Speech delivered by Dr. Akinwumi A. Adesina, President, African Development Bank, at the 3rd Africa Science, Technology and Innovation Forum, Cairo, Egypt, February 10, 2018

Your Excellency, President Abdel Fattah el-Sisi,
Your Excellency Mr. Prime Minister, Sherif Ismail,
Head of Parliament, Dr. Ali Abdel Aal,
President of the Islamic Development Bank, Dr. Bandar Hajjar,
Professor Khaled Ghaffar, Minister of Higher Education and Scientific Research of Egypt,
Honorable Ministers,
Distinguished ladies and gentlemen,

It’s great to be in Egypt for this Summit. And for good reason: Egypt has led innovations since the days of the pharaohs. Even today, the world is still amazed by the sophistication of science and technology that powered ancient Egypt for millennia. Innovations in architecture, science, medicine, mathematics, writing, and agriculture to mention but a few. So, hosting this summit here is another opportunity to see STI at work in Egypt, to tap into its rich history and its ongoing spirit of cutting-edge scientific inquiry.

President el-Sisi, your personal presence to open this Summit demonstrates the priority that you place on the role of science and technology in the economic transformation of Africa. Let me use this opportunity to congratulate you on your election as the Chairman of the African Union for 2019. The confidence reposed in your leadership derives from your astuteness in guiding the political, and socio-economic development and stability of Egypt.

Your bold economic reforms are paying off and GDP growth has risen from 3.8% in 2016 to 4.2% last year and is projected this year to rise to 4.8%.

The Bank is very proud of its strategic partnership with Egypt. Our investments here total about $3 billion. The Bank has always been there for Egypt. We approved $1.5 billion in policy-based operations to provide budget support to the country. Just last month, we approved the third tranche of $500 million. We are proud of our support of $400 million to the private sector, which has helped to create over 183,000 jobs and empower 135,000 beneficiaries.

I applaud the efforts of the African Union Heads of State and Governments on science and technology. The African Union leaders set up the Committee of 10 to spearhead the science and technology agenda in Africa--and our host today, the President of Egypt, is one of them. I wish to thank you for your leadership, Mr. President.

The African Union’s continental education strategy for Africa clearly laid out the crucial role of science and technology with the goal of “reorienting Africa’s education and training systems to meet the knowledge, competencies, skills, innovation and creativity required to nurture African core values and promote sustainable development at the national, sub-regional and continental scale.”

One can understand why. Africa has about 14 million students in higher education, or 6.4% of global higher education enrollments. However, less than 1/3 are enrolled in science and technology, engineering and mathematics fields. We are literally in a race against time. In the context of the fourth industrial revolution, with rapid growth in artificial intelligence, robotics, nanotechnology, biotechnology, genetic engineering, and big data analytics, it's clear that Africa needs to do more not to be left behind.

The situation is especially more disadvantaged for girls and women in these fields, with high under-representation. There's a leaky pipeline for girls and women as they progress from primary to
secondary and university training. Clearly, to move faster and with quality, Africa must include and provide greater opportunities for women, especially women scientists, and accelerate the enrollment of girls in science, technology, engineering and mathematics.

Africa needs to promote a culture of innovation. And that culture is going to be driven by Africa's youth population. It has to be, for the youth are Africa's most important sovereign wealth. With Africa projected to have over 840 million youth by 2050, the continent will brim with the youngest population on earth.

But they will be growing up in a new era: a technology driven one dominated by the most dramatic shifts in innovations in science and technology that have ever been witnessed on earth. It is our responsibility to prepare Africa’s youth with requisite skills for a future that is already here. A world where kids flying drones will replace kids flying kites. A world where they are more likely to have a friend that is a robot, not Sherif, John or Jennifer.

That future is already being lived out in Africa and is picking up pace.

In Rwanda drones now supply up to 50% of blood used in transfusion centers. Rwanda is now the first country globally to put in place performance-based regulations for drones. It also has the world’s first drone port! So, today, thanks to Rwanda, Africa is leading in policy for enabling drone technology. Drones are being used to speed up precision farming and data analytics. I was excited to watch on Aljazeera how two Sudanese are using drones to plant seeds of Acacia and stop desertification.

The African Development Bank is preparing Africa for this future. That’s why we supported with $42 million the establishment of the Pan-African University. Our aim is to establish a world-class regional university to lead Africa in science and technology. The Bank has also invested $13 million to support the establishment of the Nelson Mandela Institute: African Institutions of Science and Technology, dedicated to strengthening higher level training and research in engineering, science, technology and innovation.

While progress is being made, Africa must step up the quality of tertiary education. African universities still perform low on international rankings. University of Cape Town, number one in Africa, is rated 171 in the Times Higher Education Quality Assurance.

