Jill Trewhella
Deputy Vice-Chancellor (Research)

17 November 2011

Professor Dirk Helbing
Chair of Sociology
Swiss Federal Institute of Technology Zurich

By email: dhelbing@ethz.ch

Dear Professors Dirk Helbing and Steven Bishop

As Deputy Vice-Chancellor (Research) at the University of Sydney, I am pleased to confirm the University's interest in and strong support for the FuturICT proposal for a Future Emerging Technology flagship.

FuturICT is a visionary research project that will challenge and has the potential to galvanise, accelerate and unite science in the next decade. Importantly, it will engage more effectively the social sciences as it endeavours to simulate the complexity of the entire planet. It will serve to integrate knowledge across the natural and social sciences in new ways, drawing on and advancing cutting edge ICT methodologies and complex systems simulation methods. These ambitious aims are aligned with the University Sydney's strategic goals for promoting large scale cross-disciplinary research addressing issues of significance to our communities (see http://sydney.edu.au/strategy/white_paper/). Our researchers are keen to contribute their expertise to this endeavour. Australia and our region must of necessity be part of any planet earth simulator and we look forward to working with the many distinguished researchers and research institutions from around the world involved in this project in pursuing its aims.

FuturICT can help our global community address many of the challenges confronting us; including climate change, population pressure, the emancipation of peoples and the problems of dealing with a highly complex, dynamic, evolving, interconnected, globalized socio-economic system. To grapple with these issues the global community needs to work together and better see and understand itself; and to better access, process and use the vast amounts of information now available to us, to become better able to anticipate and deal with potential future calamities and opportunities.

The significant challenges FuturICT aims to address extend beyond the reach of any single discipline or activity.

As Australia's oldest university, founded in 1850, The University of Sydney is a comprehensive university with strength across many disciplines that will make significant contributions to the research required to achieve the ambitious goals of FuturICT. Our centres of research and education excellence that cross disciplinary boundaries and where we already are having impact include:

- Centre for Obesity, Diabetes and Cardiovascular Disease
- China Studies Centre
- US Studies Centre

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- Brain and Mind Research Institute
- Institute for Sustainable Solutions
- Centre for Computer Supported Learning and **Co**gnition (CoCo)

The University of Sydney also leads many more discipline focused Centres of Research Excellence aligned with National Research Priorities of the Australian Government that are relevant to FuturICT research and teaching methodologies, including:

- Australian Research Council Centre of Excellence for Ultra-high Bandwidth Devices (CUDOS)
- Australian Research Council Centre of Excellence in All-Sky Astrophysics (CAASTRO)
- Australian Centre for Field Robotics (ACRF)
- Centre for Advanced Materials Technology
- The Australian Institute of Nanoscience
- Institute for Innovation in Science and Mathematics Education

There is additional strength and capability in our Faculties related to complex systems research. This depth of activity includes research centres and programs in computer science in the Faculty of Engineering, in Biological and Ecology Systems modelling, and complex systems research and education initiatives in the social, business and economic sciences, agriculture, education and the natural sciences. Another significant emerging area of interest at Sydney and perhaps an exemplar of complexity is Food security, which not only involves developing the capacity to produce more food, but also the socio-economic factors affecting access and affordability. Perhaps more significantly, it also involves the factors that affect consumption and dietary choice that not only influence the sufficiency of food, but also the health consequences.

We are delighted to support the aims of FuturICT in seeking to provide new ways to combine knowledge and information for social good and addressing the challenges already mentioned. These are grand aims, but important ones to progress in applying the current state of knowledge to critical societal issues.

FuturICT has the potential to broadly engage countries and universities and we are pleased to have the opportunity to join with other universities and research institutions in Australia, our region and elsewhere to further the aims of FuturICT. We have long standing and strong partnerships with the major research institutions in our region at the institutional level as well as though individual collaborations. These partnerships could form part of an emerging regional FuturICT research hub that could be developed and sustained.

We hope others will share our excitement at the opportunities offered by FuturICT and look forward to our participation.

Yours sincerely

Professor Jill Trewhella
Deputy Vice Chancellor (Research)