IST-Africa 2009
Conference Report

Uganda, 6 - 8 May 2009

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Introduction

- **IST-Africa 2009** Conference & Exhibition took place 06 - 08 May 2009 in Kampala, Uganda. Part of the **IST-Africa Initiative**, which is supported by the European Commission under the ICT Theme of Framework Programme 7 (FP7), **IST-Africa 2009** was the fourth 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 Uganda through the Ministry of Information and Communications Technology (ICT) and Technically Co-Sponsored by IEEE, **IST-Africa 2009** 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, Open Source Software, ICT for Inclusion, eInfrastructures, ICT for Environmental Risk Management, ICT for Networked Enterprise and eGovernment and eDemocracy. **IST-Africa 2009** provided a collegiate setting for presentations and discussions of national & regional developments, issues of concern & good practice models, and networking with peers. **IST-Africa 2009** 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 participated in 38 thematically focused parallel sessions.

In the context of focusing on the Role of ICT for Africa's Development, the Opening Plenary on Wednesday 06 May featured a high level dialogue on Implementation of the Africa-EU Partnership on Science, Information Society and Space. The Closing Plenary on Friday 08 May focused on Initiatives Supporting Development of Regional S&T.

IST-Africa Community

IST-Africa 2009 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 2009 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 funcational 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 (Digital World Forum (FP7), IST-Africa (FP7), BEANISH (FP6), ESASTAP (FP7), INCONTACT (FP7), ST-EAP (FP6), PEPPOL (FP7 CIP), STORK (FP7 CIP), C@R (FP6), NeT-ADDeD (FP6), IRMA (Integrated Risk Management for Africa) FP7, Epilepsiae (FP7), REMINE (FP7), CONFIDENCE (FP7), EPIKH (FP7), BELIEF II (FP7), PLANETS (FP6), EELA-2, Black Sea Connection, DRIVER (FP7), ICTforALL (FP6), eSangathan (FP6) and FEAST Feasibility Study).

Plenary Session Speakers

Hon. Aggrey Awori
Minister of ICT, Uganda

Lenka Ptáčková Melicharová
Deputy Minister of Interior, Czech Republic

Dr Sally Kosgey
Minister for Higher Education, Science & Technology, Kenya

Hon. Alintuma Nsambu
Minister of State Ministry of ICT Uganda

Vera Brenda Ngosi
Director, HRST African Union Commission

Antti Peltomäki
DG Information Society & Media, European Commission

Aida Opoku-Mensah
Director, UNECA

Keynote Speakers confirmed as at 23 April 2009 included:

- **His Excellency Yoweri Kaguta Museveni,** President of the Republic of Uganda
- **Honourable Aggrey Awori,** Minister of Information and Communications Technology, Uganda
- **Mrs. Lenka Ptáčková Melicharová,** Deputy Minister of Interior (EU Affairs), Czech Republic (EU Presidency)
- **Honourable Dr. Sally Kosgey,** Minister for Higher Education, Science and Technology, Kenya (AMCOST Chair)
- **Honourable Dr. Ir Saidi Kibeya**, Minister of Higher Education and Scientific Research, Burundi
- **Honourable Prof. Peter Msolla,** Minister of Communications, Science and Technology, Tanzania
- **Honourable J.C. Alintuma Nsambu,** Minister of State, Ministry of ICT, Uganda
- **Honourable Pelonomi Venson-Moitoi,** Minister for Communications, Science and Technology, Botswana
- **Mrs. Vera Brenda Ngosi,** Director, HRST, African Union Commission, Ethiopia
- **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
- **Ms. Aida Opoku-Mensah,** Director, United Nations Economic Commission for Africa
- **Dr. Ham-Mukasa Mulira**, Senior Presidential Adviser on Information and Communications Technology, Uganda
- **Ambassador Vincent De Visscher**, Head of the European Commission's Delegation, Uganda
- **Dr. Philippe Mawoko,** Programme Coordinator, ASTII Initiative, NEPAD S&T
- **Mr. Hans Piet,** Ericsson Uganda
- **Mr. Francis Egbuson,** Uganda Telecom Ltd
- **Mr. Stijn van der Krogt,** Director Country Programmes, IICD, Netherlands
- **Mr. Ilari Lindy,** Advisor, Information Society for Development, Ministry for Foreign Affairs of Finland
- **Mr. Thierry Devars,** DG Information Society and Media, European Commission, Belgium
- **Ms. Karoline Beronius,** SPIDER- The Swedish Program for ICT in Developing Regions, Sweden

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 2009** International Programme Committee includes

- **Paul Cunningham,** IIMC, Ireland (Conference Chair)
- **Prof. Jørn Braa,** Oslo University Norway
- **Laurens Cloete,** Meraka Institute, 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
- **Ilari Lindy,** Ministry for Foreign Affairs, Finland
- **Gareth MacNaughton,** Lane & Hapiak Consulting, UK
- **Prof. Sunil Maharaj,** University of Pretoria, South Africa
- **Prof. Maurice Mars,** University of KwaZulu-Natal, South Africa
- **Namugenyi Loi Mirembe,** Uganda National Council for Science & Technology, Uganda
- **Mícheál Ó Foghlú,** TSSG, WIT, Ireland
- **Dr. 'Dele Oluwade,** Federal University of Technology, Nigeria
- **Maggy Pézeril,** Pôle Universitaire Européen, France
- **Bernard Stevenot,** SpaceBel, Belgium
- **Richard Stevens,** European Genetics Foundation, Italy
- **Prof. Erkki Sutinen,** University of Joensuu, Finland
- **Prof. Wallace Taylor,** TISI, South Africa
- **Daan du Toit,** Senior S&T Representative in Europe, Department of Science & Technology, South Africa
- **Maseqobela Williams,** Ministry of Communications, Science & Technology, Lesotho
- **Prof Frank Wang,** Cranfield University, United Kingdom
- **Dr. Harold Wesso,** eSkills Institute, South Africa

Organising Committee

- **Miriam Cunningham,** IIMC, Ireland
- **Paul Cunningham,** IIMC, Ireland
- **Maxwell Otim,** Uganda National Council of Science and Technology
- **Gloria Katuuku,** Ministry of Information and Communications Technology (ICT), Uganda
- **Simon Onyango,** Ministry of Information and Communications Technology (ICT), Uganda

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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 and African Union Commission to provide an overall political context for the **IST-Africa 2009** Conference & Exhibition. Presentations were delivered by the Honourable Aggrey Awori, Minister of Information and Communications Technology (ICT), Uganda on behalf of His Excellency Yoweri Kaguta Museveni, President of the Republic of Uganda, Uganda; Jimmy Saamanya, Permanent Secretary, Ministry of ICT, Uganda, on behalf of the Honourable Aggrey Awori, Minister of Information and Communications Technology (ICT), Uganda; Ondrej Veselsky, Director, Ministry of Interior, Czech Republic on behalf of Lenka Ptáčková Melicharová, Deputy Ministry of Interior (EU Affairs), Czech Republic; Ambassador Vincent De Visscher, Head of the European Commission's Delegation, Uganda, on behalf of Commissioner Michel, DG Development; Antti Peltomäki, Deputy Director-General, DG Information Society and Media, European Commission, Belgium; Vera Brenda Ngosi, Director, HRST, African Union Commission, Ethiopia and Prof. Crispus Kiamba, Permanent Secretary, Ministry for Higher Education, Science and Technology, Kenya on behalf of the AMCOST Chair, Honourable Sally Kosgey, Minister for Higher Education, Science and Technology, Kenya.

This was then complemented by a High-level Round Table on the Implementation of the Africa-EU Partnership on Science, Information Society and Space, with representation from the African Union Commission, European Commission, Ministry of Information and Communications Technology, Uganda, Senior Presidential Adviser on ICT, Uganda, Ministry of Higher Education and Scientific Research, Burundi, Ministry of Higher Education, Science and Technology, Kenya, Department of Science and Technology, South Africa, Ministry of the Interior, Czech Republic, Ministry of Foreign Affairs, Finland, Ericsson Uganda and Uganda Telecom

The Master of Ceremonies, Paul Cunningham, acknowledged the participation of the Diplomatic Corps at the Opening Plenary, and in particular Ambassador Vincent De Visscher, Head of Delegation of the European Commission to the Government of Uganda.

Before the presentations commenced the Makarere University Choir sang the National Anthem of the Republic of Uganda and the African Union Anthem.

High Level Political Presentations

Paul Cunningham then introduced the Honourable Aggrey Awori, Minister of Information and Communications Technology (ICT), Uganda to present the Official Welcome on behalf of His Excellency Yoweri Kaguta Museveni, President of the Republic of Uganda.

Opening Welcome from His Excellency Yoweri Kaguta Museveni, President of Uganda

His Excellency Yoweri Kaguta Museveni welcomed all the IST-Africa Conference participants, noting the unique opportunity to share experience, achievements and ideas between countries, governments and researchers. On behalf of the President, the Honourable Aggrey Awori highlighted the importance of the IST-Africa Conference Series as an international forum to promote African social and economical development with the help of technology in general and the ICT sector in particular. The President expressed his delight that the Conference was taking place in Uganda, and discussed the important impact of ICT on the country's national policy and economy, mentioning that the Ministry of ICT was established in 2006. The Ministry provided a good environment that enabled rapid growth by attracting investment to the ICT sector. Talking about the success in organisation of the conference, the President acknowledged amongst others, the contribution of the European Union, Ericsson, Spider, Uganda Communications Commision, Uganda Telecommunications Limited, Zain, and the Uganda National Council of Science and Technology. On behalf of the President, the Honourable Aggrey Awori thanked all organisations that provided financial support, stressing that it was a joint effort between the public and private sector. Finally, he thanked all guests of honour (including the Diplomatic Corps) for their participation in the Conference and said he was looking forward to fruitful deliberations.

Message from EU Presidency

Paul Cunningham invited Ondrej Veselsky, Director, Ministry of the Interior, Czech Republic to make a presentation on behalf of the EU Presidency. Mr. Veselsky thanked the conference organisers for inviting representatives of the Czech Republic, and apologised that Lenka Ptáčková Melicharová, Deputy Ministry of Interior (EU Affairs) was unable to attend. On behalf of the EU Presidency, the Czech Republic supports the efforts of IST-Africa to build cooperation between developed and developing countries, complementing The Digital Solidarity Fund established during the World Summit of the Information Society, and the goals of the EU-Africa Summit where the joint strategy of the EU-Africa Partnership was adopted.

Mr.Veselsky believes that every document or Summit related to Africa is useful as it draws attention to the enlarging gap between developed and developing countries. He highlighted the necessity of making changes in the way the funding is distributed to the African countries. He mentioned the €225 million fund provided by the EU to Zambia for projects stressing the necessity of preventing any fraud. Similar opportunities are open to

Ghana, Rwanda, Mozambique, Burkina-Faso, Mali and Uganda and help is important in both large and small volumes. It is critical that EU countries help Africa achieve wider broadband internet access, as currently only one in five inhabitants enjoy such access, with the total area covered not bigger than Uganda's territory. In the framework on its EU presidency the Czech Republic committed to play a leading role to support bridging the digital environment to Zambia, as a result of previous experience in Kenya and Uganda. It aims to organise basic computer skills training with the ITU, spreading computer literacy as a way of promoting better education for more African students. In conclusion, Mr. Veselsky wished the Conference community success in providing concrete assistance to African research and economic development.

Message from European Commissioner for Development

Paul Cunningham invited Ambassador Vincent De Visscher, Head of the European Commission's Delegation, Uganda to speak on behalf of the European Comissioner for Development. Ambassador Vincent De Visscher apologised that Commissioner Louis Michel was unable to personally attend the Conference. The Ambassador focused on the effects of the so-called "triple crisis" on Africa. First the impact of the financial crisis is based on high dependency of developed economies, increased uncertainty and lower investment. The World Bank estimated that capital flows to developing countries will fall from $1 trillion (2007) to $600 million (2009). Secondly, developing countries' economic growth is expected to fall from 7% - 9% (2007) to 2.2% (2009), with immediate social consequences for governments, as funding for social safety nets falls, while unemployment rises. Thirdly, increasing poverty and unrest can turn to power struggles and political instability.

According to the Ambassador, the EU has a responsibility of realising that "development is part of the global solution to the crisis" as claimed by the G8 in Washington. In the EU there are 8 measures: honour by Member States, leverage new resources, re-focus priorities, simplify procedures, front-load aids, sustaining economy and employment, and development aid supported by a dynamic private sector. ICT is a part of the private sector and plays a major role in Africa for both food and education. The African Monitoring programme is proving to be successful in reducing corruption as it prevents arbitrary decisions by a civil servant while dealing with applicants on a case-to-case basis. However, the Information Society is still more of a theory in many African countries, ensuring a requirement to build the capacity of ICT projects in Africa.

The Joint EU-Africa strategy, approved in 2007 in Lisbon, gave an opportunity to establish 8 partnerships ranging from Peace and Security to Millenium Development goals and Information Society, Science and Space. The ambition is to strengthen cooperation and build up knowledge, while solving existing problems. By its nature and the role of science this partnership comes to support with another 7 partnerships, including job creation on the African continent. The Information Society Partnership complements the infrastructure partnership, providing an answer to the African development action. Limited access to transport, telecommunication, energy hampers the growth of African economy, making trade and business uncompetitive. Regional integration aims at creating large markets to achieve economies of scale and attract inward investment to ensure growth. The following actions are being financed: regular "free" reform to create stable legal environment, broadband infrastructure (neutral pan-African broadband infrastructure), non-commercial electronic applications (e-learning, e-government, etc.).

