

REPORT



4-6 February 2014

Praia, Cabo Verde

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“When we speak about innovation, dear friends, we are speaking about the future, what future for us? What future do we aspire to? What attitude should we adopt? Will we act or acquiesce?”
H.E. Pedro Pires - AIS 2014 Patron, Former President of Cabo Verde

“The first thing we need to ask ourselves is - do we have the right politics to drive innovation. Politics that is people centered and focused on service delivery as well as the conviction that things must change for the better...to create an environment that nurtures innovation for today and for tomorrow.”
H.E. Paul Kagame - President of Rwanda

“Innovation, an inherent characteristic of Man, which in the current context has assumed an extraordinary dimension due to scientific and technological progress, should encompass all social activity, not be limited to the, nevertheless important, economic sphere.”
H.E. Jorge Carlos Fonseca – President of Cabo Verde

“No country overcame the challenge of poverty reduction and wealth creation, no region overcame the challenge of development without having proven its ability to create and innovate.”
H.E. Jose Maria Neves – Prime Minister of Cabo Verde

“This initiative is very appropriate and timely...We have moved on from the world of trading in materials and commodities to the world of trading in knowledge products... and that means innovation.”

Donald Kaberuka - President, Africa Development Bank

“Without culture we merely invent, we do not innovate.”

H.E. Mario Lucio Sousa - Minister of Culture of Cabo Verde

“It is very timely...for the Africa Innovation Summit. Growth rates are stabilizing in Africa. It is the time for Africa. It is the time for Africa to commence the intensive process of adding value and innovation will be the principle vehicle by which this is done.”

Francis Gurry - Director-General, World Intellectual Property Organization





Contents

Acknowledgements | 11

- 1. Introduction | 13**
- 2. AIS Agenda & Summit Program | 15**
- 3. The Summit | 18**
- 4. Conclusions & Recommendations | 66**
 - 4.1 The Main Messages | 67**
 - 4.2 Developing Innovation Systems: Insights and Highlights | 69**
- 5. Next Steps | 72**

Annexes | 73

- A. Assessment of AIS 2014 | 73**
- B. Exhibit: African Innovations | 79**
- C. Program Facilitators and Panelists | 82**
- D. Partners, Sponsors and Contributors | 86**
- E. Africa Innovation Summit TEAM | 87**



H.E. Paul Kagame
President of Rwanda



H.E. Jorge Carlos Fonseca
President of Cabo Verde



H.E. Joaquim Chissano
Former President of Mozambique

Leading Innovation Conversations with Presidents





Dear friends and colleagues,

It is with a great sense of achievement that I thank you for hearing our call to join us in Cabo Verde to explore what I believe is possibly the biggest challenge of our time: How do we transform Africa? Your participation in the first Africa Innovation Summit was invaluable and an important step in our shared goal of rallying Africa for a new cause: promoting innovation for the socio-economic transformation of our continent.

Innovation for us is about the future. What future for us? What future do we aspire to? What attitude do we adopt? Will we act and lead or do we continue to simply acquiesce?

This is why I decided to join this effort to promote and make innovation a key element of Africa's development agenda. The Summit was a clear action and an important step, which we took together.

Innovation is a pre-requisite for growth and transformation. No other region has transformed their economies and societies without embarking on strategic agenda to promote innovation. We must seek creative ways to address the complex challenges facing us. No one can solve our problems but ourselves. It is our duty and legacy for future generations.

For us, the AIS 2014 was only a beginning. The goal is to build a coalition of people from across the continent and elsewhere to move this agenda forward. We are counting on you going forward to continue this effort. We all need to be the champions and actors for the recommendations that have emerged from this Summit.

Thank you for your commitment in working towards the transformation of Africa.

Warmest regards,

Pedro Pires
Patron of the Africa Innovation Summit
Former President of Cabo Verde (2001-2011)
2011 Mo Ibrahim Leadership Prize Laureate



Message from AIS Directors

Dear friends and colleagues,

We want to take this opportunity to thank you for joining us in the first Africa Innovation Summit, which for us is a beginning of an adventure. Our goal is Africa's transformation. We believe it is crucial that we all engage to promote and make innovation a key element of Africa's development Agenda. It is the only way to realize our goal of socioeconomic transformation. The summit was an important beginning.

We would like to thank our official partners in this effort, the Government of Cabo Verde, the African Development Bank, NEPAD Agency, the ECOWAS Commission as well as the Ministry of Finance, SME Capacity Building and Economic Governance Project, the Agency for the Development of Entrepreneurship and Innovation (ADEI), the National Assembly and the Unit for the Coordination of State Reform (UCRE). We would also like to thank our sponsors World Intellectual Property Organization (WIPO), Unitel T+, the Arab Bank for Economic Development in Africa (BADEA), Afriland First Bank Group, and Cellular Systems International (CSI). A warm thank you also to all our contributors Office of the Deputy Prime-Minister, National Communications Agency (ANAC), Ministry of Rural Development, Ministry of Youth, Employment and Human Resources, Ministry of Environment, Housing and Territorial Planning, Ministry of Education and Sports, Ministry of Infrastructure and Maritime Economy, Ministry of External Relations, Ministry of Higher Education, Science and Innovation, Ministry of Tourism, Industry and Energy, NOSI, Bolsa de Valores (BVC), Alfa Comunicacoes, Embassy of Brazil, Embassy of China, Tecnical Industria , ASA, ENACOL and the United Nations Development Program (UNDP).

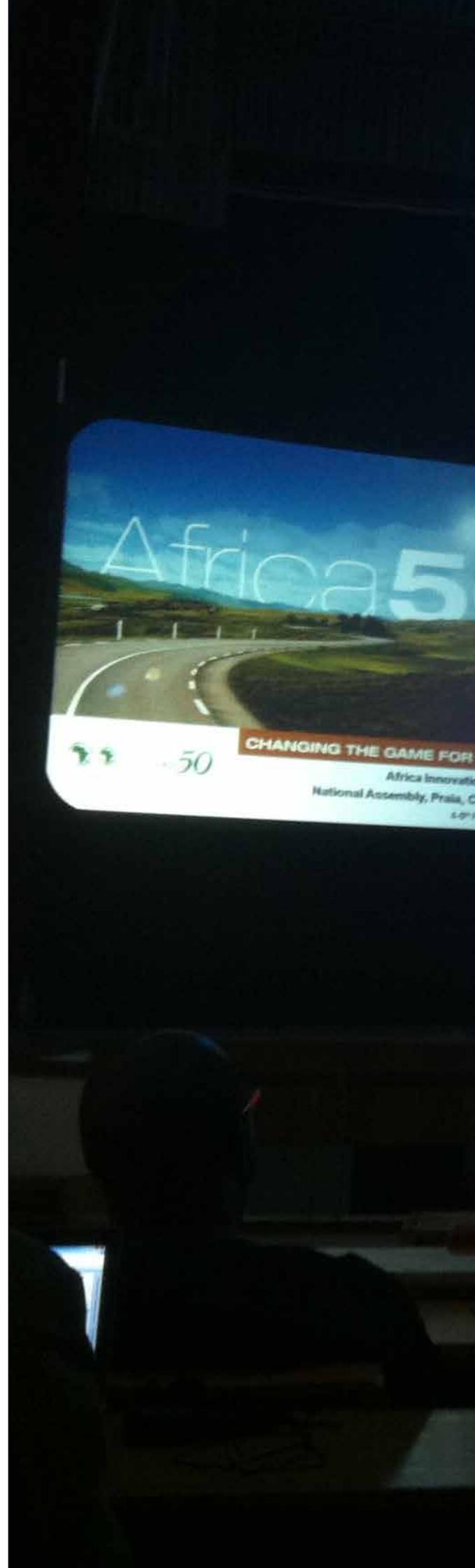
Our gratitude goes to all of our panelists and facilitators who played a critical role in the success of this event as well as to the innovators and exhibitors who showed us that we are beginning to build an innovation ecosystem in Africa. We would also like to thank all of the participants without whom we would not have had a Summit. Thank you for taking the time to be part of this adventure. Our heartfelt thank you to our team of volunteers, service providers who worked tirelessly planning and organizing this Summit.

Our best regards,

Olugbenga Adesida, PhD and José Brito
Directors of the Africa Innovation Summit

Acknowledgements

This report was written by Patricia Anahory and Olugbenga Adesida. We would like to thank the many colleagues who provided support in its preparation. A special thank you to Lucineida Fonseca, Geci Karuri-Sebina, Erika Kraemer-Mbula, Sandro de Brito, Mammo Muchie, Aidan Eyakuze, and Nicholas Perkins for invaluable session notes. We would also like to thank Emmiliene Macauley and Serge Djohy for the preparation of the AIS 2014 participant's assessment and Joao Resende Santos for reviewing the report. Thank you!



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January 2014



Introduction

This document presents the report of the first Africa Innovation Summit (AIS) held in Cape Verde from 4-6th February 2014. The AIS is an initiative of IHABA, a Cape Verdean firm established in 2012, with the mission of promoting innovation in Africa. The AIS was organized under the Patronage of H.E. Pedro Pires, the former President of Cape Verde and the 2011 Mo Ibrahim Leadership Laureate and in partnership with the Government of Cape Verde, the African Development Bank, the NEPAD Agency and the ECOWAS Commission.

Many sponsors and contributors supported the initiative that by all accounts was a major success. This success came from the enthusiasm received from many corners of the continent for what the AIS represented and for providing a platform for an inclusive “people’s summit” on a crucial issue of our time: turning the current growth phenomenon into socioeconomic transformation in Africa. The reality is that African economies have posted robust economic growth rates for over a decade. As a result, a new storyline has emerged in the popular imagination of a new Africa. This storyline is that of Africa rising, exemplified by the Economist cover story of 2011. Africa has, for many, become the new frontier.

Despite the “new” global headlines, there is a realization within the continent that there is a need for structural transformation. The current growth is not enough to change the status quo. Addressing the challenges facing the continent will require dramatic shifts, especially with the changed global landscape of the 21st century. African countries must structurally transform their economies as opposed to managing poverty. There is a need for African countries to effectively engage and compete in the global marketplace in order to realize and deliver development dividends to their populace. These were the exact concerns in the first Africa Innovation Summit.

The first edition of the Summit brought together over 350 participants from across the continent and beyond. Over 30 countries were represented. The participants included investors, innovators, entrepreneurs, business angels, and academics. The Summit included a series of dialogues on critical issues such as innovation and Africa’s transformation, best practices in policy-making, finance, education and entrepreneurship. The NEPAD Agency organized a side event on measuring innovation in Africa. Other special activities included an exhibition of African innovative products and services, presentation of the Africa50 program by the African Development Bank as well as the presentation a venture capital fund by Cabo Verde’s agency for entrepreneurship and innovation.

What is clear is that Africa’s current growth spurt can only be sustained through expanding its productive capacities and capabilities, and ensuring that Africa possesses the set of competencies that have become increasingly acknowledged as pre-requisites for development in the so called “knowledge economy.” All Summit participants agreed that Africa is innovating and can compete. However, we must upgrade our capabilities and build robust national systems of innovation in our countries.

The three-day event in Praia was eye opening and it is clear that Africa needs a forum on innovation and economic transformation. The Summit provided a platform for various stakeholders who normally do not meet or work together to focus on an issue that is critical to the future of

the continent. It also provided a forum to share ideas, learn and to build bridges for collaboration that cut across sectors and across countries. Moreover, such a platform is urgently needed in an environment where we need to consider what next, post-2015.

Jose Maria Neves, the Prime Minister of Cabo Verde, spoke about the trajectory of Cabo Verde. He noted how innovation is a key strategy for the future transformation of Cabo Verde and the African continent. President Kagame spoke about the importance and need for innovation pointing to the primacy of policy and leadership for innovation as well as the need to align actions with visions. He also noted that innovation is transversal and culture can itself be a source of innovation. Former President Chissano asserted the creativeness of the independence fighters in Africa, noting that the fight for independence was an innovation. He asserted that lessons could be learned from that period to help push for a more innovative Africa.

The relevance and importance of culture was also addressed throughout the Summit. As noted by Cabo Verde's Minister of Culture, Mario Lucio, "Without culture we merely invent, we don't innovate". The Nigerian Journalist, Adetokunbo Abiola, indicated how the emergence of Nigerian cinema industry, which is now the second most prolific in the World and one of the main employers in Nigeria, "is a disruptive technology". On culture, President Kagame referenced two examples: the first of which is "Gachacha", a traditional approach to settling disputes and to mediate personal and community problems through dialogue to promote reconciliation. As explained by President Kagame, this cultural practice was adapted for the genocide trials in Rwanda and the result today is that while "Gachacha" courts have tried millions of cases the International Criminal Tribunal for Rwanda (ICTR) has only tried about 60 people, after 20 years. In addition, he said, the "Gachacha" has cost millions of US dollars while the ICTR has cost the international community over 2 billion US dollars. The President also noted how traditional practices of personal responsibility have been adapted to become performance contracts for government officials in Rwanda.

There is a need to build a more systemic culture of innovation on the continent in order to shift/transition from 'stars' and 'islands of excellence' to a truly innovative economies in Africa. This will require building a robust national system of innovation in which all actors from all sectors, including education, finance, and government will play their part. There is a need for a virtuous circle.

An important conclusion from the various discussions is that innovation does not arise from the actions of a lone actor. Innovation is systemic and interactive. From the educational system, the private sector, to the community, there must be concerted efforts. The educational system must be excellent. Researchers and academics cannot be isolated and must engage with real life challenges. Moreover, there must be innovative entrepreneurs as well as a system of financing available for them. Governments must provide the right policies and assist in building a propitious environment. The community must also play a key role in advocacy and trying to influence the system to move in the right direction.

This report provides detailed information on the first Africa Innovation Summit and it is presented in five sections. Following this introduction, the second section presents the overall agenda for the Africa Innovation Summit, including the pre and post-Summit activities. The third section focuses on the various sessions of the Summit, the fourth section presents the main conclusions, recommendations and the fifth, what the next steps will be.

2. AIS Agenda and Summit Program

The AIS is part of a large-scale agenda to promote innovation in Africa. This agenda encompasses biennial high-level policy summits and related activities. The only sustainable way forward for Africa's development is through structural transformation. However, this can only be achieved if African societies and economies are driven by innovation and creativity. The AIS agenda therefore aims to build platforms to engage all key stakeholders in an ongoing dialogue on the issues of promoting innovation and making innovation a crucial element of Africa's development agenda. The first AIS included several projects and activities related to this goal.

The first in the series of activities was the publication of a special issue of the African Journal for Science, Technology, Innovation and Development on "How can African countries build innovation driven economies" (Volume 5, Issue 1, 2013). The process for preparing the special issue initiated in February 2012 with an open call for abstracts on the theme. The publication aimed to promote an Africa-wide multi-stakeholder dialogue on innovation. The articles published facilitated an understanding of the key issues and also suggested ways forward, focusing on the "what" and "how" to promote innovation in Africa. It included a set of critical articles on themes such as technical change in Agriculture, the implications of microfinance for entrepreneurship and innovation, the role of technology in emigrant transfers, manufacturing, and knowledge sharing.

A companion initiative also launched as part of the agenda is an ongoing research project on the ecosystem of emerging African innovation centers in Africa. The research project will contribute towards building the knowledge base on emerging innovation centers in Africa. It will document the realities on the ground in selected countries and provide an examination of some of these emerging centers, using framework of the national innovation system. Ten case studies were commissioned which will provide detailed analysis of the centers, lessons of experience, as well as policy recommendations for practitioners. Most of the initial findings of the cases studies were presented in workshops at the first Africa Innovation Summit. The case studies will be published in an edited volume. The agenda going forward includes institutionalizing the AIS and developing other activities to focus on addressing the key constraints to building robust innovation systems in Africa.

The first AIS included special events, plenary sessions and a series of workshops. Below is the full program.

