Investing in Technology and Innovations for Human Development in Africa

MEETING REPORT

Joint USAID-African Development Bank Ministerial Meeting

Rabat, Morocco
October 14, 2014

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ACKNOWLEDGEMENTS

The meeting on "Investing in Technology and Innovations for Human Development" was convened by USAID, the African Development Bank (AfDB), and the USAID-funded African Strategies for Health (ASH) project implemented by Management Sciences for Health. It was driven by participants from the public, private, NGO and academic sectors whose lively and thought-provoking dialogue contributed to its success.

This report was prepared by Lungi Okoko (ASH), Sarah Konopka (ASH), Gayle Mendoza (ASH), Ishrat Husain (USAID/AFR), and Samir Doshi (USAID/Lab). The authors of this report would like to thank Nawsheen Elaheebocus, Oussama Ben Abdelkarim, and Feng Zhao from the AfDB for their close collaboration in the planning and implementation of this meeting. Special thanks also goes to the Alliance for Affordable Internet for its assistance with stakeholder outreach, as well as the Ministers, government officials, corporate, non-profit and university representatives for their active participation in meeting discussions.

The African Strategies for Health (ASH) project is a five-year contract funded by the United States Agency for International Development (USAID). ASH works to improve the health status of populations across Africa through identification of and advocacy for best practices, enhancing technical capacity, and engaging African regional institutions to address health issues in a sustainable manner. ASH provides information on trends and developments in the continent to USAID and other development partners to enhance decision making regarding investments in health.

The 2nd Ministerial Forum on Science, Technology and Innovation in Africa aimed to engage African Ministers of higher education, science and technology, and industry in a dialogue with academia, civil society, diaspora, private sector, and scientific communities "on how to promote inclusive and green growth through scientific and technological innovation in Africa"[1].

[1] African Development Bank. "Rabat to Host 2nd Ministerial Forum on Science, Technology and Innovation in Africa". www.afdb.org/en/news-and-events/article/rabat-to-host-2nd-ministerial-forum-on-science-technology-and-innovation-in-africa-13358.

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Introduction: A New Model for Development

This report documents key topics presented and discussed at the first-ever, ministerial-level stakeholders meeting **"Investing in Technology and Innovations for Human Development in Africa"** held on 14th October 2014 in Rabat, Morocco. It took place in conjunction with the **2nd Ministerial Forum on Science, Technology and Innovation in Africa** held from 14 to 17 October 2014. The one-day meeting was convened by the African Development Bank (AfDB), the United States Agency for International Development (USAID) and the African Strategies for Health (ASH) project.

The meeting enabled high-level dialogue on the importance of collaboration between the health and science and technology sectors, making the case that investments in digital infrastructure and tools such as (mobile) broadband Internet, electronic payments and electronic records can fast-track development of the continent's economic and social sectors, including health. In view of the current situation, Ebola dominated the discussions. Talks focused on what the countries can do to apply and scale up existing and emerging technologies to build the health system and prevent and combat deadly diseases like Ebola.

> Investments in digital infrastructure and tools can fast-track development of **the continent's economic** and social sectors, including health.

Nearly 90 participants, with almost equal representation from the public, private, NGO and academic sectors, attended the meeting. These included Ministers of science, technology and innovation from Burundi, The Gambia, Swaziland and Tanzania, as well as the former Permanent Secretary for Kenya, the Director of Information and Technology for Egypt, and senior technology and innovation advisors from Finland's Ministry of Foreign Affairs. Other participants included senior representatives from Visa Incorporated, Intel Corporation, Alcatel-Lucent, Hightech Payment Systems (a top five e-payment company in the world), Fuzu (an African tech start up run by a former Nokia executive), Apptiv IT and Mobile Software Solutions from Nigeria, as well as the Alliance for Affordable Internet. U.S. Government representatives from the State Department's Information and Communication Technology (ICT) Policy office, the U.S. National Science Foundation and USAID's Africa Bureau, Global Development Lab and the Morocco Mission also participated.

