

**TOWARDS A REVOLUTIONARY
GOVERNANCE OF AFRICA IN READINESS
FOR THE FOURTH INDUSTRIAL
REVOLUTION**

BY

DR ISA ALI IBRAHIM (PANTAMI) fbcS

DIRECTOR-GENERAL/CEO,

*NATIONAL INFORMATION TECHNOLOGY DEVELOPMENT
AGENCY (NITDA)*

**TO PARTICIPANTS AT THE 5TH EDITION OF THE DIGITAL
AFRICA CONFERENCE & EXHIBITION**

INTRODUCTION

- I am extremely delighted to be here in the midst of you all, to talk about solutions and programmes that will bring about sustainable development in our continent – Africa.
- This event very much aligns with our mandate at NITDA, which is to develop the Information Technology (IT) sector of Nigeria, by setting up the necessary regulatory and governance apparatuses that will stimulate the growth of the IT ecosystem.
- Africa is a continent truly blessed with opportunities and events like this give us the opportunity to reflect on the great potentials we have in this continent and how development can be achieved through various means.

- This is the 5th edition of the Digital Africa Conference and Exhibition organised by Digital Africa Global Consult with NITDA as a partner. You will all agree with me that, over the years, Digital Africa has contributed immensely to ICT advocacy in Nigeria and the continent of Africa at large.
- The *World Economic Forum* Founder *Klaus Schwab* aptly captured the series of changes that illustrate the revolutions. He said... *“The First Industrial Revolution used water and steam power to mechanize production. The Second used electric power to create mass production. The Third used electronics and information technology to automate production.”* (Schwab, 2015)

UNDERSTANDING THE FOURTH INDUSTRIAL REVOLUTION (FIR)

- Every industrial revolution builds on the preceding one. The FIR therefore builds on the third. FIR is characterised by the fusion of technologies that is blurring the line between the physical, digital and biological spheres.
- In essence, the FIR seeks to achieve the objective of anthropomorphosis in inanimate objects. It seeks to increase artificial intelligence while down-playing or reducing human interventions.
- The FIR has the potential to drastically change the way we live, work and do businesses. It covers areas such as Machine learning, Augmented reality, Internet of things, Mobile and Edge Computing, 3D Printing, Big Data and Analytics etc.

- Like every Industrial revolution, there would be gainers and losers, there would be no middle-ground. The FIR is going to affect our security architecture and apparatus. You will recollect that the United Arab Emirate recently deployed its first set of robotized 'police'.
- This innovation when perfected would greatly impact on policing, crime prevention, law enforcement and police recruitment. Agriculture of course is always an early bird in innovative technology adoption.
- In the emerging revolution, agriculture would no longer be left to the whims and caprices of nature, man would strive to use technology to predict whether, determine suitability of soil for the planting of certain crops, increase production, reduce waste and generally improve efficiency.

- No doubt, the current threat technology poses to the professions is not showing any signs of slacking very soon, rather artificial intelligence is tending to render professionals as on-lookers in their own field.
- For instance, through the use of big data analytics, we now have applications which can give over 80% accurate legal advice on most legal problems. This is no doubt an existential threat to lawyers.
- Also, simple and complex medical procedures and prescriptions, provided by eminently qualified professionals thousands of miles away, are available at the click of a button to anyone who desires it.

- A future of Internet of Things (IoT), Big Data Analytics, Artificial Intelligence would surely look exciting to anyone who understands the potential changes our society is about to experience.
- We cannot however, shut our eyes from the reality of the enormous challenges the same future holds.
- Breach or abuse of privacy and data security, poor connectivity, cybercrimes, loss of jobs due to the death of certain industries, environmental concerns etc. are issues that must be dealt with dispatch.

DIGITILIZATION OF AFRICA

- Africa is a continent with abundant potentials in ICT however, the preparedness of African Countries for a digital future is in different stages. A quick review of selected countries would therefore enrich this presentation.
- **Mauritius**
- According to the World Economic Forum's Global Information Technology Report 2015, Mauritius tops the list among Sub-Saharan African countries that are harnessing information technology efficiently. The Island Nation has identified ICT as one of the three main drivers of national development.
- Thanks to its investment in the Lower Indian Ocean Network (LION) 2 submarine optic cable in 2012 and complementary policy initiatives to reduce the cost of broadband internet. Mauritius now ranks ahead of all the BRICS countries except Russia in terms of ICT readiness.

- The Country has a thriving Treasury Accounting System, Digital Court Recording System, Automated Finger Print System etc. Its policy frameworks include National ICT Strategic Plan 2007 – 2011 and 2011 – 2014; National Broadband Policy 2012 – 2020 among others.
- **Rwanda**
- Rwanda commissioned its e-governance portal *Irembo* in August 2015. The portal is a public-private partnership platform conceived to fast-track government service delivery and improves efficiency in public institutions. The portal offers close to a hundred services including processing of birth certificate, drivers' license, application for criminal records etc.