Africa Innovation Summit

February	Time	Session Type	Session Title
1-2		Special Event	<i>NEPAD Agency's 2 day workshop on Monitoring, Evaluation and collection of STI Measurements in Africa</i>
3	1100-1600	Day Tour	<i>Tours of Santiago Island</i>
	1200-1800	Exhibit	<i>African Innovations Exhibit of innovative services and products from Africa</i>
	1830-1900	Exhibit Launch	<i>Official Launch of Exhibit: African Innovations</i>
	1900-2000	Networking	<i>Welcome Cocktail by Praia's Municipal Government</i>
4	0730-0830	Registration	<i>Registration</i>
	0830-0900	Special Event	<i>Opening Ceremony</i> by H.E. the Prime Minister of Cape Verde and AIS Patron H.E. Pedro Pires
	0900-1100	Plenary A	<i>Innovation and Africa's Transformation</i>
	1130-1300	Workshop A1	<i>Services: Mobile Technologies and Electronic Governance</i>
	1130-1300	Workshop A2	<i>Transforming Agriculture into a Growth Engine</i>
	1100-1300	Workshop A3	<i>Facilitating Innovation: Hubs, Parks and Clusters</i>
	1300-1400	Lunch	<i>Lunch Buffet</i>
	1400-1600	Plenary B	<i>Best Practices in Innovation Policy-Making</i>
	1600-1730	Workshop B1	<i>Institutions that Drive and Support Innovation</i>
	1600-1730	Workshop B2	<i>Policies & Regulation: Building an Enabling Environment</i>
	1600-1730	Workshop B3	<i>Innovation Policy: Lessons from the Global South</i>
	1600-1730	Workshop B4	<i>Oxford University: Diffusion of Innovation in Low Income Countries</i>
	1730-1830	Special Event	<i>NEPAD Agency: AU's Technology and Innovation Strategy for Africa 2024</i>
	1930-2200	Networking	<i>Dinner & Cultural Night - Offered by the Government of Cabo Verde</i>
5	0900-1100	Plenary C	<i>Education and Innovation</i>
	1100-1300	Workshop C1	<i>Education Policies that Promote STEM</i>
	1100-1300	Workshop C2	<i>Learning Beyond Boundaries</i>
	1100-1300	Workshop C3	<i>Research in African Universities: Challenges and Opportunities</i>
	1300-1400	Lunch	<i>Lunch Buffet</i>
	1400-1600	Plenary D	<i>Innovation & Entrepreneurship</i>
	1600-1730	Workshop D1	<i>Getting Ideas to Market & Building Innovative Firms</i>
	1600-1730	Workshop D2	<i>African Success Stories: Innovative Entrepreneurs</i>
	1600-1730	Workshop D3	<i>African Culture as a Driver of Innovation and the Creative Economy</i>
1730-1815	Special Event	<i>Leading Innovation: Conversations with Presidents</i>	
6	0900-1100	Plenary E	<i>Financing Innovation</i>
	1100-1300	Workshop E1	<i>Engineering Financial Markets to Support Innovation</i>
	1100-1300	Workshop E2	<i>Innovative & Non-Traditional Financing Options</i>
	1100-1300	Workshop E3	<i>AfricaLICS: Learning Innovation and Competence Building in Africa</i>
	1100-1300	Workshop E4	<i>ADEI's presentation of Cabo Verde Venture Capitalist Fund</i>
	1300-1400	Lunch	<i>Lunch Buffet</i>
	1400-1500	Special Event	<i>Financing Instruments: 1) AfDB: Africa50 Fund; 2) xSeedsAfrica: K-Fund for Innovation & SQR1 Accelerator</i>
	1500-1600	Plenary F	<i>Call to Action</i>
	1600-1630	Special Event	<i>Closing Ceremony by H.E. the President of Cape Verde</i>



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3 The Summit

“The quality of our individual, national or continental future will depend, in good measure, on the skills of our human capital, in other words, in our ability to innovate.”

Pedro Pires

VERDE 2014



Opening Ceremony

February 4, 2014

Speakers:

H.E. Pedro Pires, Patron of AIS 2014

H.E. Jose Maria Neves, Prime Minister, Cabo Verde

During his welcome speech at the opening ceremony, AIS' Patron Pedro Pires, supported the view of innovation as the motor for the development of Africa indicating the importance of promoting science and technology development in parallel with cultural and knowledge growth. Pires called for public policy-makers to place research and development as their top priorities underlining the need for investment in research and knowledge production. He spoke of how investment in higher education together with building of conditions to promote entrepreneurship are key strategies for development. AIS's Patron also emphasized the need for a cooperative vision and ambition as well as the necessity to identify the challenges that hinder the rise of innovation.

“Innovate to transform and transform for development is the demand before us here and now. Transform to break from the paradigm of poverty management and the status quo. And innovate in the paradigm of sustainable and socially distributed wealth creation for African citizens.” - Prime Minister José Maria Neves

The Prime Minister of Cabo Verde spoke of the country's vision in the process of transformation, what he termed the 'transformation agenda' based on the culture and practice of upgrading, renewing and innovating resulting in a wide range of key innovations ranging from technological, scientific, economic, to political and social. He highlighted the importance of public-private and international collaborations and partnerships, and reinforced the idea of innovation as the determining factor for the success of nations.

The first day of the Summit focused on the overarching theme of innovation as a key element for the socio-economic transformation of African economies and the institutions and policies needed to support this.

Plenary A

Innovation and Africa's Transformation

Facilitator: John Ohiorhenuan, Professor and Former UN Resident Coordinator, South Africa
Panelists:

Bright Simons, CEO, M-Pedigree, Ghana

José Maria Neves, Prime Minister of Cabo Verde

Francis Gurry, Director General, WIPO, Switzerland

Djefflat Abdelkader, Vice President of Globelics & Professor, University of Lille, France



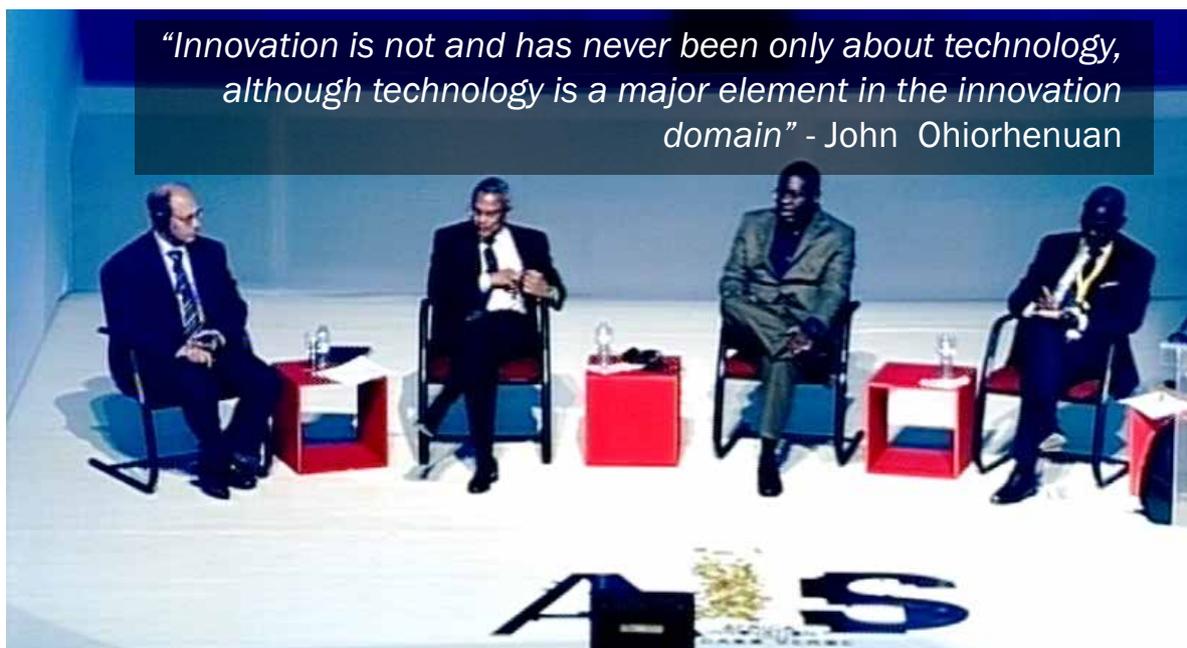
The African story over the last decade is one of a continent on the move. African countries, on the average, have maintained robust growth figures despite global economic crisis and subsequent anemic recovery. The question as well as the challenge is whether the current growth is sustainable. Innovation is critical to growth and development in Africa and its growth will only become sustainable and lead to transformation if we are able to build innovation-driven economies and societies.

The plenary session proposed a broad discussion on what should be the African Innovation Agenda and appropriate innovation strategy for the continent.

The plenary session hosted a wide range of key speakers who presented diverse viewpoints on the overarching issue of innovation and the transformation of Africa from their respective roles, in academia, private sector and as heads of government and international institutions.

John Ohiorhenuan initiated the discussion by stating, “Innovation is not and has never been only about technology, although technology is a major element in the innovation domain”. He reinforced the idea that it is not a specialized subject and elaborated on six key characteristics of innovative/innovation processes, pointing to policy regime requirements, complex interactions, the impact of incremental processes (not always eliciting structural breaks) and trial and error as the backbone of innovation.

“Innovation is not and has never been only about technology, although technology is a major element in the innovation domain” - John Ohiorhenuan



The Prime Minister of Cabo Verde presented his government’s vision and experience in the transformation process pointing to good governance as a necessary precondition in this process, and highlighted the need to create institutions capable of giving response to the requirements of transformation including the capacity to create knowledge as a key element in the needed organizational change.

The distinguished innovator Bright Simons expressed the view that innovation is not fundamentally or exclusively technological but profoundly social in character. Simons highlighted the disruptive and intrinsically political nature of innovation when he said that it is predominantly a political revolution. Professor Abdelkader spoke of the role of industry and the need to explore and take advantage of BRICs in the search for appropriate technological solutions that are more adapted to Africa’s reality.

During the discussions, there was repeated emphasis on the need for a vision in leadership as fundamental to create the conducive conditions to drive innovation. Also noted was the potentially disruptive character of innovation is seen as a threat to the stagnant status quo of African agendas. It was noted that this results in resistance to change that innovation engenders which was pointed out as one of the biggest challenges.

There seems to be a dichotomous position set between ‘the youth’ who predominantly drive innovation and the leaders who resist change and maintain the status quo. The discussions also pointed to the lack of accord and intellectual difference between formal innovation at a risk-averse grand scale and the reality on the ground, which is diffuse, experimental and more open to risk through trial and error. A call for demand-driven innovation was made as there seems to be a lag between what is being created and what is needed.

Workshop A1

Services: Mobile Technologies and E-Governance

Facilitators: Anne Stubert and Naoko Koyama, Dalberg, Senegal & Kenya

Panelists:

Jorge Lopes, President, NOSI, Cabo Verde

Kariuki Gathitu, CEO, Zegetech, Kenya

Kabirou Mbodje, CEO& Founder, Cellular Systems International, Senegal

As the dispersion rate of mobile technologies increases, innovators can leverage these technologies to tackle some of the continent's most pressing issues. In doing so, they are transforming the relationship between businesses and customers as well as citizens and the state. Mobile technologies and the Internet are also transforming the relationship between the State and the Citizen by creating applications for electronic governance.

This workshop proposed a discussion on the growing role of mobile technologies and e-governance in creating a space for innovation on the African continent.



This session showcased some key examples of mobile technology services while highlighting their potential and reach particularly in providing key solutions and services to a large percentage of the population who does not have access to the financial sector. Importantly, the session highlights what is happening on the ground in Africa with respect to innovation in the mobile technology space. The founders of Wari and Zegetech spoke of the impact that Mobile technology has on the day-to-day lives of the population and reinforced the notion that innovation is driven by need. Jorge Lopes presented NOSI's projects in Cabo Verde highlighting the benefits of its e-governance products, which increase efficiency, transparency and the quality of services provided to citizens.

Among the challenges noted was the lack of interconnection/cohesion within the African continent calling for a more united continent and the need for a common platform.

Also discussed was the importance of regulation, a key concern and a barrier in the mobile financial services space. They emphasized the need for the central banks to create appropriate regulation frameworks to build a more conducive environment.

Workshop A2

Transforming Agriculture into a Growth Engine

Facilitators: Hippolyte Fofack, World Bank Institute, USA

Panelists:

George Ominde Okongo, Researcher, Maastricht University, Netherlands

Julius Gatune Kariuki, Senior Policy Advisor, ACET, Ghana

The agricultural sector is one of the largest employers on the African continent. In recent years, mobile technology has begun to make a difference in the lives of African farmers. Despite these innovative developments, farming on the continent continues to be mostly subsistence and farmers continue to face major constraints. The rate of adoption of new technology and modern farming practices is very low. Access to finance remains a constraint as in the other sectors of the economy. Access to markets is also a problem as a result of inadequate, unreliable, costly transportation and limited post-harvest facilities. Weak human and institutional capacity for sector management hampers water management, applied research, and extension services. These problems have undermined value chain development and, especially, the growth of agro-processing. The result is a continent that continues to be a major net importer of food products, and an agricultural sector characterized by weak industrial transformation. This workshop examined a range of issues involving innovation in production, processing, commercialization, and technology adoption.



This session highlighted some of the key challenges and opportunities for transforming Agriculture into a growth engine and for the socio-economic transformation of African economies. The prospects for innovation to play a decisive role in agricultural development are significant, taking into consideration that 60% of the planet's arable land is in the African continent, as well as the increase worldwide demand for land and agricultural commodities. Among the various factors noted as necessary for agricultural development were the needs to increase efficiency, reduce bureaucracy and create effective policies to promote change.

There was a call for a holistic approach on how to create and apply policy. In addition, the need for coordination between the different levels of government and a clear understanding of what the role of organizations such as NGO's and other platforms should play was highlighted. In conclusion, the agricultural sector requires a comprehensive approach at different levels and stages. Innovation can play a key role in increasing efficiency.



Workshop A3

Facilitating Innovation: Hubs, Parks and Clusters

Facilitator: Geci Karuri-Sebina, Chair, Millennium Node, South Africa

Panelists:

Erika Kraemer-Mbula, Research Fellow, Tshwane University of Technology, South Africa

Neville Raymond Comins, Consultant, South Africa

As mobile devices quickly become the primary tool for internet access on the continent, many opportunities are opening up for young people with technological skills, ambition and entrepreneurial drive. Innovation hubs and parks across Africa create the conditions for them to congregate, network, program and design their way to developing some of the software solutions and mobile applications that are transforming the landscape in their communities.

These hubs and parks are major drivers of education and research, not only in mobile technologies, but also for innovations in other economic sectors.

This workshop asked whether technology hubs or parks are the answer to the innovation challenge in Africa.



The workshop presented a range of lessons from the implementation experience of hubs and parks in five southern Africa countries.

The research showed a range of models, which have different underlying principles designs, and functioning as well as the advantage and challenges of each model. However, it was agreed that there is a need for more systematic research and measurement on the topic of Innovation Hubs and Science and Technology Park models and performance.

It was noted that it is important not just to jump into developing a hub / park, but first to conceptualize the problem and solution properly, based on evidence. They emphasized the need to clarify the principles and concepts and well as to understand the context deeply. It was also agreed that there is no single 'franchise' model to follow in developing technology parks/hubs.

The panelists mentioned that innovation is a social, not a technological behavior. As such stakeholders and relationships matter in achieving appropriate and successful innovation hub/technology park (IH/STP) solutions. Key stakeholders and relationships between entrepreneurs who are at the core, Government that can enable and facilitate, international and multinational companies as well as research and education institutions should also be considered and linked.

In summary, pursuing IH/STPs should be done deliberately, with caution, and with effort made to learn from experiences elsewhere in Africa. The focus should always be maintained on the facilitation of innovation systems that are relevant and contextualized; not on fancy facilities and expensive infrastructure, which will take much time and capital to achieve. This is what the experience from Africa is showing so far.

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Plenary B

Best Practices in Innovation Policy-Making¹

Facilitator: Nicholas Perkins, Director, SciDev.Net, UK

Panelists:

Fernando dos Santos, Director-General, African Regional Intellectual Property Organization (ARIPO)

Adigun Abiodoun, Chair, Africa Space Foundation, USA

William Asiko, CEO Investment Climate Facility (ICF), Tanzania



Most African countries now have nearly five decades of managing their development process. The result to-date, when one examines Africa's performance relative to other regions, has not been a resounding success. We continue to lag on most if not all metrics of innovation. Nonetheless, there is reason for hope given recent advances and the fact that there are now clear lessons for Africa from the experiences of other regions as well as from the continent itself.

The rapid growth in the use of mobile telephones around the continent is an indication of what is also possible, with improved connectivity. The challenge however is that Africa remains largely a consumer economy when it comes to the fruits of science, technology and innovation (STI). This calls for a change in Africa and its development partners to shift from focusing development on managing poverty to engineering socioeconomic transformation. The key question that African policy and decision makers must confront now is "how can Africa also become a producer and exporter of technologies? What policies can facilitate such a shift from consumer to producer?"

¹ The write up on Plenary B borrows from a report by Nicholas Perkins who facilitated the session. See <http://www.scidev.net/global/innovation/scidev-net-at-large/top-tips-for-building-policy-for-innovation.html>

The plenary session, counted with the participation of three of the existing and emerging institutions in Africa who are recognizing and supporting innovation, ARIPO, ICF and Africa Space Foundation. The panelists spoke of various initiatives and the reality that there is no single blueprint for innovation policy-making. The discussion pointed to the need for Africa to focus on knowledge creation and improvement of research and development (R&D) in universities and institutes as well as the critical need for the protection of intellectual property, as key elements for creating conducive environments for innovation.

Adigun Abiodun, said that universities should be incubators for innovations and innovators. It is crucial to **invest in the existing potential**. He pointed to the number of examples from South Africa, including the demarcation of the Year of Engineering, Science and Technology (YEAST) in 1998.

Both Abiodun and Fernando dos Santos, identified the lack of **intellectual property** (IP) rights as a critical challenge to building innovation, pointing out that only 2 per cent of global patents in the last 40 years are from less developed countries. ARIPO's Director-General pointed to the need to increase the number of African patent applications and the integration of intellectual property in the national development strategies in order for there to be a better understanding of how Intellectual Property and the ability to protect ideas fits into the innovation cycle.

Another important point discussed is that innovators need to **commercialize their ideas**. This means cultivating a healthy private sector and supporting access to capital. William Asiko was particularly outspoken about the need to reward innovation.

The necessity to **encourage demand-led innovation** was also consensual. Most firms look to their customers to drive their innovation efforts and the big success stories which have changed our lives have endured because they added value where there was an existing need.

All the panelists recognized that the drive for innovation depends on context. It was noted that there is no single approach or framework that could be applied mechanically across all the 54 countries in Africa. Instead, each country must seek to cultivate the necessary conditions, which might sustain an environment for innovation. **There is no silver bullet but there are sets of conditions**. The discussion also led to the conclusion **that innovative policy-making is about process and not simply a product**. Another critical element necessary in fostering innovation is finance. A long-term investment plan is essential to ensuring the emergence of a robust national innovation system.

Policies must also be integrated to ensure they are mutually reinforcing. Policies to promote an industry must consider not just the sector but also related issues such as education, finance and research and development. Without an integrated approach to policies, they might undermine each other and create new problems.

There was a reoccurring emphasis on the importance of political will and leadership to offset the limiting factor and perceived threat of innovation, which sparks resistance to change. Also noted was the idea that there is no single innovation policy or best practice, instead, there is a need for a series of policies necessary to create a conducive environment in which the private sector could thrive.

Innovation was presented as a continuum, a chain of events, which requires support at its various iterative and interactive stages.

Workshop B1

Institutions that Drive and Support Innovation

Facilitator: Steve Kayizzi-Mugerwa, Director, Research Department, AfDB, Tunisia

Panelists:

Mwelecele Malecela, Director General, National Institute for Medical Research, Tanzania

Frantz Tavares, President, ADEI, Cabo Verde

Ian John Cresswell, Luxinnovation, Luxembourg

Moji Rhodes, Deputy Chief of Staff, Lagos State Governor & Head, Lagos Innovation Council

Many countries have tried to improve their competitiveness by creating institutions whose core business is driving innovation. While many of these institutions operate with some common fundamental approaches, one important question remains - What does it take to build a robust national innovation eco-system?

Among the questions proposed for discussion were: how can an innovation institution better “connect” innovators to other innovators, facilitators and resources they need to solve problems and What does it take to create an innovative culture within a country, ensuring that innovation becomes systemic? How can innovation-promoting institutions help promote the protection and valuing of intellectual property?



This workshop focused on the role of institutions and their innovation culture and went into in-depth discussion on some key issues presented at the plenary, such as how to create enabling environments for innovation.

Among the recommendations proposed was the need for Institutions to have the capacity to adjust and not be prescriptive, to be flexible with their policies and programs and to engage directly with innovators and entrepreneurs. In this sense, one of their key roles should be in promoting collaboration and building networks. There was also discussion on potential opportunities in developing partnerships with international institutions and development agencies. Nevertheless, this would need to bypass governments in some ways in order for there to be direct interaction with entrepreneurs. There was a call for a greater involvement of the private sector and development of better government-business relationships. In reference to R&D, the commercialization of the results, as opposed to their publication, must be set as the priority.

One of the challenges presented was access to finance and appropriate funding models, which stress the need to create policies that encourage and enable venture capital initiatives and angel investments. Also noted was the necessity to foster trust and collaboration between all stakeholders.

Workshop B2

Policy & Regulations: Building an Enabling Environment

Facilitator: António Querido, Head of Environmental Energy & Natural Disaster Prevention Unit, United Nations, Cabo Verde

Panelists:

Joseph Okpaku, President, Telecom Africa Corporation, USA & Nigeria

Ngozi Bell, Former Vice President, Birchmere Ventures, USA

Herman Ntchatcho, Senior Director, Department for Africa and Special Projects, WIPO, Switzerland

For many of the world's most innovative countries, their success has been largely due to policies and regulations that build an enabling environment. Economic, social and administrative policies and regulation have a profound and direct impact on the innovative process of any country.

These have both negative and positive effects on innovation, depending on how well they are structured. Other regulations can ensure that competition operates with fair ground rules and that innovators are protected, such as the case of intellectual property rights.

However, poorly designed or implemented, regulations can also build barriers to the innovative process and discourage the development of new products and methods. This workshop set to address the question of how regulatory reform in Africa can create an environment that enables innovation at every step, from research to diffusion, while still maintaining the positive benefits of regulation.



As in previous discussions throughout the day, Intellectual Property laws and protection were highlighted as one of the crucial elements in creating an enabling environment for innovation and innovators. The panel noted that regulations, while needed, should not be excessively strict, and the need for an effort to dismantle the view of regulations as barriers.

The panelists pointed to the fact that regulations are already in existence in Africa, referring especially to the ICT sector with the dramatic spread during the first decade of the millennium. Indeed, what is lacking is the means to enforce existing regulations. A caution was voiced to avoid 'imitative innovation' and to make sure that regulations are not imported from other countries/contexts.

Among the recommendations suggested was for governments to become key players in order to facilitate access to capital by assuming some of the risk in order to help jump-start innovation. Another was for the creation of a Pan-African Innovation program in order to help reach critical mass, facilitate excellence and maintain a fruitful dialogue between the agents of endogenous African innovation.

Workshop B3

Innovation Policy: Lessons from the Global South

Facilitator: Madelene Mukamabano, Freelance Journalist, France

Panelists:

Angeles Navarro Calderon, Global Networks Director, Startup Chile, Chile

Mahanta Hiranmay, Director, Techpedia.in, India

Alexandre Vera-Cruz, Professor, Universidad Autónoma Metropolitana, Mexico

Frank L. Bartels, Senior Advisor to the Deputy Director-General, UNIDO

Increasingly, governments are investing in and experimenting with systems that promote innovation on a grand scale. When the Global South approaches fomenting innovation, the lessons, while still very diverse, are potentially more easily adaptable and applicable to other regions of the developing world. The increasing experience in innovation in other developing parts of the world may better inspire innovators and innovation in Africa. This workshop panel brought together leaders in the global south who are driving innovation initiatives who discussed some pressing questions such as what the major and noteworthy innovation initiatives in the global south are and how these initiatives are innovating on the experience of the traditional innovators in the industrialized economies.



There were four different approaches to innovation policy presented from three countries (Chile, Mexico and India) and from the United Nations Industrial Development Organization's (UNIDO) approach to engendering and developing a more robust innovation system.

Start-up Chile shared the experience of how Chile built a more conducive environment and created an innovation ecosystem through a series of policies, instruments and incentives. Various competitiveness-building programs support Chile's 'New Entrepreneurial Revolution', with incentives ranging from work visas, seed capital, to networking access for national and international entrepreneurs.

Similar to Chile, Mexico has built an innovation system backed by state policies and incentive programs. Mexico's initiatives and policies to support innovation are set within a National Innovation System. The state plays a critical role by creating legal and institutional frameworks that according to innovation indicators have boosted considerable progress in innovation. Programs to support innovation include sectorial and regional funds, scholarships and research programs, among others.

On the other hand, India's example focused on the promotion of innovation at the grassroots level, presenting the work of Honey Bee Network, a nonprofit organization comprising of individuals, innovators, farmers, scholars, academicians, policy makers, entrepreneurs and NGOs. In contrast to the Me-

xican and Chilean approaches, Honey Bee Network works with a bottom-up approach of supporting ‘informal’ innovation. The Network created funding mechanisms for micro-entrepreneurs such as the Micro Venture Innovation Fund, the Grassroots Technology Fund, science lab initiatives, national innovation clubs and annual prizes, among others.

UNIDO presented the international institution’s approach to support innovation through the development of a set of guidelines to measure national innovation systems. These are based on the triple helix model, which includes government, industry and Higher Education Institutions. Their tactic involves engagement with a set of high-ranking actors, referred to as intermediaries.

From the point of view of UNIDO’s Senior Advisor, it is better to focus on supporting the winners (gold, silver and Bronze medalist in industry) than supporting the bottom of the pyramid. This view provoked a fervent discussion about the merits and risks of the different approaches shared, between top-down and more bottom-up approaches.

Workshop B4

Oxford University: Diffusion of Innovation in Low Income Countries (DILIC)

Conveners:

Xiolan Fu, Founding director, Technology & Management for Development Centre, University of Oxford

Mammo Muchie, Professor, IERI, Tshwane University of Technology, South Africa



The workshop presented the goals and findings of the DILIC Project, which looks at the key factors and transmission channels for effective innovation creation, diffusion and adoption in Low Income Countries under institutional, resource and affordability constraints.

Prof. Xiaolan Fu, with moderation by Prof. Mammo Muchie, presented the results of the DILIC pilot research project in Ghana. The presentation demonstrated that the project has produced a replicable template on how to combine qualitative and quantitative pragmatic research to generate original insights and contributions. The approach included both surveys and detailed case studies of different types of firms. This combined approach of case studies, with firm trade data, and a survey of more than 500 firms in Ghana revealed many interesting insights on the dynamics of innovation in low-income economies. The results of the research identified obstacles to diffuse innovation, impact of innovation, collaboration with universities, information sources for innovation activities, the role of foreign knowledge sources and the importance of policy measures and so on.

Some of the preliminary findings indicate that innovation is very relevant and takes place in Low-income economies and not just in advanced economies. The research also revealed innovative products and production practices as well as novel marketing and management strategies, however most of this activity was incremental and based on the diffusion of ideas across Ghana. Little knowledge comes from outside the country and the limited collaboration between businesses was also stifling creativity.

The Oxford project was well received, and provides a replicable template for how to combine qualitative and quantitative data to generate insightful contributions to innovation policy. There is a need for more African countries to do similar research in order to obtain insights on how to better promote innovation¹.

The project also shows there is a way to do serious research in a complex environment where you have a mix of formal and informal sectors. However, Governments must implement policies that build national and international business networks, create incentives for innovators, and provide funding to overcome the common financial restraint. Policy makers must recognize and support innovative activities in low-income economies.

¹ More information on the DILIC project can be obtained from: <http://www.tmd-oxford.org/content/diffusion-innovation-low-income-countries-dilic>

Special Session: **NEPAD Agency**

Presenters:

H.E. Martial De Paul Ikounga, Commissioner, Human Resources, Science & Technology, African Union

Aggrey Ambali, Science Advisor & Head, NSTIH, NEPAD Agency, South Africa



In a special session at the summit, The New Partnership for Africa's Development (NEPAD) presented Africa Union Commission's Science, Technology & Innovation Strategy for Africa 2024. This strategy is part of the AU's vision for building a strong STI foundation for the development of the continent.

Aggrey Ambali's introduction gave an overview of the Consolidated Plan of Action (CPA), adopted in 2005, as a common framework for the implementation of the AU's decisions on Science Technology and Innovation. Ambali explained that the CPA has now developed into the Science, Technology & Innovation Strategy for Africa 2024. The strategy's goal is to accelerate Africa's transformation to a knowledge and innovation based economy by improving infrastructure, enhancing entrepreneurship and increasing technical competency.

Martial de Paul Ikounga described the strategic steps to achieve this vision through the up-grading of STI infrastructure and encouragement of scientific culture. The STI strategy, he described, will target research institutions and human resources to increasing research output, capacity building and will build up research-intensive institutions (universities and centers) at national and regional levels. The focus will be on enhancing technical competence, stimulate collaborative innovation and entrepreneurship.

As explained by the presenters, the strategy will be implemented at the national, regional and continental levels and the differential is that the strategy will push for policy.



We shall accumulate machinery and establish steel works, iron foundries and factories; we shall link the various states of our Continent with communications; we shall surround the world with our hydroelectric power; we shall drain marshes and swamps, clear infested areas, feed the undernourished, and rid our people of parasites and diseases. It is within the possibility of science and technology to make even the Sahara bloom into a vast field with verdant vegetation for agricultural and industrial developments".

President Kwame Nkrumah, first speech at the foundation summit of the Organisation of African Unity, Addis Ababa (1963)



February 5, 2014

Plenary C – Education and Innovation

Facilitator: Marie-Angelique Savane, Consultant, Senegal

Panelists:

H.E. António Correia e Silva, Minister of Higher Education, Science and Innovation, Cabo Verde

H.E. Martial Ikounga, Commissioner, Human Resources, Science & Technology, African Union

Wole Soboyejo, President and Provost, African University for Science and Technology, Nigeria



Education and knowledge play a crucial role in national development and have always been central to the growth and development of societies. What differs now is the complexity and increasing pace of change. Knowledge and its impact on the economy is more critical in today's so-called 'new economy' where the application of new technologies have become a crucial determinant of national performance. The ability to create, acquire, absorb, and communicate knowledge is an important determinant of the pace of national development.

The quality, relevance and nature of the educational systems in Africa today for the overwhelming majority leave a lot to be desired. Current realities within the educational sector of many African countries are a recipe for at best continuing the status quo and perpetuating the dynamics between Africa and the rest of the world. The system for many is not geared for building critical thinkers, entrepreneurs or problem solvers.

Despite the challenges, African educational institutions possess a level of academic and professional skills that can and must be deployed to promote innovation, entrepreneurship and addressing the development challenges facing African countries. This plenary session provided an opportunity to explore how this could be done and several other critical issues.

The plenary session on Education and Innovation set the tone for the follow-up workshops by addressing the board concerns of the role of education in the promotion of innovation and vice versa. The need for the transformation of the education system in Africa was at the core of all presentations.

The facilitator, Marie-Angelique Savane, gave an overview of the current dynamics of the continent, speaking of the major challenges as well as opportunities for its development in the near and far future. Referencing the rapid population growth and exponential urbanization of the continent as a great potential, Savane noted that education in Africa is in a stalemate. She called for a strong vision for education and posed the following questions: What would be the priority for new education systems in Africa? What types of skills are needed for the transformation of the continent? What is the role of stakeholders in this? What types of innovation are needed in the education system in order to change the rate of education and innovation?

“The African Union has vision of having a unified Africa. Innovation is a response, a solution.”
Martial de Paul Ikounga

Martial de Paul Ikounga seconded some of the concerns presented by Savane declaring that the African educational system is irrelevant in its current state. In a rather philosophical reflection on the meaning of innovation and education for the African continent, Ikounga expounded on the reach and meaning of education in/for Africa asking what the appropriate type of education should be for Africans. Speaking of the inclusive quality of innovation, he passionately emphasized the need for practical innovations to provide solutions for the improvement of the quality of daily life of all Africans. In this sense, he affirmed that the role of education is to prepare Africans to respond to challenges by providing training and skills that are useful for the continent - demand driven education.

“Innovation is a search – countries need to have a culture of searching, seeking solutions, responding creatively, daring to be entrepreneurial.” António Correia e Silva

Cabo Verde’s Minister of Higher Education Science and Innovation framed his presentation with the assertion that education today requires both educating and innovating. He noted that it is not a unilateral relationship; stating that not only is there a need to educate to innovate but also that in order to educate today requires innovation, innovate to educate. He presented the country’s various initiatives in institutional as well as pedagogical innovations such as systemic incentives to increase scientific output, distance learning, and incentives for research.

Correia e Silva also expressed the need for competitive economies to wager on the advance training for scientists, to build research centers focused on local problems as well as the need to add entrepreneurial focus to the knowledge produced.

In addition, he said, university parks must be a priority. He also noted that it is not only equipment, which is necessary for technology to be at service of educational strategy. Correia e Silva also expressed that the need for ICT in education should not only focus on making online content available. There is a need for community to take ownership. The academic community, he stated, must take ownership in production and selection of contents.

“Science and technology are true engines of growth and development.” Wole Soboyejo

Soboyejo spoke of the pan-African vision of the Nelson Mandela Institutions, which are prioritizing science, technology, engineering and mathematics (STEM) education and keeping their graduates on the continent. What he referred to as brain retention and brain gain. He spoke of a Pan African flower model spread over the continent, collaboration nodes and centers of excellence instead of just islands of knowledge.

He presented two key variables necessary for achieving innovation-driven impact: i) A critical mass of scientists and engineers and ii) STEM excellence since the continent falls short on both taking into consideration that Africa has 83 scientists and engineers, instead of the expected 1000, per one million, as well as the deficiencies in excellence necessary to drive innovation.

Soboyejo highlighted the importance of the diaspora and its crucial role in training Africans in the culture of science and in contributing towards creating new models that are truly African and that address African problems. Moreover, he spoke of their involvement in various strategic actions from teaching to serving as intermediaries, liaising with industry, and forming networks.

In order to develop African systems that strengthen science, get ideas into markets and build communities, Africa will require venture capital funding, and a culture of innovation. This must include daring to do things and learning from failure as well as using knowledge diffusion to drive the creation of what Soboyejo referred to as a “new generation of African lions”.

The need to build strong partnerships and collaboration resonated strongly throughout the discussions. Financial sustainability was also a recurrent concern as well as the imperativeness of incorporating entrepreneurship in education. In other words, there is a need to approach the Campus as an incubator.

Some additional concerns voiced were the social and economic relevance of training, pedagogical quality and financial sustainability of the educational system.



Workshop C1

Education Policies That Promote STEM

Facilitator: Nicholas Perkins, Director, SciDev.Net, UK

Panelists:

Lidia Brito, Director, Science Policy and Capacity Building, UNESCO, France

Djeneba Traore, Professor and Director, West African Institute, Cabo Verde

Africa and indeed, the world face an increasingly complex array of challenging problems. A crucial failure today in the world of rapid scientific and technological progress is the limited emphasis on Science, Technology, Engineering and Mathematics (STEM) in the educational system on the continent. There is a need in Africa to place more emphasis on STEM education given its importance and the impact on almost every sector of an economy. The fact is that, initiatives to promote STEM education in an effective and integrated manner are conspicuously absent in many African countries. However, it is evident that much can be improved in African countries' strategies to reap the benefits of a quality STEM education for both male and female students and that the tremendous investment needed to implement such strategies are bound to have a positive return.

African governments need to recognize the crucial importance of STEM education for knowledge industries, innovation and economic transformation.

