COMESA Regional e-LEARNING STRATEGY

2011-2015

FINAL

AUGUST 2011
FOREWORD

The development of the COMESA e-Learning strategy comes at an important time when COMESA secretariat is implementing far-reaching reforms to achieve efficiency and effectiveness in service delivery to its member states. The strategy is anchored on the outcomes of the fifth meeting of the COMESA Technical Committee on Information Technology, held in Seychelles on 24<sup>th</sup> - 27<sup>th</sup> March 2009, which recommended that COMESA Secretariat enters into a Memorandum of Understanding with the Government of Kenya (GoK) to ensure maximum operation of the installed COMESA e-Learning platform. This recommendation was later endorsed by the meeting of the COMESA Council of Ministers, which also directed COMESA Secretariat to conduct training of trainers workshops (TOTs) in e-Learning for the member states in order to fully utilize the installed e-Learning platform for regional training programs. The Memorandum of Understanding mandated the Kenya e-Learning Centre (KeLC) to coordinate the strategy development and implementation process as the lead implementing agency.

In response to this commitment the Government of Kenya constituted a National e-Learning Taskforce through the Permanent Secretary Ministry of Information and Communications (MOIC) comprising representatives from Key ministries, Government agencies, civil society and private sector organizations to coordinate the process at national level. At regional level, COMESA member states, each nominated a national e-Learning focal point to participate in the regional steering committee. Kenya e-Learning centre serves as the regional secretariat for coordination between these two structures.

In December 2010, National e-Learning focal points from member states converged in Nairobi, Kenya for a three day e-Learning strategy development workshop, during which a draft COMESA e-Learning strategy framework and plan of action was developed. This workshop was followed by a 4-month online consultative process facilitated by experts from KeLC and COMESA Secretariat to solicit further input from the focal points to refine the draft. The draft strategy was shared and further inputs obtained during the COMESA pre-conference workshop at the 6<sup>th</sup> e-Learning Africa conference in Dar es Salaam, Tanzania, May 2011. Further inputs were incorporated into the draft following presentation and review by the COMESA Information Technology security taskforce meeting in Khartoum, Sudan, July 2011.

The implementation of the e-Learning strategy will accelerate on-going reforms in the COMESA region geared towards addressing some of the key challenges in developing and retaining a world class pool of human resources. These include disparities in access to educational and training resources between the urban and rural areas; inadequacies of educational and training infrastructure across the member states; shortages of human resources in critical sectors of the economy; the high cost of accessing world class
educational and training for the majority in member states and limitations in availability of financial resources. It will also accelerate the decentralization of delivery and access to education and training in member states.

The e-Learning strategy will also facilitate the strengthening of partnerships on the provision of quality education and specialized human resource development services. It will not only promote partnerships with the private sector, but will also enable COMESA secretariat tap into the relevant skills and knowledge on e-Learning that exist in established institutions both within and outside the region. Towards this end, COMESA and partners will seek to build capacity among key technical personnel through technology transfer and ICT-mediated training. The wide adoption of e-Learning will also open new opportunities for multi-skilling, out-sourcing of services and employment generation in member states.

The e-Learning strategy will harness the already available ICT infrastructure in member states; promote conducive policy and legal environment and locally available expertise to harness ICT for improved educational and training delivery in member states. The implementation of the e-Learning strategy is expected to transform capacity building operations in COMESA and facilitate the region into becoming a hub for access to specialized education and training services.

The process of developing this e-Learning strategy has adopted a consultative process to ensure that the product is holistic and inclusive, capturing the desires and aspirations of the COMESA member states as we move towards attainment of an information society in COMESA.
PREFACE

The private and professional lives of citizens in COMESA region have gone digital: we live, work, and play in cyberspace. Citizens use the Internet, computers, cell phones and mobile devices every day to communicate with family, friends and colleagues. We do business online every day, from banking to shopping to accessing Government services – from anywhere. Digital infrastructure makes all these possible by enabling access to services 24 X 7.