- As part of its aggressive technology adoption initiative, Rwanda opened tele-centres in all the districts in the country. These centres are technology hubs where ICT services and trainings are carried on. The value of this especially in the rural areas is enormous. Opportunities are spread and young people are positively engaged.
- Rwanda has gone on to become an African success story in terms of e-governance and technology adoption. Buses and public spaces have internet access thereby ensuring a truly smart nation. My recent visit to that country left me with a good impression and some positive take-away.

- **Ghana**

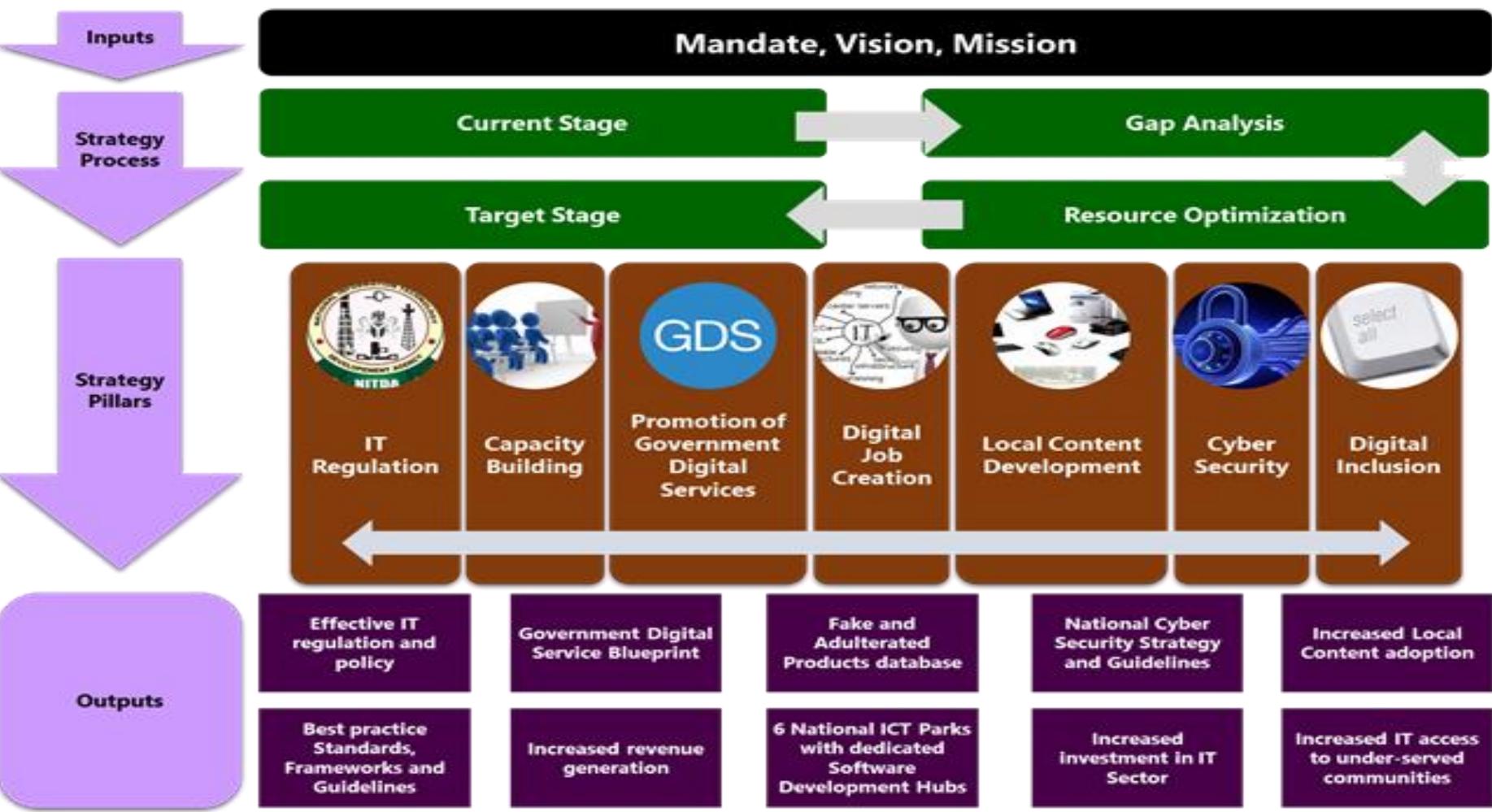
- Ghana has made government services (otherwise called e-services) and payments to government (otherwise called e-pay) available to its citizens as part of its e-government strategy.
- The pilot phase was launched in 2014 while wider adoption has occurred after then. This has morphed into the one-stop government information system.
- Another good innovation the Ghanaians have adopted is the Government E-Workspace comprising Correspondence Management System (CMS), Portal Content Management System (PCMS), Document Management and Meeting Management Systems. When fully, operational this concept would not only improve public service delivery, it would also force efficiency in public service system.

