



Association of African Universities

ICT and Bandwidth Initiative: Strategic Framework

Conference on African Education
Networking Infrastructure

14 – 15 November 2005, Tunis

F F Tusubira and Nora K Mulira

tusu@dicts.mak.ac.ug; nora@dicts.mak.ac.ug



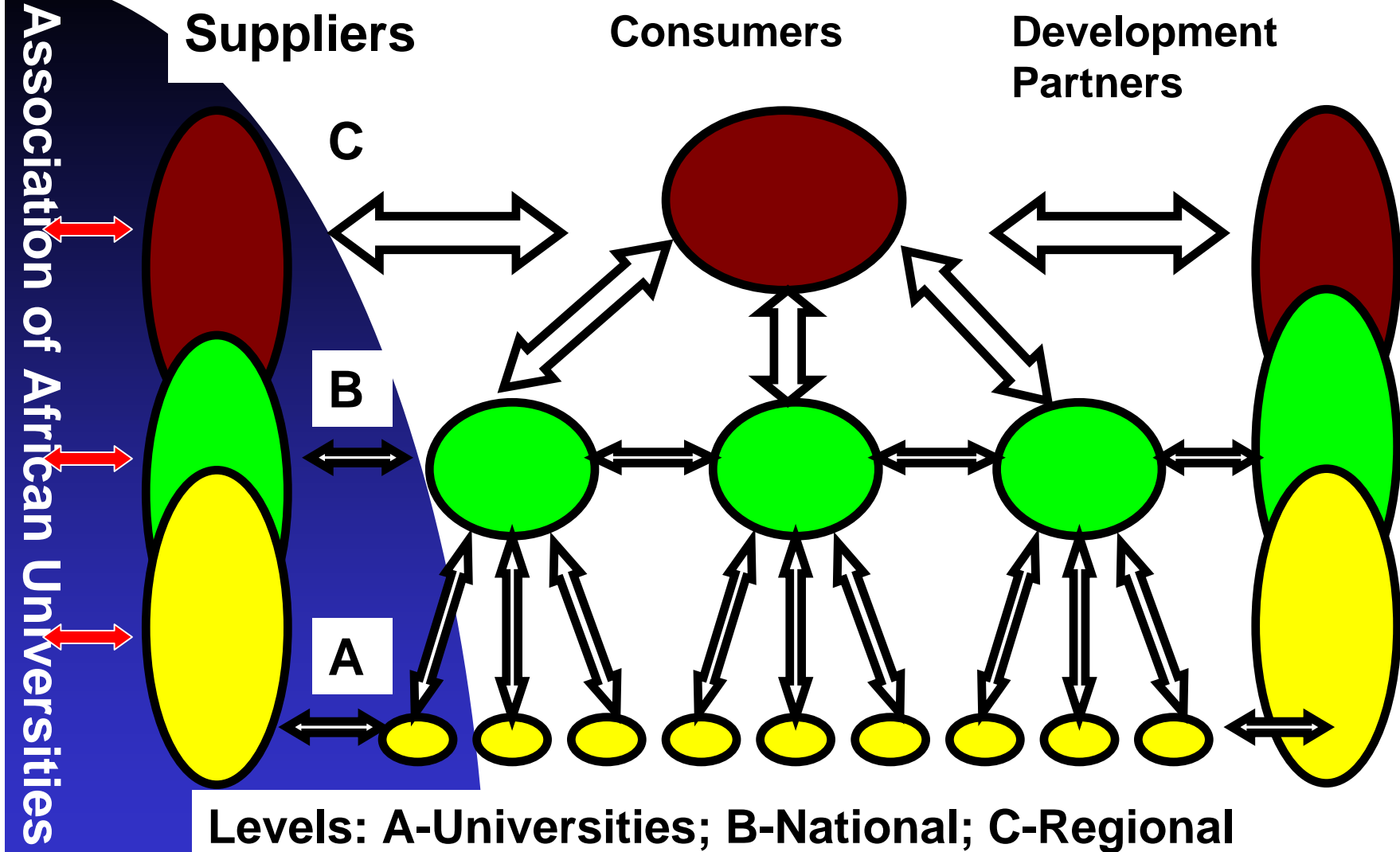
Contents ..



- **The Consortium Challenge**
- **Motivation**
- **Priorities**
- **Desirable Indicators**
- **Institutional, National and Regional level challenges**
- **Profile of the Champion**
- **AAU SWOT**
- **Strategic Actions**
- **Tactical Actions**



The Consortium Challenge....





Motivation

- ***To foster regional cooperation that provides the framework for collectively mobilizing resources, initiating policy reform and sharing experience so as to secure affordable access to ICT and ensure its effective integration into the process of teaching/learning, research, information management and dissemination in higher education in Africa. (Taye Assefa)***



Description	Rank	Group
ICT Policy & Master Plans	1	1
Building Human Capacity	2	1
Campus networks	3	1
Addressing the high Cost	4	2
Creating Awareness	5	2
Access to the internet	6	2
Establishing NRENs	7	3
Developing Content	7	3
Developing Applications	8	3
Computer literacy	9	3
Establishing ReRENs	10	4



Desirable low level indicators

	Variable	3 year	5 - 10
1	Extent of internal networking (campus networks and local area networks in buildings)	40%	80%
2	Percentage of institutions that are fully networked, and with internet access (%)	40%	70%
3	Computers per 100 users	15	25
4	Bandwidth/ computer (kbps)	10	20



