IST-Africa 2010 Conference Report

Durban, South Africa

19 - 21 May 2010

IST-Africa is supported by the European Commission under the ICT Programme

ISTAfrica

European Commission
Information Society and Media

Host Government

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Introduction

IST-Africa 2010 Conference & Exhibition takes place 19 - 21 May 2010 in Durban, South Africa. Part of the **IST-Africa Initiative**, which is supported by the European Commission under the ICT Theme of Framework Programme 7 (FP7), **IST-Africa 2010** is the fifth in an Annual Conference Series bringing together delegates from leading commercial, government & research organisations, to bridge the Digital Divide by sharing knowledge, experience, lessons learnt & good practice.

European research activities are structured around consecutive multi-annual programmes, or so-called Framework Programmes. FP7 sets out the priorities - including the ICT Priority - for the period 2007 - 2013. ICT is fully open to international co-operation with the aim to join forces for addressing major challenges where significant added value is expected to be gained from a world-wide R&D cooperation. In this context, the European Commission co-funded the **IST-Africa Initiative** in order to promote the participation of African organisations to the ICT programme.

Hosted by the Government of South Africa through the Department of Science and Technology and Technically Co-Sponsored by IEEE and the Computer Society of South Africa, **IST-Africa 2010** focused on the Role of ICT for Africa's Development and specifically on Applied ICT research in the areas of eHealth, Technology Enhanced Learning and ICT Skills, Digital Libraries, Technology Transfer, Open Source Software, ICT for eInclusion and eAccessibility, eInfrastructures, RFID and ICT for Networked Enterprise and eGovernment and eDemocracy. **IST-Africa 2010** provided a collegiate setting for presentations and discussions of national & regional developments, issues of concern & good practice models, and networking with peers. **IST-Africa 2010** also provided an opportunity to learn more about opportunities to participate in ICT Calls under Framework Programme 7 (FP7) and identify potential partners for future proposals.

IST-Africa directly supports the goals of the Africa-EU Partnership on Science, Information Society and Space, the African Ministerial Council on Science and Technology (AMCOST) and the Consolidated Plan of Action for the African Regional Action Plan on the Knowledge Economy (ARAPKE).

The goals of the **IST-Africa** Conference Series are Community Building to facilitate EU-African research cooperation and successful exploitation of research results, to stimulate take-up of RTD results by industry and the public sector, to promote knowledge sharing between commercial, government and research organisations, to exchange experiences about the current state of eAdoption at a sectoral, national or regional level, and to support International Cooperation and open up the European Research Area (ERA) to Africa.

The Programme

The 3-day programme featured an invigorating mix of business and government case studies, technical and policy papers and interactive workshops. As well as opening and closing plenary sessions, delegates may participate in 40 thematically focused parallel sessions featuring different aspects of International Cooperation, eHealth, eInfrastructures, Technology Enhanced Learning and ICT Skills, Digital LIbraries, eAccessibility and eInclusion, RFID and Technology Transfer, eInclusion/eAccessibility and eGovernment and eDemocracy. Session Chairs will ensure active discussion and facilitate delegate participation.

In the context of focusing on the Role of ICT for Africa's Development, the Opening Plenary on Wednesday 19 May featured a high level dialogue on Implementation of the Africa-EU Partnership on Science, Information Society and Space. The Closing Plenary on Friday 21 May focused on Initiatives Supporting Development of Regional S&T.

The conference programme was complemented by a demonstration and technology exploitation focused Exhibition, a Networking Reception on Wednesday 19 May 2010 and Gala Dinner on Thursday 20 May 2010

IST-Africa Community

IST-Africa 2010 Conference & Exhibition attracted policy makers, practitioners, and researchers from leading commercial, government and research organisations in Europe and Africa – and indeed elsewhere in the world, to share knowledge, experience, lessons learnt and good practice and network with their peers.

Unlike many research conferences, **IST-Africa** provides an opportunity to meet with Ministers of ICT and S&T, Director-Generals, Permanent Secretaries, Senior Government officials from Europe and Africa as well as senior managers, practitioners, project managers, software engineers and researchers from industry, government and research organisations..

IST-Africa 2010 Conference & Exhibition also provided the unique opportunity to identify partners and opportunities to co-operate in international research projects co-funded by the European Commission under the FP7 ICT Programme. As a result of each IST-Africa conference, new projects are generated (including African partners) and submitted for consideration for funding under FP7-ICT.

Delegates and presenters should continue to engage with the African and European colleagues that they met during the conference to develop functional partnerships for future projects and joint research.

Much of the European research results presented in this year's conference is co-funded under the FP6 IST Programme and FP7 ICT Programme [32 projects - IST-Africa (FP7), MAP-IT (FP7), Think-Trust EU-IST (FP7 Coordination Action), HealthCycle (FP7), iWebcare (FP7), Contrapunctus (FP7), MaPEeR SME (FP7), C@R (FP6), EU SEAMLESS (FP7), EU ACVDCC (Leonardo da Vinci), Africa4All (ACP/EuropeAid), OASIS (FP7), Remote (FP7), SAVE ME (FP7), ACCESSIBLE (FP7), ACCESS2ALL (FP7), Europeana, 3D-COFORM (FP7), PLANETS (FP7), DRIVER (FP7), OPENAire (FP7), 6DEPLOY (FP7), BELIEF II (FP7), EELA2 (FP7), GILDA (FP), EUGrid (FP), FEAST Feasibility Study, Erina4Africa (FP7), ESASTAP (FP7), CAAST-NET (FP7), INCONTACT (FP7), ST-EAP (FP7), EuroAfrica-ICT (FP7).].

JEG8 Meeting 18 May 2010

The meeting of the Joint Expert Group (JEG8) for the 8th Africa-EU Strategic Partnership for Science, Information Society and Space was hosted by the Department of Science and Technology in association with **IST-Africa 2010** on Tuesday 18 May from 14:00 - 18:00 in Durban ICC.

This meeting followed on from the previous JEG8 meeting hosted by Ministry of Higher Education and Scientific Research, Egypt in Cairo on 05 - 06 March in association with the African Ministerial Conference for Science and Technology.

IST-Africa 2010 delegates participated in this meeting to share achievements to date within the three pillars of activities, lighthouse projects currently being launched and a discussion of the way forward.

Conference Proceedings

The **IST-Africa 2010** conference proceedings was published on CD-ROM and on the Conference Portal. Each delegate received a copy of the conference proceedings at Registration.

Following the conference, registered delegates have access to all PowerPoint presentations, which will be published on the Conference Portal.

Sponsors

IST-Africa 2010 was hosted by the Government of South Africa through the Department of Science and Technology. Major sponsors included the SAFIPA Programme (cooperation between Finland and South Africa) and NOKIA.

Technical Co-Sponsors include IEEE South Africa Computer Chapter, IEEE UKRI Computer Chapter and Computer Society of South Africa.

IST-Africa Initiative

Regional Impact of Information Society Technologies in Africa ("**IST-Africa**") is a multi-stakeholder initiative focused on raising wider awareness of African research capacity, strengthening the research dimension of Information Society policy dialogues between the European Commission and African countries and key regional organisations, analysing African ICT policy and research priorities, promoting participation of African organizations in the ICT Theme of FP7 and identifing co-operation opportunities in fields of mutual interest. The **IST-Africa Initiative** is supported by the European Commission under FP7-ICT.

IST-Africa is a collaborative initiative between IIMC International Information Management Corporation Limited (Ireland, Coordinator), Department of Science and Technology (South Africa), Ministry of Communications, Science and Technology (Botswana), Ministry of Communications, Science and Technology (Lesotho), Ministry of Education (Namibia), ICT Policy Implementation Technical Unit (Mozambique), National Computer Board (Mauritius), COSTECH - Tanzania Commission for Science and Technology, Uganda National Council for Science and Technology, Ministry of Higher Education, Science and Technology (Kenya), Ministere de l'Enseignement Superieur et de la Recherche Scientifique (Burundi), Ministry in President's Office in charge of Information and Communication Technology (Rwanda), Agence Nationale des Technologies de l'Information et de la Communication (Cameroon), Ministère de la Recherche Scientifique (Senegal) and Ministry of Communications and Information Technology (Egypt).

