GESCI Annual Report

July 2013 – June 2014

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Foreword

Now, more than ever, ICT is demonstrating its potential and importance in the international effort to improve and even to transform education. GESCI, through its work in various countries and with various institutions and governments, is in a very good position to assist in this effort to improve teaching and learning through the incorporation of ICT in education.

GESCI was set up under the aegis of the United Nations Task Force on ICT for Development. It was initially supported by a number of Governments and institutions whose international development policies wanted the potential and power of ICT in education to be realized for the developing world. The on-going support of our sponsoring Governments (Sweden, Finland) and that of The MasterCard Foundation and Intel enables GESCI to engage with Governments and their education ministries to incorporate ICT integration in their education and training planning and implementation. GESCI has earned the respect and appreciation for its professionalism and competence. We are very appreciative of our donors and of the governments with which we have worked.

All governments in the world acknowledge the importance of education in the economic and social development of countries. Many governments acknowledge the very significant role that ICT can play in education, especially in supporting science, technology and innovation. GESCI already plays an important role in this regard and will continue to work with governments, institutions and donors to help make ICT in Education a positive addition.

GESCI continues to work to adjust and clarify its mission and to respond to the ongoing challenges of reducing its cost base while maintaining its services. GESCI is now operating successfully as a full international non- governmental organisation, working closely with several governments and institutions and running capacity development programmes in 16 African countries. We are particularly appreciative of the support of the Kenyan Government and of our own donors who have demonstrated their belief in GESCI ever since its establishment.
GESCI is blessed to have top class staff with a range of expertise under the leadership of an internationally recognized expert in ICT in Education, Jerome Morrissey.

I would like to pay tribute and thanks to all our donors, to the governments with whom we work, to our staff, to my colleagues on the Board and to the Members of GESCI. We have watched the development of GESCI from a concept in 2004 to a position today where GESCI is internationally recognized as providing top class advice and support to governments and institutions in the area of ICT in Education.

Brendan Tuohy,
Chairman of the Board

Introduction

GESCI is currently in its third offering of the programme, *"Leadership development in ICT and Knowledge Society Development in Africa"* (ALICT) - a programme specifically designed and built to help develop the leadership skills of mid-to-senior- level government officials in Africa in policy making for ICT and social and economic in the participants' respective countries – 16 in total.

There is unprecedented demand for this programme resulting from its perceived relevance by participants during these times of rapid economic, social and technological transformation. It also demonstrates that the Finnish Government – our donor for this programme - has a strong and correct focus within its Development policies which is perceived as relevant by the respective participating countries.

We are all seeing an increasingly confident Africa determined to grow its economy in a sustainable and indigenous manner; an Africa which is forming international economic alliances such as the East African Community and investing in technological, road and rail infrastructure. There is also a new awareness on the need to support and develop skills in digital technologies and the reform of traditional skills development through the utilization of ICT. A reformed and more equitable education system can be greatly facilitated by the integration of ICT in teaching and learning.

GESCI is very capable and eager to assist countries in helping to bring about these developments and in charting strategies for effective and efficient change. GESCI is already contributing significantly to this through its advice and implementation- based support to Government ministries - in Kenya, Tanzania and Ghana. Our expertise and implementation services are supporting the development of ICT integration strategies; the enhancement of teacher professional development; the strategising for digital content creation for teaching and learning; and the provision of technological specification and classroom configuration for the most suitable equipment and accompanying resources. In African countries where populations are growing rapidly and where the funding of education is an increasing burden, the use and incorporation of ICT can alleviate some of these growing challenges. The integrated and professional use of ICT resources in teaching can also play a significant part in ameliorating unequal access to learning and in support of the education of girls.

The incorporation of ICT in schools leads to more engagement by the teacher, improved pedagogical skills and access to better resources for teaching. GESCI is grateful to Sida and to The MasterCard Foundation for funding significant projects in this area.

GESCI is fortunate to have a very wide range of expertise among its staff, which includes knowledge and experience of education systems, of ICT-related policy making, and ICT implementation strategizing and approaches to ICT integration which encompass the most up-to-date methodologies, processes and technologies that concur with the underpinning philosophies of the curriculum in question. I have sincere regard for the high-quality contributions and commitment that the staff of GESCI provides on a daily basis - they bring the organization to life.

I want to thank the Board and members of GESCI for their advice, guidance and support. In particular, I want to thank and pay tribute to my Chairman, Brendan Tuohy, whose vision and drive saw GESCI came into existence, and who continues to enthusiastically provide guidance and support to GESCI and to its growth.

Finally, I want to thank our donors for their confidence and trust in GESCI to deliver on their development strategies. We are grateful for their support and their continuing confidence in us. GESCI will always strive, beyond the norm, to fulfill its mandate.

Jerome Morrissey
CEO

Results Highlights

GESCI's New Strategy (2013- 2016)

Following approval by the Board of Directors, GESCI began implementing its new strategy - a strategy which will maintain its traditional and successful mandate of supporting ministries in ICT policymaking to enhance education and vocational training provision and in collaborating with ministries in implementing innovative ICT-based projects in schools. GESCI strategy implementation also saw the growth of its leadership development and capacity development programme (ALICT); the establishment and servicing of its large-scale community of practice for its Alumni and the implementation of a demonstration project on digital skills acquisition of unemployed youth.

