

# Report

## of the Donor and Executing Agency Meeting on Information Technology (IT) for Development in Africa, Rabat 16-18 April, 1997

May 23, 1997

### Executive Summary

Representatives of 17 UN and other development agencies, involved in information and communication technology (ICT) development in Africa, who attended the meeting agreed to establish a forum for donor/executing agencies collaboration within the framework of "Africa's Information Society Initiative" (AISI), and to set up common information resources on the Internet for ICT related development activities.

The forum, called **PICTA - Partnership for ICTs in Africa**, is open to all donors and executing agencies, which have substantive programmes or projects in Africa relating to ICTs.

Information on ongoing ICT projects was gathered in advance and updated during the meeting. The initial gathered information is available at Bellanet and this report contains a wealth of additional information about ICT activities in Africa, about the organisations involved and a list of meetings related to ICT in the next six months.

A large number of specific collaborative actions are proposed in Sections 3, 4 and 5 of this report.

In particular, Bellanet offered to refine the prototype database established before the meeting and to set up a mailing list for PICTA members as well as mailing lists for Special Interest Groups (SIGs) on the different AISI sub-programmes.

In the next few months the use of the proposed information resources will be tried out and evaluated at the next PICTA meeting in Addis Ababa in October 1997.

### Immediate actions

Among the immediate actions to be taken by participating agencies (and others who wish to join PICTA) are (see page 13 for a full list):

- Appoint the 1 or 2 PICTA representatives of their organisations;
- Send suggested names and persons to contact of potential new PICTA members;
- Send revised project/programme questionnaire data for inclusion in the web database;
- Send contact/background details of national focal points for execution of projects;
- Send any electronic documents relating to ICTs in Africa to Mike Jensen (mikej@wn.apc.org);
- Continue informal discussion of activities using the main mailing list and the SIG lists to be established by Bellanet;
- Regularly update the country matrix of activities when operational on the Bellanet web site;
- Consider institutional support for Bellanet;
- Review the draft proposals of the AISI sub-programmes and submit suggestions for improving this.

FINALREP, 04/07/97 14:00

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**of the Donor and Executing Agency Meeting on Information Technology (IT) for Development in Africa,**  
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# **Report of the Rabat Donor and Executing Agency Meeting on Information Technology (IT) for Development in Africa, Rabat 16-18 April, 1997**

May 21, 1997

## **1. Introduction:**

Many international agencies have recently begun to support development in Africa through the use of Information and Communication Technologies (ICTs). However this has led to a large number of un-coordinated assistance projects, many of which overlap or fail to exploit the full potential of a collaborative approach which takes into account the activities of others. There have been two important fora for collaboration in this field - the African Internet Forum (AIF), lead by UNDP, USAID, the Carnegie Corporation, the World Bank and others, and the African Networking Initiative (ANI), comprising IDRC, ITU, ECA, UNESCO and others. There have been a variety of other smaller informal partnerships where agencies or individuals have come together around a specific problem. Among the growing number of development agencies involved in this area it is increasingly recognised that a more broad based mechanism for collaboration would substantially improve their effectiveness. Such a mechanism is also implicitly assumed in "Africa's Information Society Initiative" (AISI), the framework for strategies aimed at accelerating Africa's entry into the Global Information Infrastructure (GII), adopted by the African ministers of planning and economic & social development.

Informal discussions between members of AIF and of ANI recently led to a proposal to hold a working meeting of all interested parties to develop a more integrated approach to ICT-based development assistance in Africa. This meeting was subsequently held in Rabat, Morocco on 16-18 April 1997, organised by the ITU's Telecommunication Development Bureau (BDT), sponsored by AIF and hosted by the Ministère des PTT of Morocco. Representatives of seventeen UN and other development agencies and foundations attended the meeting, as well as a number of observers (see Annex 1 for a complete list of participants and contact details).

## **2. Proceedings:**

In preparation for the meeting, a questionnaire was developed to create an inventory of ICT assistance projects in Africa and circulated among the potential participants. Bellanet International Secretariat (a service agency established by seven international donors to support broader development collaboration through the use of ICTs) took responsibility for extracting the data from the questionnaires and used it to develop a prototype database. Several reports, generated from this database were made available to the participants (see Annex 5 - List of documents).

The 3-day event was opened by Hauza Kettani, Minister of Posts and Telecom of Morocco, followed by opening remarks by Mr. Ahmed Laouyane, Director of BDT, and Mr. John Mack, of the US State Department, who represented AIF. The workshop consisted of a series of informal working sessions starting with brief presentations of projects and programmes in Africa from each of the participants which added to the information gathered by means of the questionnaires. This was followed by presentations on the AISI framework and its sub-programmes on policy awareness, national information and communications infrastructure plans, connectivity, training and democratisation of access (prepared by the respective lead agencies for these AISI sub-programmes and available on request from these agencies - see Annex 5 list of documents).

Analysis of the information gathered identified 13 countries with a large number of programmes/projects. To discuss collaboration opportunities in these countries it was decided to break up into two working groups (one on the English speaking countries identified - Ethiopia, Ghana, Kenya, Mozambique, South Africa, Uganda and Zimbabwe, and one on French speaking countries - Benin, Burkina Faso, Cameroon, Mali, Morocco and Senegal).

Further sessions were held to refine the prototype questionnaire used to gather project data and to develop mechanisms for on-going information exchange collaboration. Due to the importance placed on human resource development, a final session on training issues was held before the event was wrapped up.

## **3. Summary of results and conclusions**

The most important outcome of the meeting was the clear commitment by all agencies to improve information exchange on activities through the establishment of a broader forum for collaboration. In addition it was agreed to set up an information resource accessible via the Internet to provide a single reference point for all ICT related development activities on the continent. (See Section 4 below for details of the proposed mechanisms).

The participants also agreed to provide information *as early as possible* on projects that were still under discussion so as to enable modification of plans, to create synergy, to avoid duplication of efforts and to ensure complementarity.

Africa's Information Society Initiative (AISI) was generally accepted as the framework for collaboration among donor/executing agencies in the field of ICTs in Africa. Since its adoption in May 1996, the AISI framework has been 'kick-started' by the UN Special Initiative on Africa's Harnessing Information Technology for Development (HITD) programme which is being supported by all UN agencies.

Bellonet has been hosting two mailing lists to support the process - a general mailing list linking actors in the process (AISI-HITD-CL), an AISI/HITD web site and a National Level Connectivity Information for Africa discussion list (NLCI4A-CL), aimed at developing a web based dynamic database on connectivity suppliers (ISPs). This database will also include training information to allow institutions and individuals easy access on information on how to get connected to the Internet and to identify available training opportunities and resources.

The information exchange which took place on existing and planned projects identified a number of potential areas for collaboration, where coordinated scheduling of activities and distribution of tasks could create synergy. The process also contributed to laying the foundation for the permanent collaboration mechanism referred to above by identifying requirements for information exchange on an ongoing basis. Moreover, the opportunity was taken throughout the event to update the existing inventory of projects, programmes and upcoming events. This updated information is given in various parts of the reports and summarised for some countries in Annex 3.

This information should be continuously updated through the mechanisms proposed in section 4 below.

The discussions of the working groups also resulted in a number of recommendations for actions aimed at improving collaboration at the *national* level and for developing the necessary human resources (training), which was seen as one of the greatest challenge to exploiting the potential of ICTs (see Sections 4 and 5 below).

It was emphasised that any mechanism for information exchange and collaboration will only work if the participants are convinced that the benefits of collaboration exceed its costs and creates win-win situations.

Some other proposals made during the discussions are:

- demonstrate the paybacks for allocating the resources to process and make information available, i.e. a mechanism for monitoring the success of collaborative efforts;
- involve more French speaking and Portuguese speaking actors in the collaboration;
- learn best practices from the private sector;
- provide wider institutional support for Bellonet to allow it to be more effective in its important role in supporting donor collaboration activities;
- develop an integrated training strategy for Africa which takes into account private sector delivery opportunities and is product oriented with clear targets and resource requirements to allow a pledging approach to new projects and programmes;
- establish a mechanisms to monitor and identifying promising new technologies.

## **4. Proposals for collaborative mechanisms and other actions**

### **4.1 Mechanism for collaboration at the international (regional) level**

#### *4.1.1 Establishment of a broader forum for donor/executing agency collaboration*

It was agreed to merge and enlarge the existing fora for collaboration (AIF and ANI), creating a new informal group. To avoid confusion with existing the fora, it was decided to give the this group a new name which was to include references to collaboration in information and communication technologies (ICTs)in Africa. And a variety of new names were proposed. The name of the new group (which was finally selected by voting after the meeting) is **PICTA - Partnership for ICTs in Africa**.

Membership in PICTA will be open to all donors and executing agencies which have substantive programmes or projects in Africa and surrounding islands - i.e., in any of the member countries of the UN ECA.

New members will be subject to approval of the existing PICTA members. The number of representatives on the forum mailing list from each member organisation should be limited to ensure that all members are clearly aware of precisely who is on the list and that it does not become too nebulous.

It was agreed that the following additional criteria should apply for organisations to qualify as PICTA members.

PICTA members should be organisations who::

- have a strong interest in improving the use of ICT as a tool to improve economic and social development . This interest should be manifested by past and ongoing expenditures or project execution, and commitments made for future activities in this field;
- exercise appropriate transparency in programming, management and reporting about the activities
- are interested in collaborative/co-operative arrangements aiming at complementing and strengthening the initiatives of the group's partners rather than to finance overlapping or competing initiatives;
- Committed to physically or electronically attend meeting of the group.

PICTA will initially comprise representatives from the agencies attending the Rabat meeting: Agence de la Francophonie (ACCT), Bellanet International Secretariat, Carnegie Corporation, COMNET-IT Foundation, Economic Commission for Africa (ECA), Food and Agriculture Organisation (FAO), Global Information Infrastructure Commission (GIIC), International Development Research Centre of Canada (IDRC), International Telecommunication Union (ITU), Rockefeller Foundation, Swedish International Development Cooperation Agency (Sida), US Department of State, USAID, UNDP, UNESCO, WK Kellogg Foundation, World Bank (EDI) and the World Trade Organisation (WTO). Other organisations invited to the meeting who did not attend are welcome apply for membership (contact any of the participants listed in Annex 1).