19 - 21 May 2010

Plenary Session Speakers

Hon. Naledi Pandor
Minister of Science & Technology, South Africa

Prof. Hany Helal
Minister of Higher Education & Scientific Research, Egypt

Vera Brenda Ngosi
Director, HRST African Union Commission

Dr. Phil Mjwara
Director-General DST South Africa

Antti Peltomäki
DG Information Society & Media, European Commission

Mohamed Ben Amor
DG CERT, Tunisia Co-Chair JEG8

Ilari Lindy,
Ministry of Foreign Affairs, Finland

Joaquim Croca
Vodafone Health Solutions

Helena Tapper
Counsellor ICT4D, Embassy of Finland, South Africa

Keynote Speakers confirmed as at 10 May 2010 included:

- **Hon. Naledi Pandor,** Minister of Science and Technology, South Africa
- **Hon. Prof. Hany Helal,** Minister of Higher Education and State for Scientific Research, Egypt (AMCOST Chair)
- **Mrs Vera Brenda Ngosi,** Director, HRST, African Union Commission
- **Dr. Phil Mjwara,** Director-General, Department of Science and Technology, South Africa
- **Mr. Antti Peltomäki,** Deputy Director-General, DG Information Society and Media, European Commission
- **Ms. Mamodupi Mohlala,** Director-General, Department of Communications, South Africa (tbc)
- **Mohamed Ben Amor,** Director General, Centre d'Etudes et de Recherche des Télécommunications (CERT), Tunisia, Co-chair Joint Expert Group for 8th Africa-EU Strategic Partnership (JEG8)
- **Ilari Lindy,** Advisor, Information Society for Development, Ministry for Foreign Affairs of Finland
- **Joaquim Croca**, Head of Vodafone Health Solutions
- **Prof John Wood**, Chair, European Research Area Board, United Kingdom
- **Mr. Thierry Devars,** International Relations, DG Information Society and Media, European Commission
- **Ms. Helena Tapper,** Counsellor for Information Society for Development, Science and Technology, Embassy of Finland, South Africa (SAFIPA Programme)
- **Ms.Fadila Boughanemi,** International Relations, DG Research, European Commission

International Programme Committee

A distinguished Programme Committee has been formed to review and provide feedback on papers and presentations, and chair sessions.

The **IST-Africa 2010** International Programme Committee includes

- **Paul Cunningham,** IIMC, Ireland (Conference Chair)
- **Prof. Jørn Braa,** Oslo University Norway
- **Laurens Cloete,** Meraka Institute, South Africa
- **David Browne,** Telkom, South Africa
- **Prof. Johannes Cronje,** Cape Peninsula University of Technology, South Africa
- **Miriam Cunningham,** IIMC, Ireland
- **Prof. Love Ekenberg,** University of Stockholm, Sweden
- **Dr. Mike Joy,** University of Warwick, UK
- **Prof. Bernhard Katzy,** CeTIM, Germany
- **Kristiina Lahde,** SAFIPA Programme, South Africa
- **Ilari Lindy,** Ministry for Foreign Affairs, Finland
- **Vasilis Koulolias,** Gov2U, Greece
- **Gareth MacNaughton,** Lane & Hapiak Consulting, UK
- **Prof. Maurice Mars,** University of KwaZulu-Natal, South Africa
- **Loi Namugenyi,** Uganda National Council for Science & Technology, Uganda
- **Mícheál Ó Foghlú,** TSSG, WIT, Ireland
- **Maggy Pézeril,** Pôle Universitaire Européen, France
- **Bernard Stevenot,** SpaceBel, Belgium
- **Richard Stevens,** European Genetics Foundation, Italy
- **Prof. Erkki Sutinen,** University of Joensuu, Finland
- **Helena Tapper,** Embassy of Finland, South Africa
- **Prof. Wallace Taylor,** TISI, South Africa

- **Daan du Toit,** Senior Science and Technology Representative in Europe, Department of Science & Technology, South Africa
- **Darelle van Greunen,** Nelson Mandela Metropolitan University, South Africa
- **Maseqobela Williams,** Ministry of Communications, Science & Technology, Lesotho
- **Dr. Harold Wesso,** eSkills Institute, South Africa

Organising Committee

- **Miriam Cunningham,** IIMC, Ireland
- **Paul Cunningham,** IIMC, Ireland
- **Mmboneni Muofhe,** Department of Science and Technology, South Africa
- **Thabisa Mbungwana,** Department of Science and Technology, South Africa

Conference Secretariat

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www.IST-Africa.org/Conference2010

1 DAY

Wednesday, May 19, 2010

08:00 Registration

09:00 Opening Plenary 1a

Opening Remarks
Dr Phil Mjwara, Director-General, Department of Science and Technology, South Africa

Opening Remarks
Mr Antti Peltomäki, Deputy Director-General, DG Information Society and Media, European Commission

AUC Address
Mrs Vera Brenda Ngosi, Director, HRST, African Union Commission, Ethiopia

AMCOST Consolidated Plan of Action - Keynote Address
Prof. Hany Helal, Minister of Higher Education and State for Scientific Research, Egypt (AMCOST Chair)

10:15 Coffee Break Exhibition & Networking

10:45 Plenary 2a: High-level Round Table on the Implementation of the Africa-EU Partnership on Science, Information Society and Space

Panel Participants include:

Prof. Hany Helal, Minister of Higher Education and State for Scientific Research, Egypt (AMCOST Chair)

Mr Antti Peltomäki, Deputy Director-General, DG Information Society and Media, European Commission

Dr. Phil Mjwara, Director-General, Department of Science and Technology, South Africa

Mrs Vera Brenda Ngosi, Director, HRST, African Union Commission, Ethiopia

Ms. Mamodupi Mohlala, Director-General, Department of Communications, South Africa (tbc)

Mohamed Ben Amor, Director General, CERT, Tunisia, Co-chair JEG8

Ilari Lindy, Advisor, Information Society for Development, Ministry for Foreign Affairs of Finland

Prof. John Wood, Chair, European Research Area Board, United Kingdom

Joaquim Croac, Head of Vodafone Health Solutions

12:30 Lunch Exhibition & Networking

14:00 Session 3a 8th Africa-EU Strategic Partnership - Information Society
Chairs: Mohamed Ben Amor, CERT, Tunisia & Ilari Lindy, Ministry for Foreign Affairs, Finland

P8/Information Society Lighthouse Projects: Status of Implementation & Remaining Challenges

Policy Developments regarding African Regional Priorities and Programmes in the ICT Domain

Available Financing Instruments and Financial Perspectives

Discussion

14:00 Session 3b eGovernment - Services
Chair: Immo Onuegbu, Ministry of Education, Namibia

Balancing Security and Privacy in eGovernment Services
James Clarke, Waterford Institute of Technology, Ireland

Mobile Government for Improved Public Service Provision in South Africa
Mzomuhle Nkosi, CSIR, South Africa

Proposed Information Access Network Architecture for Government Information and Services: Progress Report
Lerato Lerato, National University of Lesotho, Lesotho

Embracing eGovernment in Service Delivery and Business to Citizens through Libaries in Kenya
Emily Ng'Eno, Moi University: School of Information Science, Kenya

The HAE Bottom-Up Model (HAE-BUM): Envisages the Enhancement of Development and Strengthen e-Governance or e-Government Implementation Systems
Jameson Mbale, University of Namibia, Namibia

14:00 Session 3c Technology Enhanced Learning
Chair: Darelle van Greunen, Nelson Mandela Metropolitan University, South Africa

Teaching and Learning with New Technologies - A Tough Nut to Crack
Jacqueline Batchelor, University of Pretoria, South Africa

Sustainable, Scalable and Affordable Mobile Learning Service for Formal Education
Riitta Vänskä, NOKIA, South Africa

Metaschool.cz - Towards Teacher Competencies with Web 2.0
Karel Charvat, Ceske centrum pro vedu a spolecnost, Czech Republic

Google Docs and Skype for a low bandwidth Virtual Classroom for Developing Countries
Hannah Thinyane, Rhodes University, South Africa

The SANTED Virtual Classroom Project: A Case Study
Kauna Mufeti, University of Namibia, Namibia

14:00 Workshop 3d ICT R&D Innovation Strategy
Chair: Isaac Maredi, Department of Science & Technology, South Africa

ICT R&D and Innovation: Supporting Key Government Outcomes
Isaac Maredi, Department of Science and Technology, South Africa

South African National Cyberinfrastructure, the Knowledge Triangle and Innovation
Colin Wright, Meraka Institute, South Africa

The SAP Meraka UTD Public Private Partnership
De Wet Naude, SAP, South Africa

Open Source and Open Standards: A Sustainable Innovation Strategy for African Parliaments
Flavio Zeni, UNDESA, Kenya

14:00 Workshop 3e Emerging e-Infrastructures for Science in Sub-Saharan Africa
Chair: Bruce Becker, Meraka Institute, South Africa

Development and Status of the South African National Grid
Bruce Becker, Meraka Institute, South Africa

High Performance Computing to Grid Computing at UFS
Albert van Eck, University of the Free State, South Africa

Policy Engagement in e-Infrastructure from the BELIEF Experience
Simon Taylor, Brunel University, United Kingdom

