



# Business initiatives focusing on ICT development in Africa based on the NEPAD objectives

**Catherine Smith**

Post Graduate Diploma in Information Management  
Rand Afrikaans University  
[cath@ananzi.co.za](mailto:cath@ananzi.co.za)

---

## Contents

1. [Introduction](#)
  2. [Research statement](#)
  3. [NEPAD and ICT in Africa](#)
  4. [Macro factors affecting ICT initiatives](#)
  5. [ICT infrastructure](#)
  6. [New Telecom roles](#)
  7. [Business and ICT in Africa](#)
  8. [MTN's initiatives](#)
  9. [Conclusion](#)
  10. [References](#)
- 

## 1 Introduction

Given the speed with which information communication technology (ICT) is developing and the breadth of its socio-economic impact, it is imperative that Africa is not excluded from the technological revolution. The use of ICT has been integrated into virtually every aspect of commerce, education, governance and civic activity in developed countries and has become a critical factor in creating wealth worldwide. Yet in Africa, ICT has barely taken a foothold. Computer illiteracy and the lack of ICT infrastructure are widely recognized as an increasingly powerful obstacle to the economic, civic and political development of Africa.

The new economic order and the market economy are characterized by globalization that leads countries, whatever their development level, to open up to competition and to various transactions, thus creating an area paramount for the utilization of the ICTs. Access to information, and therefore to knowledge acquisition, is viewed as crucial for the development process. In this respect, special attention should presently be paid to technology for it creates opportunities for the advancement of health care and nutrition, for the broadening of knowledge, the stimulation of economic growth, and it also provides individuals with the means to participate in the life of the community.

ICTs could be vital to poverty reduction and Africa's contribution in the global knowledge-based economy. In combination with the basic elements of development, ICTs have the potential to speed up sustained growth in Africa. The ICTs have the potential to cut costs, improve the quality and speed of the delivery of basic infrastructure and services. ICTs also offer prospects for rapid economic growth that provide finance for the many demands facing African countries. Africa has already witnessed the potential of ICTs for dissemination of information on investment opportunities and networking with foreign enterprises and their affiliates.

The requirement for telephony is high throughout Africa, particularly from the large informal sector. Small, informal, businesses see wireless communication as a fundamental element of their daily business. The wireless networks are being installed across Africa more quickly and cheaply than the fixed-line networks. They are growing '40% annually compared to 10% for fixed networks despite the fact that network growth is often hindered by the lack of infrastructure and skills, over-regulated environments and political instability' (Nolan and Cherif 2002).

Africa, considered to be one of the world's emerging markets alongside the Far East, has succeeded in resisting the trend of a global slowdown in telecommunications expenditures, with the African telecoms market experiencing noteworthy growth. It has been reported that, '83% of subscriber growth until 2010 will be in emerging markets. A stark contrast to established markets such as Europe where telecommunication services are reaching saturation point' (Nolan and Cherif 2002). One of the benefits of Africa's late entry into the telecoms market is that it has been possible to leapfrog older technologies with the focus on establishing GSM networks across the continent. Telecommunication networks will drive business activities and act as critical catalysts in bridging the ever-present digital divide while playing an important role in facilitating economic and social development on the continent.

However, even though the transition to the knowledge-based economy is accelerating, the gap between Africa and the rest of the world has continued to widen. Africa's own response and international partnerships are required to create the building blocks necessary to facilitate a knowledge-based economy. Nevertheless, Africa's capacity to build consensus on key challenges facing its ICT development is not very strong. ICT initiatives that are based in Africa continue to get held back by lack of coordination and collaboration. This article outlines challenges facing Africa-based ICT initiatives.

---

[top](#)

## **2 Research statement**

What are MTN's initiatives focusing on ICT development in Africa, based on the NEPAD objectives?

- Have NEPAD and ICT an influence on development in Africa?
- What are the factors affecting Africa's ICT infrastructure?
- How does the ICT infrastructure in Africa looks like?
- Are there new roles in telecoms?
- How can MTN and other ICT business initiatives encourage development in Africa?

---

[top](#)

## **3 NEPAD and ICT in Africa**

In Africa, poor ICT infrastructure, combined with weak policy and regulatory frameworks, and limited human resources, has resulted in inadequate access to affordable telephones, broadcasting, computers and the Internet. 'African teledensity remains below one line per 100 people. Service costs are also high: the connection cost in Africa averages 20 per cent of GDP per capita, compared with the world average of 9 per cent, and 1 per cent for high-income countries' (Zwanapoel 2001:2). Africa has been unable to take advantage of ICTs as a means to improve livelihoods and develop new business opportunities, thus resulting in constrained cross-border linkages in the actual continent and with international markets.

It is within the framework of the global ICT revolution, globalization and the continued development of the continent that New Partnership for Africa's Development (NEPAD) was borne. NEPAD believes that while no country has escaped globalization; and based on ICT initiatives, the contributions of the different regions and nations have varied noticeably. 'Outside the domain of the major industrialised nations, only a few countries in the developing world play a substantial role in the global economy.'

NEPAD recognizes that ICTs are vital for the knowledge-based economy of Africa. These have opened new windows of opportunity for African countries to accelerate economic growth and development.

### **3.1 NEPAD objectives**

NEPAD has the following objectives:

- To double teledensity to two lines per 100 people by 2005, with an adequate level of access for households;
- to lower the cost and improve reliability of service;
- to achieve e-readiness for all countries in Africa;
- to develop and produce a pool of ICT-proficient youth and students from which Africa can draw trainee ICT engineers, programmers and software developers; and
- to develop local content software, based especially on Africa's cultural legacy.

NEPAD agrees that ICTs are a key-enabler of globalization; as a consequence ICT interventions are critical to development policies and strategies of many developing countries. ICT can produce good results in achieving definite social and economic development objectives as well as play an important part in general development policies. 'They can contribute to income generation and poverty reduction by enabling people and enterprises to capture economic opportunities by increasing process efficiency, promoting participation in expanded economic networks, and creating opportunities for employment.'

### **3.2 Advantages of ICT in Africa**

It is fundamental to understand why NEPAD is instilling an ICT policy in Africa. What benefits will the ICTs bring to the countries? According to Zwanapoel (2001:1), extensive use of ICTs can bring unparalleled advantages to the continent:

- It can give impetus to the democratization process and good governance.
- It can facilitate the integration of Africa into the new information society, using its cultural diversity as a leverage.
- ICTs can be helpful tools in a wide range of applications, such as remote sensing and environmental, agricultural and infrastructure planning.
- The existing complementarities can be better utilized to provide training that would allow for the production of a critical mass of professionals in the use of ICTs.
- In the research sector, African programmes can be established as well as

technological exchange programmes capable of meeting the continent's specific needs, with particular regard to the fight against illiteracy.

- ICTs can be used to identify and exploit opportunities for trade, investment and finance.
- They can be used to establish regional distance learning and health education programmes to improve the situation in the health and education sectors.
- In conflict management and the control of pandemic diseases, such as malaria and cholera, ICTs will help towards the organization of an efficient early warning mechanism by providing the tools for constant monitoring of tension spots.

---

[top](#)

#### **4 Macro factors affecting ICT initiatives**

The vast need and unfulfilled demand in rural areas is still clearly for access to *basic voice communications*, whether they are fixed or mobile. The vast majority of the continent is still without basic telephony service. Research, according to Intelecon (2002:19), shows that in 6 out of the 10 countries studied in Africa, one per cent or less rural households have a phone (fixed or mobile). The demand for public access telephony is still huge and largely unfulfilled in Africa.

While still in its infancy, e-commerce promises to create employment by allowing people to sell their products and services directly without going through middlemen. It also offers opportunities that beforehand would have been available only through migration. Indeed, in the future, business will take place on the Internet, and Africa cannot afford to be left out of this new knowledge based e-society. The right infrastructure must be developed and proper policies must be designed to attract investment and encourage e-commerce. The challenge for Africa is to design strategies that will make the continent e-present in the e-society. ICT strategies are a step in the right direction. Speaking at the World Summit in South Africa 2002 (Kria-Chaker 2002), the CCK Director General Samuel Chepkonga declared that the public and private sectors must work hand in hand to develop the ability that will allow Africa to compete in the global knowledge economy. Echoing the concerns of many of the speakers at the Summit, that the speed of technological change in Africa was too slow, Chepkonga highlighted that the main hindrance for this has been the lack of a legal and policy framework to enable the people exploit new technologies.

