




NEXT EINSTEIN FORUM

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Moving from goodwill to action: A call for a Coordinated Vision for Africa's Digital Economy

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Introduction

In 2016, during the World Economic Forum, world and business leaders agreed that the Fourth Industrial Revolution had arrived, and that it would fundamentally change the world as we know it. Africa has been missing in action in the previous three industrial revolutions. The Fourth Industrial Revolution provides Africa the opportunity to jumpstart out of poverty using technology, digital technology, to accelerate economic development of the continent.

New digital trends are already radically transforming the business landscape, reshaping the nature of work and the structure of enterprises, spurring innovation both in services and business models. The new digital age is also making knowledge ubiquitous and enabling access to international markets.

There is compelling evidence that the use of digital technologies will create new opportunities for economic growth, greater innovation and boost Africa's global competitiveness, whilst supporting its market integration and transition to knowledge-based economies. The digital economy is already the single most important driver of innovation, competitiveness and growth in Africa despite the fact that almost half of African countries are low-income countries with a GDP per capita of less than \$1035.

Africa has already made impressive innovative advances with rapid adoption of mobile and smartphones and more importantly with financial services such as M-Pesa that have revolutionized financial inclusion for the unbanked. Nevertheless, basic digital infrastructure such as data is still very expensive in Africa, in some countries the cost of one Gigabyte can cost up to \$20. As well, basic infrastructure like electricity and roads are still inadequate especially in rural parts of Africa, leaving millions of Africans out of reach of potential economic opportunities.

The African Union (AU) and African Governments and entities like the World Bank and Smart Africa and others have already realized the importance of the digital economy and its potential in accelerating the development of Africa. They have made significant commitments to invest and provide support to initiatives that are supporting the rapid digitalization of African countries. Spearheaded by the World Bank, the Digital Economy Moonshot was recently launched to support the implementation of basic digital infrastructure in African countries and ensure access to network, digital devices and services. The AU, UN Economic Commission for Africa and other UN bodies like the ITU as well as Smart Africa are also working on digital identity projects, one area network and e-government services to accelerate the digitalization of services and access to digital services.

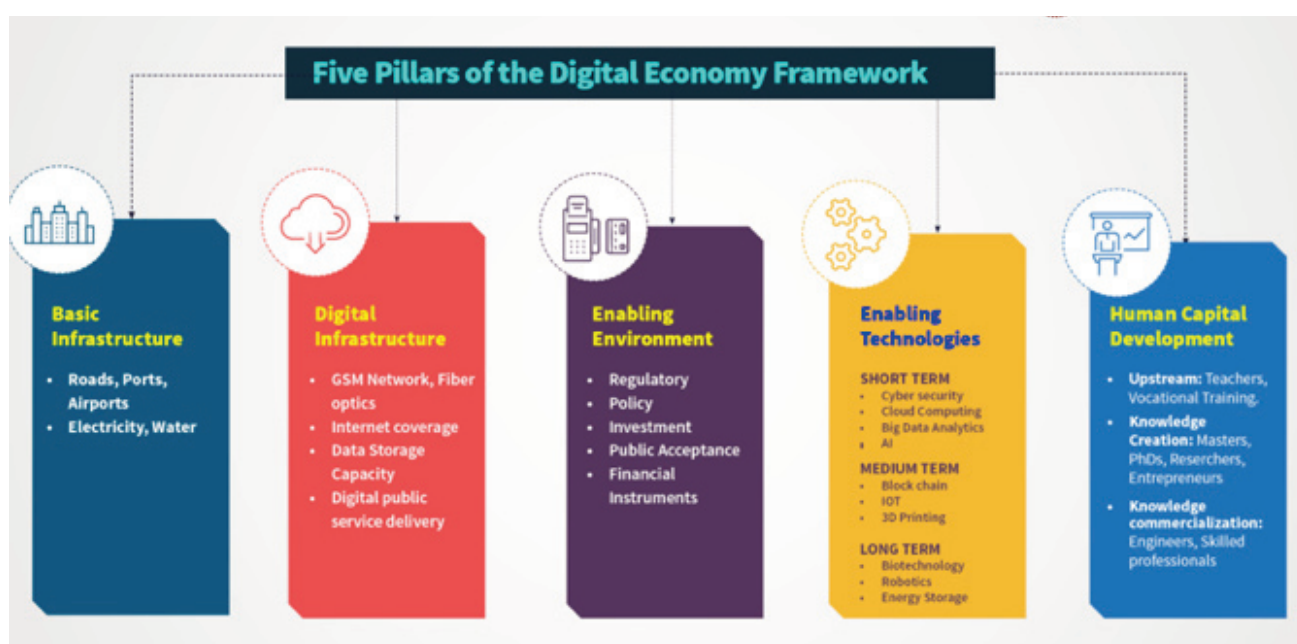
With all this important and groundbreaking initiatives to accelerate the digital economy, there is a need to have a Pan-African vision and an operational roadmap for Africa's digital economy.