In concluding, the Ambassador noted the importance of stimulating private sector development and participation. In cooperation with the African Union Commission, the European Commission helped launch the EU-Africa Business Forum to promote investment in Africa. Very soon the EU delegation will include 2 officials focused on capacity building of African ICT Development.

Position Statement from DG Information Society and Media, European Commission

Paul Cunningham then invited Antti Peltomäki, Deputy Director-General, DG Information Society and Media, European Commission, Belgium to speak. Mr. Peltomäki greeted the audience and expressed his pleasure to be at the IST-Africa Conference, the first event actively engaging with the African ICT research community. He stressed the importance of promoting cooperation between European and African ICT researchers through community building and knowledge sharing, and with a view to facilitate the inclusion of African organisations as partners in the European research framework.

He also suggested that IST-Africa must be seen in a broader context of the EU-African relations and the role of ICT in development through partnerships, including infrastructure and science and space. He noted that IST-Africa illustrates well how Africa and EU are translating the outcome of the Summit on Information Society that was celebrated in Switzerland and Tunisia a few years ago, with mobile usage increasing from 2% in 2000 to about 30% in 2009. New technologies are being introduced from wireless to fibre optics, opening opportunities for the African community to leap-frog into the Knowledge Economy, but gaps remain.

While progress in mobile telephony is clear, the growth of Internet penetration is unsatisfactory. Because of lack of infrastructure and computers, and due to high tariffs, Africa counts today only 2,5% of the Internet subscribers and less then 1% of broadband subscribers. However, mobile phones offer an opportunity to increase demand for broadband connectivity. Deployment of submarine fibre optic cables, particularly in East Africa is slower than expected.

Mr Peltomakki noted that governments have the prime responsibility to employ resources and policy to exploit the potential of the mobile technology and next generation networks. This requires ambitious policies and regulatory steps to sustain market development, extend access and lower tariffs. There is also a need for e-literacy programmes. The EU has a lot of experience to share in these areas. The 2 Partnerships to support such cooperation are the Partnership on Infrastructure and the Partnership on Science, Information Society and Space. A comprehensive institutional framework is in place with the goal of federating stakeholders to avoid fragmentation of initiatives and dilution of resources. In particular, the support will be given to cooperation at Pan-African level through PIDA (Programme of Infrastructure Development in Africa) and the African Region Action Plan for the Knowledge Economy (ARAPKE). Two pilot projects have already commenced, an initiative to support employment of local Internet exchange policy, and Africa Connect to support a regional resource and education network to integrate African scientists at a global level. Research cooperation should be aimed at innovative solutions adapted to African countries, key for both the environment and fast growing markets.

More projects involving Sub-Saharaan researchers were retained for funding under the first call of FP7-ICT than during the entire 5 years of the proceeding programme. While the level of participation is still modest, it shows that Africa is a continent of immense opportunities. It is clear that the development process will require the widest mobilisation of stakeholders and technology providers. In particular, it is essential that the development objectives are mapped with business ones, to ensure they can progress beyond the pilot stage. Mr. Peltomäki closed his presentation by expressed his hope that the IST-Africa 2009 Conference would pave the way to successful coordination.

Position Statement from African Union Commission

Vera Brenda Ngosi, Director, HRST, African Union Commission, stressed the importance of ICT as the tool of knowledge and information dissemination, education, and African capacity to carry out projects. ICT development on the continent is guided by the African Regional Action Plan on the Knowledge Economy (ARAPKE). Recognising that this new dynamic cross-cutting sector requires a dialogue at the highest governmental level, Ms. Ngosi announced that the African Union Assembly in January 2009 designated the January 2010 Summit on Information and Communication Technology in Africa: Challenges and Prospects for Development. The Summit will address the following issues: dynamic of growth, ICT infrastructure and development, African economics of the Internet, capacity building, and research and development.   The topics addressed by IST-Africa 2009 are entirely aligned with the January 2010 Summit.

In the context of the 8th Partnership on Science, Information Society and Space, the European Union and the African Union agreed on an Africa-EU action plan and joint strategy during the Summit in December 2007, therefore opening this new chapter. In the framework of the 8th Partnership, the two Commisions worked together towards implementation. As a result, a comprehensive book of 12 Science and 5 Information Society priority Lighthouse Projects was developed and widely disseminated to EU Member States.

Mrs Ngosi confimed that the Human Resource Science and Technology Department of the African Union Commission was committed to continue working with all stakeholders to ensure that the goals and objectives of the 8th Partnership are achieved. This was a critical area where public and private partnership can produce the results to benefit. In conclusion, Mrs Ngosi thanked the government and people of Uganda for hosting such an important event as IST-Africa 2009, as well as all participants for being present, finally wishing fruitful deliberations from the Conference.

Message from AMCOST Chair

Crispus Kiamba, Permanent Secretary, Ministry for Higher Education, Science and Technology, Kenya apologised on behalf of Honourable Sally Kosgey, Minister for Higher Education, Science and Technology, Kenya, not being able to attend the IST-Africa Conference. Prof. Kiamba thanked Paul Cunningham and the Government of Uganda for organising the conference in East Africa for the first time.

As Kenya is the current chair of the African Ministerial Conference of Science and Technology (AMCOST), Prof. Kiamba explained the genesis of the role of AMCOST in the Science and Technology arena in Africa, including a brief exposition of the Africa Science and Technology Consolidated Plan of Action. AMCOST is the high level policy and political forum for Ministers responsible for Science and Technology from all African Member States. AMCOST was established in November 2003 as a new partnership for Africa development to build a strong political constituency and leadership to promote the development, harnessing and application of science and technology, and, as a result, socio-economic transformation in Africa.

AMCOST holds ordinary meetings once every 2 years with extraordinary meetings being held when necessary. Its agreements and resolutions are forwarded through an Executive Committee of the AU to the Heads of States. The host of the ordinary Ministerial Conference, that is AMCOST, automatically becomes its chair. The first chair of AMCOST was South Africa (2003), the second Senegal (2005) and the third Kenya (2007). Prof. Kiamba explained that AMCOST functions through two subsidiary bodies, the first one being the AMCOST Bureau which comprises of 5 Ministers responsible for Science and Technology, one from each African Regional Economic Groupings, the second being the Steering Committee which comprises of 10 Permanent Secretaries or Director Generals, 2 from each regional African grouping. The Steering Committee is responsible for preparing the business of the Bureau, which, in turn implements it during 2 years between

the meetings. The Human Resources, Science and Technology Division of the African Union Commission serves as a Secretariat and executive body of AMCOST.

AMCOST adopted the Africa's Science and Technology Consolidated Plan of Action (CPA) in 2005, which articulates Africa's common objectives and commitment to collective actions to develop new Science and Technology (S&T) for socio-economic transformation of the continent free from poverty and well integrated into the global economy. The CPA is founded on 3 pillars:

1. Capacity building-creation, improvement and mobilisation of human skills, physical infrastructure, necessary policies used to solve specific African problems

2. Knowledge production-research that can be utilised in solving the African problems

3. Technological innovation-largely entails the generation of specific products, processes and services

AMCOST may co-opt with or invite to its meetings the representatives of other relevant organisations such as UNESCO. So, in 2008 the Bureau meeting resolved to co-opt UNESCO as the leader of the UN Cluster on S&T. This followed a resolution of the African state heads and governments during the January 2007 meeting, when UNESCO was called upon to assist in the African integration and development of Science and Technology. The CPA defines the roles and responsibilities of the key players: the African Union, the African Commission, NEPAD, the RECs (Regional Economic Communities), Member States, private sector, development partners and friends. The African Union Commission tends to focus on policy formulation process, while NEPAD coordinates on behalf on the African Union Commission. The Member States including the RECs are the major stakeholders and are championing the implementation of the CPA. The CPA is divided into a number of clusters, not exclusively to mention just 4 of them:

1. Biodiversity, biotechnology, and indigenuos knowledge

2. Water, energy and desertification

3. Material sciences, manufacturing, post-harvest technologies

4. Information and Communication Technologies, Space and Science

Prof. Kiamba underscored the urgency for cooperative work and collaboration across Africa. In this connection, AMCOST had identified the need to harmonise, consolidate and synergise science and technology projects in Africa. As a follow up, the Commission has established an African Cluster on Science and Technology, with the goal of coordinating the activities and implementation of the CPA, eliminating duplication and wasted resources, to improve transparency, accountability and effectiveness in aid to support Africa. As a part of the integration of the NEPAD programme into African Union structures and processes, AMCOST has directed that the work with the AUC Office of Human Resources, Science and Technology must work in a coordinative manner. Also, AMCOST had directed the consolidation of 2 science projects, one by UNESCO and another one by NEPAD, both dealing with policy reviews and indicators in Africa. This consolidation process is being managed by AMCOST and its proceeding quite well. Prof Kiamba also mentioned the EU-Africa Partnership on Science, Information Society and Space, the book of lighthouse projects, and the Africa-Japan Science and Technology Diplomacy Consultations that started in 2008 with a joint meeting of Ministers for Science and Technology. The second meeting is scheduled for November 2009. Prof. Kiamba concluded by reiterating the great opportunity but also the commitment and dedication required.

Welcome from Government of Uganda

Jimmy Saamanya, Permanent Secretary, Ministry of ICT, Uganda, introduced Honourable Aggrey Awori, Minister of ICT to deliver the keynote address from His Excellency Yoweri Kaguta Museveni, President of the Republic of Uganda. His Excellency welcomed all the guests and paid tribute to the IST-Africa 2009 Conference organisers, before going on to explain the importance the Government of Uganda places on the role of ICT for sustainable national socio-economic growth. Uganda has made rapid progress, attracting investors and enormous growth of telephone subscribers from 900,000 in 2003 to 9,000,000 by March 2009, reflecting telephone penetration of 27%. His Excellency also acknowledged the important economic contribution telecommunications companies are making through employment and tax revenue.

His Excellency explained how Uganda is implementing a national fibre optic backbone to cover the whole country and connect with neighbouring countries up to the East African coast with a view to reducing the cost of Internet services and promoting implementation of ICT operations. He noted that in Africa, a number of key factors play an important role in ICT development including income per capita, language differences, levels of education/literacy, restrictive regulatory frameworks, poverty, lack of infrastructure, rural concentration, and population density. There are trade offs for low income countries in terms of devoting scarce resources to ICT. Therefore, there is a need to identify relevant ICT technologies that would deliver the best value for money and a critical mass of ICT human capital is mandatory. The goal is to increase employment and the national tax base by attracting local and international business and improve service delivery to citizens. His Excellency concluding by stressing the importance of investment in research, such as through the Faculty of Computing

and Information Technology of Makarere University.

To conclude the first half of the Opening Plenary, the Conference Chair asked all participants to stand for the African Union Commission Anthem followed by the Anthem of the Republic of Uganda, performed by the choir of Makarere University.

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. Participants in the Round Table included Mrs. Vera Brenda Ngosi, Director, HRST, African Union Commission, Ethiopia; Mr. Antti Peltomäki, Deputy Director-General, DG Information Society and Media, European Commission; Mr. Jimmy Saamanya, Permanent Secretary, Ministry of ICT, Uganda; Dr. Ham-Mukasa Mulira, Senior Presidential Adviser on Information and Communications Technology (ICT), Uganda; Honourable Dr. Ir Saidi Kibeya, Minister of Higher Education and Scientific Research, Burundi; Mr. Crispus Kiamba, the Permanent Secretary for the Ministry of Higher Education and Science and Technology, Kenya; Mr. Mmboneni Muofhe, Chief Director, International Relations, Department of Science & Technology, South Africa; Mr. Ondrej Veselsky, representing The Ministry of Interior, Czech Republic and the EU Presidency; Mr. Ilari Lindy, Advisor, Information Society for Development, Ministry for Foreign Affairs of Finland; Mr. Hans Pitt, Ericsson, Uganda and Mr. Andrew Gudeo, Uganda Telecom.

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

To open the Round Table, the Conference Chair, Paul Cunningham asked Vera Ngosi to be followed by Antti Peltomäki to discuss progress made on implementation of the 8 priorities of the Africa-EU partnership on Science, Information Society and Space.

Mrs. Ngosi began by reminding the audience about 19 priorities areas (12 in Science, 5 in Information Society and 2 in Space) found in the Lighthouse book. She told the audience that during the college-to-college meeting last year 6 out of 12 priorities were identified as early deliverables which can be implemented, however, it was not reasonable to implement all priorities due to capacity constraints and financial difficulties. The 6 early deliverable priorities identified were selected for the short and medium term implementation. Under the Information Society priority, there are 2 projects: AfricaConnect and the Africa Internet Exchange System. The expected cost of these 2 projects is about €12 million. Another one is the Africa Compass Project. In March 2009 the African Union Commission conducted the capacity building workshops in the countries of West Africa. Currently the resources are being mobilised to conduct the workshops in the remaining African regions.

Antti Peltomäki followed Mrs Ngosi and focused on the importance of strategy and joint action plan, and quick implementation to be a great challenge, specifically "to implement something concrete very soon" in relation to the Lighthouse projects. He mentioned two particular important goals, deployment of two Information Society projects, AIES and Africa Connect, and the Pan-African trading programme targeting youth and electronic capacity building for policy makers and IT professionals.