15:30 Coffee Break Exhibition & Networking

16:00 Session 4a 8th Africa-EU Strategic Partnership - Information Society
Chair:s Mohamed Ben Amor, CERT, Tunisia & Ilari Lindy, Ministry for Foreign Affairs, Finland

Showcase of EU and African Member States Funded Activities; Proposals for New Activities

Advancing the Information Society Agenda
Themba Phiri, Department of Communications, South Africa

Finland STI Programmes in South Africa and Southern Africa
Helena Tapper, Embassy of Finland, South Africa

ICT Initiatives in Mauritius
Dan Faugoo, National Computer Board, Mauritius

How to Bridge the Digital Divide in Africa? Case Studies in Zambia
Lenka Ptáčková Melicharová, Deputy Minister of Interior (EU Affairs), & Jiří Průša, Czech Republic

ICT Initiatives in Mozambique
Augusto Nunes, ICT Policy Implementation Technical Unit (UTICT), Mozambique

ICT Initiatives in Botswana
Oabona Monngakgotla, Ministry of Infrastructure, Science and Technology, Botswana

16:00 Session 4b   eGovernment - Assessment

Chair: Love Ekenberg, University of Stockholm, Sweden

Are e-Government investments delivering against expected payoffs? Evidence from the United Kingdom and South Africa
Rennie Naidoo, Wits, South Africa

Measuring the Public Value of e-Government: Methodology of a South African Case Study
Carsten Friedland, SAP Research, Germany

Public Decision Making Support: A Developing Country Perspective
Love Ekenberg, Stockholm University, Sweden

A Conceptual Ontology for E-government Monitoring of Development Projects in Sub Saharan Africa
Jean Vincent Fonou Dombeu, Vaal University of Technology, South Africa

A Critical Discourse or the ICT Strategies of the Center for Innovation, Provincial Government of the Western Cape
Steve Vosloo, Shuttleworth Foundation, South Africa

16:00 Session 4c   Technology Enhanced Learning - Integrating new elements

Chairs: Wallace Taylor, TISI - The Information Society Institute, South Africa

A Pragmatic Framework for Integrating ICT into Education in South Africa
Adele Botha, Meraka Institute, South Africa

Harnessing Available Technology for Secondary School Education in Africa
Vincent Kizza, Open Education Resource Foundation(OERF), Uganda

Indigenous African Artefacts: Can they Serve as Tangible Programming Objects?
Andrew Smith, CSIR Meraka Institute, South Africa

Working for my dreams - A Tanzanian OLPC experience
Marcus Duveskog, University of Joensuu, Finland

Science Diffusion as a Form of Cooperation
Antonio Jose Batel Anjo, Universidade de Aveiro, Portugal

16:00 Workshop 4d   SAFIPA - Disruptive Innovation in Emerging Markets - A Catalyst for Reducing Poverty and Improving Lives?

Chair: Kristiina Lahde, SAFIPA Programme, South Africa & Darelle van Greunen, Nelson Mandela Metropolitan University, South Africa

Position 1: How are emerging market companies forging ahead of the competition? Emerging markets have low worldwide costs, appealing products, modern facilities, and ambitious leaders going for them.
Position 2: Emerging markets are generating a wave of disruptive product and process innovations that are helping established companies and a new generation of entrepreneurs to achieve new price-performance levels for a range of globally traded goods and services.
Position 3: Western companies should not have to adapt old business models and build distinctive capabilities in the low-income segments of emerging economies. There is no such thing as the Bottom of the Pyramid.
Position 4: "Disruptive innovation" is only applicable to describe trends in the rapidly changing worlds of telecoms and pharmaceuticals. Digital and photocopying technologies are examples of disruptive innovations in emerging economies.
Panelists include
Kimmo Viljamaa, Advansis Ltd, Finland
Stephan Lambrecht, Venture Solutions
Discussion

16:00 Workshop 4e   Emerging e-Infrastructures for Science in Sub-Saharan Africa

Chair: Bruce Becker, Meraka Institute, South Africa

Development of an EUGridPMA-accredited Certificate Authority for the South African National Grid
Tarirai Chani, Meraka Institute, South Africa

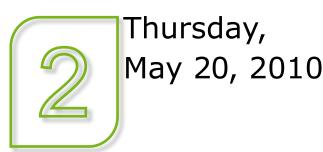**Long-term Sustainability of Emergent e-Infrastructures**
Valeria Ardizzone, Istituto Nazionale di Fisica Nucleare Sez. Catania, Italy

GILDA: A Model of t-Infrastructure for Dissemination and Training
Valeria Ardizzone, Istituto Nazionale di Fisica Nucleare Sez. Catania, Italy

Considerations of User Engagement in New Site Designs
Andrew Lewis, University of Cape Town, South Africa

18:00 Networking Reception in Exhibition

08:00 Workshop 5a 8th Africa-EU Strategic Partnership - Information Society

Chair: Mohamed Ben Amor, CERT, Tunisia & Ilari Lindy, Ministry for Foreign Affairs, Finland

Showcase of EU and African Member State Funded Activities; Proposals for New Activities (continued)

ICT Initiatives being supported by France
Jean-Pacal Chatel, Ministry of Finance, France

ICT Initiatives in Kenya
Eric Mwangi, Ministry of Higher Education, Science and Technology, Kenya

ICT Initiatives in Tanzania
Hamisi Nguli, Tanzania Commission for Science and Technology

ICT Initiatives in Cameroon
Peter Mokube, National Agency for Information and Communication Technologies, Cameroon

ICT Co-operation between the Italian Republic and the Republic of South Africa
Giusto Sciarabba, Embassy of Italy, South Africa

ICT Initiatives in Uganda
Maxwell Otim, Uganda National Council for Science and Technology

Presentations from Industry on PPP Tracks; Recommendations from the EU-Africa Business Forum
Discussion on Prioritization Criteria and Concrete Way Forward to Support Implementation of the Selected Initiatives P8/Information Society Action Plan 2011-2013 & EU-Africa Summit Side-events

09:00 Session 5b Technology Transfer & Leveraging ICT to address the Digital Divide

Chair: Helena Tapper, Embassy of Finland, South Africa

Desirable Practices for Contact Centres Outsourced to an African Country
Mike Hart, University of Cape Town, South Africa

Technology Solutions to Strengthen the Integration of Marginalized Communities into the Global Knowledge Society
Jimmy Samalenge, University of Fort Hare, South Africa

Bridging the Digital Divide through Community User Information Systems: Kitsong Centres
Resego Morakanyane, Botswana Technology Centre, Botswana

09:00 Session 5c Technology Enhanced Learning - Leveraging Devices to Improve Skills

Chair: Wallace Taylor, TISI, South Africa

The eSkills Summit & Building a National eSkills Plan of Action
Harold Wesso, Meraka eSkills Institute, South Africa

BingBee @ RaglanRoad – A Field Trial with Unattended Educational Kiosks
Peter Wentworth, Rhodes University, South Africa

Hypercontextualizing a Game Workshop in Tanzania
Carolina A. Islas Sedano, Joensuu University, Finland

C³TO: An Architecture for Implementing a Chat Based Call Centre and Tutoring Online
Laurie Butgereit, Meraka Institute, South Africa

Dr Math gets MUDDY: The "dirt" on How to Attract Teenagers to Mathematics and Science by Using Multi-User Dungeon games over Mxit on Cell Phones
Laurie Butgereit, Meraka Institute, South Africa

Technology Enhanced Learning from a Government Perspective
Rosey Sekese, Department of Communications, South Africa

09:00 Session 5d   eAccessibility - Case Studies

Chair: Darelle van Greunen, Nelson Mandela Metropolitan University, South Africa

Mathematics and Visually Impaired Students: The Lambda system
Giuseppe Nicotra, Universita degli Studi di Milano, Italy

Access to Music by Blind People
Giovanni Bertoni, Arca progetti srl, Italy

An Alternative Multi-User Interaction Screen: Initial Ergonomic Test Results.
Andrew Smith, CSIR Meraka Institute, South Africa

Accessibility
Gift Buthelezi, Department of Communications, South Africa

The National Accessibility Portal and Social Networking Sites: How to Make Facebook and Twitter Work for You
Laurie Butgereit, Meraka Institute, South Africa

09:00 Workshop 5e   Building a Research and Education Network Infrastructure in Africa: of the art of African Research and Education Networking and lessons from South America

Chairs: Francis Tusubira, UbuntuNet Alliance, Uganda

WACREN
Omo Oaiya, WACREN, Ghana

UbuntuNet Alliance
Duncan Martin, UbuntuNet Alliance, South Africa

RED CLARA
María José López, RED CLARA, Chile

InnovaRed, Argentina
Aníbal Gattone, Innova-Red, Argentina

10:30 Coffee Break   Exhibition & Networking

11:00 Workshop 6b   IST-Africa - Linking European and African Researchers

Chairs: Paul Cunningham, IIMC Ltd, Ireland & Anneline Morgan, Department of Science & Technology, South Africa