Establishing and harmonizing policies and implementation strategies that take into account economic blocs as well as continent wide projects is very crucial as this will accelerate cross-border economic activities.

Proposing a pan-African vision for the digital economy

Over the last eighteen months, the Next Einstein Forum has been working on a Pan-African operational roadmap for the digital economy 2020-2050. This roadmap is preceded by a draft common vision for the digital economy from an African perspective.

On this, we developed a conceptual framework to guide this process. The proposed framework is dynamic, with interlinked building blocks, to account for the specific and varied levels of development at a country level as well as infusing a continental perspective.

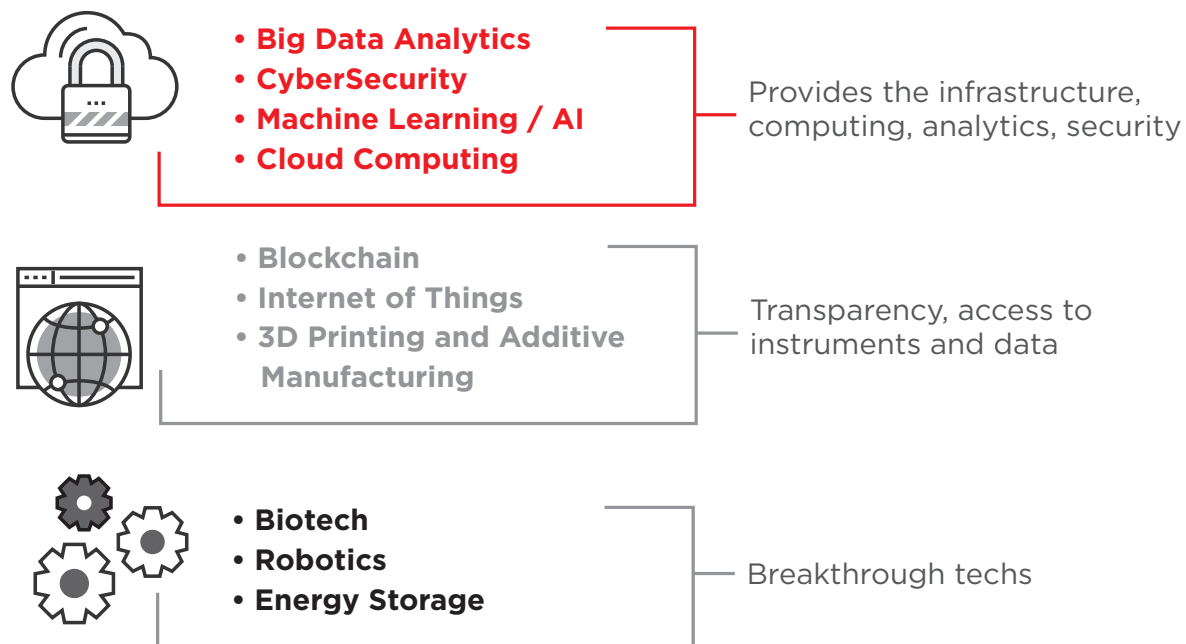


Source: Next Einstein Forum

This framework proposes five building blocks or pillars that support the development of a thriving digital economy. The framework recognizes that despite the capabilities of Africa to leapfrog, basic infrastructure is an undeniable necessity, one that governments should focus on. This requires innovative funding instruments to support rapid infrastructure expansion that includes digital infrastructure.

An enabling environment requires the harmonization of current policies and regulations across African countries. Data protection laws, digital identity framework and country sovereignty, among other concepts that need rapid establishment will need to be country specific but also factor in continental integration. African countries need to ensure that there is a growing emphasis on policies that look at the long term as well as having an operational roadmap towards implementation. This will be greatly accelerated by the early engagement of the private sector in conceptualization of the digital economy ecosystem.

The digital economy relies on emerging technologies and the Next Einstein Forum (NEF) in consultation with the NEF Community of Scientists, who are among the leading African scientists and researchers, proposed the most important technologies that African countries should focus on both in the immediate and long term.