Sharing an European Member State Perspective

After thanking both Mrs Ngosi and Mr Peltomäki, Paul Cunningham widened the discussion to share European and African Member States perspective, starting with Ondrej Veselsky of the Czech Republic, representing the EU Presidency.

Mr.Veselsky informed the audience that the EU Presidency is a 6 month programme in comparison to the European Commission mandate that lasts for 5 years. In this context, he explained that the Czech Presidency welcomes the elaboration of the book of 19 Lighthouse projects on the EU-Africa strategy, published under the Science, Information Security and Space joint expert group. As part of the EU Presidency, a meeting of 12 Ministers from Africa and the EU was held in Luxemburg in April. Talking about the global crisis, Mr. Veselsky highlighted that because of its global nature the crisis also had serious knock-on implications for Africa.

Before passing on to Ilari Lindy, Advisor, Information Society for Development, Ministry for Foreign Affairs of Finland for the Finnish perspective, the Conference Chair noted that one key issue that came up again and again at the CODIST meeting hosted by the UNECA the previous week was the issue of coordination and how to break down the barriers by having more commonality between national regulation.

Mr. Lindy thanked the Conference Organisers and the Government of Uganda for hosting IST-Africa 2009, highlighting his pleasure to participate as the Finnish government supported the process from the very beginning, starting with the first ICT-Africa conference. According to Mr. Lindy, it reflects the inclusive attitude that Finnish government has on this EU-African partnership and implementation. He recalled worked in South Africa establishing these partnerships in 2004, when there were no forums like IST-Africa and it was now possible to see the different ecoplayers, ecosystems both from Africa and the EU starting to communicate. Without integrating and community building initiatives such as IST-Africa, it would be much harder to proceed with the implementation of the Lighthouse projects and the whole strategy.

Mr Lindy noted that IST-Africa facilitates making broader multilateral as well as bilateral partnerships, which is required for successful ICT implementation across Africa. The Lighthouse projects currently being implemented allows both African and the EU States to get an idea of what is happening and learn from that. From the Member State point of view it also makes it possible to position future interventions in line with these priorities. Here, one intervention is not enough and the parties need to work together. Bringing together business, research and society to work together is a very important ecosystem in the implementation phase, made possible under the umbrella of these partnerships. It is seen as the largest added value that the process may have. It also allows talking to both European and African colleagues, to understand the needs

and possible interventions and what government representatives can put forward to connect these different ecosystems, eventually responsible for implementation and delivering the services. So, in all respects the philosophy and fundamental principles are right. African and European Member States are also looking at the issues from their own programming cycle, and this is a challenge even though there is such a thing as Lighthouses. But it takes time to move this direction, at least from the Finnish side. Finishing his speech, Mr. Lindy thanked and assured the audience that the Information Society strength can already be seen, as there are actions implemented into the frameworks of the Lighthouse projects.

Sharing an African Member State Perspective

Paul Cunningham informed the conference community that Finland is responsible for the Information Society in the European implementation team, and requested the Honourable Dr. Ir Saidi Kibeya, Minister of Higher Education and Scientific Research, Burundi to share an African Member State perspective.

Dr. Kibeya explained that Burundi is sharing its experience with the Eastern and Southern African states. Even though there are many projects, they are still evolving in non-coordinated aspects. This element is very important to cope with, because when there are national ICT strategies in the Member States that are not coordinated through exchange with other countries, countries can grow differently, causing gaps that can slow down the regional process of leveraging ICT. For example, the CPA stresses the importance of the RECs (Regional Economic Communities). But in terms of the EU-African Partnership, where is the role for these communities? There should be some institutional framework built to integrate the countries and encourage them to grow together and overcome the regional digital division. The sense is not to push bureaucracy but to seek a way to work as a group and bring those countries working on the national ICT plan to cooperate on a regional and/or subregional ICT plan. It is very important to bring the coherence and cooperation between project partners, such as the EU-Africa plan on the Information Society and the Japanese-African strategy. For the research and education institutional connection there is the UbuntuNet Alliance. It is essential that existent resources are used efficiently so that the countries would not develop the gaps, for example, the gaps in ICT development between the Eastern African and Central African-French speaking countries. The next stage of the European Union-Africa strategy is to see how to integrate capacity of sharing procedures to be complementary aspects between other projects.

Paul Cunningham expressed the belief that a lot of invaluable knowledge already exists in Africa subject to sharing it with neighbouring countries, and asked Crispus Kiamba to share the Kenyan perspective.

Prof. Kiamba noted the need for greater coordination, internal and external synergies between Africa and Europe, but that the jointly developed Lighthouse projects were the beginning of a very important consultative environment, for the joint task force, and the joint expat group. Europe has a much stronger coordinative environment. That is a challenge for Africa and certainly via AMCOST they are challenging the Member States to come together. With respect to Kenya, the projects are perceived to add value to what is already existing, which is extremely important. In the case of Africa Connect, the number of ICT national networks (in Kenya it is called KENED-Kenya education) is largely connecting the total research on education system as one network to exploit the use of huge bandwidth. The other example is the virtual campus which is very supportive of local existing networks, for example, the virtual university based in Kenya – a network with some challenges but it is under the lighthouse projects and, indeed, Africa-UNESCO collaboration, and is going to add value into already existing networks. There are a number of efforts taking place in Africa, for example the joint 4 countries (Kenya, South Africa, Nigeria and Algeria) project.

Paul Cunningham thanked Prof. Kiamba and invited Mr. Mmboneni Muofhe, Chief Director, International Relations, Department of Science & Technology, South Africa to share a South African perspective. Mr Muofhe first looked at the issue of the joint strategy implementation, stating that the level of ownership shared by the partners is quite high. Reflecting the EU Summit issue, establishment of science desks in the relevant economic regions will assist in driving implementation. When the partnership is set up at a high level and there are no supporting institutional arrangements at regional level, then it really is a challenge. In terms of South Africa, it just comes out of the adoption of the Science and Technology protocol which is central in implementation of the plan. Mr. Muofhe expressed his hope that the establishment of the scientific desks will lead to a much more coordinated work.

The other important point is to sustain implementation. To regain lost momentum and time is much more costly then to sustain it. One of the crucial ways to sustain it is to make sure that internal or partnership strategies have to stress the priority of Science and Technology. What Kenya has done is place Science and Technology in the centre of all sorts of partnerships. It is even

more important in terms of the work with the European Fund when it comes around to the development aid issue. Here, Science and Technology are also highlighted, because it is not possible to have it elsewhere and not in your national strategy. The final point, mentioned by Mr. Muofhe was the establishment of the National Research and Education Network which can facilitate implementation of this particular partnership on ICT. In the context of Africa Connect, the work goes on effectively in terms of the South African network on education and research, and Kenya is now linking all computer centres with centres for astronomy. The benefits of establishing the connection in research and education networking with the European colleagues are already clear. The hope is it will be the backbone not only for Kenya or Africa, but within the continent and for the partners from outside the continent. These and other infrastructure programmes, referring to the H.E.S.S. telescope in Namibia or South African largest telescope, are actually there for the continent and the rest of the world. The challenge is that a lot of Africans are not using these facilities, while the goal must be to use them effectively and efficiently.

Why an ICT Focus for January 2010 Summit?

Paul Cunningham invited Vera Ngosi to discuss the January 2010 Summit and explain why it is focused on ICT for African development.

Mrs. Ngosi said, that while several African countries had successfully articulated on the long-term policy and infrastructure, content and application strategy as an integral part of their national development, it must be underscored that implementation still remains a challenge. Considered efforts require the countries to build a knowledge-based economy. Among the objectives that the Summit aims to achieve are the following: to develop and foster a clear statement and take steps to establish foundations on Information Society without barriers for Africa, to contribute towards creation of an enabling environment in Africa by supporting the harmonised continental policy framework for the ICT sector. The only way to move on is to establish a common framework as it is not possible to do it alone. The Summit tends to encourage Member States to develop the progressive policies and e-strategies, to increase investment and rapid development of the ICT infrastructure. To address the current constraints to communication, it is not cost effective. To emphasise the need to overcome the digital divide within African Member States and accelerate the socio-economical development in Africa. Finally, Mrs. Ngosi highlighted the importance of ICT as a tool to the political and socio-economic integration of the continent, which may contribute to peace and security.

Paul Cunningham asked Mr. Jimmy Saamanya, the Permanent Secretary for the Ministry of ICT to briefly comment on the situation from a Ugandan perspective.

Mr. Saamanya emphasised that the Government of Uganda attaches the highest priority to the socio-economic development contribution of Science and Technology in general and ICT in particular. Uganda is a country where ICT gets a high level of political support. The policy environment (e.g. IT policy, telecom policy, regulatory framework) has been structured to the needs of ICT development and so called cyber laws are now in effect. The other big area is the infrastructure development, for example, putting the fibre optic network that will eventually cover the whole country, provide connection to neighbouring countries and tap into the East African submarine cables. Institutional human resource development is the backbone of development.

Additional ICT Funding from European and African Member States

Paul Cunningham turned to Vera Ngosi and Antti Peltomäki to share the African and European experience with the audience, and asking Ham-Mukasa Mulira to talk about the Ugandan perspective. Mr. Cunningham raised the issue of additional funding available from the European and African Member States.

Mrs. Ngosi described funding as "a critical issue" that requires mobilisation of more resources from both Africa and Europe. She shared with the delegates the news that the Equatorial Guinea has supported the book of the Lighthouse projects, and that the degree of commitment and ownership from the Member States was encouraging. For the Africa-EU Partnership on Science, Information Society and Space, European funding is available but there is still a gap that needs to be addressed.

Mr. Peltomäki welcomed the idea of additional funding, noting that the European Development Fund represents a lot of resources pulled together, but stated that there are still limits in what can be really devoted for priorities in the different parts for the ECP countries.   According to Mr. Peltomäki, the most important thing is how focused the interested parties are and there should be a special environment created to attract the private sector, and associated seed capital. The European side is trying to define the ways and means to coordinate with the Member States following the last meeting held on 24th March in Brussels. A gathering of several EU Member States was also organised on funding the ICT Development Programmes in Africa. As Ilari Lindy has already indicated, all parties share the view that it is critical to focus and look at what kind of impact they can have. The more Member States work together towards the same goals, the more they can achieve. There should be no so-called "closed projects" and additional funding is welcomed. Whenever there is a joint action plan the parties have to join the force with critical questions on projects defined.

Dr. Mulira welcomed the idea of additional funding and offered the Ugandian case as a successful model for multilateral funding. In terms of additional sources of funding, there is a Presidential Science Initiative in Uganda to support research. As many African countries are agro-based, a lot of funds are invested in

agricultural research. Dr. Mulira described a "banana fund" research project, where one lady came up with the idea of powderising bananas for long-term storage, and secured about 6 billion Ugandan Shillings, almost $3 million. In addition, there is the Uganda National Council of Science and Technology, which also receives the Millenium Fund initiative funding.

In Uganda the infrastructure has been developed as a national backbone but the next level is the e-applications that utilise this infrastructure. So, it would be good if this funding can assist in the utilisation especially for an effective government service delivery within the e-government and education, e-learning. The major issue in the education is not necessarily to produce funding or provide the hardware and facilities or, if we break up the costs into capital and recurrent costs, so that the recurrent costs funding should be always obtained locally. But in terms of e-learning there is a need for educational material that has to be distributed to the schools and educational institutions, also to support the new business sectors, for example, business outsourcing or other economic sectors that are technology based.

Paul Cunningham called on Ilari Lindy for a brief comment. Mr. Lindy said that Finland is not different from other European Member States in that it leverages the particular value it has to offer. For example, it has created policy guidelines which are followed in all activities inside development cooperation, in terms of what kind of bilateral or multilateral partnerships are put in place. The biggest challenges are to go beyond the bilateral level, because European-African partnerships require scale to work most effectively. It is important to consider the niche where the operation adds most value, identify those partners who think alike and collaborate, and then proceed on implementation. Operating in this way is not unusual for Finland, as it supports global and regional organisations. Looking at adding Finnish competencies, the important issues are those related to the enabling environment, capacity building, understanding how innovation policy can best be put into practise, and understanding the mechanisms, tools and trends for different stakeholders. This challenge presents itself in all Science and Technology Lighthouse projects not only in Information Technology, and requires a lot of thinking from all partners.

Prioritisation in a Context of Limited Human or Financial Resources

Paul Cunningham recalled the words of Dr. Ham-Mukasa Mulira that in the today's economic climate, where possible African Members States should consider demonstrating their commitment and vision by making national funding available for S&T research, as this would speak volumes to the international Funding Community. If there is a need to focus on one or two priorities for reasons of limited human or financial resources, what should they be? Obviously regulatory issues must be resolved to facilitate wider regional integration, as is happening in West Africa, where a regional regulatory frame for ICT is being harmonised and then transposed into international law, thus creating a regional market for private investment in telecoms. We need to consider how it is possible to link national and regional ICT plans to achieve wider regional integration and sustainable socio-economic growth by creating a knowledge driven society.

Paul Cunningham then invited to speak Honourable Dr. Ir Saidi Kibeya, Minister of Higher Education and Scientific Research, Burundi to share his perspective.