Research Capacity and Challenges in South Africa
Mmboneni Muofhe, Department of Science and Technology, South Africa

Research Capacity and Challenges in Lesotho
Lefa Thamae, Ministry of Communications, Science and Technology, Lesotho

Research Capacity and Challenges in Namibia
Immo Onuegbu, Ministry of Education, Namibia

Research Capacity and Challenges in Burundi
Augustin Nsabiyuma, Ministry of Higher Education and Scientific Research, Burundi

Research Capacity and Challenges in Senegal
Almamy Konte, Ministère de la Recherche Scientifique, Senegal

14:00 Session 6b   Digital Libraries

Chair: Bernard Stevenot, SPACEBEL, Belgium

Open Knowledge on e-Infrastructures - The BELIEF Digital Library
Simon Taylor, Brunel University, United Kingdom

Experiences with Developing Language Processing Tools and Corpora for Amharic
Björn Gambäck, Swedish Insitute of Computer Science AB, Sweden

Challenges of Library and Information Science Capacity Building in Southern Sudan: A Situational Analysis
Elisam Magara, Makerere University, Uganda

ICT User Skills Building and the possibility of incorporating Intelligent Content in Research4Life Programmes in Sub-Saharan Africa
Sailas Nyareza, Information Training and Outreach Centre for Africa, South Africa

11:00 Session 6c   Technology Enhanced Learning in Third Level Institutions

Chair: Harold Wesso, Meraka eSkills Institute, South Africa

Accordent Media Management System Technology And Its Integration With The MERLINGO Portal Services
Ivo Martiník, VŠB-Technical University of Ostrava, Czech Republic

E-Learning2.0 – The Power of Participation: Case Study on Further Developing Standards and Quality Assurance for e-Learning within the ACVCD-Project
Stephan Raimer, College of Cooperative Education Schleswig-Holstein, Germany

The Impact of Podcasting on Student Lecture Attendance.
Juan de Lange, University of KwaZulu-Natal, South Africa

The SAFIPA-Meraka Code-sprints Program; A Mechanism to Enhance the Development Capacity of Emerging Developers - Observations and Lessons Learned
Louis Coetzee, Meraka Institute, CSIR, South Africa

Strategizing Computer-supported Collaborative Learning towards Knowledge Building
Evode Mukama, National University of Rwanda, Rwanda

11:00 Workshop 6d   Services for the Autonomous Living and Mobility of the Elderly

Chair: Maria Panou, Hellenic Institute of Transport, Greece

An Ontological Framework for the Elderly to Control their Home Environment (OASIS project)
Gerrit Telkamp, DOMOLOGIC, Germany

eHealth Services for the Elderly at Home and on the Move
Maria Fernanda Cabrera, Polytechnic University of Madrid, Spain

Use Cases and Scenarios for Remote Support of the Elderly to Live Autonomously Alone (REMOTE project)
Evangelos Bekiaris, Hellenic Institute of Transport, Greece

User Interfaces and Strategies for Guidance of Elderly in Emergencies through Nomadic Devices (SAVE ME project)
Harald Widlroither, University of Stuttgart, Germany

Assessing the Accessibility of UI for all Ages
Karel Van Isacker, MCA, Bulgaria

Pedestrian and Multimodal Route Guidance Adaptation for Elderly Citizens (ACCESS2ALL project)
Maria Panou, Hellenic Institute of Transport, Greece

11:00 Workshop 6e   Building a Research and Education Network Infrastructure in Africa - Emerging Content and Applications Networks

Chair: Bjorn Pehrson, KTH, Sweden

ERINA
Simon Taylor, Brunel University, United Kingdom

ERINA4Africa
Margaret Ngwira, UbuntuNet Alliance for Research and Education Networking, Malawi

Grid Computing in Africa
Bruce Becker, Meraka Institute, South Africa

Practical Case Study in Uganda: ICT used in the Agricultural Sector
Nodumo Dhlamini, REFORUM, Uganda

Example from CLARA
Aníbal Gattone, Innova-Red, Argentina

12:30 Lunch   Exhibition & Networking

14:00 Workshop 7a   Africa4All – Leveraging ICT in African Parliaments I

Chair: Vasilis Kouloulias, Gov2U, Greece

Africa4All Parliamentary Initiative
Vasilis Kouloulias, Gov2U, Greece

Current ICT Initiatives and Future Plans for Civil Engagement at the Parliament of Namibia: Successes, Challenges and Lessons Learnt
Marianne Gei-khoibes, National Assembly of the Parliament of Namibia

Initial Experiences in Parliament of Lesotho
Moeketsi Liphoto, National Assembly of the Parliment of Lesotho

Experiences from the eParliament project in Mauritius
Nirveeka Callychurn, National Assembly, Mauritius

14:00 Workshop 7b   Challenges & Opportunities for African-European ICT Partnerships in FP7

Chair: Mmboneni Muofhe, Department of Science & Technology, South Africa

Taking Advantage of FP7 Opportunities
Mmboneni Muofhe, Department of Science & Technology, South Africa

The State of African Participation in ICT Theme of FP7
Segopotso Moshapo, SAP Research CEC Pretoria, South Africa

Experiences from the Digital World Forum Project
Thato Foko, Meraka Institute, South Africa

EuroAfrica-ICT - Promoting and Supporting the Development of S&T Cooperation on ICT Research between Europe and Sub-Saharan Africa
Karine Valin, Sigma Orionis, France

GEO-Africa/AfricaSat-1 project
Gregory Pedersen, EADS Astrium, France

14:00 Session 7c Technology Enhanced Learning - Case Studies

Chair: Love Ekenberg, University of Stockholm, Sweden

Technology Enhanced Learning for Remote Nurses in KwaZulu-Natal
Jennifer Chipps, UKZN, South Africa

Making an Information for Development Study Centre Operational
Erkki Sutinen, University of Joensuu, Finland

Mobile and Context: Divide or Conquer
Adele Botha, Meraka Institute, South Africa

The Intranet as a Knowledge Enabler towards a KM strategy in a South African organisation
Udo Averweg, Information Services, eThekwini Municipality and University of KwaZulu-Natal, South Africa

Go Mobile! The Mobile Learning Institute Leadership Summit
Adele Botha, Meraka Institute, South Africa

14:00 Session 7d eHealth - Issues and Case Studies

Chair: Loi Namugenyi, Uganda National Council for Science & Technology, Uganda

Medical Research Council and eHealth in South Africa
Jill Fortuin, Medical Research Council, South Africa

Privacy and Data Protection in eHealth: A Comparative Approach between South African and French Legal Systems
Nathalie Ferraud-Ciandet, Grenoble Ecole de Management, France

BudhuDas: An eHealth Business Model for Emerging Countries
Yvonne Wickramasinghe, Univeristy of Colombo, Sri Lanka

HealthChange: A Change Management Model for an eHealth Solution in Developing Countries
Dulindra Wijethilake, University of Colombo, Sri Lanka

14:0 Workshop 7e Building a Research and Education Network Infrastructure in Africa: Political Awareness, Will and Capacity

Chair: Leonardo Flores, European Commission & Ahmed Hamdy, AUC

European Commission Perspectives
Kostas Glinos, European Commission, Belgium

African Union Commission Perspectives
Vera Ngosi, African Union Commission, Ethiopia

The AfricaConnect Implementation Plan
Cathrin Stover, DANTE, United Kingdom

FEAST Identification of Remaining Gaps
Bjorn Pehrson, KTH, Sweden

The Role of African RRENs and NRENs
Boubakar Barry, AAU, Ghana

The eI-Africa Project
Karine Valin, Sigma Orionis, France

15:30 Coffee Break Exhibition & Networking

16:00 Workshop 8a Africa4All – Leveraging ICT in African Parliaments II

Chair: Vasilis Kouloulias, Gov2U, Greece

Enhancing Democracy through use of ICT - Experience of Uganda
Aloysius Makata, Parliament of Uganda

ICT for Productivity in Parliament: Kenya Parliament Experiences
Owino Harrison, Kenya National Assembly, Kenya

Leveraging ICT in the Parliament of Tanzania
Didas Wambura, Parliament of the United Republic of Tanzania

Panel Discussion

16:00 Workshop 8b Research Interoperability, Digitisation Techniques and Digital Preservation: the Europeana context

Chair: Robert Davies, EuropeanaLocal, United Kingdom

Research and the interoperability of Europeana
Robert Davies, EuropeanaLocal, United Kingdom