213 Future Leaders Graduate from the African Leadership in ICT & Knowledge Society Development programme

On Friday 5th July 2013, in one of the largest African Union Commission (AUC) initiatives in professional development, 213 mid-to-senior level government and public sector officials from 12 African countries (and the AUC) graduated from a bespoke leadership course implemented by GESCI and titled African Leadership in ICT (ALICT) and Knowledge Society Development.

East Africa's Digital Creative Media Industry

A second phase of the African Knowledge Exchange (AKE) project began in early in 2014 which builds on a pioneering multi-disciplinary course in digital creative media for creatively talented Kenyan youth. The project builds on the success of AKE 2012 in that it focuses on the continuum from talent and creativity to industry-standard creative media skills acquisition to small enterprise start-ups in the context of a living lab dynamic

Review and Reform of GESCI's Organisational Structure

GESCI carried out a review of its organizational structure and operations which resulted in the creation of a small top management team which delivered more efficient and effective outcomes across GESCI's programmes and projects. The roles and functions of all project managers and of all general staff were revised and new contracts of employment issued.

Donor relations strategy

A donor relations strategy was developed and approved by the Board which places a new focus on building relationships with existing donors and on establishing relations with prospective new donors for GESCI projects or programmes. Advocacy and fostering new partnerships receives additional attention and focus

Summary Statement of GESCI's Strategy (2013- 2016)

GESCI since Inception

Founded at the World Summit on the Information Society (WSIS) in 2003 on a key recommendation of the UN ICT Task Force, GESCI's remit to respond to the difficulties emerging economies were already experiencing in planning for the integration of ICTs into their national education and training systems. These difficulties resulted from a limited understanding of the potential of ICTs to address issues of quality education provision and access to education at a system-wide and system-deep level combined with a belief, driven largely by technology-hype that the simple provision of ICT devices would lead to better teaching and to enhanced and inclusive learning experiences in schools.

GESCI helped to successfully address these difficulties largely through the provision of policy advice to ministries of education in Latin America, India and sub-Saharan Africa, with the support of significant core funding and a number of key donors committed to the vision of a Knowledge Society for All.

Responding to Changing Needs and Environments

GESCI has always been a demand and needs driven organisation. Its flexibility and adaptability are some of the qualities which will ensure its continued relevance. GESCI's sensitivity to the changing needs and priorities of governments has led the organisation in recent years to make greater investments in its implementation expertise, as policy needs of governments were increasingly satisfied, and the challenge of successfully implementing strategies, aligned with monitoring and evaluation became more pressing for governments.

As the Development policies and preferences of donors continue to change, GESCI has successfully diversified its implementation advice, supports and services to meet donors' evolving Development policies and to widen its project- funding base. In addition, the traditional focus on Eastern and Southern Africa is expanding to encompass Francophone Africa as demands for GESCI's services grow, based on the successful implementation of its African Leadership in ICT programme (ALICT). Founded as a global organisation it is one of GESCI's ambition, in the longer term, to regain its footing in Asia and Latin America where it originally operated with measured success.

As GESCI has become proficient as an implementer of ICT4E/D policy and as advisor on implementation strategizing to ICT4D/E policy makers, it has recognised the changing global education and training landscape and, in particular, in Africa. GESCI has been responding to this changing environment, having found that its expertise is in increasing demand, as countries struggle to meet MDG targets.

Drivers of Change

Some of the drivers reshaping the education and training environments in emerging economies in which governments, civil society, the private sector and international donors are engaged with have prompted GESCI to readjust its priority areas of work: The main issues demanding alleviation and change are:

➢ equitable access to a quality primary and secondary education for both girls and boys

➢ Widespread and growing youth unemployment

➢ Widening urban-rural divide in access to inclusive and quality educational and training opportunities

