

**Summary EuroACE Webinar 3.2**  
**“A Breeze of Fresh Air? Ensuring Improved IAQ is Delivered via the Renovation Wave”**  
**26<sup>th</sup> November 2020**

3rd Online Mini Workshops Series  
**Renovation Wave:  
 Enablers and Accelerators  
 for Ambition**

2nd Webinar

**A Breeze of Fresh Air?  
 Ensuring Improved Indoor Air  
 Quality is Delivered via the  
 Renovation Wave**

26th of November 2020  
 (09:30-10:45 CET)  
 Via GoToMeeting



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**Background:**

The webinar “A Breeze of Fresh Air? Ensuring improved IAQ is delivered via the Renovation Wave” aimed at exploring in detail the current EU framework that regulates Indoor Air quality (IAQ) in the built environment and how its agenda has adapted to the current health crisis. The main presentations were given by representatives from the European Commission: Manfred FUCHS (DG GROW), Pau GARCIA-AUDI (DG ENER), and Anita DERJANECZ from the Federation of European Heating, Ventilation and Air Conditioning associations (REHVA). After analysing these initiatives and having discussed future opportunities to be seized from the Renovation Wave, four EuroACE Member Companies (AERECO, Carrier, Signify, VELUX) shared with the participants and the panellists their opinions on the best approaches forward and how the Industry is responding to the needs surging from the current pandemic.

*In the following pages you will find a summary of the main points discussed during the session.*

## How to ensure high IAQ via the EPBD and other EC initiatives?

Manfred FUCHS, DG GROW - C.1



In order to create a comprehensive framework capable of ensuring high IAQ level in the EU built environment, the European Commission has put in place several policies and instruments which aim at assisting designers, construction companies, building managers and occupants in making sustainable and efficient choices. The framework covers several stages within the building life cycle, namely product sourcing, design, installation, and maintenance.

When referring to product sourcing, DG GROW looks into the Internal EU Market to define which are the products that can be labelled as hazardous or compliant with the existing requirements. The policies and instruments in place to fulfil this task are the following:

- [Revision of the Construction Products Regulation \(CPR\)](#)
- [REACH](#)
- [EU-LCI](#) values: where LCI stands for Lowest Concentration of Interest, which is a database identifying risk-levels of around 106 substances.
- Standard EN 16516 ([CEN TC 351](#))

Meanwhile, for building design, installation and maintenance, the IAQ is addressed and achieved via the following initiatives and policies:

- [Renovation Wave](#) Strategy: in which, the upcoming EPBD revision will take into greater consideration both IAQ and Indoor Environmental Quality (IEQ) levels.
- [Level\(s\)](#): which is a concept that provides information for designers to ensure sustainability in buildings. The framework includes both new buildings and renovated ones. Each of its indicators is designed to link the individual building's impact with sustainability priorities set at the European level. This allows users to focus on a manageable number of essential concepts and indicators that contribute to achieving EU and national environmental policy goals. The indicators can be categorised into three macro-areas such as: **1) Resource use and environmental performance indicators** (e.g., Greenhouse gas emissions along a buildings life cycle; Design for adaptability and renovation etc.); **2) Health and comfort indicators** (e.g., IAQ; healthy and comfortable spaces); **3) Cost, value and risk values** (e.g., Adaption and resilience to climate change, Value creation and risk factors etc.).
- National and Regional Building codes: which are a prerogative of Member States, however, **whose alignment with the EU policies and standards in place greatly influences the impact of the IAQ framework at large.**

## From COVID-19 to the Renovation Wave, good policies for adequate IAQ?

Anita DERJANECZ, REHVA



The COVID-19 pandemic has taught us that buildings' requirements and practices need to be updated on the basis of two main priorities: **1) the need to provide adequate ventilation to decrease the spread of the virus** (whose nature, in this case, is airborne); **2) investing more in building design due to its increasingly important role in infection prevention.**

Before and during the current COVID-19 pandemic we have seen a growing attention given to the concept of “**healthy buildings**”, thus elevating the concept of IAQ to indoor environmental quality (IEQ). Within the EU debates, the latter has in fact been gaining considerable attention, and references linked to it can be found in:

- The revised EPBD adopted in 2018
- EN/ISO 16798-1 standard in IEQ parameters
- Ciaran Cuffe’s INI Report “Maximising the energy efficiency potential of the EU building stock” (where a specific call for improvement of IEQ in renovation and increased air quality standards is made)

If we look at the future of IAQ and IEQ, much of the work relies on **implementation**. What is needed is a holistic approach which looks at integrated policies for people-centric buildings and sustainable construction. Specific recommendations, such as the creation of **health-based ventilation guidelines**, **improved IAQ standards** to be implemented at Member State level and the **strengthening of an IEQ agenda** were made. To achieve the latter, the upcoming revision of the EPBD in 2021 presents a unique opportunity. By integrating IEQ within the EPBD’s system performance, strengthening IEQ indicators within building codes and including them in the Energy Performance Certificates (EPC), we will make sure to increase the importance of achieving high level of indoor comfort for EU occupants.

