CTBUH Meets with ArcelorMittal Research Office

ESCH-SUR-ALZETTE, LUXEMBOURG – The CTBUH visited ArcelorMittal’s research offices in Esch-sur-Alzette, Luxembourg on February 20th to make progress on the research project “A Whole Life Cycle Assessment of the Sustainable Aspects of Structural Systems in Tall Buildings”, funded by ArcelorMittal.

ArcelorMittal’s LCA research division is formed by a group of scientists working on LCA analysis of the different production processes of various ArcelorMittal mills. This is necessary to improve the quality of their products, and functioning of each mill. Data on the energy consumption of mills are communicated to the World Steel Association, who is involved in creating standardized data on steel. This includes LCA data on steel production and manufacturing. Recently, ArcelorMittal developed software for the design and environmental assessment of low-rise office buildings with a steel structure.

The scope of the meeting was to discuss Life Cycle Assessment (LCA) software and existent methodologies with ArcelorMittal’s LCA specialist Dr. Adriana Carvallo Aceves. Jean-Claude Gerardy and Dr. Olivier Vassart from ArcelorMittal were also present at the meeting to provide instant feedback on the system boundaries of the analyzed case studies. Dr. Dario Trabucco attended the meeting on behalf of the CTBUH, right before leaving his hometown of Venice to join the CTBUH on this specific research project.

Discussions touched several points of LCA, acknowledging the recent developments of this research methodology, its present limitations and the future developments expected to overcome some of the obscure aspects involved with LCA analysis.

Different commercial LCA software were considered for the purpose of the analysis. The selection was made on the basis of a number of aspects, including the availability of comprehensive databases, the possibility to use it for Life Cycle Costing (LCC) and the familiarity to the software of ArcelorMittal’s LCA specialists.