Sirpa Pietikäinen (EPP, Finland)
We need a **common comprehensive and urgent response** to tackle both indoor and outdoor air pollution.
THANK YOU!

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