9th African Union Private Sector Forum

Accelerating Africa's Industrialization through Digitization and Youth Technopreneurship



13 - 15 November 2017 CSIR International Convention Centre Meiring Naude Road Pretoria, South Africa





Science & technology Department: Science and Technology REPUBLIC OF SOUTH AFRICA





I. INTRODUCTION

1. The Ninth African Union Private Sector Forum took place on 13-15 November 2017, at CSIR, in Pretoria, South Africa under the theme: *"Accelerating Africa's Industrialization through Digitization & Youth Technopreneurship"*. The forum is jointly organized with the Department of Science and technology of South Africa and NEPAD Business Foundation.

II. ATTENDANCE

2. The Forum was attended by Businessmen across Africa, Government officials, representatives of national and regional business association, Pan-African Chamber of Commerce and Industry (PACCI), COMESA, African union Commission, UNECA, NEPAD Agency and NEPAD Business Foundation. The list of participants is in annex.

III. OPENING CEREMONY

Welcoming Remarks: Dr Phil Mjwara – Director General, Department of Science & Technology South Africa

- 3. In his welcoming remarks, Dr. Phil Mjwara, Director General, Department of Science and Technology, South Africa stated that one of South Africa's primary foreign policy objectives are to promote the African Renaissance through regional integration. He said that since the adoption of key regional and continental strategies, including the SADC Industrialisation Strategy and Roadmap, SADC STI Strategic Plan, the AU's Agenda 2063 and the 2024 STI Strategy for Africa, which respond to the demand for STI to play a role in critical sectors such as agriculture, energy, environment, health, infrastructure, mining, security and water, the Department of Science and Technology has made progress in promoting innovation-led economies and industries. South Africa's commitment to promote growth and development on the continent is, however, not an altruistic investment.
- 4. He stated that the African continent just like South Africa are both confronted enormous challenges and significant opportunities. Some of these common challenges include poverty, inequality, disease, hunger, dependence on single-commodity export products and political strife and increasingly accentuated by the impact of climate change. He said that many countries are working to diversify their economies, with a renewed focus on the role of science and technology. In this regard, Kenya, Ethiopia and Rwanda, innovation, especially in ICT services, is flourishing. Global investors, including major multinational companies, are turning to the continent for partnerships. Within this complex reality, STI policy can play a critical role in Africa's development. Essential in this regard will be the development and acquisition of relevant skills, infrastructure, financial resources, interconnectivity and STI institutions.
- 5. Dr. Phil said that the DST's strategic focus in its international partnerships, has resulted in 61 jointly funded science, technology and innovation (STI) projects with key partners

in the continent. In addition to this, 13 AU and SADC initiatives are actively supported by the DST. The DST has also leveraged its vast portfolio of international partners to secure R113 million to advance capacity building initiatives in the continent.

6. Finally he stated that according to the World Bank and African Development Bank reports there are 650 million mobile users in Africa, surpassing the number in the United States or Europe. In some African countries more people have access to a mobile phone than to clean water, a bank account or electricity, the agencies add. The main catalyst for this explosive growth is the youth.

Opening remarks: H.E Harison Victor – Commissioner for Economic Affairs- African Union Commission

