

Building Life Quality with the EPBD Recast A Call for Coherent and Coordinated Action on Indoor Environmental Quality (IEQ)

The Future of Healthy and Sustainable Buildings in Europe

Indoor Environmental Quality (IEQ) directly influences Europe's citizens' health, well-being, overall comfort, cognitive abilities, learning and productivity, as well as sleep quality, because buildings are where people spend a significant portion, up to 90%, of their time. By focusing on the key elements (covered by IEQ), indoor air quality, thermal comfort, lighting, and acoustics, we can create healthy indoor environments that not only support well-being, physical and mental health, but also drive sustainable growth. The recent revision of the Energy Performance of Buildings Directive (EPBD) places the much-needed emphasis on IEQ, marking a significant step forward towards improved quality of life of people indoors and acknowledging the IEQ is intrinsic to the decarbonization legal framework. However, to truly harness its potential, these measures must be swiftly, coherently and effectively implemented nationally across the Member States.

IEQ: A Catalyst for Economic and Social Prosperity

Improved IEQ brings tangible benefits to individuals, households and the economy. Research consistently shows that buildings with optimal indoor air quality, temperatures, natural and artificial lighting, humidity, and noise levels lead to better indoor environments across all building types. These improvements result in safeguarded health of occupants, increased employee satisfaction, reduced absenteeism, and enhanced cognitive performance in offices and learning in educational buildings while contributing to better overall well-being, sleep quality, and reduced stress levels in residential buildings. Healthy and productive spaces are crucial not only for the workforce but also for families, as poor IEQ is directly linked to respiratory issues, including increased risk of infectious diseases transmitted through air, allergies, and reduced mental sharpness. The economic impact is clear: poor IEQ results in decreased productivity, higher healthcare costs, and an overall lower quality of life. Thus, addressing IEQ is not just a health imperative but a socio-economic one that spans the entire building stock and has positive impacts on Europe's competitiveness.

Energy Efficiency and IEQ Go Hand in Hand

The basic function of buildings is to provide shelter from the external environment and an indoor environment in which people can thrive by ensuring adequate IEQ. How well this is accomplished has direct consequences on the energy performance of a building. Thus, optimising IEQ aligns well with Europe's climate goals. Creating indoor environments that promote health, well-being, comfort, learning, productivity and sleep quality, can simultaneously reduce energy consumption through more people-centred and efficient



heating, cooling, ventilation, lighting, and automation and control systems. Buildings designed with IEQ and energy efficiency in mind from the onset, relying on state-of-the-art technical building systems, minimise their environmental footprint, contributing to the EU's broader sustainability targets. IEQ is, therefore, not an optional add-on but an integral and crucial part of a future-proof energy strategy, and sustainable growth to ensure that enhancing energy efficiency does not result in a deterioration of IEQ; on the contrary, it safeguards the potential trade-offs between energy efficiency and IEQ and wealth and health of the present and future generations.

A Call for Coordinated Action

Achieving meaningful and strategic foresight progress in IEQ requires close collaboration among industry stakeholders, researchers, building professionals, policymakers, and civil society. Organisations like EPB Center, EPEE, eu.bac, Eurovent, EVIA, GCP Europe, IFMA, LightingEurope, REHVA (and their Members at national level) play a crucial role in advocating for and supporting good practices that can lead to significant advancements in building performance assessment, certification and management processes, the overall practical building design, maintenance and operation, as well as the related regulations and policy and related access to data.

To properly address the challenges related to IEQ assessment, monitoring and reporting in energy performance and smart readiness (SRI) assessment and improvement processes, we must foster a coordinated and cross-sectoral approach that promotes innovation, leverages new technologies, and streamlines the path from EU directives to national legislation in a coherent and consistent manner, and without any unnecessary red tape and burden detrimental to businesses and the European Single Market. It is vital that Member States embed IEQ considerations into their national energy, climate and decarbonisation plans, building codes, and renovation strategies to enhance their overall effectiveness and long-term sustainable growth and ultimately deliver healthier, more comfortable, and energy-efficient buildings across Europe.

Indoor Environmental Quality Gathering Signatories