COMESA citizens, industry and Governments do appreciate the many advantages that cyberspace offers our economy and improved quality of life. However, the scale of adoption is still far below the expected minimum threshold required to catapult COMESA into the knowledge age. Far too many citizens still lack access to basic education and opportunities for self-advancement resulting from access to educational resources. As a regional trading block, COMESA will only be able to effectively tap into the many advantages offered by the knowledge age by having a critical pool of knowledge workers; individuals, capable of learning continuously, familiar with techniques of accessing, processing information and who also possess excellent communication skills.

The COMESA e-Learning strategy is our plan for meeting the challenge of developing this pool of knowledge workers in COMESA region. It delivers on the decision of the COMESA council of ministers which mandated the secretariat to explore effective ways of operationalizing the COMESA e-Learning platform. It leverages on the partnerships established under the MOU signed between the Government of Kenya and COMESA, and supports the on-going efforts by our partners and agencies in building capacity of the workforce within member states. The strategy is a cornerstone of our commitment to ensure that our collective workforce is equipped with knowledge age tools that will drive the well-being of our countries and citizens to even greater heights.

This strategy is based on five pillars or strategic areas of intervention. An appropriate Governance structure to steer implementation of the strategy has been recommended and will be enacted via applicable legislation or gazettment.
Acknowledgements

The realization of this strategy is the outcome of the tireless efforts of many individuals and organizations. COMESA Secretariat was instrumental in facilitating the formalization and Operationalization of the MoU with The Government of Kenya. COMESA also played an important role in facilitating the nomination of e-Learning focal points within the member states.

The strategy owes much to the leadership, encouragement, technical and financial support from Mr Sindiso Ngwenya, COMESA Secretary General and Dr Bitange Ndemo, Permanent Secretary, Ministry of Information and Communications, Kenya. The expert contributions from the Kenya National e-Learning taskforce and National e-Learning focal points from member states are also highly appreciated.

Special thanks go to Sherin Shoukry, Director for Information and Networking, COMESA, under whose leadership and guidance this strategy was finalised.

Lois Bosire, Assistant Director ICT, Ministry of Information and communications, Kenya, and Andrew Gakiria, National coordinator Kenya e-Learning Center ensured that there was full participation from stakeholders within the region and abroad. Their personal support and contribution was critical to the success of this work.

The process also involved many organizations including NGOs, Private sector, institutions of higher learning, Government ministries and Departments, among others, whose contributions were invaluable.

Since we are not able to mention everyone, we wish to sincerely thank all those who in one way or another participated in the development of this COMESA e-Learning strategy 2011 - 2015
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<tr>
<th>ACRONYMS</th>
<th>Description</th>
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<td>COMESA</td>
<td>Common Market for Eastern and Southern Africa</td>
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<tr>
<td>AU</td>
<td>Africa Union</td>
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<td>CD-ROM</td>
<td>Compact Disc Read Only Memory</td>
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<td>GoK</td>
<td>Government of Kenya</td>
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<td>ICT</td>
<td>Information Communication Technologies</td>
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<td>KIE</td>
<td>Kenya Institute of Education</td>
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<td>KeLC</td>
<td>Kenya e-Learning Centre</td>
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<td>M &amp; E</td>
<td>Monitoring and Evaluation</td>
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<td>MDGs</td>
<td>Millennium Development Goals</td>
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<td>MoE</td>
<td>Ministry of Education</td>
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<td>MoU</td>
<td>Memorandum of Understanding</td>
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<td>NGO</td>
<td>Non-Governmental Organization</td>
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<td>TSL</td>
<td>Technology-Supported Learning</td>
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<td>TOT</td>
<td>Trainer of Trainers</td>
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<td>WBT</td>
<td>Web-Based Training</td>
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<td>HR</td>
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<td>Human Resource Development</td>
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<td>LCMS</td>
<td>Learning and Content Management Systems</td>
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<td>ICDL</td>
<td>International Computer Driving License</td>
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EXECUTIVE SUMMARY
The educational and training systems in the COMESA member states are currently struggling to cope with the rising cost and demand for quality education and training against the backdrop of a shortage of critical human resource skills and inequitable access to quality learning resources. There is therefore a compelling need to devise ways and means of closing the gap between the demand and supply of learning resources. This e-Learning strategy seeks to set in motion the process of closing this gap by harnessing ICT for improved access to and delivery of quality learning resources in COMESA member states.