The South African government has recognized the potential benefits to be gained from harnessing the power of ICT and is working to create a technically literate workforce that can contribute to a dynamic economy and participate in the information society. The government has established two ICT advisory councils under the leadership of President Thabo Mbeki, which are comprised of national and international ICT experts and play a role to inform the Government's decision-making in this area. And many other initiatives are also underway, aiming to integrate ICT into people's lives and address the legacy of inequity in this country.

Aside from e-governance and strategy, there are many other factors that affect the ICT infrastructure. Standard Bank chief economist, Iraj Abedian, states that planned infrastructure is a basic necessity for economic and social development of Africa. 'Unless Africa can compete in the global economy, there is not going to be any economic growth or social development – and the two cannot be separated,' he says (Stober 2002). ICTs can further NEPAD's goals in many ways – ranging from enabling long-distance education, telemedicine and environmental management, to strengthening of participatory approaches and the creation of new livelihoods.

They can involve more people, thus far unreached or underserved, and can accomplish a deeper geographic penetration, especially to rural areas, than is the case with traditional means and modalities. They can allow access to information sources worldwide, promote networking transcending borders, languages and cultures, and foster empowerment of communities, women, youth and socially disadvantaged groups. ICTs can be indispensable to realizing the global knowledge society.

#### **4.1 Infrastructure status**

While there are many encouraging trends and statistics within Africa of improving ICT usage, the discrepancy between many African countries' infrastructure and development levels is vast. Irregular power supply is a common feature to many countries' rural areas. Many of the countries' power distribution networks are limited and penetration into the rural areas is minimal.

Most countries are expanding and modernizing their telecommunications networks, which is reflected in 'an annual increase of the number of main lines of around 10 per cent' (Kria-Chaker 2002:11). In addition, a large part of the telecommunication network is analogue and a large number of sectors operate to capacity saturation or they are not very reliable. Moreover, 50% of the available lines are concentrated in the capital cities, where only 10% of the population live.

The existing telephone networks vary to a great extent depending on the countries. Some such as Botswana and Rwanda, which have made improving telecommunications one of their main strategies, are installing digital switches with optical fibre links between towns together with the most up to date cell and mobile telephone technology. But countries such as Madagascar and Uganda have analogue telephone systems that, in general, are not very dependable and have poor national links among urban centres.

With the introduction of the mobile telephone, access to telecommunications increased significantly. Uganda is a perfect example of the mobile telephone revolution. In 1998, it was granted a licence to a second national operator, MTN Uganda, whose main concern was access to prepaid mobile telephones. Microwave network installation is quick and, in a country where the majority of the population cannot afford a subscription, prepayment makes telecommunications easily affordable to many. 'The results were spectacular. Uganda's overall teledensity increased fourfold, from 0.41 telephone subscriber per 100 inhabitants in 1998 to 1.72 in 2001. In slightly more than one year, MTN became the most important operator in the country' (Kria-Chaker 2002:12). MTN has now begun to develop the network into the rural areas. An increasing number of African countries are developing their telecommunications networks based on the MTN/Uganda project.

The Internet is still a benefit to many in the more developed African countries, such as South Africa, Morocco and Egypt. According to the World Telecommunication Development Report (Kria-Chaker 2002:11), two out of every thousand inhabitants in Africa have access to and use the Internet. This ratio is well below that of certain developed countries, where one out of four inhabitants have access to the Internet. This difference is not only due to severe poverty, but also because of geophysical aspects. The Internet needs high quality, quick connections and related infrastructures. However, the problem is that in the major part of these countries there are very few national and international links. Most of these countries have not implemented fibre optic links and have limited access to satellite links. In addition, internal telecommunication infrastructures are generally concentrated in a few of the larger towns, while they are seriously lacking in rural areas.

'As a remedy to this situation, certain countries have made the decision to supply access to

the Internet via local call over the whole of their territory through the use of a determined zone code. Some countries (Angola, Botswana, Ghana, Namibia, and Tanzania) have POP servers in some of their secondary towns' (Kria-Chaker 2002:13).

## **4.2 Financing connectivity in Africa**

Until recently, governments have been the main providers of finance for telecommunication infrastructure. More and more private, local money is being used to fund telecommunications. A recent example is Nigeria, where a large portion of the total investment that took place was Nigerian capital. It appears that the overall global slowdown is forcing the people of Africa to invest in their own future, which will inevitably lead to greater local ownership and success. It is also one of the first times that one is seeing overseas investors making private sector investments into Africa.

