PART 2: CONNECTING SUB-SAHARAN AFRICA & THE EU FOR ICT PARTNERSHIPS UNDER FP7 - ANALYSIS & RECOMMENDATIONS

In the previous chapters - we have, from the information so far collected and exchanged - analysed the potential of S&T cooperation on ICT to support the development plans of Africa, provided an overview of the status of ICT R&D in Africa, detailed the present orientations and activities of ICT cooperation between Europe and sub-Saharan Africa, and described the existing EU-Africa cooperation frameworks.

The overall conclusion that can be drawn is that there is an urgent need to develop a deeper and stronger S&T cooperation in the ICT field between the EU and sub-Saharan Africa. The ICT Theme of FP7 represents a key opportunity to do so, namely through Specific International Cooperation Actions (SICAs).

With this perspective, Part 2 presents supporting evidence for reaching this overall conclusion. It includes graphic representations of ongoing ICT initiatives in sub-Saharan Africa and identifies areas of opportunity (and challenge).

Recommendations are made for the further development of EU-Africa cooperation under the ICT theme of FP7.

2.1 - Cooperation Between the EU & sub-Saharan Africa - Analysis of the Current Situation & Recommendations

2.1.1 - A Competing International Context

Given the resources of the African continent and potential markets in many sectors, a number of countries worldwide have recently been establishing stronger relations with sub-Saharan Africa. The USA, and more recently China, has succeeded in establishing themselves as major partners. S&T cooperation (on ICT in particular) can definitely support the establishment of stronger relations with Africa.

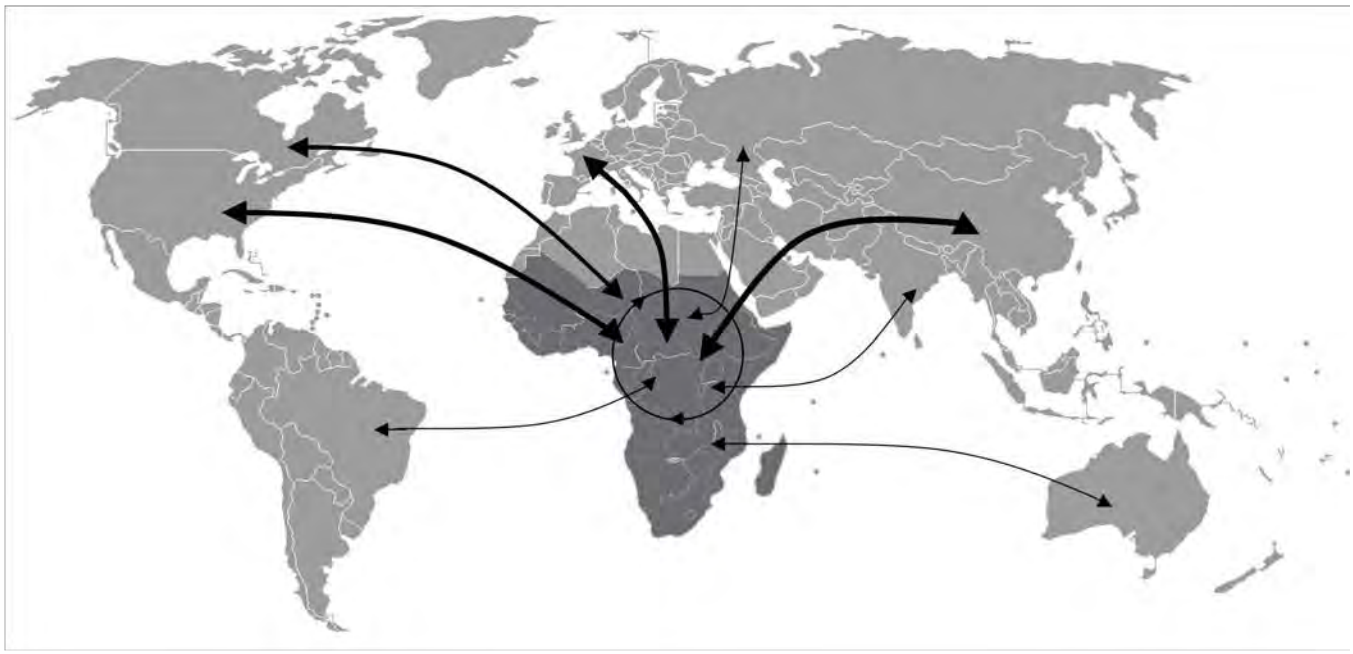


Figure 18: A Competing International Context (Source: the START Consortium)

RECOMMENDATION

STRENGTHEN THE EU POSITIONING IN AFRICA THROUGH THE DEVELOPMENT OF A DEEPER & BROADER S&T COOPERATION ON ICT

At a time when many countries in the world are developing closer relations with Africa, the EU could strengthen its positioning through the development of a deeper and broader S&T cooperation on ICT

2.1.2 - Growth and Opportunities in African ICT Markets

Promising ICT markets are emerging in Africa, an excellent example being the dramatic growth in mobile telephony, which brings with it an increasing demand for add-on services and content delivery. This potential is driven by demand-side factors (increasing popularity of mobile phone and the Internet for instance) and to a lesser degree by supply-side factors (regulatory reforms, falling costs, technological innovation). The specific settings of Africa in terms of ICT have lead to innovative thinking in areas such as low cost shared access e.g. mesh networks. These types of disruptive innovations could be usefully applied in Europe. The starting point in Africa has been very low for both mobile telephony and Internet access and there are still enormous challenges in reaching rural markets with affordable ICT access. This in turn creates opportunities for innovative technology development and exploitation. A deeper and broader S&T cooperation on ICT between the EU and Africa can usefully support the emergence of these markets.

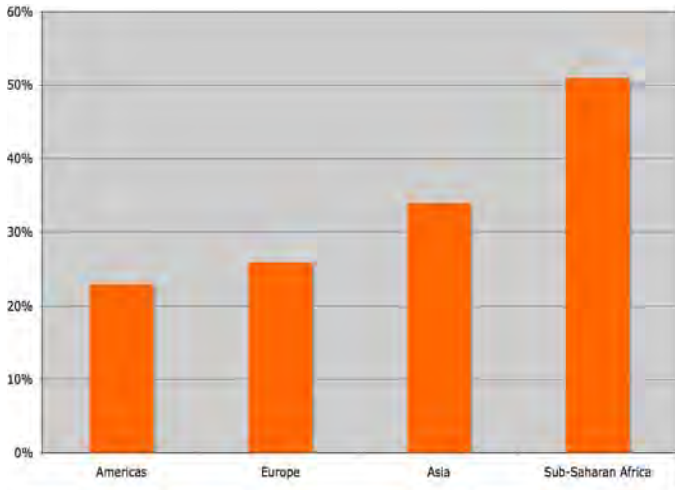


Figure 19: Annual Average Growth Rate in Mobile Subscribers (1999-2004) (Source: ITU World Telecommunication Indicators Database)

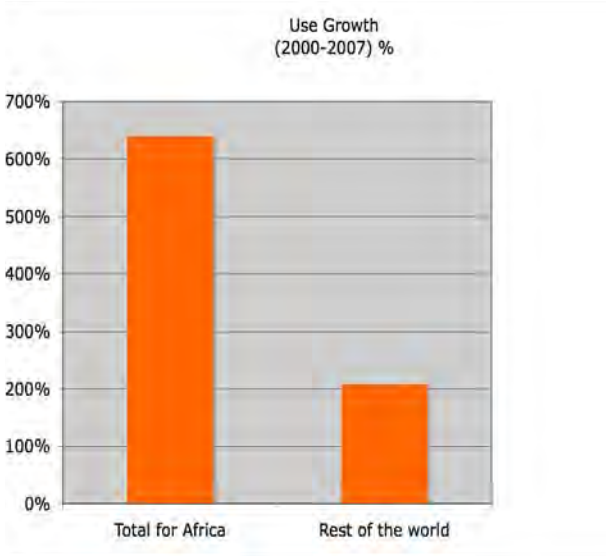


Figure 20: Average Growth in the Number of Internet Users for Africa (2000-2007) (Source: Internet World stats, 2007)

RECOMMENDATION ◀ ◀◀

SUPPORT THE EMERGENCE OF PROMISING AFRICAN ICT MARKETS

EU-Africa S&T cooperation on ICT can support the present emergence of promising African ICT markets

2.1.3 - The African ICT Institutional Framework

Africans have engaged in deliberations on the role of ICTs over the past decade. Numerous fora have been facilitated by pan-African institutions such as UNECA, the African Union and NEPAD. The need for accelerated efforts in S&T research (including ICT) has been recognised. Priority research areas have been identified through the NEPAD S&T consolidated plan of action (provided in more detail in Appendix 2 of this document), which carries the support of African governments. Cooperation through the ICT theme of FP7 creates an opportunity for Africa and Europe to expand the scope of their research, while Africa can benefit from benchmarking against European best practice.

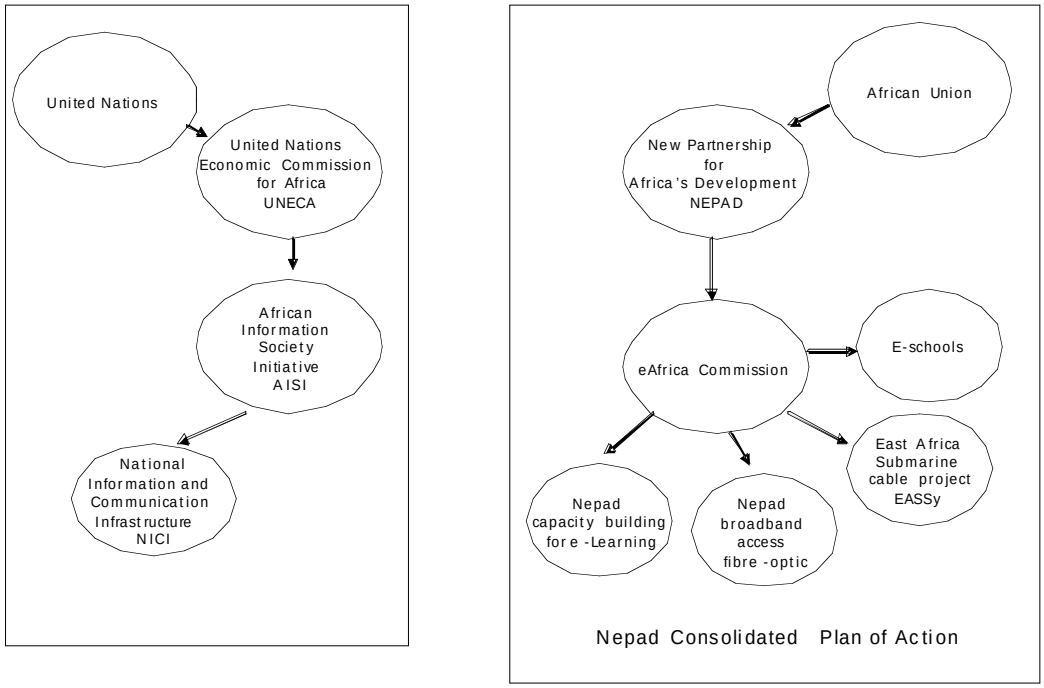


Figure 21: The African ICT Institutional Framework Part I (Source: the START Consortium)

Sub-Regional Institutional Frameworks

Regional economic communities such as the South African Development Community, the Common Market for Eastern and Southern Africa (COMESA) and the Economic Community for West African States (ECOWAS) are playing increasingly critical roles in promoting ICT research capability in their respective regions. The EU funded Regional ICT Support Programme (RICTSP) being implemented by COMESA has been playing a key role in promoting research and application in ICTs and the policy and regulatory frameworks that underpin widespread use of ICTs and national level-incubation projects.

National Institutional Frameworks

Efforts at national levels are often coordinated by the national science and technology council (e.g. council for scientific and industrial research as in the case of Ghana and South Africa or National Science Technology Commission or National IT agency (as in the case of Ethiopia, Rwanda and Tanzania) with funding from development agencies. National science and technology or industrial research councils work closely with academic institutions that are often regarded in the country as centres of excellence for ICTs.