- 7. On behalf of the Chairperson of the African Union Commission, Prof Victor Harrison, Commissioner for Economic Affairs, African Union Commission indicated that attention paid to the private sector for nearly three decades sufficiently demonstrates the role and place it occupies in the definition and implementation of socio-economic transformation programs around the world.
- 8. For Africa, the private sector is increasingly seen as an indispensable ingredient for strong, sustainable and inclusive economic growth as envisioned in Agenda 2063, economic and social development plan for Africa. To date, the private sector accounts for 90 percent of jobs, 70 percent of investments and value added on the continent. This dynamism has strongly contributed to the good economic performance recorded by the continent for more than a decade.
- 9. Prof. Victor pointed out that Africa's growth has not been sufficiently inclusive as long as poverty and inequality continue to grow and pose serious challenges to stability and peace in Africa. Current public policies are inefficient enough to generate new economic opportunities and thus reduce unemployment in all segments of the population, especially for youth people and women.
- 10. In practice, however, Prof. Victor quantified that despite the pre-eminence of the private sector in the economy and the reforms undertaken in recent decades by African countries, it remains difficult to link discourse and official good intentions with coherent and concerted actions towards promotion of economic and social development focused on exploiting the potential of the private sector. Across the continent, the private sector remains weakened by multifaceted constraints relating to both the institutional and regulatory frameworks unsuited to business, administrative burdens and deficiencies in social infrastructure, material and immaterial essential to its harmonious development.
- 11. In view of the above, and in view of the vision of Agenda 2063, which supports the building of a socially inclusive and prosperous Africa over the next five decades, there is an urgent need to unleash the potential of the private sector to make the most of all the opportunities offered by the digitalisation of the global economy.
- 12. He alleged that According to recent statistics from Internet World Stats and the global network of mobile operators GSMA, Africa has more than 340 million Internet users, for a population of 1.7 billion people, which represents a rate of penetration of 28.6%. About 46 percent of the 1.17 billion Africans subscribed to mobile phone offerings at the

end of 2015, or 557 million unique subscribers, a jump of 70.34 percent over 327 million unique subscribers in 2010 (31% of the 1.04 billion Africans). With the exponential growth of the population, this figure will grow further, reaching 725 million subscribers by 2020.

- 13. Evidence of the dynamism of African "techpreneurs", the continent is world leader in innovation in the field of mobile phone finance. It is now easy for small entrepreneurs in the formal and informal sectors to make financial transactions at lower cost through e-money platforms like M-PESA in Kenya and East Africa. This transformation of the SME / SMI finance landscape was made possible by the genius of youth African entrepreneurs who, in order to overcome the shortcomings of traditional banking-oriented finance, generated an innovation adapted to African realities. It is time therefore for Africa to harness its immense potential for arable land and natural resources to accelerate its industrialization through easier access to technology and the creation of an environment conducive to the promotion of compliant African innovations.
- 14. On its part, the AU Commission pays particular attention to entrepreneurship and women's entrepreneurs and youth. Through its private sector development strategy, it promotes the adoption of business regulations offering better economic opportunities and works closely with its member states to meet the specific training and support needs of women and youth entrepreneurs and workers from formal and informal sectors.
- 15. Finally, in order to facilitate the development of a knowledge-based economy in Africa, the Commission is in charge of the creation of the Pan-African Virtual University, an elearning platform aimed at harmonizing the training of youth in the transformative fields of science and technology.
- 16. In this regard, he urged all to formulate practical recommendations that would strengthen the role of the private sector in accelerating the digitization of Africa's economies for inclusive and sustainable growth.

IV. PROCEEDINGS

DAY ONE

PLENARY PANEL 1: THE 4TH INDUSTRIAL REVOLUTION: TRANSFORMING DIGITAL DISRUPTIONS INTO OPPORTUNITIES

- 17. The main objective of this session was to interrogate the role of Public-Private partnerships in creating conducing environment for capacity building in the field of science and Technology. Participants also deliberated on the elements of Industry 4.0 that are practical in Africa and how advancement in global technologies can be used to leapfrog continental socio-economic development.
- 18. This session was moderated by Mr. Valtor Adao, Chief Digital and Innovation Officer, Deloitte Africa

