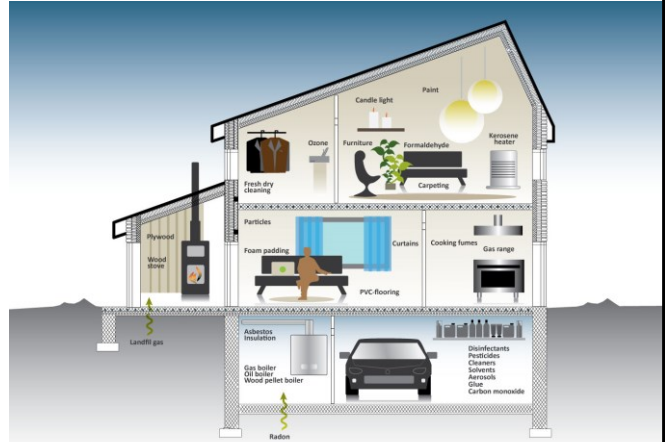


Webinar 23 November 2021

Emerging smart ventilation strategies for energy efficient IAQ management

Intro by: Prof. Carsten Rode
Technical University of Denmark



IEA-EBC Annex 86 Energy Efficient Indoor Air Quality Management in Residential Buildings

Operating Agent:
Jelle Laverge
Ghent University

Presented by: Prof. Carsten Rode, Technical University of Denmark

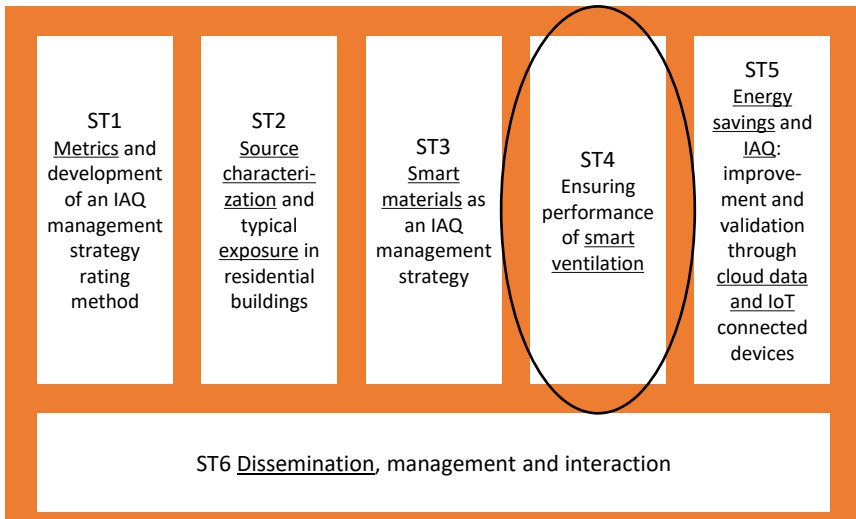
Scope and Goals

Provide a framework for energy efficiency of the IAQ management strategies in operation and to improve their acceptability, control, installation quality and long-term reliability.

Residential buildings

- new and refurbished

- Metrics to assess energy performance and indoor environmental quality of an IAQ management strategy
- Improve acceptability, control, installation quality and long-term reliability of IAQ management strategies
- Coherent rating method for IAQ management strategy that takes into account the selected metrics
- Tools to assist designers and managers of buildings in assessing the performance of an IAQ management strategy
- Gather standardized input data for the rating method
- Study use of smart materials as part of an IAQ management strategy
- Develop IAQ management solutions for retrofitting existing buildings
- Benefit from advances in sensor technology and cloud-based data storage to improve quality of IAQ management strategies & operation
- Improve availability of data sources by exploring use cases
- Disseminate about above findings



	2020	2021	2022	2023	2024	2025
Prep						
ST 1						
ST 2						
ST 3						
ST 4						
ST 5						
ST 6						
report						

Partners

41 institutes from 24 countries

List of annex participants per country:

Australia:	CSIRO
Austria:	University of Innsbruck
Belgium:	UGent, KUL, BBRI, University of Antwerp
Brazil:	Pontifical Catholic University of Paraná
Canada:	NRC
Chile:	PUC
China:	Nanjing University, BUCE, Tsinghua University
Denmark:	DTU, Aalborg University Copenhagen
Finland:	Aalto University
France:	La Rochelle University, ENS PSL, CEREMA, Université de Lille, UPJV, CETIAT
Germany:	TH Rosenheim
Ireland:	NUIG
Italy:	EURAC research centre
New Zealand:	BRANZ
Netherlands:	Technical University of Eindhoven, BBA/TU Delft, Zehnder
Norway:	Oslo Metropolitan University, SINTEFF
Portugal:	University of Coimbra, Polytechnic Institute of Viseu, University of Porto
Singapore:	National University of Singapore
Spain:	Eduardo Torroja Institute for Construction Sciences – CSIC
Sweden:	Chalmers University, KTH
Switzerland:	ETH
Turkey:	TTMD
United Kingdom:	University of Strathclyde, Lancaster University, University of Nottingham
USA:	Syracuse University, UMD, LBL

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EBC Annex 86 Webinars with the AIVC

<https://www.aivc.org/events/webinars>

1 April 2021	Building ventilation: How does it affect SARS-CoV-2 transmission
8 April 2021	IAQ and Ventilation Metrics
13 April 2021	Big data, IAQ and ventilation – part 1
21 April 2021	Big data, IAQ and ventilation – part 2
12 October 2021	Smart materials for energy efficient IAQ management
23 November 2021	Emerging smart ventilation strategies for energy efficient IAQ management

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Agenda – 23 November 2021

- 16:00 | *Introduction IEA-EBC Annex 86 and dissemination activities*
Carsten Rode, Leader of ST6, IEA EBC Annex 86 – DTU, Denmark
- 16:05 | *Introduction IEA-EBC Annex 86 ST4-smart ventilation*
Gaëlle Guyot, Leader of ST4, IEA EBC Annex 86 – Cerema, France
- 16:10 | *Investigation of natural ventilation control with regard to indoor and outdoor environments:
First results*
Evangelos BELIAS – EPFL, Switzerland
- 16:30 | *Implementation of a MPC for an all-air system in an educational building*
Bart Merema, KU Leuven – Belgium
- 16:50 | *Draft for a health related performance assessment framework for smart ventilation*
Klaas De Jonge – UGent, Belgium
- 17:10 | *Residential Applications of Smart Ventilation Controls*
Iain Walker – LBNL, USA
- 17:30 | *Questions and Answers*
Jakub Kolarik, Co-Leader of ST4, IEA EBC Annex 86 – DTU, Denmark
- 17:45 | *Closing & End of webinar*