

THE INNOVATION EFFECT

POWERING AFRICAN INNOVATION FOR HEALTH



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The Innovation Effect: Powering African Innovation for Health

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From left to right on cover: Rosemary Mburu, executive director of WACI Health; Dr. Amit Thakker, chairman of Africa Healthcare Federation; Dr. Morena Makhoana, CEO of Biovac Institute; and Dr. Thomas Kariuki, director of Alliance for Accelerating Excellence in Science in Africa.

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Steve Davis, Her Excellency Ameenah Gurib, President of Mauritius, Dr. Mayaki of NEPAD, and Honorable Minister Naledi Pandor, Department of Science and Technology.

What is the Innovation Effect and how can it power innovation in Africa?

“If Africa is to meet its potential, science is key. **Our time for action is now.**” — Her Excellency Ameenah Gurib, President of Mauritius.



“On this day, African innovation is placed at the center of global health to transform more lives faster and impact in a way that is believed will spark the ‘innovation effect’—by the dramatic improvement which is made possible through multisector partnerships and transformative technologies and systems.” — Ms. Tsitsi Masiyiwa, philanthropist, social entrepreneur, board member of PATH, and chairperson and co-founder of the Higherlife Foundation.

The Innovation Effect happens when unique partnerships, disruptive technologies, transformed systems, and data-driven insights combine—often in unexpected ways—to create dramatic improvements in the health and well-being of people around the world. Innovations from Africa and by Africa have the potential to have a dramatic impact on both economic and public health if all countries on the continent are able to establish and nourish an enabling environment.

With innovation at the center of health, we can disrupt the pace of change, transform lives, and make what was once thought impossible, possible. When policy drives innovation, the result is visionary, sustainable change: We can disrupt the cycle of poverty and poor health. We can empower women to take charge of their own health, keep girls in classrooms, end epidemics, and eliminate age-old diseases.

African entrepreneurship and research capacity are expanding in game-changing ways. The continent is undergoing a profound economic, demographic, and epidemiological transition, catalyzing



Her Excellency Ameenah Gurib, President of Mauritius.

a new era of science-led development. The pipeline of high-impact, cost-effective African innovation for health across the value chain has the potential to make an enormous impact on global health.

In recognition of these efforts, on May 2, 2017, PATH, the Bill & Melinda Gates Foundation, LeapFrog Investments, the New Partnership for Africa's Development (NEPAD), and Wellcome Trust convened more than 100 African and international leaders from government, industry, and the social sector alongside the World Economic Forum on Africa in Durban, South Africa, to explore key crosscutting constraints and opportunities for health innovation for Africa and by Africa.

Nothing for us without us



*Her Excellency Ameenah Gurib,
President of Mauritius.*

In her powerful opening remarks, Her Excellency President Gurib emphasized that sub-Saharan Africa needs sustainable, broad-based, inclusive growth to tackle the myriad of development challenges that countries face. Without inclusive growth, the war against poverty, disease, malnourishment, and environmental degradation will falter. The President stated, “It is time for Africans to tackle mediocrity in science and technology and forge the next generation of partnerships that can deliver results and lasting outcomes. We are living in different times, and these call for different solutions.”

In this context, President Gurib is supporting the Coalition for African Research and Innovation (CARI), which will mobilize public, private, and philanthropic partnerships to connect with and support science, technology, and innovation for Africa's development needs. The newly formed CARI is an alliance of African science leaders, the private sector, and international funders, all of whom have joined forces to catalyze investment in research and innovation. CARI is an excellent example of an African-led platform to strengthen and expand innovation capacity.

The Honorable Minister Grace Naledi Pandor, head of South Africa's Ministry of Science and Technology, added that there is recognition of the importance to Africa of developing a strong and vibrant health innovation ecosystem—one that is focused not on how to reach providers outside of Africa, but rather on Africans becoming providers themselves. Greater support is needed in Africa for research and innovation on the continent.

Transformation will not take place if it is not local

Leaders agreed that an African-led innovation policy agenda must incorporate and empower local communities. As explained by Dr. Ibrahim Assane Mayaki, CEO for New Partnership for Africa's Development: “Transformation will not take place if it is not local. For transformation to take place at a local level, the way Africa implements its public policies needs to change. Top-down processes are no longer relevant. To produce change at the local level, we need a combination of top down and bottom up, which means empowering local communities.”

