### SEMINAR 137 ROOM B2 THURSDAY 30 OCTOBER 12.00-13.30

# CAN ACTIVE HOUSE BE THE TOOL THAT DRIVES SUSTAINABLE BUILDINGS TO BECOME STANDARD SOLUTIONS FOR BUILDINGS?

The session will focus on the topics, environment, energy, comfort, city development and tools. The objective of this seminar is to present and discuss sustainable buildings and how they can be developed further to become the standard solutions for all kinds of buildings, from public buildings to private single family houses.

The content includes introduction to guidelines and evaluation methods of Active House projects, followed by a presentation of a few projects based on the vision. It includes a presentation and discussion on design tools for sustainable buildings with a balanced focus on comfort, energy and environment.

There will be a specific focus on the human needs for healthy comfort in buildings, in combination with environmental issues and the general needs for development of Nearly Zero Energy Buildings. It includes lessons learned from designing the next generation of healthy, comfortable and sustainable buildings in Europe and North America.

The target of the session debate is to focus on how the construction sector – from research to city developer, architect and manufacturer – can create further value of sustainable buildings, drive the development, and secure that future buildings are sustainable for the society, city development and the individual occupants of buildings.

#### **MODERATOR**

• Kurt Emil Eriksen, Active House Alliance

#### SPEAKERS

- Emmanuel Valentin, Saint Gobain
- Amdi Schjodt Worm, Danish Technological Institute
- Niels B. Christiansen, Danish Technical University
- Arianna Brambilla, Department A.B.C. -Politecnico di Milano.



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Kurt Emil Eriksen (Moderator) is educated as diploma engineer within civil engineering. He has been working in the VELUX Group for 21 years and hold the position of Secretary General of the Active House Alliance. The Active House Alliance supports development of sustainable buildings, with a holistic focus on Comfort, Energy and Environment. Mr. Eriksen has participated in several

initiatives for sustainable buildings and has been member of the Board of Directors and president of EuroACE and EUROWINDOOR. He also participated in workgroups on the strategy for energy and climate renovation and NZEB activities in Denmark.



#### Emmanuel Valentin.

After a PhD on Glass optical properties modification by lon Irradiation with Saint-Gobain, leading to 3 papers in scientific Reviews, E. Valentin Joined Motorola Labs in 2000 to work on Molecular Electronics. Back to Saint-Gobain Research in 2003 as Research engineer on Electrochromic Glazing, he took the lead of Active Glazing Group in 2006

and Thin Films department in 2009 (with more than 10 Patents Deposits). Since 2013, E. Valentin works for Saint-Gobain Glass Business Unit as International Marketing Director of Residential Segment and innovation Director. Saint-Gobain Glass is member of Active House Alliance since 2011.



Amdi Schjødt Worm is Civil engineer and consultant at Danish Technological institute in the department for sustainable buildings and construction. Amdi has been project leader on the first Active House in Denmark and has experience from several other zero energy and near zero energy projects. Amdi has also participated in the development of both Active house and DGNB specifications.

Besides that, Amdi is teaching in sustainable constructions and materials among architects, engineers and manufacturers, and he takes part in the development of EPDs – environmental product declarations on product level and LCA-analysis on building level. Amdi is also contributing to the development of a national Danish LCA-calculation tool.



Niels Christiansen is a 22-year-old Danish student, currently enrolled in a Master of Science in Architectural Engineering at the Technical University of Denmark. His undergraduate thesis analyzed the renovation of ROCKWOOL's office building 'Center 2', built in 1979 and renovated in 2012-2013. The thesis was made in collaboration with Facility Manager at ROCKWOOL, Arne Damsgaard

Olsen. The analysis was carried out using the Active House specifications for residential buildings. Since the specifications aren't designed for the renovation of office buildings, this led to a number of suggestions on how to modify the current specifications to better match this kind of process.



Arianna Brambilla MEng, March, PhD student in Building Engineering at Department A.B.C. -Politecnico di Milano. Her research is focused on buildings sustainability; she is involved in studies and experiments on occupants effect on both energy efficiency and indoor thermal comfort. Author of several articles about the integration between technical and technological aspects of a construction, she is part of

the research team lead by Prof. Imperadori that is investigating the theme of Active House in Mediterranean regions and creating guidelines for an efficiency-orientated design optimization.

