

SYMPOSIUM ON INTEGRATED APPLICATIONS (B5)  
Tools and Technology in support of Integrated Applications (2)

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SATELLITE-ENHANCED TELEMEDICINE AND EHEALTH FOR SUB-SAHARAN AFRICA: A  
DEVELOPMENT OPPORTUNITY

**Abstract**

Amongst the world's regions, Sub-Saharan Africa with its 47 countries and 750 million inhabitants (2005 figures) suffers the highest burden of communicable diseases such as HIV/AIDS, tuberculosis and malaria, together with the lowest level of health care expenditure globally. The average life expectancy at birth was 46 in 2004. Health service coverage is low, with generally low immunisation coverage. The region faces a serious health workforce crisis, e.g. due to the migration of doctors and nurses from rural to urban areas.

Information and Communication Technology (ICT) has introduced significant new opportunities for extending the reach of health services, offering the potential to overcome some of the obstacles of health workforce shortages and to reach remote areas with training, support and remote consultation opportunities. eHealth, the combined use in the health sector of ICT for clinical, educational and administrative purposes, both locally and at a distance, is a key enabler for supporting health systems to deliver on their promise of good health for their citizens. Currently, however, overall ICT utilisation in most of the sub-Saharan countries is low, especially in remote and isolated areas.

ESA, in collaboration with the Luxembourg Agency for Cooperation and Development and with the co-funding of the Government of Luxembourg and of the European Union Africa Infrastructure Trust Fund, has recently launched a new programme with the aim of enabling the development of a satellite-enhanced eHealth and Telemedicine infrastructure for the benefit of the sub-Saharan Africa. This is a significant opportunity for the identified public health needs of the region. Satellite-based communication technologies can play a significant role especially in rural areas, where wired networks are non-existent and commercially unviable to roll out. Satellite solutions can enable a variety of services and rapidly unfold the potential of externalities, such as eLearning and eAdministration, which are of high interest for the region.

Apart from a deep understanding of the sub-Saharan situation at various levels, to increase the success potential it is necessary to develop a strong sense of African ownership towards this initiative. This can only be done by achieving an active collaboration with adequate sub-Saharan African partners at all levels.