The agenda included networking opportunities and sessions on the following topics:

- **Fostering dialogue and collaboration** between the health and technology sectors
- **Best practices and principles for digital development,** with a focus on eHealth/mHealth
- **Investment in broadband access and affordability** for Africa's prosperity
- **The role of digital finance, including mobile money,** in public health and other development objectives
- **Key issues related to mHealth solutions**, including technology design, policy environment, interoperability, scale, and local capacity building

Participants were welcomed by the AfDB's Dr. Boukary Savadogo, Manager for Education, Science and Technology. Keynote Addresses by Alcatel-Lucent's Government and Public Affairs Director, Brahim Ghribi, and Intel Corporation's Africa Region Manager for Corporate Affairs, Moise Adams Leye, emphasized the sizeable market opportunity for eHealth technology in Africa and highlighted some of their respective health initiatives in Africa, including Alcatel Lucent's SMS reminders system mDiatetes in Senegal and Intel's support for strategic planning and systematic scale up of ICTs to achieve the goals of the Saving One Million Lives initiative in Nigeria. USAID's Senior Health Advisor, Ishrat Hussain, commented on USAID's ongoing mobile technology efforts and providing platforms for the exchange of experiences, such as the regional meeting on "**Using Mobile Technology to Improve Family Planning and Health Programs**" held in Dar es Salaam, Tanzania in November 2012, and the regional meeting "**Scaling Up Mobile Technology Applications for Accelerating Progress on Ending Preventable Maternal and Child Deaths**" held November 2013 in Addis Ababa, Ethiopia.

ICT for Health: Making the Case

With support from both public and private sectors, investing in technology and digital infrastructure in Africa has the potential to improve health and save lives. There is already rapid growth of the use of technology for development through electronic and mobile health (e/mHealth) initiatives. Additionally, the continent boasts the fastest growing internet use and mobile penetration in the world[1]. With an expected 43 percent increase in mobile subscribers from 2012 to 2017, almost 346 million Africans will have technology and the internet at their fingertips[2]. Scaling internet access can potentially produce $318 billion in productivity gains throughout Africa's economy. This includes gains of up to $70 billion in education, $188 billion in health, $25 billion in government, and $3 billion in agriculture. Living standards and incomes could be increased by up to $600 per person a year, lifting 160 million people out of extreme poverty[3].

The joint AfDB-USAID ministerial meeting on "Investing in Technology and Innovations for Human Development in Africa" provided an opportunity to expand the mHealth conversation to a broader audience. Participants engaged in lively, thought-provoking exchanges regarding the need for greater collaboration across sectors, eHealth best practices, the utility of employing mobile data and e-payments in health systems, business incentives for technology corporations to support eHealth, and the imperative nature of driving down cost and tackling barriers to more affordable and accessible digital services, including eHealth/mHealth.

The discussion centered on the following points:

1. **Governments and their partners need to adopt multisectoral approaches to the development of national eHealth ecosystems.** For example, Ministries of Health need to work closely with Ministries of Science and Technology (S&T), and local governments must also be involved in this process.

2. **Common goals and a predictable S&T environment enable coordinated action:** building consensus on policy, facilitating better use of shared resources and involvement of the private sector, and investment in tech skills and infrastructure to improve health outcomes.

3. **The business incentives for technology and financial services companies to invest in Africa's health sector include the following opportunities:** 1) contracting with governments and private sector to provide products and services; 2) attracting customers by using public institutions and health workers as brand ambassadors; 3) testing low-cost innovations targeting underserved populations; and 4) contributing to improving population health to ensure future markets.

4. **Strengthening health systems requires a broad understanding of the various processes and actors, and of the inherent dynamics and complexities of the system.** eHealth and technology are not the silver bullet but rather an important part of the solution.

