



The African Education Summit Sommet Africain de l'Education

Royaume du Maroc



Ministère de l'Education Nationale
de l'Enseignement Supérieur
de la Formation des Cadres
et de la Recherche Scientifique

Ministerial Session Day One Hosted by HP

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MINISTERIAL SESSION PARTNER



Investment in Higher Education in Kenya and Opportunities for Partnerships

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AFRICAN EDUCATION SUMMIT

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RABAT, MOROCCO

Outline

- The Education Sector: Knowledge Economy, High Quality Human Capital and Kenya Vision 2030
- Addressing the Challenges of Access, Equity, Quality and Relevance in Higher Education
- What about the Private Sector in Higher Education?
- Enabling Environment for the Private Sector and Other Non-governmental Actors Matters
- Partnership in the Development of ICT Capacity for Higher Education: *The Case of KENET*
- Greater opportunities for collaboration in ICT investment

Organization of the Education Sector in Kenya

- The Ministry of Basic Education
 - Pre-primary education
 - primary and
 - secondary education;
- The Ministry of Higher Education, Science and Technology
 - University education
 - Tertiary or middle level post-secondary education usually referred to as the Technical, Industrial, Vocational and Entrepreneurship Training (TIVET)) and
 - National research, science and technological issues
- The Ministry of Youth and Sports which in addition to issues pertaining to youth and sports deals with what we call in Kenya the *Youth Polytechnics*, the lowest level of TIVET continuum.

Knowledge Economy, Quality Human Capital and the Kenya Vision 2030

- The global economy is undergoing rapid progress, where high quality education or human capital, driven by skills, science, technology and innovation key determinant of enhancing efficiency, productivity and competitiveness of any nation.
- Against this background, and through the long term development vision, entitled ***Kenya Vision 2030***, Kenya intends to become a knowledge-based economy wherein, the creation, adaptation and use of knowledge will be among the most critical factors for rapid economic growth.
- Realization of the Vision's goals is predicated on harnessing the right creative talents capable of raising Kenya's international competitiveness by enhancing productivity at all levels.

Addressing the Challenges of Access, Equity, Quality and Relevance in Higher Education

- Expansion of existing 7 public universities
 - Greater emphasis on science and technology/ engineering
 - specialization/centres of excellence
- Establishment of 17 new university colleges between 2008 and 2011; 5 more expected by end of 2011
 - Emphasis on science and technology/engineering programmes
- Establishment of the Open University of Kenya
- Expansion and modernization of over 70 public existing TIVET institutions.

.....Addressing challenges (contd)

- Establishment of new TIVET institutions
 - In collaboration with ADB, 13 new model TIVET institutions are being established across the country.
- Collaboration with development partners in the provision of modern equipment in science and technology at both university and TIVET levels.
 - E.g., the ADB, the Netherlands, China, Japan and Korea.
- Establishment of a new teaching, research and referral university hospital in collaboration with China (Kenyatta University)
- Establishment of the Pan African University (Science and Technology Institute)

.....Addressing challenges (contd)

- University/Industry Partnerships
 - E.g., Huawei (a Chinese telecommunication solutions provider,) and Safaricom Kenya have signed a MoU with three universities (Nairobi, Moi and Jomo Kenyatta) to ensure engineering students in Kenya are equipped with modern up to date ICT/telecommunication skills to meet current industry needs
- “Wezesha” Initiative
 - ICT Board programme to provide laptops to university students at subsidized cost of between 15 to 33%
- International certification for ICT skills development/enhancement
 - MoHEST/Cisco Academies
 - MoHEST/Certiport

What about the Private Sector in Higher Education?