- 19. In his remarks, His Excellency Pr. Victor Harison, Commissioner for Economic Affairs Department, African Union Commission emphasized the need for Africa to industrialize and encouraged value addition, product beneficiation instead of always exporting raw materials. He also underscored the fact that for industrialization to succeed in Africa, there is a great need to fast track regional and continental integration, invest in Youth and women skills development so as to equip them with the modern skills to be able to ably participate in the global competitive markets.
- 20. Mr. Imraan Patel, Deputy Director-General, Social-Economic Innovation Partnerships at the Department of Science and Technology of the Government of South African, reechoed the need to upscale education and skills training for the large numbers of youthful population in Africa in order to be able to reap from its demographic dividend. He implored the Private Sector to actively participate and provide the necessary capital needed to carry out research and Development in the field of Science and technology so as to come up with innovative inventions necessary to support Africa's industrialisation agenda. He encouraged policy makers to rethink their economic models and start focusing on how to fairly and equitably distribute the available abundant resources such as information, food etc., instead of concentrating on the old economic models which only focus on the theory scarce resources
- 21. Dr. Amany Asfour, President, COMESA Business Council noted that it is important to improve Information Technology and Communication education in Africa especially for the youth and women, facilitate access to financial resources, add value to African products and to put in place economic and fiscal regulatory frameworks that would create favourable business environment in which women and youth are able to start and grow their enterprises.

Recommendations:

- 22. The meeting recommended the followings:
 - i. Fast tracking of Regional and Continental integration agenda to create and expand market access which is needed for the promotion of Africa's industrialisation program.
 - ii. Encourage Partnership between public and private sector to provide critical funding for research and development
 - iii. Empowering youth and women entrepreneur through skills development and access to financial capital
 - iv. Promote Innovation and competitiveness through Investment in Science, technology and human resources capacities.

PLENARY PANEL 2: ROBOTICS & ARTIFICIAL INTELLIGENCE IN THE AFRICAN CONTEXT

- 23. According to the presentation, Robotics is the use of computer-controlled machines for automated design, construction, manufacturing and operational functions. Connectivity: Connecting Africa's Industries & citizens to the rest of the global economy, is key and fundamental to Africa's development. In the context of the world; Africa is a bank. Without Africa the world economy is defragmented, lost, and with no securities.
- 24. These are the countries with the most number of robots per capita. : South Korea 347, Japan 339, Germany 261, Italy 159, Sweden 157, Denmark 145., United States 135, Spain 131, Finland 130, Taiwan 129. Number of robots in relation to 10 000 people residing in that country. China is currently the largest consumer of robots by far, the only differentiator is their large population, hence they are not on the list. With almost 400 robots for every 10000 people. South Korea is leading again. Yet Africa combined, is still not in the list.
- 25. Similarly, Artificial intelligence is a computerized system that performs tasks that are normally associated with people, enabled by advanced computing power, sophisticated algorithms and machine learning, encompasses compute methods such as: advanced data analytics, computer vision, natural language processing, semantics graphs, machine and deep learning. General AI ability of computerized systems to portray human-like intelligence across a multitude of tasks and Narrow AI Application of AI to accomplish a specific task or set of tasks. Examples of Artificial intelligence are Web searches, to enhance capabilities of search engines, Talk-to-text technology, Photo-tagging on social media and Fraud detection technologies used on online commercial platforms. Other examples are precision medicine e.g. advanced surgery, documentation of ailments, injury detection in emergency rescue missions and Autonomous driving technology.
- 26. During the discussion that ensued, AI was welcomed but at the same time but noted that it will make most of the human jobs redundant. Transportation, was elaborated as a prime example of AI where a few key technologies have catalyzed the widespread adoption of AI with astonishing speed. Autonomous transportation will soon be commonplace and, as most people's first experience with physically embodied AI systems, will strongly influence the public's perception of AI. As cars become better drivers than people, city-dwellers will own fewer cars, live further from work, and spend time differently, leading to an entirely new urban organization.
- 27. Enabling more fluid interactions between people and promising AI technologies also remains a critical challenge in Education, which has seen considerable progress in the same period. Though quality education will always require active engagement by human teachers, AI promises to enhance education at all levels, especially by providing personalization at scale. Interactive machine tutors are now being matched to students for teaching science, math, language, and other disciplines. It was noted that curriculum

in School should incorporate AI to enable Natural students adapt with the basic language Processing and machine learning.