In order to have a strategy that is holistic and inclusive, the development of the strategy used a participatory process that was started in December 2009 and concluded in August 2011, when the final draft strategy and implementation matrix was developed. Therefore, this strategy includes the views of multiple groups and sectors across the member states and is the result of many hours of debate and deliberation.

The strategy points out the challenges in promoting the development of knowledge workers through e-Learning including inadequate resources: Financial, ICT infrastructure, human resources, Low level institutional capacity, lack of adequate local and relevant content, weak regulatory and institutional frameworks.

In order to effectively implement e-Learning in COMESA region, this strategy identifies five pillars or strategic areas of intervention to be addressed. These are:

- Human Resource Development
- Infrastructure & Connectivity
- e-Content and Curriculum Development
- Quality Assurance, Monitoring and Evaluation.
- Research and Development

For each of the areas, objectives are presented and strategies for achieving them. The strategy has an implementation plan to enable COMESA and partners to effectively and efficiently roll out e-Learning for the benefit of the member states.

An organizational framework has been designed to ensure smooth coordination in implementation of the strategy within COMESA.

In conclusion, the strategy has also identified broad outcomes which the implementation of this strategy promises as its contribution to the sustainable development agenda for the COMESA region.
CHAPTER 1: INTRODUCTION

1.1 BACKGROUND

In the past, traditional methods of teaching and learning have been the only way of information dissemination. However, with development and growth of Information and Communication Technologies (ICT), e-Learning as a mode of learning has been introduced in many fields.

e-Learning encompasses forms of Technology Supported Learning (TSL) used to define a specific mode of study where the learners and tutors seldom meet face-to-face, nor access on-campus educational facilities. Types of e-Learning include Web-based learning, where presentation of content is done via the Internet and computer based learning where presentation of content is done through media such as CD-ROMs and USBs. e-Learning content can be delivered via all electronic media such as radio, interactive TV, audio/video media, the Internet, intranets, satellite broadcast, and CD-ROM. e-Learning can also be delivered face to face, electronically or through a blended approach.

e-Learning, through its flexible nature, provides benefits for organizations in many ways such as:-

- Improved knowledge access and quality of learning hence enhancing performance
- Increased access to information and training resources at minimal costs
- Convenience and flexibility to learners, especially adult learners
- Facilitating development of essential skills for knowledge-based work by embedding the use of information and communication technologies within the curriculum

In COMESA region, the driving forces behind the adoption of this mode of learning include: Growth in population with more people needing education and professional training under limited facilities; Increased cost of face to face education where few people can afford to physically attend school, colleges or university for education; pressure and professional commitments at work meaning more time devoted to working; and the evolution of ICTs. e-Learning is now emerging as the most outstanding mode of teaching and learning through which COMESA member states can attain the Millennium Development Goals (MDGs), and sustainable development.

In recent times, there is emergence of high tech niche sectors in member states. These include computing, telecommunications, biotechnology and renewable energy players. The service sector is also growing rapidly, with hospitality, finance, health, entertainment and tourism players attracting most attention. These new, knowledge based industries require a highly flexible, skilled and adaptable work force that can continually change with the rapid developments in the global sphere. These workers are expected to not only have technology skills that are up-to-date, but also possess the ability to learn continuously. For these high tech industries to effectively grow and compete on the global arena there is need for a constant stream of knowledge workers. This strategy will contribute towards
attaining this objective, by developing a critical and sustainable mass of knowledge workers in member states that is well equipped with the relevant skills and attitudes needed to satisfy the requirements of the knowledge age players.