This workshop considered the role of STEM education in facilitating innovation and socioeconomic development.



Lidia Brito, Director of Science Policy and Capacity Building at UNESCO and Djeneba Troare, General-Director of the West Africa Institute were the panelists in this workshop. The discussions highlighted the need for Science Technology and Innovation (STI) policies to be part of the economic and development agendas of African countries.

The panelists spoke of the lack of advocacy for science and technology at high political and policy levels as well as inadequate budget and resource allocation as some of the key challenges. Additional challenges identified were the weak or nonexistent links between various agencies and organizations in STI, the exclusion of major stakeholders in STI governance, lack of skilled human resources and inadequate scientific expertise. They called for consistency in education policy and finding ways of leveraging alumni networks and training and retraining teachers.

As previously voiced in the plenary session, here also, the emphasis fell on the need of creating local content for education, in other words, Africa must produce its own knowledge and content and find its own way.

Workshop C2

Learning Beyond Boundaries

Facilitator: Paulino Dias, CEO of PD Consult, Cabo Verde

Panelists:

Lourenço Varela, Director, Institute for Education, University of Cabo Verde, Cabo Verde

Bakary Diallo, Rector, African Virtual University, Kenya

Rifat Lafiti, Professor, University of Arizona, USA

One of the continent's greatest challenges is ensuring that access to high quality educational opportunities are available to all of its citizens. Around the world, many countries are increasingly turning to distance solutions and to the possibilities offered by the abundance of options in information technology that enhance quality and access to education. These changes are nothing short of revolutionary and they have already had a profound impact on education reform in many parts of the world. While the continent has a long history with distance learning, African universities are currently developing even more robust distance learning programs and mechanisms.

Opportunities for learning beyond traditional boundaries are quickly becoming abundant for those who have access to low-cost internet, as not only universities, but also non-profits and other actors are entering the field with offerings.

What does this mean for Africa and for the continent's efforts to create education systems that promote and facilitate innovation? This question and several others were proposed for discussion in this workshop.



Lourenço Varela, spoke of Cabo Verde's efforts to strengthen the education system with instruments that support innovation such as distance and open learning. Expounding on the proliferation of technology in modern life and the various ways in which technology can enhance classroom learning, he highlighted three key priorities, the first being the production and quality of educational material, the second, the need for equipment for distance learning and finally, the training of new teachers using ICT.

The African Virtual University (AVU), a Pan-African multinational project, has assumed one hundred percent distant learning. It is developing eLearning centers in a series of countries, mobile Learning Labs and Centers on Virtual Education Innovation and collaborating with many government and universities in a continent-wide effort.

The rector of the University asserted that AVU's mission is a response to the need to innovate, rethink and

implement the education system in Africa through the innovative use of information communication technologies. He indicated that both content and curriculum development are key priorities in addition to the support of R&D. He noted that while the Open Education Resources are key and free resource made available by AVU, many are still unaware of their existence and mostly non-African countries use them.

Building on the presentations of Cabo Verde and the pan-African vision of AVU, Rifat Lafiti, presented the International e-Virtual Health Foundation (IVEH) project and its mission to create sustainable e-health programs through cooperation and partnerships. The project presented is based on the Initiate-Build-Operate-Transfer Strategy. According to Lafiti, there is a need for radical changes and a coalition of new partners and innovative concepts in the configuration of medical care. He noted that infrastructural and human capacities are the key requirements to sustain the E-health Network project.

This session presented virtual education as a critical avenue to overcome various barriers in education and highlighted concrete initiatives taking place at the national, inter-continental and international levels, breaking the boundaries of learning using ICTs.

Knowledge production and dissemination remain key concerns as voiced by the panelists. Myriad strategies are in place to help respond to Africa's need to revolutionize its education system with AVU's efforts showing steady progress. Yet, a continued effort in developing partnerships remains a crucial strategy to undertake. The panelists reinforced the need for regional and Pan-African entities to promote and maximize contacts among counterparts in order to respond to concerns across Africa, promoting the development of the continent as a whole.

The challenge of context relevant and endogenous content production was a key factor reinforced in both the plenary session and in this workshop.

Workshop C3

Research in African Universities: Challenges and Opportunities

Facilitator: Mwangi Githinji, Professor of Economics, University of Massachusetts, USA

Panelists:

Mammo Muchie, Professor, IERI, Tshwane University of Technology, South Africa

Djeflat Abdelkader, Vice President, Globelics & Professor, University of Lille, France

Aggrey Ambali, Science Advisor & Head, NSTIH, NEPAD Agency, South Africa

African countries invested heavily in tertiary education in the early sixties following independence. There are many more universities today. However, in many cases, the universities are facing not only crisis of resources but also of identity. Many are plagued with challenges of overcrowding, under prepared students, corruption, lack of funding for research, lack of laboratories and research facilities, limited ICT infrastructure, lack of linkages with industry, and issues of relevance and quality are major problems.

Researchers and research in Africa face many obstacles, including limited human resources due to brain drain and capacity deficits among existing faculty, inadequate teaching and research infrastructure, low funding and a mismatch between the curricula and development or industry needs. As a result, research levels and outputs are very low, compared with other parts of the world.

This workshop, addressed what is necessary to transform research in African Universities into a sustained production of world-class knowledge with the capacity to engender innovation and transform the continent.



The facilitator Mwangi Githinji initiated the discussion pointing to some of the key challenges facing research in African Universities such as a weak research ecosystem and lack of financial resources. He posed the question of how to build a strong network and culture of innovation.

Mammo Muchie, spoke of the need to build a higher-education system directly connected to and part of an innovation system. He called for the development of both pure and applied research and the necessity to support practical strategies that will include entrepreneurial approach that will link research and

universities to industry. Muchie spoke of the necessity to develop partnerships between universities, industries, governments and society, to build interconnected facilities and create synergies that can orient research.

Djefflat shared the results of research undertaken by Globelics, which points to a series of constraints and challenges faced by universities in sub-Saharan Africa. He spoke of the need to consider a third mission of universities, which is to foster entrepreneurship in addition to promoting relevant and practical research. He highlighted the need for partnerships with industry to address the very low number of patents that come out of universities in Africa. In addition to the lack of funding, he noted, the shortage of institutional support and patent and intellectual property protection were identified as major constraints and challenges faced by researchers.

As with previous panelists, Aggrey Ambali, reinforced the imperative for greater focus on science and technology, the development of links between researchers and entrepreneurs as well as between the continental and global scientific communities.

He spoke of the role of the African Union Commission (AUC) in the promotion and financing of research through grants and prizes, yet acknowledged the weak contribution of human and financial resources in research programs, which exposes the need to increase local human and financial capacities. He called for the establishment of schemes to provide grants for emerging and experienced researchers across the continent. Ambali pointed to the example of how some AUC member states are engaged in running competitive grant programs to promote excellence in African institutions and universities.

He re-emphasized the importance of linking research and entrepreneurship and proposed the establishment of programs for technology transfer and the development of commercialization programs that would foster connection between researchers and entrepreneurs and between universities and industries.

Ambali called for the establishment of a favorable environment for science technology and innovation (STI), the strengthening of intellectual property (IP) and regulatory systems, building and participation of the public in STIs, mobilization of resources to develop STIs and engagement of academia as think tanks for revisions and projections in support of policy making and implementation.

The discussions with the public brought forth the diaspora as an essential resource in the definition of various approaches in rethinking the education strategy for Africa and creating an innovation ecosystem in which universities are integral part of the economy.

Plenary D: Entrepreneurship and Innovation

Facilitator: Didier Acouetey, CEO, Afrisearch, France

Panelists:

Winslow Sargeant, Chief Counsel, Office of Advocacy, Small Business Administration, USA

Herman Chinery-Hesse, Chairman & Founder, Softtribe, Ghana



It is now conventional wisdom that innovation is a driving force of societal progress, especially in terms of welfare and standards of living. Equally important, however, is entrepreneurship. New technologies and entrepreneurs have historically been central to the ‘creative destruction’. Together, innovative entrepreneurs and innovators create entirely new industries that fuel astonishing levels of economic growth. They are the disrupters who change the way things are to create extraordinary things that can transform industries, economies and societies.

The push for innovation in Africa must necessarily be accompanied by an agenda to encourage and foster innovative entrepreneur. The challenge is whether or not Africa is developing the next generation of entrepreneurs that can engender the success of the continent and ensure its competitiveness.

This plenary session aimed to address issues of the critical importance of entrepreneurship and innovation for Africa’s socioeconomic transformation.

Winslow Sargeant spoke of the importance of small businesses as key drivers of economic growth in the US and expounded on the role of government in promoting and supporting SMEs. He spoke of the Office of Advocacy, Small Business Administration as an example of a way to strengthen the link between entrepreneurs and government and showed key figures illustrating the high potential of SMEs and their contribution to economic growth. In the case of the US, the government is the number one consumer of its small enterprise products, as a total of 23% of government purchases must come from small businesses. The USA, he said, has focused on public private partnerships, recognizing that the strength of the private sector contributes towards more employment, a stable government and economy. Sargeant noted that by building the necessary infrastructure, the public sector contributes towards the success of the private sector, each playing a clear role, in what he described as the virtuous cycle in which both thrive. He also noted that less than 1% of SMEs are funded by venture capital with 60% of the financing originating from family and personal finances.

Sargeant's presentation on the US scenario defended the view of a win-win relationship between the public and private sectors.

“Government is the enemy of entrepreneurship and business, in a lot of parts of Africa.”

Herman Chinery–Hesse

Facilitator Didier Acouetey pointed to the seriousness of such assessment saying we cannot talk about innovation and transforming Africa if government is not on board and if the public sector is not supportive.

Herman Chinery–Hesse, a successful serial entrepreneur in Africa, presented a more critical view of the role of government and the relationship between the private and public sectors. He described African governments' dependence on foreign aid as a nefarious model of development, which stifles the private sector in Africa. Chinery-Hesse called this aid system, as the greatest impediment to innovation and entrepreneurship in Africa.

Speaking about his path towards successful entrepreneurship, Chinery-Hesse called for risk taking and bravery. Pointing to some of his innovative products, he expressed the belief that innovations in Africa are uniting the continent and breaking borders through technology. This he says gives a wide scope and expands the client base.

There was little consensus between the two disparate presentations, from the two very distinct contexts of the USA and the African continent with one of the panelists advocating governments' important role and strong incentives in the promotion of entrepreneurship while the other expressing the mistrust of the private sector in government in Africa.

Among the key challenges pointed out in what was one of the most fervent sessions of the summit are the lack of trust and accountability between the public and the private sector, corruption as well as access to capital. Trust and dialogue were noted as crucial factors as well as the need for a strategy of direct engagement with innovators and entrepreneurs.

There is a clear need for better-targeted policies to foster SMEs as well as policy coordination between African countries that promotes intra-Africa trade and knowledge transfer.

The opportunities are abundant. However, a stronger and better-developed relationship between the public and the private sector is crucial.

Workshop D1 :

Getting Ideas to Market & Building Successful Firms

Facilitator: Marcos Rodrigues, CEO & Founder, mGo and Artecocom, Portugal & Cabo Verde
Panelists:

Tracey Webster, Director, Branson Center of Entrepreneurship, South Africa

Chika Mwobi, Founder and CEO, i5Lab, Nigeria

Papa Yusupha Njie, CEO, Unique Solutions, Gambia

Bright Simmons, CEO, mPedigree, Ghana

The journey from having an idea to building a business is long and challenging. Many never make it past the concept stage. Among the many needs in the very early phase are networking and securing business mentors and managers that can help develop the trust and the skills needed to effectively take ideas from concept to market.

African innovators are faced with even more challenges given the constraints of the environment. Business support institutions are few and far in between. They are young and/or have relatively few resources when they do exist. The idea of mentoring is new. In this daunting environment, what steps must aspiring African innovators take into consideration in order to become successful entrepreneurs? What roles can the state and private sector organizations play? More importantly, what can innovation and entrepreneurial promotion agencies do and what can successful entrepreneurs do as mentors to support the newcomers? This workshop addressed some of these concerns.



Papa Njie spoke of some of the challenges of entrepreneurship in Africa and pointed to a strong characteristic in African culture, which encourages children to study a lot, yet falls short in fostering working experience in youth, which would help them develop entrepreneurial attitudes and initiatives. Pointing to another African trait which he believes hinders entrepreneurship, he described how in African culture there is usually the need to first see success before getting involved or venturing in.

Tracey Webster, shared key strategies adopted by the Branson Center of Entrepreneurship (BCE) for assisting business and pointed to the importance of methodology in an entrepreneurs' journey. The BCE is based on perseverance and the idea of mentorship to guide start-ups. She highlighted that Africans should not underestimate our networks.

The debate brought forth the need to invest in seed fund and mobilize start-up businesses around the world. Also emphasized was the need to adopt a global strategy and perspective, for African projects not to stay confined to the African territory.

Workshop D2:

African Success Stories: Innovative Entrepreneurs

Facilitator: Gilbert de Barros, World Bank

Panelists:

Paul Fokam, President, Afriland First Group, Cameroon

Eric Charras, Founder & CEO, A Verdade, Mozambique

Tonye Cole Represented by **Muyiwa Adekoya**, Sahara Group, Nigeria

Evans Wadongo, Innovator, Kenya

The economic narrative over the last decade is that Africa is a fast-growing continent. It has been difficult, however, to see the African innovators and entrepreneurs that are behind the fast growth. This is partially because a crucial part of the growth comes from primary commodities and because innovation and entrepreneurship are not typically identified with Africa in the global mainstream media. This is bound to change in time, as there is an emerging class of innovators and entrepreneurs in Africa with their sights not only on competing in the global marketplace but on changing the world.

While many are ahead of their peers, many of these entrepreneurs are representative of the growing opportunities for success for technology entrepreneurs in the near to medium-term future in Africa.

As infrastructure improves and fiber optic cables further connect an increasing number of Africans to new technologies, opportunities arise for techies everywhere on the continent to tackle some of the most important needs and market failures with innovative solutions. Some of these entrepreneurs are also starting to attract large amounts of investment. This workshop engaged some of these successful entrepreneurs in Africa to learn from their experiences.



The first success story shared was that of Paul Fokam, President of Afriland First Group in Cameroon who emphasized that failure is a step in the success path and should not be a deterrent.

Eric Charras, Founder & CEO of A Verdade in Mozambique, shared the motivation that propelled his determination to succeed, which was wanting to leave a legacy. He spoke specifically of his vision for A Verdade, which was born of the desire to make the most powerful publication for the people. Charras said that the newspaper business is financially risky initiative. Innovation permitted him to expand into other successful initiatives.

Tonye Cole, CEO of Sahara Group in Nigeria was represented by Muyiwa Adekoya who gave an overview of the success of the largest trading company in Africa which today turns around 20 billion dollars a year. He advocated the need to have some government intervention and asserted that financing can be found in Africa yet the lack of infrastructure is a major problem.

Workshop D3:

African Culture as a Driver of Innovation and the Creative Economy¹

Facilitator: Aidan Eyakuze, Founder & CEO, Serengeti Advisers, Tanzania

Panelists:

Adetokunbo Olugbenga Abiola, Journalist & Consultant

H.E. Mário Lucio Sousa, Minister of Culture, Cabo Verde

Monica Monteiro, Producer, CineGroup, Brazil

The “experience/leisure economy” has grown significantly over the last two decades and culture is a critical aspect of this emerging economy. However, in Africa in-depth discussions on culture and the creative sector are generally absent (or on the sidelines) of the strategic thinking and planning of major economic and development institutions. African governments as well as their development partners have simply not taken seriously the potential for leveraging culture in economic transformation. Earlier debates focused on the wrong issues such as whether or not Africa’s culture has been an impediment to economic development. They seldom address how this vibrant and potentially transformative sector could become an engine for growth. Recently, a more comprehensive effort is becoming evident, one that recognizes and promotes the creative industries’ role in the socioeconomic transformation of Africa. Some creative industries in Africa have been at the forefront of innovative and successful entrepreneurial ventures. Most of these developments have come from the private sector despite the absence of national policy frameworks.

A lot remains to be done in most African countries to develop cinema, music, video games, and many other ‘cultural’ industries that could be the source of socioeconomic growth. The workshop focused on what needs to be done by African countries to build a growing culture industry that could become a source for transformation of their economies.



The workshop proposed to answer some key questions about the role of culture in innovation and economic transformation of Africa. Essentially, it aimed to address whether creativity can be a driver of competitiveness. The discussions posed a more philosophical approach to the topic by framing innovation as an act of culture.

The first statement, made by Cape Verde’s Minister of Culture, Mário Lúcio Sousa Mendes, opened his reflections on the theme, which were both deeply philosophical and very practical in their implications.

¹ The write up of the session relies heavily on inputs by the facilitator, Aidan Eyakuze.

He tabled three dimensions of innovation, especially where these involve young people. The first was access to the means and manifestations of innovation from new, creative ideas that are the raw material of innovation, to the technology that allow for their expression. The second dimension was appropriation, which could be understood to signify the infusion of innovation with a local perspective and worldview. The final dimension was the response, or the nature of the engagement with the innovation. Taken together, these dimensions fleshed out his assertion that culture is the basis of innovation. Innovation is embedded in a particular and specific context that gives it value and meaning. Otherwise, the risk is one of remaining with fascinating, but culturally sterile inventions.

