

2016 STIAS-WALLENBERG ROUNDTABLE
ON INNOVATION FOR PROSPERITY
REALISING INNOVATION OPPORTUNITIES
IN SUB-SAHARAN AFRICA

POLICY BRIEF
MAY 2016



A CREATIVE SPACE FOR THE MIND



stias.ac.za

stias
STELLENBOSCH INSTITUTE FOR ADVANCED STUDY
STELLENBOSSE INSTITUUT VIR GEVORDERDE NAVORSING

STIAS-WALLENBERG INNOVATION FOR PROSPERITY ROUNDTABLE POLICY BRIEF

The 2016 STIAS-Wallenberg Roundtable on innovation-driven growth and development in Sub-Saharan Africa took place on 22 and 23 February 2016, with the objective of presenting recommendations on innovation policies of relevance to the Sub-Saharan Africa region. This Policy Brief, compiled by the Core Planning Committee, is an output of that Roundtable.

A broad perspective of innovation is adopted in this Policy Brief, embracing all activities in society, and also connecting to the megatrends and the United Nations Sustainable Development Goals in the global 2030 Agenda. We believe that innovation is key to achieving higher growth and improved living standards, but stress the importance of the existence of appropriate institutions to ensure that the benefits are distributed across society. We also believe that Africa has unique opportunities to address many of the inter-connected megatrends, as the region is not locked-in to historical structures to the same extent as many other regions in the world.

HOW MEGATRENDS CREATE OPPORTUNITIES FOR AFRICA

Megatrends are referred to as large, transformative global forces that impact on everyone on the planet. There are many such global megatrends including digitisation, advances in preventive health care, sustainability, urbanisation, globalised markets and increased entrepreneurship. These rapidly developing trends are changing the world and therefore constitute both threats and opportunities for Africa's development. To exploit the future opportunities these megatrends imply, they must be understood and interpreted in an African context.

Africa can rapidly become competitive in many areas by leapfrogging into future solutions rather than adopting old ones. In particular, we believe that excellence in sustainable development, more climate-friendly solutions and new digital infrastructure may generate new competitive edges. Further, we propose the development of policies that build on Africa's historical strengths, for example, increased agricultural productivity, while simultaneously providing conditions that diversify the industrial sector and strengthen participation in global value chains. Africa must build institutions that reward talent development and promote investments in entrepreneurial endeavours in order to take advantage of the megatrends. Brain drain must be avoided and a cultural climate that promotes innovative behaviour needs to be established.

KNOWLEDGE AND EDUCATION: A NECESSARY CONDITION FOR INNOVATION

An effective, qualitative and well-developed education system is the most important long-term investment a society can make and a necessary condition for economic development. On average, enrolment in educational institutions remains low in Africa, at 35%

at secondary level and only 6% at tertiary level. There is also ample room to expand vocational training. These measures combined would serve to reduce youth unemployment and secure the provision of skills needed for industrial expansion.

Universities should also be transformed to address more of the challenges relevant to Africa, both in research and education. To learn and share experiences from other cultures, at the same time as education becomes more innovative and challenge-driven, enhances the possibilities of learning for life and facilitates job switching. We advocate that higher education should become more interdisciplinary and focus on how to contribute to innovative societal and business development. Extended collaboration with the global academic world would strengthen the long-run competitiveness of Africa. Interaction with the private sector, interdisciplinary approaches and innovations should be rewarded. A supportive climate to encourage entrepreneurship and innovation across all sectors must be developed and education must be made accessible to all.

ENTREPRENEURSHIP – CONVERTING KNOWLEDGE INTO INNOVATION

Education is a necessary condition for innovation-driven growth but far from sufficient. To enter a path of development and increased prosperity, entrepreneurs – the agents of change – are needed. They are the link between knowledge and markets, converting an idea or discovery into something of societal value.

Entrepreneurship may appear as new ventures or within existing organisations and firms. We adopt a broad definition, arguing that entrepreneurship is as important in low- as in high-tech industries, can be either for profit or non-profit, and comprises the formal and informal sectors of society. Entrepreneurs often work in networks or in a system context.

