

# INNOVATION AFRICA

Emerging Hubs of Excellence

As patron of the AIS, I am delighted about this book because for Africa there will be no better future without vibrant and developmental cultures, systems and institutions that actively leverage the innovativeness of our greatest asset: our people. This book shines a light of enquiry on some of what we have done in Africa at our best, and perhaps too at our worst when we have not managed to sustain or fully benefit our innovation systems. It is an important contribution to our learning, reflection and action.

— *Dr Pedro Pires, Ex President, Republic of Cabo Verde (2001–2011) and 2011 Mo Ibrahim Leadership Laureate*

Innovation is a key enabler of development and structural transformation. At a time when Africa has bold aspirations through Agenda 2063, innovation is a must for the continent to confront challenges such as the ascendant demographic curve, green industrialization and domestic resource mobilization. The number of case studies presented in this book showcase Africa's ability as well as potential to research and offer solutions that will leave their mark. An exciting opportunity to make Africa the continent of the future is around the corner if we just pay attention to the messages of this book.

— *Carlos Lopes, Executive Secretary of the United Nations Economic Commission for Africa (UNECA)*

While acknowledging the many challenges, the diversity and richness of case studies that carry this book not only systematically show how Africa is indeed innovative in its own way, but also very skilfully demonstrates the fact that innovation goes beyond the technological. This is a must-read book for any serious innovation scholar and policy maker.

— *Professor Bitrina Diyamett, President, AfricaLics*

There is growing interest among African governments and international organizations for mobilizing innovation for development in Africa. But there is still a scarcity of knowledge on how innovation actually takes place in different contexts. This book helps close this knowledge gap. Edited by the organizers of the 2014 African Innovation Summit, it presents a number of case studies on innovation from four out of the five major regions of Africa. The case studies cover different sectors spanning from innovation in the use of mobile phones, in public administration, in cassava production and in heavy industry. The case studies add important specific insight and they are helpful in understanding the potential as well as the barriers for innovation.

— *Professor Bengt-Åke Lundvall, Aalborg University and Secretary General for Globelics*

*Innovation Africa* is an important and original contribution to our better understanding of "rising Africa." While recognizing the challenges faced, the book assesses the true assets of the continent for innovation and technological upgrading, based on a detailed analysis of illustrative case studies. The message is clear: the future of Africa lies in its ability to develop and nurture innovation and the potential is there. Calling for a distinctly new approach to innovation for the African continent, this book is a source of inspiration for policymakers, business leaders and the public at large.

— *Anne Miroux, Former Head of the UN Commission on Science and Technology for Development and Visiting Fellow, Emerging Markets Institute, Cornell University*

There is an imperative role for innovation in Africa's continued development. Innovation is not about waiting for a good idea to strike — it must be a deliberate practice and process to ensure that good ideas, including those emerging at local levels, are enabled by the right policies, and shaped for social and/or ecological benefits. Without being prescriptive, this timely book offers case studies that serve as detailed roadmaps to guide the way and is a welcome addition to any leader's toolkit.

— *Kippy Joseph, Associate Director for Innovation at The Rockefeller Foundation*

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INVESTOR IN PEOPLE

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# Foreword

To embark on sustained economic transformation, African countries must engage more purposefully in producing knowledge and building innovation-driven societies that can compete in the new world economy. Africa is no longer the place it was in the past, with its destiny almost entirely driven by forces beyond its borders. The technological innovations taking place on the continent today offer the promise of transforming African countries from trading mainly in materials and commodities to trading in knowledge-intensive products. This is why the Ihaba's initiative that focuses on promoting innovation in Africa, including this book and the Africa Innovation Summit series, that were launched in Praia in Cabo Verde in 2012 are timely. By supporting these initiatives, we have demonstrated at the African Development Bank where our development focus really lies.

The case studies in this book show that while African countries have begun to take innovation seriously, few have fully established robust national ecosystems for innovation. It is important for African countries, to take advantage of the recent decade of high growth, to enhance investments in national innovation systems. It is the sure route to realizing sustainable socioeconomic development through investing in people; ensuring that development is broad-based; and, most importantly, investing in innovation.

Experience indicates that innovation only succeeds if countries are able to get three things right: ensuring a broad berth for

experiment and thinking differently, promotion of equal opportunity, which can boost the capabilities of households and communities, and creating an environment that rewards risk taking. The latter must, however, not be confused with rent seeking which has become quite prevalent in some countries. For innovation to flourish also requires that governments invest adequately in education, skills development, healthcare, food security, and access to water and sanitation services, and security.

Many African countries are building innovation-driven economies, as the case studies in this book illustrate. Success will, however, require a two-pronged approach. First, there is need for policy focus and efforts by all stakeholders at the national level. All must be engaged, and half-hearted attempts will fail. Second, steps must be taken at the regional and pan-African levels to give a real push to building national ecosystems for innovation. African countries must work together to address the key constraints to innovation on the continent. We simply have no alternative to broader collaboration if we wish to achieve Africa's agenda for structural transformation and socioeconomic development.

Dr. Donald Kaberuka  
President  
African Development Bank  
Abidjan  
July 2015



# Acknowledgements

A project such as this would not be necessary or possible if it were not for the dynamic innovators, entrepreneurs and industrialists who have been pushing frontiers on the continent, often under difficult circumstances. We salute these people and institutions, as we are looking to them for the lessons and opportunities to massively scale up African innovation and development systems towards positive and prosperous shared futures for Africa.

This initiative was an idea — a dream — which we pushed ahead with without any secured sponsorship. It is therefore a project that generally ran on passion, hope and sacrifice. In this regard, we especially want to recognise the case study authors who enthusiastically took up the call and selflessly put in the time and effort to produce their chapters with no guarantee of remuneration. Mammo, Neville, Erika, Will, Abiola, Gatune, Nisreen, George and Djeflat — thank you. You made this volume possible.

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Finally, we recognise the publisher, Emerald for having faith in this somewhat unconventional project — neither entirely academic, nor industrial or popular. John Stuart gave this project a chance, and his professional guidance has been patient and sympathetic to our ideas and perspective. We hope that this effort is met with the success it deserves.

With Gratitude,  
Olugbenga Adesida  
Geci Karuri-Sebina  
João Resende-Santos  
*Editors*

# Map



This map locates the case studies that are covered in this book:

- Algeria: Steel Sector
- Cabo Verde: eGovernment
- Egypt: Agricultural by-products
- Ghana: Industrial cluster
- Ghana/Nigeria: Cassava
- Kenya: Commodity Boards
- Kenya: Mobile technology
- Nigeria: Film industry
- Southern Africa (Botswana, Mozambique, Namibia, South Africa, Zambia): Innovation hubs (science and technology parks)