➢ Access to and use of technology in teaching, learning and skills development

The role of technology, its availability, mobility and utilisation, together with wider access to internet services will play pivotal roles in tackling and contributing to improvement s in these four areas.
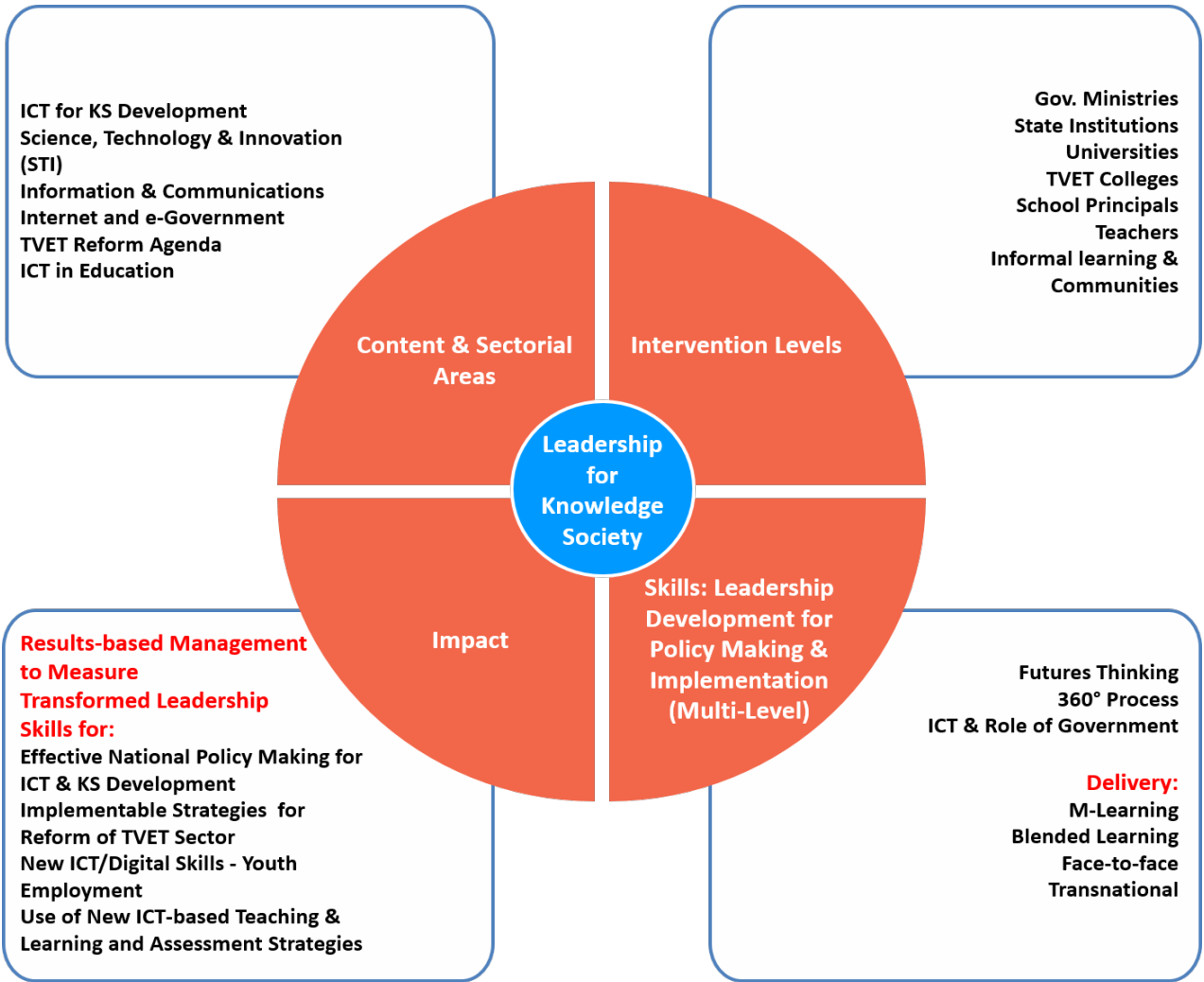
Although GESCI's co-existence of policy advice and implementation has taken shape gradually and organically in response to government and donor demands, it has not been until now, with the development of this new strategy that GESCI can articulate with more clarity its priorities for the next five to seven years, priorities that respond to the dominant drivers and trends affecting technology integration in education and training systems globally and particularly in Africa.

These priorities include:

➢ **Leadership Capacity Development:** Engaging in distributed leadership capacity development for coherent policy development and implementation. Working with leaders at every level of the education and training system – Government, Institutions, Schools, school leaders, youth and Communities – to equip them with skills, confidence to act in leadership roles within their working environments and communities and with a sense of self-reliance and enterprise.

➢ **Programme implementation models** within school systems to demonstrate effective ICT integration as prelude to subsequent scaling at national levels.

  • Showcasing of effective ICT integration incorporates (a) teacher ICT skills development and classroom management skills (b) digital equipment configurations and internet access (c) digital content creation skills.

- ➤ **Teacher Professional Development (TPD):** Providing technical assistance and policy advice to governments on the holistic integration of ICT in curricula (and especially in Science, Technology, English and Maths) through enhanced Teacher Professional Development, from basic ICT skill acquisition to ICT immersion in the classroom; whole school leadership and school ICT policy supports; content development strategies and equipment configurations

- ➤ Provide expert **monitoring and evaluation services** to ministries, donors and other development agencies engaged in running programmes, projects and other initiatives.

- ➤ Work with donors in the refinement and devising of implementation strategies for technology -driven and innovate models to address **the huge literacy and numeracy deficits** at scale and within communities

- ➤ **Technical and Vocational Skills Development (TVSD) Reform:** Providing technical assistance and policy advice to Ministries on the upgrading of Technical Training and Skills Development institutions (both pedagogically and technologically) so that they might absorb greater numbers of unemployed youth and equip them with the skills required to gain employment and help transform emerging economies. African Knowledge Exchange (AKE) – implement a specific demonstration project in creative media skills for job creation and the development of the cultural industries

- ➤ **Closing the Digital Divide:** Advocating for the equalisation of access to a quality education for the rural and urban poor, boys and girls. Through technical assistance programmes GESCI, with the support of governments, will continue to create low-cost ICT4E educational models that widen access to education, and can be delivered at scale by governments.

Content & Sectorial Areas

ICT for KS Development
Science, Technology & Innovation (STI)
Information & Communications
Internet and e-Government
TVET Reform Agenda
ICT in Education

Intervention Levels

Gov. Ministries
State Institutions
Universities
TVET Colleges
School Principals
Teachers
Informal learning & Communities

Leadership for Knowledge Society

Skills: Leadership Development for Policy Making & Implementation (Multi-Level)

Futures Thinking
360° Process
ICT & Role of Government

Delivery:
M-Learning
Blended Learning
Face-to-face
Transnational

Impact

Results-based Management to Measure Transformed Leadership Skills for:
Effective National Policy Making for ICT & KS Development
Implementable Strategies for Reform of TVET Sector
New ICT/Digital Skills - Youth Employment
Use of New ICT-based Teaching & Learning and Assessment Strategies

Internal Priorities

In order to meet its priorities over the next three years and to build on its recent successes, GESCI will expand its internal capacities by adding skilled and experienced staff to its lean and efficient operations. GESCI's expansion will be carefully managed and executed over the strategic period 2013 -16 so as to extend its scope of operations while maintaining its identity, mandate and vision. Key to its expansion will be a strong and robust internal management capacity and competent and committed staff complement guided by critical strategies such as:

- **A Donor Relationship Strategy** as a tool to build capacity for the mobilisation and management of adequate, stable and sustainable funding from a broader group of donors and to build long-term relationships with donors;
- **A Programme Management Strategy** as a tool for prioritising and screening new projects aligned to changing needs and to judiciously allocate resources for efficient and effective project implementation;
- **A Communications Strategy** as a tool to support transparency and open governance, convey GESCI's image and credibility and share information and knowledge for enhanced visibility and branding; and
- **A Knowledge Management Strategy** to further strengthen GESCI's image and role as a knowledge-based organisation.