[1] GSMA (2013) Sub-Saharan Africa Mobile Economy 2013. Accessed at http://gsma.com/newsroom/wp-content/uploads/2013/12/GSMA_ME_Sub_Saharan_Africa_ExecSummary_2013.pdf

[2] Ibid.

[3] Deloitte LLP (2014) Value of connectivity: Economic and social benefits of expanding internet access. Accessed at https://fbcdn-dragon-a.akamaihd.net/hphotos-ak-ash3/t39.2365/851546_1398036020459876_1878998841_n.pdf

*“**Taking advantage of Africa’s** changing landscape requires a new model for development, one built on expanding and deepening partnerships with African governments, businesses, universities and civil society—as well as with the new generation of African leaders, thinkers, entrepreneurs, and innovators who are leading the transformation of their societies.”*

Ishrat Husain, Senior Health Advisor, USAID

Panel discussion and steps towards advancing the ICT for health agenda are as follows:

ICT Governance: Facilitating Collaboration between the Health Sector and the ICT Sector

Participants in the first panel engaged in high-level dialogue on the importance of collaboration between the health and ICT sectors. A number of African countries have developed national eHealth strategic plans and policies establishing the directions and ecosystem needed to attain effective use of ICT for health sector efficiency. These plans and policies are in line with the **World Health Organization's (WHO) National eHealth Strategy Toolkit**, developed in collaboration with the International Telecommunication Union (ITU). The toolkit states that strategic and integrated action at the national level is required to successfully incorporate ICT as a priority for health system development. This allows optimal use of existing capacity while providing a robust foundation for investment and innovation. Collaboration between the health and ICT sectors, both public and private, is central to this effort. Ministries of Health play a critical role in meeting the people's needs for care and protecting public health. Ministries of ICT are essential to development in all spheres and can make a vital contribution to the health sector. Common goals and a predictable ICT environment enable coordinated action: building consensus on policy, facilitating better use of shared resources and involvement of the private sector, and investing in ICT skills and infrastructure to improve health outcomes.

NEXT STEPS

- ☑ Develop and share with the AfDB a presentation and one-pager on how technology can support the Ebola response
- ☑ Develop conversations and action items that link up the Ministerial conversations on S&T and Education with mHealth and other digital development applications
- ☑ Expand the set of USAID officers from AFR, GH and the Lab who would explore opportunities with AfDB to co-invest in the development of human and institutional capacity within Africa to further develop, maintain and optimize national eHealth ecosystems. Potential ideas for co-investment opportunities included a trust fund and regional training centers of excellence for development of eHealth and technology skills, such as **AfDB's Rwanda ICT Centre of Excellence**.

Best Practices and Principles for Digital Development: A focus on eHealth/mHealth

The second panel raised awareness of the **ICT4D Principles** and demonstrated their relevance to the health sector. The ICT4D Principles represents a multi-year collaborative and participatory effort by donors, practitioners and others to capture the most important lessons learned by the development community in the implementation of information and communications technology for development (ICT4D) projects. Having evolved from a previous set of implementer precepts endorsed by over 300 organizations, these principles seek to serve as a set of living guidelines that are meant to inform, but not dictate, the design of technology-enabled development programs. This current version of the Principles has been developed in consultation with the Bill and Melinda Gates Foundation, USAID, UNICEF, the World Bank, the Swedish International Development Coordination Agency (SIDA), Omidiyar Foundation, the US State Department, UNHCR, WFP, UNFPA, UNDP, Global Pulse, UNWomen and the UN Office for the Coordination of Humanitarian Affairs.