The Nigerian journalist on the panel Adetekunbo Abiola made the Minister's ideas concrete. He asserted that Nollywood – Nigeria's incredibly vibrant, productive and popular film industry – was a disruptive technology. He argued that the industry emerged spontaneously, when access to a new platform – videotapes and recorders – became widespread. Nollywood's pioneers disrupted the received wisdom about how films were made and distributed. Given the lack of funding, and paucity of cinema halls to screen films, they focused less on visual quality and more on the main ingredient – a captivating storyline. In 1992, the film 'Living in Bondage' was shot using low-quality video cameras, directly onto videotape that was copied en masse for distribution. In so doing, they appropriated the genre – film – and engaged with it to create and distribute products that resonated with local audiences. The rest, as they say, is history. The industry expanded almost exponentially in short order and it is now the third largest employment industry in Nigeria, and the second most prolific producer of films in the world after India.

While the large consumer market and rich cultural diversity of the continent can constitute opportunities, the panelists pointed to some challenges, which range from financial constraints, access and appropriation of talents/ideas to concerns about how to compensate adequately those who produce. Among the key recommendations was the need to promote an overall 'Afro Enthusiasm' and endorse what is endogenous, investment in education and youth, as well as the need for policies that encourage the globalization of cultural innovation.

Nevertheless, the promotion of Africa/African culture is not always consensual. The presentations focused on culture and information as a product to be consumed, and therefore possibly "economized". It will however be important to interrogate this view and to ask different questions.

Special Event: **Leading Innovation: Conversations with Presidents**

Facilitator: Andrew Mwenda, Strategy and Editorial Director, The Independent, Uganda

Panelists:

H.E. Paul Kagame, President of Rwanda

H.E. Jorge Carlos Fonseca, President of Cabo Verde

H.E. Joaquim Chissano, Former President of Mozambique



Leading Innovation Conversations with Presidents

AFRICA INNOVATION
CABO VERDE 2014

This special session, Conversations with Presidents, welcomed three important leaders of the African continent to express their views and vision for how to drive innovation in the continent.

The facilitator, Andrew Mwenda, made an impassioned introduction invoking the historical and great figures of the African revolutions, linking them to Africa's exciting new moment.

President Jorge Carlos Fonseca referenced the objectives of the African Union's Africa Agenda 2063 as a clear path and common vision for the continent. He reinforced his commitment to this vision and called for the Africa Agenda to focus on innovation as the driving factor for the transformation of Africa.

President Paul Kagame initiated his presentation posing the question of whether Africa has the right politics to drive innovation. He spoke of Rwanda's trajectory in innovation (technological and social) and former President Joaquim Chissano indicated that innovation is not new to Africa, that Africa's quest for independence demonstrates its innovative capacity and eagerness for development. Chissano evoked the strength of Africa's indigenous knowledge base as a strength and opportunity.

The presentations of the three leaders reinforced the previously discussed notion that innovation is not merely technological but is intrinsically a social phenomenon. The consensus is in the belief that in order to instill a culture of innovation and create an environment conducive to its thriving, Africa must get the politics right. There needs to be a commitment to an agenda for change and strategic policies to support this.



There was a call for uniting Africa around common goals, to build collaborative environments between African countries in order to learn from each other and to find homegrown solutions for the challenges facing the continent. While the continent looks for solutions that embrace its culture and values, it must not remain bound by its traditions. Africa and its leaders must be open to change.

The leaders also pointed to the great opportunities for a continent full of resources, which has a large and growing youth population with strong appetite for new technologies. They also reinforced the public sector's crucial role in bringing about more accountability.

As in other workshops and plenary sessions, the discussions also pointed to the potential in a greater involvement of the diaspora.

Plenary E: **Financing Innovation**

Facilitator: Aidan Eyakuze, Founder & CEO, Serengeti Advisers, Tanzania

Panelists:

Babacar N'Diaye, Former President of AfDB & Board Member CSI, Senegal

Paul Fokam, President, Afriland First Group, Cameroon

Peng Tsin Ong, Director, Banean Holdings, Singapore



Innovative enterprises anywhere in the world face significant difficulties in obtaining finance. The risks are high. The fact is that innovative start-ups have no track record and little or no collateral to secure external financing. As such, most conventional financial intermediaries are not able to engage with innovative firms in their early stages.

In Africa, the situation is even more difficult as financial markets remain largely underdeveloped. The result is that access to finance is a major hindrance for the development of small- and medium-sized enterprises (SMEs) and a binding constraint for many economies on the continent. Public financing for research and development (R&D) is limited or simply does not exist in some African countries. The situation is equally as challenging in the private sector. Compared to other regions of the world, venture capital firms and private equity continues to be quite limited. Moreover, where funding is available they are invested mostly in major infrastructure projects and in the extractive industry. Additionally, seed financing by angels is yet to takeoff in any significant manner, as are the new forms of financing such as crowd funding.

A lot remains to be done to ensure adequate access to finance and to remove a major impediment to innovation and the emergence of innovative firms in Africa.

Therefore, a key thematic issue for the Summit is financing. This plenary session on financing innovation proposed to address the challenge of ensuring adequate access to finance for innovative firms.

In his presentation, Babacar Ndiaye, former President of the AfDB, highlighted the need to think along the complete financial chain, to consider the financial structure of SMEs throughout their growth stages and not only focus on seed capital to kick-start the process. Ndiaye pointed to the necessity for public intervention in financing innovation. He noted that due to various market failures for SMEs in Africa (such as inadequate financial markets and the lack of appropriate products from the banking sector) there is a case to be made for public sector intervention, be it in the form of subsidy or regulation. In addition, he spoke of the need for leveraging new initiatives such as crowd funding, business angels or public-private partnerships.

He ended his presentation pointing to the need to finance not only initiatives in the high-tech fields but also those in low-tech innovation, which he stated are also crucial for socioeconomic transformation.

Peng Tsin Ong spoke of Singapore's distinctive trajectory towards economic transformation and his views on how to finance and build tech ecosystems. He highlighted the importance of motivating young educated (not exclusively formally educated) entrepreneurs, saying that people are at the core of innovation and without talented people, there would be nothing to finance.

Pointing to the condition that in developing contexts there is a need for investment and for similar returns as in other contexts (e.g. Silicon Valley). He advocated Singapore's mechanism of capital acceleration, their Technology Innovation Scheme, as a possible financing solution. While he believes that governments should not be venture capitalists, he supported this strategy as essential in order to rapidly build an innovation ecosystem. He noted that the government's co-investment with the private sector is not a lost-making proposition for governments; it is, he claimed, an undeniably win-win situation.

He expressed what he called clear opportunities and motivations for Africa. Peng elaborated his view by pointing to a study, which predicts the astoundingly positive economic impact of the top 100 disruptive technologies by 2025. Linking this to the fact that in most developing countries, such as those in Africa, the fastest growth companies are in the information technology (IT) sector, he proposed the possibility that the African continent could radically break the sequential development stages. He said that: *“One of Africa's next biggest innovations could be to demonstrate to the rest of world that it is possible to develop the economy without passing through the industrial stage and go straight to a knowledge-based economy.”*

Paul Fokam, President of Afriland First Group, pointed to the growing optimism about Africa's development status, saying that in the last ten years, the view of Africa shifted from that of a hopeless continent to currently being considered the continent of growth. However, he alerts to the fact that most African economies are still commodity driven and dependent on China's demands. He seconded the much-discussed point that a knowledge-based and innovation-driven economy is critical for sustainable growth in the continent.

Fokam countered the view that there is a financial gap for innovation. His argument rested on his view that innovation is in essence adding value to something and the challenge is not the lack of financing for innovation but the lack of funding for the research, which is what generates the added-value/benefit. He noted a key challenge of financing, which he says is its dependence on foreign aid and he advocated the strategy of finding endogenous solutions to financing while also making use of exogenous funding. In addition, he noted the existence of other challenges such as lack of rigor, lack of communication, the tyranny of urgency that define most approaches, and the fear of failure.

“We can address our problems only if we find endogenous resources which will allow us to fast track our own growth.” Paul Fokam

Among the audience's concerns was the issue of how to create new mechanisms and paradigms for the complete cycle of funding (from ideas to market) and how to pair private and public funding.

In response, Ndiaye spoke of the example of Tunisia's Souk At-Tanmia funding mechanism financed by the AfDB as an example of co-financing schemes and funding solutions, which are initiatives of the private sector. Peng presented a differing position to Fokam's view that the crucial moment for funding is at the research phase, saying that not all innovative products come from research and research does not always translate into economic impact. He reinforced the need to focus on the post-research phases; the need for having an effective start-up ecosystem otherwise research will not have economic impact.

Workshop E1:

Engineering Financial Markets to Support Innovation

Facilitator: Gilles Atayi, Managing Director, G&A Consulting Group, South Africa

Panelists:

Sunil Benimadhu, Chief Executive, Stock Exchange, Mauritius

Manuel Lima, President, Stock Exchange, Cabo Verde

A robust financial market is a fundamental prerequisite for innovation on the African continent as it is elsewhere. Financial markets play a critical role in fostering productivity growth by financing innovation, and in large part, financial markets decide where and how capital is allocated. The underdevelopment of financial markets in most African countries is a critical challenge and this constitutes a binding constraint to economic growth and development. Attempts to correct the problems of underdeveloped financial markets have led many African countries to undertake financial sector reforms and to create stock exchanges either at the national or regional level.

Many African exchanges have an extremely low number of listings and are often affected by incoherent capital market development mechanisms and policies. Much of the basic market infrastructure necessary for responsive financial markets is still absent in many African countries. A low number of investors, difficult forecasting, poor benchmarking and low turnover volumes, among other issues, further exacerbate these conditions. As such, financial markets in Africa are often inefficient when it comes to allocating funds. The result is a lack of risk capital for promising entrepreneurs and innovators.

Efficient financial markets should offer greater access to growth capital for innovative SMEs, more investment opportunities for investors, and more mechanisms for recycling public funds to promote SMEs. How can African countries ensure that, their financial markets serve these functions and how can they be developed to attract the domestic and foreign capital required for effectively financing innovation on the continent?

Sunil Benimadhu and Manuel Lima expressed a positive view of the growth and progress of the financial markets in the African continent in the past decade. The capital raised has increased substantially. They noted, however, that there is still a lot to be done in terms of channeling resources to where they are needed most.

Benimadhu suggested that African markets should not be looked at from a static perspective; instead, they should be understood as dynamic. He advocated the support of governments to make exchanges important tools for economic development and cited Singapore's model as an example of how government can be decisive in defining a vibrant financial sector by developing their exchanges as important finance tools.

He pointed to the need to assess all the segments of the financial ecosystem that are in place (such as banking, insurance, capital markets, and pension funds) and see how to make them more efficient and more active. For this, he advocated an integrated model considering that in Africa the various segments of the financial sector are still operating separately and the challenge is how to synergisti-

cally connect them as Africa's banking sector still sees itself as separate from the capital market.

He described the Mauritius model, which operates two distinctive boards. Indicating that Mauritius recognized that SMEs are major drivers of economic growth and therefore its stock exchange created a specific platform for SMEs with more flexible regulation, less stringent disclosure requirements and less costly.

Benimadhu pointed to four key actions that can have an impact in the financial market, what he defined as the four Ps of the stock exchange. They are (1) increase the *products* available in the markets by giving fiscal incentives to encourage private sector companies to integrate the stock exchange as well as the privatization of state companies to attract more investors and tax incentives for investors; (2) increase the number of *players* (investors) by giving tax incentives for investments in listed companies; (3) attract *participants* (national and international stock brokers) and (4) promote *partnerships* and cross linkages between exchanges.

Manuel Lima spoke of the scenario in Cabo Verde, describing the role of the Central Bank (BCV) while also pointing to some key concerns. He noted that while 66% of wealth creation is generated by SMEs, they still require 'financial education' in order to facilitate access to funds. Understanding of the rules of the financial system will facilitate their access to funding.

He voiced the need to have good companies in order to create win-win conditions for businesses and investors and pointed to the challenge of the lack of information (quality and quantity) from business, which also hinder the financing process. Lima pointed to the need for SMEs to be educated to understand that they need good business plans and must provide investors with proper information.

Workshop E2: Innovative & Non-Traditional Financing options

Facilitator: Anne Stubert and Naoko Koyama, Dalberg, Senegal & Kenya

Panelists:

Eric Osiakwan, Co-Founder, Angel Africa List, Ghana

Abdulrahman Kayode Muyibi, Founder, Start up Africa Fund, Nigeria

Anne Melnic, Chief Community Officer, Homestrings, UK

Kyai Ivuso Mullei, Co-Founder, M-Changa, Kenya

As a rule, smaller entrepreneurial initiatives in developing countries, and especially those in the early and seed-stages, have limited access to financial resources to effectively scale up and grow their businesses. This is a widespread challenge in African countries. For African firms that are competing in fields that are innovation-based, access to growth capital is even more challenging.

In developed economies, entrepreneurs are able to cross the “Valley of Death” with the assistance of angel and patron investors. These are wealthy individuals or venture capital firms with the resources to provide funding for business start-ups in exchange for convertible debt or part ownership. However, while the number of wealthy African individuals and millionaires has been growing steadily in recent years, there has not been a proportional increase in the number of angels or patrons supporting African entrepreneurs.

However, how can a seed-stage capital ecosystem that inspires confidence among wealthy individuals be promoted in African countries? This was the core question for this workshop.



Among the four panelists, were angel investors and crowd funding platform creators and representatives who shared a variety of existing funding mechanisms for start-ups in Africa.

Osiakwan, Angel Investor and Angel Africa List co-founder shared his experience as an early stage investor. While he noted that the strength of the idea is a key element in his decision to invest, he pointed to an even more important factor in early-stage investment, which he says is about the people who drive the idea. Another of his considerations, he pointed, is whether there is a market to generate revenue.

He stressed that investment goes beyond funding and highlighted the importance of mentorship throughout the different stages. This brought up the discussion of how the lack of experience can be

very costly for start-ups and therefore there is a vital need for mentors. However, Osiakwan noted, in Africa there are very few start-ups who have 'graduated' through a complete and successful process more than once, which would allow them to share their experience and adequately serve as mentors.

Annie Melnic, described the diaspora as the motivation behind the crowdsourcing platform Homestrings. Pointing to the tens of billions of dollars of annual remittances to Africa alone. Melnic detailed some of Homestrings' products and solutions to provide investment solutions.

M-Changa's co-founder, Kyai Mullei described how his funding platform is founded on distinctive values and characteristic of African and Kenyan societies. He specifically pointed to the traditional and extensive African money sharing and distribution practices such as remittances from the diaspora, as well as family and extended family networks of fundraising. He cited three key traits that inspired his mobile fundraising mechanism as the existing pervasive use of mobile platforms, which inspire innovative solutions, the propensity to give, in particular the cooperative movement to raise money for businesses in Kenya (SACCOS) and the need for transparency.

Abdulrahman Kayode Muyibi, Founder of Start up Africa Fund in Nigeria described his crowd-sourcing project based on a subscription model specifically targeting African technology startups.

Most of the funding mechanisms presented have tapped into characteristically African socio-cultural practices; these unique and innovative solutions could revolutionize funding options in Africa. The platforms presented link entrepreneurs and investors in innovative ways, and they represent funding mechanisms that are themselves innovations.

The discussion with the public brought forth a few key challenges and constraints among which were the need to attract more investors to the emerging mechanisms of funding and the need to change the donor model and aid paradigm from donation to investment.

"To the donor community there is a message coming out to you from here. The message is Africa wants investment, not aid." Eric Osiakwan

An important alert was voiced concerning the ethics of funding, its legitimacy, and the mechanisms of regulation for crowd funding options. Homestrings shared their verification/anti-money laundering processes and other examples were referenced. It was noted that some countries have regulatory systems in place, which was pointed as an advantage of public sector involvement in funding. An example cited was a South African tax incentive, which allows rebates for early stage investment and due to the government's involvement serves as a validation system.

Workshop E3: **Africalics: Learning, Innovation and Competence Building in Africa**

Facilitator: Ana Kingiri, Director of Research, Africa Center for Technology Studies (ACTS), Kenya

Panelists:

Alexandre Vera-Cruz, Professor, Universidad Autónoma Metropolitana, Mexico

Djefflat Abdelkader, Vice President, Globelics & Professor, University of Lille, France

Erika Kraemer Mbula, Research Fellow, IERI, Tshwane University of Technology, South Africa



This workshop focused on the presentation of Africalics' work in enhancing research capacity and economic development in Africa through the building of networks of scholars working on innovation and competence building. The organization's main purpose is to contribute to academic knowledge creation and exchange in the field of innovation and development.

The Africalics network is essentially about building interactions to create a community of experts in Africa. It addresses the need for expertise building, which is a critical matter for the continent for both the management of innovation and for the development of strategies that respond to the particular needs of the continent. It was noted that these networks could be instrumental in supporting existing groups or networks that are active but have different levels of maturity and visibility.

A network of networks will need to be developed by identifying a range of networks, activities and databases in order to facilitate collaboration to achieve common goals. In this sense, it is important to build on and strengthen what already exists. The importance of learning from the experiences of other regional activities and networks that can also offer lessons was emphasized. All agreed on the need to find ways to leverage the roles and activities that others are already doing.

One of the key issues discussed was the critical need to link the results from the improved research on development and innovation to policy, and there needs to be an increase in the appropriation of the research results by policy-makers at the national and regional levels.