Integrating ICT in Education and Training

Throughout this period GESCI's continued to provide technical support and advice to governments and ministries of education on the effective use and successful integration of technology in teaching and learning. GESCI worked on projects dealing with increasing access to ICT in secondary schools and carrying out needs assessments for regional public private partnerships for ICT integration in schools. GESCI also places a focus on projects focusing on improving the teaching of science, mathematics and English language in secondary schools in East Africa. These projects inevitably necessitated the capacity building of the teachers, lecturers and instructors to improve the quality of teaching in the schools – especially in the STEM subjects (Science, Technology English and Maths).

Strengthening Innovation and Practice in Secondary Education (SIPSE)

The background to this project is the increasingly poor student performances in Science Technology, English and Mathematics (STEM) subjects in many developing countries - one consequence of poor teaching in these subjects. This is a cause for alarm as education must be made relevant to the needs of a 21st century society and country development requires an increasing number of graduates in STEM areas if they are to grow economically. Teachers are key to realising this objective. The SIPSE project, which was launched in June 2013 pilots the innovative use of ICTs to train secondary school teachers to improve their pedagogical skills and ability to integrate ICT into their teaching practice.

The goal of the project is to ensure that teachers are equipped with appropriate ICT and pedagogical skills to raise the quality of teaching, in order to make learning more relevant. The key outcomes of this project will be enhanced teacher capacity to teach Science, Technology, English and Mathematics in a 21st Century context, and increased access to quality teaching and learning materials. The project uses a blended- learning methodology to train secondary school teachers from 20 secondary schools representing different regions/zones in Kenya and in Tanzania in year 1. In year 2, teachers will be supported by a post training online portal and a school visits programme to apply their learning in practice. Two beacon or demonstration schools will be selected in year 2 for the closer support of the teachers in integrating ICTs in teaching and learning in each of the two countries. School selection was carried out in collaboration with the respective Ministries of Education.

Teacher Professional development content for the online phase of the project

Online Training Materials

The online materials that had been developed in late 2013 were made available to the teachers in the first quarter of 2014 through an e-learning platform on Chamilo and an m-learning platform on BINU. The online facilitation of the training was carried out by way of tutoring by GESCI staff and Master Trainers, and the teachers accessing the content, as well as participating in chats and discussion forums. This was followed by practical sessions in the classrooms which the Master Trainers observed and rated according to a predefined tool.

The professional development implementation programme for the 120 Teachers was developed and agreed upon during the face-to-face meetings.

➢ 120 teachers in the two countries were trained during face-to-face introductory training workshops in Kenya and Tanzania to launch the online course in January 2014

➢ Learning materials were developed and uploaded onto the online Chamilo platform http://sipseonline.gesci.org/ incrementally between January and March 2014. Digitised modules were also sent out to all the teachers on CDs to alleviate the problem of internet access.

➢ The online phase of the project was implemented with teachers accessing the content between January and March 2014

➢ The m-Learning platform was developed in January and February 2014. A purposive sample of teachers was identified as users of the m-learning platform from the schools that had major challenges in accessing the content through internet.

➢ Content was uploaded on the m-learning platform incrementally between February and March 2014.

School visits, classroom observation and M&E

During the online implementation of the course, online access to materials was followed up by school visits. The Master Trainers visited each of the SIPSE teachers at least twice during the three months. M&E tools were designed and used to observe the teachers as they applied the concepts taught during the online course. After each lesson the visiting Master Trainer took time to discuss the lesson reflectively with the teachers to ensure that the concepts of ICT Integration as taught during the online course were applied practically.

> ➢ All the teachers were visited at least twice by Master Trainers and rated according to a predefined template for Monitoring and Evaluation. The Master Trainers in both Tanzania and Kenya found time to go to the schools and visits all the teachers despite their busy schedules in executing their other day-to-day activities. The data was harvested through the use of Survey Monkeys.

The following observation from one of the Master Trainers sums up the challenges experienced at school level: *"The issue of ICT Integration is a whole school issue – It is about an ICT school culture, does the school encourage the teachers to use ICT and to share what their (sic) learning, the support through provision of facilities, mention of ICT in meetings etc."*

At the end of year one the final workshop unveiled the selection of 4 beacon schools – 2 in each country – which would act as demonstrations schools and showcase good ICT practice to surrounding schools. A work plan for year two of SIPSE was submitted to our donor and has been approved. Year two implementation began in August 2014.

End-of-project outcome:

In total 12 teacher trainers and 120 teachers from 20 schools will be trained in the two project countries.

Intended long-term Project Impact:

Thousands of students will benefit from improved teacher competencies, the enhancement of STEM subjects within the schools and the availability of new learning materials from the 4 beacon and 16 general project schools across the two countries which will enliven and enrich learning.