Some countries have established funds for universal access to promote connectivity between rural and urban areas. Some other governments have pushed for the development of the telecommunication networks in the rural areas by telecommunications organizations. However, governments will continue to be involved in the financing of connectivity in the rural areas, due to the huge needs for achieving entire access to telephony. Creating an enabling regulatory structure and enforcing good governance practices would create an environment favourable for assistance by the private sector. 'Utilisation and operation of new technologies (fixed or semi-mobile GSM, IP telephony) at an increasingly dwindling cost will allow a decrease of the financing needs and catalyse access to telecommunication services' (Kabbaj 2002).

NEPAD is acting as a technical advisor for the infrastructure development, banking and financial standards components. Physical infrastructure projects have already been identified for implementation within the NEPAD Short-term Action Plan, to accelerate the connectivity and network interconnection processes at regional and sub-regional levels. Guaranteeing financing for telecommunication infrastructure means that the countries' governance will be reaffirmed.

Another defining characteristic of many Africa countries is the difficulty of bearing the costs of the use of ICTs. Indeed, the proportion of the population that can afford to pay the price of a telephone is much lower than in other countries. Human poverty and institutional fragility deepen the gap between technologies adapted to the incomes and capabilities of rich and poor countries alike.

Furthermore, profit generated from international calls, especially incoming calls represents more than half the telecommunications revenue, while it also represents a source of foreign currency (except Lesotho). 'In the context of changes within the international telecommunication environment, including the distribution of revenue from joint international services, a change in the international calls tariff system will have significant implications on LDCs which rely heavily on international payments in order to guarantee the financial stability of their infrastructure development plans' (Kria-Chaker 2002:14).

## **4.3 Human capital level and qualifications**

A country's ICT infrastructure and the policies and regulations that govern the usage and provision of this infrastructure form an integral part of enabling a country to effectively compete in the knowledge economy. While the use of a fixed telephone does not require any prior training, handling a mobile phone is already more complex; the poor level of technological knowledge in Africa should also be taken into consideration. Certainly, the Internet provides access to the whole of global information, but one needs to be able to read

and write in order to use a complex system and retrieve what one is looking for.

African countries are not the only where per capita income is the lowest, but where the 'illiteracy rate is the highest, the enrollment rate in primary education is the lowest, and the educational divide between girls and boys the widest' (Kria-Chaker 2002:16).

Investing in education, opening up to new technologies through foreign trade and investment, and encouraging private sector research and development (R&D) are the keys to unlocking the potential of technology to speed up economic growth in Africa. To combine government with the private sector, the country must select a range of policy approaches and strategies, depending on the country's level of development. The World Bank study identifies three progressive stages in a country's technological evolution — adoption, adaptation and creation — and observes that policies should be designed to address the particular challenges that accompany each stage.

*Adoption stage:* There are low levels of skilled labour and market competition, and few innovation-related institutions such as universities and research centres. Recommendations include focus on primary and secondary education coupled with an open trade policy.

*Adaptation stage:* Countries at this stage have more specialized skills needs. These types of countries are advised to meet these needs by providing incentives to private providers of advanced education, while sustaining state investment in primary and secondary schooling. They should also promote foreign direct investment, strengthen their information and communications technology sector, implement credible patent protection policies, establish competitive funding for private R&D and better links between universities, think tanks and firms.

*Creation stage:* These countries have been adapting technologies and selling resulting products at lower cost than their competitors, but while facing challenges from new low-wage market entrants, they need to make a leap forward into creating new products and processes. These countries need to continue expansion of higher education, sustain openness to trade and foreign direct investment, and strengthen incentives for private-sector research and development.

South Africa is certainly in the adaptation stage, however the biggest challenge facing the government is the ICT infrastructure. The government needs to work with the private and public sector to provide a solid information economy infrastructure locally, nationally and globally. It is clear that an information economy requires much more than the development of ICT industries and services, even if those constitute its basic infrastructure, or the shift to high-tech industries. It is more about how IT information and knowledge can improve efficiency and competitiveness throughout the economy. The information economy is one in which information serves as a resource for new industries, as well as a catalyst for the renewal of established ones and is increasingly a critical factor in engendering competitiveness and improvements in social welfare.

