



- **Going Global 2006 – The Challenges for Knowledge-Based Economies**



This conference took place in September under the Finnish Presidency of the Council of the European Union. It was

organised by VTT Technical Research Centre of Finland, under the auspices of the Ministry of Trade and Industry of Finland, the European Commission and the "Six Countries Programme".

The focus of this event was on the challenges that globalisation poses to knowledge-based economies. The conference dealt with globalisation vis-à-vis S&T, innovation systems, economies, societies and development. It encompassed theoretical, empirical and pragmatic aspects and investigated the role of both economic agents and policy makers. Full details of the Conference can be seen at <http://goingglobal2006.vtt.fi>.

- **World Bank Global Forum**

Building Science, Technology and Innovation Capacity for Sustainable Growth and Poverty Reduction

Planning is well underway for the forum which will be held in Washington from 13 to 15 February 2007. The principal theme of the Forum is that in today's increasingly competitive, global economy, STI capacity building can no longer be seen as a luxury item, suitable primarily for the economic agenda of wealthier, more economically dynamic countries. Rather, STI capacity building is an absolute necessity for poor countries that wish to become richer. The key issue is no longer whether countries should build STI capacity but what type of capacity to build, given their economic constraints, and how best to implement these capacity building action plans. Several GRA Principals are likely to participate in this event.

- **Rockefeller Gates**

Alliance for a Green Revolution in Africa

Last month, the Bill and Melinda Gates Foundation announced that it would devote \$100 million to African agriculture over the next five years, in combination with a decision by the Rockefeller Foundation to contribute an additional \$50 million. The aim of the fund which has been created through the alliance is to spark a Green Revolution

in Africa which will draw upon many sources of innovation, one being biotechnology, which was not available to the original green revolutionaries a generation ago.

- **CSIR researcher to join World Bank Nile team**

Dr Marius Claassen of the CSIR in South Africa will support the World Bank Nile team with aspects related to system analysis, mediated modelling, and scenario building as tools for providing strategic guidance to the Nile Equatorial Lakes Subsidiary Action Program (NELSAP). The GRA scenarios will of course be part of the discussions in this group.

- **Expression of Interest**

A consortium of regional and international organizations including three GRA member organizations has submitted a proposal to DFID on the assessment of the effectiveness of energy efficiency policy internationally. The project, if successful, will be lead by Meredydd Evans of Battelle.

- **Projects in the Pipeline**

- ***Cross-cutting project for developing integrated solutions for megacities*** – a team is now working on preparing the outline of a white paper for this initiative.
- ***A study of the effect of Climate Change on Sub-Saharan Africa*** – an outline paper has been prepared and currently capability statements are being prepared by the GRA members who will contribute to the preparation of an Internal White Paper.
- ***An integrated project using energy as a catalyst for poverty reduction*** – Concept documents are being prepared for circulation with the Alliance to assess interest and competence in this domain.
- ***Study on whether low-cost networking can provide a solution to wider ICT network access in developing countries*** – a feasibility study is already underway and site visits have been undertaken by specialists. Three GRA member organisations are involved in this initiative.
- ***Clinical validation of a herbal mixture used in the treatment of opportunistic diseases suffered by people living with HIV/AIDS*** – the legal due diligence and ethno-botanical studies have been completed for this study. Research agreements and project proposals will now be prepared for presentation to funding agencies.

People on the Move

- **Prof Leppävuori**, Director General of VTT and Dr Mashelkar, Director General of CSIR India presented papers at the Going Global 2006 Conference in Helsinki
- **Mr David Tveit, Mr Lars Drejer and Mr John Kryger** of the Danish Technology Institute visited South Africa at the end of October for discussions with the GRA Nerve Centre, the CSIR and others
- **Dr R S Saxena** the GRA Champion for CSIR India visited South Africa recently on a fact-finding trip about best-practice in Customer Satisfaction
- A delegation from the **Fraunhofer-Gesellschaft**, lead by Dr Alfred Gossner, Senior Vice President Finance participated in the INSITE Expo held in Johannesburg and organised by the South African Department of Science and Technology. CSIR South Africa also exhibited at this Expo.

Research snippets from our Members

All the members of the GRA are involved in groundbreaking world class research and development work. Presented here are just a few highlights from press releases to help us all to know a little more about each other.

CSIRO

New climate and ocean forecasting tools, stronger and lighter building materials, novel biodegradable polymers, and pesticide-eating enzymes are just a few of the scientific achievement highlighted in CSIRO's 2005-06 Annual Report. Other CSIRO science achievements for 2005-06 included: a new National Solar Energy Centre; helping stop the spread of avian influenza; supporting the development of a new titanium metal industry for Australia and much more. A copy of the Annual Report can be downloaded from www.csiro.au/annualreport.

VTT launches gasification test equipment for development of second generation biofuels –

this test equipment represents the most advanced technology in Europe and will be able to exploit any carbonous raw materials, e.g. forest industry residues, bark, biomass from fields, refuse derived fuels and peat. The extensive test operation will produce basic information for the ongoing design of an industrial demonstration plant. In addition to synthesis applications, the work involves the development of new solutions for gas turbine and fuel cell power plants, as well as for the application of hydrogen for transport purposes.

Cross-cutting Research Advances Plug-In Hybrid Electric Vehicles

The National Renewable Energy Laboratory which is managed by Battelle on behalf of the US Department of Energy, is working with industry and other national labs to take the concept of hybrid electric vehicles one step further with plug-in hybrid electric vehicles which have the potential to cut fuel consumption by more than 50%. The fuel flexibility of a plug-in hybrid extends beyond the liquid fuel it requires, which could be obtained from bio-fuels. The electricity used to recharge the battery could be generated by a renewable energy source thus reducing emissions and providing greater environmental benefits.

New Process for Fibre-reinforced Plastic Components from Fraunhofer-Gesellschaft

The Fraunhofer Institute for Chemical Technology together with a team of research institutes and companies from Germany, Slovenia and Spain is about to revolutionise the production of large-scale fibre-reinforced plastic components. Manufacturing fibre-reinforced components for ships, facades of buildings and wind power plants is a technically difficult process. Researchers are now developing a new, environmentally-friendly process that enables the curing process to be accurately controlled.