Honourable Dr. Kibeya pointed out the importance of political will in leveraging ICT. Because the Government of Burundi is aware of the role of ICT in achieving faster development, integration of the country and the tool against conflicts, having observed in the near past, the main question now is: even if the country has gone through the process of setting up the policy, how to install the equipment and infrastructure to raise domestic economy and international commerce? For example, a fibre optic backbone in Burundi will be of small scale, with Uganda and Rwanda already having implemented fibre optic national backbones. Utilising the capacity of the fibre optic backbone system is a key challenge, perhaps by exchanging information between schools, industries and rural areas and local governments to the central government. It is clear that a key economic advantage could be achieved by linking national backbones within East Africa, driven by current economic activity between neighbouring countries (e.g. between Burundi and Tanzania for example). It is clearly also important to invest in developing human capacity in leveraging ICT to increase activities at a domestic level. When the backbone is being utilised properly, the private sector will be encouraged to invest, and the Government will contribute to set up interconnection with surrounding countries like Rwanda and Uganda.

Paul Cunningham thanked Dr. Kibeya and called on Prof. Kiamba, who touched on the issue of employing local resources by the private sector, even though grateful for the resources that come from friends or partners. Prof. Kiamba gave as an example of real African driven innovation the underground C-cable. Initially driven by international organisations and South Africa, Prof. Kiamba described the implementation as being too slow, controversial and where some countries failed to perform. The outcome was the Kenyan Government facilitated the private sector to organise a consortium, which resulting in the second major project on the underground C-cable, led by the private sector and consortium. With three competing projects, this is positive in terms of achievement gained through competition.

Paul Cunningham asked Ilari Lindy to make a brief comment. Mr. Lindy noted that even 30-35 years ago Finland was a very rural country, as it has a large territory but a population of only 5.2 million people. The main industry was forestry and wood products, timber that was supplied through waterways to the other countries. Without efficient ICT this could not have been developed, so the then regulatory environment was changed to allow free open competition which facilitated the basic growth of Finland in this particular industry.

This environment was the backbone and platform for the further development for some other companies who leveraged the opportunities presented by this enabling environment. Mr. Lindy highlighted the critical importance of the private sector in this process. It is also necessary to look at how other policies interact, and how the regulatory environment is positioned in a bigger policy framework. Here, the work has to be done not only on the European side, but also on the African side, and how this partnership is achieved. In closing, Mr. Lindy pointed at the importance of the regulatory environment but stressed the need for collaboration on other aspects of this environment to facilitate partnership.

How to Train, Recruit and Retain Qualified ICT Specialists

Paul Cunningham noted the common recognition of industry as a key player, mentioning the point about public-private partnership raised by Ondrej Veselsky. This leads to the solutions and challenges posed by lack of necessary inhouse expertise in many African governments to address ICT related structural challenges that may be technical, economic, social or even cultural. Therefore, one of the most interesting questions is about how to recruit and above all to retain qualified ICT specialists.

Paul Cunningham first invited Dr. Ham-Mukasa Mulira to comment, who agreed with the point made by Ilari Lindy earlier that private sector involvement is critical.

With government and the private sector working together, there is great complementarity. Harmonisation of regulatory environments when different countries are involved is a critical issue, for example mobile networks that often spill across national borders. Taxation issues arise, for example if making a one network call from Kenya to Uganda, who will tax who? Talking about the inhouse skills, Dr. Mulira distinguished them at a different level as high level skills, middle level skills and low level skills. At the high end there are skills such as software engineers, system administrators and so on. For the government it is very difficult to retain this workforce considering the competitiveness of the private sector. Because ICT is still new and it is complex to get specialists, there are two solutions that may help:

1. To outsource the Government IT to the private sector.

2. To form a unified central body which concentrates all IT resources in one. To retain the skills, centralisation must be around the Government.

Paul Cunningham explained that in Europe there was a lot of experience of outsourcing Government IT to the private sector. He expressed his sympathy in relation to the conflict between private versus public sector pay, as inflated wages for the ICT sector is one thing that Africa would probably want to avoid.

Honourable Dr. Ir Saidi Kibeya, Minister of Higher Education and Scientific Research, Burundi raised the problem of the "brain drain", not only to European countries, but also between African countries and between the public and private sectors. He suggested considering harmonising salaries between the public and private sector as a mechanism to deal with this difficult issue. This would allow the ICT workforce to migrate without worrying about borders, between activities implemented across Africa. This might allow salaries to be increased sufficiently that human resources will not go to Europe or America, but rather stay in Africa.

Mmboneni Muofhe, Department of Science and Technology then talked about the relevance of ICT, and the importance in a context of looking for development funding to demonstrate how ICT can improve quality of life. As achievement of development goals is central for implementation, it will make a lot of sense when allocation of resources is made. This requires dedicated instruments to support implementation as well as active participation by member states, by giving them a sense of ownership. While retention is another great challenge, another is resolving the regulatory framework to encourage the African Diaspora to return home and make a contribution in their country. In a research conterxt, the issue of availability of infrastructure and facilities for research is crucial. The issue of where the global research infrastructure are located is also important to avoid accelerating the current brain drain But if opportunities and support arise for the whole African continent then it will become a magnet for experts from all over the world to come over and also make a contibution.

Public Private Partnerships (PPP) and the Role of the Private Sector

Paul Cunningham agreed that the more research infrastructure available in Africa, the better it is, and invited Ondrej Veselsky to talk about public-private partnerships. Mr. Veselsky pointed at the crucial role of the private sector and centralised outsourcing for public-private partnerships, including non-profit organisations. There is clearly also an important opportunity for multi-stakeholder partnerships.

Paul Cunningham acknowledged the general support of both industry and the public sector for the organisation of the IST-Africa Conference, and invited two major private sector sponsors (Ericsson Uganda & Uganda Telecom) to share their insights.

Mr. Hans Pitt from Ericsson Uganda announced Ericcson's commitment to Africa, developing specific solutions for Africa in different terms including competence development. He draws a line between education and ICT programmes, the costs of the latter are often too focused on the technical aspects. So, it would be useful for the governmental organisations and universities to address this question, and to work closer on the requirements of the private sector for ICT competence development. Many decisions are based on funding availability rather than needs.

Mr Andrew Gudeo from Uganda Telecom described his organisation as the provider of core resources of all telecom companies operating in Uganda. The company's activities are driven by a plan which is time bound and makes the company very efficient in the area of ICT. Mr Gudeo noted the important role that the private sector can play in working with the public sector to make things happen.

Coordination of 8th Partnership Activities

Paul Cunningham asked Mr. Antti Peltomäki to comment briefly on coordination of the 8th Partnership activities within the EU-Africa partnership and infrastructure.

Mr. Peltomäki explained that 8th Partnership plan was originally designed to complement the investment in transnational backbones, including partnerships on infrastructures. There are already results of this global investment in parallel with infrastructures and complementary capacities. This is a good example of how partnerships on infrastructure are fully operational, so providing an opportunity for public-private partnership. Funding was provided by the European Investment Bank and other National Development Banks. Now is the time to take the private sector on board, but involvement based on defined preconditions. This question is being discussed with the African Union Commission.

Paul Cunningham asked Dr. Ham-Mukasa Mulira to comment briefly. Dr. Mulira said that one of the issues that needs to be addressed is the use of regional bodies such as RECs. There is a need to go beyond an ICT desk in such institutions, towards the establishment of regional coordination mechanisms.

Mobile Infrastructure and Applications in Africa

Paul Cunningham asked Hans Pitt, Ericsson Uganda to explain the mobile infrastructure currently existing in Sub-Saharian Africa and to mention some of the applications that Ericsson has been directly involved in.

Mr. Pitt described mobile broadband as a tool to create many opportunities in Africa, both e-solutions and m-solutions (mobile solutions). Because the biggest challenge in Africa is the availability of computers and infrastructure, mobile technologies help by offering digital services and devices to 95% of the African population. According to recent research done in some rural African villages, only 3% have ever used a computer compared to 50% who have used a handset. Ericsson works with the Earth Institute from Columbia University on the Millenium Villages, which are rural and underdeveloped villages around the world. When they brought communication to these villages the first application introduced was mobile health, making it easier to deliver medical solutions or remote diagnosis. The next opportunity was in the area of information proficiency, e.g. public awareness of agricultural related risks or access to market information. Mobile transfers have proven to be very successful, and in this context the regulatory framework is very important because the next step is cross-border money transfer. There are many opportunities to be moved to the mobile environment. Ericsson has started regional development centres to look for specific solutions and services for Africa.

Paul Cunningham asked the audience to think about the focus on population coverage of mobile networks in Africa, giving Ireland as an example of the country where it is expensive to lay the fibre-optic cable in rural remote areas. This makes the emphasis from the commercial and societal point of view on high population rather than high physical coverage important. One way of incentivising industry taken by the Irish government was paying for fibre based metropolitan networks to be build throughout Ireland as a private contract. The the government gave special licenses to use these dark fibre-optic networks to operators who contracted to provide and broadband and internet services to everyone. That was the way government invested in infrastructure to incentivise industry to provide 100% population coverage. In return, the operators had to provide attractive prices for the consumer.

Paul Cunningham asked Andrew Gudeo to talk briefly about applications in an African context.

Mr.Gudeo explained that Uganda Telecom has a number of active projects in health, banking, security (e.g. someone dialling 999 - emergency and not able to speak can have their location tracked). In banking, you could go to the local shop and receive money without going to the bank. Currently there are enquiries from the Swedish organisation involved in meteorology to get information from very isolated locations. The biggest issue is building these networks to cover the entire country. Equipment is still expensive, so this is where government should come in. As a commercial company Uganda Telecom has to make the best return on resources deployed.

Recent Developments and Concluding Remarks

To close off the Roundtable, Paul Cunningham asked a number of participants to comment on recent concrete developments, such as Africa Connect, progress of the projects in research and education, and interconnection with the GEANT network.

Mr. Antti Peltomäki said that Africa Connect links many elements of the 8th Partnership with infrastructure, developing networks on a national, regional and global level. This is why it is important to underline existing experience extending the network to all different paths of the world. There is a huge potential for education that this network can provide as a backbone for the scientific excellence.

Mrs. Ngosi named Africa Connect as the key project to examine the viability of working with African education centres and other committed stakeholders to establish expandable research network and infrastructure in Africa. Initially started in East African and Southern Africa, the study will provide recommendations for the African Union Commission and European Commission to make a final decision. To mention the link to other projects, like the Lighthouse project or AMCOST, Mrs. Ngosi said that the African Union Commission would expect the Ministers responsible for these issues to track down information and resources required to

implement these projects.

Mr. Mmboneni Muofhe described the Africa Connect programme as one of the best initiatives in many ways, naming the information exchange as one of the critical issues. When it is working it is not necessary to be there physically, so this is the area where researchers can be keen to work regardless of where they are. He expressed his excitement about this project, which will allow many challenges to be dealt with over time.

Paul Cunningham thanked all the Roundtable participants and asked the Permanent Secretary to close the Opening Plenary. Mr. Jimmy Saamanya thanked all participants and highlighted the importance of a number of issues discussed during the plenary before closing the Conference Plenary.

Workshops

Workshops and Papers Sessions in Track A were primarily focused on addressing horizontal issues associated with International Cooperation, Digital World Forum Workshop and Technology Enhanced Learning.

Workshops in Track A focused on "ICT Initiatives in Uganda" to showcase national innovation, "Digital World Forum" to share results from this important open source oriented FP7 project, "IST-Africa - Linking European and African Researchers" which shared insights from Uganda, Tanzania, Mozambique, Namibia, South Africa, Lesotho and Botswana about national research capacity in different IST-Africa Partner Countries and showcased the work carried out by the NEM Technology Platform in the Networked Media research space, "Challenges & Opportunities for African-European ICT Partnerships in FP7" which showcased South African success stories in relation to participation in FP7 and projects that can provide support at a regional level.

Workshops and Paper Sessions in Track B were primarily focused on eGovernment, Networked Enterprise, ICT in Rural Communities.

Workshops in Track B focused on "Interoperability as Key Component for the Fast and Efficient Development of eServices" which focused on lessons learnt from the STORK CIP project and the main issues required for trusted electronic identities, including both state of the art technologies and the necessary legal and policy frameworks, "Supporting ICT in Rural Communities" which presented African and European (FP6 NeT-ADDeD, Rural Wings) case studies of different solutions to support ICT services in Rural Communities, "AFRIFITA - The Global Strategy for Africa in IT Deployment in Rural Areas", a 180 minute workshop organised by representatives of the C@R FP6 project with representatives of EFITA and INFITA to share best practices from Africa and Europe and stimulate international cooperation in R&D for rural development wtih the goal of forming an African Association for Information Technology in Agriculture, Food and Environment (AFRIFITA) on the base of experiences from EFITA.

Workshops and Paper Sessions in Track C were primarily focused on ICT for Disaster Management and eHealth.

Workshops in Track C focused on "ICT for Disaster Management in Africa", a 180 minute workshop organised by the IRMA (Integrated Risk Management for Africa) FP7 project which is focused on Africa and showcased results from ORCHESTRA and SANY EU research projects, "eHealth - Integrated Health Information Systems in Africa" a double workshop organised by the BEANISH FP6 project to share implementation challenges and best practices from different African countries currently implementing integrated Health Information Systems, and "Women and ICT" organised by WOUGNET and Ministry of ICT in Uganda.

