CNRS and MIT Open an International Joint Research Unit

The first International Joint Unit (UMI) between CNRS and MIT was opened on June 15, 2012 by Alain Fuchs, president of the French National Center for Scientific Research (CNRS), and Susan Hockfield, president of the Massachusetts Institute of Technology (MIT). The UMI will focus on the MSE or Multi-Scale Materials Science for Energy and Environment Project and will bring together approximately 4-5 French researchers and 10 MIT professors on MIT’s Cambridge Campus.

The MSE UMI will build on the work performed at MIT’s Concrete Sustainability Hub (CSH) which was formed in October 2009 by Franz Josef Ulm, the George Macomber Professor of Civil and Environmental Engineering at MIT, and Roland Pellenq, CNRS Research Director and MIT Senior Research Scientist.

With its team of approximately 20 researchers, the CSH, which is financed by American concrete companies, connects industry and government organizations. They study ways to diminish the ecological impact of concrete materials with an approach that combines simulations and experiments on a scale that ranges from atoms to micrometers and nanoseconds to hours.

In 2011, Ulm and Pellenq also created the X-Shale Hub as part of a partnership with the oil industry (Shell and Schlumberger) to focus on the poromechanics of shale gas. Today, the X-Shale Hub employs approximately 12 researchers and is offering the first multi-scale model of methane-containing shale.

The CNRS-MIT UMI is at the center of a strategic plan that incorporates research and the development of partnerships with industry.