PREPARING NIGERIA FOR THE FOURTH INDUSTRIAL REVOLUTION- NITDA'S STRATEGY AND ACHIEVEMENTS

- In Nigeria, the federal government embarked on various initiatives to ensure effective participation of the country in the current global digital economy.
- These include the launch of appropriate policies such as the National Information Technology Policy, Telecommunication policy leading the liberalisation of the sector and the National Space Policy all leading to the establishment of Regulatory institutions including a Federal Ministry in charge of ICT to implement the policies.
- The efforts have led to the level of ICT development and deployment in the country thereby increasing the sectors contribution from less than 4% to above 10% currently.

- To build on the above and in line with current global realities, NITDA recently developed a Strategic Roadmap in order to refocus and address the critical areas that could further ICT development and prepare the country for the FIR.
- Considering the wide scope of NITDA's mandate, the Roadmap focuses on 7 priority areas, namely: IT Regulation, Capacity Building, Promotion of Government Digital Services, Digital Job Creation, Local Content Development, Cyber Security and Digital Inclusion.

- An Action Plan was developed in order to outline the specific actions to be taken to ensure the successful implementation of the Strategic Roadmap.
- The 7 pillars of this plan are discussed in the section that follows according to their relevance to various initiatives and activities already ongoing in the country and the expected future plan.



- *Regulation*

- As the National IT clearing-house, we are determined to ensure full compliance of MDAs with local content policy in IT procurement to boost local businesses.
- Furthermore, we are also determined to enforce industry related regulations with the aim of ensuring sustainability, rather than suffocation of businesses.
- We are creatively using regulations to open up space for businesses while also ensuring that there is customer satisfaction. We will strive to be an efficient and objective regulator to all stakeholders.

- ***Cyber- Security***

- The FIR will lead to a greater level of interconnection of devices across the globe and this will inevitably lead to a greater possibility of security breaches.
- We are determined to ensure the security of our critical national information infrastructure. To this end, we are implementing a methodical programme in partnership with all stakeholders to reduce Nigeria's vulnerability on cyber space and improve our security architecture.
- A dedicated National Cyber Emergency Response Team is available to detect, prevent and support public and private entities during cyber emergency.

- *Capacity Building*
- NITDA is committed to developing a critical mass of ICT savvy Nigerians as we seek to transform Nigeria from a resource-based economy into a knowledge-based one.
- We have made strides in youth empowerment through StartUp Friday, StartUp Clinic, MSME Clinic, incubation hubs, support for innovative ideas.
- We have also supported ICT-based startups and coordinated the participation of Nigerian businesses to global ICT events like the Gulf Information Technology Exhibition (GITEX), CeBIT and the ICANN Conference.

- The capacities of ICT staff in the various MDAs are also being strengthened through our systematic capacity building efforts.
- ***Government Digital Services Promotion***
- As highlighted above, we are coordinating government's efforts aimed at making ICT the pivot of public service delivery.
- We are gradually but surely eliminating waste, increasing transparency and accountability and aiding in the fight against corruption.

- *Local Content Development and Promotion*
- We are positioning Nigeria, not just as a technology consumer, but also as a producer. This strategy would make Nigeria one of the top three African technology products exporters by year 2020.
- We have strengthened the Office of National Content (ONC) while also perfecting strategies to help local producers take advantage of the Presidential local content directives.

- *Digital Job Creation*
- Our goal is to use ICT as a major driver of job creation in Nigeria. NITDA is working with public and private entities to open up opportunities for Nigerians.
- The Local Content strategy, Business Process Outsourcing, IT infrastructure manufacturing, etc are areas we are working on to create a digital economy for our young people.

- *Digital Inclusion*
- Nigerians are gradually but surely experiencing digital inclusion. Biometric Data capturing for workers and pensioners, examination administration, communication, payment to government through the Treasury Single Account (TSA) are all examples of strategies to digitally include Nigerians.
- Beyond this, the establishment of technology parks and wifi zones would all lead to a digitally inclusive society.

- Nigerians are gradually but surely becoming digitally included. Biometric Data capturing for workers and pensioners, examination administration, communication, payment to government through the Treasury Single Account (TSA) etc. are strategies to digitally include Nigerians.
- Beyond this, the establishment of technology parks, wifi zones etc. would all lead to a digitally inclusive society.

CONCLUSION

- The ultimate goals of governance are to empower and accelerate the ability to make informed service decisions and to help in achieving desired goals and objectives.
- So, effective governance plays a key role in mitigating the challenges associated with Fourth Industrial Revolution (FIR).
- Thus, the continent must come together and collaborate in ensuring that the advancements of the 4th Industrial Revolution are harnessed successfully. There is therefore the need to expand on this and relate it to the need for Governance to be revolutionized.

- At NITDA, we are critically re-positioning and building on existing knowledge and frameworks, issues of interest in this area, such as infrastructure, Human Resource, Investments and Governance in terms of Regulations and Policies.
- We are also creating a more conducive operating environment in terms of consistent policies, technology transfer and fair competition.
- With these few words, I wish you a very successful deliberations and I hope the outcomes of the Conference will be made available in good time to policy makers, IT practitioners and relevant stakeholders for actions.

- God bless you all, and God bless the Federal Republic of Nigeria and Africa at large.
- Thank you for your attention.