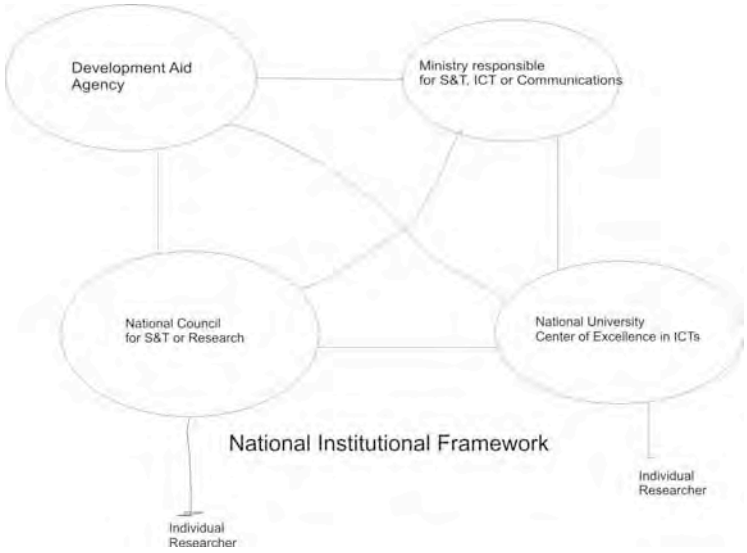


Figure 22: The African ICT Institutional Framework Part II (Source: the START Consortium)

Institutional Frameworks

A number of bi-lateral and multilateral agreements and structures are also in place to support interactions on various scales, from the institutional level to regional and global activities. A typical institutional framework involves a research network that links ICT researchers based at different universities together at regional levels. Researchers are often required to pass through national institutional frameworks (local university or the national council for S&T or industrial research to be members of the network). Established networks or associations such as the Association of African Universities are becoming increasingly important to define ICT research agendas and create a platform for regional cooperation. The Association of African Universities has been actively engaged and provides a perfect platform in promoting national and regional research and education networks and promotes advanced interregional network-based applications such as e-learning content exchange in Africa. Cooperation through the ICT theme of FP7 creates an opportunity for Africa and Europe to expand the scope of their research, while Africa can benefit from benchmarking against European best practice. Most African countries also have a legacy of associations and programmes under Commonwealth, Francophone and other European groupings. These also provide powerful catalysts for EU-Africa cooperation

RECOMMENDATION ◀ ◀◀

RELY ON AN ALREADY STRUCTURED AFRICAN ICT INSTITUTIONAL FRAMEWORK

The development of EU-Africa S&T cooperation on ICT can rely on an already structured African ICT institutional framework

2.1.4 - African National ICT Policies and Strategies

"The ability to take full advantage of the information economy for the benefit of all in a given country or jurisdiction requires vision, discipline, planning and method" (Richard Labelle, ICT Policy Formulation and e-strategy development, APDIP, UNDP, 2005).

The launch of the African Information Society Initiative (AISI) in 1996 by the Economic Commission of Africa of the United Nations (UNECA) has definitely boosted ICT policy formulation in Africa. National Information and Communication Infrastructures (NICIs) have first been launched in a number countries, and, in parallel to that, some countries also elaborated their own national plans to harness ICTs to their socio-economic development. The NICI process preceded the elaboration of more holistic planning, taking into account national development and sectoral policies. Almost all African countries have now established national e-strategies, even though some have not yet officially adopted them. In these documents, the strategic role of research has been clearly stressed. For example in "The Ghana ICT for Accelerated Development (ICT4D) Policy, it has been mentioned that "a lot of efforts will be directed at investing more into R&D activities and initiatives and developing the nation's scientific research base".

African wide strategies are even now formulated. Thus, within the framework of the UN lead World Summit on the Information Society (WSIS), an African Regional Action Plan on the Knowledge Economy (ARAPKE) was elaborated. This plan also recognizes the key role of R&D. African countries are now working towards further strengthening national policies (notably by better integrating sectorial development strategies) and fully implementing them.

Then, the way is clearly being paved for a more sustained cooperation to be built between the continent and the European Union.

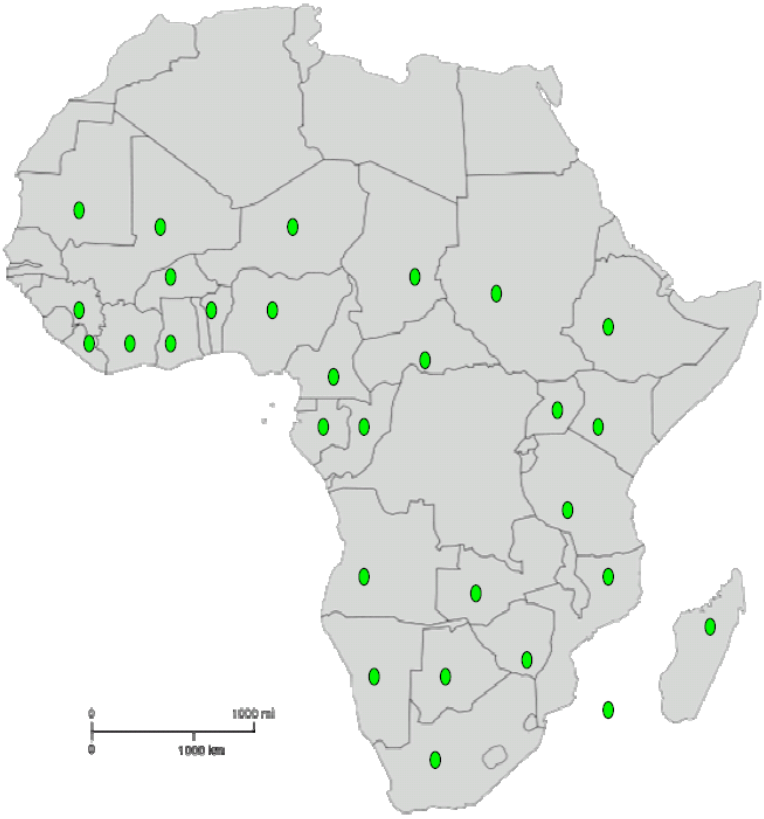


Figure 23: Countries Having Official ICT Policies in Sub-Saharan Africa (2007) (Source: the START Consortium)

2.1.5 - The African ICT Regulatory Environment

During the last decade, Africa has witnessed reforms in the ICT sector through privatisation and liberalisation of certain market segments, notably mobile and data including the Internet. This first wave of reforms has allowed the entry of private sector in the ICT market. Almost all African countries have established regulatory bodies to ensure the development of competition between the different players, while protecting consumer's interests. The global market is also faced with new challenges, such as issues around the development of broadband IP-based networks or New Generation Networks (NGN) resulting from technological convergence. In addition, more attention is being given to the establishment of cyberlaws and the harmonization of regulatory frameworks.

These trends are reshaping the global knowledge economy and have induced the need to review existing regulatory frameworks and address efficient ways of addressing emerging competition issues in the convergence era. The ongoing implementation of effective regulation for services and markets is key to promote growth, ensure public interest and at the same time competition.

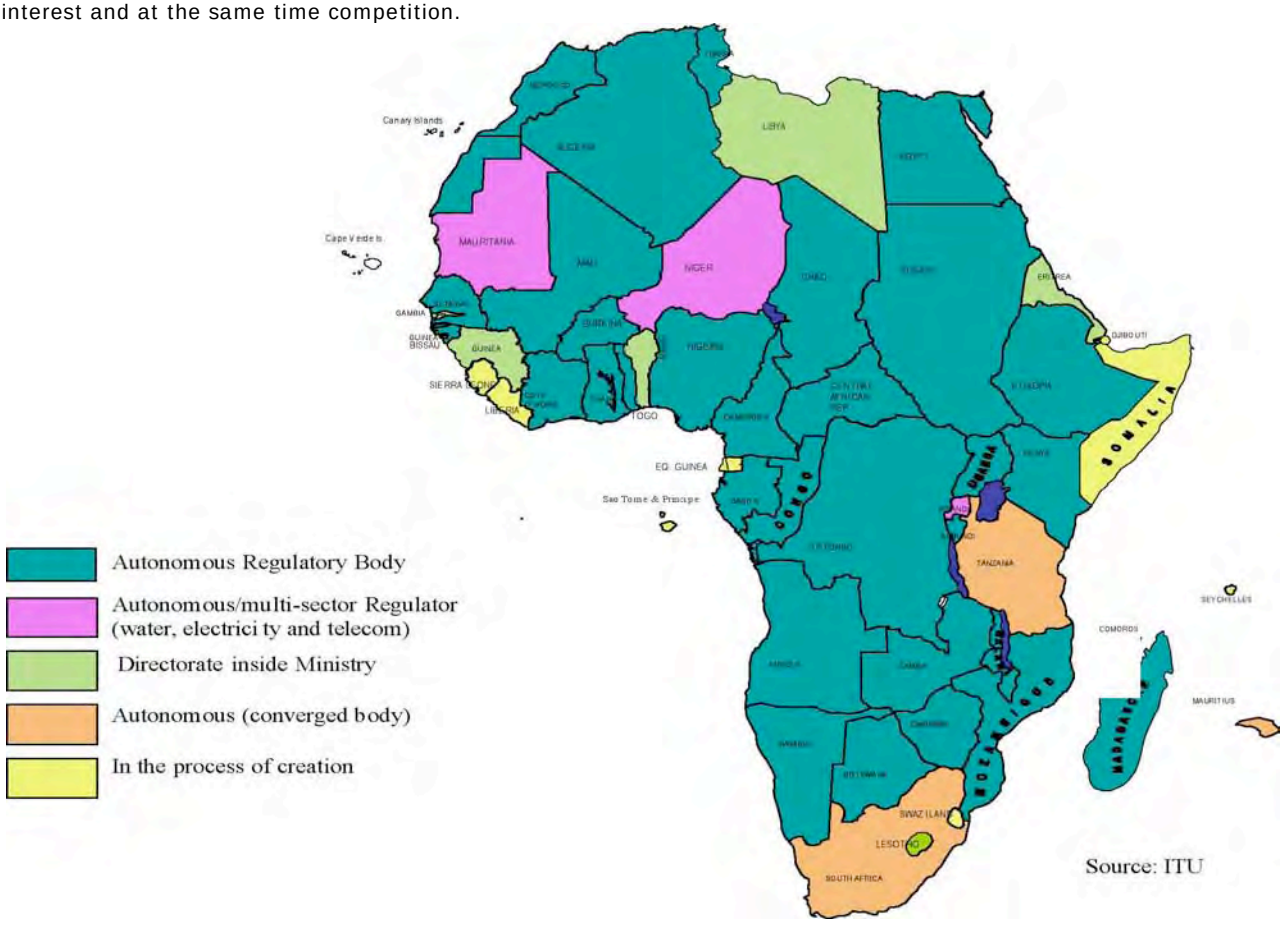


Figure 24: The African ICT Regulatory Environment (Source: the START Consortium)

BENEFIT FROM THE ONGOING DEVELOPMENTS OF AFRICAN REGULATORY FRAMEWORKS

The emerging markets for ICT products and services in sub-Saharan Africa are benefiting from the ongoing development of suited regulatory frameworks

2.1.6 - The African ICT Research Priorities

At the African national and continental levels, significant progress has been made to identify, but also implement important research and development themes and domains.

While national and continental efforts are aimed at challenges in their particular contexts, many issues addressed are equally relevant within the FP7.

The illustration below shows the key research priorities in Africa and their relationships to FP7 areas.

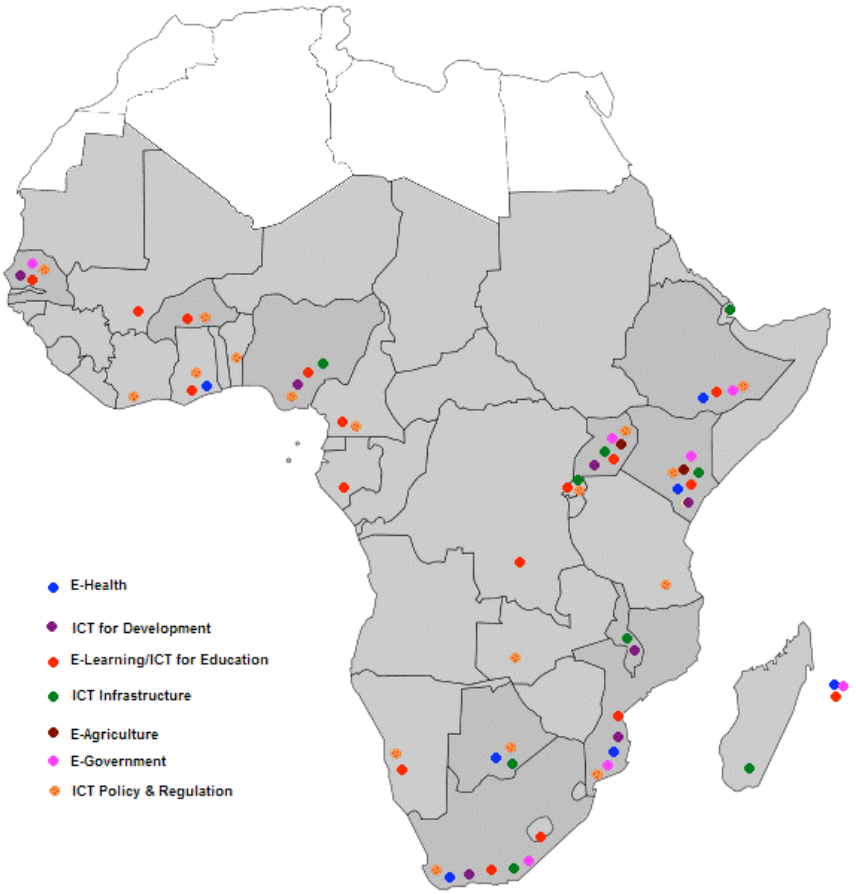


Figure 25: The African ICT Research Priorities (Source: the START Consortium)

		Application Areas						
	FP7 Themes	*ICT 4 Health*	*ICT4D*	*ICT 4 Governance*	*ICT 4 Infrastructure*	*ICT 4 Agriculture*	*ICT 4 Education*	Policy & Regulation
Challenges	Pervasive & Trusted Network & Services Infrastructures	M	M	M	H	M	M	H
	Cognitive Systems, Interaction, Robotics	M	L	L	M	M	L	L
	Components, systems, engineering	M	M	L	L	M	M	L
	Digital Libraries & Content	M	L	M	L	M	H	M
	Towards sustainable & personalised healthcare	H	M	L	L	L	L	M
	ICT for Mobility, Environmental Sustainability & Energy Efficiency	M	H	M	M	H	M	M
	ICT for Independent Living & Inclusion	M	H	L	L	L	M	M

Figure 26: The African ICT Priorities Part I (Source: the START Consortium)

African priorities are influenced by the social and economic development challenges that in turn inform research priorities in the ICT sector. Recent international focus on promoting ICT applications in support of MDGs particularly in the e-governance, health care, education, agriculture, environmental protection and infrastructure development has had a major bearing on the directions of ICT research in developing countries.