Members will work primarily through a new mailing list augmented by web-based information resources which would be established for the group (see 4.1.2 below). PICTA members would also use opportunities for face-to-face meetings where possible, such as international conferences and sub-regional events (see list of events in Annex 2). The next full PICTA meeting will be held 23-25 October in conjunction with the 21-22 October meeting of the African Technical Advisory Committee (ATAC) in Addis Ababa, Ethiopia.

#### *4.1.2 Electronic information resources to support the forum.*

The following electronic information resources were proposed.

1. An electronic mailing list hosted at Bellanet. Membership of the list will correspond to membership of the forum and will be the primary tool for collaboration. The AISI-HITD-CL list will continue to operate as a mechanism for reporting out to the broader community or anyone who has a more general interest in supporting the AISI-HITD process.
2. A series of Special Interest Group (SIG) mailing lists hosted by Bellanet with a wider participation comprising any forum members who wish to take part, as well as others working in the special area of interest. The proposed initial list of SIGs correspond to the following sub-programme areas of the AISI framework, but others could be added.:
  - Policy Awareness.
  - Connectivity (pipes).
  - National Information and Communications Infrastructure Plans.
  - Telecentres and democratisation of access.
  - Sectoral Programmes (could be sub-lists for each sector as well).
  - Training
  - Development Information.

Suggested names for these mailing lists will be circulated as soon as the main forum mailing list is established. Resources will be required to ensure effective moderation of the SIG mailing lists and to regularly summarise the status of conclusions/decisions made by the SIGs.

3. A structured database based on the AI-AIMS prototype developed by Bellanet in partnership with others. It will be based on data submitted to Bellanet, either:

- a) by electronic mail using an ascii version of the questionnaire circulated at the meeting, or, preferably,
- b) by entering the data directly into the web-based interface to the database (to be developed by Bellanet).

It was also suggested to improve the prototype database by adding new fields:

- to identify where (which organisations) proposals have been submitted;
- to distinguish between cash and in kind resource allocations;
- List corporate sponsorship opportunities;
- highlight Sustainability factors;
- date updated;
- http reference to the project document (when available).

The need to create a subset database of planned events - training courses, conferences, meetings, symposia etc, was also recognised. The (too) large number of ICT related meetings, often scheduled at the same dates (see Annex 2) confirms the need for better coordination among concerned agencies when planning such events. The ITU already has a database of ongoing and planned events that is used for internal purposes. Parts of this is made public on the web (see <http://www.itu.int/itudoc/itu-d/bdtdb/act.html>). One way to improve coordination (and possibly reduce the number of courses, meetings, etc. by pooling the considerable resources spent on such events and piggybacking on each others) would be for all concerned agencies to make information about planned events available on their web sites. Then one organisation (e.g. Bellanet) could set up a web page with links to all the other sites containing this information. Those who don't have their own web sites would need to send this information to the Bellanet (and keep it updated).

It will also be necessary to create a table in the database relating sub-regions to countries, so that it is possible to identify a country not directly specified in a sub-regional programme (e.g. a proposal may only specify French speaking Africa, in which case the database will extract the full list of French speaking countries from the table and display this information to the submitter for approval/selection). A spin off of the project is that the database could easily be expanded globally and to cover other sectors than ICTs.

4. A table/matrix for each country summarising activities currently taking place, planned (committed) activities and proposed activities, including missions, meetings and projects/activities. The suggested fields are: date of activity, sponsoring organisation, recipient organisation, location (city or area), activity name and person to contact. Codes for the project name and organisation will be used to ensure brevity. A model table for Ghana and partially completed tables for a number of French speaking countries are shown in Annex 3. Bellanet has agreed to prepare the matrices using web-based tables for displaying the data and web-forms for entering the data, and USAID has agreed to populate the tables with its own data as a lead example of how it should be used. To improve formatting for printing on a single page, it may be necessary to contain some of the information in separate hyperlinks.
5. A full text key-word searchable (boolean) database of all appropriate reports and project/programme proposals. Group members will simply have to send outlines, reports and documents by email. They will be indexed on a web site supporting full-text database search services. This service will be initially operated by consultant Mike Jensen until the service can be hosted at the ECA offices in Ethiopia.
6. A 'home' page for the forum developed and hosted by Bellanet containing uniformly consistent profiles of the organisations who are members of the new collaborative group with links to their own web sites where appropriate. The page will also contain links to the resources described above, as well as an index (contents page) of countries, programmes and organisations involved in ICTs in Africa. It was also suggested that information housed on the AIF web site should be transferred to the new web site.

The above web-based services will be readable (but not writable) by the general public, and an additional password protected area for sensitive documents will also be established on the full-text database site with the password made available to forum members. Data which has not been updated for one year will be removed (archived?).

It will also be necessary to allocate the task of gathering data on private sector initiatives for loading into the above electronic resources to some entity or individual. It was noted that the UNDP Resident Representatives are tasked with monitoring public and private sector activities, and it may be possible to use them for this task on a national basis, but that regional and global monitoring should also be separate responsibility. The Centre for Information Society and Development currently being established at the University of Pretoria in South Africa would be interested in carrying out an analysis of the activities in the database which are having or will have an impact in Southern Africa.

Work will begin on the above as soon as possible and it is expected that prototypes of the above mentioned electronic resources will all be online by mid June. The effectiveness of these tools will be evaluated at GK97 (by users attending this conference) in Toronto and at the October forum meeting.

#### **4.2 National Collaboration**

In the national activity working groups, the large number of projects identified in each country clearly indicated the need for a mechanism for collaboration among donors and executing agencies and their national counterparts also at the *national* level (see tables in Annex 3). It was suggested that the collaboration among PICTA members should initially be tried out in one country (possibly Ghana). This would provide an arena for learning to collaborate and refine the mechanisms proposed which could then be replicated elsewhere.

The working group on English speaking countries used Ghana as a case study. The following salient points emerged from the discussion.

A strong national leadership comprising a group representing all stakeholders was seen as a particularly important vehicle for international development agencies to work with - as a single focal point for all international assistance projects. As well as having a number of other functions such as building commitment from national organisations, such a group also plays an important role in ensuring transparency among stakeholders competing for international funds. However it should be emphasised that the group would not be expected to have an execution role in the projects, it would primarily be an information exchange role. In this respect there was some unresolved debate about the necessity for appointing an individual in each country as a focal point who could organise meetings, liaise with public and private sector organisations, report on activities, availability of goods and services etc.

In Ghana, an ITU/UNESCO joint mission in 1996 led to the establishment of the Ghana National Committee on Internet Connectivity which took ownership of the joint ITU/UNDP/UNESCO project and managed the organisation of the first training course. However the ability of the National Committee to continue its function was initially problematic because there was no 'home' for the group. But follow up by UNESCO/ITU has started a process which will anchor the group either in the Ministry of Communications or the Ministry of Education or that of Environment, Science and Technology. There is also a need to involve other strong user groups such as the local Internet Society chapter and the West Africa Enterprise Network.

It was clear that such a committee should be cross-sectoral and with representation from both government and civil society. SDNP's strategy is to establish an interim committee of no more than 8 people to conduct the initial feasibility study. Having built a sense of ownership amongst the group members, the interim committee then becomes a permanent group if the project goes ahead and appoints a national committee.

Deciding on who should be the representative from each particular sector should be the responsibility of the members of the sector themselves. But while being careful not to kill the creativity that is present already, it was observed that there is some risk in letting local people sort out the issues entirely by themselves because some groups or individuals may be able to dominate the process. Also, having too high a level of decision maker in the group should be avoided because this often then means that the committee rarely meets in full. It was suggested that where there is an ongoing SDNP committee it should be looked at as a candidate for the 'national committee' but that information also needs to be gathered on all the focal points that are known in each country.

A possible need for two levels of national groups was also identified - one group with a wider representation from all sectors (like the Ghana National Committee) and a smaller task force or management team to manage the day-to-day activities. One of the tasks for the national level committee could be to monitor the sector applications. In addition, there should be a national forum with regular meetings for all local donor and executing agency representatives in the country to improve awareness and information exchange on ICT projects in the country. Clear terms of reference still need to be developed for all three groups and a strategy should also be developed on the relation between the national committee and the NICI planning process of the AISI framework.

Other relevant general observations with reference to collaboration at the national level were:

- It is necessary to know what the local and international private sector is planning in the country.
- Choosing a single private sector champion for a project can be problematic where there is a competitive environment - it is necessary to have consensus among the private sector players on the strategy where a project may impact them all.
- Development agencies must be careful not to fall into the trap of focusing on building supply, rather than working to build demand for ICTs.

- Policies on sourcing of equipment and services (locally, internationally) still need to be clarified, but the provision of equipment and services should in most cases be through competitive bidding. As a result there is a need to develop appropriate mechanisms for wide dissemination of requirements to the local private sector to allow equal opportunity to bid.
- In many cases the goals of ICT projects need to be clarified - often the focus is, for example, on broadening access to the Internet, without considering the resulting needs in organisations to know how to use Internet to solve institutional problems or build capacity.
- Records need to be kept on the people and organisations which have been involved, so that new projects can be more effective by having better access to information on the quality of local equipment and service suppliers, which local representatives of international agencies can be helpful and which people have already been trained (and in which skills) etc.
- It is necessary to develop a mechanism for identification of sectors and locations receiving insufficient attention in each country - for e.g. POPs in secondary cities in Malawi, or rural clinics in Gabon, or Ministry of public sector restructuring in Côte d'Ivoire.
- There is a need for sensitisation of the larger NGOs which were unaware of the benefits of connectivity.

The national activity matrix referred to in the previous section was seen as particularly important as a planning tool. Cells with many activities may indicate duplication or opportunities for pooling resources. Empty cells may indicate areas where assistance may be required - i.e. highlight opportunities and demand for both the private, public (policy makers) and international development agencies. However, not all empty cell in the matrix necessarily need to be filled because international assistance may not always be required.

The categories used to divide the sector applications was discussed, and it was agreed that further refinement from those listed in the example matrix above is necessary, ideally using the existing categories defined in the AISI framework and the G7 Information Society project listings. These categories would be circulated for discussion when the group mailing list is established. The current list is as follows:

Culture, Education, Employment, Environment, Finance, Health, Postal Operations, Science & Technology, Tourism, Trade & Commerce and Transport.

