e-Infrastructure projects in Africa

Promoting Africa-EU Research Infrastructure Partnerships - Paerip High-level Conference

March 7-8, 2013

Brussels, Belgium

Kostas Glinos – HoU e-Infrastructures
European Commission - DG CONNECT

Global dimension of e-infrastructure:

- *Enabling global research collaborations (global virtual research communities)*
- *Enabling access to unique facilities & data*
- *Supporting broader European policies (e.g. aid to developing countries)*

the more people, machines and data are connected the more value of research (e-Infrastructure externalities)

Projects in Africa

AfricaConnect

a high-capacity internet network for academic and scientific collaboration for sub-Saharan Africa.

Chain-REDS

Co-ordination & Harmonisation of Advanced e-Infrastructures for Research and Education Data Sharing

eI4Africa

Exploiting e-Infrastructures potential to boost RTDI in Africa

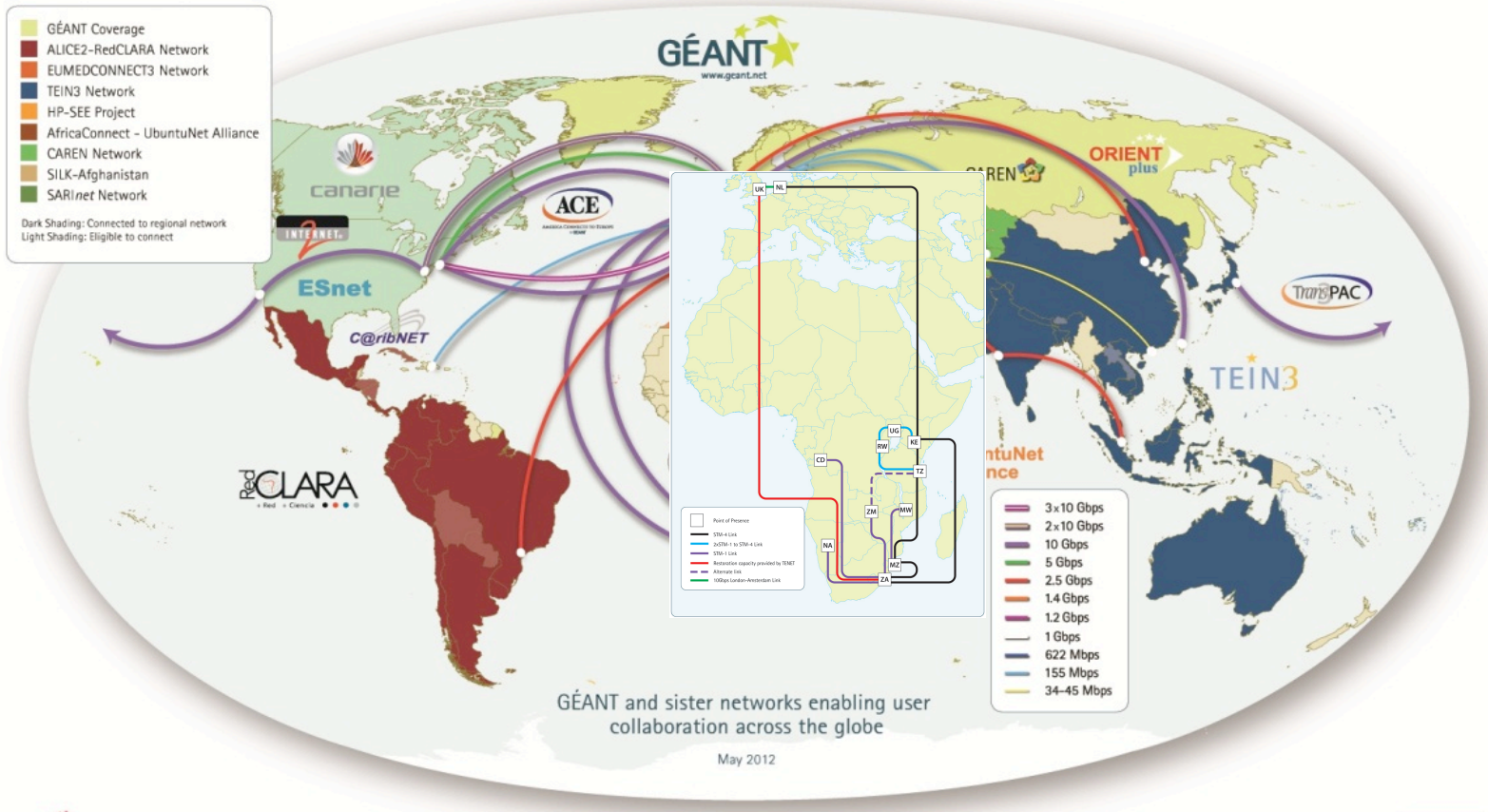