Sub-Saharan Africa needs to increase its current 0.41% share of GDP devoted to STI, by a whopping 400%, if it is to catch up with the 1.7% global average. Similarly, gross expenditure on research and development as a share of GDP is still less than 1% in Africa.

The African Development Bank recognizes the importance of investing in human capital in science and technology for Africa’s accelerated growth and development. Between 2005-2017, the Bank invested $2 billion in 70 education projects, with a primary focus on science and technology. A major goal is to also speed up the enrollment of girls in science, technology, engineering and mathematics (STEM).

Let me give you some exciting examples. The Bank invested $90 million in Angola to expand girls’ access to quality education in science and technology, with scholarship programs to level the playing field. In Tanzania, our $52 million investment in technical vocational education training and teacher education allowed 10,800 students, 50% of them female, to enroll in vocational training in science and technology. In Rwanda, the Bank supported with $8.4 million the Kigali Institute of Technology, which, in collaboration with the Carnegie Mellon University, provides world-class Masters programs in computer sciences, information and communications technology. The school recorded a 100%
employment rate for all its graduates.

The Bank is investing in development of ICT parks. One of these is the Bank’s support of €70 million to develop the Senegal Technology Park, set up to drive a modern economy spurred by technology, innovation and entrepreneurship. The center is expected to create 35,000 direct and 105,000 indirect jobs.

Technology can bring governments closer to citizens, allowing for greater transparency, accountability and efficiencies in public administration. The Bank recently approved €72 million to help modernize Tunisia's administration and transform it into an international digital destination.

I know the power of mobile phones to change lives. As Minister of Agriculture in Nigeria, I used mobile phones to register farmers biometrically, cut off a corrupt system of government fertilizer procurement, and deliver fertilizers and seeds via electronic vouchers directly to farmers. The system reached over 15 million farmers with fertilizers and seeds through the electronic wallet system, including 2.5 million women farmers. The system has now gone global, expanding as far as Afghanistan to reach millions of farmers, and the African Development Bank is scaling this up to several African countries.

Digital financial inclusion will change the lives of millions of Africans. The Bank, in partnership with $35 million in support from the Bill and Melinda Gates Foundation, and other partners, including Luxembourg, is also launching a $400 million fund for digital financial inclusion in Africa to speed up access to banking for millions of people.

All these require that African countries modernize their digital infrastructure. That’s why the Bank has been investing heavily in the construction of digital backbones across the continent, including the Central Africa backbone to link Cameroon, Congo and Central Africa, and the Trans-Saharan fiber optic backbone to connect Chad and Niger. Physical isolation of landlocked countries should not disadvantage them in the digital economy. ICT infrastructure and connectivity open up landlocked countries to the digital world.

Egypt offers some exciting opportunities in the use of STI to drive development.

I wish to congratulate you, Mr. President, and the people of Egypt for the historic passage of the Universal Health Insurance Bill, which will make access to health care possible for all Egyptians. A healthy nation is a prosperous nation. Today, an Egyptian pharmaceutical company, Pharco Pharmaceuticals, has developed new ways and drugs for treating Hepatitis C, at 80% lower costs compared to global competition.

Mr. President, the African Development Bank would like to join you in your efforts for a Hepatitis C free Egypt and why not, a Hepatitis C free world. That’s what happens when science, technology and innovations meet up with strong political will: things change!

So, what are the ways we can better support science, technology and innovation in the future. Let me quickly proffer a few.

First, governments should facilitate the adoption of policies conducive to the development of science, technology and innovations.

Second, we must inspire and catch young scientists, very early.

Third, we must support better national and regional innovation policies.
Fourth, we need to significantly raise the share of GDP going into science, technology and innovations.

Fifth, we must incentivize research into grand challenges and set up funding alliances for science, technology, and innovations.

Sixth, we must promote regional cooperation in science, technology, and innovations, establish more regional centers of excellence and innovation hubs, and facilitate researcher mobility and joint research and development activities across regions.

Finally, let me say that the Bank is excited and deeply committed to the establishment of the Africa Education Fund, together with the Association for Development of Education in Africa, the Islamic Development Bank and Government of Japan.

Africa must not miss out on the opportunities offered by the Fourth Industrial Revolution.

Let’s rebuild skills.

Let’s revamp science and technology institutions.

Let’s reorient and reengineer our universities and learning systems to prepare people for the jobs of the future, not the jobs of the past.

Let’s fix our infrastructure, especially electricity.

Let’s promote a culture of innovation and entrepreneurship, not a culture of consumption.

Let’s make Africa a buzzing hub for innovation, for anything less will be a disservice to our peoples and the next generation.

Let’s plan and think BIG. Africa is waiting and Africa is ready.

Thank you very much!