Finally, it was suggested that ECA should contact member states and outline the new developments in availability of advisory services from the various development agencies. This would require the agencies to provide specific information to ECA on the expertise that is available (e.g. ITU and WTO consultants and advisors). Also ECA and other PICTA members should attempt find out what expertise is available from the private sector (e.g. AT&T's tariff experts, etc.).

### **4.3 Development of human resources and training capacity building**

Many levels and types of training were identified, e.g. ICT policies, awareness, use of Internet services, connectivity (engineering), Intranets, content production, management, business/marketing, training of trainers, training in how to train, management of ICTs within an institution, security, privacy, intellectual property, records management. Different training delivery methods were also identified: on-site, fellowships, workshops and in-process training. Also the need to identify target groups, e.g. policy makers, managers, technicians, application developers and end users, was noted

#### *4.3.1 Categories of training*

Training is likely to attract most resources from development agencies and is an obvious area for cooperation. It was felt that some simple classification of training which is clear to the layman and yet specific enough to indicate the objective and the target population should be used. It was decided to use the following categories but the taxonomy could be refined later by the Training SIG.

- Engineering/Technical (establishment of the pipes - PTOs, ISPs)
- Network operations/Intranets (includes security, - ISPs and Institutions)
- Network Use & Applications, Strategy & Awareness (Users)
- Network Management/marketing and business operations (ISPs)
- Application/content development (larger users and dedicated service facilities).

It was observed that it is important to distinguish between immediate training needs for developing the capacity to implement projects and long term capacity building for Africans to enter the information age.

However, there was unresolved debate regarding the allocation of training as a separate category in the country matrix and agency programmes as many felt that training should rather be part of the particular projects in any of the AISI components connectivity, policy development or sector applications.

#### *4.3.2 Training facilities, resources and opportunities*

Consideration of economies of scale in training suggested that it is important to identify regional centres of excellence and to take stock of existing regional capacities, taking into account the language issue.

It was suggested that training should, whenever possible, be done in Africa, and that a sub-regional approach - building the capacity of regional institutions - is a first priority. However, considering the cost of travel and accommodation, it was suggested that national training may be more appropriate for the 'lower levels' with regional or sub-regional workshops used for 'higher level' training. It was also emphasised that funds should not be committed to cover operational costs of training centres but the money should be spent on the training programmes (provision of training material, instructors and fellowships).

Also it was felt important to use well connected facilities which have sufficient computer equipment for each trainee.

It was noted that there are a number of UN agencies with a particularly strong mandate for training, in particular UNESCO and UNITAR but others also have training components. UNDP's target is that 30-35% of resources should be allocated to training. The ITU has also developed considerable experience in technical training. It is currently oriented at serving PTOs, but the target groups could be expanded. Two regional advanced level telecom training institutes have been established with assistance from the ITU in Africa - AFRALTI (English speaking) in Nairobi, and ESMT (French speaking) in Dakar - which already planning to run Internet related training courses.

The ITU "Global Telecommunication University"<sup>1</sup> (GTU), which aims at the establishment of a virtual training telecom institute is another resource that should be considered in this context. This project is piloted by the ITU Virtual Training Centre which, *inter alia*, has developed distance courses in training module design and delivery over the Internet (see <http://www3.itu.ch/VTC/>).

The Commonwealth Secretariat's main goal is training - it is planning to target 40-50 people to be trained in a consistent fashion over the next couple of years. One course has already taken place and the target is to produce a highly competent group of trainers. Training in internal networks/intranets is a priority so that the next level of training can take place more easily - user training.

An African Network Training flagship training proposal has been submitted to InfoDev by George Sadowsky. If funded, it aims to circulate an RFP (or many, since it is a modular, scaleable proposal) for centres for training excellence. The proposal is for \$250 000 for implementing 1 centre for 3 years. One question is who will evaluate the RFPs - it was suggested that it should be done by professionals and divorced from political considerations.

The RFP(s) should be easy to fill out and should go out with the names of the donors attached to give them added credibility. The agency who would execute the project has not been identified and currently the proposal is not on the list of priorities at InfoDev, but pressure could be placed on the decision makers to move the proposal into the priority list.

It was noted that the role of the private sector is particularly critical in targeting user training, but that the record of the private sector in training in Africa has been deficient. User training was a controversial topic - will the ISPs satisfy training needs without intervention or should user training be funded?

#### *4.3.3 Proposed collaborative activities related to human resources development (training)*

Among the opportunities identified for collaboration in training are:

- Development of generic guidelines for training practices.
- Development of a common set of training materials (documentation, CDs and Internet based training) in the four major African languages - Arabic, English, French and Portuguese.

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<sup>1</sup> Also called the "Global Telecom Training Institute" (GTTI)

- Assistance programmes for African universities to encourage them to change their policies and build capacity to enable students at all levels to have access to computers and the Internet (currently most universities with Internet access only allow staff and post-graduates to use it).

Furthermore, it was proposed that each organisation involved in training:

- identify existing and potential training resources, so as to enable agencies to use already developed public domain training material, to identify qualified (African) instructors and optimise use of existing training facilities.;
- record training done, for donors and executing agencies to know what can be built on;
- establish performance objectives for training courses;
- contribute to training facility and capacity building;
- monitor regional/global opportunities to train key individuals in national programmes (e.g. ISOC Developing Countries Workshop);
- carry out consultation with the UN agencies, which are designated lead agencies for the HITD training sub-programme (UNESCO/ITU/UNITAR) and other organisations involved with a view to co-ordinating their efforts within the framework of this sub-programme;
- rapidly identify and carry out 2-3 concrete collaborative pilot projects on training to learn to collaborate and define strategy early, thereby avoiding too many training initiatives until the learning process has taken place;
- identify mechanisms for quality control in private sector training;
- establish methods to build the capacity of ISPs to carry out user training;
- establish national access points for distance training - could be as small as Internet access and as large as video conferencing;
- approach private sector for training materials - they are interested in building the knowledge base that will use their products. (It was noted that copies of the software are needed as well to allow hands on training.);
- assist in the establishment of twinning arrangements between African universities and universities in developed countries and carry out an inventory of existing twins;
- investigate the possibility of establishing a special access server for delivering public domain training materials as well as copyright training materials with restricted access;.
- piggyback training events on trade shows and shows and conferences, for example the way AITEC is currently doing so on a small scale.
- build on the many best practices that should be available elsewhere - technical training is a universal issue.
- investigate the possibility of regionalising or sub-regionalising the Internet Society developing country workshops
- identify sources of low cost recycled hardware to improve access to training facilities.

## **5. Immediate actions agreed to by the participants:**

- Appoint the 1 or 2 representatives of the organisations attending the Rabat meeting for the collaborative group and send their email addresses to riff@bellanet.org for inclusion in the group's mailing list;
- Send suggested names and persons to contact of additional organisations who should receive the report and be invited to join the forum, once the modifications suggested have been incorporated. (to Johan.Ernberg@itu.int and cc to Virginia.Gomez@itu.int);
- Following receipt of the revised form and updating mechanisms from Bellanet, send copies of the project/programme questionnaire data to riff@bellanet.org for mounting on the web database or update the database via the web;
- Send contact/background details of all of the national local focal points for execution of projects;
- Send any electronic documents describing projects and events relating to ICTs in Africa to Mike Jensen (mikej@wn.apc.org);
- Continue informal discussion of activities in the main mailing list to be set up by Bellanet and discuss particular strategies in the SIGs, in particular for each component of AISI. Suggest other potential members for the SIGs;
- Regularly update the country matrix of activities when operational on the Bellanet web site (participants will be sent instructions by Bellanet and notified of the precise location);

- Test the utility of the four web based information resources as tools for collaboration in preparation for discussion during GK97 in Toronto in June, and evaluation at the October AISI meeting at ECA in Addis.
- If possible, attend the 23-25 October forum meeting in Addis Ababa.
- Consider institutional support for Bellanet (for agencies that currently do not contribute), in particular, since it should be reinforced to deal with these additional tasks.
- Review the draft proposals of the AISI sub-programmes and submit suggestions for improving this to the originating organisations;
- Send ECA details of any advisory services that can be included in the forthcoming circular to nations on the availability of these services;
- Write to InfoDev requesting it to consider funding the African technical training proposal;
- Consider sponsoring some of the African candidates for the Internet Society's Kuala Lumpur Developing Countries Workshop in June.

## **Annex 1 - LIST OF PARTICIPANTS**

### **Organisations represented at the meeting**

Agence de la Francophonie (ACCT),  
Bellanet International Secretariat  
Catholic Organisation for International Cinema (OCIS) - Service Missionaire  
Carnegie Corporation, COMNET-IT Foundation  
Council for Scientific and Industrial Research (CSIR) of South Africa  
Economic Commission for Africa (ECA)  
Food and Agriculture Organisation (FAO)  
Gilat Satellite Networks  
Global Information Infrastructure Commission (GICC)  
International Development Research Centre of Canada (IDRC)  
International Telecommunication Union (ITU)  
Internet Society  
Ministry of Posts and Telecommunication, Cameroon  
Swedish International Development Cooperation Agency (Sida)  
US Department of State,  
USAID,  
United Nations Development Programme (UNDP) -  
UNDP Sustainable Development Network Programme (SDNP)  
United Nations Education, Science and Culture Organisation (UNESCO)  
Telecom Africa  
WK Kellogg Foundation  
World Bank (EDI/WorLD & InfoDev)  
World Trade Organisation (WTO)

In addition, observers from the following national (Moroccan) entities attended the meeting:

Cabinet du Premier Ministre of Morocco  
Centre National de Documentation of Morocco  
Morocco Trade and Development Services  
Ministries of National Education, Higher Education, Health, Foreign Affairs, Islamic Affairs and the PTT.

### **Organisations invited but who did not attend were:**

African Development Bank, Andrew Mellon Foundation, Belgian ministry of co-operation and development, Caisse Centrale de Development of France, Canadian International Development Agency (CIDA), Danish Ministry of Foreign Affairs, Dutch ministry of foreign affairs, European Space Agency (ESA), Finish International Development Agency (FINIDA), Fondation du Deviner (FDD), Ford Foundation, French ministry of co-operation, German ministry for economic cooperation and development  
International Communications Foundation of Japan, MacArthur Foundation, Norwegian International Development Agency (NORAD), UK Overseas Development Agency (ODA), Japan Overseas Economic Co-operation Foundation (OECF), Open Society Institute, Swiss Federal Department of Foreign Affairs, United Nations Conference on Trade & Development (UNCTAD), UNDP Africa Bureau, UNEP, UNIDO, UNITAR, UN International Trade Centre (ITC), VITA, Winston Foundation for World Peace, World Health Organisation (WHO), World Resources Institute (WRI).