Local communities have an important role to play. Dr. Amit Thakker, chairman of Africa Healthcare Federation, shared that “when people talk about PPP [public-private partnership], they keep telling us to add another P, and that's the people.”

Regarding the voice and perspective of these communities on these issues, Rosemary Mburu, executive director of WACI Health, used this clear expression: “Don't innovate for me. Innovate with me.”

Dr. Mayaki further noted that innovation is not about centralized policies, it is about empowered communities using innovative solutions to transform locally. He related this to engaging the future workforce of Africa: “This is the only way we can tackle the challenge of 400 million young people coming on the employment market in the next 30 years.”



*Dr. Ibrahim Assane Mayaki, CEO,
New Partnership for Africa's
Development.*

From donorship to ownership

Dr. Thomas Kariuki, director of the Alliance for Accelerating Excellence in Science in Africa, felt that “leaders should be looking at the entire pipeline of discovery, development, and delivery in Africa by empowering and building these capacities throughout. However, there are the challenges of resources and being poorly coordinated. Moving forward, we need to be more coordinated and less fragmented in the way we work.”

He explained that that African health innovation could be more impactful and more successful if partnerships between the public, private, and philanthropic sectors are well led and coordinated. Dr. Thakker agreed, saying, “Leadership without partnership or partnership without leadership is not going to give us the results that we desire.” Strong coordination and leadership is necessary for all sectors to bear what needs to be done for the continent to successfully support innovation.

PATH’s partnership with South African manufacturer, the Biovac Institute, is a prime example of a successful health innovation partnership at work for Africa. Dr. Morena Makhoana, CEO of the Biovac Institute, announced at the Innovation Effect that the Biovac Institute partnered with PATH, with support from the Bill & Melinda Gates Foundation, to develop a vaccine against Group B streptococcus (GBS), a leading cause of infection in newborns. Biovac will be one of only three companies in the world and the only developing-country vaccine manufacturer to develop a novel conjugate vaccine against GBS. This first-of-its-kind partnership will design solutions for diseases that are relevant to Africa, in Africa, and by an African company. This is a model that can be replicated.



The Honorable Minister Grace Naledi Pandor, head of South Africa's Department of Science and Technology.

What it takes to make progress

Minister Pandor commented that “we need to make better use of public-private partnerships” in Africa. She mentioned that the public sector needs the private sector’s expertise and resources to support Africa with a range of development objectives. “One of the negatives in terms of the emerging partnerships is the weak risk appetite on the continent.” Minister Pandor would like to see cross-sector partnerships support the necessary risk-taking in innovation and ensure that ambitious initiatives get sufficient resourcing to be successful.

On the public sector, Minister Sarah Opendi, Minister of Health for General Duties, Republic of Uganda, commented that “for innovations to flourish, there must be political will. Without political will and leadership, we cannot make progress.”

Related to political will and leadership, Dr. Makhoana also noted that “Regulation is key to make sure that whatever we do is done safely to protect those it needs to benefit. We need to look for innovation within regulation to create an enabling environment.”

Ms. Mburu of WACI Health shared that civil society can help address the shrinking donor space in global health by empowering Africans to ask their own governments to step up allocations for science, technology, and innovation and to set a clear research agenda: “Civil society is very keen to participate in this process—to partner with the private sector, scientists, researchers, and governments need to see how we, as African Union member states, can really work towards spring-boarding” investments in health research and development by African governments.

“Not business as usual, business unusual,” added Roelof Assies, CEO of Philips East Africa.

Acknowledging the inconvenient truths . . . and how to think collaboratively



Ms. Morenike Ukpong-Folayan, deputy director, College of Health Sciences' Partnership & Research Advancement Unit, Obafemi Awolowo University, Ile-Ife.

Several uncomfortable realities need to be acknowledged to move the dial on innovation in Africa.

Mr. Ali Mufuruki, CEO of Infotech Investment Group, reiterated a statement made earlier in the day: that Africans seem to have accepted or resigned themselves to a much lower standard of economic development and health care. Acceptance of high levels of morbidity and mortality by Africans could highlight why so little has been done to prevent diseases that are endemic to Africa. “We are not going to see change in terms of quality of life if we do not ask ourselves, why are we . . . placing such a low premium on African life?” he observed.