The importance of the social knowledge/information of the workforce combined with the countries' physical resources such as capital and labour, allows a competitive strategy in the new economy. In the information economy, knowledge or information embedded in products and service, not the physical material from which the products and services are made, become the main source of profit.

A lack of basic infrastructure and telecommunication skills, over-regulated environments and political instability are just some of the issues facing the telecommunications market in many countries on the continent. The impact of famine and HIV and Aids has and will

continue to have an adverse effect on Africa's socio-economic stability, hindering the rate of growth in the telecoms market.

---

[top](#)

## **5 ICT infrastructure**

### **5.1 Users**

Despite the stated difficulties, Africa is a place where companies can perform well. It is a region with huge potential for growth in the telecommunications market. It is also currently 'the continent with the least amount of telephones for its total population, making up just 2,6% of the world's cellular subscribers, compared to Europe, which contributes 38,4%' (Nolan and Cherif 2002). It is for this reason that a telecommunications renaissance is sweeping across the continent, driven largely by wireless technology. The International Telecommunications Union (ITU) reported earlier this year that the number of cellular users in Africa leapt to 30 million last year from just 2 million in 1997. This proves that Africa is ready for basic voice and data telephony.

### **5.2 Technological infrastructure**

No information and communication system can function efficiently without dependable inexpensive and abundant technological means, in the form of computers, software and all the essentials of a telecommunications infrastructure allowing data and information processing.

Not only will it be essential to modernize and expand the infrastructure, the telecommunications material and logical network at the national level, especially in rural and remote areas, but also to improve interconnection at the regional level and include international transit centers for access to international telecommunications networks.

According to Kria-Chaker (2002:22), the basic needs are as follows:

- The extension of the telephone network to all the countries
- The increase of the number of inter-city lines and extension of the telephone network to rural areas
- The development of telecentres in suburban and rural areas
- The growth of access providers in rural and suburban areas
- The increase of the pass band transmission rate for the Internet and the multiplication of Internet nodes
- Internet access line development
- Production of adapted data-processing software.

### **5.3 Costs of communications**

The test facing significant stakeholders will be to decrease the cost of communications. This means providing cellular products suitable to the budget of Africa's first-time customers. The regulatory environment, which is moving to a more competitive landscape, is helping to bring cellphone costs down to an affordable level in many countries.

With telecommunications progressing to play a greater role in economic development, the different telecommunications players are working together to find solutions for low-entry buyers and, more importantly, to formulate innovative solutions that will offer services at a low cost to the end user. 'Credit must also be given to African governments for recognising

the extreme importance of market deregulation and the benefits of a competitive telecommunications environment' (Nolan and Cherif 2002). Looking ahead, it will be important to continue to work closely with network operators to establish viable business propositions for expansion of networks as well as the introduction of new networks to ensure the sustainable success of wireless communication.

#### **5.4 Fixed-line networks versus mobile networks**

Demand for telephony is high throughout the continent. The development of sophisticated new networks means that African countries can quickly modernize with the new communication technologies. With this focus on change and a commitment to the development of communications infrastructure in Africa, the telecoms market will continue to thrive. Of the US\$32 billion that is expected to be received from donor countries each year for infrastructure development under NEPAD, many estimated that only \$2 billion, used properly, could double the number of people connected on the continent. Statistics emerging prove that the use of telecommunications and the Internet has improved over the last ten years and is still increasing. 'Fixed line telecommunication grew from 10 million to 20 million lines. During the same period cellular users have gone from near zero to 26 million and while only five countries were connected to the Internet in 1994 virtually all the countries are now online. Kenya for example had only about 150000 computers in use two years ago but analysts expect that the country will exhibit 20 per cent annual growth in her IT markets over the coming years' (Ondigo 2002).

But the most phenomenal growth was in mobile telephony. Industry analysts predict that the use of cellular phones will reach 50 million by the year 2004, a figure that will be twice the number of fixed lines by that time. As of March 2002, MTN had 4.8 million subscribers in the 14 countries where it operates, either by GSM or satellite (Klein 2002:15).

The world is moving quickly towards e-commerce. Africa must therefore not only install more fixed lines, but there must be incentives to use the fixed line for business. Using it for business entails connection to computers and thus the Internet. It is widely recognised that traditional telecommunication infrastructure is key to economic growth. One of the major developments in ICT recently is the laying of fibre optic cables around the African continent. As a possible solution to the digital divide, NEPAD is focused on connecting the entire continent with a broadband fibre optic submarine system, the latest one being the East Coast cable. 'The cable (SAT-3/WASC/SAFE) is expected to be ready in 2005 and will pass through Djibouti, Mombassa, Dares Salaam, Beira and Durban' (Ondigo 2002). These cables are expected to increase the level of fixed-line usage in Africa.