Technologies, Standards and Business Models for the Formation of Virtual Collections of 3D Replicas of Museum Objects: the 3D-COFORM Project
Franco Niccolucci, STARC, Cyprus

The work of eIFL.net in the Digital Libraries Environment
Monika Segbert-Elbert, eIFL.net, Italy

African Scholarship: Bringing Local Knowledge Production to the Global Research Infrastructure
Dale Peters, University of KwaZulu Natal, South Africa

A Strategic Approach to Research Publishing in South Africa
Susan Veldsman, Academy of Science of South Africa, South Africa

16:00 Workshop 8c SAFIPA – Digital Learning and Open Education Solutions

Chair: Ashraf Patel, SAFIPA Programme, South Africa

An Overview of new Web 2.0 Trends in Digital Education and Open Content in Africa
Thato Foko, Meraka Institute, South Africa

Maths Multimedia Pilot Project for South Africa Curriculum
Riyaadh Ebrahim, CECS, South Africa

YESA Science Education Case Study
Ron Beyers, YESA, South Africa

Mobile Learning and Digital Content Modules for Children - A Case Study
Paul Moeng, New Media, South Africa

Open Source Platforms and Tools for Online Llearning – Wits Case Study
Derek Keats, Deputy Vice Chancellor, Wits University, South Africa

Nokia Mobile Maths Project
Ritta Vaanska, Nokia, South Africa

Interactive Virtual Reality (IVR) Methodology for Community Education
Dave Lockwood, Naledi3d Factory (Pty)Ltd, South Africa

16:00 Session 8d eHealth - Information Management Systems

Chairs: Richard Stevens, Italy

A Multi-country Examination of Approaches for Investigating the Attitudes of Health care Professionals towards the Development and Use of Information Systems
Deana Leadbeter, University of Keele, United Kingdom

Using Local Knowledge in Information Gathering Process: Case study from Ethiopia
Zufan Damtew, University of Oslo, Ethiopia

Analyzing Mother and Child Health Policy-driven Information Subsystems in Mozambique through the lens of Activity Theory
Gertrudes Macueve, Universidade Eduardo Mondlane, Mozambique

Socio-Tech SA: Made-in-South Africa Socio-technical Methods and Education for Local Software Industry to contribute to Socio-economic Development
Retha de la Harpe, CPUT, South Africa

16:00 Workshop 8e Building a Research and Education Network Infrastructure in Africa - Round Table on Next Steps and Synergy between Actors

Chairs: Vera Brenda Ngosi, Director, HRST, African Union Commission, Ethiopia & Kostas Glinos, European Commission, Belgium

Penel Participants include:
Boubakar Barry, AAU
Francis Tusu, UbuntuNet Alliance
Cathrin Stover, DANTE
María José López, CLARA
Bjorn Pehrson, KTH

17:30 - 18:00 Exhibition & Networking

19:30 - 22:30 Conference Dinner

3
DAY

Friday, May 21, 2010

09:00 Sesssion 9a Leveraging ICT in Rural Communities

Chair: Helena Tapper, Embassy of Finland, South Africa

Broadband in Rural Areas
Ivan Istvanffy, Director General, Section for Foreign Financial Assistance Management and Implementation, Government Office of the Slovak Republic

Further lessons from the Sekhukhune Rural Living Lab – Mobile Web Business Applications in Emerging Economies
Rudi de Louw, SAP Research CEC Pretoria, South Africa

Using Participation and Participatory Approaches to introduce ICTs into Rural Communities
Meera Joseph, University of Johannesburg, South Africa

[8 - 9] C o n f e r e n c e

Factors influencing the Use of Information and Communication Technology by Farm Employees in Western Cape Commercial Agriculture: A Case Study of the Wine Industry
Rachael Tembo, Cape Peninsula University of Technology, South Africa

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09:00 Tutorial 9b   6DEPLOY - IPv6

Chair: Martin Potts, Martel, Switzerland

Why deploy IPv6?, What is IPv6?, What are the main considerations to make when deploying IPv6?
B. Tuy, RENATER, France

Some guidelines and examples of deploying IPv6 in:
Campus networks, ISPs
B. Tuy, RENATER, France

Enterprises
B. Habraken, Cisco, Netherlands

What the EC FP7 project 6DEPLOY can offer, eg.:
Training modules & Training workshops
Martin Potts, Martel, Switzerland

An e-learning course, Deployment guidelines, Supported Testbeds in Kenya and Mauritius
B. Tuy, RENATER, France

09:00 Workshop 9c   ICT-Enhanced Learning and Citizen Empowerment across Africa

Chair: Robert Franz, Ashburn Institute, United States

Kasambya Computer Centre – from Community Initiative to Self-Sustainable Enterprise
Kseniya Khovanova, Ashburn Institute, Ukraine

Hungry for Change: ICT-Enhanced Enterprise Financing
Robert Frantz, Ashburn Institute, United States

Challenges and Potential Benefits of Small-scale ICT-Initiatives In Africa
Kyewalyanga Wahabu, Kasambya Community Computer Centre, Uganda

Developing Country-Focused ICT-Impact Evaluation Tools
Heather Thompson, Ashburn Institute, United States

09:00 Session 9d   eHealth - Case Studies

Chair: Maurice Mars, University of KwaZulu-Natal, South Africa

Training Design should consider the Health workers' Ability to Positive Training Transfer: Case Study in Ethiopia
Birkinesh Lagebo, University of Oslo, Norway

The Life and Times of an Online Support Group: a South African Case Study
Jay Barnes, Cape Peninsula University of Technology, South Africa

Some EU IST/ICT Projects As a Source for Transfer of Know How on e-Health to Africa
Dusan Soltes, Comenius University, Slovakia

09:00 Session 9e   Leveraging eInfrastructures

Chair: David Browne, Telkom, South Africa

eGY-Africa: Better Internet Connectivity to Reduce the Digital Divide
Charles Barton, Australian National University, Australia

An Energy Saving Scheme for Internet Provision in Rural Africa: LESS
Moshe Masonta, CSIR Meraka Institute, South Africa

Challenges of Evidence Acquisition in Wireless Ad-Hoc Networks
Murimo Bethel Mutanga, University of Zululand, South Africa

Distributed Government e-Mail Service: Mozambique GovNet Case Study
Sergio Mapsanganhe, ICT Policy Implementation Technical Unit (UTICT), Mozambique

The Community-oriented Computer Security, Advisory and Warning Team
Ian Ellefsen, University of Johannesburg, South Africa

10:30 Coffee Break   Exhibition & Networking

11:00 Session 10a   Leveraging RFID and Information Systems

Chair: Laurens Cloete, Meraka Institute, South Africa

An Implementation of a Multi-Agent Based RFID Middleware for Asset Management System Using the Jade Platform
Libe Valentine Massawe, Central University of Technology, Free State, South Africa

Tackling Cattle Rustling Menace Using RFID/GPS Livestock Traceability Application in the North Rift Kenya: Assessment of Options and Way Forward
Lazarus N. Kubasu, Ministry of Provincial Administration, Kenya

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Mobile4D Platform
Adele Botha, Meraka Institute, South Africa

Modelling the Context of Information Systems
Mikko Korpela, University of Eastern Finland, Finland

Digital Watermarking: A State-of-the-Art Review
Ademola Adesina, University of the Western Cape, South Africa

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11:00 Tutorial 10b   6DEPLOY - IPv6

Chair: Martin Potts, Martel, Switzerland

Practical IPv6 configuration exercises on routers and clients using remote access to the 6DEPLOY testbeds in Kenya and Mauritius
B. Habraken, CISCO, Netherlands & B. Tuy, RENATER, France

11:00 Workshop 10c   Technology for Communities of Practice: The Power of Collaborative Learning

Chair: Maike Schansker, United Nations University, Germany

Introduction
Maike Schansker, United Nations University, Germany

e/merge: Using Online Conferences to Promote Professional Development in Africa
Tony Carr, University of Cape Town, South Africa

Triangulating for Success: A Practitioner's Experience using External Networks to Leverage Learning and Outcomes within Organizations and Institutions
Nancy White, Full Circle Associates, United States

11:00 Session 10d   eHealth - Case Studies

Chair: Maurice Mars, University of KwaZulu-Natal, South Africa

A Pilot Study To Forecast Changes In CD4 Count of HIV-1 Positive Patients Using Machine Learning
Yashik Singh, University of KwaZulu-Natal, South Africa

Mobile M&E: Experiences from Pilot to National Scale Implementation
Eben Conley, Cell-Life, South Africa

Language, Cultural Brokerage And Informed Consent: Will Technological Terms Impede Telemedicine Use?
Caron Jack, University of KwaZulu-Natal, South Africa