Recommendation

28. The meeting recommended the need to expand school curriculum in order to incorporate AI to enable students adapt and master with the basic language Processing and machine learning

PLENARY PANEL 3: CONNECTIVITY: CONNECT AFRICA'S ENTREPRENEURS AND INDUSTRIES (FIRST PITCHING SESSION)

- 29. The objective of the session was to respond to the question on how can Africa's young technopreneurs with locally relevant technologies connect to main value chains through innovative partnerships? The session is looking at inspiring with African innovative solutions and creative approaches, inject fresh thinking into African challenges and highlight links between solutions and interact by receiving feedback from panelists and an engaged audience.
- 30. The session featured six young African Technopreneurs pitching their innovations/solutions to a panel of industry experts.

Entrepreneur 1:

31. Lilian Ndwate-Kenya: The first entrepreneur presented her idea which is aiming at training 10,000 women in Kenya on using technologies to connect them to the world and assist them to expand their businesses. She ended by calling upon interested parties to join her journey on achieving the targeted objective and grow to reach all African countries.

Entrepreneur 2:

32. **Boyon Holdings Botswana:** Taking into consideration of the high expense of fuel in power generation, the Young Entrepreneur proposed Power solutions for better future which is a self-powered generator that can back up other means of power generation. The target population is 12 percent off grid population. He finally called upon the audience for Mentorship and funding to test the prototype and Startup capital.

Entrepreneur 3:

33. Word View Technologies Namibia: The third entrepreneur proposed a solution to turn Human waste to human resources in a form of dry sustainable toilet that transforms waste into compost. He noted that behaviors change of users is critical for the success of his idea. He informed the audience that he's working on developing his idea to have Smart toilet that could make stool analysis and monitor health. Although the Price of the toilet is high compared to targeted populations, he mentioned that the role of local authorities is critical to build trust in the product.

Entrepreneur 4

34. **PEBL Namibia:** The entrepreneur presented his product called "Pebl", which is a microcomputer that can be used on every monitor and can resist on high temperature.

The advantage of the product is that it's small in size and cheaper than other similar products in the market. He mentioned that his product could be a solution to connecting the African Youth to the world.

Entrepreneur 5

35. Eco hub Botswana: In order to offer adequate housing to poor people, the fifth entrepreneur presented his product which are eco-houses built using recycled plastic that are transformed into eco bricks. He mentioned that his prototype is eco-friendly solution with an affordable price compared to other competitors on the market. Regarding to the Compliance with housing standards, he informed the meeting that testing of the prototype will be made soon.

Entrepreneur 6

- 36. Focus Surveys Botswana: The last entrepreneur presented his product called "Focus survey" which is a data collection and analysis tool that is already in the market. He informed the meeting that he's looking for partnership with companies that have more experience in the market which can assist his start-up to grow as well as for financial resources.
- 37. The Panel reviewed the pitching of the entrepreneurs and gave precious advice on the market study that needs to be made as well as on how to look for financial funding. Finally, all entrepreneurs were offered a mentorship and training on technics of pitching and how to develop their business models by Deloitte Africa.

PLENARY PANEL 4: BUILDING AFRICA'S CAPACITY IN SCIENCE AND TECHNOLOGY FOR INDUSTRIALIZATION 4.0 AND TECHNOPRENEURSHIP

- 38. The objective of the session is to explore the creation of frameworks that allow the development of regional collaboration that takes into account gender balance and youth, with the goal of equipping them with relevant and innovative science and technological skills.
- 39. This session was moderated by Dr Robert Nantchouang Senior Knowledge Management Expert, African Building Capacity Building Forum. During the ensuing panel discussions, it was unanimously agreed that *t*here is urgent need to review and reform the current education with view to aligning it with the needs of the 21st century where new technologies and connectivity are at the center of many innovations.
- 40. In light of the above, it was observed that it's necessary to initiate and promote innovation, science and technology right from lower classes to higher education and tertiary institutions for all school going children. Vocational Trainings and skills development towards mindset change and positive orientations was also mooted as a sure way of empowering women and youth with life skills that would enable them to engage in income generating activities hence improving there livelihoods