iMentors

A one-stop-shop data warehouse on e-infrastructures in Africa

AfricaConnect joins the Global R&E Village

European Commission

GÉANT At the Heart of Global Research Networking



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AfricaConnect
Background & progress

- 14.75M€ costs over 4 years from 2011, 80% (EC - DG DEVCO):20% (Ubuntunet Alliance)
- Coordinated by DANTE - based on the experienced gathered in ALICE, EumedConnect, CAREN and TEIN
- Adapted to African context through close collaboration with Ubuntunet Alliance and the African NRENs
- Geographic scope focuses on Ubuntunet Alliance, but clear commitment with West Africa - WACREN and AAU
- Manpower mainly provided by the Ubuntunet Alliance

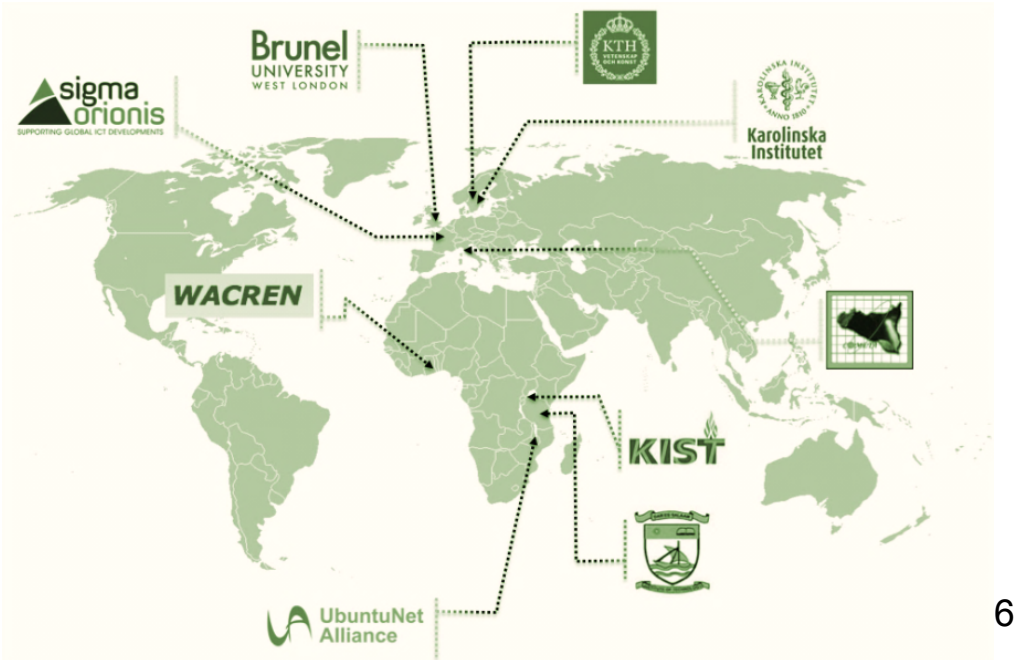
Progress

- ~40% of the African contribution collected
- Connectivity Procurement: in contract negotiations with provider(s)
- Equipment Procurement: Best and Final offers