These priorities are parallel to FP7 challenges and themes, in particular to the development of sustainable personalized health care, creation of pervasive and trusted network services infrastructure, promotion of ICT for mobility, environmental sustainability and efficiency and ICT for Independent living and inclusion. Analysis of the above table shows that applications relevant to network services and infrastructures and those pertaining to ICT for mobility, environmental sustainability and energy efficiency are top priorities for African institutions followed those related to health care and digital inclusion.

African research priorities mirror the overlapping ICT priorities devised at regional levels including that of the African Information Society Initiative (AISI), the New Partnership for African Development (NEPAD) and the African Regional Action Plan for Knowledge Economy (ARAPKE) endorsed both member states of the ECA and the African Union.

NEPAD Priorities	Harness ICTs to meet key NEPAD goals (conflict prevention, protecting democracy, human rights, macroeconomic stability, market access, human development, building capacities of the private sector) ▪ e-policies and e-strategies including facilitation of policy and regulatory reforms ▪ Infrastructure development ▪ Facilitation of access to broadband infrastructure (East African Submarine Cable project and Broadband Access project for African landlocked countries) ▪ Special programmes with focus on youth and women ▪ Human development (e-Schools, e-Health, e-skills) ▪ Institutional Development, Capacity Building, R&D ▪ Business development and entrepreneurship ▪ Establishing new regional Internet registries ▪ Promote local content ▪ e-Applications (e-Commerce, e-Government, e-law, etc) ▪ Internet and Software Development ▪ Improving public e-awareness
AISI priorities and ADF'99	▪ ICT infrastructure development ▪ Human resources development (African Learning Network – e-schools, varsitynet, Out of School youth network) ▪ National, local and regional information and communications infrastructure plans ▪ Applications (E-governance, e-health, e-education) ▪ Promotion of content (local languages, local content) ▪ Advocacy for ICT for development and poverty reduction ▪ ICT for regional cooperation and integration ▪ Promoting partnership
AU and ECA African Regional Action Plan for Knowledge Economy	▪ Infrastructure development, maintenance and equipment ▪ ICT policies and strategies ▪ Information society indicators ▪ Human resource development and capacity building ▪ Research and development including building the capacities of the universities ▪ Internet governance ▪ Promotion of the involvement of women, youth, parliamentarians and media in the development of the information society ▪ Harnessing the Digital Diaspora ▪ Promotion of cultural diversity and the African Languages ▪ Supporting the needs of persons with disability ▪ Promoting resource mobilization and partnerships

Figure 27: The African ICT Priorities Part II (Source: the START Consortium)

RECOMMENDATION ◀◀◀

CONCENTRATE ON RESEARCH PRIORITY AREAS IDENTIFIED AT AFRICAN NATIONAL & REGIONAL LEVELS

Efforts to develop S&T cooperation on ICT should concentrate on research priority areas identified at African national and regional levels

2.1.7 - The African ICT Research Capacities

ICT research in Africa is already a reality, with the existence of a strong ICT research community in South Africa. Moreover, a growing ICT research capacity exists beyond South Africa, as the map above illustrates. Ghana, Nigeria, Kenya, Mozambique, Tanzania, Senegal and Mauritius have for instance a long-standing involvement in ICT research whereas Rwanda, Uganda, Ethiopia, Burkina Faso, Cameroon and Botswana are emerging as countries where ICT research is receiving attention. Most of the research capacity is embedded in universities and public research institutions, with increasing involvement from the private sector through the establishment of research and training support.

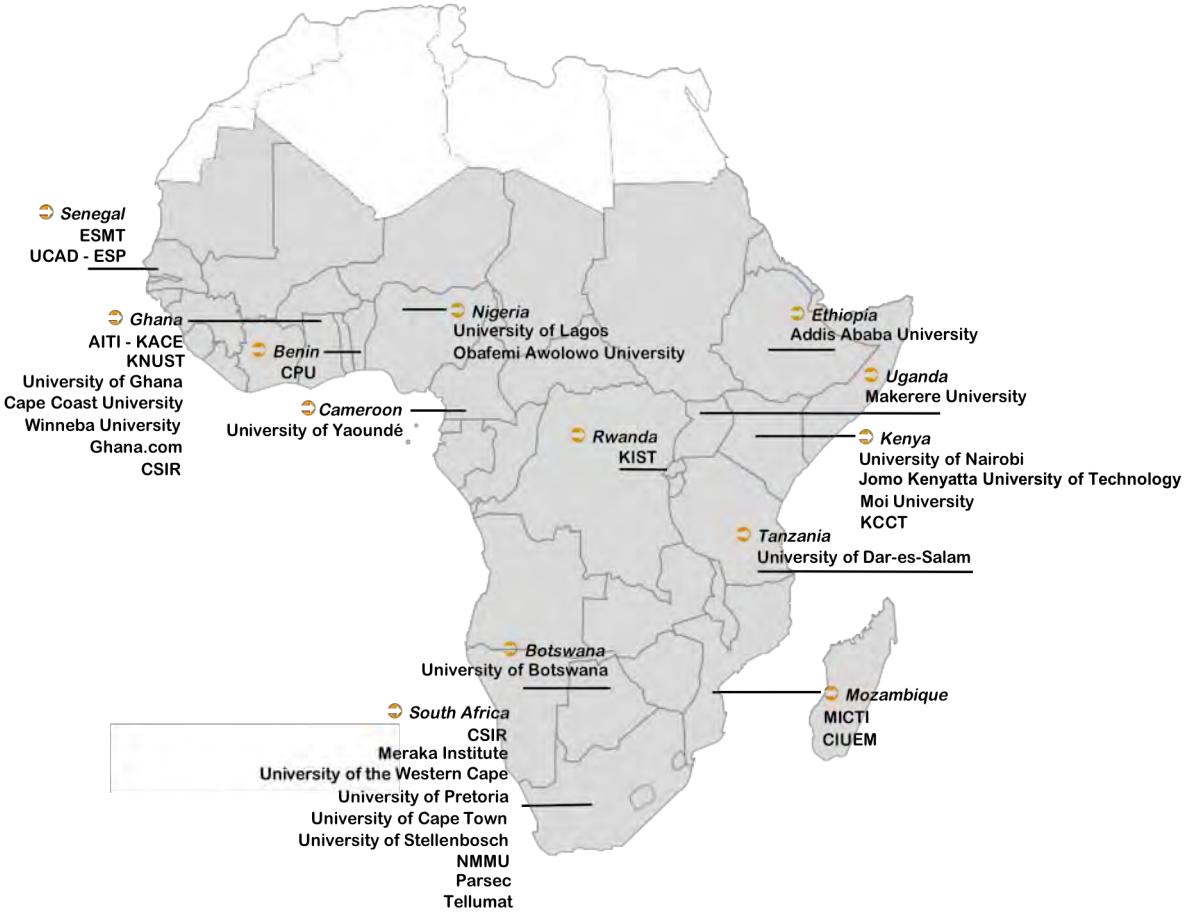


Figure 28: The African ICT Research Capacities (Source: the START Consortium)

RECOMMENDATION

BUILD ON THE EXISTENCE OF A GROWING NUMBER OF AFRICAN ORGANISATIONS OFFERING SKILLS & EXPERIENCE IN ICT RESEARCH

The development of EU-African S&T partnerships on ICT can build on the existence of a growing number of African organisations offering skills and experience in ICT research

2.1.8 - The African ICT Networks

Research activities require effective dissemination mechanisms. In Africa, there is a growing interest in promoting the dissemination of information and knowledge, from both indigenous and international sources. The map provides examples of some of the networks currently operational in Africa. University/scientific networks favouring the dissemination of knowledge are already known and have a natural mandate. Governments usually initiate or support these networks. NGOs working in communications for development can also act as an important relay for scientific information.

Involvement of the mass media, particularly in developing countries, is crucial to broaden the audience. New technologies represent innovative and cost-effective means to disseminate knowledge. Mailings lists, traditional websites, blogs, e-newsletters are used. The establishment of African relay centres, such as the Innovation Relay Centres (IRCs) established since 1995 by the European Commission in EU countries should be considered.

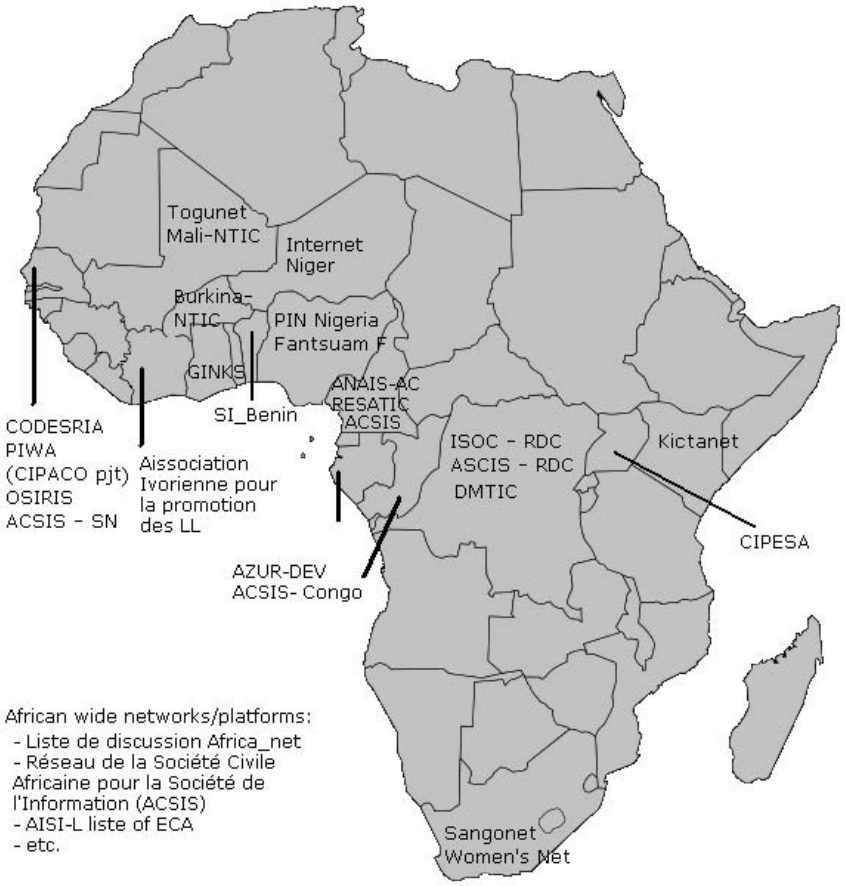


Figure 29: The African ICT Network (Source: the START Consortium)

RECOMMENDATION

BUILD & EXPAND ON EFFICIENT AFRICAN NETWORKS

The development of EU-Africa S&T cooperation on ICT can build and expand on efficient networks (NGOs, networks, platforms, associations, media) in sub-Saharan Africa

2.1.9 - The African ICT Private Sector

National and multinational ICT companies have a crucial role to play in the development of ICT products and services. The African ICT industry is characterised by numerous small ICT companies involved in the development of innovative applications suitable for African markets. Although the initial emergence of the knowledge economy in Africa was prompted by public sector research efforts, the recent trend has moved towards greater contributions in R&D coming from the ICT sector, particularly in South Africa where business investment in S&T research and development has overtaken public sector investment. Public-private partnerships have emerged as the best strategy to promote economic growth. There are however challenges for the African private sector - the sometimes restrictive policy and regulatory environment; the lack of financial resources to participate in R&D activities, particularly for small businesses; and the lack of supporting mechanisms to facilitate international cooperation.