The project schools and the beacon schools will be carefully monitored through GESCI's continuous monitoring and evaluation process to determine the effectiveness of the intervention and to document how ICT can play a useful role in improving teaching and in facilitating deeper learning experiences for the students. These outcomes will inform any subsequent larger scale implementation of the project and will inform governments and donors on both efficiencies and effective implementation strategies for ICT in Education.

The African Leadership in ICT and Knowledge Society Development Programme (ALICT)

GESCI and the Ministry for Foreign Affairs (MFA) of Finland embarked on a new three-year partnership in December 2013 to build the capacities of future and potential leaders in ICT in Africa. This partnership has the full support of The African Union Commission (AUC) which regards ALICT as one of its flagship initiatives This new agreement will, from January 2015, allow for programme extension to Francophone West Africa with Cote D'Ivoire, Senegal and either Niger or Morocco. This will see the programme extended to 16 African countries. Situational and needs analyses were conducted for each of the new participating countries as well as updating and revision of existing country studies.

Following a thorough review of the modular content of the programme, course content was updated and refined early in 2014 in preparation for the launch of the third offering of the ALICT course in May 2014. 245 participants from 13 countries will graduate from this cycle of the programme in December 2014.

The African Leadership in ICT and Knowledge Society Development (ALICT) is a large scale capacity building programme with an emphasis on modern leadership and policy coherence underpinned by an operational knowledge of the key drivers of Knowledge society development, namely, Science, Technology and Innovation and ICT and Education for the Knowledge Age. It provides capacity building to mid-to-senior-to-higher level government officials (male and female) and focuses on Leadership, ICT Applications and Role of Government, e-Government services, Telecoms and broadband infrastructures, Education in the Knowledge Age, and the role of science, technology, innovation (STI) and Futures Thinking for sustainable policy development and implementation for Knowledge Society development at both national and regional levels.

Designed and delivered as a blended learning course it is based on experiential learning, with reflective practice and inquiry - based learning embedded in each of the 6 modules. It is directly linked to workplace decision-making and the leadership roles of participants. ALICT is providing emerging and future leaders with an important opportunity to enhance their leadership skills before they become key architects of policies and strategic plans that will impact the lives of the citizens in Eastern and Southern Africa into the future. These are leadership skills for inclusive knowledge societies, for the 21st Century, and for sustainable economic growth and development.

Recruitment

A total of 747 candidates completed online applications with a further 500 who attempted but abandoned the application process without completing it. Of the 747 completed applications, 514 were male applicants and 233 female applicants. Out of 747 total applicants 605 applicants pre-qualified for the further evaluation and selection process. The prequalified participants were further evaluated using criteria such as educational qualifications, role in the organization, total number of years of experience, number of years spent in the organization, number of people being supervised and an overall quality statement on why they want to take up the ALICT course.

The most suitable and qualified 309 applicants from among the total number of applicants were selected, of which 302 accepted a place on the course.
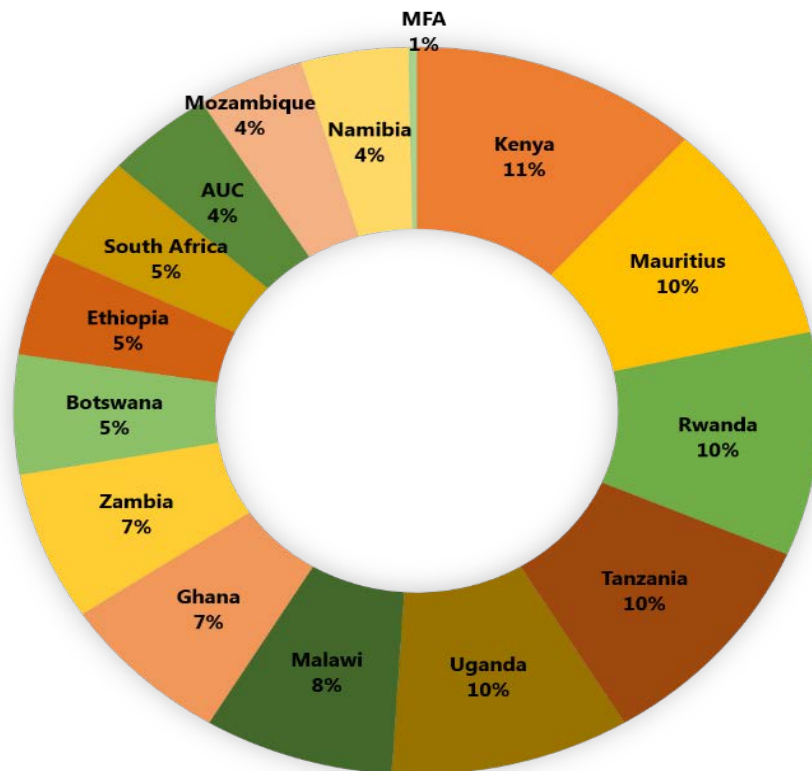

FIGURE 1:

Figure 1   shows the % of participants from participating countries as of May 2014.

Policy of equality of gender access and participation

Selection of participants takes into account leadership potential and regional and cultural diversity. Gender considerations and balance are critical selection criteria. From the beginning GESCI set a target of being able to select a minimum of 30% women participants in each cohort. http://www.gesci.org/african-leadership-in-ict-alict.html

In African countries, as is the case in many other countries, while the staff in many public ministries and NGOs is largely female the higher or highest positions of many of the organisations are still held by men. Women are largely concentrated in administrative and support roles. Some governments have positive programmes to change this situation and ALICT is offered in support of these efforts to promote more women into high-level positions in Government and its organisations. In these contexts, setting a target of graduating at least 30% women leaders for a programme targeting mid-to-senior-to higher level government officials was ambitious.