EI4AFRICA

- 24 months from 1/11/2012
  - EC contribution 920 k€

- Boost the RTDI potential of African e-Infrastructures
- Support Euro-African cooperation & policy dialogues in the framework of the joint Africa-EU Strategic Partnership (JAES):
  - 'trade, regional integration and infrastructures' (Partnership 3)
  - 'science, information society and space' (Partnership 8)



PROJECT OBJECTIVES

el4africa.eu
e-Infrastructures for Africa

Support the development of African NRENs/RENs ■ Build cooperation between Euro-African NRENs, RENs & user communities ■ Raise awareness at policy level on the benefits & value of REN ■ Strengthen Euro-African collaborative research on e-Infrastructures & their applications

Study e-Infrastructure application uptake in Africa to identify who are early adopters of e-Infrastructures (providers) & which user communities are early beneficiaries (consumers) of e-Infrastructures

Select existing flagship demonstrations from other continents & illustrate their relevance to the African context in order to stimulate policy dialogue

Stimulate targeted policy and regulatory discussions, including cross-border connectivity and affordable access to infrastructures

Chain-REDS

- 30 months from 1/12/2012
  - EC contribution 1.5M€

ASREN
Arab States Research and Education Network

Coordinator

INFN
Istituto Nazionale di Fisica Nucleare

Other partners

grnet

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sigma·orionis
SUPPORTING GLOBAL ICT DEVELOPMENTS

CESNET

CLARA
Cooperación Latino Americana de Redes Avanzadas

Institute of High Energy Physics
Chinese Academy of Sciences

Action lines

DCI — Distributed Computing Infrastructure

- Provide ongoing support of the DCI road-map for intercontinental DCI collaboration, specified within the CHAIN project

ROC — Regional Operation Centres

- Support stability of existing and emerging Regional Operation Centres. Cooperate with other projects & initiatives (e.g. AfricaConnect, TEIN3) to support the development of eInfrastructures and key VRCs in Africa, Asia, Latin America and the Middle-east

Cloud — For Research and Education

- Support for coordination of Cloud developments for Research & Education with other regions (e.g. China, India, Latin America)

Data — Infrastructures and Repositories

- Extend the CHAIN Knowledge Base with information on Data Infrastructures: collecting issues, best practices and identifying data repositories of direct interest for VRCs

  Support the study of data infrastructures for a target subset of VRCs (e.g. Agricolture, Climate Change, Health, Biomedicine, etc.)

SG — Science Gateways

- Promote the usage of Science Gateways as a means for attracting new communities and promote the use of eInfrastructures for every researcher

IDF — Federations of Identity Providers

- Foster the creation of Identity Federations in cooperation with Certification Authorities; promote and coordinate their usage. Support integration of different AA approaches

iMENTORS

- 30 months from 15/04/2012
  - EC contribution 970 k€

Building a comprehensive virtual observatory with up-to-date information on all ICT/e-infrastructure initiatives of the past 5 years;

- **A comprehensive database (+ a dynamic Map) with complete information on organisations, research infrastructures, and ICT projects in Africa**
- **A multi-stakeholder evaluation framework to assess the impact of e-infrastructures and a decision support system to identify potential synergies by linking existing projects to upcoming proposals**
- **A social hub with user profiles to facilitate interaction and knowledge sharing and to improve collaboration between stakeholders**

Enhancing the effectiveness and coherence of international actors involved in development projects in Sub-Saharan Africa

The project rests on 3 pillars:

Build the ecosystem: *Launch the platform and create a rich stakeholder's ecosystem on ICT based initiatives in Sub-Saharan Africa;*

Establish the platform: *customize existing tools and integrate information adding value through the decision support and GIS functionalities*

Sustain iMentors: *Add value to stakeholder community by improving impact on investment and placing iMENTORS as the main resource hub to view ICT and e-infrastructure projects*

The Alpha Version of the platform is already operational; the Beta Version will be released to the public in ***July 2013****.*

Why going regional with e-Infrastructures?

critical mass

(investments, people, ..)

leveraging effect

(e.g. clear policy, legal and regulatory frameworks influence communication markets)

solidarity and mutuality

(bridge geographical and digital divide and foster cooperation with fair -not equal- share of costs)

enabling local operational capacity

empowering local communities with technical, management and administration skills

