ERINA4Africa Overview
Exploiting Research INfrastructures potentiAl for boosting Research and Innovation in Africa

Simon J E Taylor, Margaret Ngwira, Björn Pehrson, Isabel Matranga and Tiziana Lombardo

Brunel University, Ubuntunet Alliance, KTH, Engineering Ingegneria Informatica and Zephyr

ERINA4Africa Overview

- Project aims, objectives & impact
- Key deliverables
- Key questions
- Next steps and a call for participation!

e-Infrastructures

Global Virtual Research Communities
e-Infrastructure-based Applications

Scientific Digital Repositories

Distributed & High Performance Computing

Network Infrastructure

Aim, Objectives and Impact

- Aim
  - Based on experiences with the ERINA and FEAST studies
  - The project aims to foster knowledge-sharing between e-Infrastructures stakeholders in Africa and the EU in the key ICT areas of e-Health, e-Government, and e-Learning
  - The overall **outcome** will be to accelerate the contribution of e-Infrastructures to societal and economical development in Africa

Aim, Objectives and Impact

- Key objectives are to deliver:
  - A **foresight study** identifying qualitative as well as quantitative benefits in adopting African Research Infrastructures as basic building blocks for other key IST areas
  - A sustainable **virtual observatory** on trends and current evolution of e-Infrastructures in Africa
  - A series of **workshops and conferences** to both promote and validate the project results

Impact

- **Recommendations** for developing the future of global multidisciplinary ICT infrastructures across Africa
  - Application focus
- A set of **best practices** of e-Infrastructures adoption in Africa
- An **international community of EU and African players** enabled through a *virtual observatory* and website
- A **foundation** for e-Infrastructure applications development in Africa
- Targets for possible investment (**Lighthouse Demonstrators**)

Key Deliverables

- Website (live now) (www.erina4africa.eu)
- Data collection and Analysis Report (Available Now!)
    - Case studies
    - http://www.erina4africa.eu/docs/D1%201-FINAL-1.pdf/view
- Virtual Observatory (Available Now!)
    - Community building – register and list your project!
- Patterns and best practices analysis report (November 2010)
- Foresight Study (November 2010)
- Workshops
    - *Investigating Best Practices for e-Infrastructure Development*, Kigali, Rwanda, 21st April 2010
    - Malawi Workshop (August/September 2010)
    - Final Conference (Location TBA) (December 2010)

Investigating Best Practices for e-Infrastructure Development, Kigali, Rwanda, 21st April 2010

- Officially opened by the Honourable Minister of Education Dr Charles Murigande.
- There were approximately 37 local participants from 12 African countries and 6 European participants were virtually present during the period that the GLOBAL link was functioning.
- The following were identified as key areas for e-infrastructure applications in the brainstorming sessions that concluded the Workshop:
- **e- Health**
  - Resource utilization (drug tracking, (including counterfeit drug monitoring, fleet management, monitoring and health statistics), telemedicine (e-diagnostics), community and health practitioners training, patient management records, Continual Professional Development for Health workers;
- **e-Government**
  - Government financial systems (revenue, expenditure, taxation, transparency, M&E, e-procurement), land and property management, civil related applications (citizen database, e-voting, passports, ID), e-commerce, GovNet, good governance (criminal justice system)
- **e-learning**
  - Content development, platforms, digital repositories

Investigating Best Practices for e-Infrastructure Development, Kigali, Rwanda, 21st April 2010

- Some challenges to full utilisation of e-Infrastructures were perceived as
  - **Human and policy**
  - Human Resources (Capacity Building, e-readiness, change management, leadership, appropriate business skills); Lack of coordination among stakeholders; Availability of High level advisory committee as in Rwanda; Stable National security situation; Conducive Government Policy environment
  - **Technical**
  - Infrastructure (power, connectivity, backbone, equipment, end user support); Costs; Disaster Recovery facilities;
- Some opportunities and benefits were perceived as:
  - Competitive and Knowledge Based economies
  - Employment creation with Increased local application developers
  - Green IT opportunities
  - Improved services : health, education, governance,
  - Transparency

ERINA4Africa Next Step: The ERINA Study

- The <u>objective</u> of this analysis is to see how, quantitatively and qualitatively e-Infrastructures add value to society in Africa, not only via the e-Science domain, but in our target societal applications of e-Health e-Government and e-Learning

- The outcome of these analyses will be a selection of **best practices** and a **foresight study** that will present a set of recommendations for policy makers in EU and Africa to further support e-Infrastructures adoption especially when applied in public sector areas.

ERINA4Africa Next Step: The ERINA Study

- <u>Quantitative analysis</u> will measure the benefits of e-Infrastructure on target communities. The method will take into account the following aspects:
  - Total costs/effort per global virtual research community
  - An estimation of the share of costs/effort per country
  - An overall cost-efficiency analysis
- The <u>qualitative analysis</u> will focus on the key processes in e-Infrastructures in Africa. In particular, it will analyze the strengths, the weaknesses, the opportunities, the threats to their adoption.

ERINA4Africa Summary

- **Recommendations** for developing the future of global multidisciplinary ICT infrastructures across Africa

- A set of **best practices** of e-Infrastructures adoption in Africa

- An **international community of EU and African players** enabled through a *virtual observatory* and website

- A **foundation** for e-Infrastructure applications development in Africa

If you wish to contribute a case study and take part in the next phase of ERINA4Africa please contact the coordinator (simon.taylor@brunel.ac.uk), visit the website or fill out the Study Details Form at the workshop