Positive supports put in place to encourage and facilitate women to apply for and to take the programme:

A) The Programme has been designed and is implemented in such a way as to ensure that women leaders in Ministries and public organisations received information about the programme , are encouraged to apply and consulted about the supports they need to be complete the course successfully.

B) Women leaders are carefully monitored and followed up where challenges have been identified and the course management, tutor teams and Student Support Officer provide constant encouragement, motivation and support to women leaders on the programme.

C) The fact that women leaders, in general, face more challenges and barriers in the workplace than their male counterparts is recognized in the supports designed to help women to persevere to course completion.

D) The blended learning mode of delivery including evening and weekend mentored online discussion, facilitate the participation of women, as women leaders are more constrained when it comes to travel and time away from home because of domestic circumstances.

E) The course enables women leaders to gain confidence in their abilities and the professional skills to engender that confidence and puts them in peer-to-peer engagements with their male counterparts with whom they have to be able to engage on an equal footing. Respect is built ensuring that they are recognized and respected as equals in their sectors and workplaces. In this organic way female stereotyping and negative perceptions about women and their abilities are being dismantled in a sustained way and barriers to their empowerment broken down.

In the first two cohorts GESCI exceeded the target 30% quota by a small margin and 31% successfully graduated with *a Post-graduate Diploma in Leadership Development for ICT and African Knowledge Society Development.* We are now halfway through the 3rd cohort and this percentage retains steady (see figures below). Our course objective of 50 % participants from least developed countries was close to being achieved with 44 % of participants coming from LDCs.

The third offering of the programme began in May2014 in 12 Eastern and Southern African countries and Ghana in West Africa, with an increased cohort of 302 participants. The figure below indicates that the ratio of women participants to the male participants remains at the 31% percent threshold. Currently, there are 94 female participants on cohort 3 with a bigger female representation of women on the course from the southern Africa countries compared to the eastern Africa countries.
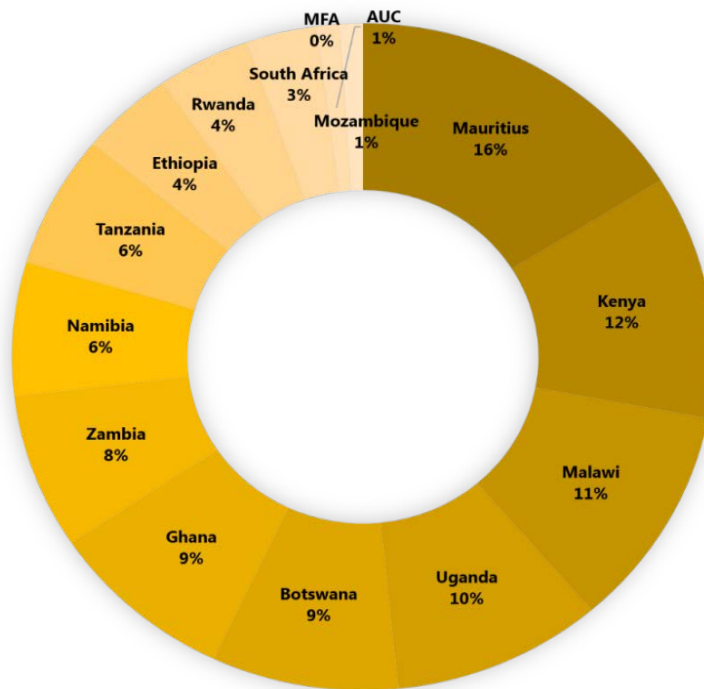

Fig 2. Percentage of women participants from participating countries

GESCI intends to design a similar Leadership development programme specifically targeted at women in order to help increase the proportion of women securing higher-level positions in government. GESCI has submitted a proposal for funding to the African Development Bank (AfDB) which would tailor-make programmes for women in leadership positions or aspiring to such positions.

Course Accreditation and Further Qualifications

The design and development of the ALICT programme was based on research, rigorous needs analyses and in accordance with best practices in modern leadership development worldwide. In 2012 GESCI secured accreditation for ALICT at graduate diploma level (level 9) on the European Qualifications Framework (ECTS) from Dublin City University (DCU), Ireland. The title of the qualification is *Graduate Diploma* in *Leadership Development for ICT and the Knowledge Society.* DCU carries out an audit of the course and vets the academic qualifications and competencies of all the tutorial staff. The graduates have an option of pursuing a Masters with DCU.

GESCI is currently working with the Ministry for Foreign Affairs in Finland to establish alternative and additional opportunities for the successful participants to complete a Masters both in Finland and in Africa. This would effectively be a top-up course to Masters' level which builds on the achievements and learnings from the graduate diploma. Continuing to Masters would add to and solidify a key outcome of ALICT - the sustainability dimension of the programme carried through to the participants' workplaces.

Wider access model for the *Developing Leadership for the African Knowledge Society (*DeLAKS) course

GESCI has begun to explore options for partnerships in Tanzania, Rwanda, Botswana, Kenya, Namibia, Mauritius and Uganda. GESCI is currently engaged in developing a viable, sustainable and cost-effective partnership model with different options for partnering with national institutions for the customisation and delivery of the course in selected countries. GESCI hired a consultant and the wider access partnership model report was finalized in October 2014. A draft partnership MoU has been developed with the Uongozi Institute in Tanzania and a proposal for a shortened leadership course has been presented to the Uongozi Institute.