1.2: EXISTING POLICY ENVIRONMENT

COMESA has enacted several policy documents to help promote ICTs and e-learning in various sectors. These include:

1.2.1: COMESA IT POLICY
The COMESA ICT policy sets out the aims, principles and strategies for the delivery of ICT-related benefits to member states. The ICT policy advocates for growth and implementation of e-learning in COMESA through; promoting the development of e-learning resources; facilitating Public-Private Partnerships (PPP) to mobilize resources; and promoting the development of integrated e-learning curricula to support and provide affordable infrastructure to facilitate dissemination of knowledge and skills through e-learning platforms. It is therefore necessary to promote e-Learning as a tool for disseminating knowledge and training resources to build the capacity of member states so as to effectively leverage on the opportunities available in the global knowledge economy.

1.2.2: COMESA REGIONAL e-GOVERNMENT FRAMEWORK
e-Government is the use of information technology to support Government operations, provide for investments that are needed in people, tools, policies, processes, engage citizens and provide government services. The e-Government strategy framework encourages the use of a range of information and communication technologies, such as the Wide Area Networks, Internet, and Mobile Computing, by government agencies to transform government operations for improved effectiveness, efficiency, service delivery and to promote democracy. Under the ‘Communication with Citizens’ pillar, the strategy recognizes the use of online technologies to support public education. e-Learning was identified as an enabler across all sectors.

1.2.3: COUNCIL DECISIONS

May, 2007, Nairobi Kenya:
- That the COMESA Secretariat should develop e-Learning programs and encourage member States to develop e-government portals

December, 2008:
- COMESA Secretariat to conduct a TOT of trainers in the Member States
- Member States should fully utilise the installed e-Learning platform to provide training in various critical and priority areas
**June, 2009:**
- The Secretariat should enter into a Memorandum of Understanding with the Kenya e-Learning Centre to ensure maximum operation of the installed e-Learning platform
- The Secretariat should organise a workshop on e-Learning Strategies to work out the implementation modalities for the MoU
- Member States should provide the Secretariat with their e-Learning focal points for the successful implementation of the e-Learning programme

**August, 2010:**
- COMESA should sign the Memorandum of Understanding with the Government of Kenya as soon as possible to ensure maximum operation of the installed e-Learning platform
- COMESA Secretariat should ensure that the workshop on e-Learning is held for effective implementation of the MoU and build capacity within the region in e-Learning
- Member States that have not yet provided details of their e-learning focal points to the Secretariat are urged to do so by end June 2010
CHAPTER 2.0: RATIONALE FOR THE STRATEGY

As a regional trade block, COMESA secretariat strives to build the capacity of member states to effectively compete on the world stage and leverage on emerging opportunities to increase investment and the trading regime.

Capacity building activities are thus a crucial building block if COMESA is to achieve its set objectives. However, traditional methods of face to face training have been faced with increasing challenges. There are decreased or stagnating finances in an environment of increased demand for capacity development to deal with emerging challenges and harness new opportunities. Member states have experienced explosion in their populations, with the majority comprising young people possessing a thirst for knowledge and education. This segment of the population is also characterised with demands for world class quality of education that incorporates greater interactivity and collaboration in a learner centred approach.

Workplace demands and the fierce competitive environment have also sent most workers back to school to gain extra skills and competencies in order to remain relevant in the fluid environment. Educational and training infrastructure is over stretched, locking out millions of people in the search for knowledge and skills.

The Global knowledge economy provides immense opportunities for member states to improve their balance of trade. However, there are also new challenges to be faced, requiring an ICT-compliant workforce with the requisite attitudes in the region. Extra demands are also imposed on policy makers who are now expected to make effective and forward looking policies in the face of a rapidly changing and dynamic technology-driven environment.