The liberalisation of telecommunications markets, the increased interest in Free and Open Source Software (FOSS), and the rapid uptake of mobile telephony, all present opportunities for strengthening the inclusion of businesses in the FP7 ICT theme. The challenge is to access the companies involved in producing innovative technologies, as well as the possibility of including the African Diaspora. This can be achieved through the numerous national ICT-related industry associations as well as regional bodies such as the African ICT Association (AFICTA) and the African ISP Association (AFRISPA). The map above provides examples of selected industry bodies which could be used as facilitators for increasing private sector presence in the FP7 them on ICT. Existing private sector research collaborations could also be used as entry points.

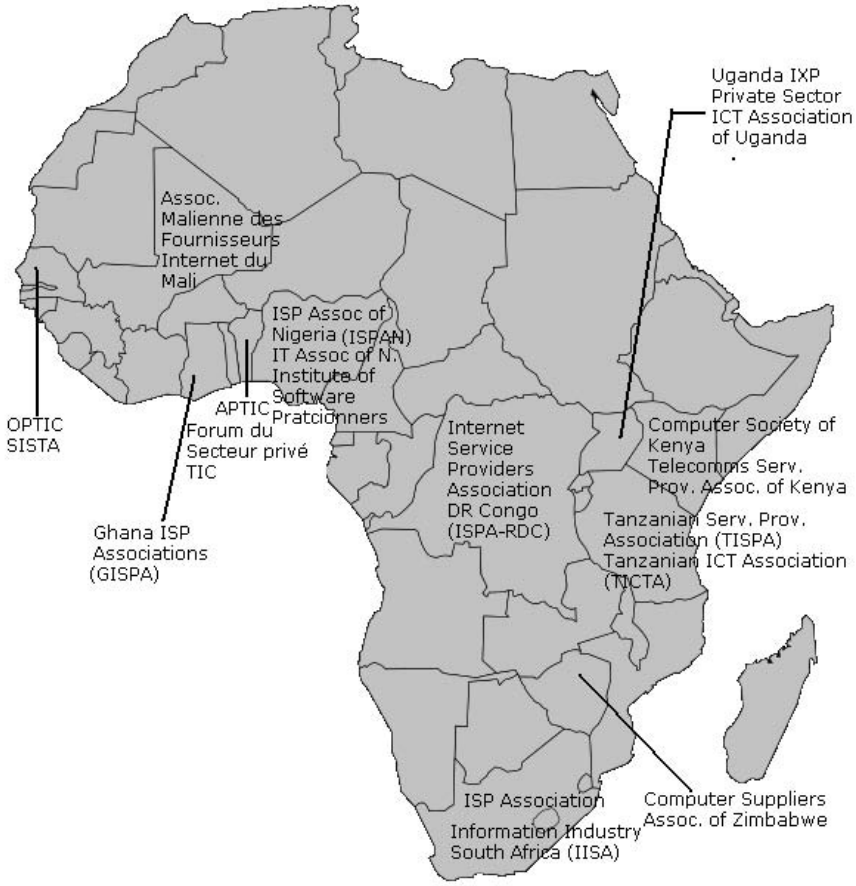


Figure 30: The African ICT Private Sector (Source: the START Consortium)

RECOMMENDATION ◀◀◀

ENCOURAGE THE INVOLVEMENT OF THE AFRICAN PRIVATE SECTOR IN EU-FUNDED R&D PROJECTS IN THE ICT FIELD

It is essential to encourage the involvement of the African private sector in EU-funded R&D projects in the ICT field

2.1.10 - The Development of e-Infrastructures in sub-Saharan Africa

The development of National Research and Education Networks (NRENs), and their interconnection, is planned today in an increasing number of sub-Saharan African countries, and supported by organisations such as the UbuntuNet Alliance. It is strategic, both for Europe and Africa, that these e-Infrastructures can be fully connected to GEANT2, the pan-European network connecting (through multiple 10Gbps wavelengths) 3 million researchers in 34 countries through 30 NRENs, and providing leading-edge worldwide connectivity (with North and South America, North Africa, Asia).

To date, only a pilot connection with GEANT2 has been implemented in South Africa in 2004. An interconnection at the pan-African level will ensure the true integration of the African research and education community into the worldwide community, will offer African organisations access to an exceptional set of resources and applications, and will limit brain drain. This interconnection will reciprocally contribute to increasing the leading role that GEANT2 is playing worldwide. All together, this perspective will efficiently support the development of S&T cooperation between European and sub-Saharan African organisations.

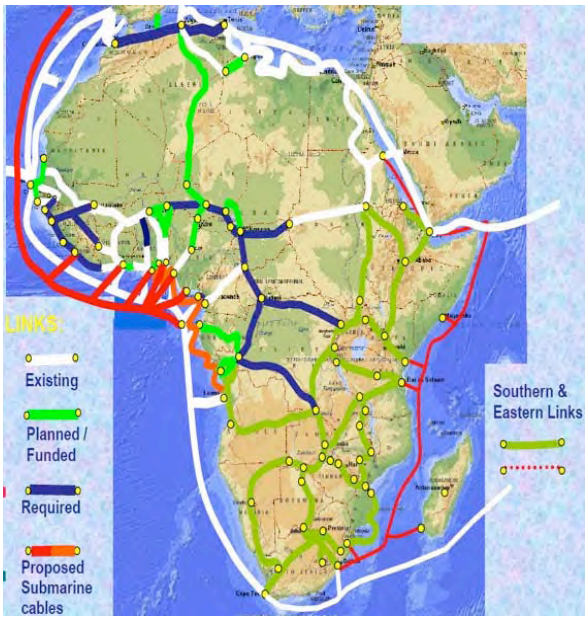


Figure 31: NRENs (Source: the European Commission)

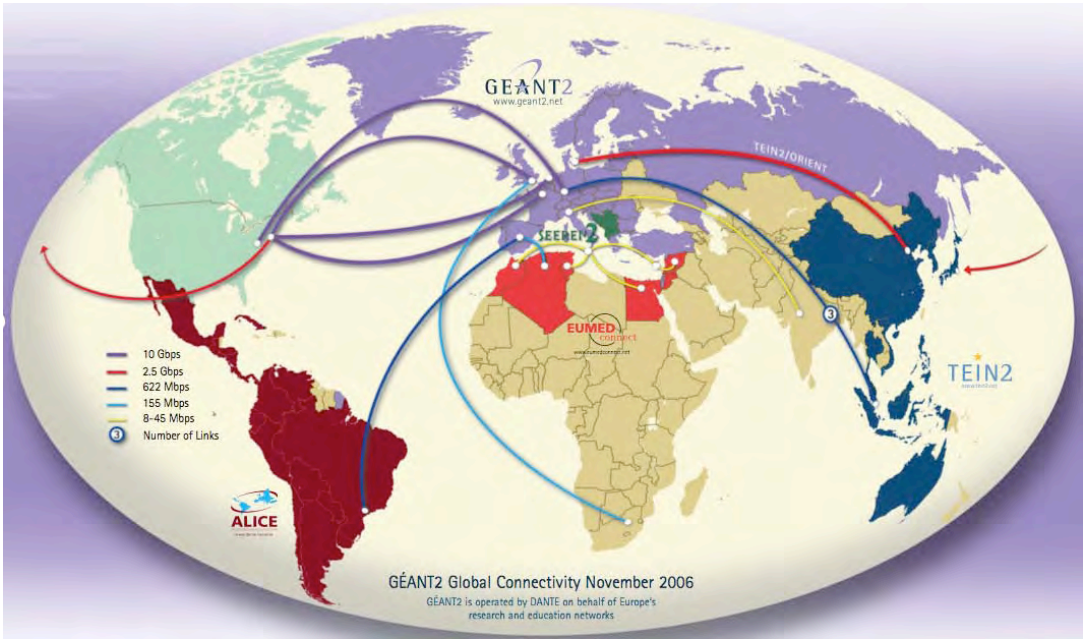


Figure 32: GEANT2 (Source: the European Commission)

RECOMMENDATION

ENSURE A FULL CONNECTION WITH GEANT2

It is of mutual strategic interest for Europe and Africa that a full connection can be quickly ensured between GEANT2 and the research, and education e-Infrastructures emerging in sub-Saharan Africa

2.1.11 - African Awareness of Cooperation Perspectives

Recent awareness activities on EU-Africa cooperation on ICT, including the EuroAfrica-ICT workshops in various African cities, have demonstrated a clear interest, and high expectation, from the African ICT community for cooperation with the EU. The map above illustrates the interest for cooperation with the EU, as assessed during the awareness-raising activities undertaken in Africa during 2007.

European scientific achievements are generally valued by the African research community. The growth of the African ICT market, particularly in telecommunications, is drawing strong interest from European and African companies for partnerships. The European scientific community is also expressing interest in collaboration in order to diversify its research environments and explore alternative innovative ICT solutions, particularly in research relating to socio-economic development. European civil society institutions are also increasingly collaborating with Africa. There is huge potential for expansion of the cooperation between the two regions is important.

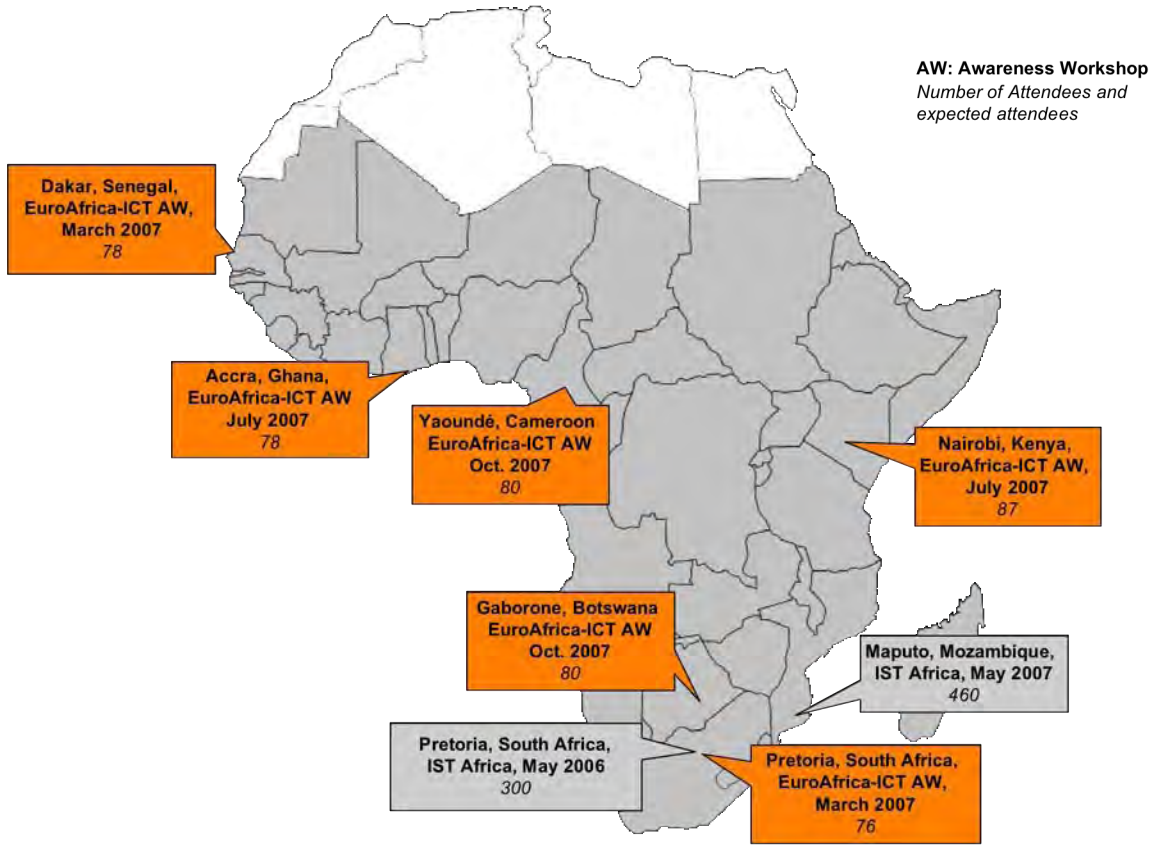


Figure 33: START/EuroAfrica-ICT FP7/ ICT Awareness Workshops (Source: the START Consortium)

RECOMMENDATION ◀ ◀◀

BUILD ON THE STRONG INTEREST OF THE AFRICAN ICT COMMUNITY IN JOINING FP7 PROJECTS

The present level of interest from the African ICT community in the opportunities offered by FP7 should contribute to the effective involvement of African organisations in FP7 projects in the short term

2.1.12 - European Projects, Programmes and Initiatives

A number of European organisations, programmes, projects, initiatives, research centres, and networks, initiated at the Member States' level, are already addressing cooperation with sub-Saharan Africa, and in several cases, cooperation in ICT research.