All in all, the Renovation Wave Strategy presents itself as the beginning of this transformation. Via this ambitious Strategy, **the European Commission should make sure to support Member States in including IEQ standards/criteria within their Long-Term Renovation Strategies (LTRS) and oversee the implementation process at all levels of governance**, hence including at national level. As part of the Strategy, the proposal to introduce **stronger obligations to have EPCs stemming from the revision of the EPBD, should make sure that ambitious targets for IAQ are also included**. Last but not least, technical assistance provided by the European Commission should go beyond financing and project developments assistance by including strong monitoring instruments too. Also, **awareness-raising campaigns focussed on filling the information gap addressed to building occupants** are extremely important to strengthen the IAQ/IEQ agenda and to spur holistic renovation projects.

### How the Renovation Wave links with the IAQ agenda

**Pau GARCIA AUDI, DG ENER - C.4 (European Commission)**



Ventilation and adequate indoor conditions for EU occupants are critical matters for DG ENER. Although the EPBD regulates the energy performance of buildings and less the overall indoor conditions, one aspect is complementary with the other. On a regulatory point of view, the **EPBD presents an opportunity to increase monitoring levels thanks to the possible development of inspection of standalone ventilation systems**. Also the **Smart Readiness Indicator (SRI)** which accounts for IAQ levels, is a monitoring tool that supports the maintenance and good performance of smart buildings’ ventilation systems. Overall, IAQ and IEQ are key principles within the Renovation Wave Strategy. Beyond the EPBD, the Strategy is currently looking at the ways to **channel available EU funds into holistic renovation programmes/projects** that will take into account the whole performance of the building, hence IAQ/IEQ improvements included.



## Reactions from the Industry

**AERECO - Simon Jones:** Indoor Air Quality has a strong impact on people's lives, and it is hard to quantify by the money spent into a retrofit project or via an EPC. At European level, thanks to **the Building Renovation Passports, for example, increasing importance is being given to the need of managing risks** (e.g., securing funds, building users' trust and create demand) **of the whole renovation process.** When referring to ventilation, the current pandemic puts us in front of an incredible opportunity disguised as a challenge: **performance assessment of ventilation systems is now based on the level of air movement in buildings.** The digital challenge is also a new and increasingly important variable. **The Internet of Things will facilitate monitoring and inspection of ventilation systems and to improve the quality of the products.**



**Carrier - Darcy Nicolle:** Consumers are the focal point when focussing on how to ensure high level of IAQ in buildings. **We currently lack an independent measurement system for IAQ across the EU.** In order to increase users'/occupants' confidence in buildings' (tertiary or public) overall indoor environmental performance, **we need standardised quality benchmarks.**

**Signify - Annette Steinbusch:** UV-C lighting should be used in all newly renovated buildings as it has the potential to protect occupants against any type of airborne viruses (like Sars-CoV-2, tuberculosis and common flu) and bacteria. UV-C disinfection is a scientifically proven technology whose composition is poor in chemicals. **The Renovation Wave presents an ideal opportunity to introduce a set of minimum performance requirements that go beyond energy savings by including also IEQ.**



**VELUX - Elisabeth Hoffmann:** When designing healthy buildings, we should always take into consideration both environmental and social dimensions, thus keeping the environment and the building users at the center of the debate, equally. The newly launched European Bauhaus Initiative, which stems from the Renovation Wave Strategy, should look into these aspects and identify new basis to build more sustainably moving forward. **The EPBD and its upcoming revision should better describe minimum requirements and how it intends to include IAQ/IEQ.** This should be done via a technology neutral approach, focusing only on CO2 emissions as the main indicator, since the combination of natural and mechanical-based ventilation proves to be the best option for high IAQ/IEQ.

**END**

**For further information**

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**About EuroACE - Energy Efficient Buildings**

EuroACE represents Europe's leading companies involved with the manufacture, distribution and installation of energy saving goods and services for buildings. EuroACE members employ more than 220,000 people in these activities in Europe and have over 1,000 production facilities and office locations. The mission of EuroACE is to work together with the EU institutions to help Europe move towards a more efficient use of energy in buildings, thereby contributing to Europe's commitments on climate change, energy security and economic growth.

**EuroACE Members (2020)**