- One of the most vibrant in Africa!
- Private universities have increased from 13 to 27 between 2004 and 2011
 - AQA managed by MoHEST
- There are over 1,000 private TIVET institutions
 - business studies, ICT, science, technology and innovation, etc
 - AQA managed by MoHEST

Enabling Environment for the Private Sector and Other Non-governmental Actors Matters

- Clear national policies and strategies
 - National Strategy for University Education
 - TIVET Strategy
 - National Science, Technology and Innovation Strategy
 - MoHEST Strategic Plan
- An effective accreditation and quality assurance framework/agencies to guide the establishment and quality assurance of the private university and TIVET sectors
 - The Commission for Higher Education for university education
 - The Directorate of Technical Accreditation and Quality Assurance for TIVET
 - (precursor of the TIVET Authority to be established during this financial year)
 - Professional Associations and Registration bodies
 - Other related organs (the National Council for science and Technology; Kenya Intellectual Property Institute; etc)

...Enabling Environment (contd)

- Higher Education Loans (HELB)
 - Students in private universities and TIVET institutions have access to government loans, bursaries and scholarships
- Research and Innovation Funds
 - Staff in private universities have access to government research and innovation grants, including grants related to Kenya/other governments/organizations (e.g., Kenya/Germany (DAAD), Kenya/South Africa, Kenya/Japan (JSAS), Kenya/British Council
 - the National STI Foundation and the National Innovation Agency
- Incentives
 - E.g., tax exemption in the purchase of learning and construction materials to private universities.

...Enabling Environment (contd)

- Consulting fora
 - Government/Private Sector Roundtables -- Kenya Private Sector Alliance (private universities are members)
 - Kenya Education Sector Support Programme (KSSP)
- Master planning/special zones
 - Science and technology parks
 - ICT parks
 - Konza Technopolis

Partnership in the Development of ICT Capacity for Higher Education

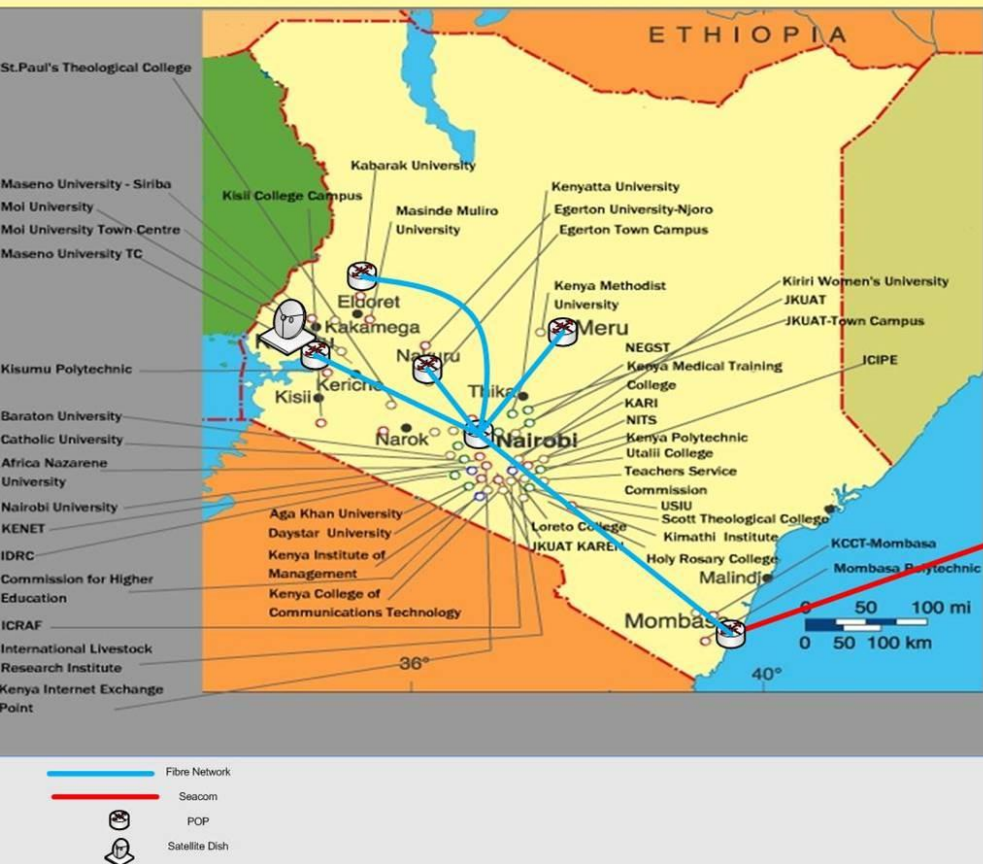
The Case of KENET

- The Kenya Education Network Trust (KENET) was formed in 1999 as a membership organization to serve higher education and research institutions in Kenya, with the following objectives:
 - to provide a sustainable and high-speed internet connectivity
 - to facilitate electronic communication
 - to support the sharing of teaching and learning resources
 - to support teaching and learning over the internet
 - to collaborate in the development of relevant content of syllabi
 - to collaborate in research