Workshop E4: ADEI's Presentation of Cabo Verde's Venture Capital Fund



In a special workshop Cabo Verde's Agency for the Development of Entrepreneurship and Innovation (ADEI) presented the Venture Capital Fund for SMEs in Cabo Verde to discuss its structure and potential returns on investment.

Frantz Tavares, the President of ADEI highlighted the needs, strengths and conditions already in place in Cabo Verde, that permit the creation of this instrument at this moment. The Fund will be managed by a Financial Management Company, which will work in close partnership with ADEI to identify and assist SMEs with sustainable growth potential.

"The Venture Capital Fund will boost more business opportunities and enhance the development of the business sector in Cape Verde, capable of generating employment needed to absorb the growth in the labor force." Frantz Tavares

Prior to the creating of the fund, ADEI in partnership with the United Nations Industrial Development (UNIDO) conducted a feasibility study, which concluded that Cabo Verde has all the necessary conditions and strengths to create a fund. It also determined that the fund would be economically and financially viable given that it could monetize capital at a rate of return of 16%, which is more cost-effective than other available financial investment alternatives currently in the market.

Special Session: Financing Instruments

Facilitator: Olugbenga Adesida, Administrator of Ihaba, Director of the Africa Innovation Summit

Panelists:

Steve Kayizzi-Mugerwa, Director, Research Department, AfDB

Lucineida Fonseca, xSeeds Africa



1) African Development Bank: Africa50 Fund

Steve Kayizzi-Mugerwa spoke of the current investment/funding scenario in Africa pointing to the fact that while the continent's economy is growing, there are still enormous challenges in financing for much needed projects that will allow for the transformation of the continent. He explained that existing institutions such as the AfDB are still quite small for the types of financing required to fund the 'game changing' mega projects, which Africa needs. He pointed to the growing gap between the demand and the available funding. He further emphasized that the existing business models are not enough to satisfy the market needs. For this he says, we must think outside the box, must start a new type of initiative, an African initiative, credible apolitical, flexible, efficient and commercial. AfDB's response to the challenge is the Africa50 Fund, which he presented.

AfDB's Africa50 Fund is a strategic project development initiative created to respond to the gaps in the marketplace. The goal is to create a platform for Africa's development and growth through the mobilization of private financing to support infrastructure projects in Africa. The initiative will focus on four key sectors: energy, transport, water and ICT. The Africa50 Fund will invest in high-impact projects at the national and regional levels across the continent.

Its funding structure, he described, will involve various investors, with the AfDB serving as incubator; it will include African countries, institutional African investors, global capital markets, and impact investors among others. This is a new 'vehicle' with independent governance and capital structure that will contribute towards the transformation of Africa.

2) XSeedsAfrica: SQR1 Accelerator & K-Fund for Innovation



In this special session, IHABA presented xSeeds Africa, an initiative it plans to launch in response to the concerns discussed during the Summit. It proposes to create a vibrant company, xSeeds Africa, dedicated to improving the entrepreneurial and innovation landscape in Africa. xSeeds Africa will create the following two products: SQR1 Accelerator and K-Fund for Innovation. Lucineida Fonseca gave an overview of these financial instruments and investment strategies, which will aim to contribute towards the development of Africa's entrepreneurial landscape.

SQR1 will be xSeeds Africa start-up and accelerator fund. Its goal is to contribute towards the building of the start-up ecosystem in Africa to promote broad social change and transformation through entrepreneurship and innovation. The accelerator goal is to incubate the smallest and most innovative start-ups in Africa.

SQR1 will invest up to 25,000 USD in these ideas for a 12% Equity stake. 10 companies/teams per year will participate in an intensive 5-month program in Cabo Verde. The focus will be on developing partnerships and rigorous capacity building and its differential will be world-class mentoring and network building. SQR1 will be providing shared workspace, training, and a healthy competitive environment, among others.

The K-Fund for Innovation aims to spur innovative and high-potential SMEs with high opportunities of growth. It will focus on making investments in companies working on applying knowledge and creative approaches to addressing the critical challenges facing African countries. The K-Fund will focus on investing to make the companies globally competitive and it will invest in about 5 companies with proven teams and disruptive ideas per year.

Part of its investment strategy will be to raise between 10-20 million USD and focus on the missing middle. The K-Fund will also have the opportunity to invest in some of the firms graduating from the SQR1 program and will co-invest with other similar funds in Africa. Both SQR1 and the K-Fund will also rely on the various competitions and awards in Africa for deal flows.

Special Session: Call to Action

Presenter: Olugbenga Adesida, Administrator of Ihaba, Director of the Africa Innovation Summit



During the last plenary session, Adesida made a brief presentation to summarize the key messages and recommendations from the discussions over the three days. He also challenged the delegates to engage and help mobilize for the promotion of innovation in Africa. The delegates committed to become part of the change that must take place in Africa.

We all have a role to play. As Prime Minister Jose Maria Neves said in his presentation, “*Our development challenges demand a generation of African **protagonists**, from politics, from economics, from all sectors, to transform the continent.*” Each of the delegates left having accepted to use their networks to continue to help push for change within the various communities of interests that they belong. The goal is to push each group to initiate specific actions that will support the promotion of innovation for Africa’s structural transformation.

Specifically, delegates will aim to influence their governments to create the necessary space for trial and error, facilitate policy experimentation and develop innovation strategies based on specific their country’s context. Additionally, they committed to encourage African governments to begin to push for the development of national innovation systems, and to formulate the policies and science, technology and innovation agendas. African governments also need to be encouraged to build institutions that understand and can engage directly with entrepreneurs and to facilitate platforms for interaction between all the actors and stakeholders with a role to in promoting innovation.

There is a clear need to promote engagement between policy makers and academia in Africa. The delegates also accepted to urge academia to strengthen research focused on understanding the “**African Innovation Cycle**”, and to share the insights and results in ways that can contribute to improved policy formulation. They also agreed to lobby to accelerate the pace of relevant continental higher education reforms in Africa.

The delegates saw the need to work with the private sector in the promotion of African products and to assist in bridging the gaps between inventors and markets. They will also help encourage larger and established companies to incubate smaller companies where relationships can be mutually beneficial. Their commitment will involve actions to push the African private sector in order to put in place programs to reward innovation within and outside of their industries. For communities, the focus will be to urge the creation of coalitions for innovation, to address social problems and to advocate for desired outcomes and performance from the innovation system and actors.



Recommendations

Government

- African countries need **explicit NSI policies and STI agendas** that correspond to their local realities. Home-grown approaches are important. Relevance is more important than sophistication. Investment over Aid.
- **Build institutions** that understand and engage with entrepreneurs. Help them prepare for and take risks.
- **Facilitate** platforms for interaction between the innovation actors.

Academia

- Strengthen local research towards understanding the **“African Innovation Cycle”**
- Be **activist scholars**. Communicate the science / evidence in ways that can contribute to better policies and practices. Have a relevant, societal-impact orientation.
- Accelerate the pace of relevant continental **higher education reforms**.

Private Sector

- Successful enterprises and entrepreneurs should **mentor** new players and **incubate** new businesses. This can be mutually beneficial.
- **Broker the gaps** between investors, inventors, and markets. E.g. Money can be found – how do we make it easier for willing and talented entrepreneurs to find it?
- **Reward innovation** within and outside of your industries. This would stimulate the culture across society.

Communities

- Build **coalitions for innovation** to address social problems. Innovation should be valued by NGOs.
- **Advocate** for desired outcomes and performance from the innovation system and actors (government, business, universities).

Closing Ceremony

H.E. Jorge Carlos Fonseca, President of Cabo Verde

Joseph Okpaku, President, Telecom Africa Corporation, USA & Nigeria



At the closing ceremony, the representative of the participants, Joseph Okpaku, congratulated the organizers of the Africa Innovation Summit 2014, praising the success of the event. He described the summit as a noteworthy achievement, a continuity of a dream and a manifestation of the ongoing effort of many generations, towards the common goal of an African Renaissance.

Unitel T+, one of AIS 2014's key sponsors, awarded Afate Gnikou of WoeLab with the prize for the Most Popular Innovation at the exhibit Africa Innovations, for his e-waste 3D printer.

In his closing speech, the President of Cabo Verde proposed a reflection on the ethical foundations of innovation and of government structures.

In a reflection about the great themes, which have historically united and guided the continent and engaged the commitment of its people towards a desired common goal, President Fonseca equated the current engagement with innovation to the unifying fervor during the pursuit of independence. Noting that Independence was a guiding force that mobilized Africans to give their best, he claimed that innovation is now the great possible unifier of Africa. For this, he stressed, innovation must sit on ethical pillars, and be guided by social ideals and concerns for a just and equitable continent.

“Innovation, an inherent characteristic of Man, which in the current context has assumed an extraordinary dimension due to scientific and technological progress, should encompass all social activity, not be limited to the, nevertheless important, economic sphere” - President Jorge Carlos Fonseca.

He emphasized the ethical responsibility of innovation and the need for a pointed reflection on the organizational structure of society and government, which he said to be key in creating conducive environment for innovation.

In order for innovation not to turn into a mere panacea but fulfill its potential as a powerful leverage and tool for transformation, Fonseca claimed it must be placed at the service for the betterment of the lives of Africans in this global and still unequal world.

4. Conclusions & Recommendations



The goal of the first edition of the Africa Innovation Summit 2014 was to establish a platform for an ongoing strategic dialogue among stakeholders in Africa. It represents a new approach in the promotion of innovation as a key driver of transformation. It does so by bringing together policy makers, entrepreneurs, academics, investors and innovators for an extensive dialogue on critical issues. The aim is to build an Africa-wide constituency that will commit, encourage and support actions to promote innovation for structural transformation in Africa. AIS's program was extensive and the discussions were challenging and frank. Unfortunately, no report could do justice or fully capture the richness of the dialogue. The previous section attempts to provide an overview of the key issues raised in the numerous sessions, which included 17 workshops, 7 plenary sessions as well as exhibition and side events. In this section, we will attempt to summarize the key messages gathered from the discussions, the insights for developing and building national systems of innovation in African countries, and a call to action in the form of specific actions that the delegates will be pushing for the key stakeholders to undertake.

4.1. The Main Messages

Africa needs to innovate for transformation. Africa's growth experience of the last decade holds significant promise for development. It has allowed the continent to reduce substantially the number of poor and to realize gains in many social areas. However, it is well accepted by Summit delegates that the growth of the last decade cannot be taken for granted. It is also clear for most delegates that the necessary structural transformation will not take place on the continent if attention is not paid to building our capacity to innovate and facilitate innovation driven societies on the continent. Africa will require purposeful and strategic actions to build an environment that is propitious to innovation. It will be crucial to addressing current and future challenges as well as in assisting the continent to seize emerging opportunities.

Africa needs to recognize the tension between the need for disruption and the resistance to change that characterizes our institutions and policies. Innovation, as agreed by participants, is by a nature a disruptive exercise while many of our institutions and policy apparatus tend to resist change. This prompted one of the panelists to ask, "Who is afraid of innovation in Africa?" Might many be afraid of innovation and what does this portend for African countries with respect to promoting innovation? Who are the gatekeepers? Are they really favorable to innovation, if it is fundamentally about change and disruptions? Delegates favor transcending the 'status quo' and the need to build coalitions/constituencies for innovation on the continent.

A system of innovation is not about discrete innovations or inventions; it is about dynamic relationships and interactions. It is clear from the various sessions that innovation is driven by dynamic relationships and interactions among actors within a system of innovation. It is not a one-time event and it is largely not the work of a lone actor. Additionally, it is not just about the 'spark of genius'. Innovation is a systemic process; it is driven by interactions and relationships among various players. An example that many regions and countries around the world are trying to emulate is Silicon Valley. However, contrary to the popular media accounts, Silicon Valley achieved its success due to the relationships and interactions among 'disparate' stakeholders within the Silicon Valley innovation system. The actors include the universities, the companies, research centers, and venture capital institutions based within the Bay area. Even among competitors there are platforms for cooperation and collective actions. Government in the US also plays a supporting role at all three-levels, with their network of research institutions, funding for research and program of incentives. It is the interaction and relationship between these actors that made Silicon Valley the powerhouse it is with respect to innovation.

There is a range of innovation system actors. The fact is that stakeholders matter. This however should not be equated only with the usual suspects. As emphasized during the Summit, 'Innovation should not be confined to an elite.' There are many other actors with critical roles in building a robust and high performance innovation system. Nowhere is this truer than in the public sector where Africa needs innovation to ensure structural transformation. Importantly, there is a need for coalition of supporters to ensure resource allocation and to facilitate constructive participation by others. Innovations whether in the social arena, low or high technology, industry or public sector require a system made up of stakeholders. All have crucial roles to play in ensuring that the system is robust.

Innovation is a social and not a technological behavior. Too many people associate innovation primarily with hard technology or machines. This is not so. One of the key message that permeated the discussions during the Summit was the fact that innovation is inherently a social behavior. As noted by the Mario Lucio Sousa, Cape Verde's Minister of Culture in one of the panels "Without the ingredient of the culture we remain in the scope of the invention but not of innovation." Africa needs to build an

innovation culture that permeates all aspects of society. This innovation culture is not to be relegated merely the hard technology but it must become a way of being. Innovation is a process. As noted by Olugbenga Adesida in the Call to Action session, “innovation is simply too important to be left up to scientists and technologists alone”. It is crucial that we engage all and embed the act of innovation as an integral element of African culture.

Entrepreneurs and entrepreneurial spirit are at the core! We can only build a robust innovation system if we have the entrepreneurs and develop the entrepreneurial spirit. The ‘can do’ and risk-taking attitude of entrepreneurs is key to ensure that we build innovation-driven societies in Africa. This will require making the educational system in Africa more entrepreneurial and facilitating close collaboration with industry. The fact is that entrepreneurs have historically been central to the ‘creative destruction’ process that engenders new ideas and entirely new industries. The entrepreneurial spirit and entrepreneurs are both necessary for the disruption and the process of change needed to create extraordinary things that can transform industries, economies and societies. As such, the push for innovation in Africa must be accompanied by an agenda to encourage and foster innovative entrepreneurs and the entrepreneurial spirit within African societies. In the words of the Cape Verdean Prime Minister, Jose Maria Neves, at the Summit, our “countries need to have a culture of searching... of seeking solutions, responding to creativity, daring to be entrepreneurial.”

4.2. Developing Innovation Systems: Insights and Highlights

The Summit delegates also reached a consensus on the need for African countries to eagerly begin to develop and nurture their innovation systems. This is a strategic decision that African countries must make and actively work to make happen. Building a robust national innovation system is the only route to ensuring that Africa is able to innovate to face challenges and seize emerging opportunities. The key ideas that emanated from the Summit discussion are each covered briefly below.

Get and maintain the basics in place. It will be an insurmountable challenge to innovate and build an innovation driven economy and society if we do not get the basics right. African countries must find a way to build the critical mass needed in areas such as skills and financing. There is a necessity for creative ways to facilitate skills development as well as finance innovation, whether it is research or ensuring that start-ups have access to funding. African countries also need to build a wide range of critical competencies, from facilitating productivity to governance.

Align key systems to achieve the virtuous cycle. Innovation can only thrive when the system is right. African countries will have to get the politics, policies, programmes, platforms and partnerships right. In addition, we need the people to lead and manage the system. President Paul Kagame of Rwanda emphasised this point often in his remarks in the session Conversations with Presidents. As he noted, it is ‘important to get the politics and the policies right’. African countries need to, as the popular saying goes, ‘walk the talk’. There is need to ensure that national development agendas are pro-innovation and that all stakeholders are moving in the same direction. Such virtuous circle, as noted by Dr. Sargent Winslow, the Chief Advocate for the US Small Business Administration, is the hallmark of the US innovation system. He described the US system where businesses and individuals pay taxes that are used to fund basic research and support capacity building. The results of the basic research are used by businesses to create innovative products that lead to employment, higher tax revenue and more funding for research. However, this cycle, according to Herman Chinery-Hesse, an entrepreneur and delegate in the Summit, is not working in Africa and must be fixed if things are to change significantly. African countries must invest in research, in people, in the protection of ideas, in their commercialisation, and in encouraging demand-led innovation. Countries cannot be talking about innovation without making the necessary investments and without ensuring that all they are doing is aligned to achieve a virtuous cycle for innovation.