Ms. Morenike Ukpong-Folayan, deputy director, College of Health Sciences’ Partnership & Research Advancement Unit, Obafemi Awolowo University, Ile-Ife, believes that one of the most challenging inconvenient truths between the “Global North” and “Global South” is poor communication. Specifically, she said, that donors bring programs that address the individualistic nature and response that is common in societies in the “Global North” into societies in the “Global South”, which are accustomed to think as a collective.

Dr. Solomon Nwaka, executive director of the Africa Network for Drugs and Innovation, noted that most research partnerships focus on basic research and development, like clinical trials, for products that are being developed outside of Africa. More attention to financing local innovation is necessary.

In a similar vein, Minister Pandor saw the need to build research institutions and support universities to become research intensive. The issue of needing more research capacity across Africa remains relevant and must be addressed.

Mr. Olasupo Oyedepo, project director of the ICT4Health Project, spoke about the challenge of digital technology delivering on its promise to the health sector in Africa. He noted that tranches of money come into African countries specifically for one purpose: funders like to fund digital technology solutions. However, technology is being implemented within silos. In the same country, the same funder through another partner is implementing the same technology, which is an appalling waste of resources. Historically, the way development and aid have come into the African continent around health care is designed and structured to fail. Leaders need to prioritize their personal and organizational objectives, move away from thinking competitively, and move toward thinking collaboratively. Minister Pandor noted this as well, saying: “Leaders must try and find solutions to their own problems and determine their own priorities when it comes to international donors. Science or innovation only means something if it is about people.”



Ms. Jennifer Power, South Africa country manager and Global Established Products business lead, Pfizer.

The African investment landscape for innovation



Mr. Felix Olale, partner, LeapFrog Investments.

Mr. Arnaud Bernaert, head of Global Health and Healthcare Industries of the World Economic Forum, stated that there is no shortage of capacity and energy in Africa, and that there is a need to move from international aid to domestic funding. “We have seen a lot of initiatives in Africa that are promising,” he said.

Ms. Jennifer Power, the South Africa Country Manager and Global Established Products business lead for Pfizer, noted that innovation is globalizing. Emerging partners are overcoming traditional deficits in technology, infrastructure, and skills. Multinational corporations and other private-sector entities have many more options of where to put their money and are looking outside the United States and Europe to invest.

In addition, partnerships are mitigating risks by aligning their interests and amplifying their potential impact. These partnerships occur across the board—in academia, other multinationals, nongovernmental organizations, and government.

Ms. Power went on to explain that multinational corporations are looking for a sturdy research and development infrastructure—an ecosystem that requires investment in basic science, research and development, high-quality education in science and technology, a robust intellectual property regime, an efficient and functioning regulatory authority, and a platform for technology transfer.

With the right innovation ecosystem in place, the funding will follow.

Mr. Felix Olale, partner of LeapFrog Investments and board member of PATH, noted that there will always be one of two things that drive people to make decisions: profit or purpose.

In terms of returns on investment, Mr. Olale said that if there is limited time on the horizon to make an investment, private equity would need scaled-up investments and would look at companies that are already at scale. At the same time, particularly with companies that may be larger, those companies themselves have to invest in innovation and partner and invest in earlier-stage companies.

Another reoccurring theme was that Africa must be in the driver’s seat when developing solutions to make sure they appropriately fit their local context. Ms. Adepeju Jaiyeoba, CEO of Mother’s Delivery Kit, candidly explained that innovators “have to understand the market and the needs of the people; understand their culture and traditions; understand that when you go into a community, you go there as someone who is willing to learn the ways of the people and not someone who is there to impose whatever solution you think you may have for the people in these communities.” For example, she said, “The fact that something is successful in some African countries does not mean that it will be successful in others. Finding the right partners and partnerships who understand the people and the community is fundamental to success.”

Dr. Richard Hatchett, CEO of the Coalition for Epidemic Preparedness Innovations (CEPI), reflected on a number of themes heard throughout the day, one being the importance of engaging local communities and developing solutions that are appropriate for them. Other themes were the importance of building capacity, particularly research capacity; the importance of providing critical seed funding; and finally, the importance of making sure that these products and innovations are accessible to the people who need them.

Commitments toward a collective agenda

Mr. Steve Davis, president and CEO of PATH, remarked that we have to double down as a global community to help each other advance innovation for good. Mr. Davis emphasized the importance of a collective agenda—one that has different roles for different players and is about helping the world and Africa advance its own agenda in innovation, health, and development.