Similarly, at the European Commission's level, beyond the ICT theme of the FP7 Cooperation programme, a number of instances, programmes, instruments, etc. are supporting the development of a deeper and broader partnership between Europe and Africa, and may address research and/or ICT issues.

Close synergies between all these actions at Member States or European Commission levels have to develop so that the overall impact of all actions can be maximised.

These synergies have been indeed developing quite rapidly in the recent years and the periodical meetings of the EuroAfrica-ICT group have tried to modestly contribute to making such synergies happen, at least as far as S&T cooperation on ICT is concerned. It is important that these efforts can be maintained in the coming months and years.

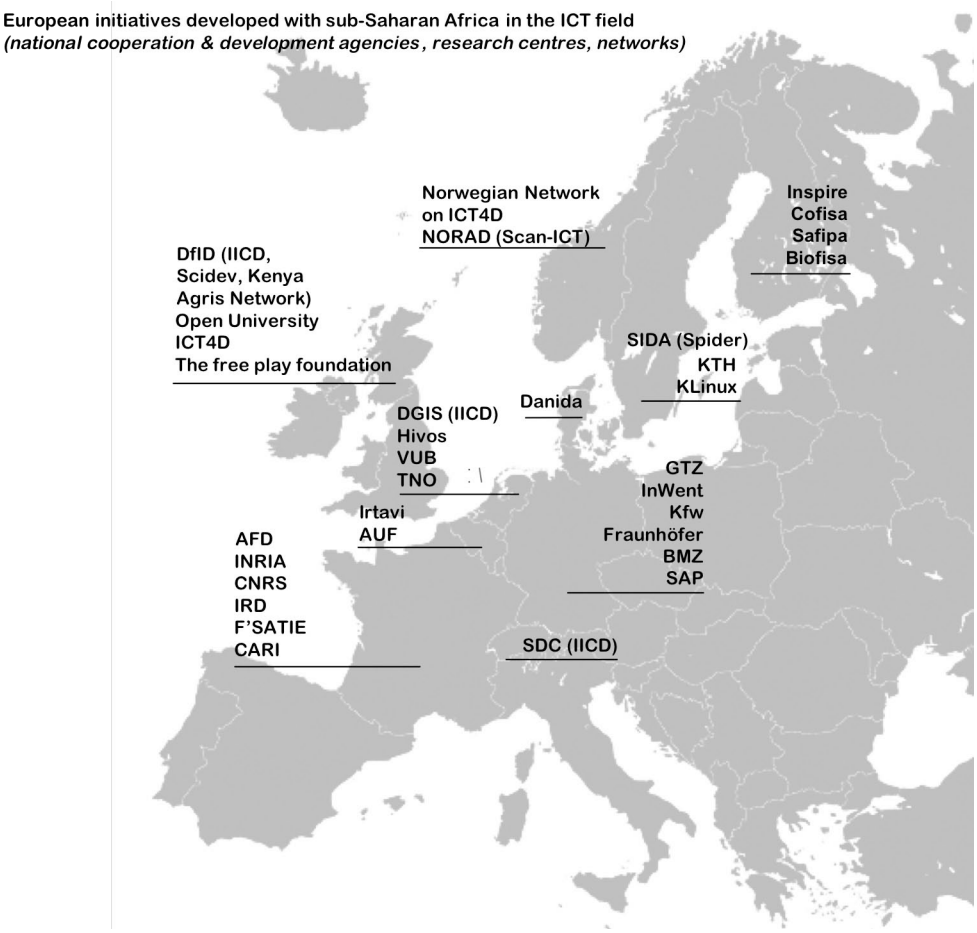


Figure 34: European Projects, Programmes, & Initiatives (Source: the START Consortium)

RECOMMENDATION

ENSURE THE BEST SYNERGIES BETWEEN POLICIES, PROJECTS, PROGRAMMES & INITIATIVES DEVELOPED IN EUROPE

To maximise the impact of EU-Africa S&T cooperation in ICT, it is essential to ensure the best synergies between policies, projects, programmes and initiatives developed in Europe

2.2 - Connecting the EU and sub-Saharan Africa for ICT Partnerships under FP7 - The EuroAfrica-ICT Partnership Recommendations in a few words

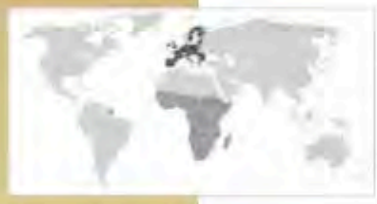
A Competing International Context	Strengthen the EU Positioning in Africa through the Development of a Deeper & Broader S&T Cooperation on ICT *At a time when many countries in the world are developing closer relations with Africa, the EU could strengthen its positioning through the development of a deeper and broader S&T cooperation on ICT*
Growth and Opportunities in African ICT Markets	Support the Emergence of Promising African ICT Markets *EU-Africa S&T cooperation on ICT can support the present emergence of promising African ICT markets*
The African ICT Institutional Framework	Rely on an Already Structured African ICT Institutional Framework *The development of EU-Africa S&T cooperation on ICT can rely on an already structured African ICT institutional framework*
African National ICT Policies and Strategies	Benefit from Existing African ICT Policies & Strategies *Cooperation in ICT research between the EU and sub-Saharan Africa can benefit from existing African ICT policies and strategies*
The African ICT Regulatory Environment	Benefit from the Ongoing Developments of African Regulatory Frameworks *The emerging markets for ICT products and services in sub-Saharan Africa are benefiting from the ongoing development of suited regulatory frameworks*
The African ICT Research Priorities	Concentrate on Research Priority Areas Identified at African National & Regional Levels *Efforts to develop S&T cooperation on ICT Should concentrate on research priority areas identified at African national and regional levels*
The African ICT Research Capacities	Build on the Existence of a Growing Number of African Organisations Offering Skills & Experience in ICT Research *The development of EU-African S&T partnerships on ICT can build on the existence of a growing number of African organisations offering skills and experience in ICT research*
The African ICT Networks	Build & Expand on Efficient African Networks *The development of EU-Africa S&T cooperation on ICT can build and expand on efficient networks (NGOs, networks, platforms, associations, media) in sub-Saharan Africa*

The African ICT Private Sector	Encourage the Involvement of the African Private Sector in EU-funded R&D Projects in the ICT Field *It is essential to encourage the involvement of the African private sector in EU-funded R&D projects in the ICT field*
The Development of e-Infrastructures in sub-Saharan Africa	Ensure a Full Connection with GEANT2 *It is of mutual strategic interest for Europe and Africa that a full connection can be quickly ensured between GEANT2 and the research, and education e-Infrastructures emerging in sub-Saharan Africa*
African Awareness of Cooperation Perspectives	Build on the Strong Interest of the African ICT Community in Joining FP7 Projects *The present level of interest from the African ICT community in the opportunities offered by FP7 should contribute to the effective involvement of African organisations in FP7 projects in the short term*
European Projects, Programmes and Initiatives	Ensure the Best Synergies Between Policies, Projects, Programmes & Initiatives Developed in Europe *To maximise the impact of EU-Africa S&T cooperation in ICT, it is essential to ensure the best synergies between policies, projects, programmes and initiatives developed in Europe*

CONCLUSIONS: CONNECTING SUB-SAHARAN AFRICA & THE EU FOR ICT PARTNERSHIPS UNDER FP7: THE EUROAFRICA-ICT MANIFESTO

EuroAfrica-ICT Manifesto

For a strengthened EU-Africa strategic partnership on ICT under FP7



Brussels
November 19, 2007

This document has been inspired by the activities developed by the EuroAfrica-ICT project (see www.EuroAfrica-ICT.org), funded by the European Commission (Directorate General Information Society and Media) and aiming at supporting a deeper and broader S&T cooperation on ICT between the European Union (EU) and sub-Saharan Africa under the 7th EU Framework Programme for Research and Development (FP7).

The EuroAfrica-ICT project has developed a high number of activities (workshops, conferences, expert panel meetings, technical visits, bilateral meetings, public consultations, etc.) over the last twelve months, involving the main European, African and global organisations (public institutions, large corporations, SMEs, universities, NGOs, etc.) active in - or interested in - S&T cooperation on ICT between the EU and sub-Saharan Africa.

These activities have led to the following conclusions shared by all the individuals and organisations listed at the bottom of this Manifesto. They expect that their conclusions are duly taken into consideration in the ongoing revision process of the FP7 Work Programme related to the ICT theme.

EU-Africa relations are already very close today: Africa receives 60% of its development assistance from Europe (€15 billion per annum); 85% of all agricultural goods exported from Africa are bought by Europe; 65% of the Global Fund to Fight AIDS, Tuberculosis, and Malaria are provided by Europe.

At a time when Africa is changing politically and economically and is rapidly entering a true new phase in its development history, Europe and Africa may forge an even deeper future.

We can therefore only praise the decision of the EU and of the African Union (AU) to go beyond donor-recipient arrangements, to enter a genuine "partnership of equals" based on mutual interest, and to agree on an ambitious Joint Strategy to be adopted at their Summit of December 2007 in Lisbon.

In the past years, Africa has also recognised that Science and Technology (S&T) and Information and Communication Technologies (ICT) are key vectors for bridging the scientific and digital divides, for reducing poverty and ensuring socio-economic development, for reaching the Millennium Development Goals (MDGs), and, eventually, for supporting the sustainable evolution of Africa towards a peaceful, integrated and prosperous continent, a full actor of the global community.

The Africa Science and Technology Consolidated Plan of Action formulated by the New Partnership for Africa's Development (NEPAD) and the African Union, the creation of the African Ministerial Council on Science and Technology (AMCOST), and the African Regional Action Plan on the Knowledge Economy (ARAPKE), are only some of recent examples of Africa's determination to rely on S&T and ICT to achieve its growth and development objectives.

Progress is indeed being made today in Africa concerning institutions, policies, regulatory frameworks, infrastructures, capacity building, etc., and the African ICT research community - even if still limited - is already offering interesting skills and is rapidly expanding.

Meanwhile, in their determination to ensure Europe's global leadership in ICT and in line with their i2010 initiative, the EU Member States have earmarked a total of €9.1 billion for funding ICT research over the duration of FP7, a programme including an important international dimension, being open in particular to the participation of sub-Saharan African organisations.

In this context, a strengthened S&T cooperation between Europe and Africa on ICT is of mutual strategic interest to the European and African research organisations and industries, and can efficiently contribute to implementing the new EU-AU Joint Strategy. It is therefore not surprising that one of the expected deliverables of the Lisbon EU-AU Summit is the approval of a specific Partnership on Science, Information Society, and Space.

However, the FP7 Work Programme for the ICT Theme, in its present version covering the period 2007-2008, pays a very limited attention to Africa when compared to other regions of the world. There is indeed a true paradoxical gap between - on the one hand - the political vision and roadmap, the determination of European and African organisations to cooperate (among them the ones endorsing the present Manifesto), and - on the other hand - the opportunities offered by the FP7 ICT Work Programme.

Taking the above into consideration, the individuals and organisations having endorsed this EuroAfrica-ICT Manifesto recommend that, in the ongoing revision process of the FP7 ICT Work Programme (to cover the period 2009-2010), the strategic nature of EU-Africa cooperation can be duly taken into account so that:

- an increased participation of sub-Saharan African organisations in FP7 proposals is positively assessed during the evaluation process of the proposals,
- specific actions (sectorial 'Coordination and Support Actions' - CSAs, 'Specific International Cooperation Actions' - SICAs, etc.) based on European and African mutual interests, are included in the revised FP7 Work Programme for the ICT Theme.

On this last point, many of the individuals and organisations that endorse the EuroAfrica-ICT Manifesto have suggested such actions and are ready to provide further information to the relevant Units of the European Commission's DG Information Society and Media.