All these point to an urgent need to harness ICTs to expand access to knowledge and educational resources to all in a cost effective and sustainable manner. In the year 2007, COMESA secretariat decided to embark on a process of embracing e-Learning. In partnership with University of Mauritius, a learning and content management system was installed to enable the delivery of e-Learning courses to member states. A TOT workshop was also held. However, there emerged a need to ensure that the platform was aggressively utilised, which led to the current MoU with Government of Kenya on this. This was in recognition of the Kenya Government’s capacity to spearhead e-Learning process based on the progress made by the Kenya e-Learning centre. Successes include:

- Development and implementation of a blended learning teacher training program targeting the over 250,000 Kenyan teachers
- Development of sectoral e-Learning strategies and implementation plans (Education, Health and environment)
- Development of an Online Government training portal for all civil servants
2.1.1: VISION

A well trained and equipped workforce effectively harnessing the Global knowledge economy for improved livelihoods in COMESA member states

2.1.2: MISSION

Promote lifelong learning for acquisition of knowledge economy skills for employability and economic competitiveness while Harnessing Technology-Supported Learning for increased access.

2.1.3: GOAL

To provide a platform through which various synergies will be leveraged for improved efficiencies and effectiveness of capacity building programs through e-Learning in COMESA.

2.1.4: BROAD OBJECTIVES OF THE e-LEARNING STRATEGY

1. To create an interactive and collaborative platform for dissemination of information, knowledge and training resources in COMESA
2. To build capacity, promote and adopt use of e-Learning in the target institutions in COMESA
3. Increase access and effectiveness of COMESA capacity building programs

2.1.5: SPECIFIC OBJECTIVES

1. To mainstream e-Learning into COMESA capacity building programs and processes
2. To build skills of key technical personnel on the e-learning platform
3. To strengthen synergies among collaborating and implementing institutions
4. Achieve a paradigm shift in education and training in COMESA countries in a fundamental way by adopting e-learning as a mechanism for human development
5. Deploy COMESA programs effectively using a new mechanism for formulating policy guidelines for human development
6. Maximize resources in the region by leveraging already established structures
COMESA e-LEARNING STRATEGY IS BUILT ON 5 PILLARS:

1. Human Resource Development
2. Infrastructure and Connectivity
3. e-Content and Curricula
4. Quality Assurance, M&E
5. Research and Development

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<th>PILLAR</th>
<th>PRIORITY FOCUS AREAS</th>
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| Human Resource Development    | • Skilled HR for development & implementation of e-Learning programs including administration of e-Learning platforms  
|                               | • HRD programs for building technical skills in ICT and e-Learning                  
|                               | • Community of practice of e-Learning experts for information and knowledge exchange to keep abreast of ICT and e-Learning developments |
| Infrastructure and Connectivity| • Physical environment for blended learning programs (equipped training rooms)     
|                               | • Server infrastructure including broadband connectivity                             
|                               | • Appropriate multi-media software including Learning and content management systems |
|                               | • User access devices (Desktops, laptops, tablets, mobiles, printers, PDAs)         |
| e-Content and Curricula       | • Mainstream eLearning in curriculum development processes                           
|                               | • Develop and customize local content for e-Learning in COMESA priority areas       
|                               | • Develop Locally appropriate and relevant curricula                                |
| Quality Assurance, M&E        | • M&E for monitoring strategy implementation                                         
|                               | • Legal and regulatory framework for e-Learning implementation                       
|                               | • Develop a localized Quality Assurance, Certification and Accreditation Framework for e-Learning |
| R & D                         | • Scientific research and developments for promotion of knowledge based economy      |
2.2: ORGANIZATIONAL FRAMEWORK

To ensure that e-Learning is anchored in Regional and National priorities with the support and approval at the highest levels of decision-making at member state level, an institutional framework and structure has been designed to oversee and coordinate the implementation of the COMESA e-Learning strategy as outlined below:

