Sustainability assessment for improving competitiveness and environmental performance of the production industry

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Keywords: Sustainability assessment, Life Cycle Assessment, product and process improvement, product engineering

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Sustainability assessment provides insights into process and product improvements which result in cost savings while demonstrating a corporate commitment to the environment and society. Life Cycle Assessment (LCA) as methodology for the purpose of sustainability assessment describes a systematic analysis of environmental impacts of products, processes or services along their whole life cycle ("from cradle to grave").The combination of the production engineering solutions together with sustainable strategies based on a life cycle perspective joins therefore technical, environmental, economic and social aspects in the production processes. Both, product engineering as well as sustainable assessment, are driven by globalization, innovation and improvement with respect to future developments.

Since years, the production industry is already recognizing what potential sustainability assessment offers with regard to the environmental improvement of e.g. products or production processes. In this way, especially LCA is used to generate competitive advantages while simultaneously e.g. contributing to resource efficient and low-emission production. Other industrial sectors e.g. construction, aviation and logistics are tracing. In the key note speech, main features of the connection between technical product engineering and possible fields for the application of sustainability assessment will be presented.

Abridged Version of Vita of Klaus Sedlbauer

University Professor Dr.-Ing. Dipl.-Phys. Klaus Sedlbauer, born in 1965. University studies of physics at Ludwig Maximilian Universität (LMU) in Munich. Since 1992 researcher at Fraunhofer Institute for Building Physics IBP in Stuttgart and Holzkirchen. Doctorate in 2001. From 2001 to 2003 Deputy Director of the Institute. Summer semester in 2003 Professor at Fachhochschule Rosenheim (Politechnic). Since November 2003 Director of the Fraunhofer Institute for Building Physics and Professor at the Department of Building Physics of Faculty 2 „Civil and Environmental Engineering" as well as co-opted member of Faculty 1 „Architecture and Urban Planning" of Universität Stuttgart. Constant member of the Indoor Air Hygiene Commission (IRK) of the Federal Environment Agency since 2003, member of the Scientific Advisory Council of the Bundesverbandes für Schimmelpilzsanierung (BSS)(Federal Association of Mould Remedation) since 2004. In June 2004, he was awarded the WTA prize by the International Association for Science and Technology of Building Maintenance and Monuments Preservation (WTA). In November 2005, he was awarded the prize of honour of the Chamber of Commerce of Münster in recognition of his engagement in the cooperation of science and trades. Since 2007 he has been a member of the Senate of Fraunhofer-Gesellschaft. Co-founder of the German Sustainable Building Council (DGNB). Appointment to the Scientific Committee of Experts of the Federal Ministry of Transport, Building and Urban Development as well as nomination as spokesman of the Fraunhofer Building Innovation Alliance in 2008.