Recommendations

41. The meeting recommended the following:

- i. Establish and maintain an enabling environment conducive for the creation of innovation and research centres;
- ii. Call upon Member States to invest more in innovation hubs in order to improve innovation in the continent;
- iii. Enrich the education curriculum to make it more attractive to youth and providing job opportunities on the jobs market;
- iv. Ensure strong and consistent internet connection which is necessary for innovation and research; and
- v. Create a platform for regular public-private partnership dialogue on continental flagship projects.

PLENARY PANEL 5: THE CENTRAL ROLE OF PRIVATE-PUBLIC PARTNERSHIPS

- 42. The main objective of this session is to highlight the importance of Private-Public Partnerships to bring rapid technological advances in digitization, data analytics and artificial Intelligence to turbocharge productivity, performance, efficiency and safety of African industries. The session was moderated by Dr. Barend Taute, Manager ICT Contract R&D, CSIR Meraka Institute.
- 43. The meeting highlighted that Private-Public Partnerships are crucial for Africa to stay on top of emerging technology trends and harness their transformative potential to accelerate its economic transformation and sustainable development. Concrete examples of Public private partnerships to connect African industries, citizens and build capacity in science, technology and entrepreneurship were mentioned. In addition, the importance of connectivity, capacity building, skills development and entrepreneurship which are essential components of digitization, were also stressed upon. It was also noted that Governments should take the lead in in building digital infrastructure to attract investments from the private sector.

Recommendations:

44. The following recommendations were formulated:

- i. Need for clear regulatory framework of Public-Private Partnerships based on mutual interest and win-win situation;
- ii. Need for the African private Sector, especially Small and Medium Enterprises (SMEs) to be given a part of the local Government procurement Market;
- iii. RECs, which did not do so, should develop local content strategies that favors endogenous African Private Sector, especially SMEs;
- iv. PPP in Africa should focus on provision of energy infrastructure, transport infrastructure and ICT skills;

- v. Need to foster global connectivity by improving cyber security and enabling cross border data flows;
- vi. Strengthening development of infrastructure related to industry 4.0 especially through embracing artificial technology

DAY TWO

PLENARY SESSION 1: PAN AFRICAN INVESTMENT CODE (PAIC)

- 45. The main objective of this session is to discuss about the key to unlocking Africa's economic potential through questions about how to attract more investment to its shores in a highly competitive global investment market.
- 46. This session was moderated by Dr Thierry Kalonji Director, Investment, COMESA. The meeting was informed that the Commission of the African Union (AUC) was mandated during the third Conference of African Ministers in charge of Integration (COMAI III) held in Abidjan, Côte d'Ivoire, on 22-23 May 2008, "to develop a comprehensive investment Code for Africa with a view to promoting private sector participation".
- 47. The overarching objective of the Code is to achieve growth that is more inclusive and widespread through promotion and protection of investments, leading not just to equality of treatment and opportunity for investors, irrespective of their nationality, but to deep reductions of investment and trade barriers and a correspondingly large increase in jobs.
- 48. During the discussions, the need to foster local investment while giving duties to foreign investors was highlighted. This need stems from the current state of investment in Africa that it does not benefit the locality. Indeed, it seems essential today to benefit the local population through the establishment of the Pan African Investment Code (PAIC) which aims at promoting equality of treatment and opportunity of investors, irrespective of their nationality, whilst reducing investment and trade barriers.
- 49. In this context, the redistribution of incomes to population across industries and sectors in each country has been advanced. In addition, there is also a need to empower Africans to respect the policy of economic development. Also, it has been noted that there is an insufficiency of "African champions" who invest in the continent by adding value to raw materials and a lack of mastery of data, especially when we talk about the value of our soils.