Challenges - Institutional Level



- **Lack of Human capacity (6)**
- **Absence of institutional vision, policy and plan for ICT (3)**
- **High cost of ICT services and systems (3)**
- **Awareness (3)**
- **Limited intellectual networking and/or institutional collaboration (3)**



Challenges - National Level

- **Restrictive telecommunications sector policy and regulation, compounded by absence of preferential treatment for educational and research institutions (5)**
- **Lack of collaboration among universities, compounded by their competitor view of each other (5)**
- **High cost of infrastructure and bandwidth compounded by limited funding (4)**
- **Limited penetration/poor national telecommunication and power infrastructure (2)**
- **Lack of awareness (2)**



Challenges - Regional Level



- **Differences and mismatches among national telecommunication policies and regulation (4)**
- **Poor intra-African data connectivity (2)**
- **High costs and limited resources (2)**
- **Lack of regional research and learning collaboration (2)**
- **Absence of or limited access to international and continental fibre backbones (2)**



Profile of The Champion...



- **Legality:** Formal continental level positioning/influence; mandate, authority and recognition to act in this domain; with buy-in by stakeholders (7).
- **Human capacity:** IHE experience; sufficient, skilled and proven team; leadership; relationship building and lobbying; negotiation; mobilization; logistics (7).
- **Effectiveness:** Learning organization; support and facilitate stakeholders (6).
- **Legitimacy:** credible, trusted and able to create confidence among all stakeholders (5).
- **Neutrality:** No conflict of interest; not for profit; no external direction (state policies, etc) (3)
- **Dynamism:** Small; ability to manage a fast paced environment (2)



AAU SWOT - Strengths

- **Continental representative of IHEs (4).**
- **Has a specific mandate from the AGM for the task, and has started the process (4).**
- **Committed and forward looking SG who recognizes the ICT challenges (4).**
- **It has credibility among the stakeholders as well as donor support and confidence (3).**
- **It is lean enough not to have administrative bottle necks and with capacity to acquire new skills (2).**
- **It has a secretariat and machinery in place (2).**



AAU SWOT - Weaknesses



- **Inadequate human resource (numbers, requisite skills and experience for the task) (5).**
- **Inadequate financial resources and other facilities (PCs, space, connectivity) (3).**
- **Lack of a coherent and comprehensible strategic ICT plan with clear role of the organization spelt out (2).**
- **French speaking universities not involved (2).**



AAU SWOT– Opportunities (1)



- The growing appreciation of the need for national and regional networks that will provide opportunities for collaboration in learning and research; capacity building; sharing of expertise; and at the same time promote support for programmes and projects by the international community (6).
- AAU has the support and goodwill of African governments and donors, and formal partnership with regional agencies (5).
- The growing demand for a good knowledge management environment for publishing key position papers on African networking, and a repository of Africa R&E networking information (3).



AAU SWOT– Opportunities (2)



- **An increasing appreciation of the importance of ICTs among academic institutions, research institutions, and national governments about the benefits and efficiencies created by digital working environments (2).**
- **A growing appreciation of role of higher education and research for sustained economic and social development among governments and development agencies (2).**
- **AAU stands out as the only logical body in Africa to undertake such a function, and has the full mandate from its members (2).**



AAU SWOT - Threats



- **Competition from similar initiatives (including French speaking countries, research communities, other organisations, and sub-regional organisations) (6).**
- **Lack of a track record or strong reputation, and a perceived legacy of ineffectiveness among development organizations and some member institutions (4).**
- **Suspicion that it wants to take up the space of national or sub-regional initiatives (2).**
- **Changing priorities of donors and failure to provide resources, or their decision to pursue their own initiatives (2).**



Strategic Actions (1)

- **Develop and implement an ongoing communication strategy that will counteract the negative legacy of AAU (real or perceptive) and, within one year, position AAU as a preferred point of contact into African education and research networks.**
- **Address the human capacity deficit by putting in place a lean competent secretariat.**
- **Develop within twelve months, and monitor on a continuing basis, a stakeholder driven ICT Plan that recognizes institutional, national and sub-regional plans as both the building blocks and implementation levels; and captures the role of AAU in lobbying and advocacy to mobilize support and directed funding at national and international levels.**



Strategic Actions (2)

- **Develop and coordinate the implementation of a sustainable ICT capacity building mechanism based on:**
 - **Training within African institutions**
 - **Peering among African institutions to support and promote ICT expertise exchange (to guide and enable the implementation of ICT services and systems at campuses, and the formation of national and educational research networks).**
- **Implement a knowledge management system organized to provide easy access for African institutions to available information and data on research and education networking in Africa and around the world.**



Tactical Actions (1)

- **Within one month, submit a formal funding proposal to member institutions and development partners, based on a short-term activity plan.**
- **Within two months, put together a data base of ICT competencies (across the board) within African institutions that will enable peering arrangements among academic and research institutions. (Such peering will enable the implementation of ICT services and systems at institutional level, as well as the development of national and later regional education and research networks).**



Tactical Actions (2)

- **Within one month, to put in place the necessary human capacity (interim basis; short-term expertise; etc) that will address the competence deficit and address the real and perceived weaknesses of AAU with respect to its proposed role; and be responsible for leading strategic formulation and tactical actions.**
- **Within three months, carry out a desk study (collating data from available reports) that will document African academic and research institutions and their ICT status as a starting point for giving an institution by institution and country by country cost of bringing institutions to the desirable short term, and medium to long term infrastructure and access levels.**