

INVITED LECTURE

WHERE TO GO WITH METALS RESEARCH IN FLANDERS: A SPLENDID OPPORTUNITY AT CAMPUS ARDOYEN

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During the fall of 2009, the building of the Metal Structure Centre has started on the Campus Ardoyen. This new research centre will be operational by the end of 2010. The main goal is the development of sustainable metal constructions for the energy transport and delivery. The Metal Structure Centre is a unique cooperation between the academic and industrial research world. The founding partners are:

- **Laboratory Soete** (<http://www.tribology-fatigue.ugent.be>): part of Ghent University and world leader in the development of safety criteria for and the testing of welded connections,
- **OCAS** (<http://www.ocas.be>): responsible within Arcelor-Mittal for the development of pipelines for oil and gas transportation and thick plates for offshore constructions), and
- **BIL** (<http://www.bil-ibs.be>): the Belgian Welding Institute, a Ghent University spin-off founded in 1972.

Besides, researchers from **Sirris**, **Clusta**, **CRM** and **Flamac** will also cooperate, which will result in a total of 220 scientist and engineers working in this new centre for innovation.



The focus of the new research centre will be on the development of specific knowledge enabling the development of sustainable metal constructions for energy transport, storage and generation. The final result of all research will be found in new wind turbines, power plants and high pressure pipelines.

In order to achieve these innovative developments, a wide range of material testing will be performed, ranging from nano scale to full scale. This means a full coverage of the material technology, starting from the numerical modeling to the integration and testing of the final construction.

One example on which the research will focus, is the development of a new welding procedure for high strength pipelines. Besides, the protection of pipelines against corrosion will be investigated, enabling them to withstand the influence of harsh environments and allowing the transport of sour gases.