11:00 Session 10e   Open Source Software Applications

Chair: Richard Stevens, European Genetics Foundation, Italy

Open Source Software Application and their Impacts on SMEs: An Action for Building an OSS Community environment in Tanzania
George S. Oreku, TIRDO, United Republic of Tanzania

Proposal for a Logistic Domain Ontology
Flavio Bonfatti, University of Modena and Reggio Emilia, Italy

Dual Licensing Policy – New Way for Software Development
Zbynek KRIVANEK, Ceske centrum pro vedu a spolecnost, Czech Republic

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12:30 Lunch   Exhibition & Networking

13:30 Closing Plenary 12a Initiatives Supporting Development of Regional S&T

Strengthening African - European Cooperation in ICT and S&T
Thierry Devars, European Commission, Belgium

Strengthening African - European Cooperation in S&T
Fadila Boughanemi, European Commission, Belgium

Initiatives being supported by Finland in Southern Africa
Helena Tapper, Embassy of Finland, South Africa (SAFIPA Programme)

Round Table Discussion - Output from JEG8 Meeting

Closing Remarks
Hon. Naledi Pandor, Minister of Science and Technology, South Africa

Best Paper Award
Best Demonstration Stand Award

Formal Closing of Conference

The Programme presented is accurate as at 10 May 2010 and is subject to change without notice at the discretion of the International Programme Committee Chair. Please view the Online Programme for the most up-to-date information.

19 - 21 May 2010

Opening Plenary Session

The Opening Plenary Session was in two parts, starting with a number of high-level presentations from the Host Government, European Commission, African Union Commission and AMCOST Chair to provide an overall political context for the IST-Africa 2010 Conference & Exhibition.

Presentations were delivered by Dr Phil Mjwara, Director-General, Department of Science and Technology, South Africa, Mr Antti Peltomäki, Deputy Director-General, DG Information Society and Media, European Commission, Ahmed Hamdy, Deputy Director, HRST, African Union Commission, Ethiopia, and Dr El Sherbini, Deputy Minister of Higher Education and State for Scientific Research in Egypt and president of the Egyptian Academy of Sciences.

This was then complemented by a High-level Round Table on the Implementation of the 8th Africa-EU Strategic Partnership (Science, Information Society and Space), with a particular focus on the Information Society Track. Roundtable participants included senior representatives from the African Union Commission, European Commission, Department of Science and Technology, South Africa, Department of Communications, South Africa, Ministry of Foreign Affairs of Finland, the African and European Co-Chairs of the Joint Expert Group (JEG8), the Head of Vodafone Solutions and the Chair of the European Research Board.

The Conference Chair, Paul Cunningham, acknowledged the participation of the Diplomatic Corps at the Opening Plenary, the former Deputy President of the Republic of South Africa and the Chair and Members of the Portfolio Committee, Parliament of South Africa.

RoundTable

Following a coffee break and photo session for VIPs, the Roundtable Discussion began, focused on a series of questions, answers and public conversation about some important issues related to the use of ICT as an agent for socio-economic change.

The Conference Chair, Paul Cunningham introduced the Participants in the Round Table, including Dr Phil Mjwara, Director-General, Department of Science and Technology; Antti Peltomäki from DG Information Society and Media, European Commission; Prof Sherbini from Egypt; Dr Ahmed Hamdy from African Union Commission; Dr Harold Wesso- Deputy Director General, Department of Communications in South Africa; Prof Jean-Francois Girard and Mohamed Ben Amor DG of CERT from Tunisia, European and African Co-Chairs of the Joint Expert Group (JEG8), Ilari Lindy, Ministry of Foreign Affairs in Finland, Johan Kruger, Head of Vodafone Solutions and Prof John Wood, Chair of the European Research Board.

Progress on Implementation of 8th Partnership on Science, Information Society & Space

To open the Round Table, the Conference Chair, Paul Cunningham asked Ahmed Hamdy to be followed by Antti Peltomäki to discuss progress made on implementing the 8th Africa – EU Strategic Partnership (Science, Information Society, Space)

Dr Hamdy began by reminding the audience that through the Commission-to-Commission and joint expert group meetings, the troika had agreed to recognize the book of 19 Lighthouse Project (12 in Science, 5 in Information Society, 2 in Space) as the basis for implementing this partnership. Dr Hamdy announced that the AUC expected to launch a call for Proposals for research grants by the end of 2010, and that the African Union Award Program and African Scientist Award were successfully launched. He expected that Connect Africa would have its contract signed by year end, with implementation starting soon afterwards. The African Internet Exchange system was also on track. Finally, he mentioned that under the Space Track, that consultations with Member States on the GMS-Global Monetary Security System and Africa Action Plan would soon start.

Antti Peltomäki followed Dr Hamdy and focused on the Information Society part of the 8th Partnership. He noted that substantial progress has been made on implementing regional projects in direct support of the African Union frameworks, including Africa Connect, and funding instruments for financing these projects have been identified (including the EDF, the European Development Fund Programs, as well as the bi-lateral EU-African National and regional programs for ICT development). He noted that the JEG8 plenary meeting that took place the previous day was launching a request for new ideas to be presented..

Sharing an European Member State Perspective

After thanking both Dr Hamdy and Mr Peltomäki, Paul Cunningham widened the discussion to include perspectives from the African and European Co-Chairs of the JEG8. Mohamed Ben Amor noted that the JEG8 meetings had provided an opportunity for all stakeholders to be informed about implemented projects and propose new projects for the period 2011 – 2013. Prof Jean-Francois Giarrard noted the steady increase of participation by up to half of all European Member States and considered it an important indicator of engagement in the process.

Paul Cunningham then asked Ilari Lindy to contribute the perspective of the Ministry of Foreign Affairs of Finland, as Finland is Co-Chair of the Information Society track within the European implementation team. Ilari noted the importance of finalizing the stock taking exercise of bi-lateral and multi-lateral partnerships, stakeholders and projects in which Europe and Africa cooperate to showcase the opportunity for broad based partnerships (including private sector involvement) in the context of the next Action Plan. Ilari also noted the importance of addressing the cross-cutting possibilities that the Eight Partnership has, such as climate change and energy or food security. He emphasized the importance of achieving results when investing resources in fields including Information Society, Science and Space, in particular fostering development and cooperation.

Paul Cunningham noted the importance of better coordination and situational awareness when it comes to otherwise excellent projects funded by Member States, which are later found to have significant overlaps with existing or recently completed projects funded by other countries. An ongoing stock taking exercise of all projects in the Information Society space for example could address this risk. He then called on Dr Phil Mjwara for his comments.

Dr Mjwara commended progress to date and the role of the European Commission and African Commission in developing a top-down approach. However, he emphasized the importance of engagement by Member States in the activities of the JEG8.

Paul Cunningham then asked Dr Harold Wesso for his comments. Dr Wesso noted the challenge of implementations being carried out in isolation and the continued focus of the Department of Communications on greater educational coordination across infrastructure and service delivery. He noted the important role his department has to play in influencing policy in delivering the role of gender in South Africa and also the engagements with countries in Southern Africa. He also noted the importance of emphasizing the social appropriateness of technology for local benefit.

Paul Cunningham then called on Prof. John Wood to share an European Research Area (ERA) perspective. Prof Wood explained that the European Research Area Board is not a Member State and is an independent advisory board to the Commission on what Europe can do in the future in terms of the global environment and the grand challenges being addressed. Of seventy-six recommendations to the European Commission, about a third are vital in an African context. There is also a lot of relevance of Commission supported preliminary or preparatory phases of global infrastructures outlined in the European Strategy For Research Infrastructures Road Map, one of which is the Square Kilometer Array, which is of considerable interest to South Africa. A manual on how large scale research infrastructures can be put together has been produced. Prof Wood noted that many European projects are virtual, including health, language provision and bio-diversity, and that cascading lessons learnt to other parts of the world is a critical issue being considered.

Paul Cunningham noted the importance of coordination with existing Action Plans in Africa and called on Prof Sherbini to discuss this issue, in the context of the AMCOST Consolidation Plan of Action which focuses on Science and Technology. Prof Sherbini noted the critical work done by Africa in formulating the Action Plans of CPA and ARAPKE in providing a foundation for partnership with key stakeholders including the EU. While noting complimentarity between CPA and ARAPKE, prof Sherbini accepted that much effort remains to leverage this opportunity.

Paul Cunningham called on participants to read the AMCOST Consolidated Plan of Action as important background context and called on Dr Hamdy to share the view of the AUC on expected progress supporting the outcomes of the AUC Summit on ICT for African Development in November. Dr Hamdy noted that focusing two summits (2007 and 2010) on science and ICT reflects the important Africa places on ICT and science as key enablers of socio-economic impact. The ambition for 2011 is that the two Commissions need to work together to further elevate the position of this partnership to the ambition of the people we are serving now.