NEXT STEP

- ☑ Seek official AfDB endorsement of the Principles for Digital Development which were recently endorsed by USAID Administrator Rajiv Shah

Broadband Access and Affordability for Africa's Prosperity

The meeting also aimed to raise the overall visibility of the **Alliance for**

NEXT STEPS

- ☑ Facilitate country-level dialogue between governmental, private sector and civil society partners on issues related to increasing broadband affordability, in order to scale up value-added electronic and mobile-enabled services for health and other social sectors

Affordable Internet—a PPP between USAID, Google, Facebook and others—by having panelists explain why African ICT stakeholders have signed on and how they foresee it fostering inclusive economic growth and social development across Africa. Removing barriers to Internet access across the continent will amplify cross-sectorial benefits to the economy and society. Investments in digital infrastructure and tools such as (mobile) broadband Internet, electronic payments and electronic records can fast-track development of the continent's economic and social sectors, including health.

e-Payments (including Mobile Money): Better Than Cash… for Health Services

NEXT STEP

☑ Conduct rigorous economic evaluations to examine the cost and effectiveness of implementing mobile money systems for health-related payments

The panel explored digital finance as a platform for development of health and socioeconomic equity. Panelists discussed the role that digital finance can play in public health and other development objectives and discussed the transition from cash to electronic payments across donors, multinational corporations, NGOs and national governments. Ministry of ICT delegates highlighted their commitment to electronic payments. Throughout the discussions, ePayments was viewed as a digital development building block, and participants discussed how they integrated them into operations and how their commitment relates to financial inclusion, empowered citizens and stronger institutions. Additionally, companies developing electronic payments highlighted challenges and opportunities in this emerging industry.

Ignite Talks

The final panel discussion featured entrepreneurs and technology experts discussing key issues related to implementing mHealth solutions, including technology design, the policy environment, interoperability, scale and building local capacity. Presenters included D-Tree CEO and Harvard University Professor Dr. Marc Mitchell who presented on D-Tree's mHealth for Safer Deliveries project in Tanzania, which has increased facility delivery rates by more than 25 percent. In addition, three winners of the AfDB-WSA **Africa Mobile Content Award** delivered insightful presentations on their winning mobile application.

Curbing Ebola and other disease outbreaks through science and technology

During his closing remarks, AfDB Health Division Chief Feng Zhao urged the group to consider how best to incorporate technology to strengthen the short, medium and long-term response to Ebola, an effort he and others throughout the day characterized as "a global failure." USAID Senior Health Advisor Ishrat Husain commented on how Ebola has been a wake-up call. There have been severe losses in human capital and economic gains in Liberia, Sierra Leone and Guinea, and containment is required to reduce further devastation. Strengthening the health systems and avoiding future disasters is a challenge not only for Ministers of Health but also for the Ministers of Science and Technology. It is timely to utilize new ideas and innovations in health care to develop concrete steps that countries with strong support from the international community can use to strengthen health systems to prevent future devastation from similar diseases. It is also important to acknowledge present and simple technologies that could have been used to detect and prevent disease outbreaks and epidemics, several of which are highlighted in **ASH's mHealth Compendiums, Volumes One through Four**. The most recent volume features a disease surveillance program called mSOS in Kenya and participatory data collection to monitor the implementation of pro-poor health policies in Ghana.

In response, ASH developed a technical brief on the **Use of Technology in the Ebola Response in West Africa**. The brief calls for the rapid deployment and utilization of ICTs to accelerate and optimize the response, and discusses the current utilization of tools, such as the *mHero* technology suite which builds off existing government eHealth systems in Liberia. It also emphasizes integration, harmonization and accessibility of ICT infrastructure by public, private and civil society organizations, improved coordination to avoid duplication of efforts and data fragmentation, and the use and endorsement of proven platforms to ensure interoperability.

Mohammed Touhami El Ouazzani (General Manager, Morocco, West & Central Africa, Visa Inc.) and Abdeslam Alaoui Smaili (General Manager, Higahtech Payment Systems) listen to panelists during the ICT and Health meeting.

Best Practices and Principles for Digita
(Professor, University of Eastern Finlar

Lungi Okoko (Technical Director, ASH) moderated the Ignite Talks panel.

Governance panel (left to right): Professor Crispus Kiamba (Former Permanent
Higher Education, Science and Technology, Kenya), Hon. Joseph Butore (Ministe
Scientific Research, Burundi), Hon. Makame Mbarawa (Minister of Communicatio
Technology, Tanzania)

Hon. Dumisani Ndlangamandla (Minister of Information, Communications & Tec
speaks during the Governance panel moderated by Ishrat Husain (Senior Health

l Development panelists (left to right): Ahmed M. El-Sobky (Director, Information Technology Industry Development Agency, Egypt), Ossi V. Lindqvist
nd), Marc Mitchell (President, D-Tree International), and Samir Doshi (Senior Policy Fellow, Mobile Data, USAID)

Secretary, Ministry of
r of Higher Education and
ons, Science and

hnology, Swaziland)
Advisor, USAID).

Participants at a panel discussion during the ICT and Health meeting.

Participants discuss next steps during the Meeting Synthesis and Follow-Up Action Planning (left to right): Hon. Joseph Butore (Minister of Higher Education and Scientific Research, Burundi), Ishrat Husain (Senior Health Advisor, USAID), Tamika Cameron (Director, Program Management Office, USAID/ Morocco), and Hon. Dumisani Ndlangamandla (Minister of Information, Communications & Technology, Swaziland).

Feng Zhao (Manager, Health Division, AfDB) gives closing remarks at the meeting.

Broadband Access and Affordability panelists (left to right): Moise Adams Leye (Africa Region Manger, Corporate Affairs Group, Intel Corporation) and Brahim Ghribi (government and Public Affairs Director, Alcate-Lucent).

Nawsheen Elaheebocus (Senior Human Development Officer, AfDB) and Professor Crispus Kiamba (Former Permanent Secretary, Ministry of Higher Education, Science and Technology, Kenya) listen to panelists.

Facilitating collaboration across sectors: Key Actions

Participants shared actions they could take within their countries and in their organizations to improve collaboration between the S&T and health sectors. The significance of these suggested actions were reinforced by similar guidelines built by the **Greentree Consensus** which capture key lessons learned from 300 NGOs on best practices for the implementation of ICT4D programs. Below are the items identified during the meeting, categorized by the **ICT4D Principles for Digital Development** (see page 10).

Design With the User

- Develop a user-friendly database with case studies demonstrating how ICT is used in the health sector in Africa
- Prioritize local, African content for mobile solutions, such as content for Africans by Africans, that focus on both national and continental scales

Understand the Existing Ecosystem & Reuse and Improve

- Review existing national strategies and policies—such as national ICT strategies, national broadband plans, and national e-governance policies—and develop model regulatory frameworks that adequately address the various ICT requirements (human capital, infrastructure, legislative, etc.) of health and other sectors. Conversely, national eHealth strategies should be integrated into broader, cross-sectoral national ICT strategies.

Be Data Driven

- Conduct more research on the macroeconomic benefits of (mobile) broadband access and digital services in the health sector

Design for Scale & Be Collaborative

- Broker strategic public-private partnerships to address financing and S&T infrastructure limitations, including power/electricity, and take eHealth solutions to scale in Africa. This includes engaging with USAID and NetHope's **Global Broadband and Innovation** program to identify ways to access Universal Service Fund resources to scale up appropriate eHealth solutions, as well as explore potential collaboration with **Power Africa** on power issues

Build for Sustainability

- Form a high-level taskforce to ensure collaboration between S&T and health sectors with country-level leads/ points of contact
- Invest in human and institutional capacity development through pre-service and in-service training and mentoring
- Focus on capacity development that connects mHealth programs with mEducation for youth

The Global Broadband and Innovation (GBI) Alliance is a partnership between USAID and NetHope that works to expand access to mobile networks and broadband for rural communities. The Alliance also leverages these networks' growth to develop technological solutions, such as mobile payment via the Payment Innovations Program, to challenges across USAID's development portfolio.