Workshops and Paper Sessions in Track D were primarily focused on eInfrastructures

Workshops in Track D focused on "UNESCO-HP Brain Gain Project: Pilot Solutions", a double workshop sharing the initial results of the UNESCO-HP Brain Gain project, and "Building a Research and Education Network Infrastructure in Africa", a full day workshop focused on increasing awareness of the status and trends in the development of research and education networks in Africa, identify common objectives and action plans following up on the workshop outcome from IST-2008 in Windhoek, particularly in the light of the FEAST feasibility study of the first AU-EU lighthouse project, Africa Connect.

Workshops and Paper Sessions in Track E were primarily focused on Digital Content, Open Source Software, eInclusion and eAdoption.

Track E featured "Digital Preservation: Challenges, Solutions, and Approaches to Accountable Planning of Digital Preservation Solutions", a double workshop organised by the Planets FP6 project, providing an introduction to the challenges of digital preservation, introducing OAIS, the ISO standard for an Open Archival Information System and highlighting the core strategies available to address digital preservation challenges.

Networking

The IST-Africa Consortium hosted a Networking Reception in the Exhibition area on Wednesday 06 May. This was very well received and allowed delegates to engage with exhibitors and have more free flowing discussion with delegates and presenters they had met in Sessions and Workshops during the day.

When focused on alignment in the core business of partners, it is critical to focus on development opportunities and challenges and relevant content for the target group. It is essential to put the implementation organisation in the drivers seat and avoid extensive feasibility studies, making implementing agencies responsible for carrying out small surveys, while IICD experts only provide advice. Finally, in terms of leadership and change management, nothing will happen unless the implementing organisation has necessary ownership, so it is important to focus on building commitment and a change management process among decision makers.

To achieve sustainability requires a modular approach to projects reflecting key challenges relevant to the partners you are working with. New modules must be based on the interest and experience of the partners concerned, and the technical support and capacity development of the target group. Clearly focusing on low cost solutions is key. In terms of learning and evaluation, capacity development is all about strengthening competencies. It is important to promote learning from peers, combining local and external content and have a clear evaluation process open to all.

In terms of defining new stakeholders, it is necessary to raise awareness among bi-lateral and multi-lateral country offices, and where appropriate involve the private sector, grass-roots organisations and NGOs. The roles of everyone involved should be clear. Dr. van der Krogt suggested that donor agencies should not formulate programmes, and governments should not implement them.

It is also important to recognise that different types of partners have different strengths, and to create effective partnerships requires sharing experiences, co-implementation and co-funding. Funding agencies tend to have strengths in the areas of political leverage and larger scale funding, while the private and academic sector tend to have up to date technical knowledge and capacities with a higher level of innovation. Governments have strengths in terms of long term financial sustainability and the ability to reach stakeholders at a national level, while Civil Society have strengths in terms of being demand focused by nature, have on-the-ground experience, social capacities and executive capacity.

SPIDER Programme - Experiences Cooperating in Africa

Karoline Beronius from SPIDER- The Swedish Program for ICT in Developing Regions, Sweden explained that SPIDER's focus is on ICT for government, healthcare and learning.

Examples of previous projects include eGovernance in Mozambique (National Regional, Creating Unique ID, and ID card pilot), eHealth in Uganda (Electronic Health Records, Online referrals, Unique Patient IDs, eLearning, Telemedicine) and eLearning in Tanzania (Models for learning and communication, mix of ICT: broadband, VSAT, mobile phones, CDs, memory cards).

Funded by Sida - Swedish International Development Cooperation Agency, projects also include supporting the use of ICT at public national universities in target countries. A key aspect of SPIDER's work is to facilitate knowledge transfer and capacity building. This is achieved in a number of different ways including supporting conferences such as IST-Africa, regional hands on ICT training and knowledge sharing between PhD students in the area of ICT4D (ICT for Development).

Some of the key lessons learnt by SPIDER (www.spidercenter.org) over the last number of years include the importance of having a common understanding of project and process goals, having realistic expectations, realising that not everyone who wants to work with you in a real potential partner or stakeholder, the importance of agility and flexibility, the importance of prioritising having looked at the whole picture, working towards sustainability at all times and realising that sometimes it is the small things that make things happen.

Africa-EU Cooperation Perspectives in the ICT Sector

Thierry Devars, European Commission welcomed the fact that a comprehensive Africa-EU ICT cooperation framework is now in place, with funding from FP7 (Framework Progamme 7), EDF (European Development Fund), MSs (European Member States), financial institutions and the private sector. The EU-Africa Partnership on Infrastructures compliments the EU-Africa Partnership on Science, Information Society and Space. African organisations have full access to funding under FP7-ICT as well as EDF Programmes and facilities.

Out of the first 2 calls of FP7 (2008), there were 31 retained participations from sub-Saharan Africa, compared to a total of 16 from 2002 – 2007 under IST/FP6. There is increased participation on research and education networking under eInfrastructures.

The EU-Africa Partnership on Infrastructure was launched in October 2008, targeting 5.6 billion euro from EDF 10 towards four sectors: Energy; Water; ICT/trans-border networks. A trust fund was created with the European Investment Bank (with an initial €100 million in grants from EC and Member States, and €260 million in loans from European Investment Bank (EIB). The East African Submarine Cable (EASSY) was identified as a flagship project, together with 8 new ICT infrastructure projects to support PIDA (Programme for Infrastructure Development in Africa).

The EU-Africa Partnership on Science, Information Society and Space is operationally implemented by a European Expert Group and African Expert Group, together with a Joint Expert Group and is co-chaired by France and Tunisia. Under Science, 12 flagship projects identified as supporting the AMCOST Consolidated Plan of Action have been identified (including African Research Grants, Research on Water & Food Security, and Popularisation of Science funded in 2009 through EDF, and initial funding of $3.6 million towards the

African Observatory on S&T and Innovation, hosted by Equatorial Guinea). Under Information Society, 5 flagship projects were identified in support of ARAPKE (including AfricaConnect and AIX (Africa Internet Exchange System) funded in 2009 through EDF, African Virtaul Campus launched in 11 West African countries using initial funding from Spain. Harmonisation of regional regulatatory frameworks by ITU in Sub-Saharan Africa under the HIPSSA project launched in December 2008, and launch of the NATP 3 Programme to support regional harmonisation in North Africa). Under Space, 2 flagship projects were identified and are being implemented (GMES and Africa, and AFREF African Reference Frame (Pan-African geo-information Observatory).

Mr. Devars encouraged all conference delegates to get involved with more information available from www. IST-Africa.org and www.africa-eu-partnership.org. It is important to continue to address how international broadband connectivity across Africa will be achieved. Mobilisation of necessary resources clearly requires a coherent approach and critical mass. Public Authorities have an essential role in setting up epolicies and regulation, and the EU has considerable relevant experience in terms of what is required for successful regional integration. Public Private Partnership (PPP) require clear development and business objectives to be successful. It is important to work towards the January 2010 AU Summit which is focused on ICT for African Development.

Concluding Remarks

Paul Cunningham, Conference Chair of IST-Africa thanked all the speakers for their contributions and following some concluding remarks and awarding the Best Paper, Runner Up Paper and Best Demonstration Stand Awards, the Honourable Nsambu, Minister of State, officially closed the conference.

Award Presentations

Honourable Nsambu, Minister of State, Ministry of ICT announced the winners of the Best Paper, Runner Up Paper and Best Demonstration Stand Awards.

The Best Paper Award was presented to "Challenging Brain-Computer Interface: the FP7 Epilepsiae Project", authored by António Dourado, University of Coimbra, Portugal; Michel Le Van Quyen, LENA-CNRS, France; Björn Schelter, Albert Ludwigs University, Germany; Gianpietro Favaro, Micromed, SpA, Italy; Andreas Schulz-Bonhage, University Hospital, Germany; and Francisco Sales, University Hospital, Portugal by Hon. J.C. Alintuma Nsambu, Minister of State, Ministry of ICT, Uganda.

The Runner-up Paper was presented to "Towards Harmonisation of Health Information Systems in Malawi: Challenges and Prospects", authored by Chipo Kanjo, Christon Moyo, Marlene Galimoto, Jorn Braa and Anthony Muyepa-Phiri of Department of Informatics, University of Oslo, Norway & Tanzania by Hon. J.C. Alintuma Nsambu, Minister of State, Ministry of ICT, Uganda.

The Best Demonstration Stand award was presented to Ericsson Uganda.

Conference Proceedings

The **IST-Africa** Scientific Programme is based on an open Call for Papers, which closes in November each year. Potential authors are requested to submit an 8 page paper using the IST-Africa paper template focusing on lessons learnt, national case studies, technical infrastructure issues or future challenges.

All papers published in the **IST-Africa** Conference Proceedings have been double blind peer reviewed by at least two Members of the International Programme Committee (IPC). The IPC comprises of experts based in Europe and Africa in the different thematic areas covered by IST-Africa Conference Series.

The purpose of the **IST-Africa** Conference Proceedings is to disseminate research results, methodologies, business and government case studies and new developments in the following thematic areas: eHealth, eInfrastructures, Technology Enhanced Learning and ICT Skills, Digital Libraries and Intelligent Content, Living Labs, Technology Transfer, Open Source Software, ICT for eInclusion and eAccessibility, ICT for Environmental Sustainability, RFID and Networked Enterprise and eGovernment.

The **IST-Africa** 2009 Conference Proceedings, (Paul Cunningham and Miriam Cunningham (Eds), IIMC International Information Management Corporation, 2009, ISBN: 978-1-905824-11-3) are also published online in the IST-Africa Paper Repository with the Conference Proceedings for IST-Africa 2006, IST-Africa 2007 and IST-Africa 2008.

The **IST-Africa** Paper Repository provides all members of the IST-Africa Community with online access to published papers. Please go to **www.ist-africa.eu/home/default.asp?page=paper-repository** to access papers of interest. Registration to join the **IST-Africa** Community is free of charge.

Exhibition

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, promote participation of African organizations in the ICT Theme of FP7 and identify 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), Ministry of Communications, Science and Technology (Botswana), Ministry of Communications, Science and Technology (Lesotho), Commonwealth Network of Information Technology for Development (Malta), ICT Policy Implementation Technical Unit (Mozambique), Ministry of Education (Namibia), Wits Commercial Enterprise (Pty) Ltd (South Africa), COSTECH - Tanzania Commission for Science and Technology, and Uganda National Council for Science and Technology.

1 DAY

Wednesday, May 06, 2009

08:00 Registration

09:00 Opening Plenary 1a

Official Opening & Welcome Address
His Excellency Yoweri Kaguta Museveni, President of the Republic of Uganda

ICT Initiatives in Uganda
Honourable Aggrey Awori, Minister of Information and Communications Technology (ICT), Uganda

Opening Remarks - EU Presidency
Mrs. Lenka Ptáčková Melicharová, Deputy Minister of Interior, Czech Republic

European Commissioner for Development's Welcome Address
Ambassador Vincent De Visscher, Head of the European Commission's Delegation, Uganda

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

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

AMCOST Consolidated Plan of Action
Honourable Dr. Sally Kosgey, Minister for Higher Education, Science and Technology, Kenya

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

Facilitator: Paul Cunningham, IIMC Ltd, Ireland

Panel Participants include:
Honourable Aggrey Awori, Minister of Information and Communications Technology (ICT), Uganda

Mrs. Lenka Ptáčková Melicharová, Deputy Minister of Interior, Czech Republic

Honourable Dr. Sally Kosgey, Minister for Higher Education, Science and Technology, Kenya

Honourable Dr. Ir Saidi Kibeya, Minister of Higher Education and Scientific Research, Burundi

Honourable Prof. Peter Msolla, Minister of Communications, Science and Technology, Tanzania

Honourable Pelonomi Venson-Moitoi, Minister for Communications, Science and Technology, Botswana

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

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

Ms. Aida Opoku-Mensah, Director, United Nations Economic Commission for Africa

Dr. Ham-Mukasa Mulira, Senior Presidential Adviser on Information and Communications Technology (ICT), Uganda

Dr. Philippe Mawoko, Programme Coordinator, African Science, Technology and Innovation Indicators (ASTII) Initiative, NEPAD S&T

Mr. Hans Piet, Ericsson Uganda

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

Mr Francis Egbuson, Uganda Telecom

12:45 Lunch Exhibition & Networking

14:00 Workshop 3a ICT Initiatives in Uganda

Chair: Patrick Masambu, Uganda Communications Commission, Uganda

URAnet
Sam Nakabaale, Uganda Revenue Authority

Integrated Financial Management Systems (IFMS)
Planning and Economic Development, Ministry of Finance, Uganda

Business Process Outsourcing
Godfrey Kibuuka, Ministry of Information and Communications Technology, Uganda

National Backbone Infrastructure Project
David Turahi, Ministry of Information and Communications Technology, Uganda

Private Sector Presentations will be published in April

14:00 Session 3b eGovernment - Models, Measurement and Implementation Challenges

Chair: Hon. Edward Baliddawa, Parliament of Uganda

Improving Information Dissemination and Knowledge Sharing in Local Governments in Uganda: The e-Governance Model
Joseph Kasumba Ssewanyana, Makerere University, Uganda

Enabling Infrastructures for eGovernment
Annamaria Raviola, SELEX Communications S.p.A., Italy

Facing the Challenges of ICT Implementation in Government
David Gichoya, Moi University, Kenya

Kenya Strategies on the Application of ICT in eGovernment
Jacob Njagi, Ministry of Higher Education, Science and Technology, Kenya

14:00 Workshop 3c ICT for Disaster Management in Africa I

Co-Chairs: Dr. Anwar Vahed, CSIR, South Africa and Bernard Stevenot, Spacebel, Belgium

