

A STRATEGY FOR LEADING SCIENCE, TECHNOLOGY AND INNOVATION IN AFRICA

Africa is embracing science, technology and innovation as platforms for development. A major step in the right direction was made when the African Union recently adopted a new 10-year Science, Technology and Innovation (STI) Strategy for Africa (STISA–2024). But responses to the strategy have been insufficient, uncoordinated and may not be providing the ideal level of constructive engagements deserving of such a policy document with continental implications. *Gillian Marcelle, Chux Daniels* and *Darryn Whisgary* assess the STISA–24 and suggest there is great need for a platform of sustained research and exploration on these issues.



STISA–2024 was accepted at the 23rd Ordinary Session of the Assembly of AU Heads of State and Government held in Malabo, Equatorial Guinea, and released publicly in Addis Ababa, Ethiopia, on 3 July 2014.

Since then, policy analysts, scholars and advocates as well as national governments in the African region and around the world, have been appraising the strategy. The Centre for Science, Technology and Innovation Indicators (CeSTII) at the HSRC hosted a seminar to contribute to these debates.

STISA–2024 comes after several attempts at mainstreaming science and technology policies into development. It supersedes the Consolidated Science and Technology Plan of Action (CPA) of 2005 and 2007, and builds on the continent's five decades of policy making history and experiences. This science, technology and innovation strategy, branded 'on the wings of innovation', forms part of the long-term AU Agenda 2063, which calls for the diversification of sources of growth and sustenance of Africa's current economic performance, and in the long run, lifting large sections of our population out of poverty.

The strategy is firmly anchored on six distinct priority areas that contribute to the achievement of the AU vision. These priority areas are: eradication of hunger and achieving food

security; prevention and control of diseases; communication (physical and intellectual mobility); protection of our space, and to live together – build the society; and wealth creation.

STISA–2024 claims that its success will be underpinned by several critical factors and calls for concerted efforts in these areas, including building African universities as centres for excellence and investment in education; technical competences and training in science and technology, and research and innovation.

The strategy stresses the importance of inclusiveness and acknowledges the importance of involving wide sections of the population (private sector, civil society, parliamentarians and the African diaspora). It contains many statements about the importance of mobilisation and wide participation.

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Falling short of expectations

Although the strategy has received a range of responses across the continent and internationally, at CeSTII we observed that these responses were insufficient, uncoordinated and might not provide the ideal level of constructive engagements from stakeholders deserving of such a policy document (strategy) with continental implications. We believe there is a great need for a platform of sustained research and exploration on these issues.

STISA–2024 makes the assumption that Africa will move towards increased innovation, and presents a hope that the private sector will play an active role in identifying and supporting new opportunities. However, this is by far the weakest aspect of the strategy, since although innovation is tossed into the strategy, there is little delineation of how innovation processes and dynamics actually take place. This is a science and technology strategy, with innovation added.

It fosters opportunities for research and policy debates, enabling active engagement.



Shaping Africa's STI landscape

STISA–2024 is not without its strengths. It is important and interesting in many ways. First, it highlights the AU's commitment to understanding and advocating a role for science, technology and innovation (STI) in development. Second, it details some of the important priority areas of focus at continental and national levels. Third, it fosters opportunities for research and policy debates thus enabling active engagement among key actors of the STI ecosystem in Africa. As a strategy, STISA–2024 has the potential to play a central role in shaping Africa's STI activities in the years to come, with significant implications for the socioeconomic development of the continent.

However, it is our view that for STISA–2024 to succeed and to make its optimal contribution in terms of charting a way forward for Africa on an innovation-led growth path, the following action agenda is needed:

- A robust research programme that effectively examines, identifies and conceptualises the innovation ecosystems, landscape and institutions (formal and informal) upon which the strategy can flourish.
- Active and sustained commitment and engagement from African leaders and nations.
- A clear approach to soliciting, utilising and managing inputs from industry and actual innovation performers.
- Investigating the processes of learning, knowledge circulation and capability building (individual, organisational and technological) that is necessary to drive the strategy.
- Sustained investment in innovation activities across the continent.

Tackling the challenges of the Global South

This research agenda can draw on scholarship that is focusing on reconceptualising innovation in a framework that takes into

account the practical realities and perspectives of the Global South; facilitates bidirectional knowledge flows between policy makers and the actual performers of innovation, and incorporates private sector actors' inputs in a clearly articulated manner. The importance of using STI in an inclusive approach to address development challenges such as poverty, inequality, food, water, environment and climate change is also a theme receiving increased attention.

This research agenda will have to take on policy learning as a central theme.



With such an agenda in place, we can generate research insights that show how STI can contribute to Africa's social, economic and development objectives in practical terms that include addressing societal challenges in areas such as agriculture, environment and climate change, water, health and sanitation, transportation and education. Challenges in these areas threaten our very existence as a people and a continent, and therefore are too important to be left to chance.

Furthermore, this research agenda will have to take on policy learning as a central theme. We need to understand from a bold, honest point of view, what has happened in five decades of policy making in the science and technology (and more recently, innovation) domain. This reflection and learning is vital if we are to capture important lessons and avoid making the same mistakes.

CeSTII is ready and able to assist in the actualisation of STISA–2024 by adding value through conducting high quality, policy-relevant research, policy analysis and stakeholder engagements, and providing relevant advice.

STISA–2024's mission is to 'Accelerate Africa's transition to an innovation-led, knowledge-based economy'. While we believe that this goal is realistic, we stress that it will take courage, bold decisions at the highest levels, sustained investment, active engagement and collaboration among key stakeholders (government, industry and academia) working together over a period of time, in order to successfully achieve STISA–2024's objectives.

For more information, visit: CeSTII Seminar on African Union's Science, Technology and Innovation Strategy (STISA–2024), held on 28 November 2014.

About CeSTII: The Centre for Science, Technology and Innovation Indicators (CeSTII) is a specialist research centre within the Human Sciences Research Council (HSRC) that is dedicated to producing policy relevant research and statistical analysis in the domain of science, technology and innovation. CeSTII has a vision to be a thought and practice leader as well as an acknowledged site of excellence in its field, and aims to consolidate its position as a value-adding component of South Africa's national innovation system. ■

Authors: Professor Gillian Marcelle, head of CeSTII, HSRC; Chux Daniels, Science Policy Research Unit, University of Sussex, UK; Darryn Whisgary, project manager (acting), CeSTII, HSRC.