Source: Next Einstein Forum

But these technologies cannot be harnessed without the talent to create and harness technology. The lack of strategies that enable research and easy piloting of innovation in Africa is a concern. Developing innovative funding instruments that support research and development as well as scaling up of innovative projects will accelerate the industrialization of African countries.

Skills, skills, skills

This brings in a key area: Human capital development. As we know, the digital economy has the potential to unlock millions of jobs with 85% of the jobs in 2030 not yet invented. This implies that the future of work is uncertain and we need to prepare young people with agile creative and problem solving skills as well as the ability to adapt to new situations to prepare young people to meet market needs and create new markets. This requires a robust education ecosystem to provide these competencies and skills. Here again, the private sector can play a key role in shaping this education ecosystem by investing and partnering with higher learning institutions on research and development. The private sector can also provide internships and support other forms of work integrated options etc. The key here is view it as ‘building the talent you need’.

Quick wins, long term gains

On the above framework, we believe African countries and other Pan-African entities should create consortiums alongside each pillar of the framework in order to accelerate the digitization of various economic sectors especially in the areas where they are already heavily investing in and supporting. Such examples would include entities like the World Bank and African Development Bank continuing to support the rapid development of basic infrastructure for African countries with emphasis on removing siloed projects that do not create continent wide infrastructure. Institutions like Smart Africa, which is spearheading the One Area Network initiative and other initiatives that support bringing digital infrastructures to all Africans at an affordable cost could partner with likeminded institutions to support the development of digital infrastructures across Africa. Higher learning institutions and training companies like the African Institute for Mathematical Sciences (AIMS), Carnegie Mellon University Africa, Andela are already experimenting and succeeding at producing qualified African talents in emerging technologies like AI, data science, cybersecurity, to name a few. These institutions are well positioned to create a consortium and develop an operational roadmap for human capital development.

These are some tangible and quick wins for the entire continent to build up on the individual efforts that are being implemented to accelerate the digital transformation of Africa.

The Next Einstein Forum has been working on used cases and operational roadmaps for various economic sectors like health, agriculture, trade, to name a few. We will continue to build on these efforts seeking input from academic, public and private actors.

Our formula is simple. We are encouraging governments, development bodies and the private sector to endorse the proposed digital economy vision, invest in basic and digital infrastructure, align policies and investment instruments, invest in research and development to create African solutions by developing a robust human capital pipeline with the goal of accelerating African countries' economic development.

The case of trade and logistics through the African Continental Free Trade Area (AfCFTA)

On 30 May 2019, the AfCFTA will go into effect following ratification by 22 African countries. The momentous agreement will create the largest trade zone in the world. The AfCFTA's main objective is to increase intra-African trade and reduce trade barriers such as tariffs on 90% of goods by 2022.

In order to accelerate the free trade area, there is need to digitize most of the services and procedures in the trade and logistics sector. Some countries have already started implementing interesting projects to accelerate intra-country trade such as east African countries with the electronic cargo tracking system implemented across all countries. Other countries have implemented cargo tracking in their own countries but some of the biggest challenges will be harmonizing different policies and regulations across neighboring countries. This calls for pan-African trade regulations.

If the goal is to eliminate 90% of tariff barriers by 2022, we have some ways to go. Today, classification of most goods is subject to individual countries. It is in this area that we urgently need a Pan-African consortium that would harmonize most of the goods across Africa to ensure that exemptions are similar and defined in the same way across Africa.

Trust across the trade value chain process is going to be an important factor to ensure that the AfCFTA succeeds. For that, there is need to create transparency along the value chain. Companies like IBM have already experimenting using Blockchain to create transparency from source or farmer to destination or final buyer on a supermarket shelf. For example, IBM in partnered with Maersk to pilot Blockchain in the flower exporting business in Kenya. The intent is to try and reduce the potential for human errors, fraud and cost savings which could indirectly reduce the shipment time for several products. These are some of the pilots being rolled out but regulations need to catch up to enable large scale demonstration in various African countries.

Digital must build on basic infrastructure

Other than regulation, African countries should not neglect basic infrastructure to rely solely on the “digitization” of various sectors. There is a clear need to improve inter-country road networks, increase access to electricity to millions of Africans, increase connectivity to allow these advances to reach rural areas in several countries and more importantly create Pan-African border policies to allow movement of people and goods.

By 2030, it is estimated that Africa’s household consumption will be \$ 2.5 trillion. If the AfCFTA is properly implemented and we reach the set goals by 2022, Africa will be an undeniable market. For that, African countries should be the first beneficiaries by creating the appropriate industries, innovating across all the key enabling technologies and more importantly transitioning African countries to digital economies which will accelerate their economic growth to middle income status.

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will be African**

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