

Industry views on the future of ventilation

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SUMMARY

Smartness is all around us. The HVAC industry is developing more and more products that have sensors, are intelligent, are connected to the Internet and are being controlled via apps. According to a recent European survey among installers, the request and demand from clients for installing home automation and smart products is the highest for HVAC installations.

In what way can we use smart ventilation systems to help to convince the general public of the importance of ventilation in their daily life ? If most marketing efforts from the industry fail due to the non-interest of consumers, maybe it is time to present them with factual proof. Providing understandable monitoring data has already proven its worth in other sectors to make a technology trustworthy.

If the industry decides to move further down this path, both the industry and scientists have a great challenge ahead of them and are faced with an opportunity to work more closely together.

When, in a near future, the industry is willing to share more and more actual data on IAQ and energy performance of ventilation systems in use, this will generate an enormous source of information for future research into the actual performance of different ventilation approaches, occupational patterns, actual airflows etc. Moreover, this could be the basis for optimising current validation models.

However, this approach also opens the door to a whole range of new questions:

How do we deal with this data when it conflicts with existing models or simulations ?

How much deviation can an existing model/simulation have from the actual data ?

How much data is needed before it is considered sufficient proof to review the assumptions used in a model ?

All of this and more is food for thought.

KEYWORDS

Smartness, monitoring, data, assumptions, modelling, validation