

## SHORT TERM SCIENTIFIC MISSION (STSM) – SCIENTIFIC REPORT

**Action number: CA 17136**

**STSM title: Investigation of Building Design Aspects Influencing Indoor Air Pollution**

**STSM start and end date: 24/03/2019 to 19/04/2019**

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### Short report

The objective of the STSM research was to conduct a review on the state-of-the-art literature on architectural design aspects that could contribute towards improvement of the Indoor Air Quality, by taking in consideration the demand for construction of energy-efficient and sustainable buildings.

During the STSM, the current state of the building stock is investigated from a standpoint of indoor comfort of the occupants and especially the indoor air quality (IAQ). The emergence of novel construction technologies and new construction materials is observed in the recent decades accompanied with the relatively novel demands for creation of energy efficient buildings and its implication onto the IAQ. The negative effects of the sick-buildings syndrome (SBS) have been investigated as well as the various health problems that have emerged among building users. Different sources of indoor emissions as well as different species were analysed regarding their influence onto the users` health, selected by the WHO. Further, the architectural design aspects are investigated in light of their contribution towards improving the IAQ and the overall building comfort.

The Action provided me with an excellent research and networking possibilities. The scientific research that I've conducted as a contribution to its research aims and objectives was greatly supported by the CA17136 Action. It has enabled establishing valuable collaborations and partnerships with the Host and open up possibilities for joint research projects.