---

[top](#)

### **6. New telecom roles**

Different stakeholders will play new roles in the industry.

#### **6.1 Policymakers**

Governments can further stimulate the telecom sector by formulating an ICT master plan for beyond 2010. This document should set policy objectives and goals and should be arrived at through stakeholders' participation and consensus. It should also promote progressive regional and continental market integration.

#### **6.2 Regulators**

The regulators' primary role will be to harmonize systems in the region, especially in matters of interconnection and spectrum utilization. Working at first through a regulation association, the communication commissioners should in time enable the creation of a regional regulation entity. The new entity would release licensing framework and licence application guidelines for the provision of cross border telecoms networks and services in member countries.

### **6.3 Operators, technical and service providers**

Standardization will be the key role of these increasingly private sector players. They should be active in the global dialogue and debate on evolution of wireless access protocols (WAP), general packet radio service (GPRS) standards and the new generation of mobile terminals that integrate terrestrial and satellite wireless connectivity being discussed in the International Telecommunications Union under the IMT2000 programme. Private sector players will reap tremendous benefits through active participation in continental and global conferences and assemblies.

### **6.4 Education and training providers**

As new technology emerges, new skills for systems integration are needed. Universities and polytechnics will have to re-invent their degree and diploma programmes to meet the market requirements. They will also have to develop collaborative research and developments arrangements with industry that will lead to the manufacture of affordable and robust technologies

### **6.5 Consumers/users**

The interest of policymakers in the telecom sector is in the multiple benefits to be derived from it. The use of telecoms will lead to the development of other industries while it is itself a generator of job opportunities. Faster growth of the sector means that more citizens of Africa will enjoy the human right to communication. A pro-active participating approach through demand for world-class and affordable service by consumers will keep providers at the heart of competitiveness.

---

[top](#)

## **7 Business and ICT in Africa**

As the ICT industry grows in the multi-operator environments of Africa, a number of investment/business opportunities are emerging. While the focus of this section will be on MTN's contribution to ICT initiatives throughout Africa, it is important to mention other enterprises, especially South African companies that have expanded into Africa. State-owned power company, Eskom, is at the forefront of a drive to repair the continent's energy infrastructure, while South African banks, retailers and telecommunications companies are also rapidly expanding into the continent.

### **7.1 Eskom**

Eskom, with its widespread presence in Africa, is supporting NEPAD as an energy partner, operating as a utility, investor, maintenance and operations contractor, engineering services consultant and project developer. Through these partnerships, coupled with innovative funding and financing mechanisms, an integrated African energy infrastructure which will power and empower the social, economic and environmental development of the continent is possible. Technology transfer programmes and centres will support these programmes.

Eskom Enterprises, which carries out the non-regulated electricity related activities of Eskom, has concluded a number of contracts spanning the length and breadth of the African continent. During 2001, Eskom Enterprises was awarded three major contracts and formed key partnerships in support of NEPAD's objectives.

## **7.2 M-Cell/MTN Group**

The M-Cell/MTN Group could play a major role in bridging the digital divide across the African continent. MTN (2002) believes that African countries will benefit from the broadband service delivery, which is based on a range of technologies and delivery platforms that incorporate fibre optic high capacity lines, wireless broadband, mobile wireless and satellite technologies. This integrated approach ensures flexibility and scalability, superior service quality and a comprehensive range of value-added services for its customers, from high-speed Internet access to video-on-demand, audio and managed network services.

MTN's network is ideally suited for African conditions. It is highly efficient, flexible and cost effective, and lends itself naturally to increased access to communications in rural areas since, being compatible with all existing and new technologies, it allows for the use of suitable, cost-effective results.

The Group, through MTN, has already invested in six GSM cellular networks in Africa (South Africa, Swaziland, Rwanda, Uganda, Cameroon and Nigeria). MTN has conquered the considerable challenges that operators typically face in Africa: large land areas, rural populations, low GDP per capita and relatively poor existing infrastructure.