Individuals and organisations endorsing the EuroAfrica-ICT Manifesto

In alphabetical order

The Abdus Salam International Centre for Theoretical Physics, Italy • **The Academy of Sciences for the Developing World (TWAS)**, Italy • **Accademia Nazionale dei Lincei**, Italy • **Advanced Information Technology Institute - Kofi Annan Centre for Excellence in ICT (AITI-KACE)**, Eleanor Afful, Network Engineer & Research Fellow, Ghana • **AFFOJ-TICE (Training ICT Association for Youth)**, Marceline Djeumeni Tchamabe, Cameroon • **Africa Digital**, Salomon Salumu Zahera, General Manager, Democratic Republic of Congo • **African Axis**, Belgium • **African Institute of Mathematical Sciences**, Francis Allotey, Director, Ghana • **African Languages Technology Initiative (Alt-i)**, Tunde Adegbola, Executive Director, Nigeria • **Africascan Media AB**, Christer L. Pettersson, President & CEO, Sweden • **AICO Software GmbH**, Kar Kosal, Information Officer, Austria • **Ajayi Crowther University**, Nigeria • **ARCIN**, James Ngugi, Executive Director, Kenya • **The ARTEMIS Industrial Association (ARTEMISIA)**, The Netherlands • **Associazione Italiana di Bioingegneria (AIB)**, Italy • **Associazione Italiana di Telemedicina e Informatica Medica**, Italy • **Audiovisual Technologies, Informatics and Telecommunications (ATiT)**, Belgium • **Bantu**, Bwalya Mwali, Director, Belgium • **Boniface Technology Systems**, Boniface Atosona, Ghana • **Botswana CBTL**, Frank Metschies, eLearning Consultant Africa, Germany • **Botswana Technology Centre**, Resego Morakanyane, Assistant Computer Engineer, Botswana • **Cameroun-sansfil Association**, Gerard Philippe Mbouyap, President, Cameroon • **Cape Peninsula University of Technology (CPUT)**, Melius Weideman, Head of Research Development, South Africa • **Caribbean Academy of Sciences (CAS)**, Tara Dasgupta, President of CAS, Jamaica • **Center for Media Studies and Peacebuilding**, Calixte S. Hessou, Programme Manager, Liberia • **Centre Africain d'échange culturel**, Schombe Baudoin, Coordinator, Democratic Republic of Congo • **Centre de Formation, d'Etudes et de Recherches pour le Développement (CFERD)**, Joseph Nkonga, Director, Democratic Republic of Congo • **Centre de Promotion et de Vulgarisation de l'Informatique en RDC**, Arnold Mulenda Yamukandu, Programme Officer, Democratic Republic of Congo • **Centre for Healthcare modelling and Informatics, University of Portsmouth**, Adesina Iluyemi, Researcher, United Kingdom • **The Christian Centre**, Zwide Mbulawa, Senior Consultant, Botswana • **Club des Hommes et Femmes d'Affaires du libre en Afrique (CHALA)**, Christian Roland, General Secretary, Senegal • **CNOTINFOR**, Secundino Correia, Chief Innovation Officer, Portugal • **College of Medicine, University of Lagos**, Olayinka O. Ayankogbe, Senior Lecturer, Nigeria • **Commonwealth Network of I.T. for Development**, Henry Alamango, Executive Director, Malta • **Computer Aid International**, Hilar Addo, Southern Africa Programme Officer, United Kingdom • **Computer Frontiers Senegal**, Coura Fall, General Director, Senegal • **Connect Africa**, Dion Jerling, South Africa • **Consiglio Nazionale delle Ricerche (CNR)**, Palma Blonda, Senior Researcher, Italy • **The Council for Scientific and Industrial Research (CSIR)**, South Africa • **Destiny Africa**, Kenya • **Development Generation Africa International**, Henry Ekwuruke, President, Nigeria • **Digital Village**, Muiruri Kanyi, Kenya • **Ecopia**, Mitslal Kifleyesus-Matschie, Manager, Ethiopia • **Eduardo Mondlane University, Faculty of Education**, Mozambique • **Educational Research Network for West and Central Africa (ERNWACA)**, Mbangwana Moses Atezah, Research Programme Manager, Mali • **Elizka Relief Foundation**, Kofi Kankam, Chief Executive Officer, Ghana • **Empowerment for Sustainable Livelihood**, William Jacob Ocran, Founder & Executive Director, Ghana • **eMobility**, European Technology Platform • **Environmental Information System - Africa**, Sives Govender, Executive Director, South Africa • **ePrep**, Nathalie Van de Wiele, Director, France • **European Business Associates**, Ira Vater, Italy • **FADECO Telecentre**, Joseph Sekiku, Director, Tanzania • **Fondation Mérieux**, Martina Gilber, Programme Coordinator, France • **Foresight Generation Club**, Albert Yeboah Obeng, National Projects Coordinator, Ghana • **Forthnet**, Manolis Stratakis, e-Services Manager, Greece • **Forum for Agricultural Research in Africa (FARA)**, Ghana • **France Telecom - Orange Labs**, Bruno Conquet, Strategic Innovation Manager, France • **Gambre**, Aminata Congo, IT Administrator, Burkina Faso • **Gaston Berger University**, Mamadou-Youry Sall, Professor, Senegal • **GeoMed MIT**, Jacques de Vos, Managing Director, South Africa • **Ghana Telecom University College**, Ebenezer Kwaku Ofori Atiapa, Network Administrator, Ghana • **Hoffmann&Reif Consultants**, Leopold Reif, Partner, Germany • **Hospitality Systems Consultants**, Joseph Musangi, Business Development Manager, Kenya • **Icteum Consulting**, Tina James, Director, South Africa & EuroAfrica-ICT Reference Panel Member • **Ikonzo Musanda Self Help Group**, Francis Anyonah, Director, Kenya • **INI-GraphicsNet Foundation**, José L. Encarnação, Chairman, Germany & EuroAfrica-ICT Reference Panel Member • **Institut de Recherche pour le Développement (IRD)**, France • **Institute of Tropical Medicine**, Maria Zolfo, Managing Director, Belgium • **Integral Satcom Initiative (ISI)**, European Technology Platform, Christine Leurquin, Vice Chairman & Vincenzo Foglisti, Chairman • **International Council for Science (ICSU)**, Sospeter Muhongo, Director, South Africa • **International development informatics Association**, Jacques Steyn, Director, South Africa • **International Organisation for Migration**, Messie Ann Rose Taylor, IT Officer, Sierra Leone • **Isocel**, Robert Aouad, CEO, Benin • **ItalyDataVision International**, Bogale Demissie, Chief Executive Officer, Ethiopia • **Itrealms Online**, Remmy Nweke, Editor, Nigeria • **Jatropha Gambia**, Smits Beppie, Founder, Gambia • **Jimma University**, Yosef Kebede, Lecturer, Ethiopia • **Kakiese & Luzeyemo Lawyers**, Jean Robert Kakiese Lowambuy, Lawyer, Belgium • **Kenyan Network of Telecentres (KenTel)**, Kenya • **Kigali Institute of Science and**

Technology (KIST), Rwanda • **LinkNet Zambia**, Gertjan van Stam, Executive Director, Zambia • **Lithuanian Academy of Sciences**, Lithuania • **LOG-IN Africa Research Network**, Timothy M. Waema, Research Network Coordinator, Kenya • **Makerere University, Faculty of Computing and Information Technology**, Venansius Baryamureeba, Dean, Uganda • **Mali National e-Health Project**, Ly Ousmane, Executive Coordinator, Mali • **Maseno University**, Mary Khakoni Walingo, Professor, Kenya • **The Meraka Institute**, South Africa & member of the EuroAfrica-ICT Initiative • **The Ministry of Communication, Science and Technology**, Omprakash Chandra, Project Manager, Botswana • **The Ministry of Education, Gaborone Senior High School**, Tommie Hamaluba, Teacher, Botswana • **The Ministry of Information and Broadcasting**, Namibia • **The Ministry of Scientific Research**, Almamy Conté, Director of Technologic Research, Senegal & EuroAfrica-ICT Reference Panel Member • **The Ministry for Scientific Research**, Kenya • **MKFC Stockholm College**, Sweden • **Movement for the Promotion of Gender Equality in Liberia (MOPGEL)**, Hisenburg Q. Togba, Executive Director, Ghana • **Muhimbilu University of Health and Allied Sciences**, Kiwara Angwara, Professor, Tanzania • **The Naledi3d Factory**, David Lockwood, Managing Director, South Africa • **National Africa Foundation**, Prince M. Obin-Mainoo, Executive Director, Ghana • **National Artificial Insemination Centre**, Thomas Mbeyela, Field Officer, Tanzania • **National Association of Youth and Children Organisations (NAYCO)**, Ousainou Sarr, Gambia • **National Scientific Research Centre**, Eric Maréchal, Research Director, France • **National Scientific Research Centre – IN2P3**, Vincent Breton, Research Associate, France • **Netherlands Organisation for Applied Scientific Research Building and Construction Research (TNO)**, Nicolas Chevrollier, Innovator, The Netherlands • **Networked and Electronic Media (NEM)**, European Technology Platform • **The Networked European Software and Services Initiative (NESSI)**, European Technology Platform • **Network of Telecentres (KenTel)**, Kenya • **Obafemi Awolowo University, Ile-Ife**, Adekunle Afolabi, Programme Officer, Nigeria • **Open University**, Paul Lefrere, Associate Dean for External Relations, United Kingdom • **Orionis**, France & coordinator of the EuroAfrica-ICT Initiative • **The Panos Institute West Africa (PIWA)**, Senegal & member of the EuroAfrica-ICT Initiative • **Pole Universitaire Européen de Montpellier et du Languedoc Roussillon**, Marguerite Pezeril-Toullec, ICT Manager, France • **Polytechnic School of the University of Lausanne**, Gianluca Misuraca, Managing Director, United Kingdom • **Practice Ventures**, Seyi Oyesola, Director, United Kingdom • **Ridgeback**, Paolo Barattini, Italy • **ROCARE**, Pierre Fonkoua, National Coordinator, Cameroon • **Roffe Hi-Tech**, Nyabingi Buunda Junior Alois, Network Administrator, Democratic Republic of Congo • **Royal Holloway, University of London**, Tim Unwin, UNESCO Chair in ICT4D, United Kingdom & EuroAfrica-ICT Reference Panel Member • **The Royal Netherlands Academy of Arts and Sciences (KNAW)**, The Netherlands • **Royal Tropical Institute**, The Netherlands • **Safaricom Ltd.**, Adam Nyaga, Business Analyst, Kenya • **SAP Research**, Wolfgang Gerteis, Chief EMEA Officer, Germany • **Southern African Biofuels Association – SABA**, Erhard Seiler, Chief Executive Officer, South Africa • **Scientific, Technical and Research Commission of the African Union**, Gamal Eldin Ahmed Karrar, Senior Scientific Officer, Nigeria • **SchoolNET-Gabon**, Aurélien Nlong-Oye, National Coordinator, Gabon • **Sheffield Hallam University**, Kassim S. Mwitondi, Senior Lecturer, United Kingdom • **Softexpert**, Cristian Nicolae, Managing Partner, Romania • **Software Without Borders**, Silvano de Gennaro, Switzerland • **Sokoine University of Agriculture**, Siza Tumbo, Director, Computer Center, Tanzania • **Somali Youth Development Network**, Osman Mohiadin Moallim, Chairperson, Somalia • **Southern Aerospace Telecom Consulting**, Mustapha Eriz, CEO, France • **Southern Africa HIV/AIDS Information Dissemination Service**, Sara Page, Deputy Director, Zimbabwe • **Southern African Legal Information Institute (SAFLII)**, Kerry Anderson, Director, South Africa • **Starhome Ltd.**, Shai Ophir, Technology Specialist, Israel • **Summit Strategies Ltd.**, Muriuki Mureithi, CEO, Kenya & EuroAfrica-ICT Reference Panel Member • **Swedish Program for ICT in Developing Regions (SPIDER)**, Sweden • **Technical Centre for Agricultural and Rural Cooperation (CTA)**, Thierry Doudet, Head of Department, The Netherlands • **Tembea Youth Centre for Sustainable Development**, Jared Buoga, Executive Director, Kenya • **Trawick IT Consultant**, Zelalem Mengistu, Senior Technical Support, United States • **Uganda Industrial Research Institute**, Joseph David Rubalema, Head Food Division, Uganda • **United Nations Department of Economic and Social Affairs (UNDESA)**, Flavio Zeni, Chief Technical Adviser, Kenya • **United Nations Development Programme (UNDP)**, Pierre Dandjinou, African ICT Regional Adviser, Benin & EuroAfrica-ICT Reference Panel Member • **University of Bangui, Faculty of Sciences**, Jean M'Boliguipa, Vice Dean, Central African Republic • **University of Botswana**, Sunday O. Ojo, Senior Lecturer, Botswana & EuroAfrica-ICT Reference Panel Member • **University of Coimbra**, Edmundo Monteiro, Professor, Portugal • **University of Cyprus**, Andreas Pitsillides, Professor, Cyprus • **University of Dar-es-Salam**, Ambrose Suley Qorro, Department of Foreign Languages and Linguistics, United Kingdom • **University of Fort Hare**, Oladejo Olowu, Senior Lecturer, South Africa • **University of Ghana**, Kwadwo Appiagyei-Atua, Senior Lecturer, Ghana • **University of Lagos**, Aderemi Adewumi, Lecturer, Nigeria • **University of Lomé**, Emmanuel Ede, Professor, Togo • **University Lusiada of Angola**, Faculty of Law, Evaristo Solano, Lecturer, Angola • **University of Ngaoundéré**, Sale Adam, Cameroon • **University of Paris VII**, Jean-Michel Chasseriaux, Professor, France & EuroAfrica-ICT Reference Panel Member • **University of Pretoria**, Jane Olwoch, Lecturer & Researcher, South Africa • **University of Sierra Leone**, Isaac Danner, Lecturer & IT Consultant, Sierra Leone • **University of Strathclyde, Department of Electronic and Electrical Engineering**, Tariq S. Durrani, Professor, United Kingdom • **University of Utrecht**, Frank Dignum, Associate Professor, The Netherlands • **University of Yaounde II**, Richard Awono, Researcher, Cameroon • **University of Zambia**, Zambia • **Veneto Innovazione**, Alessandra Pelizzaro, ICT Manager, Italy • **Vodacom**, Marius Conradie, Strategic Planning Manager, South Africa • **Zambian Association for Advancement of Technologies (ZAA-ICT)**, Dean Mulozi, Executive Coordinator, Zambia • **Zanzibar University**, Lubowa Luwalira, Lecturer, Tanzania