Prof Sherbini noted the current consultation process on GMS, and Dr Mjwara followed with an example of a Space project setting up a Geo station and a research satellite to map the whole of Africa for land use. He also mentioned that the long term data called Sentinel Euro has now been released and is available for application (in regard to climate change variability) across Africa.

Dr Wesso focused on education, training and skills development and mentioned the National eSkills Plan of Action in terms of addressing the lack of appropriate skills in different sectors and the planned international eSkills Summit from the 26-28 of July to complete the consultation process, with the goal of delivering a framework for an Action Plan to be executed as soon as possible.

Paul Cunningham then asked the panelists to identify the most urgent, critical issues to be addressed to successfully implement the 8th Strategic Partnership and additional funding possibilities from European and African Member States to complement those already provided from European Development Funds toward the Lighthouse Projects.

Dr Hamdy acknowledged that the 8th Strategic Partnership is the most successful of all the Strategic Partnerships since 2007. However, he noted the importance of even greater commitment from Member States because of its effect on the financial support received. He acknowledged a number of Member States who have championed progress, including Egypt and the Research Grant, South Africa and Small and Medium Sized Enterprises, the Republic of Guinea investing €3.6 million in the African observatory for science and innovation, and the commitment of Finland to the leadership program on ICT. Dr Hamdy stressed the critical importance of engagement by Member States and the need to identify financial mechanisms to ensure the sustainability of this partnership.

Antti Peltomäki responded by acknowledging the current patch work of different financial sources including EU-Africa infrastructure Trust Fund, European Development Fund, ACP program and FP 7 program and the need to make the best out of all of these different financial instruments.

Prof Girard also acknowledged the importance of financial support, including operations of the JEG8 and support for travel and the need to consider bi-lateral, tri-lateral or limited multi-lateral approaches. He also raised the issue of project funding beyond financing like €63million from the European Commission.

Prof Wood said that from a European Research Area perspective, the Council have been calling for more risk taking in the European Investing Fund and European Investment bank, with a recommendation that at least 30% European projects should fail in their objectives. His argument was that if they are not failing they are probably too safe and thus not meeting their objectives.

Prof Sherbini followed up on Prof Girard's point related to different funding approaches. He announced the launch of bi-lateral programmes with France, Germany and Italy for example, with typical budgets of €300,000 to augment joint activities. He also mentioned the advantage of linking the 8th Strategic Partnership with the Infrastructural Partnership.

Dr Mjwara followed by commenting on the importance of Member States coming to the party, especially considering the enormous size of Africa, encompassing all of China, United States, European Union and Alaska. He also emphasized regional and national differences across Africa, and the need for countries to collaborate with other countries when it comes to financing.

Paul Cunningham noted that while he was sympathetic to challenges in terms of financing for people to participate at events and communities such as IST-Africa and obviously the JEG8, it is necessary for people to decide what their priorities are. If they can only contribute a little, then they should contribute a little; if they have a lot perhaps they could consider doing more.

The next issue to be addressed by the panel was to identify priorities. Obviously regulatory issues have to be resolved to facilitate wider regional integration and a great deal of progress has been made in West Africa, for example in the attempts to reach harmonized regional regulatory team for ICT transposed into national law. There is a lot to be learnt from creating a regional market for telecoms and for private investment. But how do we link national and regional solar sector, talking about ICT plans to achieve wider regional integration and above all sustaining socio-economic growth by raising people centered-modern, knowledge driven information society.

Dr Wesso agreed that there are many potential focus areas, but targeted making progress on the eSkills Plan of Action and exploring collaboration opportunities with government, industry, research and civil society. Prof Sherbini identified the most important challenge as backbone connectivity within Africa, and the effort involved in leveraging Connect Africa. The next challenge is identifying suitable applications to leverage this like the SKA program and like the high computing and science and technology programs being run in Egypt.

Mohamed Ben Amor agreed in the importance of leveraging broadband extended to rural communities for a variety of services including Technology Enhanced Learning and other capacity building programs, and the critical need for community engagement to ensure successful impact. However, Men Amor also made the point that while deployment of these networks were initially driven by economic forces, they can be used for the development of capacities through public private partnerships.

Paul Cunningham agreed that for geographic reasons, rural community engagement is absolutely critical for Africa, and it was essential to leverage ICTs in Africa to create employment.

Ilari Lindy suggested that regional integration and regional cooperation is essential, such as enjoyed in Europe on different levels- regional, national and sub-regional levels. Progress is being made in the area of regulations and business environment liberalization, which allows the applications to run on the infrastructure. He mentioned the importance of coordinating national and regional ICT plans and focusing on facilitating corporation and learning. The European Union has already tested and trialed mechanisms and instruments of internet programs which could be adapted for Africa circumstances. Africa participation in FP7 is now greater than any other continent.

Paul Cunningham noted that based on the experience of the IST-Africa Initiative, that while there are regional communities with similar issues, there are often issues with distinctive differences from one country to another. It is also important to recognize that the RECs need support in developing their capacity to support their Member States.

Johan Kruger discussed lessons learnt from his considerable experience within Vodafone, where he has lead about twenty technology trials over the last twenty years in areas ranging from agriculture, education, health, finance and financial services, etc. He noted a common challenge of failing in many cases to scale these activities to find the right commercial model to achieve sustainability, sometimes by focusing too much on the pilots rather than the long term vision. He presented the background to one success story around a mobile payment facility in Kenya, Tanzania and South Africa that after five years is breaking even and now has twelve million customers. As a result, Vodafone is now much more open to looking at longer term revenue opportunities, and he is currently exploring such opportunities on the health side leveraging public private partnership. He saw a great win-win opportunity by striking a balance between understanding funding as a catalyst for societal development and business having a big role in making that happen.

Paul Cunningham thanked Johan, noting the importance of business collaboratin with government and civil society to achieve socio-economic development. One of the challenges is necessary in-house expertise (whether technical, legal, economic, social or political) in many governments and Regional Economic Communities (RECs), who in many cases are under resourced. One key question Paul posed to the panel was how to retain qualified ICT specialists, when sometimes the salaries that are available outside the government are much more attractive perhaps than within the government.

Prof Sherbini started by taking about a program with the Ministry of Communication, Information and Technology for sustainable development and youth outreach, which has been very successful. The goal is to expand it to a regional level through the JEG8 Partnership. He also discussed a program called "The Science Book" to develop the culture of science in Egypt, which aims to help retain scientists in the ICT sector. Prof Sherbini also encouraged other African Member States to to treat ICT as the backbone of developments for all of the sub-sectors of science and technology.

Dr Wesso talked about skilling people appropriately and taking a holistic view that also considers organizational users of ICT. He felt the goal should be to skill sociably appropriate ICTs so that all parts of society benefit. He suggested that a key opportunity was to leverage international expertise and best practices without reinventing the wheel.

Prof Woods talked about a number of projects including "LifeWatch" - bio-diversity project that leveraged CERN resources to address ICT issues that enabled local people who are not computer scientists. He acknowledged that not being able to retain trained staff is a difficult challenge.

Johan Kruger noted that ICT human capital issues affect business as well as government, and that Vodafone employ much more Africans in Europe than Europeans in Africa. He pointed out the importance from a business perspective, that government understand the language of business. He felt that man businesses were open to secondment programs where people can move into business from government and vice versa and also saw value in joint training programs.

Paul Cunningham suggested viewing the situation as a virtual circle; giving the examples of friends from Mauritius and Namibia who are now leaving the private sector to leverage their skills back in government. Sometimes it is a question of the appropriate people at the appropriate time in the life cycle, with both business and government in developing environments needing to take a long time view. Paul then moved the discussion on to coordination of 8th Strategic Partnership activities with the EU-Africa partnership on infrastructures that supports rolling out of the physio-infrastructures, in particular in coordination of efforts by governments and the private sector, invited Antti to share his thoughts.

Antti Peltomäki agreed with Minister El Sherbini that the 8th Strategic Partnership should be seen as complementing the investments made through the departments of infrastructure and private sector investment of $60 billion in an African ICT sector since 2000. He reminded participants about the importants of the HISSPA progam which aims to develop harmonized regional ICT markets to achieve substantial economies of scale. These issues were already discussed during the JEG8 meeting as well as the EU-Africa business forum. Antti sees these stakeholders as really committed.

Dr Hamdy agreed with Antti and also noted the importance of private sector participation as well as civil society to ensure necessary potential and human capacities and financial resources are available.