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**Annex 2. Some conferences, meetings and workshops related to ICT, in the months of May - October 1997, where ad-hoc meetings of PICTA members could be arranged**

Note that some of these events in May are already terminated at the time of issuing the final version of this report. These events have been kept on the list anyway to illustrate the fact that there are a very large number of meetings, many of which are going on simultaneously (this list is probably far from exhaustive). Hence, there is a need to better coordinate dates of meetings among involved organisations.

**May 1997: WHO Council of African Ministers of Health..**

**May 1997: African Ministers of Industry meeting on Africa's future industries..** Geneva, Suisse. Hosted by UNIDO, African ministers will consider strategies for the next 5-10 years. [hpruim@unido.org](mailto:hpruim@unido.org)

**May 2-4: Regional (East Africa and Indian Ocean) Seminar on Access to New Technologies and the Internet for the Development of the Press,** Nairobi. UNESCO sponsored meeting. [a.aznar@unesco.org](mailto:a.aznar@unesco.org).

**May 4-8: The Arab World and the Information Society.** Tunis, Tunisia,. ITU, UNESCO and RAITNET supported forum to promote co-operative action for the development and use of telematics facilities in the Arab region. <http://www.irsit.nrnt.tn/symposium> or [symposium@irsit.nrnt.tn](mailto:symposium@irsit.nrnt.tn)

**May 4-8: ECA council of Ministers meeting,** Addis Ababa, Ethiopia. Presentation to African ministers of planning on implementation of AISI. Held in conjunction with the GIIC regional meeting on the 7May, focusing on ICTs in Investment promotion, trade and regional integration. [hafkin.unece@un.org](mailto:hafkin.unece@un.org)  
[dcogburn@csir.co.za](mailto:dcogburn@csir.co.za)

**May 5-8 Computer and communications training course for women scientists, researchers and technologists,** Dar es Salaam, Tanzania. Course organised by COSTECH. [Empenzwa@costech.gn.apc.org](mailto:Empenzwa@costech.gn.apc.org)

**May 9, African Internet Forum meeting,** New York. Will discuss Rabat meeting.

**May 10-18: Knowledge and Skills for Development in the Information Age,** Marrakech, Morocco. World Bank's EDI and the Government of Morocco with the assistance of the Executive Secretariat of the Middle East and North Africa Economic Summit is organising this conference on behalf of a diverse consortium of governmental, private sector and NGO partners. The event will launch the Mediterranean Development Forum, a broad partnership devoted to "harnessing the information revolution for improved policies to alleviate poverty and to achieve sustainable development in the Mediterranean region."  
<http://casa.mena.org/MDF>

**May 17-23: World Community Radio meeting,** Johannesburg, South Africa. General meeting of AMARC - the world association of community radio broadcasters.

**May 19-21: Impact of ICTs on Trade, Investment and Sustainable Development,** Malta. COMNET-IT workshop to feed into the Commonwealth Heads of State meeting in Edinburgh.

**May 19-21 Francophone Ministerial meeting on the Information Highway,** Montreal, Canada. Following the experts meeting in Geneva, Francophone ministers will meet to discuss Information Highway issues. [sandra\\_coulibaly@francophonie.org](mailto:sandra_coulibaly@francophonie.org)

**May 19-23 Afcom 97,** Mbabane, Swaziland. Aimed at high-level government officials, Afcom 97 will bring key players in the telecommunications, broadcasting and informatics communities from Africa and the US to discuss African telecommunications. The 5 day conference will 'focus on policy trends, market conditions, technology needs and issues related to privatisation of the communications sector in Africa.'  
<http://www.us.net/afcom/>

**May 21-23: AITEC Computer & Communications Trade Show,** Kampala Uganda. [Aitec.admin@dial.pipex.com](mailto:Aitec.admin@dial.pipex.com).

**May 21-24: 22<sup>nd</sup> World Conference of the Society for International Development - Which Globalisation? Opening Spaces for Civic Engagement,** Santiago de Compostela, Spain. [S.i.d@agora.stm.it](mailto:S.i.d@agora.stm.it) <http://www.waw.be/sid>

**May 26-30: AFCOM '97 Internet/Telematics Workshop**, Johannesburg. General track, technology track, business track. The Open Society Foundation (Soros) is sponsoring a number of APC members to attend the event. <http://www.us.net/afcom/trnreg.html>

**May 21-24 The Internet and West African Media**, Dakar, Senegal. Panos seminar. Will be used to refine UNESCO's African media programme proposals.

**June 4-6: AITEC Computer & Communications Trade Show and Internet Training Workshop**, Nairobi, Kenya. [Aitec.admin@dial.pipex.com](mailto:Aitec.admin@dial.pipex.com).

**June 16-23: The Information Age Salzburg Seminar**, Salzburg. [vclarke@fc.salsem.org](mailto:vclarke@fc.salsem.org) (Virginia Clarke-Laskin).

**June 22-26: Global Knowledge for Development Conference, GK'97**, Toronto, Canada. Hosted by the World Bank and the Government of Canada in partnership with a large group of public and private organizations, will focus on the challenges facing developing countries, and the international community, at the end of the 20<sup>th</sup> century and the dawn of the information age. The conference will bring together 1500 participants: senior government officials, local knowledge builders, the NGO community, industry and business leaders and other leaders and experts. <http://www.globalknowledge.org>

**June?: Communication for Peace**. (date to be confirmed), Addis Ababa. ECA/UNESCO meeting within HITD programme.

**June 23-26: AfricaGIS 97**. 23-26 June, Gaborone, Botswana. Graphical Information Systems for Africa conference organised by the Government of Botswana and supported by UNITAR. [Muisin@noka.ub.bw](mailto:Muisin@noka.ub.bw)

**June 24-27: INET'97. 7<sup>th</sup> Internet Society Conference**, Kuala Lumpur, Malaysia The conference will address the traditional and evolving frontiers of the societies throughout the world. Will also host the Developing Countries Workshop, and the African INET workshop. <http://isoc.org/inet>

**June 30-July 4: World Telemedicine Symposium for developing countries, Cascais, Portugal**, organised by the ITU. [Androuchkou@itu.int](mailto:Androuchkou@itu.int)

**July 14-18: 5<sup>th</sup> International Conference on Adult Education**, Hamburg, Germany. Organised by the UNESCO Institute for Education. [Uie@unesco.org](mailto:Uie@unesco.org), <http://www.education.unesco.org/educnews/confintea>

**July 28-30: Education and Training in the Commonwealth - Making the Transition**, Gaborone, Botswana. Organised by the British Council. Helena Sharp, British Council, +44-171-389-4758.

**August 15-18: 4<sup>th</sup> Annual Telecommunities Canada Conference**. Halifax, Canada. Brings together people from Canada and around the world who are involved in Community Networking. This year's conference has as its theme "PARTNERSHIPS". 'Partnerships can play a crucial role in the stages of community net development from the initial community discussions, through to organising, building and sustaining the community infrastructure. Technical, organisational and financial aspects of a community net can benefit through bilateral and multilateral partnerships among business, government and social or volunteer sectors.' Supported by Industry Canada.

**Sept. 3-5: AITEC Computer & Communications Trade Show**, Dar es Salaam, Tanzania. [Aitec.admin@dial.pipex.com](mailto:Aitec.admin@dial.pipex.com).

**Sept. 6-12: New Media 2000**, Grahamstown South Africa. 300 Journalists are expected to gather in South Africa to debate the impact of the Internet and computerised journalism on the media. Organised by the University of Grahamstown's New Media Lab (which has developed an African News web search engine). For further details see: <http://nml.ru.ac.za/nml-new.htm>

**Sept. 8-14: Telecom Inter@ctive 97**, Geneva. ITU organised event focusing on broadband and multimedia applications and will include a focus on developing country issues. <http://www.itu.int/TELECOM/int97/index.html>

**Sept. 13-18: Internet Society Middle East - North Africa, Internet Training Workshop**, Amman - Jordan.

**Sept. 15-18: Enhancing Public Service Delivery Through Information Technology**, Malta. COMNET-IT sponsored workshop targeted at senior public sector policy makers and managers responsible for planning and guiding the implementation of information technology for providing service to the public.  
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**October 8-10: AITEC Networld + Landaba 97 Trade Show and Internet training workshop**, Johannesburg, South Africa.

**October 21-22: First meeting of the African Technical Advisory Committee to Africa's Information Society Initiative**, Addis Ababa. hafkin.uneca@un.org

**October 23-25: Regional co-ordinating meeting, AISI and all partners (PICTA)**. Addis Ababa.  
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**October (dates to be confirmed): Will Multimedia Transform Society?** Washington. The Smithsonian Conference organised by the Club of Rome to discuss the importance of multimedia in education and the acquisition of knowledge considering the gap between rich and poor countries. cor.bs@Dialup.FranceNet.fr

**October 12-15: African Studies Association Annual Meeting**, Columbus, Ohio.

**ANNEX 3 - Preliminary proposal for matrix presentation of activities in Ghana (model matrix), Senegal, Benin, Burkina Faso, Mali and Morocco, to be completed during trial phase.**

**GHANA (incomplete model)**

NOTE: Dates are hypothetical, the agency, date and contact information could be contained separately in hyperlinks