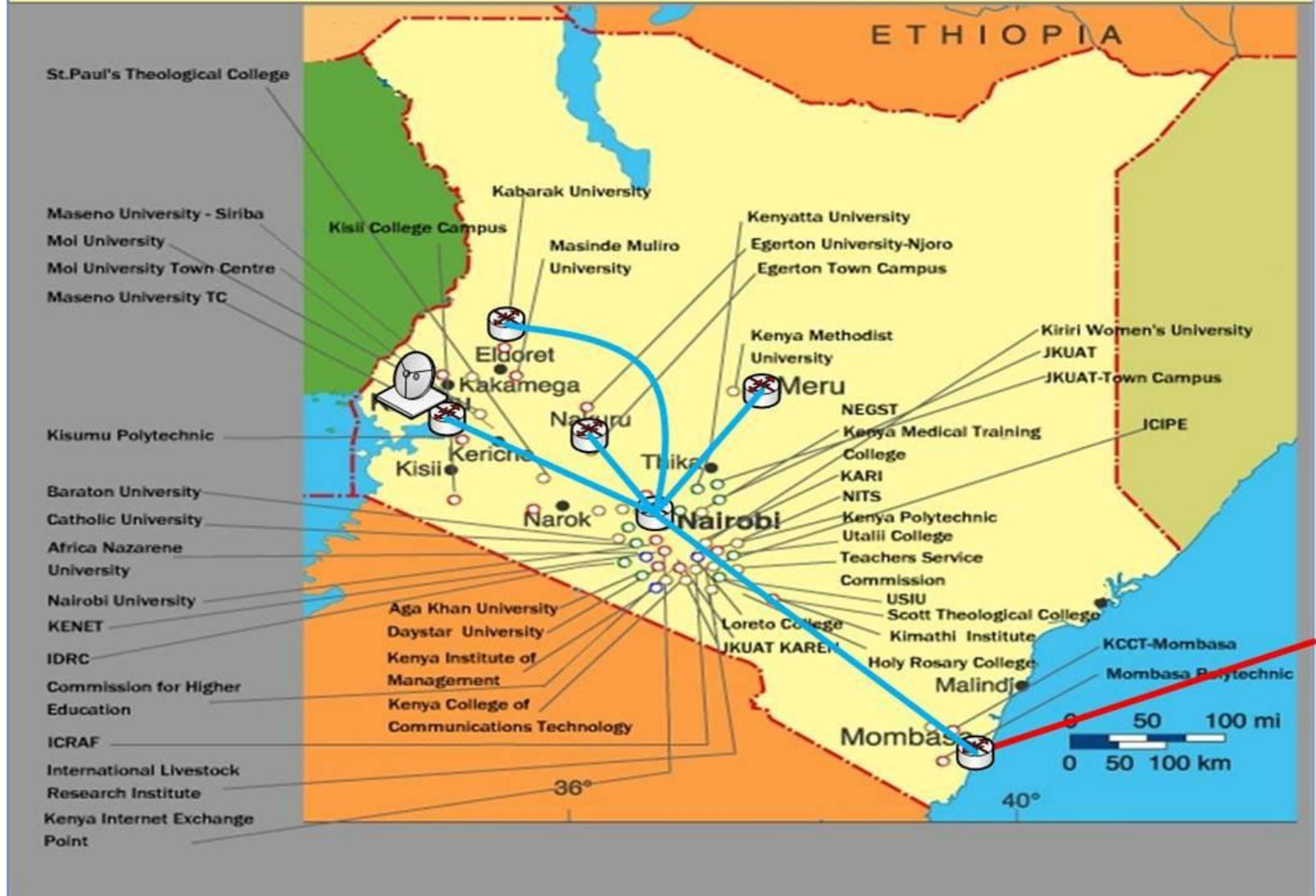
KENET other services to member institutions