**GOVERNANCE STRUCTURE**

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**COMESA Secretariat/ Government of Kenya**

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**Steering committee**

* (e-Learning focal points)

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**AD Hoc working groups**

* Online tutors, LCMS administrators, workshop facilitators, content developers, instructional designers, course managers, project managers, ICDL trainers, QA/M&E

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**KeLC (Secretariat)**

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**AD Hoc Working Groups** will address technical issues related to actual implementation of program activities. These proposed working groups will have the following objectives and activities:
Content Development Working Group
This group will look into all matters related to e-content development and customization and will develop a common repository for all e-Learning courses in COMESA. It will have the following Objectives:

1. To establish the status of available e-learning content in COMESA
2. To develop guidelines for e-Learning content development adhering to sound instructional design principles
3. To establish a repository for e-Learning Courses and programmes

Activities
1. Conduct a baseline review of e-Learning content in COMESA
2. Develop guidelines and standards for e-learning content.
3. Develop an evaluation and monitoring tool for the e-Learning content
4. Build a repository model for e-Learning content

Capacity Building Working Group

Objectives
1. Identify training needs among regional stakeholders
2. Build capacity on the use of e-Learning through e-Learning among the stakeholders
3. Develop a database of Trainers of Trainers and facilitators in e-Learning
4. Develop linkages with end users

Activities
1. In collaboration with the relevant partners identify e-Learning trainers for COMESA
2. Carry out e-learning training needs assessment.
3. Coordinate the development and dissemination of e-Learning training materials
4. Train trainers
5. Train e-Tutors
6. Coordinate training
7. In partnership with relevant arms, identify and adopt a customized certification and accreditation scheme for e-Learning
8. Monitor and evaluate e-Learning capacity building activities

Infrastructure & Connectivity Working Group

Objectives:
1. Identify the needs of the stakeholders for e-Learning infrastructure among key stakeholders
2. Provide a framework for the development of the required and most needed infrastructure that will enable rollout of envisaged programs

**Activities**
1. Carry out a needs assessment in the area of e-Learning infrastructure.
2. Deal with the required infrastructural and connectivity issues while making suggestions for improvement
3. To prioritize the infrastructural needs of the stakeholders.

**Quality Assurance, Monitoring and Evaluation Working Group**

**Objectives**
1. Develop quality standards for e-Learning
2. Monitor e-Learning programmes

**Activities**
1. Develop quality standards (QS) and indicators for eLearning
2. Monitoring and evaluation of QS in infrastructure development
3. Monitoring and evaluation of QS in content development according to set guidelines
4. Monitor the dissemination of information about quality enhancement activities to ensure the sharing of best practices
5. Monitor current development in ICT and its potential usage in learning and teaching
6. Train peer reviewers as part of quality assurance team

**2.1.3: EXPECTED OUTPUTS**
By the end of the 2015 it is envisaged that:

1. e-Learning is firmly embraced in the COMESA member states as a means of building capacity for trade promotion and sustainable economic development
2. There will be an increased pool of knowledge workers effectively harnessing ICT for improved efficiencies in service delivery within their institutions and countries
3. Member states institutions will have strategies in place that facilitate harnessing of existing ICT infrastructure, digital learning resources and technical expertise for promotion of lifelong learning.
CHAPTER 3: TARGET GROUPS

The Strategy will be implemented in partnership with organizations directly responsible for capacity building, education and training within member states. The academic community, non-governmental organizations and private sector will join the coordinated efforts to harness ICTs in building a pool of knowledge workers. Each of these sectors has unique technological and analytical capabilities to offer, and a strong incentive to adopt ICTs for their own capacity development programs. Their collaboration is essential to our shared success to increase our productivity and prosperity. Individual Citizens must also play a primary role in this initiative.