Developing Skills for the Knowledge Economy

African Knowledge Exchange: ICTs, skills development and employment for an Inclusive Knowledge Society

The African Knowledge Exchange (AKE) is a knowledge partnership between the Ministry for Foreign Affairs of Finland and GESCI and focuses on the use of technology in skills development and learning models for innovation and employment in knowledge societies. The overriding objective of AKE is to demonstrate the link between relevant skills development, innovative practice and for employment creation for the wider Knowledge Society development.

The project specifically focuses on investigating how digital creative media skills could be a key ingredient for the development of the cultural/creative media industries for Eastern and Southern Africa and for the creation of employment for young, talented people with appropriate creative media skills combined with enterprise and start-up knowledge and abilities.

AKE 2012 was completed in early 2013 with the following results:

- ➢ Public showcasing of participants' creative media work,
- ➢ Awareness raised in relation to building strategic capacities of African policy makers in the role of ICT and digital creative skills and technologies for cultural industry creation and employment.
- ➢ Promoted policy dialogue on inclusive knowledge society issues on a regional and continental level and, specifically in the cultural industries area.
- ➢ Enriched the development policies and practices of key agencies within the ICT for Development sector on key issues related to ICTs in education and training for inclusive knowledge societies.

AKE 2014

Following a funding commitment from the Finnish Government, GESCI began the implementation of AKE 2014 in February 2014. The goal and focus of AKE 2014 is to identify new and innovative education/ training approaches, solutions and trends that support the development of skills and enterprise in the Digital Creative Media (DCM) industries. Following recommendations from the 2013 GESCI *Forum for an Inclusive Policy Environment for Innovation, Youth Skills Development, Entrepreneurship and Enterprise,* AKE 2014 aims to develop a model for innovative

education/training approaches which facilitate industry standard digital media skills as well as entrepreneurial skills, all of which will lead on to small enterprise creation through accessing the various supports that exist for start-ups in the creative digital media sector. Key outcomes would also be enhanced employability in existing digital media enterprises and the strengthening of partnerships between employers, employees, policy makers and relevant industries - through continued research and the application of an innovative Living Lab research tool.

Three specific objectives to be realized are:

➢ To enhance the innovation pilot initiative first undertaken in AKE 2012 and to develop a model for Digital Creative Media skills development towards enterprise development to bring together the entire value chain of stakeholders affiliated to the project programme and pilot, from policy makers to researchers to developers to practitioners, mentors, students and consumers.

➢ To execute '*Living Lab'* research to produce new knowledge about the formation of these products, and at the same time, knowledge of the particular practitioner communities in the innovation space that the products are intended to capture.

➢ To develop AKE to become a thought-leadership and innovative practice initiative in relation to the African youth unemployment and skills development agenda by engaging policy makers, top educationalists, industry specialists, and experts from Africa and the international development community in consultations to identify practical and innovative means of enabling education and training systems to respond more effectively to the development of skills and job creation challenges.

In June 2014, GESCI secured suitable trainers/tutors, addressed gender balance by sourcing more women DCM practitioners, and developed lesson plans and partnerships. Additional office space was secured in Unga House and a training production studio was designed and built there. Desk research on bench marking organizations like Butterfly Works in Amsterdam, the Bubgo Hive in Lusaka and The Bits Schools in Nairobi were also carried out towards identifying current best practices in a rapidly changing and growing industry.

Increasing the Understanding of ICT and the Knowledge Society

Advocacy

GESCI considers advocacy for clear understanding of the importance of knowledge societies and planning for their development. We strongly promote the role of education and skills development as a major contributor in creating knowledge for innovation and skills for employment.
The critical role between Science and Innovation, Technology and new Leadership needs to be better understood if advances in both the knowledge society and knowledge economy are to take place.

GESCI is increasingly using social media for advocacy, reaching out to more stakeholders through twitter, Facebook, LinkedIn and the GESCI website. Our articles and blogs attract discussion and are often redistributed by others and target policy makers and practitioners.

WSIS+10

GESCI had a strong and recognised presence throughout the WSSIS+10 consultation process beginning in November 2013 when we submitted two documents, one on WSIS outcomes and one on thematic aspects and innovations as a contribution toward the vision document for WSIS beyond 2015. Subsequently, focusing on Action Line C4 (Capacity Building) and on Action Line C7 (eLearning), GESCI participated in four consultation meetings, physically present or online and maintained a strong influence on these two Action Lines throughout.

GESCI also submitted a *GESCI 10 Year Reflection* report on the identification of priorities for the post 2015 agenda particularly relating to Action Line C4 (Capacity Building) and Action Line C7 (ICT applications, e-learning). The report also includes a chronology of 10 years of ICT4E/D.

The WSIS+10 High Level Event took place from Monday 10 – 13th of June 2014 with about 1,800 attendees and about 160 countries represented. A further 2,000 attended remotely.

GESCI had two speaking slots at the Event. The CEO was invited to present the GESCI high-level policy statement (short form) on Wednesday 13th June in the presence of a packed house. During the Capacity Building interactive session entitled *"Digital competencies towards an Inclusive Information Society"* the CEO presented our AKE initiative – AKE 2012 and the continuation AKE 2014.
The WSIS +10 OUTCOMES Document is now published at:
http://www.itu.int/wsis/implementation/2014/forum/inc/doc/outcome/362828V2E.pdf. The text of Action Lines C4 (Capacity Building) & C7 (eLearning) is very significantly influenced by GESCI's written submissions and contributions at the stakeholders' consultative meetings over the previous 8 months.