Recommendations

- 50. The meeting recommended the following:
 - i. Use PAIC as a guiding instrument and call upon member states to be inspired by the code to amend their national laws and regulations on investment
 - ii. Upskill capacity of African negotiators on investment contracts through the development of capacity building programs.

PLENARY SESSION 2 – AFRICAN INCLUSIVE MARKETS EXCELLENCE CENTRE (AIMEC)

- 51. The objective of the session is to sensitize the private sector about the creation of the AIMEC and create awareness about the activities of the Center. This session was moderated by Dr Thierry Kalonji Director of Investment, COMESA.
- 52. The Commission presented AIMEC's strategy, mission, vision, pillars, proposed services and target audience. The meeting was then informed that AIMEC was in full alignment with Agenda 2063 and was aimed at supporting more inclusive markets and businesses, thus facilitating job creation, income generation, poverty reduction, regional integration and inclusive growth.
- 53. The presenter informed the meeting that Inclusive businesses have proven effective in creating opportunities for low-income populations. For example, the mobile money service M-Pesa offers financial services to more than 25 million customers, most of whom previously had no access to formal banking. Besides financial services, priority sectors that contribute to inclusive growth in Africa include agribusiness, energy, and information & communication technology. Inclusive market development is necessary to ensure that the benefits of growth are shared equally and to provide a conducive environment for inclusive businesses. He pointed out that Inclusive markets reinforce inclusive growth and regional economic integration, two explicit goals of the African Union and its partners. Inclusive businesses (IB) include the poor on the demand side as clients and customers, and on the supply side as employees, producers and business owners at various points in the value chain. Inclusive markets (IM) expand choices and opportunities for the poor and other excluded groups in their role as producers, consumers, entrepreneurs and employees.
- 54. The presenter noted that AIMEC is intended to become the premier pan-African regional platform for thought leadership and action on inclusive business (IB) and inclusive markets (IM), identifying, facilitating and replicating good practice and innovation in IB and IM policy, programming and partnerships. Ultimately, this will foster inclusive growth and regional economic integration in Africa. Finally, he informed the meeting that the STC on Finance, Economy, integration and Monetary Matters adopted the creation of the Center and requested the AUC to work on its operationalization.
- 55. The meeting highlighted the need for the AIMEC to work with various excellence Centers across Africa and build strong partnerships with them on sectorial issues. In addition, the meeting stressed on the need to evaluate the success stories on the continent but also learn from the lessons of the past. Finally, the meeting pointed out that the research component of AIMEC should be strong and focus on policies that affect the African Private sector but also build strong relationships with private sector actors.

Recommendations

56. The Forum recommended the following:

- i. Need for AIMEC to build strong partnerships with existing Excellence Centers across Africa
- ii. Create synergies between the work of AIMEC and other Centers
- iii. AIMEC needs to put more focus on research activities related to policies affecting the private sector actors.

PARALLEL SESSION 1: SMART CITIES, INFRASTRUCTURE, SMART TRANSPORT & LOGISTICS AND DIGITAL FINANCE

- 57. Smart cities was defined as the future of urban infrastructure. Technology is changing everyday city life, allowing us to instantly adapt to everything from storm threats to traffic jams. Smart city is needed for economic restructuring.
- 58. Some of the objectives identified are Provide basic infrastructure, quality of life, clean and sustainable environment, apply Smart Solutions, set examples to be replicated both within and outside the Smart City and catalyze the creation of similar Smart Cities. It aims at establishing a network of connected vehicles that can reach a high level of safety in driving with car-to-car communication. This will partly contribute to planning that will have a significant impact on future cars and play a role in making the transportation system more reliable and efficient. Robots are also likely to take part in transportation by carrying individuals and packages).
- 59. The increased sensing capabilities, adoption of drones, and the connected transportation infrastructure was raised as concerns about the privacy of individuals and the safety of private data. Therefore, these and related transportation issues will need to be addressed either by preemptive action on the part of industry or within the legal framework.

