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KENYA EDUCATION NETWORK

Content Development Approach for Higher Education – the KENET experience

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Agenda

- Background
- Challenges
- Opportunities
- Approaches
- Conclusions –Lessons learned



Background

Sample questions answered;

- ✓ Why open networks and free content?
- ✓ What are the challenges?
- ✓ Role of Higher Education Institutions in OER?
 - vis-à-vis other networks connectivity and content strategies
- ✓ Partnerships?



Findings cont...

- Increases effectiveness of teaching, learning and administration of the process across board
- Serves learning needs of adult and working students, distance education and other forms of life-long learning
- ICTs are a primary tool for increased access of education



Findings cont...

- Provides access to vast global electronic resources;
 - Google scholar, Internet databases, knowledge banks, news, etc



Challenges

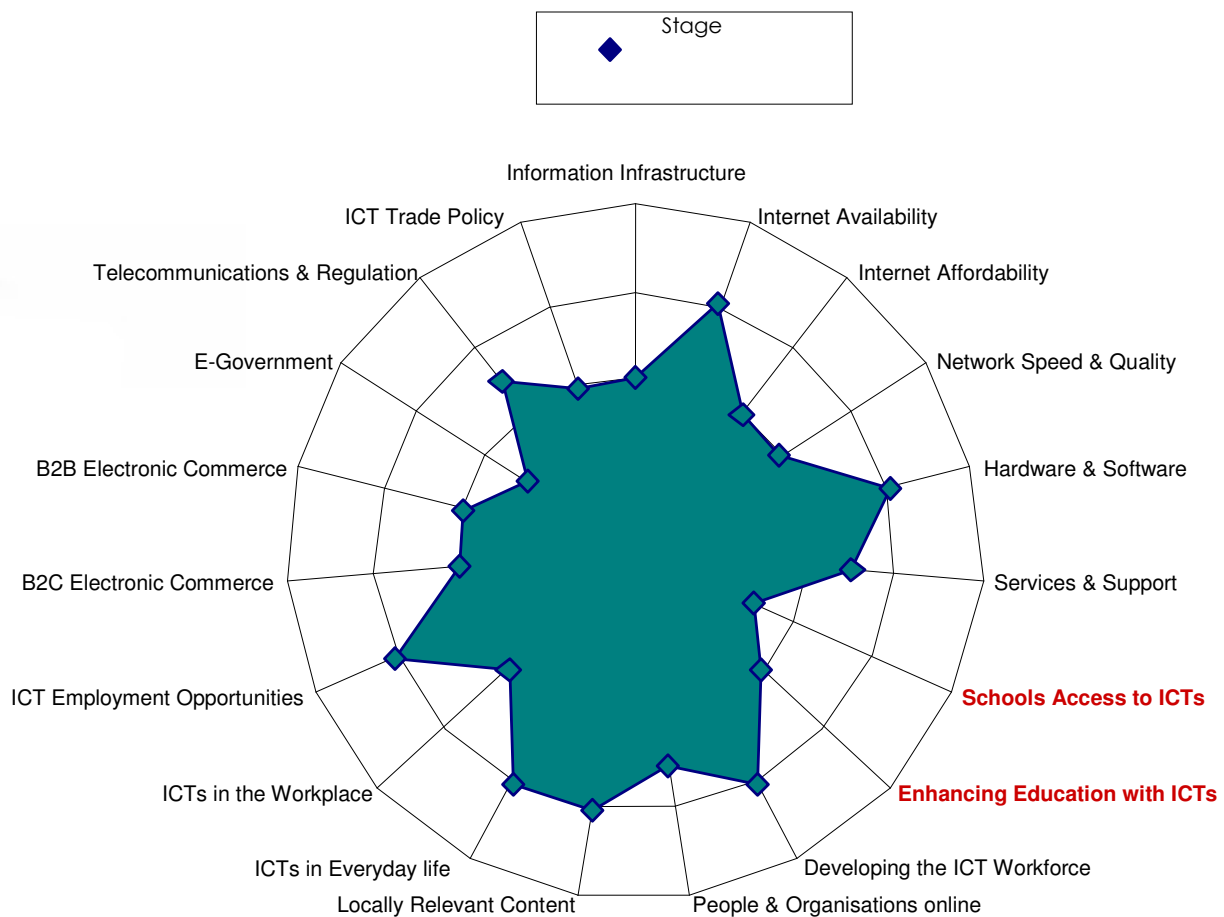
- Limited ICT Funding
 - Most educational institutions have small or no ICT budgets
- Institutional ICT infrastructure
 - Most institution do not have integrated* campus networks



Challenges ...