APPENDIXES

Appendix #1: List of Figures

Appendix #2: List of Acronyms

AAU	Association of African Universities
ACACIA	Communities and the information society in Africa
ACP	Africa, Caribbean and Pacific
ACU	Association of Commonwealth Universities
ADB	African Development Bank
ADEN	African Development Education Network
AEC	African Economic Community
AFICTA	African ICT Association
AFO	French Agency for Development
AFREN	African Research Network
AFRISPA	African ISP Association
AIF	African Internet Forum
AISI	African Information Society Initiative
AMREF	African Medical & Research Foundation
ANI	African Network Initiative
ARAPKE	African Regional Action Plan on the Knowledge Economy
ATPS	African Technology Policy Studies
AU	African Union
AUF	Agence Universitaire de la Francophonie
AVOIR	African Virtual Open Initiative and Resources
AVU	African Virtual University
BCO	Building Communication Opportunities
BDO	Building Digital Opportunity
BMZ	German Federal Ministry for Economic Cooperation and Development
BOTEC	Botswana Technology Centre
CATIA	Catalysing Access to ICTs in Africa
CAFRAD	African Training and Research Centre in Administration for Development
CCK	Communications Commission of Kenya
CEAN	Centre d'études d'Afrique noire – Sub-Saharan Africa Study Centre (France)
CIPESA	Collaboration on International ICT Policy for East & Southern Africa
CIUEM	Centre Informatica at the Universidade Eduardo Mondlane
CNRS	National Centre for Scientific Research (France)
COFISA	Cooperation Systems between Finland and South Africa
COMESA	Common Market for Eastern and Southern Africa
COST	Co-operation on Scientific and Technical Research
CPA	Consolidated Plan of Action
CSIR	Council for Scientific and Industrial Research (South Africa)
CTA	Technical Centre for Agricultural and Rural Co-operation
DANIDA	Danish International Development Agency
DFI	Digital Fridom Initiative
DFID	Department for International Development (United Kingdom)
DG	European Commission Directorate General
DGIS	Dutch Ministry for cooperation

DOI	Digital Opportunity Index
DOT	Digital Opportunity Task Force
DST	Department of Science and Technology, South Africa
DTI	Danish Technological Institute
EASSy	East African Submarine Cable System
FAO	Food and Agriculture Organisation
EC	European Commission
EC INCO	European Commission International Cooperation
ENP	European Neighbourhood Policy
ERA	European Research Area
EU	European Union
FOSS	Free and Open Source Software
FP	Framework Programme
GAID	Global Alliance for ICT and Development
GCA	Global Coalition for Africa
GDP	Gross Domestic Product
GeSCI	Global e-Schools and Communities Initiatives
GKP	Global Knowledge Partnership
GTZ	Deutsche Gesellschaft fűr Technische Zusammenarbeit (German Development cooperation agency)
HLT	Human Language Technologies
ICT	Information & Communications Technologies
ICT4D	ICT for development
IICD	International Institute for Communications in Development
IDRC	International Development Research Centre
INRIA	French National Institute for Research in Computer Science and Control
IPR	Intellectual Property Rights
IRCs	Innovation Relay Centres
ITU	International Telecommunication Union
KADO	Korean Agency for Digital Opportunity and Promotion
KEWL	Knowledge Environment for Web-based Learning
KIST	Kigali Institute of Science and Technology (Rwanda)
KTH	The Royal Institute of Technology (the Nerthlands)
MDG	Millennium Development Goals
MICTI	Mozambique ICT Institute
MS	Member State (EU)
NAI	New African Initiative
NGN	New Generation Networks
NEPAD	New Partnership for Africa's Development
NGO	Non Governmental Organisation
NICI	National Information and Communication Infrastructure
NRENs	National Research and Education Networks
OAU	Organisation of African Unity
OECD	Organisation for Economic Cooperation Development
OKN	Open Knowledge Network
PIWA	Panos Institute of West Africa
R&D	Research and Development

RIA!	Research ICT Africa! Network
RICSTP	Regional Information Communication Technology Support Programme
S&T	Scientific and Technological *or* Science and Technology
SAFIPA	South African Finland Knowledge Partnership on ICT Programme
SAFeTI	French South African Programme in ICT
SDC	Swiss Development Cooperation
SICA	Specific International Cooperation Actions
SIDA	Swedish International Development Cooperation Agency
SPIDER	Swedish Programme for Information and Communication Technology in Developing Regions
TDCA	Trade and Development Cooperation Agreement with South Africa
TICAD	Tokyo International Conference on African Development
TNO	Dutch Organisation for Applied Scientific Research
UN	United Nations
UNECA	United Nations Economic Commission for Africa
UNDP	United Nations Development Program
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNV	United Nations Volunteers
UN-OSSA	United Nations Office of the Special Advisor on Africa
UWC	University of Western Cape
USAID	United States Agency for International Development
WB	World Bank
WSSD	World Summit on Sustainable Development
WSIS	World Summit on the Information Society

Appendix #3: Selected Information Resources

Accenture, Markle Foundation - UNDP (July 2001)
Creating a development dynamic
Final report of the digital opportunity initiative

African Union (Economic Commission for Africa) and World Summit on the Information Society Bamako Bureau (2005)
African Regional Action Plan on the Knowledge Economy (ARAPKE) - A Framework for Action

BOND (September 2006)
The EU's Strategy for Africa: meeting expectations?

British Government (March 2005)
Our Common Interest - Report of the Commission for Africa

Collective (2006)
European-African Pact on ICT for Development: creating synergies by supporting the emerging knowledge societies in developing countries through the European IST Programme, second edition

Eksteen, J.J. & Woodborne, M. (2002 – Cape Town)
Human Resource Development in the Knowledge Society
Invited technical paper for ACP-EU Ministerial Meeting on R&D for Sustainable Development

European Centre for Development Policy Management (2006)
Regional Integration / Discussion note

European Centre for Development Policy Management. (December 2006)
Towards a joint Africa-Europe partnership Strategy (Issue paper I)

European Commission (October 10, 2006 - Brazzaville)
7th EU-Africa Ministerial troika meeting - Final communiqué

European Commission (2006)
Joint Progress Report by the European Commission and General Secretariat of the Council to the General Affairs and External Relations Council on the implementation of the EU Strategy for Africa

European Commission (2006)
Towards an EU-South Africa Partnership, Communication from the Commission to the Council and the European Parliament

European Commission (February 19-23, 2007 - Brussels)
Summary report on the joint AU-EU troika expert meeting on the joint EU-Africa Strategy

Gillwald, Allison (September 2003, Boston)
Transforming Telecommunications Reform for Development, paper as an input to the ICTs for Poverty Reduction, When, Where and How?

Government of the Republic of South Africa (August 2002)
South Africa's National Research & Development Strategy

Juma, Calestous - The Smith Institute (2005)
Going for growth: science, technology and innovation in Africa

NEPAD (August 2005)
Africa's Science and Technology Consolidated Plan of Action

NEPAD eAfrica Commission (October 2006)
Nepad ICT Programme update report

Ngwawi, Joseph (March 2007)
Africa develops common science and technology action plan - Article published on CIPACO

OECD (2003)
Donor ICT Strategies Matrix, CD-ROM 2003 edition
Development Assistance Committee (DAC)

Pietrobelli, Carlo - Scidev.net. (2006)
Fostering technological capabilities in sub-Saharan Africa

Sonnenwald, D.H. (2007)
Scientific collaboration: challenges and solutions. In B. Cronin (Ed), Annual Review of Information Science & Technology (ARIST), Vol 41 (pp. 643-681). Medford, NJ: Information Today

UK Department of Trade and Industry (May 2004 - Office of Science and Technology, United Kingdom)
Targeted Review of Added Value Provided by International R&D Programmes

UN Economic Commission for Africa (UNECA) (January 2003)
AISI Briefing Paper No 1
Towards an information Society in Africa: the Case for National ICT Policies

UNDP (2003 - United Nations Development Programme, Pretoria)
South Africa Human Development Report
The Challenge of Sustainable Development: Unlocking People's Creativity

Wagner, Caroline; Brahmakulam, Irene; Jackson, Brian; Wong, Annie; Yoda, Tatsuro (2001)
Science and Technology Collaboration: Building Capacity in Developing Countries, RAND

Weigel, G. and Waldburger, D. (2004 - Swiss Agency for Development and Cooperation and Global Knowledge Partnership, Geneva)
ICT4D – Connecting People for a Better World

World Summit on the Information Society (WSIS) (November 18, 2005 - Tunis)
Tunis Commitment

Appendix #4: Useful Links

Note to the reader: only a selection of institutional websites is listed below, that may be usefully visited by organisations interested in the development of S&T cooperation between the European Union and (sub-Saharan) Africa, and in the opportunities offered by the 7th Framework Programme (FP7) of the European Commission to support this cooperation. This list is regularly updated on the www.EuroAfrica-ICT.org website. In addition, whenever considered as relevant, the URLs of organisations and information resources mentioned in the chapters of the present document have been provided.

The European Union

- The gateway to the European Union (EU)
- The European Commission (EC)
- The 7th framework programme for RTD and demonstration activities (FP7)
- DG Information Society and Media (DG InfSo)
- The International Relations Unit of the DG Information Society and Media -
- DG Development and Relations with ACP States
- DG External Relations
- The European Development Fund (EDF)

The African Union

- The gateway to the African Union (AU)
- The New Partnership for Africa's Development (NEPAD)
- NEPAD's eAfrica Commission
- The African Ministerial Council for Science and Technology (AMCOST)
- The Network of African Science Academies (NASAC) of the African Academy of Sciences (AAS)
- The African Development Bank

Other international institutions

- The United Nations Development Programme (UNDP)
- The United Nations Economic Commission for Africa (UNECA)
- UNECA's African Information Society Initiative (AISI)
- United Nations Educational, Scientific and Cultural Organisation (UNESCO)
- The United Nations University (UNU-MERIT)
- The United Nations Conference on Trade and Development (UNCTAD)
- The International Telecommunication Union's Telecommunication Development Sector (ITU-D)
- The World Bank
- The African, Caribbean and Pacific Group of States (ACP)
- The Organisation for Economic Co-operation and Development (OECD)
- The Global Alliance for ICT and Development (UN-G@ID)

Appendix #5: The EuroAfrica-ICT Mapping Database

Introduction

In order to support its activities, and in particular the preparation of the present document, the EuroAfrica-ICT initiative has designed at the end of 2006 and started to populate in January 2007, a database referencing:

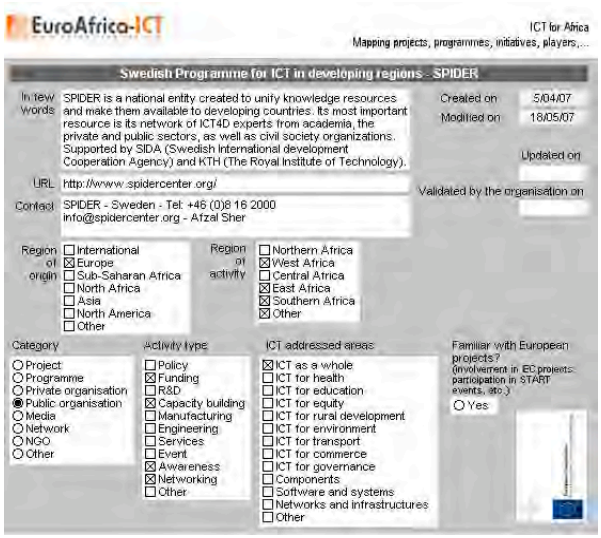
- The programmes, projects and initiatives addressing S&T cooperation between the EU and sub-Saharan Africa in the ICT field,
- The European organisations (companies, universities, institutions, etc.) already active in the development this cooperation or having announced their positioning,
- The organisations from sub-Saharan Africa already active in the development this cooperation, having announced their positioning, or with skills suited to a potential involvement in this cooperation.