Rule of law, transparency and trust will foster productive, opportunity-based and persistent entrepreneurship. Hence, the prime tasks of governments should be to provide institutions that are conducive to entrepreneurship irrespective of branch, sector and region. Without appropriate conditions in place, targeted interventions are likely to be inefficient. These interventions span different activities – from providing facilities for well-functioning, university-based incubators to measures related to knowledge sharing, public procurement, access to markets and seed funding. Entrepreneurship should thus be prioritised by government policies

to promote entrepreneurial ventures that are coordinated and synchronised across policy areas. Benchmarking and learning from other countries is of vital importance.

THE PROMISE OF INCLUSIVE INNOVATION

To foster development and transformation, Sub-Saharan countries should aim to integrate into global value chains while simultaneously finding operational processes that address local and regional needs. 'Frugal innovation' and business models focusing on the 'Base of the Pyramid' are ways to accomplish inclusive innovation and supply local markets with affordable goods and services.

Addressing these complementary challenges through inclusive innovation requires more inputs than in traditional dedicated innovation efforts. Not only would non-traditional actors like communities and marginalised groups be included, but inclusive innovation should also embrace considerations of environmental and social impact at an early stage of the innovation trajectory. Ultimately it is about the quality of the innovation for markets and for society.

Agriculture and health, but also cities as innovation hubs, are important domains and sites to work on inclusive innovation in Sub-Saharan African countries. This is a worldwide trend, and the domain of energy generation, distribution and use has many cases of inclusive innovation that could inspire Sub-Saharan African countries.

CREATING OPPORTUNITY THROUGH REGIONAL INTEGRATION AND CONNECTIVITY

Southern Africa is characterised by fragmented markets which generate inefficient scale of operations and prevent specialisation in production segments where African countries have potential but unexploited comparative advantages. This also hinders participation in global value-added chains and introduces difficulties in recouping outlays on R&D and fixed production costs. This tends to hamper entrepreneurship and innovation and, in the longer run, undermines global competitiveness with considerable welfare losses as a consequence.

Although regional economic integration has been on the agenda for decades, this remains a missed opportunity for Africa. Import-substitution policies have rarely rendered any consistent welfare effects whereas a number of countries adopting export-promoting policies have propelled growth and prosperity. This, however, relies on fair competition and that larger countries do not abuse their potentially dominant positions. Trustworthy institutions that can safeguard fair competition between countries should be part of regional integration agreements.

The countries of southern Africa should strive to simplify the current complex plethora of overlapping regional integration agreements for one more inclusive and far-reaching agreement.

Such an agreement should effectively set out how the continent may become more integrated economically through trade in products and services, and cross-border investments. An independent competition and trade authority should be formed to settle disputes between participants and ensure efficient implementation of the agreement. Parallel measures should also be undertaken including investing in infrastructure, initiating cluster and sector development of all member states, and improving connectivity to the global economy.

IN CONCLUSION

We have offered diagnoses of the present situation and highlighted potential opportunities for improvement, sometimes drawing on experiences and current wisdom about innovation, at other times venturing in new directions. The various suggestions should be, discussed in their own right. But there is also an overarching challenge: traditional approaches to innovation are not sufficient anymore, worldwide and particularly for Sub-Saharan African countries. There is a need to innovate innovation approaches and patterns. This is happening already, and governments can and should play a role here as well, in addition to more concrete innovation policy initiatives. This Policy Brief contributes to enhancing that larger role by offering suggestions that require rethinking of traditional approaches.

STIAS-Wallenberg Innovation for Prosperity Roundtable Core Planning Committee

Pontus Braunerhjelm, Swedish Entrepreneurship Forum
Sara Grobbelaar, CREST & Faculty of Engineering, Stellenbosch University

Johann Groenewald, Coordinator: Strategic Initiatives, STIAS
Eva Krutmeijer, EKKO AB

Anita Nel, Senior Director, Innovus, Stellenbosch University
Björn Nilsson, President: IVA, Stockholm

Margareta Norell Bergendahl, Vice-rector, KTH, Stockholm
Maud Olofsson, Wallenberg Foundation Ambassador

Arie Rip, University of Twente

Sylvia Schwaag Serger, Executive Director: International Strategy & Networks – VINNOVA

19 April 2016

For further information, please consult the Final Report which can be downloaded from the STIAS website at <http://stias.ac.za/news/2016/05/final-report-on-innovation-policy-roundtable/>.