- ICT Human Capacity
 - Awareness of strategic impact of ICT at all levels
 - Limited or non-existent technical capacity in institutions
- ICT structures
 - national ICT structures being developed
 - limited sectoral ICT structures (Universities, schools, etc)
- **Institutions commitment**

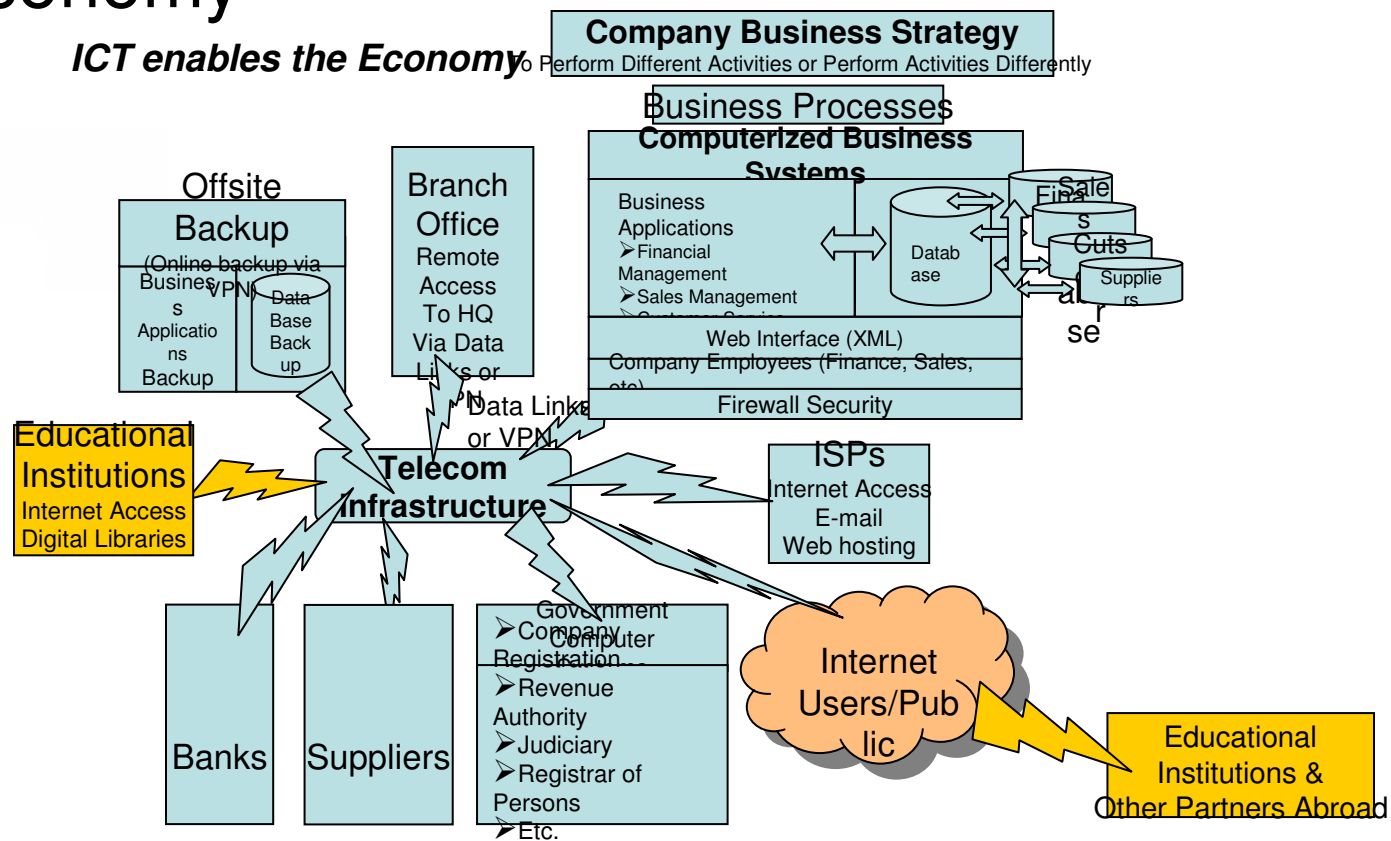
ICT readiness of Kenya (2002)



Challenges ...

- KENET's integration into other networks in the economy

ICT enables the Economy to Perform Different Activities or Perform Activities Differently



ICT facilitates efficient economic transactions leading to GDP growth



Opportunities

- ICTs offers the opportunity to harnesses the scattered resources into a single well organized and easily accessible point
- In the quest for empowering learners independence, a people comfortable with ICTs develop an information culture that generates critical thinking and awareness about knowledge production
- Offers opportunities for collaboration and peer support

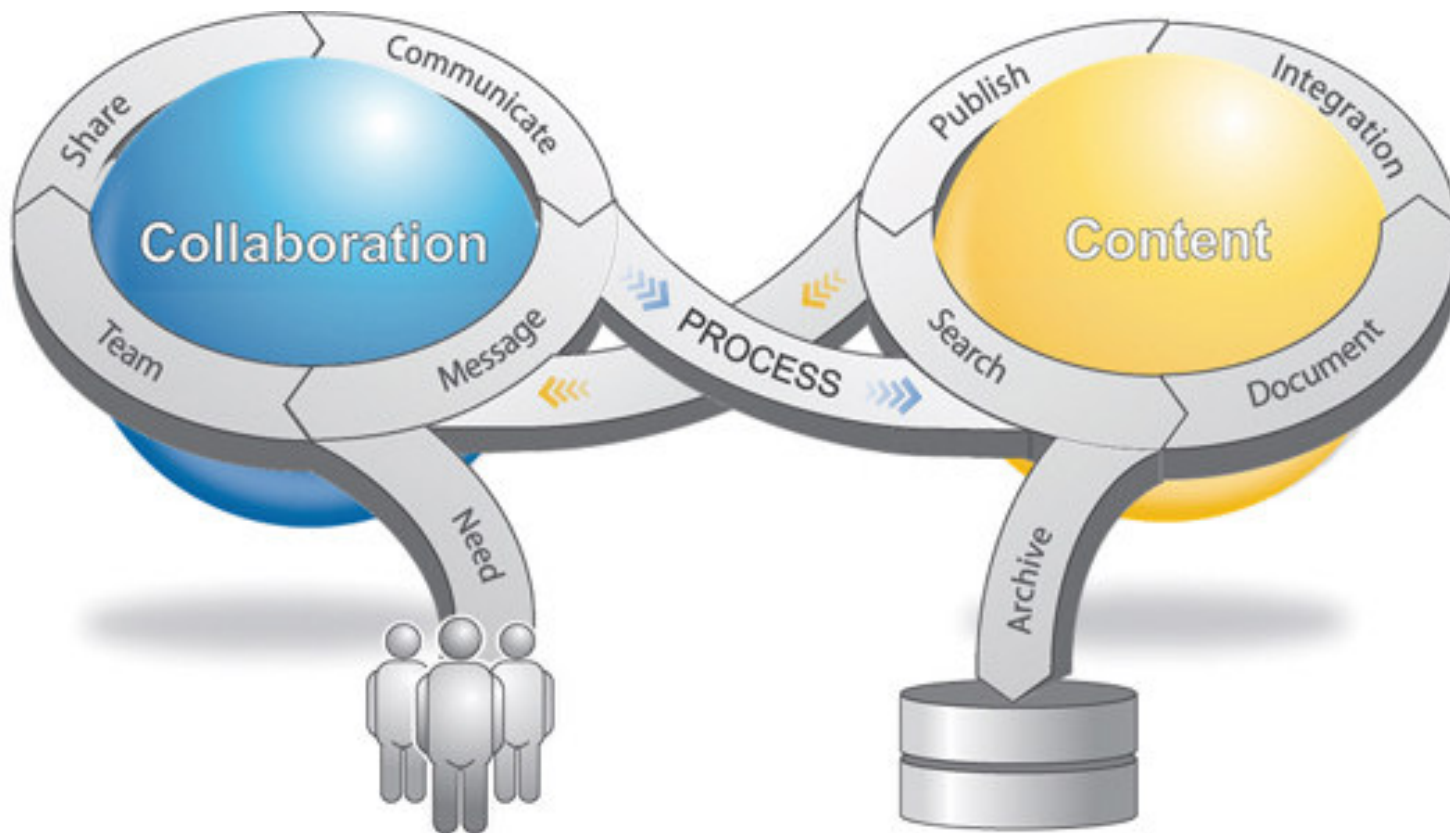


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The KENET –an Overview...

Motivation





Overview...

Motivation

- Partnerships & Resources mobilization (systems & human capital):
 - Different players –government, private & public sector
 - **Sharing resources –institutional alliances, community involvement**



Overview...

Goal

“To establish sustainable communication and networking among educational & research institutions in Kenya that will facilitate wide use of ICTs in teaching, learning, research and sharing of other information resources to the general populace at affordable cost”.

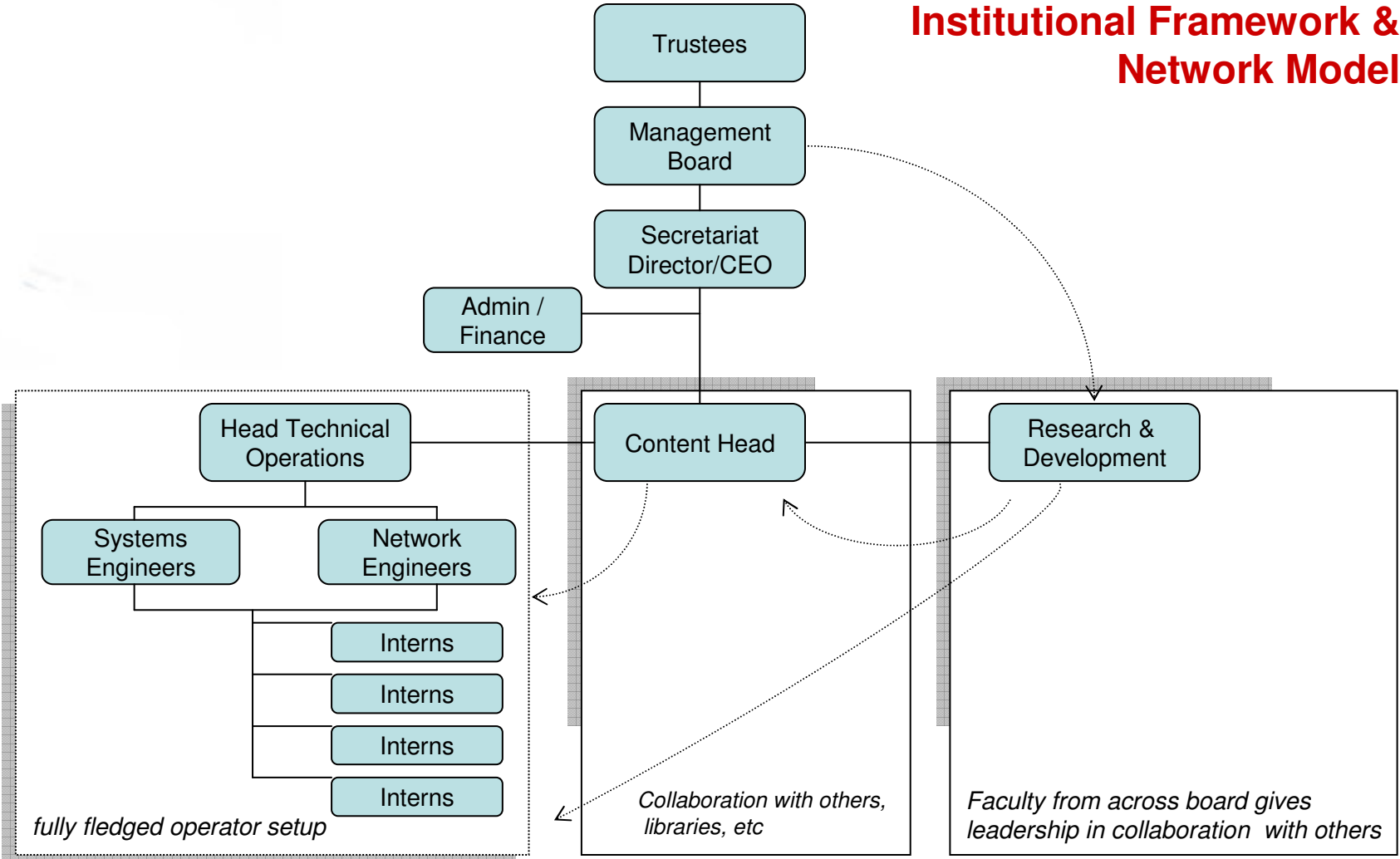


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Overview...

Institutional Framework & Network Model





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Approach...

Connectivity Strategy

Implementation Approach

| Connectivity Levels | Description | Responsibility Domain | Investment |
|------------------------------|---|---|---|
| International Gateway | Internet connectivity thro' JamboNet, Jamii, KDN, Own Gateway, etc | Users collectively, alliances with others like AVU, PAREN, etc | Contributions polled together |
| National Connectivity | PoPs in all regions to ensure easy distribution, connection to KIXP for 'National Internet' | KENET in partnership with local loop operators, building of wireless links, etc | Members through contributions & support |
| Institutions Networks | Computer Labs & Networks in all institutions | -institutions -KENET -partners, etc | By all stakeholders |



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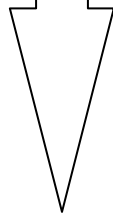
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Approach...

Content strategy

| Content Availability | Description | How? | Required |
|---|---|---|---|
| Institutional Level Networks | Aim at institutions accumulating 40% of their content requirements internally | Developing an e-platform with a CMS, elearning support, MIS module, etc | Collaborations, focused platforms cutting across board, e.g ITDawn, Content Mall, etc |
| National Level | Develop shared content nationally by hosting (available content), harnessing new content – aim/fill 60% requirements | Extend the pool of partnerships eg KARI, AJOL, ICIPE, TTCs, MOEST Agencies, etc | <ol style="list-style-type: none"> 1. Structured content developing & hosting 2. Tying up of the content availability |
| Others (outside networks access) | Be able to get what one needs | All collectively | Negotiate with others (NRENS), mirror servers, etc |

Implementation Approach





Common Curriculum Development Project...

- Collaboration between health and Veterinary faculty from UoN, Methodist, Moi, KWS, Tufts Universities
 - Develop and share teaching and reference content in public health
 - Each member who contributes has access and permission to use the pooled content for his teaching and research
 - Members collaborate using the content to deliver classes and supervise assignments, field work, projects and research



CCD...

- Content is mirrored at each location
- A pool of diverse experiences & content modules
 - Sharing of different approaches easily
 - Faculty share expertise
 - So far have over 23 courses and reference material on line



Conclusion & Lessons Learned

- The framework
 - ✓ Each network needs its **own** “Best fit Model & benchmarking”
 - ✓ allow for the establishment of a highly decentralized environment that takes cognizance of various stakeholders roles.
 - ✓ produce policies that coalesce fragmented interests in the role of ICTs into a healthy community of interests and actions.



Partnerships

- Formal collaborations for mutual benefit in which each of the partners provides strengths and capabilities that the other does not have in order to achieve the common interest of the partners
- Formal relationships entities wherein each accepts **responsibility to contribute specified, but not necessarily equal, level of effort to the achievement of a common goal**
 - e.g. The big public and private sector institutions contribute their strengths & resources to protect and assure continued operation of critical infrastructures
- The most successful partnerships are win-win

Partners/support

- ✓ Public and Private Universities/institutions
- ✓ Research Institutions in Kenya (KARI, ILRI, ICIPE, etc)
- ✓ The Government of Kenya
- ✓ USAID –Leland/EDDI Initiatives
- ✓ Communication Commission of Kenya (CCK)
- ✓ Telkom Kenya Ltd (TKL)
- ✓ Kenya Internet Exchange Point (KIXP)
- ✓ Kenya Data Network (KDN)
- ✓ Tufts University, USA (under the CCD project)
- ✓ Partnership for Higher Education in Africa
- ✓ NSRC –University of Oregon
- ✓ INASP
- ✓ UbuntuNet Alliance
- ✓ Friends



UbuntuNet Alliance will be the Regional REN for Eastern and Southern Africa

- Access to Cross-border gigabit fibre capacity
- Long haul gigabit continental REN connections
- Support Services to RENs



Objectives...

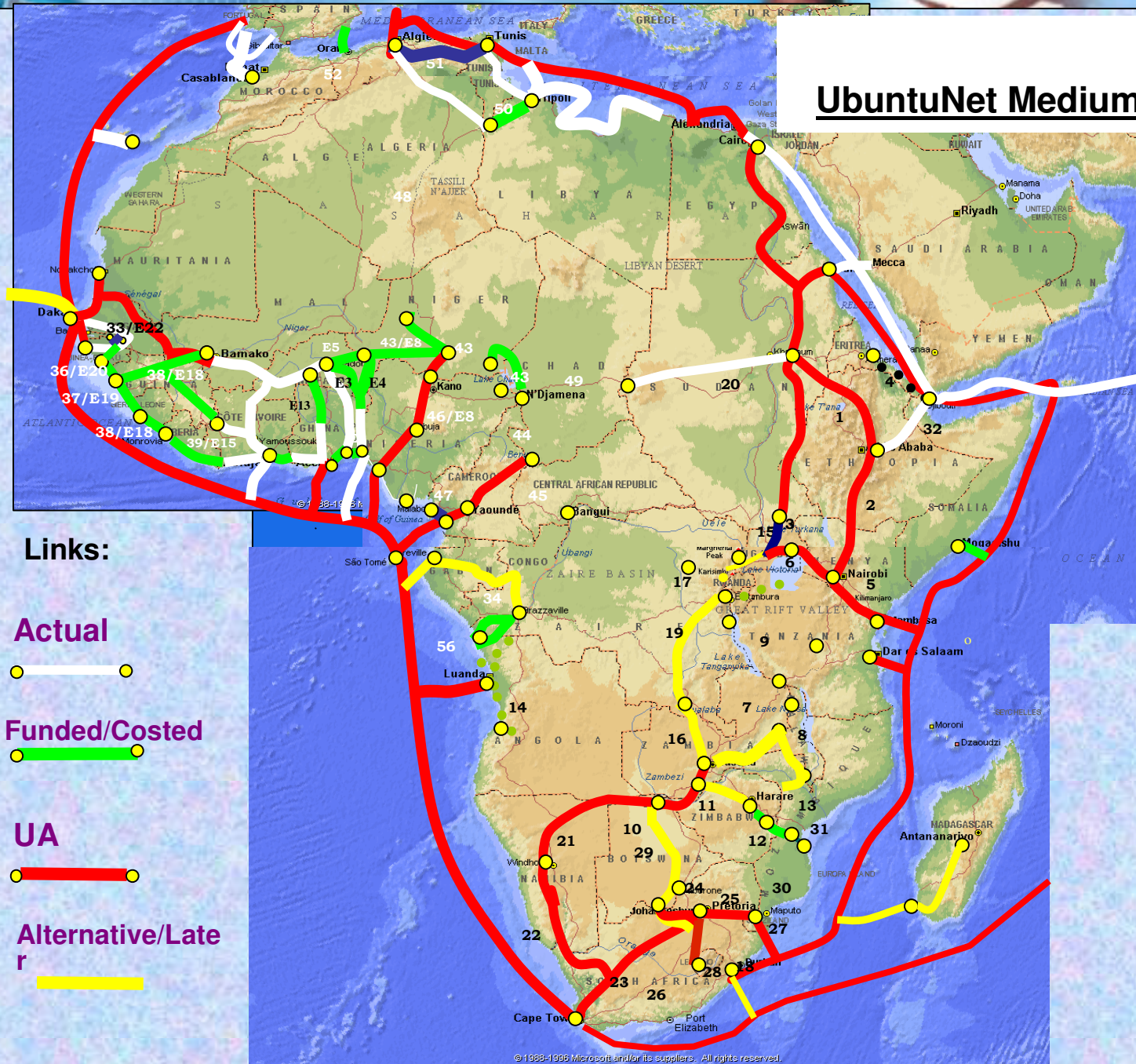
To build the UbuntuNet backbone using a staged approach which connects clusters of NRENs by building out from existing cross continental links using the opportunities provided by existing and planned fibre infrastructure projects



Outputs...

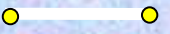
A reliable and affordable (ideally dark fibre) gigabit backbone which links all NRENS in Africa

UbuntuNet Medium Term Plan

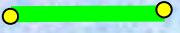


Links:

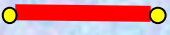
Actual



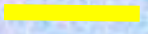
Funded/Costed



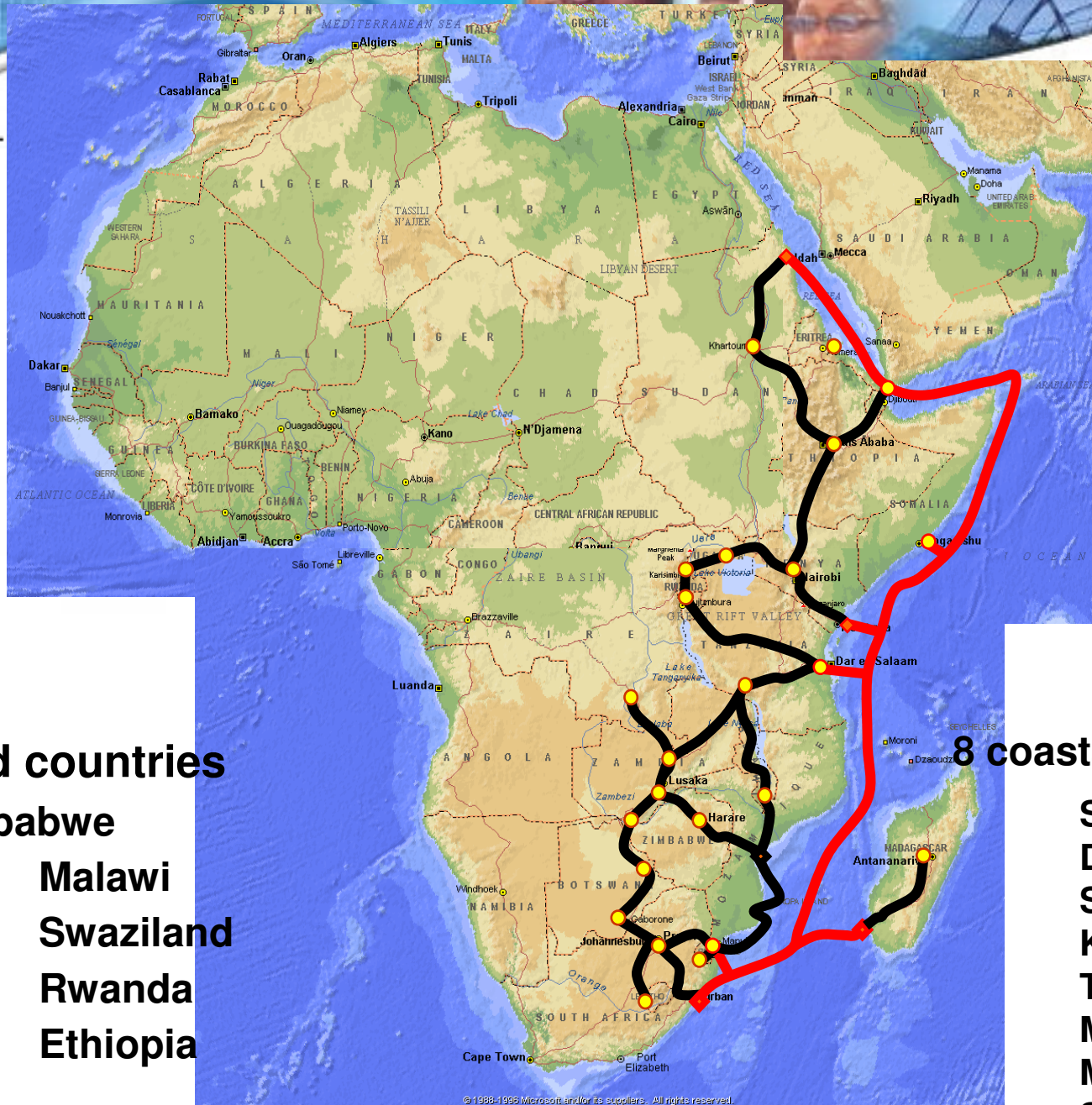
UA



Alternative/Late r



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11 land-locked countries

- Botswana**
- Zimbabwe**
- Zambia**
- Lesotho**
- Burundi**
- Uganda**
- DRC**
- Malawi**
- Swaziland**
- Rwanda**
- Ethiopia**

8 coastal countries

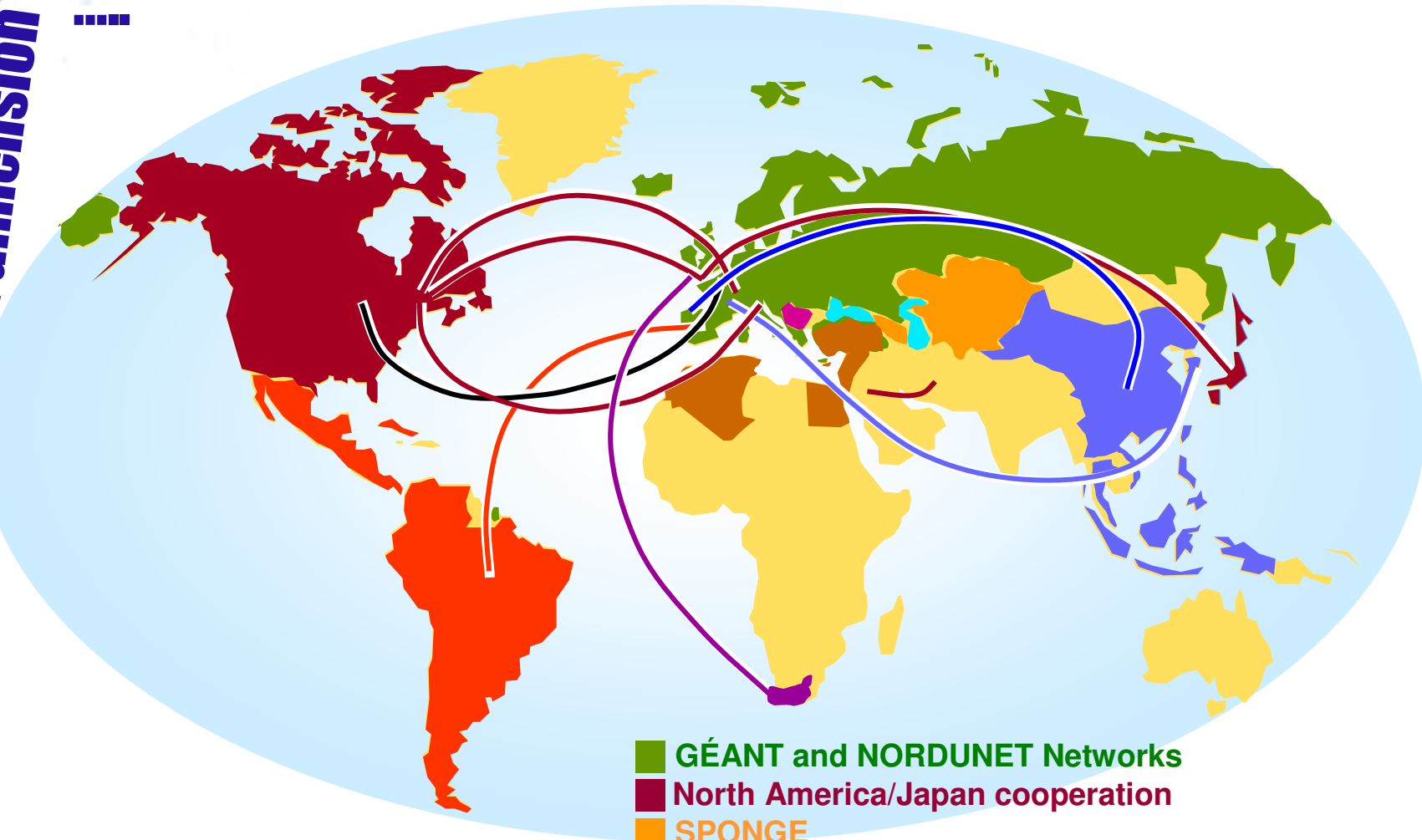
- Sudan**
- Djibouti**
- Somalia**
- Kenya**
- Tanzania**
- Mozambique**
- Madagascar**
- South Africa**



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GÉANT - the global dimension



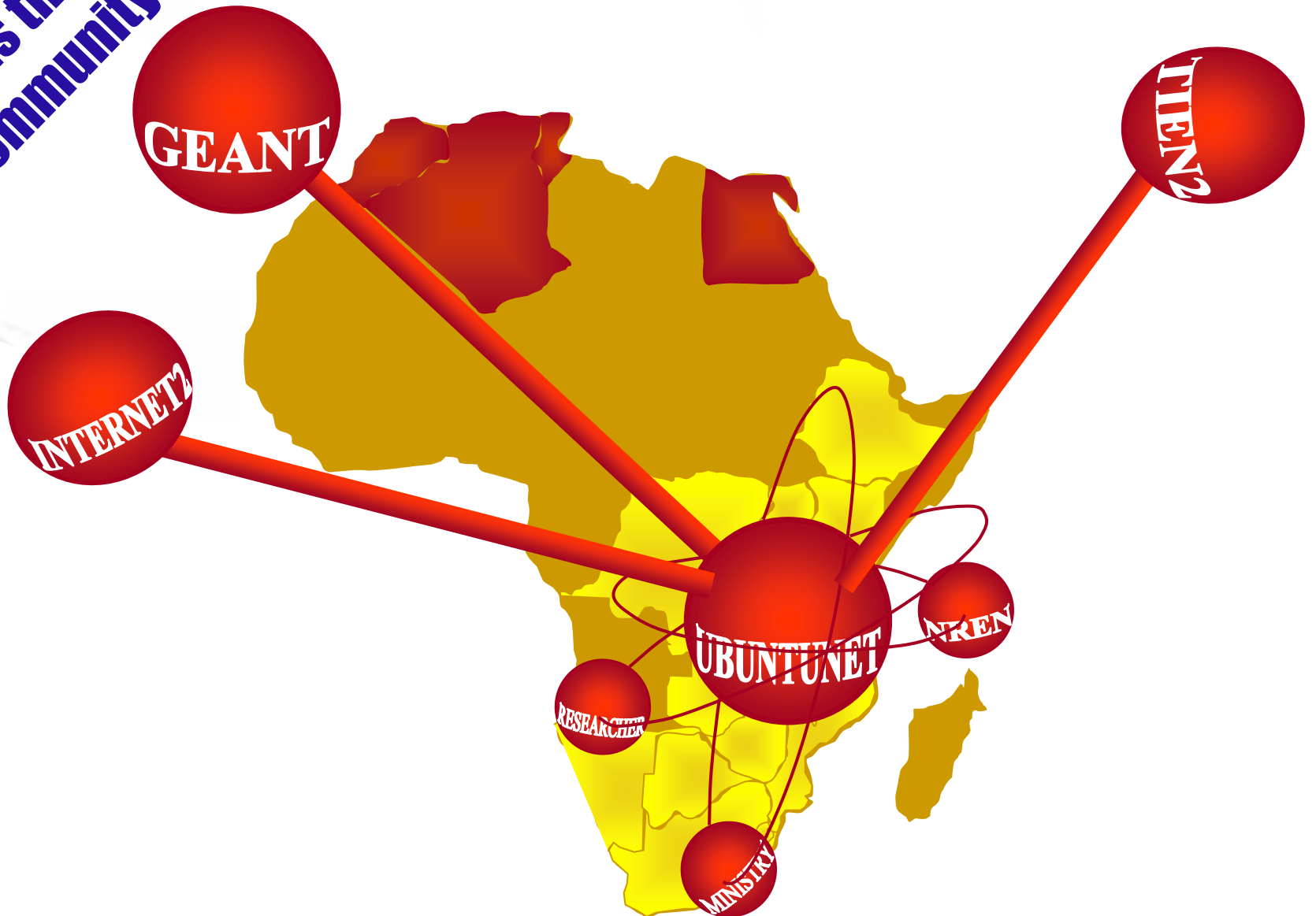
- GÉANT and NORDUNET Networks**
- North America/Japan cooperation**
- SPONGE**
- SEEREN**
- EUMEDCONNECT**
- ALICE**
- China**
- India**
- TEIN2**

GEANT – Ubuntunet cooperation

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ea & sa joins the
NRENS community





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Asanteni Sana!