Power Africa is USAID's initiative to double the number of people with access to power in sub-Saharan Africa. The new approach to development builds local capacity and supports innovative ways to make traditional assistance programs more effective and sustainable. U.S. strengths in energy technology, private sector engagement, and policy and regulatory reform will be leveraged to galvanize collaboration, make quick-impact interventions, and drive systemic reforms to facilitate future investment. Partners include AfDB, African governments, the World Bank, the private sector, and others.

Principles for Digital Development

The following set of principles represents a concerted effort by donors to capture the most important lessons learned by the development community in the implementation of information and communications technology for development (ICT4D) projects. Having evolved from a previous set of implementer precepts endorsed by over 300 organizations, these principles seek to serve as a set of living guidelines that are meant to inform, but not dictate, the design of technology-enabled development programs.

1. DESIGN WITH THE USER

- Develop context-appropriate solutions informed by user needs.
- Include all user groups in planning, development, implementation, and assessment.
- Develop projects in an incremental and iterative manner.
- Design solutions that learn from and enhance existing workflows, and plan for organizational adaptation.
- Ensure solutions are sensitive to, and useful for, the most marginalized populations: women, children, those with disabilities, and those affected by conflict and disaster.

2. UNDERSTAND THE EXISTING ECOSYSTEM

- Participate in networks and communities of like-minded practitioners.
- Align to existing technological, legal, and regulatory policies.

3. DESIGN FOR SCALE

- Design for scale from the start, and assess and mitigate dependencies that might limit ability to scale.
- Employ a "systems" approach to design, considering implications of design beyond an immediate project.
- Be replicable and customizable in other countries and contexts.
- Demonstrate impact before scaling a solution.
- Analyze all technology choices through the lens of national and regional scale.
- Factor in partnerships from the beginning, and start early negotiations.

4. BUILD FOR SUSTAINABILITY

- Plan for sustainability from the start, including planning for long-term financial health, e.g., assessing total cost of ownership.
- Utilize and invest in local communities and developers by default, and help catalyze their growth.
- Engage with local governments to ensure integration into national strategy, and identify high-level government advocates.

5. BE DATA DRIVEN

- Design projects so that impact can be measured at discrete milestones with a focus on outcomes rather than outputs.
- Evaluate innovative solutions and areas where there are gaps in data and evidence.
- Use real-time information to monitor and inform management decisions at all levels.
- When possible, leverage data as a by-product of user actions and transactions for assessments.

6. USE OPEN STANDARDS, OPEN DATA, OPEN SOURCE, AND OPEN INNOVATION

- Adopt and expand existing open standards.
- Open data and functionalities, and expose them in documented APIs (Application Programming Interfaces) where use by a larger community is possible.
- Invest in software as a public good.
- Develop software to be open source by default with the code made available in public repositories and supported through developer communities.

7. REUSE AND IMPROVE

- Use, modify, and extend existing tools, platforms, and frameworks when possible.
- Develop in modular ways favoring approaches that are interoperable over those that are monolithic by design.

8. ADDRESS PRIVACY & SECURITY

- Assess and mitigate risks to the security of users and their data.
- Consider the context and needs for privacy of personally identifiable information when designing solutions and mitigate accordingly.
- Ensure equity and fairness in co-creation, and protect the best interests of the end-users.

9. BE COLLABORATIVE

- Engage diverse expertise across disciplines and industries at all stages.
- Work across sector silos to create coordinated and more holistic approaches.
- Document work, results, processes, and best practices, and share them widely.
- Publish materials under a Creative Commons license by default, with strong rationale if another licensing approach is taken.

For more information: **ICT4DPrinciples.org**

Source: Principles for Digital Development. 2014.

Conclusion and Future Directions

The health and ICT public and private sectors must collaborate in order to achieve positive results. Ministries of Health play a critical role in meeting the people's needs for care and protecting public health, while Ministries of Information Technology and Telecommunications are essential to overall development and can make a vital contribution to the health sector. Private sector companies bring valued skills, resources, and innovation to accelerating development.