- network training services,
- network applications services (web hosting, e-mail, disaster recovery, and top-level domain registration)
- consultancy services (e.g. preparation of bidding documents and evaluation, designing and specifying technology solutions for members, and training and awareness services) .
- KENET currently provides broadband Internet connectivity to 59 member institutions and 73 campuses, including all of the large research universities of Kenya.

KENYA EDUCATION NETWORK INSTITUTIONAL COVERAGE MAP



KENYA EDUCATION NETWORK INSTITUTIONAL COVERAGE MAP



Fibre Network

Seacom



POP



Satellite Dish

KENET Partnerships/collaborations

- KENET peers directly in London with the European regional research and education Network, [GEANT](#), through the African regional research and education network, [UbuntuNet Alliance](#)
- Grants:
 - USAID
 - Partnership for Higher Education in Africa (Rockefeller Foundation; Ford Foundation, etc)
 - the World Bank.

....KENET partnerships (contd)

- KENET has partnered with *German Research and Education Network* to set up the first EDUROAM service in Africa.
 - EDUROAM is a federated roaming service that allows users within the KENET network to roam with their laptops without the trouble of guest account at different campuses
- Network Start-up Resource Centre (NSRC)

....KENET partnerships (contd)

- IBM Corporate Service Corps (IBM/CSC)
 - Studying the KENET's research eco-system
 - √ Advise how Kenyan universities and research institutions can **increase their participation and contribution in the global research and innovation networks**
 - Focusing on the **organizational and change management issues** that need to be addressed by both KENET and member institutions in order to **increase the research traffic** coming out of Kenya to the global research and innovation networks....

Greater opportunities for
collaboration in ICT investment
(Adding value to KENET)

ICT Infrastructure

(1) Last Mile Connectivity

Needs/Challenges

- KENET needs to connect university campuses and university colleges increasingly being established in rural areas to its broadband network infrastructure.
- KENET also needs to connect to its broadband infrastructure schools and health centers neighboring its member institutions as part of its outreach program

Opportunities for partnerships

- Innovative and inexpensive technologies for last mile connectivity
- Funding of last mile connectivity to rural institutions and KENET's outreach program to schools and health centres

ICT Infrastructure

(2) Redundancy

Needs/Challenges

- KENET needs to provide redundancy for its broadband ICT infrastructure in order to provide quality broadband services.

Opportunities for partnership

- Funding to create redundancy infrastructure for KENET's core network

Research

(1) Collaboration

Needs/Challenges

- Limited ability for researchers to join the global community of researchers, especially in science, engineering and medicine.
- Limited collaboration with researchers at top-tier universities and other research organizations in Europe, North America, China, India and other African countries.
- KENET member institutions also have limited access to specialized research facilities in the three areas mentioned.

Opportunities for collaboration

- Research collaboration in computer science, engineering and medicine
- Access to and sharing of specialized research facilities available in more developed countries in computer science, engineering and medicine, etc

Research

(2) Funds

Needs/Challenges

- KENET member institutions have very low research budgets.
- They also have relatively low research output, especially in computer science, engineering and medicine, which are key for national development.

Opportunities for collaboration

- Funding of research in computer science, engineering and medicine in our member institutions through KENET

Electronic content

Locally available content

Need/Challenges

- Currently, local traffic only accounts for about 5% of the total Internet traffic generated by KENET member institutions with the rest being commodity Internet traffic.
- There is need to increase the local traffic by developing locally relevant electronic content in English, Kiswahili and other local languages

Opportunities for collaboration

- Educational content development and access (in English, Kiswahili and other local languages)
- Funding of educational content development and access by learners in an open access framework

The Elephant and the Antelope



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The end!

“Asante”