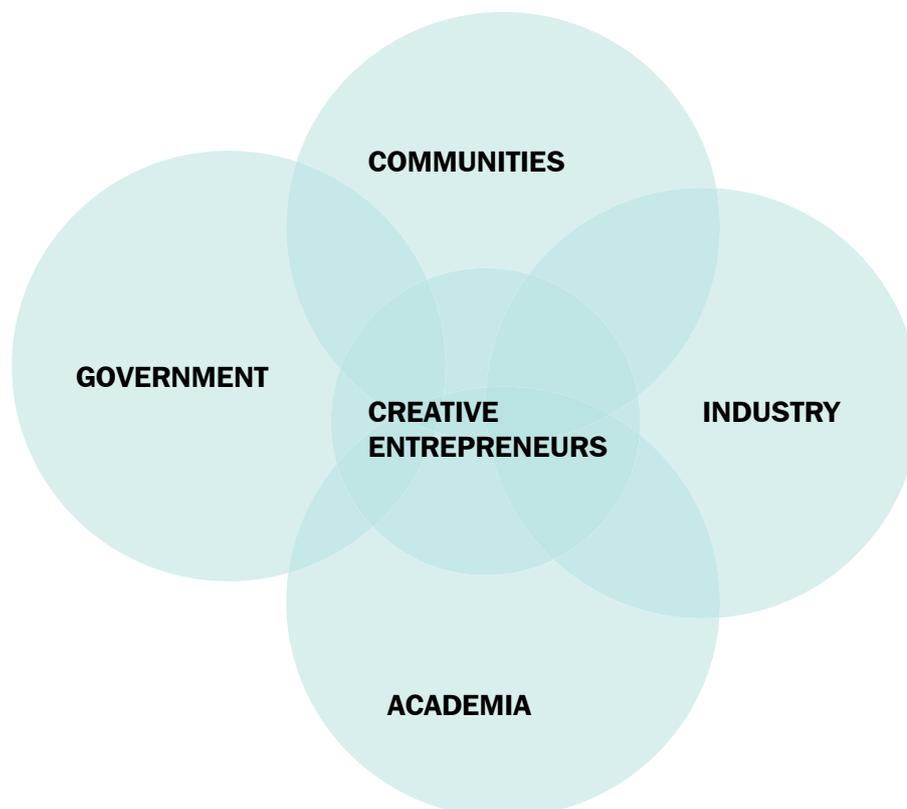
Scarcity requires that we be resourceful and responsive. Africa is faced with scarcity of resources including funding, core competencies and skilled people. The reality however is that African countries cannot afford to wait. It is imperative that we use the available resources in resourceful and responsive ways. We simply have to be creative in using what we have and in attracting additional resources from within or outside the continent, whether they be talents or funding. We also have to leverage the variety of knowledge resources at our disposal, build home-grown solutions, learn from others and importantly endeavour to be very creative in order to build our own innovation system, one which is robust, efficient and productive.

Promote experimentation. The discussions during the Summit made it clear that there is no magic solution. African countries must build systems that not only tolerate but that also encourage trial and error. Innovation is a process and a successful innovation system must allow for experimentation, which permits insight and knowledge. Likewise, as a process of discovery and learning, experimentation is crucial for innovation whether it is in the hard sciences or in the policy environment. Over the years, our countries have been conditioned to seek the magic solution, one idea or strategy that could be the answer to the development challenge facing the continent. In the process, experimentation and delib-

erate small policy experiments have not been considered or explored. This however must give way to measured approaches that favor trial and error. This is the way to build successful innovation systems.

Learning and collaboration. Another aspect of well-functioning innovation systems is the opportunities for learning and collaboration. Deliberate platforms are created to promote learning and to ensure that actors are relating, interacting and actively collaborating. Within the African context, the Summit concludes, it is imperative to improve the quality of education and facilitate new approaches to learning that are more appropriate for today's 'networked/knowledge economy'. There is a need for standards and systems of accreditation. The educational system must be made relevant to the realities of the continent. Exchange and combination of knowledge as well as regional cooperation were agreed to be critical for Africa. In addition, Africa needs to further promote collaboration between educational institutions and industry as well as promote collaboration across countries since many of our institutions and countries are simply too small. African universities must forge links among each other to promote quality teaching, research and innovation. It is crucial that African policy makers promote and invest in regional collaboration and cooperation in building innovation systems.

Everyone must be engaged. The Summit highlighted the importance of engaging everyone as in other high performing innovation systems. There are critical roles that government, industry, academia and communities must play. Within each of the groups, it is important to have 'creative entrepreneurs' that forge and promote the necessary disruptions to stimulate innovation



There are clear and critical roles for each stakeholder in the innovation system and it must involve a collaborative process. The government has the policy role, as it must work with the other stakeholders to create a vision and ensure that there is coordination and coherence in policy. On the other hand, the academy must lead in training. Its core duty is to train the minds to transform the continent. This will require innovation and creativity in the educational and research systems. The academy in Africa needs to become relevant to the population and as such must be engaged with the community and ensure that education and research are demand driven. These actions will require academics and researchers that understand social needs. In addition, they must be able and willing to foster collaboration and learning without boundaries, using information and communication technologies and linking with the African Diaspora.

The private sector must realize that the business models for innovation are not only research and development based and must search for new ways of exploiting competitive advantages. Critically, Africa's private sector must be part of the process of identifying and nurturing entrepreneurship from an early stage. They must help in bridging the gap to the market. In addition, they can help to facilitate commercialization of non-tech innovations, promote risk-taking culture in entrepreneurship, and put in place mechanisms to promote value chain upgrading and integration start-ups. The communities must become active actors for innovation by raising awareness and promoting inclusivity. In addition, they can be a critical element in the communication and dissemination strategies of research and innovation achievements while also ensuring support for 'learning communities' or learning platforms

Roles

Government	Academia	Private Sector	Communities
<ul style="list-style-type: none"> . Political will and alignment of intent & action . No single blueprint; making smart strategic choices Policy experimentation . Commitment to evidence based policy . Long term vision and consistency . Horizontal coordination and policy coherence . Promote social innovation & address barriers to entry 	<ul style="list-style-type: none"> . Demand-driven education & research. . New types of scientists that understand social needs. Inter- and trans-disciplinarity. . Creative innovations and reforms in the education and research systems . Collaboration and learning without boundaries (using ICTs, Regional collaboration, Mobility, Diaspora) 	<ul style="list-style-type: none"> . Identify and nurture entrepreneurship from an early stage . Mentorship & coaching . Align skill formation to business needs . Identify and pursue social impact markets . Recognize non-tech & non-R&D-based innovation . Role of brokerage across innovation cycle . Bridging the gap to the market. . Promote value chain upgrading and integration 	<ul style="list-style-type: none"> . Communities are active actors for innovation; raise this awareness and capacity to articulate . Creative approaches for knowledge appropriation and open innovation . Communication strategies for the dissemination of research and innovation achievements . Support "learning communities" or learning platforms

5. Next Steps

The organizer and initiator of the Africa Innovation Summit, Ihaba, undertook to institutionalize the Summit. The goal is to build the AIS as the premier Africa-wide platform to promote innovation on the continent. It will be built into a platform to promote dialogue and learning among key actors and stakeholders. Ihaba will establish a social enterprise to organize the Summit every 18 to 24 months. The Summit will continue to promote learning, urge robust strategies, policies and agendas, and stimulate collective action in support of innovation in Africa.

Additional activities to be developed in conjunction with the Summit will be used to promote policy learning and to share ideas across the continent. Specific activities will include commissioning of case studies, preparation of policy briefs, organization of strategic dialogues, and the development of the AIS blog as a platform to engage large number of people and actors on issues of innovation in Africa.

IHABA is also studying the possibility of establishing an Africa-wide start-up accelerator to incubate companies and a venture capital fund to provide growth capital for small and medium size enterprises focused on applying creative approaches to address the challenges facing African countries.

Annexes

Annex A: Assessment of AIS 2014

This annex provides information on the participant's perception of the first AIS. The first section provides the reflections of a few of the participants that have authored opinion pieces for publications on the AIS following the event. These were unsolicited. The second section of the annex provides the feedbacks that were provided by the participants on the AIS 2014 evaluation form. The feedback covers various areas, including content, logistics and recommendations. The first edition of the Africa Innovation Summit received positive reviews from participants, delegates and from the national and foreign journalists who attended and covered the event. The Summit sparked encouraging reactions from attendees. The responses were positive, affirming and insightful and are invaluable the planning of the following edition.

A1. Reflections from some Participants

Among the various assessments published, were that of Mammo Muchie, professor at the Institute of Economic Research on Innovation (IERI) in South Africa, who said that AIS “*rewrote the rules for science and innovation meetings on the continent. Future gatherings should strive for the same inclusivity*”. He highlighted the extensiveness of the Summit saying that it “*was truly an inspiring experience. I have attended many conferences, but nothing like it. It was all-inclusive... But while all these sectors were represented, none dominated...It was a conference of synthesis. The triple helix of government, university and industry was transformed into quadruple helices, by the inclusion of exhibits of innovations and innovators, the participation of civil society and the media.*”

Muchie also made suggestions and ideas for the next editions and concluded his article saying that “*AIS highlighted the significance of making African economies and society innovation-driven, and inspired with a strong media presence to diffuse the news. I found this first AIS a promising start and ways must be found to promote and sustain it.*”¹

In his article summarizing one of the important sessions of the Summit that he facilitated, SciDev.net Director, Nicholas Perkins, reflected on some of the key insights of the workshop:

“The first day of the inaugural Africa Innovation Summit featured a plenary session on Best Practices in Innovation policymaking. It was a sensible place to start. But some of us have been talking about innovation in Africa for a long time. In 1998 the Africa Union’s Togo Plan of Action from suggested 1 per cent of each member state’s GDP should be invested in research and development. That’s how long this has been in discussion. Since then only four countries have made the target — Malawi, South Africa, Tunisia and Uganda.

*As chair of the session, and with that sobering statistic in mind, I invited the panel to a conversation, which I hoped would be genuinely catalytic. What followed was a discussion which challenged a few key assumptions, put forward some concrete suggestions and presented some new paradigms for looking at innovation.”*²

Renowned journalist, Anver Versi, Editor of African Business Magazine wrote, “*May I congratulate you*

1 The full article can be obtained online. The source is http://www.researchresearch.com/index.php?option=com_news&template=rr_2col&view=article&articleId=1342192&utm_source=hootsuite&utm_campaign=hootsuite.

2 The full article can be obtained from <http://www.scidev.net/global/innovation/scidev-net-at-large/top-tips-for-building-policy-for-innovation.html>

on the conference and the excellent facilities you provided for journalists. You also did something that few conference organisers think about - you organised some excellent field trips for us to enable us to get a feel for the country and its people. Too often, it is conference hall to hotel, hotel to conference hall and end of trip. Well done and hopefully we can work together again in the near future.”

Jonathan Kalan, BBC Correspondent who participated in the Summit shared the following with the organizers of the Summit, “Thank so much for your time and effort in making the trip such a success! It was a pleasure to attend and everyone I spoke to had an absolutely great time. I will certainly stay in touch and let you know as stories related to AIS come to surface and publication.”

The local press also covered the event extensively. The television stations interviewed and invited many of the delegates and innovators to participate in their programs.

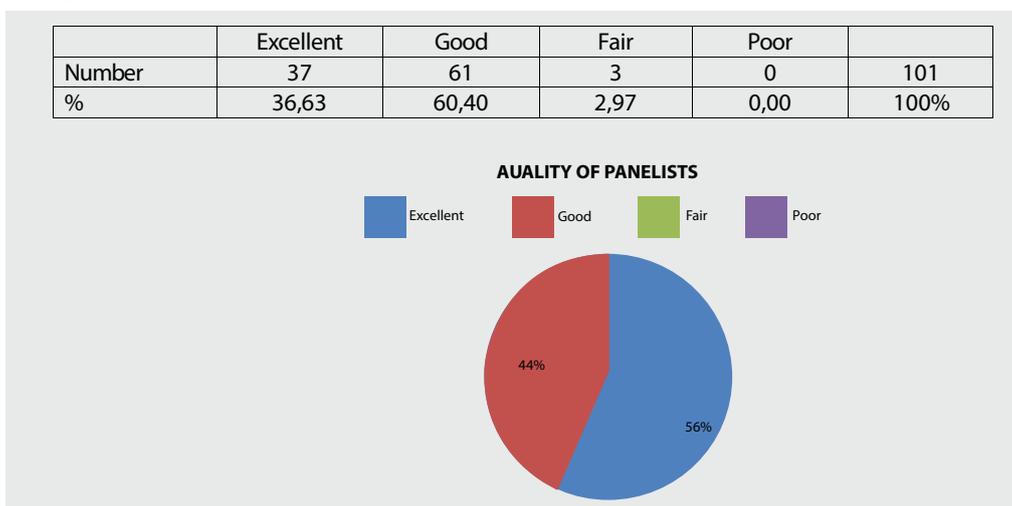
A2. Summary: AIS 2014 Feedback Questionnaire

A quality assessment questionnaire was distributed to the participants during the last day of activities and enabled the collection of 101 responses, a good representation of the attendees allowing us to present the results below.

A2.1. Overall Summit Assessed



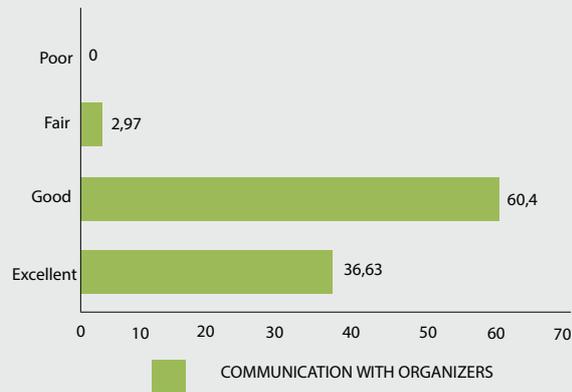
A2.2 Quality of Panelists



A2.3. Logistics

A2.3.1 Communication with Organizers

	Excellent	Good	Fair	Poor	
Number	37	61	3	0	101
%	36,63	60,40	2,97	0,00	100%



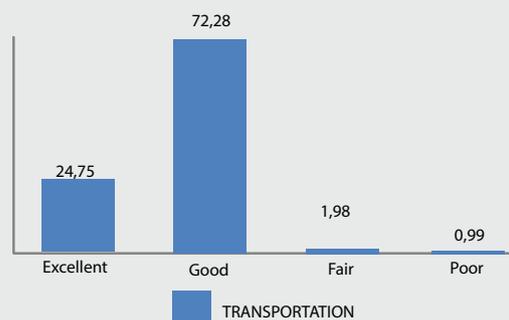
A2.3.2 Accommodation

	Excellent	Good	Fair	Poor	
Number	22	77	0	2	101
%	21,78	76,24	0,00	1,98	100%



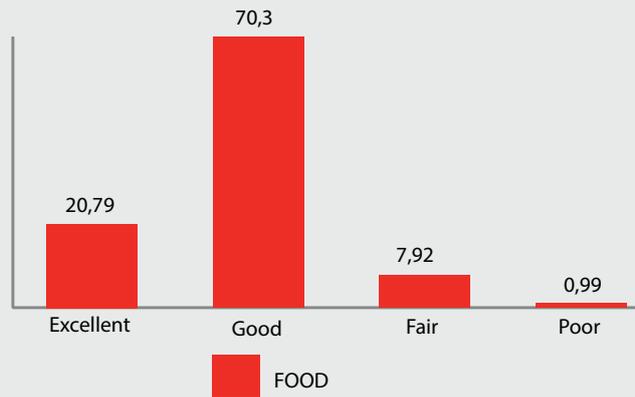
A2.3.3 Transportation

	Excellent	Good	Fair	Poor	
Number	25	73	2	1	101
%	24,75	72,28	1,98	0,99	100%



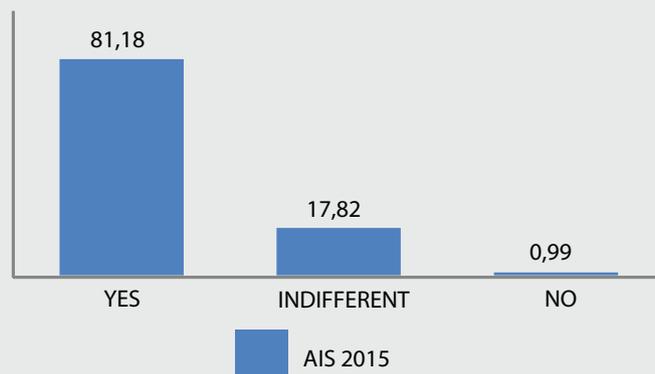
A2.3.4 Food

	Excellent	Good	Fair	Poor	
Number	21	71	8	1	101
%	20,79	70,30	7,92	0,99	100%



A2.4 Attending the Next AIS

	YES	INDIFFERENT	NO
NUMBER	82	18	1
%	81.18	17.82	0.99



A2.5 Recommendations

- Sustainability of the Summit: close to 82% of participants are willing to attend the next edition of AIS.
- Suggested themes for the next Summit:

AREA OF	THEMES
EDUCATION	Support for University Centers in Innovation
	Innovation economics, wiki economics
	ICT in Education
	Business opportunities for the diaspora & international learning
FINANCE & INVESTMENT	Finance and Technology
	How to get financing & the rules of applying for funding
	Financing Innovation for NGOs, IGOs
	Investment on the Videogame industry
YOUTH AND INNOVATION	Youth Capital
	Youth Employment and Women Entrepreneurship
	Youth startups and the role of tertiary institutions
TECHNOLOGY	Free software for innovation and development
	Co-working and open system for innovation
	Telecoms Regulation and innovation
AGRICULTURE, ENERGY & HEALTH	Energy, e-learning in Africa, CSR & Innovation
	Sustainability of health & safety at work
	Agro-Innovation
	Innovation in agribusiness and its funding
PUBLIC POLICIES	Public/Private sector innovation cooperation
	Regional Integration, Good governance and good judiciary systems
	Crafting the environment for innovation
	Intellectual Property as a lever of Innovation
	Measure the impact of innovation on economy and social development
OTHERS	Environmental sustainability and Climate change
	Science, Technology & Innovation indicators
	Follow-up on summit actions

- Engage more countries in the initiative
- Maintain participants informed
- Improve translation services
- Share contact list of all participants to build on networking
- Allow more time after sessions for networking

A2.6 Conclusion

Generally speaking, the AIS 2014 organized in Cabo Verde was highly appreciated by the participants. About 99% of surveyed participants graded the Summit excellent or good. In short, almost all considered it to have been a successful event.

