Introduction to Interview Series 2026

In this issue of REHVA Journal 2/2026, we launch a new series of interviews dedicated to **Indoor Air Quality (IAQ) and ventilation**. Awareness of the harmful effects of polluted air is not new. Since ancient times, people have recognized that stale or contaminated air can spread disease and cause discomfort in poorly ventilated spaces.

But what do we actually mean by *polluted air* or *good indoor air quality*? Max Joseph Pettenkofer (1818–1910), the German chemist and hygienist, proposed that CO_2 concentrations in occupied rooms should not exceed 1,000 ppm to ensure acceptable indoor air. Remarkably, this benchmark remains a widely used indicator for assessing IAQ today. Does this imply that little has changed in our understanding of IAQ between the 19th and 21st centuries?

Certainly not. CO_2 has proven to be a reliable and easily measurable proxy for determining whether a building is adequately ventilated, which is why it continues to be used - still with the same recommended indoor thresholds. What has changed, however, is the concentration of CO_2 outdoors. Since 1960, outdoor CO_2 levels have risen by roughly 100 ppm (**Figure 1**), a shift that most people have not noticed. The reason is simple: CO_2, like particulate matter (PM), is odourless. Unlike tobacco smoke or many VOCs, it cannot be detected by smell, making its presence - and its risks - less obvious (**Figure 2**).

Throughout this year's interview series, we will explore new perspectives on assessing IAQ and the whole indoor environment. We will discuss results of recent research on energy-efficient ventilation in residential buildings while maintaining good IAQ, we will examine ventilation practices in schools across two European countries (REHVA member associations), and share additional insights and developments shaping the future of IAQ and ventilation.

There is one difference compared with the two previous series: this year's interviews will take the form of double interviews. Enjoy reading. ■

LADA HENSEN CENTNEROVÁ
Interviewer
Member Editorial Board REHVA Journal
l.hensen@tue.n

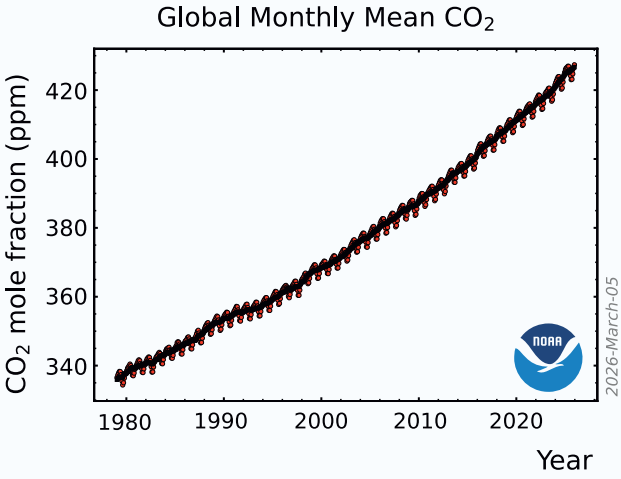

Figure 1. Trends in Atmospheric Carbon Dioxide (CO_2) measured by Global Monitoring Laboratory at Mauna Loa, Hawaii, USA. (https://gml.noaa.gov/ccgg/trends/global.html)

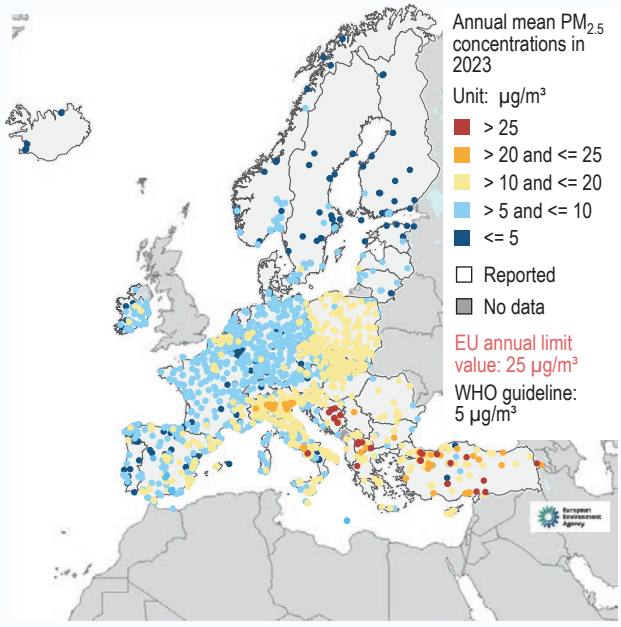

Figure 2. Concentration of $PM_{2.5}$ in 2023 in relation to EU annual limit values and WHO annual guideline level. (https://www.eea.europa.eu/en/analysis/publications/air-quality-status-report-2025/particulate-matter-pm2.5)