Introduction to the Sensor Web and its applicability for Disaster Management
Anwar Vahed, Meraka Institute, CSIR, South Africa

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

Integrated Risk Management in South Africa: Between Technological Features and Organizational Reality
Anwar Vahed, Meraka Institute, CSIR, South Africa

Disaster Management in Senegal
Malick Diagne, Centre de Suivi Ecologique, Senegal

14:00 Workshop 3d UNESCO-HP Brain Gain Project: Pilot Solutions

Chair: Martin Antony Walker, France

Introduction to UNESCO-HP Brain Gain Project
Liliana Simionescu, UNESCO & Arnaud Pierson, Hewlett-Packard

The UNESCO-HP Brain-Gain Project: Context and Development
Martin Antony Walker, France

The EPIKH Project
Roberto Barbera, University of Catania, INFN/Consorzio COMETA, Italy

The South African National Compute Grid
Bruce Becker, Meraka Institute, South Africa

15:30 Coffee Break Exhibition & Networking

16:00 Workshop 4a Digital World Forum

Chair: Stephane Boyera, W3C, France

Digital World Forum: Low-cost Technologies against the Digital Divide - Overview
Stephane Boyera, W3C, France

Mobile Web for Social Development
Stephane Boyera, W3C, France

Low-cost Information Access Device
Cleophas Dzinotyiweyi, CSIR, South Africa

Low-cost Broadband Access and Infrastructure
Bruno Conquet & Max Francisco, Orange Labs, France

Discussion

16:00 Workshop 4b eGovernment - Use of ICT in Parliaments

Chair: Vasilis Koulolias, Gov2U, Greece

Involvement of Citizens in the Legislative Processes through use of ICT
Aloysius Makata, Parliament of Uganda

ICT for Productivity in Parliament: Kenya Parliament Experiences
Clement M Nyandiere, Kenya National Assembly

ICT Usage n the Parliament in Tanzania
Didas Wambura, Parliament of the United Republic of Tanzania

From the Functional to the Innovative: An Overview of ICTs in Parliaments in the SADC Region
Marianne Gei-khoibes, National Assembly of the Parliament of Namibia

Win Win eParticipation Model
Miriam Ngoka, Africa i-Parliaments Action Plan, UNDESA, Kenya

Discussion

16:00 Workshop 4c ICT for Disaster Management in Africa II

Co-Chairs: Dr. Anwar Vahed, CSIR, South Africa and Bernard Stevenot, Spacebel, Belgium

Lessons Learnt in Large Scale Interoperable IT Infrastructures
Gerald Schimak, Austrian Research Center GmbH - ARC, Austria

ICT for Disaster Management in Cameroon
Bernard Stevenot, SPACEBEL, Belgium

Earth Observation Systems for Disaster Risk Management
Bernard Stevenot, SPACEBEL, Belgium

The Relevance of ICT for Environmental Sustainability: A Prospective Simulation Study
John Mahegere, Tanzania Commission for Science and Technology, Tanzania

16:00 Workshop 4d UNESCO-HP Brain Gain Project: Pilot Solutions II

Chair: Martin Antony Walker, France

Opportunities for Research Infrastructure Cooperation under FP7
Kostas Glinos, European Commission, Belgium

Human Capital Remittances from Africans in Diaspora using Information Communication Technology: The Experiences of University of Nigeria
Benjamin A. Ogwo, State University of New York, United States

Fostering Collaboration in Renewable Energy R&D: Case Study from Ghana
Cephas Idan, The Energy Centre, KNUST, Ghana

Discussion

16:00 Workshop 4e eSkills - Policy Approaches & Path to South African eSkills Summit

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

Wallace Taylor, TISI, South Africa

Geoff Erwin, TiSI, South Africa

Harold Wesso, DDG, Department of Communications, South Africa

2 DAY

Thursday, May 07, 2009

09:00 Workshop 5a IST-Africa - Linking European & African Researchers

Chair: Paul Cunningham, IIMC, Ireland

Overview of FP7 and Call 5 FP7-ICT
Paul Cunningham, IIMC Ltd, Ireland

Research Capacity and Challenges in Uganda
Richard Lutalo, Uganda National Council for Science and Technology

Research Capacity and Challenges in Tanzania
Hamisi Nguli, Tanzania Commission for Science and Technology

Research Capacity and Challenges in Mozambique
Augusto Nunes, UTICT, Mozambique

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

Ideal-ist: Your Worldwide ICT Support Network in FP7
Dunja Swierstra, Euresearch, Switzerland

09:00 Session 5b eGovernment - Services

Chair: Ibrahim Kariisa, State House, Uganda

The Adoption of e-Administration through e-Government Initiatives: A Case Study from Mozambique
Teotónio Fumo, UTICT, Mozambique

e-Government - Putting Service at your Fingertips
Darelle Van Greunen, Nelson Mandela Metropolitan University, South Africa

e-Government Readiness: An Information Security Perspective from East Africa
Carina Wangwe, Parastatal Pensions Fund, Tanzania

09:00 Workshop 5c eHealth - Integrated Health Information Systems

Chair: Jørn Braa, University of Oslo, Norway

Initial Experiences from Designing and Implementing a Clinical Health Information System in the Primary Healthcare Sector of Rural South Africa
Elmarie Venter, SAP Research, South Africa

The Medical Project: Implementing an Open Source HIS in Rural Argentina
Luis Falcon, Thymbra, Spain

Virtuous Circle from Prototyping Approach and Flexible Standard in Health Information System in Sierra Leone
Edem Kwame Kossi, university of Oslo, Norway

Building E-health Information Infrastructure in Mali
Romain-Rolland Tohouri, ICTs Development Center, Mali

Towards Harmonisation of Health Information Systems in Malawi: Challenges and Prospects
Chipo Kanjo, University of Oslo, Norway

09:00 Workshop 5d Building a Research and Education Network Infrastructure in Africa - Policy and Infrastructure

Chair: Albert Nsengiyumva, Rwanda Education and Research Network

European Perspectives
Antti Peltomäki, European Commission, Belgium

AfricaConnect and African Virtual Campus Projects
Moses Bayingana, African Union Commission, Ethiopia

African Regulatory Situation
Francis Tusubira, UbuntuNet Alliance, Uganda

Availability of Links for African (sub-)regional REN Backbones
Michael Nowlan, DANTE Ltd, Ireland

Establishment of African Internet Exchange points in AXIS, the 2nd Lighthouse project
Eric M.K Osiakwan, Executive Secretary AfrISPA

ACP Community Comments
Alec Singh, Chief Technologist@ACP

09:00 Tutorial 5e Digital Preservation: Challenges, Solutions, and Approaches to Accountable Planning of Digital Preservation Solutions

Chair: Andreas Rauber, Vienna University of Technology, Austria

This tutorial will provide an introduction to the challenges of digital preservation and strategies to address them. The tutorial will focus on creating a preservation plan and hands on exercises.

10:30 Coffee Break Exhibition & Networking

11:00 Workshop 6a IST-Africa - Linking European & African Researchers

Chair: Anneline Morgan, Dept of Science and Technology, South Africa

SADC Science Technology and Innovation Engagements
Anneline Morgan, Department of Science and Technology, South Africa

Research Capacity and Challenges in South Africa
Tendani Nevondo, University of the Witwatersrand, South Africa

Research Capacity and Challenges in Botswana
Oabona Monngakgotla, MCST, Botswana

Research Capacity and Challenges in Lesotho
Maseqobela Williams, MCST, Lesotho

The Networked Electro Media European Technology Platform - How to Share a Vision and a Strategic Research Agenda with African Countries?
Bruno Conquet, Orange Labs, France

Discussion and Next Steps

11:00 Workshop 6b eGovernment - Interoperability as Key Component for the Fast and Efficient Development of eServices

Chair: Vasilis Koulolias, Gov2U, Greece

Interoperable Delivery of eGovernment Services in Europe: The STORK Project
Vasilis Koulolias, Gov2U, Greece

eID in the case of Belgium
Frank Leyman, Federal Public Service Information and Communication Technology, Belgium

Current Interoperability Developments in Africa / Barriers
Warren Hero, Gauteng Shared Service Centre, South Africa

Electronic Identity as a Structural Precondition of e-Government Implementation: Three Cases of Austria, Belgium and Bosnia and Herzegovina
Tarik Zaimovic, University of Sarajevo, Bosnia And Herzegovina

11:00 Workshop 6c eHealth - Integrated Health Information Systems in Africa II

Chair: Jørn Braa, University of Oslo, Norway

Institutionalization of Health Information System Standards: Wrestling with the Inertia of the Installed base – Zanzibar Experience
Edwin Nyella, University of Oslo, Norway

The Role of Standards on Effective Spatial Data Sharing: A Health Perspective Research Study from Mozambique
Zeferino Saugene, Universidade Eduardo Mondlane, Mozambique

The Sierra Leone HIS Case: Towards an Integrated Health Information Infrastructure
Romain-Rolland Tohouri, ICTs Development Center, Mali

Evolution of eHealth Infomation Systems in Africa: Case study of Rwanda
Donart Ngarambe, Kigali Institute of Science and Technology, Rwanda

11:00 Workshop 6d Building a Research and Education Network Infrastructure in Africa - State of the Art of Research Networking in Africa

Chair: Moses Bayingana, African Union Commission, Ethiopia

EUN - The Egyptian NREN Model
Hossam Faheem, EUN, Egypt

Ubuntunet Alliance
Duncan Martin, UbuntuNet Alliance, South Africa

NREN Development in Kenya
Meoli Kashorda, Kenya Education Network

RwEdNet
Albert Nsengiyumva, Rwanda Education and Research Network

NRENs in the making in West and Central Africa
Mumuni Dakubu, University of Ghana

11:00 Tutorial 6e Digital Preservation: Challenges, Solutions, and Approaches to Accountable Planning of Digital Preservation Solutions II

Chair: Andreas Rauber, Vienna University of Technology, Austria

12:30 Lunch   Exhibition & Networking

14:00 Session 7a Technology Enhanced Learning - Leveraging Devices to Improve Skills

Chair: Erkki Sutinen, University of Joensuu, Finland

How Dr Math Reaches Pupils with Competitions and Computer Games by using MXit
Laurie Butgereit, Meraka Institute, South Africa

MobiLED – Mobile-Led and Leading via Mobile
Adele Botha, Meraka Institute, South Africa

"HaDeDa": The Noisy Way to Practice Spelling Vocabulary using a Cell Phone
Laurie Butgereit, Meraka Institute, South Africa

Towards a Framework for Effective ICT-Skills Development in Disadvantaged Communities in South Africa
Gladstone Ndhlovu, Cape Peninsula University of Technology, South Africa

Hand-Crafted Programming Objects and Visual Perception
Andrew Smith, Meraka Institute, South Africa

14:00 Session 7b   ICT to Support Enterprise Development

Chair: Laurens Cloete, Meraka Institute, South Africa

Approaches Towards Effective Knowledge Management for Small and Medium Enterprises in Developing Countries - Uganda
Annabella Habinka, Mbarara University of Science and Technology, Uganda

Towards an e-Model for the Enhancement of Service Rendering by SMMEs Supporting Agencies in South Africa
Ernest Ketcha Ngassam, SAP Meraka, South Africa

Reflections on C@R: Lessons Learnt in User Interface Design
Darelle Van Greunen, SAP Research CEC PTA, South Africa

Building The Local Software Economy: Case of The National Software Incubation Centre, Makerere University
Michael Niyitegeka, Makerere University, Uganda

Critical Success Factors for Obtaining Outsourcing Projects for Uganda
Bart van der Linden, Radboud Universiteit Nijmegen, Netherlands

14:00 Session 7c   eHealth - Applications & Case Studies

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

Intelligent Clinical Documents: a Way Towards Extensible Cross-Organizational Data Exchange
Juha Puustjärvi, Helsinki University of Technology, Finland

Microscope and Mobile Phones: Product Development in Uganda
Marijn Rijken, TNO, Netherlands

Ensuring Sustainability of HR Information Systems Developments through the Use of Integrated and Locally Appropriate Approaches - An Example from the Health Sector in Uganda
Deana Leadbeter, CHSS, University of Kent, United Kingdom

ICT4MPOWER - Improved Effectiveness of the Health System and Empowerment of Healthcare Communities in Uganda
Edward Mukooyo, Ministry of Health, Uganda

14:00 Workshop 7d Building a Research and Education Network Infrastructure in Africa - Examples of Advanced Usage of ICT Infrastructures

Chair: Gerti Foest, DFN-Verein, Germany

Benefits of Connection Libraries in the Region
Margaret Ngwira, UbuntuNet Alliance for Research and Education Networking, Malawi

Scalable Vector Graphics Approach for Realization of the Geographic Information System on Air Pollution in the African Urban Areas: Case of Yaounde in Cameroon
Emmanuel Tonye, Ecole Nationale Supérieure Polytechnique, Cameroon

Dar es Salaam Supercomputer Centre
John Kondoro, Dar es Salaam Institute of Technology, Tanzania

African Grid Activities
Roberto Barbera, University of Catania, INFN, and Consorzio COMETA, Italy

Community Health Portals in Africa - Concept and Application for Drug Therapy
Lars L Gustafsson, Karolinska Institutet, Sweden

14:00 Session 7e   Digital Content

Chair: Maseqobela Williams, Ministry of Communications, Science & Technology Lesotho