82% of participants are looking forward to the second edition of AIS and have committed to participate.

Suggested themes and other recommendations such as keeping participants informed, effective implementation of proposed policies to promote innovation are challenges that the organizers and participants are committed to take on to ensure the sustainability of the AIS initiative.



Annex B:

Exhibit: African Innovations

An important part of the summit was the exhibit featuring important innovations from across the African continent.

The initial search process relied on recommendations from AIS colleagues and collaborators as well as media searches for innovators and their innovative products. One of the important sources of information was the Africa Innovation Prize (IPA <http://innovationprizeforafrica.org/>). Internet searches led to a few key innovators/innovations such as the 3-D printer made from recycled electronic junk by Woelab, Togo, the winner of the UniTel T+ Award for the most popular innovation of the summit.

The selection framework aimed to represent different sectors and fields of Innovation to include high-tech, low-tech and social innovation.

One of the goals was to showcase practical innovations, which reflect some of the key concerns being debated in the various workshops and plenary sessions. It also aimed to publicize to the public and the stakeholders what innovations are being done in the continent. Another important goal was to inspire others, to show them that it is possible to create something innovative, regardless of the challenges.

A positive outcome was the interest showed by the Media. The innovators were featured a variety of television programs and news and were also written about in the international media (<http://www.bbc.com/future/story/20140218-why-your-old-tech-holds-treasure>).

Below is a list of the innovators/innovations showcased in the African Innovations Exhibit:



Evans Wadongo

Country: Kenya

Field of Innovation: Solar Energy

Innovation: Mwangabora (Swahili for Good Light) Solar powered Led Lantern solar lamp, which is built from fifty percent recycled materials and is the first African-designed and produced solar lamp available at low cost

Prizes: Wadongo was voted one of CNN's top ten heroes of 2010

<http://www.justonelamp.com/>



A Verdade

Country: Mozambique

Field of Innovation: Information

Innovation: A Verdade, first free high-quality newspaper in sub-Saharan Africa

Prizes: Mr. Charas was voted a Hero of Africa by media group MSN in 2005, named a Young Global Leader by the World Economic Forum in 2006, and an Archbishop Tutu African Leadership Fellow in 2007.

<http://www.averdade.org/>



Sanoussi Diakite

Country: Senegal

Field of Innovation: Food Security

Innovation: Fonio Husking Machine

Prizes: Rolex Awards for Enterprise



Bonako

Country: Cape Verde

Field of Innovation: Apps and Videogames

Innovation: Games based on African Culture and Mythology

<http://www.bonako.com>



mFarm

Field of Innovation : Agriculture

Country: Kenya

Innovation: mFarms is an integrated and customizable ICT platform designed to help stakeholders in agricultural value chain communicate with each other efficiently, establish and maintain business relationships and manage the flow of goods and services among them.

www.mfarm.co.ke



Bit Bait

Country: Algeria

Field of Innovation: Pesticides

Innovation: BitBait, Insecticides and rodenticides (chemicals-free, Ecological, BIO), natural 100%. This new pesticides technology is seen as a breakthrough in the world and a giant leap in safe insects and rodent control.

Prizes: IPA 2012 Winners, Innovation Prize for Africa

<http://www.bitbaitint.com/>

Zegetech

Country: Kenya

Field of Innovation: Financial Solutions

Innovation: MPayer mobile money management system

Prizes: Zege Technologies was among twenty of the world's most inspiring high-growth entrepreneurs selected from 50 top SME entrepreneurs from around the world, to participate in a Dragons Den Pitching Competition at the Global Forum on Innovation and Entrepreneurship.

<http://zegetech.com>



mPedigree

Country; Ghana

Field of Innovation: Health

Innovation: mPedigree, is an anti-counterfeit ICT software application that seeks to empower the consumer so that they have a way of verifying their medication's safety.

Prize: 35 top young innovators in the world by MIT.

<http://mpedigree.net/>

Green Dreams

Country: Kenya

Field of Innovation: Agriculture

Innovation: ICow, a voice-based mobile application that helps farmers track the estrus stages of their cows. This application enables farmers everywhere to better manage breeding periods as well as monitor cow nutrition leading up to the calving day. This helps farmers get the most of their cows and their farms.

Prize: First Prize Winner of Apps4Africa Competition 2010

<http://www.greendreams.co.ke/>



NOSi

Country: Cabo Verde

Field of Innovation: IT solutions

Innovation: Development of e-governance solutions such as the public finance information management system, SIGOF.

www.nosi.cv



Isonne

Country: Cabo Verde

Field of Innovation: Financial solutions

Innovation: PagaLi, online electronic payment tool

www.pagali.cv



Cellular Systems International

Country: Senegal

Field of Innovation: Financial Solutions

Innovation: Wari Gateway platform with services to send & receive money, pay bills, etc.

www.wari.sn



Afate Gnikou

Country: Togo

Field of Innovation: E-Waste

Innovation: 3D printer and other machines made of e-waste

<http://www.woelabo.com/>



GreenTech

Country: Gambia

Field of Innovation: Sustainable Energy

Innovation: Affordable high quality fuel briquettes for cooking and heating from households to high diversity of industries.

<http://www.greentechgambia.com>



Annex C:

Program Facilitators and Panelists

1-2. February

NEPAD Agency's 2 day workshop on Monitoring, Evaluation and collection of STI Measurements in Africa

3. February

Opening of the Exhibit - African Innovations
 Speaker: H.E. António Correia e Silva, Minister for Higher Education, Science and Innovation, Cabo Verde

4. February

Special Plenary **Opening Ceremony**
Speakers Former President Pedro Pires, Patron of the AIS 2014
 H. E. José Maria Neves, Prime Minister, Cabo Verde

Plenary A ***Innovation and Africa's Transformation***
 Facilitator: John Ohiorhenuan, Former UN Resident Coordinator and UNDP Resident Representative, South Africa and Professor at Cloumbia University and The New School, New York
 Panelists: H. E. Jose Maria Neves, Prime Minister, Cabo Verde
 Francis Gurry, Director General, WIPO, Switzerland
 Bright Simons, CEO, M-Pedigree, Ghana
 Djeflat Abdelkader, Vice President of Globelics and Professor at the University of Lille, France

Workshop A1 ***Services: Mobile Technologies and Electronic Governance***
 Facilitator: Anne Stubert and Naoko Koyama, Dalberg, Senegal & Kenya
 Panelists: Jorge Lopes, President, NOSI, Cabo Verde
 Kariuki Gathitu, CEO, Zegetech, Kenya
 Kabirou Mbodje, CEO & Founder, Cellular Systems International (CSI), Senegal

Workshop A2 ***Transforming Agriculture into a Growth Engine***
 Facilitator: Hippolyte Fofack, World Bank Institute; USA
 Panelists: George Omind Okongo, Researcher, Maastricht University, Netherland
 Julius Gatune Kariuki, Senior Policy Advisor, ACET, Ghana

Workshop A3 ***Facilitating Innovation: Hubs, Parks and Clusters***
 Facilitator: Geci Karuri-Sebina, Chair, Millennium Node, South Africa
 Panelists: Erika Kraemer Mbula, Research Fellow, IERI, Tshwane University of Technology, South Africa
 Neville Raymond Comins, Consultant, South Africa

Plenary B ***Best Practices in Innovation Policy-Making***
 Facilitator: Nicholas Perkins, Director, SciDev.Net, UK
 Panelists: Fernando Antonio dos Santos, Director General, ARIPO, Zimbabwe

Workshop B1 *Institutions that Drive and Support Innovation*
 Facilitator: Steve Kayizzi-Mugerwa, Director, Research Department, AfDB, Tunisia
 Panelists: Frantz Tavares, President, ADEI, Cabo Verde
 Ian John Cresswell, Luxinnovation, Luxembourg
 Moji Rhodes, Deputy Chief of Staff, Lagos State Governor & Head, Lagos Innovation Council
 Mwelecele Malecela, Director General, National Institute for Medical Research, Tanzania

Workshop B2 *Policies & Regulation: Building an Enabling Environment*
 Facilitator: António Querido, Head of Environmental Energy & Natural Disaster Prevention Unit, UN Cabo Verde
 Panelists: Joseph Okpaku, President, Telecom Africa Corporation, USA & Nigeria
 Ngozi Bell, Former Vice President, Birchmere Ventures, USA
 Herman Ntchatcho, Senior Director, Department for Africa and Special Projects, WIPO

Workshop B3 *Innovation Policy-Lessons from the Global South*
 Facilitator: Madelene Mukamabano, Freelance Journalist, France
 Panelists: Mahanta Hiranmay, Director, Techpedia.in, India
 Angeles Navarro Calderon, Global Networks Director, Startup Chile, Chile
 Alexandre Vera-Cruz, Professor, Universidad Autónoma Metropolitana, Mexico
 Frank L. Bartels, Senior Advisor to the Deputy Director-General, UNIDO

Workshop B4 *Oxford University: Diffusion of Innovation in Low Income Countries*
 Conveners: Xiolan Fu, Professor & Founding Director, TMD Center, Oxford University
 Mammo Muchie, Professor, IERI, Tshwane University of Technology, South Africa

Special Plenary Session *NEPAD Agency: AU's Technology and Innovation Strategy for Africa 2024*
 H.E. Martial De Paul Ikounga, Commissioner, Human Resources, Science and Technology, African Union, Ethiopia

5. February

Plenary C *Education and Innovation*
 Facilitator: Marie-Angelique Savané, Consultant, Senegal
 Panelists: H.E. Antonio Correia e Silva, Minister for High Education, Science and Innovation, Cabo Verde
 Wole Soboyejo, President and Provost, African University for Science and Technology, Nigeria
 H.E. Martial De Paul Ikounga, Commissioner, Human Resources, Science and Technology, African Union, Ethiopia

Workshop C1 *Education Policies that Promote STEM*
 Facilitator: Nicholas Perkins, Director, SciDev.Net, UK
 Panelists: Lidia Brito, Director, Science Policy and Capacity Building, UNESCO, France
 Djeneba Traore, Professor and Director, West African Institute, Cabo Verde

Workshop C2 ***Learning Beyond Boundaries***
Facilitator: Paulino Dias, CEO, PD Consult, Cabo Verde
Panelists: Lourenço Varela, Director, Institute for Education, UniCV, Cabo Verde
Bakary Diallo, Rector, African Virtual Univeristy, Kenya
Rifat Lafiti, Professor, University of Arizona, USA

Workshop C3 ***Research in African Universities: Challenges and Opportunities***
Facilitator: Mwangi Githinji, Professor of Economics, University of Massachusetts, Boston, MA, USA
Panelists: Mammo Muchie, Professor, IERI, Tshwane University of Technology, South Africa
Djefflat Abdelkader, Vice President, Globelics & Professor, University of Lille, France
Aggrey Ambali, Science Advisor & Head, NSTIH, NEPAD Agency, South Africa

Plenary D ***Entrepreneurship & Innovation***
Facilitator: D Didier Acouetey, CEO, Afrisearch, France
Panelists: Winslow Sargeant, Chief Counsel, Office of Advocacy, Small Business Administration, USA
Herman Chinery–Hess, Chairman & Founder, Softtribe, Ghana

Workshop D1 ***Getting Ideas to Market & Building Successful Firms***
Facilitator: Marcos Rodrigues, CEO and Founder, mGo and Artecommune, Portugal and Cabo Verde
Panelists: Papa Yusupha Njie, CEO, Unique Solutions, Gambia
Chika Mwobi, Founder and CEO, i5Lab, Nigeria
Bright Simmons, CEO, mPedigree, Ghana
Tracey Webster, Director, Branson Center of Entrepreneurship, South Africa

Workshop D2 ***African Success Stories: Innovative Entrepreneurs***
Facilitator: G Gilbert de Barros, World Bank
Panelists: Paul Fokam, President, Afriland First Group, Cameroon
Eric Charras, Founder & CEO, A Verdarde, Mozambique
Tonye Cole Represented by Muiyiwa Adekoya, Sahara Group, Nigeria
Evans Wadongo, Innovator, Kenya

Workshop D3 ***African Culture as a Driver of Innovation and the Creative Economy***
Facilitator: A Aidan Eyakuze, Founder & CEO, Serengeti Advisers, Tanzania
Panelists: Adetokunbo Olugbenga Abiola, Journalist & Consultant
H.E. Mário Lucio Souza, Minister of Culture, Cabo Verde
Mónica Monteiro, Producer, CineGroup

Leading Innovation: Conversations with Presidents
Facilitator: Andrew Mwenda, Strategy and Editorial Director, The Independent, Uganda
Panelists: H.E. Paul Kagame, President of Rwanda
H. E. Jorge Carlos Fonseca, President of Cabo Verde
H. E. Joaquim Chissano, Former President of Mozambique

6. February

Plenary E

Financing Innovation

Facilitator:

Aidan Eyakuze, Founder & CEO, Serengeti Advisers, Tanzania

Panelists:

Babacar N'Diaye, Former President AfDB & Board Member CSI, Senegal

Paul Fokam, President, Afriland First Group, Cameroon

Peng Tsin Ong, Director, Banean Holdings, Singapore

Workshop E1

Engineering Financial Markets to Support Innovation

Facilitator:

Gilles Atayi, Managing Director, G&A Consulting Group, South Africa

Panelists:

Sunil Benimadhu, Stock Exchange, Mauritius

Manuel Lima, President of the Stock Exchange of Cabo Verde

Workshop E2

Innovative & Non-Traditional Financing Options

Facilitator:

Anne Stubert and Naoko Koyama, Dalberg, Senegal & Kenya

Panelists:

Abdulrahman Kayode Muyibi, Founder, Start up Africa Fund, Nigeria

Kyai Ivuso Mullei, Co-Founder, M-Changa, Kenya

Anne Melnic, Chief Community Officer, Homestrings, UK

Eric Mawuli Osiakwan, Co-Founder, Angel Africa List, Ghana

Workshop E3

AfricaLICS: Learning, Innovation and Competence Building in Africa

Conveners

Ana Kingiri, Director of Research, Africa Center for Technology Studies (ACTS). Kenya

Alexandre Vera-Cruz, Professor Universidad Autónoma Metropolitana – Mexico

Djeflat Abdelkader, Vice President, Globelics & Professor, University of Lille, France

Erika Kraemer-Mbula, Research Fellow, IERI, Tshwane University of Technology, South Africa

Workshop E4

ADEI's presentation of Cabo Verde's Venture Capital Fund

Convener

Agency for the Development of Enterprise and Innovation (ADEI), Cabo Verde

Special Plenary Session

Financing Instruments: 1) African Development Bank: Africa50 Fund; 2) xSeedsAfrica: K Fund for Innovation and SQR1 Accelerator

Facilitator:

Olugbenga Adesida, Administrator of IHABA and Director of the Africa Innovation Summit

Panelists:

Steve Kayizzi Mugerwa, Director, Research Department, AfDB

Lucineida Fonseca, xSeedAfrica

Special Plenary Session

Call to Action

Presenter

Olugbenga Adesida, Administrator of IHABA and Director of the Africa Innovation Summit

Closing Session

Speakers:

Joseph Okpaku, President, Telecom Africa Corporation, USA & Nigeria

H. E. Jorge Carlos Fonseca, President of Cabo Verde

Annex D:

Partners, Sponsors and Contributors

Official Partners

Government of Cabo Verde
African Development Bank (AfDB)
NEPAD Agency
ECOWAS Commission

Partners

Ministry of Finance of Cabo Verde – SME Capacity Building and Economic Governance Project
ADEI – Agency for Entrepreneurial Development and Innovation - Cabo Verde
UCRE- Coordination Unit for State Reform - Cabo Verde
National Assembly of Cabo Verde

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Dalberg – Global Development Advisors
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Embassy of The People’s Republic of China
ENACOL – National Fuel Company
ENAPOR – Cabo Verde Ports
Ministry of Education and Sport
Ministry of Environment, Housing and Territorial Planning
Ministry of External Relations
Ministry of Higher Education, Science and Innovation
Ministry of Infrastructure and Maritime Economy
Ministry of Rural Development
Ministry of Youth, Employment and Human Resources
NOSI – Operational Unit for Information Society, Cabo Verde
Office of the Deputy Prime Minister
SEAP - Casa do Cidadão
Technicil Industries
United Nations Development Program –UNDP, Cabo Verde

Annex E:

Africa Innovation Summit TEAM

AIS 2014 Management Team

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Jose Brito - Director
Patricia Anahory - Summit Manager
Emilienne Macauley - Communication and Fundraising
Pedro Lopes – Assistant Summit Manager

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Vander Almeida

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Aguinaldo Ferreira – Carpentry
Cesar Schofield Cardoso – Multimedia installation
Deco Design – Exhibition Stands
DIKOR – Printing
Global Media – Tecnical and Multimedia Production
Green Studio - Web streaming
Guia de Serviços – Cleaning Services
Lanchonete Eurilando - Catering
Latitude Eventos, Turismo & Consultoria – Usher Services
Luminatecnica Faisca - Lighting
Márcio Cunha – Master of Cerimonies
Marius Producoes – Sound and Interpretation Equipment
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Satguru Travel – Travel Agent
Via Ousadia - Usher Service

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National Assembly of Cabo Verde

Photography

Alfa Comunicações, Binokulo, Communication and Image
Department, Office of the Prime Minister and AIS 2014