

# **Performance-based control of an adaptive hybrid IAQ system. The user as key performance indicator**

## **Speaker and affiliation**

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## **Overview of the presentation**

We tend to combine airtight building enclosures with easy to control mechanical ventilation systems to reduce energy consumption while providing good indoor air quality and thermal comfort. As a result the energy consumption due to ventilation is becoming an increasingly important share of the total consumed energy of our buildings. Therefore it is logical to look for ways to design ‘better’ performing ventilation systems. Bearing this in mind IAQ-performance based approaches are one of the paths to explore, but apart from looking at airflow rates, humidity concentrations and CO<sub>2</sub>- and VOC concentrations, the impacts of differing sources of outside air and the spatial distribution and filtration of ventilation air are other parameters to consider. Furthermore there must always be a balance between indoor air quality, user comfort and energy efficiency. In the end ‘the user’ must have the opportunity to decide in favor of which parameter he or she tips the balance. Therefore user feedback is of the utmost importance.