USAID
Investing in Technology and Innovations for Human Development in Africa
2nd Ministerial Forum on Science, Technology and Innovation in Africa
October 14-17, 2014
Academy of the Kingdom of Morocco
Rabat, Morocco
Strategic partners
USAID
Partners Key

2nd Ministerial Forum on Science, Technology and Innovation in Africa

Investing in Technology and Innovations for Human Development in Africa

Meeting Agenda

14 October 2014 | Rabat, Morocco | Sofitel Jardin De Roses Hotel

9:00—9:30	**Registration** **Welcome Coffee**
9:30—10:00	**Opening Remarks, Keynote Address, and Welcome** **Opening Remarks:** • African Development Bank Representative **Keynote Addresses:** • Alcatel-Lucent, Government and Public Affairs Director, Brahim Ghribi • Intel Corporation, Corporate Affairs Group, Africa Region, Manager, Moise Adams Leye **Welcome:** USAID, Senior Advisor, Ishrat Husain
10:00 –10:45	**Governance: Facilitating Collaboration Between the Health Sector and the Technology Sector** **Speaker:** USAID, Senior Advisor, Ishrat Husain • Tanzania, Minister of Communications, Science and Technology, Hon. Makame Mbarawa • Burundi, Minister of Higher Education & Scientific Research, Hon. Joseph Butore • Swaziland, Minister of Information, Communications & Technology, Hon. Dumisani Ndlangamandla • Kenya, Ministry of Higher Education, Science and Technology, Former Perm. Sec. Prof. Crispus Kiamba • Gambia, Minister of Higher Education, Research, Science and Technology, Hon. Aboubacar Senghore
10:45—11:00	**Break and Refreshments**
11:00—12:00	**Best Practices and Principles for Digital Development: with a focus on eHealth/ mHealth** **Moderator:** USAID, Mobile Data, Senior Policy Fellow, Samir Doshi **Panelists:** • Egypt, Information Technology Industry Development Agency, Director, Ahmed M. El-Sobky • University of Eastern Finland, Professor, Ossi V. Lindqvist • D-tree International, President, Marc Mitchell
12:00—13:00	**Networking Lunch**
13:00—13:50	**Broadband Access and Affordability for Africa's Prosperity** **Moderator:** Alliance for Affordable Internet, Policy Manager, Kojo Boakye **Panelists:** • Swaziland, Minister of Information Communication and Technology, Hon. Dumisani Ndlangamandla • African ICT Alliance, Board Member, Adetola Sogbesan • Alcatel-Lucent, Government and Public Affairs Director, Brahim Ghribi • Intel Corporation, Corporate Affairs Group, Africa Region, Manager, Moise Adams Leye

13:50—14:40 **e-Payments & Mobile Money: Better Than Cash… for Health Services**

Moderator: USAID, Mobile Data, Senior Policy Fellow, Samir Doshi
Panelists:

- Kenya, Ministry of Science and Technology, Senior Deputy Director, Samuel Wanyonyi
- Youth Agency for Development of Science, Technology & Innovation, Executive Director, Caleb Kiprono Metto
- Hightech Payment Systems, General Manager, Abdeslam Alaoui Smaili
- Visa Inc., General Manager, Morocco, West & Central Africa, Mohamed Touhami El Ouazzani

14:40—15:00 Break and Refreshments

15:00—15:45 **Ignite Talks**
(4 – 5 entrepreneurs and tech experts discussing key issues related to mHealth solutions: technology design, policy environment, interoperability, scale, local capacity building)

Moderator: Management Sciences for Health, Technical Director, Lungi Okoko
Presentations:

- D-tree International, President, Marc Mitchell
- Mobile Content Award Winner mHealth, My Health (Morocco), Zouheir Lakhdissi
- Mobile Content Award Winner mEntertainment, MDG Malaria Destroyer Game (Nigeria), Chris Uwaje
- Mobile Content Award Runner Up mLearning, Sterio.me (Lesotho), Danielle Reid