The database is constituted from the information that the promoters of the EuroAfrica-ICT initiative have gathered through their own activities, by the one made available by the organisations associated to the initiative (the EuroAfrica-ICT reference panel, and the EuroAfrica-ICT group), and the one collected through the activities developed in the framework of the initiative (open consultation process, information days, awareness workshops, help desks, etc.).

The database is being developed using the Filemaker software and will be made available online, as a MySQL database, when fully developed and validated.

At the date when the present document is released, the database includes over 400 references, identified through the fields below (simple and multiple criteria requests are possible):

- Created on / updated on
- Validated on
- Initiative / Programme / Project / Organisation details (title, acronym, in a few words, url, contact, etc.)
- Region of origin
- Region of activity / destination
- Category (project, programme, public or private organisation, media, network, NGO, etc.)
- Activity type (policy, funding, R&D, capacity building, manufacturing, engineering, etc.)
- ICT addressed areas (ICT as a whole, ICT for health/education/governance/transport, components, software and systems…)



Screenshot of the EuroAfrica-ICT Mapping Database

Extract

Note to the reader: the database is still under construction and the list below of database entries has not been thoroughly validated and is not final.

6DISS
ACACIA (IDRC)
ACP Group
ACP-Business Climate
Addis Ababa University
ADEN (Appui au désenclavement numérique)

ADIE
Advancing ICT Knowledge in Africa (AITEC)
Africa Internet Rights
Africa Media Network Ltd
Africa Network Operators Group (AFNOG)
African Academy of Sciences (AAS)
African Advanced Level Telecommunications Institute in Kenya (AFRALTI)
African Axis
African Center for Technology Studies
African Development Bank (ADB)
African edevelopment resource centre (AeDRC)
African Internet Forum (AIF)
African Language Technology Initiative (Alt-I)
African Linux User Groups (AFLUG)
African Network of Scientific and Technological Institute (ANSTI)
African Networking Initiative (ANI)
African Society of Education and Training for Development (SAFEDOD)
African Technology Policy Studies (ATPS)
African Telecommunications Union (ATU)
African Union (AU)
African Virtual Open Initiative and Resources (AVOIR)
African Virtual University (AVU)
Africanet
AFRICA'NTI
Africom
AfriDeut
AfriNIC
AfrISPA
AFRITAG
AFSAGA (Satellite telecommunications)
Agogo ICT Training and Access Center
AiDA
AISI - African information society initiative (UNECA)
AISPO
AITI - KACE Advanced Information Technology Institute – Kofi Annan Centre of Excellence
Alcatel
ALL AFRICA
AMESD
ANGONET
ANNY Network
APC - the association for progressive communication
ARAPKE (African Regional Action Plan on the Knowledge Economy)
ARCSSTE-E
Arid Lands Information Network - ALIN
ARISE
ARTEMIS (Advanced Research and Technology for Embedded Intelligence and Systems) ETP
Ashashi University
Association Africaine des Utilisateurs de Linux et de Logiciels Libres (AAUL)
@IT
@ITIM
Atos Origin
Attic Media
AUF - Francophone University Agency
AVSI
BEANISH
Bellanet International
Benelux Afro Center
BingBee
BITeB
Botswana Technology Centre (BOTEC)
Bridges.org
Bridging the Rural Digital Divide
BruDISC
Bungeni
C@R
Cape Coast University
Cape Peninsula University of Technology - CPUT
CARI
CATIA - The Catalysing Access to ICT in Africa
C-Band Meteostat Project in Rwanda
CEAN (Centre d'études d'Afrique noire)
CEFIB
CEFRED
Centro Informatica Universidade Eduardo Mondlane (CIUEM)
CESPAM
CHALA
CIDA
CIEMAT
CIPESA
Cirsfid
Cisco
CLORA
Club de Rome
CM Box
COFISA
Collège Polytechnique Universitaire - CPU
Commonwealth of Learning - COL
Commonwealth Telecommunications Organisations (CTO)
Community radio and wireless IP telephony
Community Wireless Resource Centre (CWRC)
COMNET-IT
Computer Aid International
Connectivity Africa
Cooperation Finland / South Africa
CORUS
Council for scientific and industrial research (CSIR)
CSI-Piemonte
CSIR Ghana

Cyberschool technology solutions
DANIDA
Danish ICT Management
DANTE
Development Centre
Development Gateway - ICT for Development
DFID - Department for International Development
DFID - Gender and ICT Evaluation Methodology (GEM)
DGIS
Digilab
Digital Africa
Digital Opportunity Index
DOI - Digital Opportunity Initiative
Dwesa project
E-Access Index and Usage
EASSy
ECDPM
Edubuntu
EELA
efita
Efossnet
eKhaya ICT
ELDIS Development Gateway
eLearning Africa
eLearning Botswana
eLearning for nurses in Kenya
Elizka Relief Foundation
eMobility (ETP)
ENISA
ENOLL
EPOCH
Ericsson
e-Riders
ERTICO
ESA
ESASTAP
ESMT Ecole Supérieure des Télécommunications - Sénégal
ESTNET
European Development Fund
European Nanoelectronics Initiative Advisory Group (ENIAC) ETP
European Robotics Platform - EUROP
European Technology Platform on Smart Systems Integration - EPOSS
eYethu
Faculty of engineering - University of Lagos
Fantsuam Foundation
FAO
Federal university of Techology, Owerri, Imo State
Fehrl
Femnet
FERLO SA
FLOSSWORLD
FLOSSWORLD - Free Libre and Open Source Software - Worldwide Impact Study
Flux Consultants
FMFI
FOMETRO - Tropical Medical Fund
Ford Foundation
FORUT Senegal
FOSSFA (Free Open Source and Software Foundation for Africa)
Fraunhofer
Fraunhofer FOKUS
Fraunhofer Institute for Integrated Circuits IIS
Free University of Brussels - SMIT
French South African Graduate School in Electronic and Electrical Engineering (F'SATIE)
GAID - Global Alliance for Information and Communication Technologies and Development
GEANT2
GIIC
GILDA
Global e-schools and communities initiative (GeSCI)
Global Forest Management
Global Knowledge Partnership (GKP)
GRESOC
Grid-enabled telemedicine in Africa
GRNET EAET
GSDI Association
GTZ - German Development Cooperation Agency
H2Com
HANA - Highway Africa News Agency
Harambee
Health Informatics Worldwide
HELINA - Health Informatics in Africa
Highway Africa
HIVA
HIVOS
Hungarnet
iCommons
ICT Africa
ICT Africa Mapping
ICT for Development Observatory
ICT Update
ICT4D
Ideal-IST
IDRC
IGLO
IICD - International Institute for Communication and Development
iMARK
Imfundo
INFN Italy
INRIA
INSA Rouen
INSPIRE

Instituto Superior Politecnico e Universitario (ISPU)
Integrated Healthcare Information Service through Mobile Technology (IHISM)
Intel
InterCog
International eHealth Association
Internet Governance Project (IGP)
InWent
IPDC - International Programme for the Development of Communication
IPv6 Forum
IRD
IRISA
IRTAVI - Institut de Recherche sur le Transfert de la techno-science en Afrique
ISOC (Internet Society)
IST AFRICA
ITCA - Information technology center for Africa
ITI
ITOCA
ITS Denmark
ITU - D
Joint EU-Africa Strategy
Jomo Kenyatta University of Agriculture and Technology (JKUAT)
KAINet
KalAfrica
Kaleidoscope
Kellogg Foundation
Kenya AGRIS Network
Kenya College of Communication and Technology
Kenya ICT Network
Kenya Industrial Research and Development Institute - KIRDI
Kenya Test
Kenyan College of Communication Technologies KCCT
KEWL Next Generation
KfW
Kigali Institute of Science & Technology - KIST
KLinux
Kwame Nkrumah University of Science and Technology - KNUST
Lead Afrique Francophone
Learnthings
Leland Initiative
LINK Centre
LinuxChix
LIRNE
Localization of African Languages - PanAfriL10N
LOG-IN Africa
Loquendo
Makerere University
Manobi
Markle Foundation
Martel
Max Planck Institute
Mbarara zonal agricultural research development centre
Meraka Institute of CSIR
Microsoft Research
MICTI - Mozambique Information and Communication Technology Institute
Midlands State University
Mindset
Mindset Network
MIT
MKFC
MobilED
Moi University
Monash University
MRC
NARO - National Agricultural Research Organisation
National telemedicine and telehealth
National University of Rwanda
NEPAD
NEPAD e-School Satellite Network
Neratech
Neth-ER
Netsuds
NetTel@Africa
Network and Electronic Media (NEM) ETP
Network Computer System
Network of African Science Academies (NASAC)
Networked European Software and Services Initiative (NESSI) ETP
NEXT
NIT National Institute of Transport
NMMU - Nelson Mandela Metropolitan University
Nokia
NORAD
Norwegian Network on ICT and Development
Novatech
Obafemi Awolowo University, Ile-Ife
Observatory of the Information Society
OECD
Omega Minus
One World International
OPAALS
Open Knowledge Network (OKN)
Open Research
Open Society Initiative for West Africa
Open Society Institute
Open Society Institute Southern Africa (OSISA)
Open University
OPTIC
Oridev
Pan-African Network Trust
Parsec

PCCI
PCST
Pharaon Telecom
Philips
Photonics 21
PICTA
PIWA
RASCOM
Regional Information Communication Technology Support Programme (RICTSP)
Renater
Research Africa
Research ICT Africa!
ROC
Royal Netherlands Academy of Arts and Sciences (KNAW)
SAFIPA
SANGONet
SAP Research
SARIMA
Satellite bandwith provision in Africa
SATNAC
SCAN-ICT
Schoolnet Mozambique
Schoolnet Namibia
Schoolnet Uganda
SchoolnetAfrica
Scidev
Science in Africa
Scientific and Technical Information System (SIST)
Senegal ICT Resource Centre
Sierra eRiders SL
SIMBA
SIMILAR
SITA
Software Incubation Research Project
Soros
SOTELMA
Soul City
South Africa Health Informatics Association
SPACEBEL
Spatial Data Infrastructure - Africa (SDI-Africa)
START
START (Global Change system for Analysis, Research and Training)
StDev
ST-EAP
Swedish ICT Research
Swedish International Development Cooperation (SIDA)
Swedish Programme for ICT in developing regions - SPIDER
Swiss Agency for Development and Cooperation (SDC)
Syracuse University
Tanroads
TechnoFuture Digital Dividend Initiative
Telefonica
Telemedicine Research Centre
Telkom Center of Excellence
Tellumat
TENET (Tertiary education network)
Terena
TESSA
The Advanced African Institute for ICT
The Africa Research Bridge (ARB)
The Association of Commonwealth Universities (ACU)
The Freeplay Foundation
The Global Information and Communication Technologies dept (GICT)
The ICT Best Practice Forum
The Innovation hub management company
The Integral Satcom Initiative (ISI) ETP
The Livestock Information Network and Knowledge System
The NEPAD eAfrica Commission
The Shuttleworth Foundation
TIER
Tragsatec
TRASA
Tshwane University of Techonology
TUdelft Centre for Management support for International Cooperation
turunmaan
TWAS
TWAS - ROSSA
uam
UCL
Uganda Health Information Network (UHIN)
Uganda Industrial Research Institute (UIRI)
UK Institution of Engineering and Technology (IET)
UNCTAD
UNDESA
UNESCO - Centre for ICT4D
UNICT Task force
United Nations Institute for Training and Research - UNITAR
UNITeS
Universidad del pais vaso
Université Gaston Berger de St Louis
University Cheikh Anta Diop (UCAD) - Senegal
University Eduardo Mondlane
University of Botswana
University of Cape Town (UCT)
University of Dar-es-Salam
University of Ghana
University of Manchester (IDS)
University of Mauritius
University of Nairobi

University of Pretoria (UP)
University of Stellenbosch
University of Technology Mauritius (UTM)
University of Western Cape (UWC)
University of Yaoundé I
University of Zimbabwe
Univesrity of Southampton
UNU-Merit
UTICT
Victories Foundation
VLIR-UNZA IUC Programme
WATRA
Winneba University
WIR
Wireless Info
Wireless IP Networks - Uganda
World Association of Industrial and Technological Research Organizations (WAITRO)
Worldspace
WSU Telemedicine Unit
Yellowlizard
ZAnet Internet Service