During the Innovation Effect Africa meeting, the following commitments were made, partnerships announced, and platforms cited to galvanize African-led innovation:

- The Coalition for African Research and Innovation initiative, which is an opportunity for African risk taking and innovating that could also influence government funding.
- CEPI's innovative partnership model between public, private, philanthropic, and civil organizations and its work to accelerate the development of new vaccines against infections of epidemic potential while strengthening research capacity and infrastructure.
- Cumii, which is currently rolling out a digital platform to monitor high blood pressure and diabetes across the continent, has launched a platform called TechNight, which is like an Uber for highly skilled technology installers.
- The PATH Digital Health Initiative, which is primarily African-led and African-driven on the continent.
- The PATH-Biovac Institute Partnership is helping to shift the development of health technologies for Africa to Africa.
- The PATH Global Design Challenge, in which PATH and Autodesk Foundation have partnered to invite innovators to submit ideas to refine the design of the RELI infusion pump, a device that safely delivers medication to babies without electricity.
- Innovation Countdown 2030 initiative will source African-led innovation—searching out the top innovations with the highest potential to meet the health needs of Africa and to advance both health equity and economic opportunity across the continent.
- Leaders from the private sector working together to identify a portfolio of companies to address the challenges of non-communicable diseases.
- GlaxoSmithKine's open laboratory—the first of its kind in the world—has issued a call for project from African scientists to research how noncommunicable disease affect African populations.



Mr. Steve Davis, president and CEO of PATH.

Acknowledgements

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Take action

With increased support for existing as well as new initiatives to catalyze an African-led innovation agenda, Africans can end poverty, improve health outcomes, and spur economic growth across the continent. The conversation does not end here. We invite you to join us in moving this important conversation forward into action.

Appendix: Attendee list.

First name	Surname	Company/Organization	Designation
Jo	Addy	PATH	Board Member
Adam	Arabian	Refugee Open Ware	Chief Technology Officer
Roelof	Assies	Philips East Africa	CEO
Arnaud	Bernaert	World Economic Forum	Head of Global Health & Healthcare Industries
Moses	Bockarie	EDCTP	Director South-South Cooperation
Anéa	Burke	The Innovation Hub	CEO
Chimwemwe	Chamdimba	NEPAD	Senior Programme Officer
Siddharth	Chatterjee	UN	Resident Coordinator, Kenya
Kate	Cheney Davidson	PATH	Global Media Leader
Radhika	Choksey	Philips	Head of Brand, Communications, Digital & HS Marketing Africa Region
Ever	Chokunonga	PATH	Finance Officer and Program Assistant
Gillian	Christians	Dept. of Trade & Industry	Deputy Director, Pharmaceuticals
Chris	Coombes	Meropa Communications	Camera man
Costa	Criticos	AHRI	Chief Operating Officer
Steve	Davis	PATH	President and Chief Executive Officer
Chris	De Villiers	Sinapi Biomedical (South Africa)	Managing Director
Yogin	Devan	Meropa Communications	Manager—Durban office
Amadou	Diop	Millennium Connect Africa	Director
Lippi	Doshi	PATH	Communications Officer
Jenisha	Dukhea	Meropa Communications	Senior Producer
Craig	Friderichs	PATH South Africa	South Africa Country Director
Elaine	Gibbons	PATH	Executive Director, Global Corporate Engagement
Evelyn	Gitau	Alliance for Accelerating Excellence in Science in Africa	Programme Manager—Grand Challenges Africa program
Richard	Gordon	South African Medical Research Council (SAMRC)	Executive Director—Grants, Innovation & Product Development Unit

Bryan	Gould	MyEnergyBank	Representative Director
Lichelle	Govender	Meropa Communications	Public Relations
Anne	Grobler	University of Northwest	Director of the Pre-Clinical Drug Development Plant
Snare	Gumede	1KZN TV	Journalist
Ameenah	Gurib	Mauritius	President
Heather	Haines	END Fund	Senior Director, External Relations
Yolande	Harley	UCT	Faculty Manager: Research Enterprise
Richard	Hatchett	CEPI	CEO
Mark	Henderson	Wellcome Trust	Director of Communications
Sibusiso	Hlatjwako	Aeras	Public Affairs Director, Africa
Tania	Holt	McKinsey	Partner
Neo	Hutiri	Technovera	Founder
Pauline	Irungu	PATH	Advocacy and Policy Manager
Apdepeju "Peju"	Jaiyeoba	Mothers Delivery Kit (Nigeria)	Chief Executive Officer
Patricia	Kabuleeta	GSK	Head of Government Affairs Africa & Developing Countries in Asia
Thomas	Kariuki	Alliance for Accelerating Excellence in Science in Africa	Director
Simon	Kay	Wellcome Trust	Head of International Operations and Partnerships
Allison	Krieger	PATH	Director of Executive & Internal Communications
Lunga	Linda	1KZN TV	Journalist
Matt	Lloyd-Watkins	Pfizer	Senior Director, International Public Affairs
Nahaat	Mahfoudh	Cumii	Telecommunications, Media and Technology Executive
Morena	Makhoana	The Biovac Institute	CEO
Mia	Malan	Mail & Guardian SA	Health Editor
Tsitsi	Masiyiwa	Higherlife Foundation	Executive Chairperson
Spencer	Matonhodze	Cummi	Market Development and Partnerships