Categories	Sub-Category	Ongoing	Planned (Committed)	Proposed	Resources
Policy Awareness		<p><b>Telecom policy reform</b> - competition in telecom and ISP sectors.</p> <p>-----</p> <p><b>Ghana National Committee (GNC) on Internet Connectivity</b> ITU/UNESCO/UNDP ernberg@itu.int 02/06/97-02/98 j.rose@unesco.org</p>		<p><b>Regulatory/Tariff mission</b> Leland lasmith@usaid.gov 09/97 (10 days)</p>	<p><b>ECA advisors</b> hafkin.uneca@un.org <b>WTO Advisors</b> jean-guy.carrier@wto.org <b>COMNET-IT</b> gjgrant@compuserve.com</p>
<b>NICI Plan</b>		?		<b>ECA outreach</b>	
<b>Connectivity</b>	Capital	2-3 private ISPs	Leland?	<p><b>Initial Public Sector Internet Backbone</b> ITU/UNESCO ernberg@itu.int &amp; j.rose@unesco.org UNDP interested in assisting with above. By 10/97</p>	
	Secondary Cities		<p><b>Pops in 2 or more secondary cities</b> Leland lasmith@usaid.gov By 06/98. <b>Gilat/NCS VSAT Hub</b> quaynor@ncs.co.gh</p>	<p><b>Initial Public Sector Internet Backbone</b> ITU/UNESCO ernberg@itu.int &amp; j.rose@unesco.org</p>	
	Rural Area		Gilat/NCS (see above)	MCT <sup>2</sup> Pilot Project ernberg@itu.int	
<b>Training</b>					
	<p><b>Users</b> Network Use &amp; Applications, Strategy &amp; Awareness</p> <p>Application/content development</p>	<p><b>Pilot public sector Internet services</b> UNESCO j.rose@unesco.org ernberg@itu.int chuck.@sdnp.undp.org</p>	<p><b>USAID National project</b> lasmith@usaid.gov <b>World Bank</b> lmcginnis@worldbank.org</p>		
	Engineering/ Technical Network ops/Intranets Network mgmt, marketing & business operations (ISP).		<p><b>National Workshop</b> ITU/UNESCO/UNDP ernberg@itu.int j.rose@unesco.org chuck.@sdnp.undp.org</p>		

<sup>2</sup> Multipurpose Community Telecentres

**GHANA cont'd**

<b>Categories</b>	<b>Sub-Category</b>	<b>Ongoing</b>	<b>Planned (Committed)</b>	<b>Proposed</b>	<b>Resources</b>
<b>Applications</b>	Agriculture				
	Education/ Research	<b>Distance Education Conference</b> WorldSpace Lisa Slifer 1-2028847800.  <b>University of Ghana Connectivity</b> USAID lasmith@usaid.gov	<b>Africa Virtual U</b> InfoDev  <b>WorLD</b> World Bank lmcginnis@worldbank.org  <b>Linking national reasearch centres</b> CSIR/WAITRO dcogburn@csir.co.za		
	Environment				
	Governance/ Public Administration				
	Health				
	Trade/ Commerce & Industry		<b>Country specific trade agreement info</b> WTO jean-guy.carrier@wto.org		
<b>Democratisation of Access</b>				<b>MCT Pilot Project</b> USAID lasmith@usaid.gov ernberg@itu.int  <b>MessageLink</b> kwabena@ighmail.com	
<b>Development Information</b>		<b>GNC workshop report</b> Mohammed-Sani csug@ncs.com.gh			

**BENIN**

<b>Categories</b>	<b>Sub-Category</b>	<b>Ongoing</b>	<b>Planned (Committed)</b>	<b>Proposed</b>	<b>Resources</b>
<b>Policy Awareness</b>			<b>Leland Initiative</b> USAID		
<b>NICI Plan</b>					
<b>Connectivity</b>	Capital	<b>Internet - Leland Initiative</b> USAID <b>AFRINET</b> <b>Internet Server</b> ACCT <b>SDNP Pilot for 4 Internet Servers</b> UNDP/USAID			
	Secondary Cities				
	Rural Area			<b>MCT Pilot</b> IDRC/ITU/ UNESCO	
<b>Training</b>					
	<b>Users</b> Network Use & Applications, Strategy & Awareness  Application/content development				
	Engineering/ Technical Network ops/Intranets Network mgmt, marketing & business operations (ISP).	<b>Web site Creation</b> ACCT	<b>ISP leased line training</b> Leland/USAID		
<b>Applications</b>					
	Agriculture				
	Education/ Research				
	Environment				
	Governance/ Public Administration				
	Health				
	Trade/ Commerce & Industry				
<b>Democratisation of Access</b>					
<b>Development Information</b>					

**BURKINA FASO**

<b>Categories</b>	<b>Sub-Category</b>	<b>Ongoing</b>	<b>Planned (Committed)</b>	<b>Proposed</b>	<b>Resources</b>
<b>Policy Awareness</b>					
<b>NICI Plan</b>					
<b>Connectivity</b>	Capital	<b>UNDP SDNP Mission UNDP/UNESCO</b>			
	Secondary Cities				
	Rural Area				
<b>Training</b>					
	<b>Users</b> Network Use & Applications, Strategy & Awareness  Application/con- tent development				
	Engineering/ Technical Network ops/Intranets Network mgmt, marketing & business operations (ISP).				
<b>Applications</b>					
	Agriculture				
	Education/ Research				
	Environment				
	Governance/ Public Administration				
	Health				
	Trade/ Commerce & Industry				
<b>Democratisation of Access</b>					
<b>Development Information</b>					

**CAMEROON**

<b>Categories</b>	<b>Sub-Category</b>	<b>Ongoing</b>	<b>Planned (Committed)</b>	<b>Proposed</b>	<b>Resources</b>
<b>Policy Awareness</b>				National Workshop UNDP	
<b>NICI Plan</b>					
<b>Connectivity</b>	Capital	<b>UNDP SDNP Node (2 staff)</b> UNDP Many other projects, low co-ordination	<b>Experimental communications centre</b> Ministere PTT	<b>ACCT Interest</b>	
	Secondary Cities				
	Rural Area			<b>3 MCTs</b> Maga	
<b>Training</b>					
	<b>Users</b> Network Use & Applications, Strategy & Awareness  Application/content development				
	Engineering/ Technical Network ops/ Intranets Network mgmt, marketing & business operations (ISP).		Course and support centre <b>InfoDev</b>		
<b>Applications</b>					
	Agriculture				
	Education/ Research				
	Environment				
	Governance/ Public Administration				
	Health				
	Trade/ Commerce & Industry				
<b>Democratisation of Access</b>					
<b>Development Information</b>					

MALI

Categories	Sub-Category	Ongoing	Planned (Committed)	Proposed	Resources
Policy Awareness					President Konare ICT Initiative FDD
<b>NICI Plan</b>					
Connectivity	Capital	<b>National PTO hub</b> Leland/USAID		USAID National office interested in more support for ICTs.	
	Secondary Cities				
	Rural Area			<b>MCT Pilot</b> ITU/UNESCO	
<b>Training</b>					
	<b>Users</b> Network Use & Applications, Strategy & Awareness  Application/con- tent development				
	Engineering/ Technical Network ops/Intranets Network mgmt, marketing & business operations (ISP).	<b>Sub-regional training course</b> UNESCO/ITU			
<b>Applications</b>					
	Agriculture				
	Education/ Research	<b>National Museum Online/CD ACCT</b>			
	Environment				
	Governance/ Public Administration				
	Health				
	Trade/ Commerce & Industry				
<b>Democratisation of Access</b>					
<b>Development Information</b>					

**MOROCCO**

<b>Categories</b>	<b>Sub-Category</b>	<b>Ongoing</b>	<b>Planned (Committed)</b>	<b>Pronosed</b>	<b>Resources</b>
<b>Policy Awareness</b>			<b>Knowledge Skills for Development Conference</b> World Bank(EDI) + Govt of Morocco.		
<b>NICI Plan</b>					
<b>Connectivity</b>	Capital	<b>Private Sector ISPs</b>  <b>SDNP Node</b> UNDP			
	Secondary Cities	<b>Private Sector ISPs</b>			
	Rural Area				
<b>Training</b>					
	<b>Users</b> Network Use & Applications, Strategy & Awareness  Application/content development				
	Engineering/ Technical Network ops/Intranets Network mgmt, marketing & business operations (ISP).				
<b>Applications</b>					
	Agriculture				
	Education/ Research			<b>Feasibility study for a National Academ/Research Network</b> Ministry of Education	
	Environment	<b>Mecknes GIS System</b> UNESCO			
	Governance/ Public Administration				
	Health	<b>Telemedicine Feasibility Study</b> WHO			
	Trade/ Commerce & Industry	<b>Training IT for use in promoting Handicrafts</b> UNESCO			
<b>Democratisation of Access</b>					
<b>Development Information</b>					

SENEGAL

Categories	Sub-Category	Ongoing	Planned (Committed)	Proposed	Resources
Policy Awareness			PTO Tariff Seminar ITU		
<b>NICI Plan</b>					
Connectivity	Capital		AFRINET Internet Server and Postal Africa (E-Mail) ACCT.	Leland Initiative USAID	
	Secondary Cities				
	Rural Area				
<b>Training</b>					
	<b>Users</b> Network Use & Applications, Strategy & Awareness  Application/con- tent development				
	Engineering/ Technical Network ops/Intranets Network mgmt, marketing & business operations (ISP).	<b>Ecole Technico Superieur de Communication (ESTC)</b>			
<b>Applications</b>					
	Agriculture				
	Education/ Research	<b>Education Ministry IT Network UNESCO</b>		<b>IT In the Educational System UNESCO</b>	
	Environment				
	Governance/ Public Administration				
	Health				
	Trade/ Commerce & Industry				
<b>Democratisation of Access</b>				<b>MCT pilot project</b>	
<b>Development Information</b>					

#### **Annex 4 - Current ICT Related Development Projects in Africa.**

Updated April 16, 1997, following input from agency presentations, Rabat Global Donor and Executing Agency Meeting on ICTs for Africa.

