

Paris, August 2nd 2010

Dear Pr Helbing

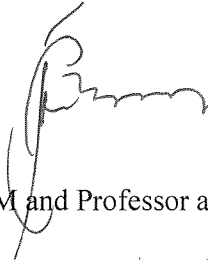
This is a letter of strong support for the FuturIcT Flagship Initiative coming from Capital Fund Management (CFM), a nearly 20 year-old quantitative hedge fund founded and run by physicists and IT engineers.

CFM heavily relies on fundamental research to create trading systems and manage risks of all kinds, in particular crash risk and systemic risk. We keep close links with academia, by teaching in several "Grandes Ecoles", participating to workshops and conferences and writing scientific papers. We have also launched a foundation that finances PhD grants for exceptional students in hard science.

We are of course deeply interested in understanding in details how financial markets and the economy at large work. This is crucial to come up with adequate quantitative models of risks. We have witnessed on several occasions the occurrence of collective effects that lead to crises, and understand (from our physics background) that these effects cannot be understood without a global (some say '*holoptic*' – see <http://people.thetransitioner.org/>) view of the system in which we live, with its interconnections, interactions and feedback loops. We are confronted to a situation surprisingly hard to accept for the human brain: the behaviour of crowds is sometimes impossible to guess from the behaviour of individuals, for which we have good intuition. But this intuition is lost when it comes to large groups.

Numerical simulation was invented during the Manhattan project. It has been used with success to improve nuclear weapons, to simulate airplane profiles, to send people to the moon, to find new materials, new molecules, new drugs, etc. But it has up to now received relatively little attention to simulate economies and societies, at least much less than these problems deserve in view of their importance for the lives of people (on this point, see: <http://www.nytimes.com/2008/10/01/opinion/01buchanan.html> and D. Farmer, D. Foley, *The economy needs agent based modeling*, Nature August 2009). I am enthusiastic that the the FuturIcT Flagship Initiative is willing to take a big step in that direction, and CFM could be interested in participating in one way or another to the project.

Best regards,



JP Bouchaud
Chairman of CFM and Professor at Ecole Polytechnique (Paris)