

## Conclusive Meeting for Megacolumns Research Held in Luxembourg

LUXEMBOURG – CTBUH Research Manager Dario Trabucco and Research Assistant Eleonora Lucchese met with colleagues from ArcelorMittal, the China Academy of Building Research (CABR), and Magnusson Klemencic Associates (MKA) on December 2 and 3 in Luxembourg to discuss the final results of a test campaign conducted at CABR's laboratories. The purpose of the ArcelorMittal-sponsored project – titled “Study on the Constructability and Engineering Properties of Composite Megacolumns” – is to identify a new construction method for large composite megacolumns used in tall buildings.

On day one, the team analyzed the quasi-static test results of a new innovative system's behavior when placed under simulated seismic conditions. The comprehensive results of the research are now being compiled into an extensive report that will be circulated for peer review among world experts in composite systems – a fundamental step that will lead to the system's application on real building projects.

The report will be available for free download on the CTBUH website in spring 2016. It will contain a summary of testing activities, a detailed description of the simplified design method allowing for its integration into tall buildings, and an explanation of three case studies developed according to the design codes of the United States, Europe, and China.

On the second day of the meeting, ArcelorMittal organized a visit to the Differdange Mill, where steel profiles are produced through the exclusive use of an electric arc furnace from a 100 percent steel scrap input. This method results in extremely “sustainable” steel, as evidenced by a recent CTBUH study on the lifecycles of tall building structural systems.



The research group is instructed on the operations of the ArcelorMittal Differdange Mill.



A red-hot beam is straightened after rolling.