Dr Mjwara returned to his example of the partnership around global monetary Environment and security and to say that especially the African dimension of the GMS Africa. He remembered previous IST-Africa exhibitions

where there were a range of private sector GIS information service providers. He saw an opportunity for collaboration with government to exploit national ground stations for receiving satellite data and strengthen physical infrastructure. He also raised the issue of governance, where when GMS data is collected, data storage and distribution is a requirement. Phil mentioned opportunities in South Africa to develop something called "The Risk and the Vulnerability Atlas" which basically can indicate potentially vulnerable areas in South Africa based on available data around climate change, thus reducing commercial and other risks.

Ilari Lindy noted the mutual benefits of leveraging the infrastructure partnership with the 8th Strategic Partnership, which essentially enables applications to exploit the infrastructure being put in place, whether in the areas of Science, Information Society or Space. However, the development of policies that facilitate the development of a culture of cooperation, instruments, strategies, and mechanisms for cooperation would be beneficial to supporting this partnership. Ilari mentioned the piloting of M-learning applications from Finland in South Africa. He concluded by indicating his belief that by linking these global digital infrastructures and road maps of the players, its also another opportunity for both Europeans and Africans to start working on the mutual beneficial level and creating these win-win opportunities, which is exactly what the 8th Strategic Partnership is about.

Prof Girard explained the need for a tight relationship between higher education and research and agreed with the need for coordination with infrastructure for ICT.

Paul Cunningham then moved the discussion to some of the more concrete developments, like Africa Connect, the progress of developing the African EnRENs, the national, regional research and education networks and their interconnection to Geant.

Antti Peltomäki reminded participants about the level of interest in the Dante presentation during the JEG8 plenary meeting the previous day, and the importance to Africa of an infrastructure joint network connecting to the scientific and navigation communities worldwide. Antti suggested that Africa Connect has been a breakthrough for the African scientific community through a regional approach by providing dedicated broadband capacity at the affordable conditions, with an initial €15 million available for Phase 1.

Dr Hamdy added that the African Union Commission is involving Dante in an African steering committee as well as the African Association for Universities.

Dr Mjwara added that South Africa has recently completed the first phase of its National Research Network (NRen), which it would like to make available to Africa Connect because it already connects a number of universities and research institutions in South Africa. He also proposed starting discussions with other African countries in the context of the discussion about the Square Kilometer Array as some stations would be located in other countries in Africa.

Prof Wood focused on two groups which produced road maps; one was for the infrastructure and one was for the eInfrastructure, EERIG. The challenge was that Member States would not sign up and individual member states starting putting together their own road maps and priorities. He suggested that the AUC consider developing its own first. In Europe, the European Grid Initiative and European data initiative has started and might provide some ideas for the future in Africa.

Paul Cunningham thanked John and then asked the panel to move on to discussing ideas for launching new joint projects as part of the Information Society track within the JEG8 Partnership, starting with Antti Peltomäki.

Antti suggested there was no need for new capacity building initiatives because of the participation of EU and AUC Member States and private sector representatives showcasing current activities and presenting new ideas. He suggested clustering these meaningful priorities for the future within established frameworks such as ARAPKE which provides guidance and direction. However, he noted the importance of encouraging everyone to be ambitious and risk taking was required to make progress.

Dr Hamdy referred to the JEG8 meeting that took place in Cairo as part of the AMCOST meeting, that the book of Lighthouse Project is a living organ and AMCOST decided that additional Member States could be encouraged to propose priority projects to be presented to the conference or ministers of science and technology as a priority for Africa to be included as part of the book of the Lighthouse projects. For the Information Society, there was a similar exercise with the CIT (Communication Information Technology Ministry Conference). The African Union Commission has received two projects- one under the Information Society (Youth Empowerment for Innovation and Entrepreneurship) and the other under the NaviSat, a project developed by the Egyptian Aviation Authority with the support of the Ministry of the Science and Technology and others to support aviation in Africa. Other projects were also welcomed, with the expected launch of the AMCOST bureau and CIT bureau to identify further projects for the second phase of the 8th Strategic Partnership.

Dr Mjwara offered two suggestions - one leveraging telescope and optical telescope assets in Namibia and South Africa respectively, allowing Europeans to do experiments while waiting for the radio telescope, the other related to climate change, exploring the implications of the Agulhas-Somali current on the eastern coast in particular. The SKA currently has about 50 ICT professionals from across Africa that participate in these projects. Such projects offer win-win opportunities.

Dr Wesso focused on how to leverage the new cable infrastructure that is coming onstream and what content and services will be delivered and who will benefit. He suggested the need to establish Plans of Action to enhance eSkills across the board.

Johan Kruger focused on ICT for health, and mentioned trials with with local partners of new services in countries such as Egypt, Tanzania and South Africa. He suggested that Vodafone was in a position to produce a service network that could create a nice ICT infrastructure for healthcare and have a concrete impact. He was interested in discussing this further for inclusion in top priorities.

Prof Wood focused on sharing best practices and establishing partnerships and clusters between Europe and Africa. While acknowledging that clustering may be controversial, he stated that spreading resources evenly is not realistic, especially in relation to establishing and resourcing top universities. This has proven to be the case in Europe. He suggested that clustering and linking institutions was important. He also emphasized the importance of taking risks with young people, through fellowships to recent PhD graduates for example. Prof Wood stated the importance of establishing governance and legal models for research infrastructure, especially those in virtual research infrastructures and suggested looking at CERN as one model, based on international intergovernmental treaty. Alternatives include companies limited by guarantee. He also thought that training individuals in virtual research environment is critical.

Paul Cunningham noted from his own experience of working in Africa for almost ten years challenges along the way, in terms of culture for example. Paul asked the panel to briefly comment on the need of human and social sciences research to help the excitability of new technologies, particularly in relation to the youth and rural communities.

Dr Mjwara, noted the amazing uptake of cell phones in South Africa and how quickly people saw the potential benefits without the need for significant studies.

Prof Girard spoke about the importance of separating scientific debate from social debate, and the importance of science academies as places for scientific debates, scientific controversies.

Prof Sherbini spoke about how quickly children adopt technology today and noted the emphasis in Egypt on social and economical studies that are related to the acceptance of the technology in society. He emphasized the importance of putting content on the ICT infrastructure already in place and to engage not only in science and technology with CERN in Switzerland and SESAME in Jordan. In relation to eHealth, he stated the importance of being innovative and use ICT to solve problems, particularly in remote areas.

Paul Cunningham in wrapping up the panel, thanked Phil, Antti, Minister Sherbini, Ahmed, Harold, Jean Francois, Mohammed, Ilari, Johan and John for a very rich discussion, and handed the floor back to Dr Phil Mjwara of the Department of Science and Technology.

Dr Mjwara noted the significant amount of progress being made in the 8th Strategic Partnership while acknowledging the challenges already discussed, the role that member states need to play and financing. He stated that IST-Africa provides a platform to prepare these issues, to tease out the complexities, and hopefully as we leave here later in the week, all of the challenges that have been identified in the panel here will hopefully have been addressed by the delegates. The session closed.

Exhibition

IST-Africa 2010 Exhibition showcases applied ICT research results and applications through technology demonstrations and posters, whether funded commercially, or at a national, regional or European level.

Demonstration Stands

Stand Name	Organisation	Country
IST-Africa Initiative	IST-Africa Consortium	14 African Member States
Africa4All Parliamentary Initiative	Africa4All Consortium	5 African Member States
Department of Science and Technology	Department of Science and Technology	South Africa
SAFIPA Programme	SAFIPA Programme	South Africa
African Union Commsision	African Union Commission	Ethiopia
Technology Innovation Agency	Technology Innovation Agency	South Africa
Department of Communications	Department of Communications	South Africa
Pearson VUE	Pearson VUE	United Kingdom
Contrapunctus Project	Università degli Studi di Milano	Italy
4th Way for your Spatial Information	Ceske centrum pro vedu a spolecnost	Czech Republic
Rhodes University	Rhodes University	South Africa
Fore Hare University	Fore Hare University	South Africa
Centre for Quantum Technology	University of KwaZulu-Natal	South Africa
CSIR/Meraka Institute - Mobile Services	Meraka Institute	South Africa
Medical Research Council	Medical Research Council	South Africa
Durban University of Technology	Durban University of Technology	South Africa
University of Johannesburg	University of Johannesburg	South Africa
Central University of Technology	Central University of Technology, Free State	South Africa
University of Cape Town	University of Cape Town	South Africa
SmartXchange	SmartXchange Durban	South Africa
xCalibre	xCalibre	South Africa
African Journals OnLine (AJOL)	African Journals OnLine (AJOL)	South Africa
ITOCA - Information Training & Outreach Centre for Africa	ITOCA	South Africa
Allos Consulting (Pty) Ltd	Allos Consulting (Pty) Ltd	South Africa

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