Precious	Matsoso	Dept of Health SA	Director General
Ibrahim	Mayaki	NEPAD	CEO
Sandile	Mbili	Health-e News	Journalist
Rosemary	Mburu	World AIDS Campaign (Kenya)	Executive Director
Hlazo	Mkandawire	NEPAD	Communications Officer
Nondumiso	Mlondo	1KZN TV	Journalist
Johnny	Moloto	Pfizer	Director, Public Affairs, Policy, Access and Communication
Ryan	Morhard	World Economic Forum	Project Lead, Global Health Security
Norman	Moyo	Cumii	CEO
Yolanda	Moyo	PATH	Advocacy and Policy Officer
Vanessa	Msengezi	PATH	Policy Advocacy Associate
Ali	Mufuruki	Infotech Investment Group LTD	Chairman and CEO
Kirti	Narsai	Johnson & Johnson	Senior Director, Government Affairs & Policy, Sub Saharan Africa
Thandeka	Ndawo	Meropa Communications	Public Relations
Margareth	Ndomondo-Sigonda	NEPAD	African Medicines Regulatory Harmonisation Programme Coordinator
Rhulani	Nhlaniki	Pfizer	Innovative Health Cluster Lead
Solomon	Nwaka	Africa Network for Drugs and Diagnostics Innovation Ethiopia	Executive Director
Felix	Olale	LeapFrog Investments	Partner
Sarah	Opendi	Republic of Uganda	Minister of Health
Nnamdi	Oranye	CNBC Africa; Destiny Man	Media Contributor and Author
Olasupo	Oyedepo	Health Strategy and Delivery Foundation's ICT4HEALTH Project in Nigeria	Project Director
Naledi	Pandor	Department of Science and Technology, South Africa	Minister of Science and Technology
Jennifer	Power	Pfizer	South Africa Country Manager & Global Established Products Business Lead
Tanisha	Rajcomar	Meropa Communications	Senior Consultant
Noma	Rangana	Treatment Action Campaign	Donor Liaison and Compliance Manager

Carolyn	Reynolds	PATH	Vice President, Policy & Advocacy
Alma	Scott	Johnson & Johnson	Head, Africa Operations and Partnerships
Chris	Seebregts	Jembi Health Systems	Founder and CEO
Rebecca	Slotnick	Pfizer	Public Affairs and Communications
Swasthi	Soomaroo	Department of Trade and Industry, South Africa	Director, Advanced Manufacturing Trade and Investment
Karim	Sy	Jokkolabs	Founder & CEO
Amit	Thakker	Africa Healthcare Federation	CEO
Rikka	Trangsrud	PATH	Country Director, Kenya
Laird	Treiber	US Embassy of South Africa	Minister Counselor for Economic Affairs
Morenike	Ukpong-Folayan	College of Health Sciences, Obafemi Awolowo University, Ile-Ife	Deputy Director, College of Health Sciences Research & Partnership Advancement (CoRPA) Unit
Ruben	Vellenga	United Nations Population Fund (UNFPA)	External Relations and Private Sector Partnership Specialist
Danielle	Walker	Pfizer	Senior Manager, International Public Affairs
Ed	Whiting	Wellcome Trust	Director of Policy and Chief of Staff
Robert	Wilkinson	University of Cape Town	Director, Wellcome Centre for Infectious Diseases Research in Africa (CIDRI-Africa) and Honorary Professor
Claire	Wingfield	PATH	Senior Policy Officer
Coetzee	Zietsman	Meropa Communications	Media Consultant



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