15:45—16:45 **Meeting Synthesis and Follow-Up Actions:**

Moderator: African Development Bank, Senior Advisor, Human Development, Feng Zhao

- Meeting participants

16:45—17:00 **Closing Remarks:**

- USAID Morocco, Mission Director, Dana Mansuri
- African Development Bank, Senior Advisor, Human Development, Feng Zhao

17:00 Shuttles to SOFITEL for Evening Events:
Meet and Greet: Partnerships in Science, Technology, and Innovation
Opening Cocktail Dinner

African Strategies for Health
www.africanstrategies4health.org

Annex 2

2nd Ministerial Forum on Science, Technology and Innovation in Africa

Investing in Technology and Innovations for Human Development in Africa

Registration Sheet

14 October 2014 | Rabat, Morocco | Academy of Science & Technology Hassan II

#	Name	Title	Organization/Company/Affiliation
1	Ghribi Brahim	Director MEA	Alcatel-Lucent
2	Skhumbezo Ngozwere	MD Metanoia Pharma Consulting	Metanoia Pharma Consulting
3	Essien Kofi	Director OLE Ghana	Open Learning Exchange, Ghana
4	Unoma Okorafor	CEO, WAAW Foundation	WAAW Foundation
5	Kevit Derai	Chairman - Liwa	LIWA
6	Mau Mitchell	President D-tree	D-tree International
7	Nougzha Elyacoubi	Ammzi Regional Coordinator	University Mohammed V Rabat
8	David Strangway	Professor	Quest University, Canada
9	Caleb Kipomo Metto	Executive Director	YADSTI
10	Andrea Johnson	Program Officer	Carnegie Corporation
11	Ossi Lindquist	Professor	UEF/Finland
12	Danielle Reid	Co-founder, Steriome	Steriome
13	Bakary Diallo	Rector. Dr	African Virtual University
14	Njeri Wangari	Founder, Afrokid Ltd	Afrokidz Ltd
15	Sadie Okoko	Senior Africa Advisor	US Department of State
16	Maimouna Diop LY	Principal Health Analyst	African Development Bank
17	Sekouri Alaoui	Consultant	SIMULTA Company
18	Sudain A. Chiraguili	Principal	Mineral Resources Institute
19	Nora Wolloch	Project Manager	World Summit Award
20	Assipo Desire	Executive Director	FAFEDE/AFFEED

USAID FROM THE AMERICAN PEOPLE

msh

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#	Name	Title	Organization/Company/Affiliation
21	Asmane Abdou	Minister Ens. Sup. Nifer	
22	Andreas Matt	Director Imaginary	Imaginary/MFO
23	Raphael Munavu	President, KNAS	KNAS
24	Kojo Boakye	Policy Manager	A4AI
25	Uchieng Ogodo	Journalist	SCIDEV.Net
26	Richard Deckelbaugh	Director Institution of Human Nutrition	Columbia University
27	Andrew Gerard	Program Officer	Global Knowledge Initiative
28	Jussi Hinkkanen	CEO	FUZU
29	Dr Doyin Odubanjo	Executive Secretary, Nigeria Academy of Science	Nigeria Academy of Science
30	Plulbert Okello	Finance officer	NASAC
31	Dr.	President/Founder Rubisadh	Rubisadh foundation
32	Latif Ladid	President	WSA
33	Moudachirou Mansourou	Secretaire Perpetual Academie d'sciences, Benin	Academie d'sciences, Benin
34	Butore Joseph	Ministre ens. Sup & Rech. Sc	BURUNAI
35	Prof Makame Mbarawa	Ministe for Communication, Science and Technology	Tanzania
36	Richard Mwana Kulye	Private Secretary to the Minister	Tanzania
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75	Vumle Dlamini	Director of Science and Technology	Ministry of ICT
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