Through its satellite distributor Orbicom, which operates in 13 African countries and 'was the first in the world to deliver digital satellite television, as well as operate two simultaneous uplinks onto a single, digital platform, the Group has consolidated its position as the continent's largest commercial satellite operator' (MTN 2002). The Group is also moving into the global mobile Internet convergence market through Airborn, which has succeeded in bringing together the wired and wireless worlds. Airborn has developed the application that enables PC users to send and receive messages between a PC and wireless phone.

---

[top](#)

## **8 MTN's initiatives**

Ever since it entered the African cellular market in June 1994, MTN has established a name for network excellence. The company has grown into an African company with financial investment in six African countries. At the root of the company's investment strategy is the aim to lead Africa into a new age of economic development using telecommunications as a facilitator. 'MTN's vision is to become the leading provider of communication services on the African continent, linking nations by providing an affordable, accessible and quality service that is a catalyst for economic development' (MTN 2002).

The company's activities in the continent are not just about providing telecommunication that works, that enables communications across countries and continents; MTN's aim is to facilitate change that will have long-term domestic benefits.

While the lack of existing infrastructure is often mentioned as a difficulty for investment in Africa, MTN has seen this as a chance to create the infrastructure that allows for economic growth and to supply underdeveloped communities with new networks that have the most

up-to-date technology. In many African countries, wireless networks can be developed more rapidly and much cheaper than fixed line networks and the productivity benefits are immediately apparent.

As wireless technology continues to develop, disadvantaged communities will benefit most. MTN's practice of transferring skills and knowledge when it enters a new country stands to empower local communities further. In all countries where it operates, the presence of investors such as MTN has improved the local job market and attracted skilled emigrants back to the country. Apart from the obvious economic development, local infrastructure and facilities are upgraded and the quality of life in the communities is improved.

MTN's contributions to NEPAD's ITC priority are the following:

- The MTN network in South Africa covers a geographical area of over 800000 square kilometres, equating to a total of 66% land coverage, 93300 square kilometres of sea coverage, covering 89% of the population and 13000 kilometres of national highway (MTN 2002).
- MTN has undertaken a large community service programme to provide subsidized mobile telephones services to underprivileged areas. Over 9000 community service payphones have been installed in these areas to date.
- MTN Swaziland has achieved a population penetration of 3,6% after two years of operation. More significantly, the operation has doubled the country's telecoms operating market and has been largely responsible for teledensity increasing to almost 7%. Mobile telephony now outnumbers fixed-line services.
- MTN Rwanda, the sole mobile operator in the country, has increased telephony base with 60000 subscribers, a number double that of the local national operator, which has 25000 lines.
- In Uganda, MTN currently holds 65% of the entire telecommunications market and 83% of the mobile market. MTN offers a host of services ranging from mobile phones, fixed line services, fax and data services and to pay phones.
- MTN Uganda's universal service provision objective is to make telecommunications easily accessible to all. Ugandans who are not able to own a phone are provided access via aggressively installed payphones throughout the country. To overcome the limitations of absence of mains power in certain districts, MTN has developed a solar powered payphone to serve areas where mains power is absent or erratic. 'Before MTN launched its services, the teledensity in Uganda was one of the lowest in Africa at 0.27%. Today, teledensity has tripled to put Uganda amidst the middle range of teledensity countries at 1.2% (the average in Africa is 0.98%)' (MTN 2002). In September 2000, MTN took a step to lay Africa's first fibre optic line, a step that propelled Uganda into the information age.
- In Ghana, MTN's sister company Orbicom launched a wireless electronic banking network in October 2001. Ghanaians can now use debit cards to perform many financial transactions online and citizens no longer have to carry cash to pay for daily activities.
- In Nigeria, within six months of the introduction of commercial operations, GSM had overtaken fixed-line usage.

MTN is contributing towards NEPAD's objectives with the development of sophisticated telecoms services and investments. Additionally, with the goal of enhancing the quality of life in countries where MTN operates, the company recently founded the MTN Foundation to manage its social investments. Sustainable development is an important policy that runs through MTN's investment philosophy. An example of the innovativeness of MTN's solution for rural development is children's roundabouts that simultaneously pump water as the children play on them.

## 9 Conclusion

As evidence of the positive focus on lessening the digital divide, policies and strategies appear to be changing for the better in many parts of Africa. Many developing countries are improving the management of their national telecommunications systems so that outdated economic models and network infrastructures no longer limit progress. An important facilitator for this growth is the fact that governments and regulators have singled out mobile telephony as a key driver for economic growth.