All stakeholders in the COMESA region have a role to play in improving the socio-economic well-being of citizens in member states. Each of these actors will have their specific roles in tandem with their institutional mandates and policies. This Strategy creates the platform through which stakeholders in the region effectively collaborate and create synergies to ensure smooth operationalization of the COMESA e-learning strategy.

3.1: LEARNING INSTITUTIONS

Learning institutions in collaboration with COMESA and other recognized institutions will develop e-Learning curricula and content for primary, secondary and tertiary target groups. These will be used to enhance the quality of education, training experiences and promote the evolution of knowledge workers. These institutions will be supported in the adoption of ICTs in learning and teaching at all levels in which benefits will be derived from a blend of traditional and emerging learning and teaching methods.

3.2: POLICY AND DECISION MAKERS

The policy makers at the national level will be expected to develop and monitor Sectoral policies that support creation of structures that will enable the relevant authorities to implement e-Learning. Their interventions will promote the integration and mainstreaming of e-Learning activities. They will also be expected to provide and mobilize resources.

3.3: CIVIL SOCIETY ORGANIZATIONS

Civil society organizations play a vital role in advocacy to influence policy and decision making through various avenues. They will play a crucial role in not only advocacy but also as agents of change in the development of a knowledge society in COMESA. This process shall influence national and global policy though advocacy campaigns and mobilization of people and resources and encourage North-South and South-South collaboration.
3.4: GOVERNMENT MINISTRIES, DEPARTMENTS AND AGENCIES

They will develop appropriate institutional policies and regulations to strengthen e-Learning structures within their areas of jurisdiction. They will ensure availability of e-Learning infrastructure, content and material to be used in operationalization of the e-Learning strategy. They will also be expected to be part of the implementation, monitoring and evaluation processes.

3.5 PRIVATE SECTOR

Public Private Partnerships (PPP) will be nurtured and encouraged to ensure that the private sector is actively involved in supporting e-Learning programs in a sustainable manner.

3.6 MEDIA

The media will use ICTs to structure information and make the public aware of educational issues around them through multimedia and other automated methods such as documentaries, movies, videos and other broadcasted fora. The media will also profile the importance of e-Learning as a tool for capacity building and educational advancement.

3.7: DEVELOPMENT PARTNERS

They will be expected to support implementation of the strategy in various capacities including mobilization and provision of resources.
CHAPTER 4: IMPLEMENTATION FRAMEWORK

This e-Learning Strategy will be implemented through action plans devised and monitored by the key implementation partners. Priorities have been identified within the planning period and a schedule of actions prepared.

4.1: IMPLEMENTATION MATRIX AND ACTION PLAN

(SEE ANNEX)
4.2: EXPECTED OUTCOMES

Implementation of this e-Learning strategy is expected create better livelihoods in COMESA by contributing to the attainment of the following expected outcomes:

4.2.2 Employment creation:
Implementation of this e-Learning strategy would catalyze creation of jobs and generate income for several players especially the youth. There will be avenues opened in the areas of software development, systems and e-Content development and management, online tutors and other specialized areas.

4.2.2 Knowledge economy
By expanding the pool of knowledge workers needed by the increasing number of high tech industries in COMESA region, there will be positive progress in the drive to achieve a knowledge economy status with related benefits towards improved well-being in member states.

4.2.3 World class education and training
In order to harness the benefits and opportunities presented by the Global knowledge age, member states will need to attract and retain knowledge age industries in the relevant sectors including health and informatics, telecommunications and computing, entertainment and hospitality, travel and leisure among others. Having a workforce with the requisite knowledge age skills and attitudes will serve to attract these investments in the member states, leading to improved livelihoods for all.