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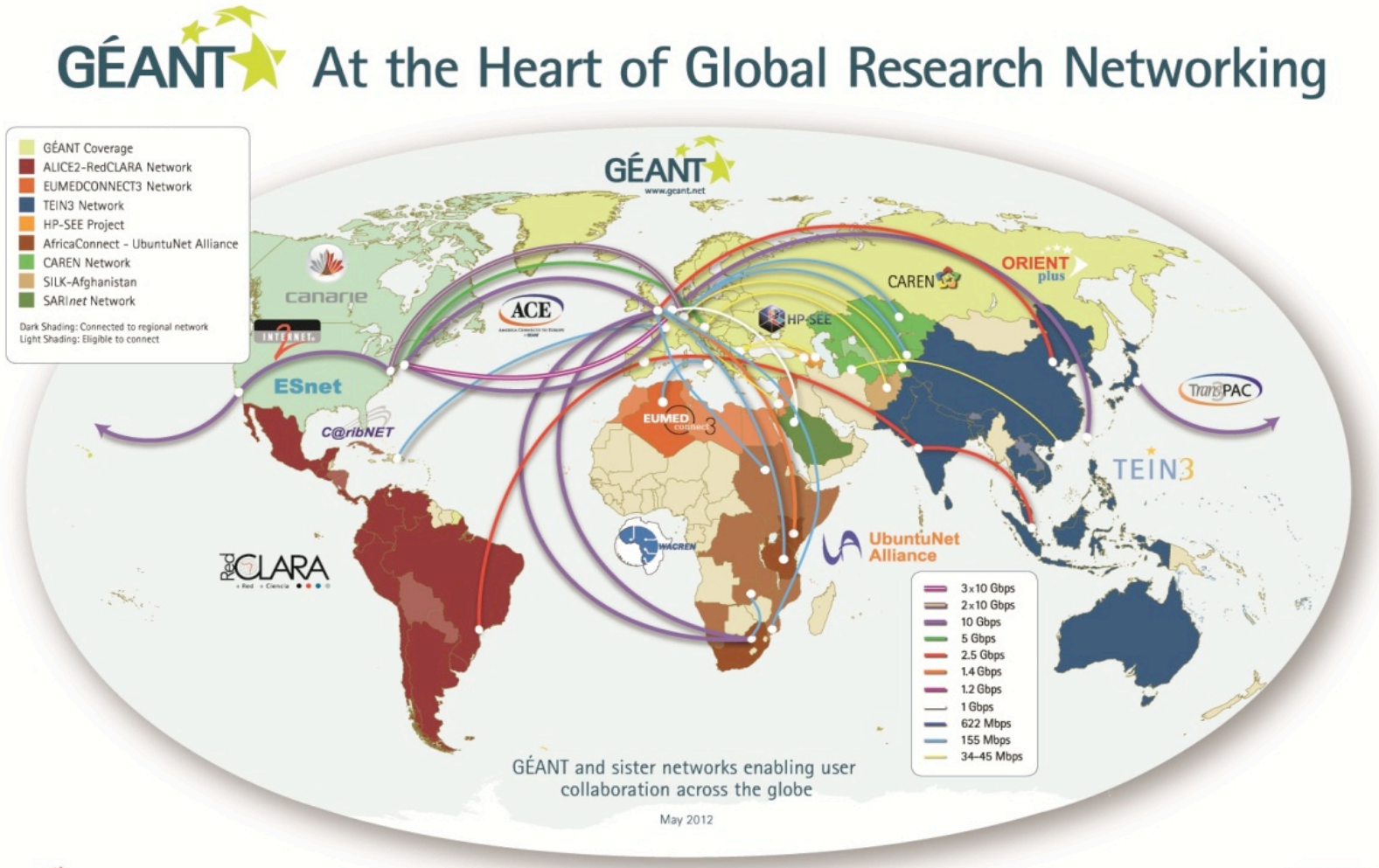

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