

REPUBLIC OF KENYA

ACTION PLANS AND ROAD MAPS FOR SCIENCE, TECHNOLOGY AND INNOVATION FOR SUSTAINABLE DEVELOPMENT GOALS AND ENABLING BOTH YOUTH AND WOMEN INNOVATORS IN KENYA

BY

JOE MUCHERU, CABINET SECRETARY,

MINISTRY OF INFORMATION COMMUNICATION AND TECHNOLOGY

PRESENTED

At the Ministerial Dialogue: Towards A Road-map of Effective Science, Technology and Innovation (STI) Policy, 7th June 2016, United Nations Headquarters, New York

MINISTRY OF INFORMATION COMMUNICATION AND TECHNOLOGY



Science, Technology &Innovation Policy for Sustainable Development Goals

RUNDOWN OF STI POLICY AND STRATEGY IN KENYA

Science, Technology and Innovation in Kenya is Multi-Ministerial

- **1977** Enactment of the Science and Technology Act
- **2008** Launch of the Kenya Vision 2030 initiative with STI as a key basis for economic, political and social advancement
- **2010** Adoption of the New Constitution of Kenya which further informs the development and application of STI for national development and prosperity
- **2013** Enactment of the new Science, Technology and Innovation Act

Launch of the National Commission for Science, Technology and Innovation (to drive Kenya's Science and Technology Policy); Kenya National Research Fund; Kenya National Innovation Agency under Ministry of Education, Science and Technology

2015 - Establishment of State Department of ICT and Innovation under the Ministry of Information, Communications and Technology

Ongoing - Review of Kenya's Policy Framework for STI

Existing National Innovation System – set of functioning institutions, organizations and policy comprising government, academia and private sector



STI IN KENYA VISION 2030

Vision for 2030	A nation that harnesses STI to foster global competitiveness for wealth creation, national prosperity and a high quality of life for its people			
Strategy	Enhance the application of STI in the national priority sectors for optimal benefits for Kenya's socio-economic and political development			
	Economic Pillar	Social Pillar	Political Pillar	
Master Plan	To maintain a sustained economic growth of 10% p.a. starting from 2012	A just and cohesive society enjoying social equity and development in a clean and secure environment	An issue-based people-centered, results-oriented and accountable democratic political system	
Implementation	Science, Technology and Innovation			
MINISTRY OF INFORMATION COMMUNICATION AND TECHNOLOGY Sustainable Development Goals				

STI POLICIES AND STRATEGIES IN KENYA

- **Policy 1:** Establishment of an Institutional and Regulatory framework to Promote, Coordinate, mobilize resources and manage STI
- **Policy 2:** Leveraging STI to transform the economy through the national priority areas
- **Policy 3:** Allocation of resources, mobilization and motivation of stakeholders to participate in the Rand D sub-sector funding to at least 2% of GDP annually
- Policy 4: Facilitation of acquisition of Intellectual Property Rights by scientists, researchers and innovators
- **Policy 5:** Promotion of STI knowledge sharing and awareness creation
- **Policy 6:** Development of Human Resource Capital in STI to meet the demands of the economy
- **Policy 7:** Development of STI infrastructure to support STI programs in identified priority areas



SD	G Goal	Approach
1.	No Poverty	Incorporation of STI and ICT to improve living standards through timely, affordable and high quality services e.g. access to mobile banking platforms and micro-credit facilities for start-ups and SMEs
2.	No Hunger	Value addition agro-processing, agricultural research with special reference to bio-technology and drought management, biotic and abiotic stresses management
3.	Good Health	Leveraging on ICT to transform the country and provide affordable and accessible diagnostic services and health management systems
4.	Quality Education	Roll out of the Digital Learning Program (DLP) countrywide in primary schools; promotion of STEM and learning by discovery across all levels; enhanced accessibility of devices in TVET institutions and Universities