PARALLEL SESSION 2: GENDERED INNOVATION AND ITS IMPACT ON STISA 2024 AND AFRICA'S INDUSTRIALISATION AND DIGITAL HEALTHCARE

- 60. The presentation focused on Healthcare which is undergoing a global transformation, with Digital Healthcare Technologies leading the way. Companies such as BT Health, Blueprint Health, BUPA, Cisco, ElationEMR, Huawei, GE Healthcare, Microsoft, Telefonica Digital and Rockhealt are all developing novel and emerging Digital Healthcare technologies from Mobile Devices and Smart Apps to "Big Data" Analytics bringing new and exciting Digital Healthcare business propositions to market.
- 61. Changing healthcare service provisioning, regulation and patient demographics are putting increasing pressure on the healthcare industry to make significant improvements

in care quality, cost management, organizational efficiency and compliance. Priorities include the need to address challenging issues such as misdiagnosis, coding error, over / under treatment, unnecessary procedures and medications, fraud, delayed diagnosis, lack of preventive screening and proactive health maintenance. Improved collaboration within the organization with better information sharing, and a holistic approach to capture and action medical insights across the organization are crucial to success.

Recommendation:

- 62. The Forum recommended the following:
 - i. Need to Improve collaboration within the organization with better information sharing, and a holistic approach to capture ; and
 - ii. Action medical insights across the organization are crucial to success
 - iii. Call upon WHO to provide training to Government officials on data usage

PARALLEL SESSION 3: DIGITAL AGRICULTURE

- 63. Digital Agriculture was presented as an "intelligent" computer management and application system that includes many high technologies of, such as infomationization, digitization, network, automation. It was also described as is the use of new and advanced technologies, integrated into one system, to enable farmers and other stakeholders within the agriculture value chain to improve food production.
- 64. Technologies used include sensors, communication networks, Unmanned Aviation Systems (UAS), Artificial Intelligence (AI), robotics and other advanced machinery and often draws on the principles of the Internet of Things. Each one of these brings something valuable to farming from data collection, through to management and processing, as well as guidance and direction. This integrated system offers new insights that enhance the ability to make decisions and subsequently implement them.
- 65. It was observed that Digital agriculture has the potential to make agriculture more productive, more consistent and to use time and resources more efficiently. This brings critical advantages for farmers and wider social benefits around the world. It also enables organisations to share information across traditional industry boundaries to open up new, disruptive opportunities. However, although Digital agriculture has the potential to transform the way we produce the world's food but the approach is still very new, costs are high and the details of the long term benefits are rarely available. That means to secure its widespread adoption will require collaboration and consensus across the value chain on how to overcome these challenges.

Recommendation

66. Digital agriculture can vastly increase efficiency as well as create new markets and opportunities. Member States are therefore requested to emulate this new technology

in order to enhance their potential skills and transform their technology as well as their economy.

Parallel session 4: The critical role of publicly funded African research and technology organizations

- 67. This session deliberated on the critical role of research and development in Africa and how research and development is important for industrialization. This session was moderated by Dr. Ndumiso Cingo, Innovation Manager, CSIR, South Africa.
- 68. It was noted from the discussions that Africa lags other continents in research and development and that this is the cause of Africa's low levels of industrialization. In addition, it was observed that innovation is the cornerstone of economic growth which can create employment and addresses development challenges such as providing access to drinking water and eradicating neglected diseases. Public research is crucial for innovation due to their role in knowledge creation and diffusion and it helps industries to expand their capabilities. Research and technological innovation could contribute to reducing hunger by producing crops that are highly nutritious.
- 69. It was observed that African research and technology organizations that are publicly funded are facing challenges of fiscal constraints on STI. In this respect, it was mentioned that Sub Saharan countries spend less than 1% on research and development against America and Europe's 50% and South Africa is ranked 30 globally in research and development spending.