4.2.4 Peaceful co-existence
ICT-Mediated education and training will be harnessed to promote harmonious and peaceful co-existence amongst communities in member states. This is through faster and cheaper information and knowledge access to empower communities for sound decision making to reduce mistrust, and bridge the knowledge divide. It should counter ethnic chauvinism, and gender inequity among other biases.
CHAPTER 5: MONITORING and EVALUATION

On-going Monitoring and Evaluation will be carried out to enable:

- Enforcement of compliance with the legal and regulatory regime
- Maintenance of quality standards in service provision
- Effective management of program and budget execution

High Level Monitoring & Evaluation Framework
### LIST OF CONTRIBUTORS AND PARTNERS

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<tr>
<td>1</td>
<td>Mr. Sindiso Ngwenya</td>
<td>Secretary General, Common Market for Eastern &amp; Southern Africa (COMESA)</td>
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<td>2</td>
<td>Bitange Ndemo, PhD, CBS</td>
<td>Permanent Secretary, Ministry Of Information &amp;Communications, Kenya</td>
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<tr>
<td>3</td>
<td>Sherin Shoukry</td>
<td>COMESA</td>
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<td>4</td>
<td>Isabel Nshimbi</td>
<td>COMESA</td>
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<td>5</td>
<td>Grey Njowola</td>
<td>COMESA</td>
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<td>6</td>
<td>Lois Bosire</td>
<td>Ministry Of Information &amp; Communications, Kenya</td>
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<td>7</td>
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<td>Namibia e-Learning Centre</td>
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<td>10</td>
<td>James Sankale</td>
<td>Ministry of Youth Affairs and Sports, Kenya</td>
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<td>11</td>
<td>Angelo Gitonga</td>
<td>Ministry of Education, Kenya</td>
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<td>12</td>
<td>COMESA e-Learning focal points</td>
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<tr>
<td></td>
<td>Mr. Terence Nzeyimana</td>
<td>Directeur du Commerce, Ministère du Commerce de L'industrie, des Postes et du Tourisme, Burundi</td>
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<td>Mr. Karim Attoumani Mohamed</td>
<td>Chef De Département Etudes etProjets, Autorité Nationale De Régulation des TIC, Comoros</td>
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<td>Mr. Mussungu Lopepe Alphonse</td>
<td>Director a la Coopération Régionale, Coopération Internationale et Régionale, Congo DR</td>
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<td>Mr. Omar Darar Mousa,</td>
<td>Responsable du Service Informatique, Commerce et de L’Industrie, Djibouti</td>
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<td>Name</td>
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<tr>
<td>Mr. Ahmed Mohamed El-Sobky</td>
<td>Director of Projects, Egypt</td>
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<td>Mr. Ayman Helmy Mohamed</td>
<td>ICT in Education Programme Director, Ministry of Communications and Information Technology, Egypt</td>
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<td>Mrs. Elsa Tesfamariam Woldeyohanes</td>
<td>Head of System Development (computer Programmer), Eritrea</td>
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<td>Dr. Leulseged Alemie Berhie</td>
<td>Director, Communication and IT Capacity Building Directorate Ministry of Communication and Information Technology, Ethiopia</td>
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<td>Mr. Omondi Oscar</td>
<td>ICT officer, Ministry of Information and Communication, Kenya</td>
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<td>Mr. Alinafe Joel Mbendera</td>
<td>Director, ICT/E-Learning Centre, Chancellor College, University of Malawi, Malawi</td>
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<td>Mr. Shabajee Ravindra Kumar</td>
<td>Coordinator, Mauritius Institute of Training and Development, Mauritius</td>
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<td>Ms. Jacqueline B D Gertrude</td>
<td>External Quality Assessment Officer/Lecturer, Ministry of Education, Seychelles</td>
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<tr>
<td>Mr. Enos N'Sagara Okumu</td>
<td>Lecturer, Uganda Institute of ICT, Uganda</td>
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| Mr. Sechwayo John Nzima, | Assistant Secretary (Communication) 
Ministry of Communication and Transport, Zambia |
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<td>Mr. Zedias Mugove Chitiga,</td>
<td>Acting Director Policy Planning, Research and Development, Ministry of Education, Sport, Arts and Culture, Zimbabwe</td>
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