SDG Goal		Approach
5.	Gender Equality	Empowerment and full participation of women, youth, marginalized communities and disadvantaged persons in all STI activities.
6.	Clean Water and Sanitation	Robust water programs including treatment and piping in remote settlements; Enhanced management of water and sewerage services; Adoption of technologies to monitor seepage and contamination of water reservoirs and enhance response services
7.	Renewable Energy	Harnessing of abundant renewable energy resources (Kenya is one of 6 pilot countries selected to benefit from the Scaling Up Renewable Energy Program (SREP)).
8.	Good Jobs and Economic Growth	Enabling environment for building critical mass of human resource to leverage STI; Enhanced revenue generation and collection models leveraging ICT (e.g. Jambo Pay adopted by Nairobi County)



SDG Goal	Approach
9. Industry, Innovation and Infrastructure	Support infrastructure development for growth; diversification and upgrading of production capacity, research-industry links and facilitation of acquisition of IPRs
10. Reduced Inequalities	Equity and non-discrimination in appointing leadership team, recruitment and promotion and HR management in public STI Institutions.
11. Sustainable Cities and Communities	Adoption of STI and ICT to deliver smart buildings, smart transport systems, enhanced security, smart healthcare systems, smart solid and waste water management systems, smart and energy consumption systems
12. Responsible Consumption	Data virtualization and analytics to encourage product-specific and smarter production and consumption systems
	Science, Technology & Innovation Policy for

MINISTRY OF INFORMATION COMMUNICATION AND TECHNOLOGY



Science, Technology &Innovation Policy for Sustainable Development Goals

SDG Goal	Approach	
13. Climate Action	Using STI and data analytics to forecast climate patterns, early warning, prevention, disaster preparedness, mitigation and adaptation strategies; conservation; clean production and	
14. Life Below Water		
15. Life on Land	management of waste water and solid waste; and recycling	
16. Peace and Justice	Using ICT to encourage good governance, accountability, solid legal institutional and regulatory frameworks to enable a vibrant STI system	
17. Partnerships for the Goals	Promotion of regional and international cooperation and collaboration and vibrant interactions between the private and public sector on existing and emerging STI issues	



ENGAGEMENT WITH STAKEHOLDERS

- **1.** Education and research system (universities, TVET institutions, sectorbased research centres, national research and education network and schools)
- **2. Business system** (from start-up informal businesses to large and multinational companies)
- **3. STI infrastructure** (financial, information, IPR regime, regulatory, county innovation hubs and incubation centres, science and technology parks, special economic zones, etc.)
- 4. Consumer, Private Sector and Government Effective response to national needs of the stakeholders
- 5. Policymakers and Community STI awareness programs
- 6. Youth and Women Mainstreaming and involvement of women, youth and PLWDs in STI programs, access to devices and free internet to enable access to online job opportunities



SUPPORT TO INNOVATORS

- Presidential Digital Talent Program Transformation of the Digital Service Delivery utilizing youth and innovation
- Digital Literacy Program Mainstreaming ICT technologies in basic education and enhancing learning through the use of digital technologies and prepare Kenya's future workforce.
- Enterprise Kenya To nurture and catalyze ICT innovations in the country and provide support across the innovation value chain.



LEVERAGING INTERNATIONAL SUPPORT TO KENYA'S EFFORTS

- **1. Global Connect** to enhance connectivity and bridge the digital divide...
- 2. Smart Africa Initiative to enhance broadband connectivity and leverage ICT to promote sustainable development...
- **3.** WEF Internet for All public-private collaboration to accelerate internet access and adoption...
- **4.** NISO Circulation Interchange Protocol (NCIP) to facilitate the automation of tasks, the exchange of data...
- 5. Kenya's membership at the United Nations Group of Governmental Experts on Information Security

Advantages

- Aggregate demand
- Increased awareness
- Low costs due to Economies of Scale

Incremental benefits

- Connectivity
- Affordability
- Access to devices
- Awareness
- Content access
- Online job opportunities



Thank you!

MINISTRY OF INFORMATION COMMUNICATION AND TECHNOLOGY



Science, Technology &Innovation Policy for Sustainable Development Goals