Recommendations

70. The following recommendations were made:

- i. Need to promote home grown solutions for industrial development in African countries and invite the latter to collaborate among themselves to develop research and build partnerships;
- ii. Call upon Member States to promote creating platforms for research and technology collaborations and partnerships; and
- iii. Invite the African union Commission to create a continental institution that will look at research and development activities in the continent

DAY THREE

TECHNPRENEURSHIP PITCH SESSION

- 71. During the last day, five young African entrepreneurs made their pitch:
- 72. We fly agri: it's a start-up that looks at providing solution to big farmers to monitor their lands using drones piloted from distance using their mobile phones or any connected platform. The start-up started its activities since two months and already have got partnerships with major telecommunication company in Cote d'Ivoire, Orange.
- 73. **M+ Matibabu**: Portable device that can detect malaria in 2 minutes using an innovative technology and is cheaper than the other devises that exist on the market. The entrepreneur has developed four different prototype and is running the necessary laboratory tests to get the approval to commercialize his product in Uganda.
- 74. **Wekebere**: it's a quick and reliable fetal monitor portable device. Approximately 830 expectant mother die every day from preventable causes related to pregnancy complication. Prenatal checkups are inconveniencing, expensive and limited to old technology and and the new device could be a solution to this problem. The advantage of the device its affordability, ease of use, real time monitoring, using rechargeable battery and reusable.
- 75. **Egyhifu**: Digital platform that enables to connect the patients from the rural areas to specialized doctors in the big hospitals and clinics. The platform is used to communicate all patients test and analysis that are far away from hospitals to doctors before surgery or to give the necessary treatment.
- 76. **YYTZagro**: Young entrepreneur from Zanzibar that produces Cashew nuts and is looking for partners to process his product and add value to it. In addition, he's looking for advice on how to market his product and penetrate markets.
- 77. The panel reviewed the pitching of the young entrepreneurs and provided them with the necessary advice on how to better pitch, present their idea in a comprehensive manner, how to market their product, access funding and partnerships. Finally, the panel encouraged the young entrepreneurs for their idea and innovations.

VII. CLOSING CEREMONY

Closing Statement – Mmampei Chaba, Chief Director, Multilateral Cooperation and Africa, DST

78. In her closing remarks, the nominee of Mmampei Chaba, Chief Director, Multilateral Cooperation and Africa, DST, highlighted the ability of African youth to be innovative. She stressed the African demographic dividend in favor of innovative solutions for the continent and the rest of the world. She outlined the richness of the plenary sessions with special mention for the Pan-African Investment Code (PAIC) and the African Inclusive Markets Center of Excellence (AIMEC) in a desire "to close and to open up the door on the outside world at the same". She encouraged open communication between the private and the public sectors. Further, she urged the organizers to bring the recommendations to the Pan-African strategic level as well as to make a proposal to the next Summit and to forward them to the AUC Heads with a suggestion to integrate the forum's sessions in the next African Economic Platform.

Closing Statement – Dr. René N'Guettia Kouassi, Director for Economic Affairs, AUC

79. In his closing statement, Dr. René N'Guettia Kouassi, Director for Economic Affairs, AUC, did not fail to express the appreciation of the AUC to the organizers and participants for their positive contributions and inputs to the success of the forum. He underlined the importance to take the opportunity offered by science and technology as well as entrepreneurship to accelerate the African industrialization 4.0. He also praised the quality and richness of the various interventions and recommendations from the sessions of this 9th African Union Private Sector Forum. He particularly highlighted the need for Africa not to miss the digitization train through the "essential therapy of education". In order to adapt to the digitization flexibility, he stated in favor of Afrooptimism, the creation of partnerships and the taste of risk. He stressed that "Africa does not have the right to be discouraged to achieve its goals".