As ICT becomes more sophisticated, its importance to developing countries and goal of long-term economic development will continually increase. However, as NEPAD notes, the importance of obtaining these benefits should extend beyond the domestic sphere. To be successful, 'developing countries must be prepared to compete in the globalised knowledge economy in which production takes place around the world on a decentralised and flexible basis' (NEPAD 2001).

If developing countries deploy advanced communication technologies in tandem with developed countries, they can also compete in the expanding global services market on a more equal basis.

In many developing countries, governments are now looking to the private sector to help meet their development needs in this area. This interest in working with the local private sector is mutual; multinational telecommunications companies see trade and investment opportunities in the developing world where infiltration levels are low and projected demand is high, given the increased prosperity and a rising middle class. MTN's expansion into Nigeria is an example of this. Given the incredible build-up of telephony demand in the country of 124 million people (and 400000 land lines of which 200000 were functional), MTN's investment in the country presents an insignificant risk and great returns while the country amplifies its teledensity statistics via mobile telephony.

Although the global market is driving the use of advanced communication technologies and channelling investments in telecommunications to developing countries, its impact is not the same in all areas. Historically, the adoption and dispersion of all networked technologies follows a typical sequence. It starts in major cities with much economic activity and then works outward to smaller towns, and eventually to rural villages and remote areas. This must be addressed. In its dedication to overturning this situation, MTN has committed itself to and has serviced rural and under-serviced areas through community payphones. The Ugandan solar powered payphone service is an example.

South Africa has an important role to play in the rest of the continent by enabling technology to leapfrog Africa into the knowledge economy. It has many prosperous companies that can assist in providing African business solutions. The untapped market of Africa has huge potential.

NEPAD comes at an opportune time as it opens up new opportunities for investment on the African continent.

## 10 References

Intelecon. 2002. *The next step – rural ICT program for Africa*. Vancouver: Intelecon.

Kabbaj, O. 2002. *Financing connectivity in Africa – hard choices*. [Online]. Available WWW: [http://www.connect-world.com/past\\_issues/africa/2002/O\\_Kabbaj\\_ADB.asp](http://www.connect-world.com/past_issues/africa/2002/O_Kabbaj_ADB.asp).

Klein, A. 2002. NEPAD opportunities for the private sector – telecommunications. Unpublished presentation for MTN Group Limited at a NEPAD Conference.

Kria-Chaker, S. 2002. Towards a new information and communication technologies strategy for African least developed countries. Unpublished report for the World Summit on Information Society.

MTN. 2002. *Wireless contribution to NEPAD*. [Online]. Available WWW <http://m1.mny.co.za/C2256B190030A017/0/C2256B190030A01742256Open&Highlight=2,bridges.org%20>

NEPAD 2001. *New partnership for Africa's development*. [Online]. Available WWW: <http://www.nepad.org/>.

Nolan, S. and Cherif, J. 2002. Telecommunications – the turning point of Africa. *Connect – Africa* 1(2):12-15.

Ondigo, D. 2002. *Making Africa e-present*. [Online]. Available WWW: <http://www.mi.co.ke/technology/africa-epresent.asp>.

Stober, P. 2002. *The real building blocks of NEPAD*. [Online]. Available WWW: [http://www.sabcnews.com/africa/central\\_africa/0,1009,38286,00.html](http://www.sabcnews.com/africa/central_africa/0,1009,38286,00.html).

Zwanapoel, G. 2001. *Bridging the infrastructure gap*. NEPAD presentation. [Online]. Available WWW: <http://www.nepad.org/>.

### **Disclaimer**

Articles published in SAJIM are the opinions of the authors and do not necessarily reflect the opinion of the Editor, Board, Publisher, Webmaster or the Rand Afrikaans University. The user hereby waives any claim he/she/they may have or acquire against the publisher, its suppliers, licensees and sub licensees and indemnifies all said persons from any claims, lawsuits, proceedings, costs, special, incidental, consequential or indirect damages, including damages for loss of profits, loss of business or downtime arising out of or relating to the user's use of the Website.



ISSN 1560-683X

Published by [InterWord Communications](#) for the Centre for Research in Web-based Applications,  
Rand Afrikaans University