Content Development in an Indigenous Digital Library: a Model for Community Participation
Elizabeth Greyling, eThekwini Municipality, South Africa

Enabling Sustainable Access and Effective Utilisation of e-Resources in Academic and Research Libraries in Zimbabwe
Ronald Munatsi, Zimbabwe Library of Parliament, Zimbabwe

The Abunzi Project: Oral Web 2.0
Cindy Jeffers, Distance Lab, United Kingdom

"Snap Me" as a Pointer to "Rabbit Holes" in the Singa Environment
Merryl Ford, CSIR - Meraka Institute, South Africa

National electronic Library of Infection (NeLI) - - the Best Available Evidence Online: 9 Years of Experience
Patty Kostkova, City University, United Kingdom

15:30 Coffee Break   Exhibition & Networking

16:00 Session 8a   Technology Enhanced Learning

Chair: Love Ekenberg, University of Stockholm/KTH, Sweden

Contextual Curriculum to Support Practical and Innovative ICT-learning in a Developing Country: Case Southern Highlands of Tanzania
Joseph Longino, Lappeenranta University of Technology, Tanzania

Enhancing the Diffusion of Information Communications Technology for Quality Knowledge and Skills Development in African Universities
Wilson Okaka, Kyambogo University, Uganda

Students' Perspectives on Challenges of IT Education in Rural Tanzania
Matti Tedre, Tumaini University, United Republic of Tanzania

Building ICT Capacity in Ugandan Schools
Irina Zlotnikova, Makerere University, Uganda

ICT Education in Context: Towards a Shared ICT4D Curriculum
P. Clint Rogers, Brigham Young University, United States

Case Study of Telkom SA's Centre of Excellence Postgraduate Research Programme
David Browne, Telkom SA, South Africa

16:00 Session 8b   Supporting ICT in Rural Communities

Chair: Ilari Lindy, Ministry for Foreign Affairs, Finland

Hybrid Satellite-wireless Broadband Communications Solutions for e-Learning in African Countries
Chiara Scaleggi, CNES, France

Village Information Kiosks Project: Bridging the Digital Divide in Rural Kenya and Africa
Lazarus N. Kubasu, Mwafrika Institute of Development, Kenya

High-Protein e-Learning Services for a Sustainable Africa
Manolis Stratakis, FORTHnet, Greece

Examining Contextual Factors that Influence ICT Adoption in Rural Communities in Uganda
Florence Nameere Kivunike, Stockholm University - DSV, Sweden

Tackling the Digital Divide with e-Business Models: The Case of Telecentres in Uganda
Sonny Nyeko, Makerere University, Uganda

16:00 Session 8c   eHealth - ICT Supporting Chronic Conditions

Chair: Richard Stevens, European Genetics Foundation, Italy

Challenging Brain-Computer Interface: the FP7 Epilepsiae Project
Antonio Dourado, University of Coimbra, Portugal

The ReMINE Platform: High Performance Prediction, Detection and Monitoring Platform for Patient Safety Risk Management
Efstathia Kormari, National Technical University of Athens, Greece

Posture and Movement Monitoring for Ambient Assisted Living
Matjaz Gams, Jozef Stefan Institute, Slovenia

E-Health: Piloting an Interactive Web Portal to Educate Patients with Heart Failure – A Growing Global Problem
Femida Gwadry-Sridhar, Lawson Health Research Institute, Canada

16:00 Workshop 8d   Building a Research and Education Network Infrastructure in Africa - Round Table

Chairs: Moses Bayingana, African Union Commission and Kostas Glinos, European Commission

Round Table Discussion
Albert Nsengiyumva, UbuntuNet Alliance representative

Mumuni Dakubo. University of Ghana

Mr. Alec Singh, Chief Technologist, ACP

Hossam M. Faheem, Director of EUN, Egypt

16:00 Session 8e   Open Source Software

Chair: Maxwell Otim, Uganda National Council for Science & Technology

Open Source Community Organization
Onkgopotse Molefe, CSIR - Meraka institute, South Africa

Using Free Software as a Tool for Social and Economic Development
Karsten Gerloff, UNU-MERIT, Netherlands

Analysis of the Value that Open Source Contributes to Business Models
Neeshal Munga, CSIR, South Africa

17:30 - 18:00   Exhibition & Networking

3 DAY

Friday, May 08, 2009

09:00 Sesssion 9a   Technology Enhanced Learning - Applications & Case Studies

Chair: Erkki Sutinen, University of Joensuu, Finland

The Place of a Realistic Teacher Education Pedagogy in an ICT-Supported Learning Environment in Distance Teacher Education in Uganda
Gudula Naiga Basaza, Uganda Martyrs University, Uganda

An Empirical Investigation of Students' Perceptions of Technology Enhance Learning in Uganda
Evelyn Kigozi Kahiigi, Stockholm University, Sweden

Technology Enhanced Learning Challenges: A Case Study of Open University of Tanzania
Grace Mbwete, Open University of Tanzania, Tanzania

Utilizing a Virtual Learning Environment (VLE) to Enhance Student's Learning Outcomes: The Experience in Makerere University
Deborah Naatujuna, Makerere University, Uganda

Design of a National Student Identification System for Uganda: A Case for Higher Education
Elisam Magara, Makerere University, Uganda

09:00 Workshop 9b   AFRIFITA - The Global Strategy for Africa in IT Deployment in Rural Areas

Chair: Karel Charvat, CCSS, Czech Republic

Introduction to EFITA and INFITA
Karel Charvat, CCSS, Czech Republic

Living Lab Networking to Facilitate R&D Funding for African-European Collaboration in ICT for Rural Areas
Adam Turowiec, ITTI, Poland

Innovative Farmer Advisory Services using ICT
François Stepman, Forum for Agricultural Research in Africa, Ghana

Geohosting – Publish Your Spatial Data Yourself
Karel Charvat, CCSS, Czech Republic

09:00 Session 9c   eHealth - Issues

Chair: Paul Cunningham, IIMC Ltd, Ireland

Using ICT to Support Prevention of HIV/AIDS Transmission
Margherita Forcolin, Insiel S.p.A., Italy

Towards Viable Technology for HIV/AIDS Education
Jarkko Suhonen, University of Joensuu, Finland

Fast Development in AmI through SOA
Miguel Angel Huerta, Siemens, Spain

e-Bug Games for Children: Teaching Hygiene and Prudent Antibiotics Use using Web Games
Patty Kostkova, City University, United Kingdom

09:00 Session 9d   eInfrastructure - Case Studies

Chair: Kostas Glinos, European Commission, Belgium

Approach to sustainable e-Infrastructures The case of the Latin American Grid
Roberto Barbera, University of Catania, INFN, and Consorzio COMETA, Italy

Black Sea Interconnection – A Case Study of Successful Construction of Regional Optical Backbone
Michal Przybylski, Central and Eastern European Networking Association (CEENet), Poland

DRIVER: Building a Sustainable Infrastructure for Global Repositories
Dale Peters, DRIVER, Germany

Academic Applications of ICT in Developing Countries: the Case of East African Universities
Philip Ayoo, The Inter-University Council for East Africa, Uganda

Developing an Infrastructure for Interdisciplinary Research – Potential Grid Applications
Femida Gwadry-Sridhar, Lawson Health Research Institute, Canada

09:00 Session 9e   eInclusion

Chair: Richard Stevens, European Genetics Foundation, Italy

Stimulation of Local Content Generation in Rural Africa
Marijn Rijken, TNO, Netherlands

Proposed Framework for Closing the Rural-Urban Digital Gap in Uganda
Jude Ssempebwa, Kampala International University, Uganda

Airtime to Cash: Unlocking the Potential of Africa's Mobile Phones for Banking the unbanked
Ali Ndiwalana, Makerere University, South Africa

Using All Things E and LED to address Poverty
Roger Layton, Roger Layton Associates (Pty) Ltd, South Africa

Problems Hindering Efficient Delivery of ICT in the Community
Elizabeth Mukasa, OLC_Uganda

10:30 Coffee Break   Exhibition & Networking

11:00 Workshop 10a   Challenges and Opportunities for African-European ICT Partnerships in FP7

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

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

The Role of Cooperation in Promoting ICT in Africa
Karine Valin, Sigma Orionis, France

11:00 Workshop 10b   AFRIFITA - The Global Strategy for Africa in IT Deployment in Rural Areas II

Chair: Karel Charvat, Wirelessinfo, Czech Republic

International Cooperation on Spatial Planning
Otakar Cerba, Help Service - Remote Sensing, Czech Republic

The Farmers Information Matrix: Lessons Learnt from Deploying a Voice Information Service for Farmers in Kenya
Mucemi Gakuru, Teknobyte Ltd, Kenya

Agricultural and Rural Transformation in Africa: A Proposal for Information and Communication Technology Use in Agriculture Framework
Raphael Aregu, Gulu University, Uganda

Modernization of Agriculture in African countries with ICT Support - A proposal for a Pilot Project
Walter Mayer, Progis Software GmbH, Austria

11:00 Workshop 10c   Women and ICT

Chair: Ednah Karamagi, BROSDI, Uganda

The Need for Engendering ICT Policies in Uganda- Experiences, Challenges and Opportunities
Angela Nakafeero, Development Alternatives, Uganda

How women have used ICTs, Benefits and Challenges, with examples from CEEWA ICT Project and WOUGNET Apac Project
Samuel Senfuka, Council for Economic Empowerment for Women of Africa-Uganda Chapter (CEEWA-Uganda), Uganda

Opportunities to Improve Access and Utilisation of ICT by Women in addressing their Development Problems
Goretti Zavuga Amuriat, WOUGNET, Uganda

11:00 Session 10d   eInfrastructure - Issues and Case Studies

Chair: Bernard Stevenot, SpaceBel, Belgium

Risk Assessment for Reputation Building in Grid Service Provisioning
Odej Kao, TU Berlin, Germany

Mobile Applications and Innovation
Menghistab Tesfai, Uganda Telecom Ltd, Uganda

Building and Managing a Cost Effective Fixed Broadband Wireless Access Business
Robert Aouad, ISOCEL Telecom, Benin

Data Mules Networks Analysis with Semi-Markov-Process for Challenging Internets and Developing Regions
Filippo Meucci, University of Florence, Denmark

How do we make Community owned Information Networks work for the Poor
Chris Morris, Meraka Institute, CSIR, South Africa

11:00 Session 10e   eAdoption

Chair: Ilari Lindy, Ministry for Foreign Affairs, Finland

Measuring ICT Adoption, Acceptance and Use in the Developing World
Souleymane Boundaouda Camara, Thames Valley University, UK

ICT4D with a Nordic Flavor – a Stepwise and Multithreaded Approach
Jarkko Suhonen, University of Joensuu, Finland

IT and Role/Analysis of Information Resource in Decision making in Botswana
Kelvin Joseph Bwalya, University of Botswana, Botswana

Commercializing Research and Innovations Commercialization Africa - Case of Rennov Afrique Project
Herbert Lwanga, LOG`EL PROJECT, Uganda

12:30 Lunch   Exhibition & Networking

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

Chair: Hon. J.C. Alintuma Nsambu, Minister of State, Ministry of ICT, Uganda

How to Bridge the Digital Divide in Africa?
Mrs. Lenka Ptáčková Melicharová, Deputy Minister of Interior, Czech Republic

UNECA's ICT and Science & Technology Programme
Aida Opoku-Mensah, UN Economic Commission for Africa, Ethiopia

Impact and Challenges of National Scale ICT4D Programmes: 10 Years of Experiences from the Ground
Stijn van der Krogt, International Institute for Communication and Development (IICD), Netherlands

SPIDER Programme - Experiences Cooperating in Africa
Karoline Beronius, SPIDER- The Swedish Program for ICT in Developing Regions, Sweden

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

Round Table Discussion

Best Paper Award
Best Demonstration Stand Award

Formal Closing of Conference

The Programme presented is accurate as at 23 April 2009 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.

Participating Organisations

Over 460 delegates from Europe and Africa participated in **IST-Africa 2009**.

