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Acoustic Design for Open Plan Spaces

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In an ongoing Nordic cooperation project (Nordic Innovation Center - Sound Design of Open-Plan Offices) the acoustical conditions in open-plan spaces are investigated (see also the adjacent paper Room Acoustical Measures for Open Plan Spaces). The project's starting point is that acoustic qualities in terms of communication, orientation, comfort and privacy are crucial for open-plan spaces. Therefore, beside acoustic parameters, the aim is to develop methodologies in order to measure and specify such qualities. Beside site analyses, one major methodological tool concerns the development of a questionnaire, intended to be utilized as a compliment to acoustic measurements, and thereby function as a tool for design measures of large open-plan offices. Its purpose is to aid acousticians as well as architects and designers to identify different types of acoustic design criteria. The questionnaire covers not only the perception of the sound environment, but also psychosocial criteria, architectural design and the furnishing of the workplace. These qualitative criteria will be discussed and suitable parameters for design and evaluation of open-plan spaces will be suggested.

Keywords:

Technical area: Architectural Acoustics (AA)

PACS #1: 43.55.Dt Sound absorption in enclosures: theory and measurement; use of absorption in offices, commercial and domestic spaces (see also 43.50.Jh)

PACS #2:

PACS #3: