

MaSC

The Modelling and Simulation Centre

University of Manchester

Director : Prof John R Yates



MaSC



Context

- A long history of partnership EDF / UoM
 - CFD
 - Materials Performance Centre
- A general framework agreement signed EDF R&D / UoM in 2006
- Cooperation with the Daresbury Centre for HPC
- Dalton Nuclear Institute
- Joint decision from UoM and EDF R&D to launch the **MaSC**, with both solid and fluid dynamics modelling (Jan 2011)



Code_Aster : Ambitions

- Promote the use of Code_Aster in the UK (universities and industry)
- Support for MaSC members, training
- Research, development of the capabilities
- Participate to validation, benchmarking
- Advanced studies



Ongoing projects

- Leak before break - new method for the stress intensity factors calculation
William Woodward
- Overloading effects in fatigue
Hendery Dahlan
- Benchmark on fracture mechanics
Antoine Boulay
- Benchmark on damage modelling
Julien Halleguen
- Graphite cracking modelling
Philippe Martinuzzi
- Leak before break
Peter Gill
- Welding modelling
Thomas Flint