European Organisations

- Austrian Research Center GmbH - ARC, Austria
- MMF-Mobile Manufacturers Forum, Austria
- Progis Software GmbH, Austria
- UNIDO, Austria
- Vienna University of Technology, Austria
- ACP Secretariat, Belgium
- Close the Gap Int. VZW, Belgium
- European Commission, Belgium
- Federal Public Service Information and Communication Technology, Belgium
- Ministère de la Communauté Française de Belgique, Belgium
- SPACEBEL, Belgium
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- Ceske centrum pro vedu a spolecnost, Czech Republic
- Help Service - Remote Sensing, Czech Republic
- Ministry of the Interior, Czech Republic
- University of Aalborg, Denmark
- Elisa Corporation, Finland
- Helsinki University of Technology, Finland
- Ministry for Foreign Affairs, Finland
- Sustainable Village Consortium, Finland
- University of Joensuu, Finland
- CERN, France
- CNES, France
- Martin Antony Walker SARL, France
- Orange Labs, France
- Sigma Orionis, France
- Sofrecom, France
- UNESCO, France
- W3C, France
- DFN-Verein, Germany
- DRIVER, Germany
- TU Berlin, Germany
- FORTHnet, Greece
- Gov2U, Greece
- ICCS, National Technical University of Athens, Greece
- DANTE Ltd, Ireland
- IIMC Ltd, Ireland
- European Genetics Foundation, Italy
- Insiel S.p.A., Italy
- Selex Communications S.p.A, Italy
- University of Catania, INFN, and Consorzio COMETA, Italy
- COMNET-IT, Malta
- International Institute for Communication and Development (IICD), Netherlands
- Mambo Mpya Research Group, ICT4Uganda, Netherlands
- Radboud Universiteit Nijmegen, Netherlands
- TERENA, Netherlands
- TNO - Netherlands Organization for Applied Scientific Research, Netherlands
- University of Amsterdam+MUBS, Netherlands
- UNU-MERIT, Netherlands
- University of Oslo, Norway
- Central and Eastern European Networking Association (CEENet), Poland
- ITTI, Poland
- University of Coimbra, Portugal
- The Government Office, Slovakia
- Jozef Stefan Institute, Slovenia
- Siemens, Spain
- Thymbra, Spain
- Karolinska Institutet, Sweden
- Karolinska University Hospital, Sweden
- KTH, Sweden
- SPIDER- The Swedish Program for ICT in Developing Regions, Sweden
- Stockholm University, Sweden
- UPGRAID / Stockholm University, Sweden
- Euresearch, Switzerland
- Hewlett-Packard Europe BV, Switzerland
- City University, United Kingdom
- Distance Lab, United Kingdom
- University of Keele, United Kingdom

African Organisations

- INOVETEL, Angola
- Ministry of Communication, Science and Technology, Botswana
- University of Botswana, Botswana
- Executive Secretariat for ICT, Burundi
- Ministry of Higher Education and Scientific Research, Burundi
- Ain Shams University, Egypt
- African Union Commission, Ethiopia
- UN Economic Commission for Africa, Ethiopia
- AfrISPA, Ghana
- Forum for Agricultural Research in Africa (FARA), Ghana
- The Energy Centre, KNUST, Ghana
- University of Ghana, Ghana
- Africa Cable and Wireless Solution Provider Ltd, Kenya
- Africa i-Parliaments Action Plan, UNDESA, Kenya
- Ericsson, Kenya
- Hewlett Packard (EA), Kenya
- Kenya Education Network, Kenya
- Kenya National Assembly, Kenya
- Ministry of Higher Education, Science & Technology, Kenya
- Moi University, Kenya
- Mwafrika Institute of Development (M.I.D), Kenya
- Teknobyte Ltd, Kenya
- Ministry of Communications, Science and Technology, Lesotho
- Parliament of Lesotho, Lesotho
- JHU, Malawi
- UbuntuNet Alliance for Research and Education Networking, Malawi
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- Prodeza, Mozambique
- Universidade Eduardo Mondlane, Mozambique
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- National Assembly of the Parliament of Namibia
- Polytechnic of Namibia
- Imo State University, Owerri, Nigeria
- Sub Saharan Health Solutions Nigeria Ltd, Nigeria
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- National University of Rwanda
- Rwanda Development Board
- Rwanda Education and Research Network
- Centre de Suivi Ecologique, Senegal
- Universite cheikh Anta DIOP de Dakar, Senegal
- African Journals OnLine (AJOL), South Africa
- Cape Peninsula University of Technology, South Africa
- CHPC, South Africa
- CSIR, South Africa
- Department of Science & Technology, South Africa
- eSkills Institute, South Africa
- eThekwini Municipality, Durban, South Africa
- Gauteng Shared Service Centre, South Africa
- Meraka Institute, CSIR, South Africa
- Nelson Mandela Metropolitan University, South Africa
- NEPAD S&T, South Africa
- SAFIPA Programme, South Africa
- SAP Meraka, South Africa
- SAP Research, South Africa

- Telkom SA, South Africa
- TISI - The Information Society Institute, South Africa
- UbuntuNet Alliance, South Africa
- University of the Witwatersrand, South Africa
- Agency for Science and Technology Advancement in Uganda-ASTAU, Uganda
- British High Commission, Uganda
- BROSDI, Uganda
- Bugema University, Uganda
- Commonwealth of learning, Uganda
- Computerland Uganda Limited, Uganda
- Council for Economic Empowerment for Women of Africa-Uganda Chapter (CEEWA-Uganda), Uganda
- Delegation of the European Commission to Uganda
- Development Alternatives, Uganda
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- Embassy of the Arab Republic of Egypt, Uganda
- Embassy of the Democratic People's Republic of Korea, Uganda
- Embassy of the Federal Democratic Republic of Ethiopia, Uganda
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- Embassy of the Republic of Italy, Uganda
- Embassy of the Republic of Rwanda, Uganda
- Embassy of the Russian Federation, Uganda
- Embassy of the United States of America, Uganda
- Ericsson, Uganda
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- Gabula Attude, Uganda
- Gayaza High School, Uganda
- Gulu University, Uganda
- Habari Dot Com (U) Ltd, Uganda
- European Commission Delegation, Uganda
- High Commission of the Republic of South Africa, Uganda
- HORIZONT3000 - Austrian Organisaton for Development Co-operation, Uganda
- ICT 4 Uganda Research Project - University of Amsterdam, Uganda
- I-Network, Uganda
- Kabale University, Uganda
- Kamala International University, Uganda
- Kasambya Community Computer Centre, Uganda
- Kyambogo College School, Uganda
- Kyambogo University, Uganda
- LOG`EL PROJECT, Uganda
- Lubiri Secondary School, Uganda
- Madhvani Group, Uganda
- Makerere University, Uganda
- Makerere University Business School, Uganda
- Makerere University College of Health Sciences, Uganda
- Mbarara University of Science and Technology, Uganda
- Ministry of Foregn Affairs, Uganda
- Ministry of Health, Uganda
- Ministry of Information and Communications Technology, Uganda
- Monitor Publications Ltd, Uganda
- MTN Uganda
- Multcom System Limited, Uganda
- Nabweru Community Multmedia Center, Uganda
- Ngora High School, Uganda
- OLC Kampala, Uganda
- Parliament of Uganda
- PEPFAR/Johns Hopkins University CCGHE, Uganda
- Regional Office for Development Co-operation of the

Austrain Embassy, Uganda
- Royal Belgian Embassy, Uganda
- Royal Danish Embassy, Uganda
- Royal Embassy of Saudi Arabia, Uganda
- Royal Norwegian Embassy, Uganda
- RUFORUM, Uganda
- SchoolNet Uganda, Uganda
- St Joseph's Girls Secondary School, Uganda
- State House, Uganda
- The Embassy of Sweden, Uganda
- The French Embassy, Uganda
- The High Commission of India, Uganda
- The High Commission of the Federal Republic of Nigeria, Uganda
- The High Commission of the Republic of Kenya, Uganda
- The Inter-University Council for East Africa, Uganda UbuntuNet Alliance, Uganda
- UConnect, Uganda
- Uganda Communications Commission
- Uganda Martyrs University, Uganda
- Uganda Martyrs University-Nkozi, Uganda
- Uganda National Council for Science & Technology
- Uganda Peoples Defense Forces
- Uganda Police Force
- Uganda Revenue Authority
- Uganda Telecom Ltd
- Uganda Wildlife Society
- UNIDO, Uganda
- UTL, Uganda
- War Child Holland, Uganda
- Warid Telecom, Uganda
- Watoto   Uganda
- WOUGNETUganda
- Zain Uganda
- Zillion Technologies, Uganda
- Dar es Salaam Institute of Technology, United Republic of Tanzania
- Ministry for Communications, Science and Technology, United Republic of Tanzania
- Lappeenranta University of Technology, United Republic of Tanzania
- Open University of Tanzania
- Parliament of the United Republic of Tanzania
- Sengerema Multipurpose Community Telecentre, • United Republic of Tanzania
- Tanzania Commission for Science and Technology, United Republic of Tanzania
- Tumaini University, United Republic of Tanzania
- University of South Africa, United Republic of Tanzania
- Chinhoyi University of Technology, Zimbabwe
- Zimbabwe College & Research Libraries

Consortium, Zimbabwe

Other Organisations

- Lawson Health Research Institute, Canada
- IIT Madras, India
- Ashburn Institute, United States
- Intersect Group, United States
- State University of New York, United States

Exhibition

IST-Africa 2009 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	Sub-Saharan Africa
Ministry of Information and Communications Technology	Ministry of ICT	Uganda
ARPAKE & 8th Partnership Flagship Projects	African Union Commission	Ethiopia
Digital World Forum	W3C	France
ESASTAP/ST-EAP/EuroAfriCa-ICT	DST & Meraka Institute, CSIR	South Africa
Belief II	CHPC	South Africa
Ideal-ist	Ideal-ist Consortium	Switzerland
Simply affordable: Refurbished PCs for SMEs	UNIDO	Austria
Ericsson	Ericsson Uganda	Uganda
Uganda Telecom	Uganda Telecom Ltd	Uganda
Mbarara University of Science And Technology	Mbarara University of Science And Technology	Uganda
Research at Faculty of Computing and IT	Makerere University	Uganda
Incorporating Audio visual materials in Distance Learning	Uganda Martyrs University	Uganda
Kampala International University	Kampala International University	Uganda
Log'El Project	Log'El Project	Uganda
SchoolNet Uganda	SchoolNet Uganda	Uganda

Posters

Stand Name	Organisation	Country
Declaring ICT Democratic: Empowering African Citizens	Ashburn Institute	Ukraine
eIFL.net: Electronic Information for Libraries	eIFL.net/ Zimbabwe College & Research Libraries Consortium	Zimbabwe
International Network for the Availability of Scientific Publications	INASP/ Zimbabwe College & Research Libraries Consortium	Zimbabwe
Information Science Education Research Agenda	EASLIS, Makerere University	Uganda

Conference Portal & Delegate Showcase
www.IST-Africa.org/Conference2009

IST-Africa 2009 Additional Supporting Organisations

IST-Africa 2010
Call for Papers

Durban, South Africa

19 - 21 May 2010

Thematic Priorities

- eHealth – Health Information Systems
- eInfrastructures
- Technology Enhanced Learning and ICT Skills
- Digital Libraries and Intelligent Content
- Living Labs
- Technology Transfer
- Open Source Software - Applications
- ICT for eInclusion and eAccessibility
- ICT for Environmental Sustainability
- RFID and Networked Enterprise
- eGovernment – Services to Citizens & Business

Deadlines

- Online Submission Deadline: **06 November 2009**
- Provisional Acceptance: **15 January 2010**
- Submission of Final Paper: **19 February 2010**
- Presenter Registration: **5 March 2010**

Submission of Papers

- Paper Focus – Technical, Visionary, Business or Government Case Studies
- Papers must highlight Level of Innovation, as well as Actual or Expected Impact
- Papers must present either a Case Study, or Analysis of Initial or Final Research Results
- All Papers must be 4,000 - 5,000 words in length & use the **IST-Africa** Paper Template

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Conference Focus

Part of the **IST-Africa Initiative**, which is supported by the European Commission under the Information Communications Technologies (ICT) Theme of Framework Programme 7 (FP7), **IST-Africa 2010** is the fifth in a series of annual technology research conferences rotating around Africa, that bring together representatives from leading commercial, government and research organisations around the world to bridge the Digital Divide by sharing knowledge, experience, lessons learnt and good practice, and identify opportunities for international research collaboration between Europe and Africa, particularly under the ICT Theme (Cooperation Programme) and Research Infrastructures (Capacities Programme) of FP7.

The **IST-Africa Conference Series** provides a platform to strengthen Information Society policy dialogues between Africa and Europe through Plenary Presentations and private meetings, complementing the rich thematic knowledge exchange facilitated by the Scientific Programme. Each Conference puts a special emphasis on showcasing ICT Adoption, Innovation and Research Capacity in the Host Country (**IST-Africa 2006** - South Africa, **IST-Africa 2007** - Mozambique, **IST-Africa 2008** - Namibia, **IST-Africa 2009** - Uganda).

Event Profile

The **IST-Africa Conference Series** has a truly international perspective, attracting Ministerial participation and over 480 delegates from 51 countries (including 22 African and 25 European countries) to **IST-Africa 2008**.

Its reputation is based on high quality papers & interactive workshops showcasing innovative ICT research results and applications, whether funded privately, or at national, regional, international or European level. The participation of industry, government and research in the **IST-Africa Conference Community** ensures a stimulating and high quality networking environment, providing an opportunity to share knowledge and experience with potential research or exploitation partners. Each **IST-Africa Conference** places a special focus on Host Country activities, as well as sectoral and regional initiatives and success stories.

IST-Africa 2010 will disseminate research results from Africa & Europe (incl. FP6 and FP7), and focus on research cooperation opportunities for African organisations under FP7 (ICT Theme and Research Infrastructures).

Call for Sponsors

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Publishing Schedule

- Draft Final Paper and Workshop Proposals submitted online by **6 November 2009**
- Provisional Acceptance of Draft Final Papers with IPC feedback provided on **15 January 2010**
- Final Papers to be submitted online by **19 February 2010** for editorial review & quality check
- Accepted Presenters must register and pay the Presenter Fee by **5 March 2010**
- The Conference Proceedings will be published on CD-Rom with ISBN Number

International Programme Committee

A distinguished International Programme Committee (IPC) is being formed by Paul Cunningham, the **IST-Africa** Conference Chair. The **IST-Africa 2010** IPC will evaluate and provide feedback on all final draft papers received, provide feedback on final presentations, and chair sessions.

Conference Portal

For the most up to date information, please visit **www.IST-Africa.eu/Conference2010**