**ACCT.** The Agence de la Francophonie which is supported primarily by Canada and France, has since the Benin heads of State summit, been involved in a wide range of activities relating to ICTs in Africa. In particular ACCT is focusing support for co-operation between French speaking countries and co-ordination at regional and national levels, the preservation of cultural heritage, the democratisation of access to information, development of rural and community access points, training of information workers, information producers and network managers and the dissemination of success stories. About \$16m has been made available for ACCT's ICT related programmes and this is expected to increase substantially after the Montreal meeting (see below). ACCT is also:

- Preparing a ministerial conference on the information superhighway to be held in Montreal, Canada in which a number of ICT projects will be considered. The lead-up to the conference has included a number of preparatory meetings and research projects which have involved the ITU and UNESCO.
- Supporting the Centres Syfed which provide Internet access at many French speaking Universities in Africa.
- Supporting multimedia CD and web-based content development for the digitalisation of museums in French speaking countries through its FF5m ProSud programme.
- Will participate in the 'Telecentre Fund' (see ITU) via its programme for promoting centres for reading and promotion of cultural information (CLAC).
- Establishing Internet servers in 9 African countries with support from Canada (4-5 have already been installed).
- Supporting the development of judicial databases (COGEDI).
- Assisting with connecting French speaking embassies, political and educational institutions to the Internet with training, equipment and communication subsidies.
- Supporting the use of ICTs for promoting handicrafts in Burkina Faso
- Planning a training workshop in Hanoi at the French speaking Summit.  
Benessah@francophonie.org / www.francophonie.org

**Bellanet International Secretariat.** The Bellanet Initiative and its Secretariat, based at IDRC in Canada, was set up with support from seven international donors to support broader development collaboration through the use of ICTs. It delivers its services through a number of Collaborative Initiatives (CIs) with participating development agencies providing assistance in areas such as web site development, creation of electronic workspaces, access to information for collaborative planning, advice on connectivity issues, training in Internet presence development and donor/project brokering. The current members of the 4 year 'pilot' are UNDP, Rockefeller Foundation, MacArthur, CIDA, Sida, IDRC, DGIS with a budget of \$1.8M. The most relevant current activities of Bellanet are:

- Responsible for AISI programme donor collaboration through stake-holder dialogue and maintains the AISI web site and mailing lists.
- Maintaining the InfoDev forum web-site and database on funded and proposed projects.
- Hosting the web site of Association for Development of Education in Africa (ADEA) which many donors are participating in, providing a statistics database, virtual workspaces for steering committee members.
- Taking the lead with CIDA, IDRC to build the initiative, Learning for Development in the Information Age, which focuses on evaluation of projects and programmes.
- Developing web-based database access services that can allow remote updating by the record holders of development projects. (Esp. the African ICT Activity Information Management System AI-AIMS).

- Assembled the database of projects for the Rabat meeting (note the report contains many inaccuracies due to the short amount of time available to assemble the data). Analysis showed that the primary focus of projects were evenly distributed, of particular utility is the analysis by country level. 50 project proposals (those that were related to ICTs in Africa) were obtained from the InfoDev database. [balson@idrc.ca](mailto:balson@idrc.ca) / [www.bellanet.org](http://www.bellanet.org)

**Carnegie Corporation.** The US foundation's Science and Technology programme in developing countries focuses on Africa, aiming to a) reduce the isolation of African scientists, b) give them better access to international sources of information and to improve their ability to contribute to the global knowledge pool, c) to promote regional networking and c) strengthen their overall capacity to conduct research. Particularly relevant examples of Carnegie's projects in this area include networking related support for:

- The Pan African Documentation and Information System (PADIS) of the UN ECA;
- The Association of African Universities (AAU) in Ghana;
- The African Research Centre for Technology (ARCT) - for human resource development in science and technology networking to produce directories of African scientists, experts, training resources and training programmes. Also to support training and equipment for 30 participating institutions as the first step in providing them with Internet access. (\$200K)
- The University of Ibadan, Nigeria.
- The University of Dar es Salaam, Tanzania.
- The Kenya Medical Research Institute.
- The University of Zimbabwe to establish a campus-wide network connected to the Internet, including the remote campuses. (\$100K). [Jhung@rockfound.org](mailto:Jhung@rockfound.org)

**CIDA.** The Canadian International Development Agency has in the past assisted with PANAFTTEL and recently supported a workshop for use of IT among members of parliament in southern Africa. It is:

- Supporting Internet connectivity and content creation capacity building in 5 African countries: Benin, Burkina Faso, Cote d'Ivoire, Guinea and Mali in collaboration with ACCT.
- Supporting IT industry development facilitation in South Africa.

**COMNET-IT.** The Malta based Commonwealth IT agency is primarily focusing on training, awareness and capacity building among institutions in Commonwealth countries but its activities could include other countries where appropriate. A major focus is to institutionalise Internet access, to provide training in how to use ICTs more effectively and to build capacities for supporting network facilities. It is:

- Working with the University of Geneva's Department of Diplomatic Studies in building capacity to use IT in national ministries of foreign affairs. African countries in the initial programme are Cameroon and Kenya and the project has a total budget of \$550K.
- Funding the Association of Commonwealth Archivists with training and infrastructure support in Africa.
- Supporting training in use of IT with disabled and elderly.
- Assisting small states to develop telecom & IT policies.
- Supporting the Commonwealth Association of Public Administration & Management.
- Hosting two awareness building and policy seminars in Malta: **The Impact of ICTs on Trade, Investment and Sustainable Development**, 19-21<sup>st</sup> May, to feed into the Commonwealth Heads of State meeting in Edinburgh. **Enhancing Public Service Delivery Through Information Technology**. Sept. 15-18, workshop targeted at senior public sector policy makers and managers responsible for planning and guiding the implementation of information technology for providing service to the public.

- Has just run a network training course for the Tanzanian Commission for Science and Technology (COSTECH).
- Working with the Research Council of Zimbabwe (RCZ) to develop the country's national higher education Internet network.
- Has conducted a survey of Chamber of Commerce connectivity to the Internet in Commonwealth countries.  
gerald.grant@brunel.ac.uk / h.alamango@magnet.mt

**DANIDA.** Supports UNESCO's Learning Without Frontiers programme which is currently connecting 5 teacher training colleges to the Internet in Zimbabwe.

**DGIS.** Dutch ministry of foreign cooperation has for some years supported use of ICTs in a number of African Universities (esp. Lesotho, Mozambique, Tanzania and Zambia). It has recently supported the establishment of IICD which will focus on ICTs in development. It is considering a proposal to provide Internet connectivity to 8 Universities in Africa. (see below).

**ECA.** The UN Economic Commission for Africa has overall responsibility for AISI and HITD, assisted by the various UN agencies and international development agencies and the AISI African Technical Advisory Committee (ATAC). ECA is also the joint executor of the UNDP's IIA and is host to the Pan African Documentation and Information System (PADIS) which has been involved in the implementation of ICT projects for many years. In addition ECA:

- presented AISI in over 20 national meetings, is maintaining the AISI web site on Bellanet, supporting the development of a database on African connectivity and circulating materials on AISI (the latter funded through IDRC support).
- holds the annual conference of African Ministers of Planning and which this year is being held in conjunction with a meeting on infrastructure development supported by the GIIC (see schedule of events).
- is enlarging its IT department and it will shortly have 2 regional advisors available to assist countries in developing NICI plans, improving connectivity and developing content as well as a number of other staff to manage the organisation's ICT programmes.
- is developing a training module for policy makers working on AISI which will be tested at an IDEP course for African development planners.
- has already or will, with support from other agencies, be running NICI planning workshops in Tanzania (with IDRC), Ethiopia & Cameroon (with World Bank/InfoDev), Gabon and Nigeria (with UNDP) and Mozambique, Senegal & South Africa (with Acacia).
- is collaborating with Carnegie Corporation on content development.  
hafkin.uneca@un.org <http://www.bellanet.org/partners/aisi>.
- is through PADIS, creating a CD-ROM of African Development Information and making ECA's databases and the database of sub-regional organisations available via the Internet.

**ESA.** The European Space Agency, in co-operation with the UN Office for Outer Space Affairs is executing the COPINE project to donate groundstations and transponder time to African research institutions. It is also collaborating with UNEP on the Mercure project.

**EU.** Has financed SADC electronic network development for Sector Co-ordinating Units and is financing the COMESA web site and connectivity feasibility study.

**FAO.** The UN Food and Agriculture Organisation is focusing on promotion of connectivity in rural development. It is:

- Participating with IDRC, ITU and UNESCO in the multi-purpose telecentre project (see ITU).
- Supporting the SADC Communications Centre in Harare, Zimbabwe which is co-operating with the IDRC in rural networks for food security in Southern Africa. [jvillet@fanr-sadc.org.zw](mailto:jvillet@fanr-sadc.org.zw).

- Establishing an Internet-based Regional Animal Disease Surveillance and Control Network (RADISCON) in 29 countries, including North Africa with \$1.25M from IFAD.  
ddion@fao.org
- Working on ways to make its Global Agricultural Database more widely available

**FES.** The German foundation - Fredrich Ebert Stiftung focuses on support for the mass media in Africa. It supports:

- The Southern African Broadcasting Association news delivery service
- The AfroVision national television broadcast sharing service.

**FDD.** The Geneva based Fondation du Devenir recently held a major symposium on Africa and the New Information Technologies with support from the Canton of Geneva and the President of Mali. This has led to a proposal by FDD to establish the ANAIS programme which will collaborate with existing efforts to address outstanding ICT issues in Africa, focusing on policy awareness, democratisation of access and content development.

**GIIC.** The Global Information Infrastructure Commission (a group of international private sector ICT equipment and service suppliers) has assisted in the development of AISI. It has two African commissioners and has some funds to policy support in AISI programmes. GIIC is supporting an African minister's meeting on the NICI planning process and a workshop on private sector involvement and investment (see schedule of events).

**IDRC.** The International Development Research Centre, a Canadian Crown Corporation, began pilot Academic and NGO networks in Africa in the late 80's (ESANET & NGONET) and has also assisted Satelife with its LEO HealthNet email service. It has also financed ECA's Capacity Building for Electronic Communications in Africa (CABECA project) which provided technical support and equipment for ISPs in 29 countries. More recently it collaborated with the ITU, ECA and UNESCO to host the Telematics for Development in Africa Symposium and the resulting High Level Working Group which developed the AISI framework document. In the last few months it has undertaken a major re-alignment of its programme support to further focus on ICTs in Africa. Major activities now include:

- The 'Acacia' programme is a new \$60m 5 year flagship initiative to establish a set of projects to pilot the use of ICTs at the community level across sub-Saharan Africa, in particular through Schoolnets, Telecentres and other projects defined by the communities themselves. Private sector involvement is now being sought and continual evaluation will be a major component of Acacia, to which 5-10% of the funds will be allocated. Using the regional offices in Dakar, Nairobi and Johannesburg, the first year's budget of \$5m will be allocated by April 1998. Major programmes will take place in Mozambique, Senegal, South Africa and one east African country, and smaller programmes with linked activities in neighbouring countries.
- The \$1m, 2-year 'Unganisha' connectivity programme has just been launched which will link IDRC' local project partners and programme offices to the Internet. The programme aims to collaborate with other development agencies doing the same in order to leverage the funds - not by pooling funds but to share planning and intellectual resources. (e.g. by holding joint training workshops, using similar technologies etc.).
- General AISI programme support is being given to ECA to publish and distribute the AISI framework document.
- IDRC is a Telecentre Fund member (see ITU).

**IICD.** International Institute for Communications and Development (IICD). Jan Pronk, Minister for International Cooperation of The Netherlands government has established the International Institute for Communications and Development (IICD) as an instrument of

development assistance in the ICT area, with funding for five years. It is focusing its efforts on Africa (not to the exclusion of other continents) with an interest in involving private sector concerns. Its initial budget is \$2.5 m/year for the next 5 years. Initial activities involve setting up an ICT information service for parties in developing countries and support to national-level roundtables with minimal external participation. The major programme areas include:

- Provision of advice and information on ICTs to both Southern and Northern users;
- Creation of a thinktank on ICTs in the development process;
- Acting as a source of advice for local capacity development in adopting ICTs; and
- Acting as a broker for donors, private sector and project proponents related to ICT activities.

**The Internet Society.** Established by some of the ‘founders’ of the Internet with the aim of ensuring the continued evolution of the Internet for the benefit of the public, ISOC has 8000 general members, 150 industrial affiliates. It is most well known for its annual conferences and the associated Internet technical bodies the IHAC and the IETF. A number of countries have established national ISOC chapters but the high annual fee (\$35) has limited participation by many developing countries. Since 1993 it has been running an annual Developing Countries Workshop in conjunction with its conference which has trained about 750 people from 120 countries with funds of about \$600K which generated complementary support of about \$3m from development agencies, foundations private and public sector groups. The Kuala Lumpur workshop will not have a French stream but the Geneva workshop in 1998 will probably have Spanish as well as French and English. ISOC is working with the University of Paris to create an updated version of its French training CD. The first regional ISOC training workshop will take place in Jordan (see schedule of events in the Annex 2).

**ITC.** The UN International Trade Centre has been supporting the establishment of a Virtual Exhibition Centre - a web site for promoting trade in handicrafts and non-traditional produce. Goods from many African countries are on display at the site free of charge until the end of 1997. In collaboration with UNCTAD and UNESCO, the ITC is looking at ways of building the capacity of local trade promotion groups to make use of the Internet more effectively.

**ITU.** The Geneva based UN International Telecommunication Union has a strong and well established relationship with most African PTOs and their Ministries. It has been directed by its members to focus most attention on the LDCs (most of which are in Africa) and the Buenos Aires Action Plan (BAAP) has mandated it with a number of programmes to support ICTs in Africa. This resulted in support for the African Green Paper on Telecommunications, the Telematics for Development in Africa Symposium and the AISI high level working group. Profits from the Telecom exhibitions are now being placed in the ‘Initiative 2000’ fund (now at SFR13m) for allocation to appropriate projects supporting the development of national information infrastructures. The management of the fund has not yet been decided but it is hoped that at least \$500K will be provided for the Telecentre Fund (see below). The ITU is also:

- A member of the ‘Telecentre Fund’ which will establish pilot Multipurpose Community Telecentre (MCT) projects in rural areas in 5 African countries - Benin, Mali, Mozambique, Tanzania and Uganda in collaboration with UNESCO, IDRC and probably with ACCT & FAO.
- Conducting other general support activities under BAAP such as sending experts to PTOs to assist with policy change, restructuring, network planning and the establishment of Internet services.
- Piloting the global Virtual Training Centre - a web based training resource for telecommunications distance education (<http://www3.itu.ch/VTC/>).
- Collaborating with WHO in a number of telemedicine projects
- Assisting the two regional telecommunications training centres - AFRALTI in Nairobi and ESMT in Dakar - to become centres of excellence and to also be able to offer advanced training in Internet operations.

**Kellogg Foundation.** The US foundation is currently restructuring its African programme and is examining ways to partner with other agencies in the development of their programme. A particular interest of the foundation is in education, primarily tertiary, but also other levels.

**OAU.** Has established an OAU/United Nations Inter-Agency Centre for Information Exchange whose role is to provide a central multimedia system capable of gathering, processing and disseminating information through the application of information technology.

**Sida.** The Swedish International Development Cooperation Agency has been supporting telecommunications infrastructure development and sector reform for decades in Africa. It is now developing new policies for the support of applications development in the area of ICTs and is examining the possibilities for acting as a broker for private/public sector co-operation. It is likely that Sida will create a new fund open to both Swedish and developing country participants that will focus on the application of ICTs in social sectors, in particular, job creation. Finance will not be contingent on the involvement of the Swedish private sector and the number of applications is likely to determine the overall level of funding. Initially however, initially, maximum \$2-3m a year will be provided. Aside from the \$100m given to projects in sub-Saharan Africa since 1990, it has provided about \$10-15m in telecom training support in Sweden. Sida has also supported the establishment of MISANET, an electronic network of independent media in Southern Africa, and an African Museum's electronic network.

**UNCTAD.** The UN Commission on Trade and Development has established the Global Trade Point programme funded by the US and the Netherlands for establishment of trade points and web based trade-incubation centres. It is engaged in awareness raising, training, provision of hardware and software, Internet support, and provision of access to the ETO system through GTPNet and its mirror sites worldwide. Specific assistance is provided to the LDCs, in particular through the Internet Incubator. The EU is considering a ECU10m support proposal for the programme in the ECOWAS countries in co-operation with ITC. Contact: bruno\_lanvin@unctad.org

**UNDP.** The UN Development Programme has recently made the use of ICTs a higher priority and has informed its Resident Representatives of their importance. Its Regional Bureau for Africa has recently announced a new \$10m Internet Initiative for Africa (IIA) jointly executed with ECA which is aimed at enhancing Internet access, supporting content development and training in 10-12 African countries, faye@un.org. The Bureau for Africa has also funded 4 workshops in Internet in Africa (most recently in Guinea Bissau and Lagos). UNDP is also separately executing the Sustainable Development Networking Programme (SDNP) which supports open connectivity focusing on sustainable development related content. With about \$1.25m in core funds and \$1m from country resources, SDNP has established 30 nodes globally with at least 6 in Africa in the process of being established in: Benin, Cameroon, Gabon, Malawi, Morocco, Mozambique, Chad, Togo, Tunisia. Other projects include: The UNDP national offices are supporting a LAN installation at the Zambian cabinet offices and the development of the Zimbabwean academic research Internet infrastructure.

- Collaborating with the World Bank on establishing central African Regional Environmental Monitoring Programme (REIMP)

Maintaining the Indris database on institutions in developing countries which can provide capacity building resources worldwide.

- Support for Afcom 97
- Support for training at the University of Ghana with UNESCO and the ITU.
- Conducting feasibility studies for SDNP in Burkina Faso, Cote d'Ivoire and Gambia.

**UNEP.** The Nairobi based UN Environment Programme is continuing with the Mercure project which uses VSAT technology to establish a global environmental information exchange network - UNEPnet. The Global Resources Information Database (GRID) is a key information resource available through the system which will connect Ministries of Environment and other

participating agencies. Sites in Africa for the first phase of the project are the capitals of Kenya, Mozambique and Niger. UNEP is discussing possible collaboration with UNDP and the ITU. UNESCO. The UN Educational, Scientific and Cultural Organisation has supported the AISI development process in collaboration with the ECA, IDRC, ITU and has responsibility for AISI sub-programme support in connectivity (with ITU), training (with ITU and UNITAR) and development information (with ECA). Recently its IPDC has announced two regional and inter-regional and nine national communications training and infrastructure building projects in Africa. UNESCO is also:

- Contributing to the “Telecentre Fund” (see ITU) through a \$650K DANIDA funded programme to enhance the role of public libraries in the 5 African telecentre pilot project countries.
- Supporting a technical training project in Ghana in collaboration with ITU and UNDP to establish a national telematics training centre and a national public sector Internet hub.
- Developing an Internet course in Mali for technicians at institutions of higher education in collaboration with Aupelf and the ITU.
- Launching the \$2.5m 20 country Learning Without Frontiers Programme which will provide connectivity and content development support to teacher training centres in Africa. A pilot has been established in Zimbabwe.  
<http://www.education.unesco.org/educprog/lwf/index.html>
- Planning a mass media and the Internet project for Africa.
- Continuing with the Intergovernmental Informatics Programme (IIP) which supports research network development in Africa through the RINAF programme.
- Investigating the potential of interactive television in Morocco for primary school teachers in rural areas.
- Supporting an International Handicrafts Centre in Morocco which will use ICTs to promote the products internationally.
- Researching issues relating to ICTs and societal impacts, human resource requirements, privacy and copyright issues (UNESCO will probably hold an African copyright issues conference.)

**UNIDO.** The UN Industrial Development Organisation has participated in the AISI process and is shortly holding an African ministerial meeting which will consider the use of ICTs in industrial policies. It is also conducting national needs assessment studies on information networking for business in selected countries in Africa: Angola, Benin, Burkina Faso, Central African Republic, Chad, Djibouti, Eritrea, Ethiopia, Gambia, Guinea, Lesotho, Madagascar, Malawi, Mali, Mozambique, Togo, Uganda and Zaire. Contact: [hpruim@unido.org](mailto:hpruim@unido.org)

**UNITAR.** The UN agency responsible for technical training, UNITAR has supported the use of GIS systems in Africa and has developed a proposal for the Internet en Afrique training programme in collaboration with ORSTOM and ACCT which aims to develop the capacity in existing institutions for Connectivity Information and Training Centers for Internet (CITI) in Burkina-Faso, Bénin, Cameroun, Côte d'Ivoire, Sénégal and Mali. Investment in each CITI is expected to be about \$150-200K.

UNITAR is also a partner with ITU & UNESCO in the AISI/HITD training and human resource sub-programme. Contact: [Renaud@orstom.fr](mailto:Renaud@orstom.fr)

**USAID.** The US International Development Agency is the chief executor for the Leland Initiative - a \$3m per year 5-year inter-agency effort to assist 20 African countries to develop robust and vibrant use of the Internet. The selected countries are likely to be all except one or two of the following: Benin, Botswana, Cote d'Ivoire, Ethiopia, Eritrea, Ghana, Guinea, Guinea-Bissau, Kenya, Mali, Madagascar, Malawi, Mozambique, Namibia, Rwanda, Senegal, South Africa, Tanzania, Uganda, Zambia, Zimbabwe. Focusing on policies, connectivity and user base development with training as a major component, PTOs in the first nine countries of the initiative are being supported with equipment, technical expertise and telecom subsidies to

establish cost-based wholesale Internet services in the capital city for resale by local private sector ISPs. Sub-regional technical training workshops have been held and expertise is also provided in the development of business plans for Internet services and on how to select, qualify and license ISPs. Where services are already readily available Leland will work on related goals focusing on training and applications development - multi-purpose Community Telecentres, private sector issues, governance, health, education etc. In particular applications will focus on areas which can capitalise on the \$600-700m/year that AID spends on Africa. lasmith@usaid.gov. USAID is also:

- Continuing with the AfricaLink project which is assisting with costs (modems, subscription to Internet services) for African natural resource researchers to obtain access to a local ISP and is supporting the establishment of regional help-desks in East and Southern Africa. jeffc@info.usaid.gov
- Assisting with the GLOBE initiative to electronically link US schools with schools in developing countries for environmental monitoring projects.
- Working with the US Information Agency in its school networking programme and its programme to support the use of ICTs in libraries through a grant to Senegal's West African Research Association (WARA).
- Considering the creation of ExecNet - an electronic network of African senior staff members in the offices of the President, Prime Minister, Cabinet and General Secretariat of the Government.

**WHO.** The UN World Health Organisation is assisting in a number of telemedicine and health information policy projects in Africa, including support for Satellife's HealthNet (see below).

**World Bank.** Aside from support for telecommunications infrastructure development, the World Bank has established a variety of ICT related programmes in Africa. In particular:

- The Africa Region Department of the World Bank's Partnership for Capacity-building in Africa will establish Internet connections in Ghana and Malawi for about four organizations in the area of Education, Finance and Human Resource Development. The Africa Region is focusing on Ghana, Malawi, Mozambique and Senegal and will collaborate with IDRC's Acacia programme.
- The World Bank's Economic Development Institute (EDI) is managing the World Links for Development (WorLD) programme which aims to link 1500 secondary schools in 40 countries (10-12 countries in the first year). WorLD has \$5m for 3-years from the bank and hopes to raise a further \$18m with corporate contributions and other development agency financing. EDI is also producing Internet case studies and documentation and a connectivity handbook which will be a resource that can be used by task team leaders, clients and other donors.
- The World Bank established the multi donor InfoDev fund which has supported the African Telematics for Development Consortium and the African Virtual University, a \$1.2M World Bank programme to provide distance education facilities in 8 Universities in 6 countries: Ethiopia, Kenya, Uganda, Tanzania, Zimbabwe and Ghana. Proposals to InfoDev are being made available via the Bellanet web site.
- The Bank is also planning to fund NICI development awareness workshops in Cameroun and Ethiopia.

**WTO.** The World Trade Organisation has facilitated successful trade agreements in the telecommunications sector where 65 countries have agreed to open their markets and an IT agreement is expected to be signed shortly. The WTO has also established a process for lodging disputes (of which there are about 80 currently in this area). Of its 139 members 60% are developing countries. It is working with the World Bank/EDI to train decision makers (government officials, journalists and university researchers) in how to access and use the WTO information, offers and disputes system. This will involve the development of electronic

learning tools which can be accessed via the Web to allow advisors to update themselves on new developments. Work is under way and the system will be introduced to 100-150 trainees a year. The programme has a budget of \$1m for 1997.

### **Major Private, Public Sector and NGO Information Infrastructure Related Initiatives in Africa**

**Africa-One.** AT&T initiated project to lay a fibre optic cable around Africa. Final agreements being reached by the participating PTOs.

**APC.** The Association for Progressive Communications, the NGO network - supports NGO networking initiatives in Africa primarily centred at SangoNet (South Africa) and GreenNet (UK) which provide connectivity to over 15 NGO and academic Internet hosts in Africa. [anriette@wn.apc.org](mailto:anriette@wn.apc.org) / [www.apc.org](http://www.apc.org) A new member, ENDA in Senegal, is now providing local Internet access and assembling directories of women's organisations online. [Moussaf@enda.sn](mailto:Moussaf@enda.sn) / [www.enda.sn](http://www.enda.sn)

**OCIC.** The Catholic organisation for the international promotion of cinema and audio-visual tools has 42 partners in Africa. It is providing Internet connectivity to its diocese missions via SITA and is planning the development of electronic mail access services via its rural radio stations.

**direcPC.** Hughes Network Systems is being represented by Plessey in Africa who will be reselling the direcPC 400Kbps Internet access via TVRO service.

**Gilat.** A VSAT technology provider, Gilat has supplied a satellite based distance education solution to a consortium of South African organisations and is in the process of establishing a VSAT hub with the second PTO in Ghana. In partnership with a local ISP in Ghana (NCS), Gilat will be providing Internet access to west Africa (and possibly further afield depending on which satellite is chosen) via the hub. The VSAT equipment used is specially designed to minimise costs, optimise use of the satellite signal and to improve the performance of the Internet over satellite links.

**IntelSat.** Is launching a satellite in Internet service and researching performance issues related to Internet delivery over satellite, such as the development of IP multicasting services. <http://www.intelsat.int>

**IPASS.** US company providing dialup full Internet access roaming facilities at \$12/hour in about 40 African countries - any ISP can become a reciprocal member. <http://www.ipass.com>

**MeditNet.** Regional information infrastructure development initiative for the Mediterranean. Proposed projects recently presented at the Beirut meeting included a French speaking Universities Network and an Online Commerce Network.

**Mnet/Orbicom.** South African digital television broadcaster is planning to launch a satellite based African Internet service.

**Orbcomm.** US company providing a small LEO satellite based short data transfer service.

**Panaftel.** Project to link neighbouring African country telecommunications networks. Will be given renewed support by ITU's Initiative 2000.

**Prodigy.** The US online service has committed \$12.5 million in 1997 to expand its Internet activities in Africa. Prodigy's Internet provider, Africa Online, will open in Tanzania and Uganda in May, and plans to start up in Egypt and South Africa by year-end. Contact: [gakio@africaonline.com](mailto:gakio@africaonline.com)

**Global-One.** Major supplier of Internet turnkey and bandwidth solutions to PTTs in Africa (Angola, Botswana, Ethiopia, Zimbabwe). Contact: [lawrence@global-one.co.za](mailto:lawrence@global-one.co.za)

**PanamSat.** Has launched its turnkey VSAT-based Internet service - SpotBytes, which currently provides the 64Kbps connection between the Zambia ISP and the US' UUNET.

**RASCOM.** Regional African Satellite is finalising funding for a geostationary satellite over Africa.

**Satellife.** US foundation's Healthnet project is supporting the development of health information distribution, wireless data links and electronic mail tools for navigating the web. Contact: afraser@usa.healthnet.org

**Telecom Africa.** The African Telecommunications applications, research and development project to build indigenous capacity for the manufacture of communications equipment in Africa. Telecom Africa has begun the process of establishing an office in Namibia and won the support of many African ministries of telecommunications.

**Telkom.** The South African PTT has built a large satellite groundstation hub and is providing VSAT data services via Intelsat - SpaceStream, currently used by Nigeria to provide X.25-based packet switching services. It is also in the process of establishing 8 centres of excellence in the country for training and policy development.

**Transtel.** The South African transport parastatal has also built a large satellite groundstation hub and is providing VSAT data services via PanamSat. It is providing the 64Kbps connection between the University of Dar es Salaam, and the South African academic network - UniNet.

**WorldSpace** - Will launch an African satellite-based digital radio (SDARS) service in 1998, is organising a distance education conference in Ghana in April (see below).

Annex 5 - LIST OF DOCUMENTS

N° DOC	TITLE
1E	African information society initiative (AISI) - an action framework to build Africa's information and communication infrastructure - <b>African Networking Initiative (ANI)</b> <sup>3</sup>
1 F	Initiative société africaine à l'ère d'information (AISI) - <b>ANI</b> <sup>3</sup>
2E	African information society initiative (AISI) meeting report - <b>ECA</b> <sup>3</sup>
3E	Leland initiative: Africa GII gateway project - project description & frequently asked questions (FAQ) - <b>USAID</b>
3 F	Leland initiative: Africa global information infrastructure project gateway (title in English - text in French) - <b>USAID</b>
4E	Implementing the African information society initiative (AISI): the national information and communication infrastructure (NICI) planning process at national and sub-regional levels - <b>GIIC</b>
5E	Proposal for international co-operation on multipurpose community telecentre pilot projects in Africa - <b>ITU / IDRC / UNESCO</b>
6E	Draft AISI / HITD Internet connectivity sub-programme framework - <b>ITU (UNESCO)</b>
7E	Mercure satellite telecommunications system and UNEPnet, progress made and its future - <b>UNEP</b>
8 F	Contribution du <i>ministère français de la coopération et nouvelles technologies de l'information et de la communication</i>
9 F	Project information, agence de la francophonie - <b>ACCT</b>
10E	Current STI projects funded - <b>CARNEGIE CORPORATION</b>
11E	Listing (of projects/programmes) by id number - <b>Bellanet</b>
12E	Report on (project/programmes) by sub-region - <b>Bellanet</b>
13E	Report (on projects/programmes) by country - <b>Bellanet</b>
14E	Report (on projects/programmes) by primary focus (policy awareness / sensitization / development) - <b>Bellanet</b>
15E	Report (on projects/programmes) by executing agency - <b>Bellanet</b>
16E	Report (on projects/programmes) by funding organisation - <b>Bellanet</b>
17E	Proposal for international co-operation on education and training for the African information society initiative - <b>UNESCO (ITU, UNITAR)</b>
18E	Implementing and supporting Internet working services. - <b>COMNET - IT</b>
19E	Telecom Africa: building indigenous communications capacity in Africa - <b>OKPAKU COMMUNICATIONS</b>
20E	African telecommunications applications, manufacturing, research and development project (TELECOM AFRICA) - <b>OKPAKU COMMUNICATIONS</b>
21E	<u>World Links</u> for <u>development</u> ("The WorLD Program") - <b>WORLD BANK</b>
22E	Information for development (infoDev), Quarterly Report + Guidelines for Activity Proposals - <b>WORLD BANK</b>

<sup>3</sup> See <http://www.bellanet.org/partners/aisi/>