Science, Technology and Innovation

8 Policy Recommendations

For the advancement of Knowledge Societies across Africa

African Union

FORMIN.FINLAND.FI
MINISTRY FOR FOREIGN AFFAIRS OF FINLAND

gesci
Founded by UN ICT Task Force

A Product of the African Leadership in ICT and Knowledge society Development Course

Helena Tapper, Program Manager ALICT and STI Specialist, GESCI

These recommendations represent the opinions of a cross-section of mid-to-senior level managers from ministries and public sector organizations in Kenya, Mauritius, South Africa, Tanzania, and Zambia.

While participating in an intensive leadership course run by GESCI, for the advancement of knowledge societies, these future leaders gained a deeper understanding of the critical interplay between Education, ICT, and Science, Technology and Innovation (STI) in the development of emerging economies across East and Southern Africa. The African Leadership in ICT course, which uniquely combines key elements of leadership, knowledge society and futures thinking into six *action learning* modules, is delivered online and face-to-face over the course of seven months, culminating in a final policy coherence workshop, at which these recommendations were produced.

With a focus on the dynamics of developing STI policies and plans that take account of emerging trends that can further integrate STI into economic and social development, participants were able to identify common policy gaps that need to be filled in order for their governments to create, with foresight, the STI futures that best serve their societies and economies.

We hope that the following summary of STI policy recommendations will be considered an important indication of the gaps in the policy, planning and implementation processes across the STI sector, as perceived by those who are engaged in policy development and implementation in Kenya, Mauritius, South Africa, Tanzania, and Zambia.
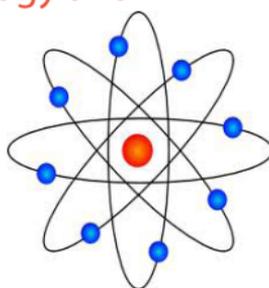
1. Make Science, Technology and Innovation Policy Inclusive

STI plays a critical role in the development of any society. Effective and holistic development cannot be realised if any segment of society is excluded from the societal development process. In many societies, many women have not benefitted from sufficient opportunity to ensure equal access to positions in Science, Techology and Innovation sectors.

⇨ It is therefore recommended that a fund be established to target the training of women in STI processes. These women will become much needed role models for girls hoping to pursue higher learning opportunities in STI.

2. Demystify Science, Technology and Innovation

⇨ From early childhood, children need to be introduced to STI using ICT as a tool to create interactive learning experiences that will enable children to understand the basic concepts of STI. This will help to create a critical mass of people across generations who understand the important role STI plays in the advancement of the knowledge society.

3. Invest in Science, Technology and Innovation

⇨ Increase investment in STI processes for the sustainable management of natural resources, from renewable energies to minerals. Such investment would lead to greater sovereignty over how natural resources are exploited, and place more control of end-to-end resource management in the hands of local and national governments.

4. Prepare for multiple Science, Technology and Innovation Futures

⇨ Governments should employ futures thinking to formulate STI policies. Futures Thinking methodologies enable policy makers and implementers to develop coherent policies and plans that take account of trends across multiple pillars of the knowledge society, such as Education, ICT and Infrastructure, in the context of several alternative futures.

5. Invest in Research & Development

⇨ Government incentives should be in place to encourage newly established universities and colleges, and private sector organisations, to build R&D infrastructure and associated supportive environments.

⇨ Policies should place emphasis on research and development activities, innovation, and the creation of indigenous technologies. The policy framework must promote complementarity, rather than duplication, and the establishment of networks and coordinated policy structures.

⇨ Government should put in place incentives to promote increased local investment in STI.

⇨ Effective monitoring systems should replace the rigid procedures for accessing funds.

⇨ Governments should provide incentives with conditions set for productivity, so as to encourage innovation, and entrepreneurship leading to job creation and self-employment.

⇨ Investment policies in R&D should be closely linked to applications, commercialisation and business development provisions.

6. Enhance collaboration between sectors and public entities

⇨ Governments should develop comprehensive STI policies that incorporate inputs from a cross-sector of stakeholders.

7. Incorporate Science, Technology and Innovation in national environment and energy management

⇨ Policies should be developed to promote the development and use of alternative sources of energy. The service delivery of energy, especially electricity, should also be decentralised to develop local alternative sources of energy.

⇨ Regulatory frameworks should be put in place for establishing settlements, water and power supplies.

8. Education and Science, Technology & Innovation

⇨ Technology should be used as a catalyst to speed up processes for realising the national vision and for creating a relevantly-educated knowledge society.

⇨ The education system should incorporate a life-skills curriculum so that children possess sustainable livelihoods skills from a young age.

About the African Leadership in ICT Course

ALICT is an African Union Commission initiative, supported by the Ministry for Foreign Affairs of Finland and implemented by GESCI (Founded by the UN ICT Task Force).

Course Vision

Work with future African leaders in ministries and organizations to advance knowledge society development across Africa.

Course Objectives

• Equip future African leaders with a commanding understanding of the key elements in the development of knowledge societies.

• Build future leaders' capacities to be agents of change in their ministries, organizations and regions for the development of knowledge societies.

Course Delivery

Blended Learning Approach, whereby participants learn in both online and face-to-face settings.

Course Structure:

• Orientation
• Leadership in the Knowledge Age
• New Strategies for Science Technology and Innovation
• Communications Infrastructures and Quality Internet
• ICT Applications and the role of Government
• Education in the Knowledge Age
• Knowledge Society for Africa

Target Countries

The course has been delivered to participants in Kenya, Mauritius, Tanzania, Zambia and South Africa. A second round of the course is currently being delivered to participants in Rwanda, Mozambique, Kenya, Ethiopia, Uganda, Malawi, Botswana and Namibia.

What past participants are saying about the ALICT course.....

"The ALICT course has been innovative, informative and receptive to my challenging schedule and I am confident of scanning the future and preparing my organization for it. The tutors and staff of GESCI have been friendly and professional."

Dr. D.C. Mwinzi, MBS, Director Youth Training,Ministry of Youth Affairs and Sports, Kenya

"This class was not what I had initially anticipated. It was so much more in   terms of e-content and connecting with other ICT leaders in Africa! The level of critical thinking and networking through technology was great."

Ricaud Auckbur, Director E-Education and TVET, Ministry of Education and Human Resources Deputy Director, ICT & Service Industries,

Contact us

To learn more about ALICT and GESCI please visit
www.gesci.org or email us at info@gesci.org