Championing & Representing GESCI

A number of meetings and discussion took place with foundations, associations and commercial companies in relation to possible future collaboration and support. These meetings included:

- In February, April and May 2014 GESCI met with IEEE (Institute of Electrical and Electronic Engineers) to discuss a mutual interest in the advancement of Science, Mathematics and technology at all level of the education system. Discussions on collaboration will resume in August when representatives return to Kenya from the US.
- In April 2014, the CEO met with Accenture to get details on their grants policies in Africa and to explore any possible areas for collaboration.
- In April 2014, the CEO met with LEGO Ltd, Denmark, and discussed how we could secure their cooperation in getting multiple sets of LEGO Mindstorms (Robotics) for the SIPSE schools and the possible establishment of an Innovative Studio in Nairobi. The incorporation of robotics significantly enhances learning in STEM subjects at both first and second level of education. GESCI is currently discussing a partnership agreement with LEGO.
- In May 2014, GESCI met with Equity Group Foundation in Kenya who designed the "Wings to Fly" initiative which funds 8000 kids in 600 schools. We are discussing an intervention programme of supplementary learning support.
- In May, June and July 2014 the CEO met with AG Group International in relation to partnership on AKE on the development of interactive animated textbooks as a group project within the AKE skills development. Discussions are so far productive and advancing.
- In June 2014 the CEO met with the aculty of Education, Cambridge University, which funds a project in Zambia on the use of OER (Open Educational Resources) for STEM subjects linked to teacher professional development.

New Strategy and Programme Development

GESCI has put increased efforts into the research and development of new ideas, projects and innovative proposals since the launch of its new strategy. This is a key priority for GESCI over the next three years. Regarding the incorporation of new and mobile digital technologies and new media across several education and training levels as well as within Government ministries, GESCI is striving to expand and broaden its donor base.

New Strategy

GESCI's new strategy, approved by the Board of Directors, will take us through to 2016. It identifies the main drivers of GESCI's operations, covering goals, policies and a realistic action plan. We have begun to implement this strategy, identifying internal capacity building requirements for fundraising, ICT-based innovation initiatives in education and training. In addition, over the next three years, GESCI will focus on expanding its base of donor partners, focus on the countries with already developed successful projects, mainly Anglophone Africa, and expand geographical presence both in Anglophone and Francophone Africa. New and enhanced ICT-based interventions aiming at teacher professional development and teacher training institutions and supporting ICT infrastructural building in schools will remain a core intervention of GECI in collaboration with ministries of education and vocational skills.

Broadening GESCI's Funding Base

GESCI is implementing its new donor relations strategy and, informed by a donor scan and country scans, is working from a revised understanding of donor priorities and funding mechanisms to identify converging priorities and interests. This has helped us to better focus our efforts on particular donor priorities and development objectives. During the year we have interacted with several major donors in Kenya and reached out to others. We have engaged with our partner countries to identify and jointly seek funding streams and we also have begun to engage the private sector.

Research & Innovation

During the reporting period GESCI carried out the following research and development activities:

➢ Updated the 12 country studies from the phase 1 ALICT countries, commissioned comprehensive country situational needs analyses for Ghana, Senegal, Cote D'Ivoire and Niger and an environmental scan of Knowledge Society Development in West Africa.

- After the successful graduation of 2 ALICT cohorts, GESCI reviewed and refined the leadership capacity building model.
- A Futures Thinking Framework for research was developed and implemented in the ALICT course.
- A study for a wider access partnership model for the ALICT capacity building programme was conducted to enable GESCI to sustain and expand the ALICT capacity building across more countries and regions.
- The ICT Competency Framework for Teachers was contextualised for Kenyan and Tanzanian teachers. These frameworks guided the curriculum and course content development for the SIPSE blended learning course delivered on both e-learning and m-learning platforms

- Technology, Pedagogy and Content Knowledge (TPACK) frameworks were integrated into the SIPSE course delivery to enable teachers, teacher educators and Master Trainers operationalize ICT integration to support innovative pedagogy and content in science, Mathematics and English teaching and learning in practice (TPACK-in-Practice).

- A skills development framework was developed for the Digital Creative Media skills (Animation, Music Production, Gaming/Apps) in collaboration with Irish and Kenyan tutors
- A case study on SIPSE teacher professional development model was developed and submitted to the "Millions Learning" Initiative as an example of how to improve learning in a way that can be efficiently and effectively scaled up over time

- Two country case studies on – Implementing ICT Competency Frameworks for Teachers in the Strengthening Innovation and Practice in Secondary Education (SIPSE) teacher development project in Tanzania and Kenya was presented at the UNESCO Bangkok Forum on teacher professional development-
- During the UNESCO m-learning Week in Paris in February 2014. GESCI presented and showcased the mobile learning platform that we developed for the SIPSE project in Tanzania and Kenya.

Management

During this period GESCI committed itself to increasing its effectiveness and its operational efficiency as an organization. We streamlined some organisational polces, developed a new organisational Constitution and further refined the Results Based Management (RBM) system. These strategies also sought to make GESCI more sustainable, efficient and accountable as an international organization, responsive to all its stakeholders.

Monitoring, Evaluation and Results Based Management

GESCI has adopted a Results Based Management approach, aligned its planning, monitoring and evaluation (PME) framework to it. It is based on a fusion of the Logframe (technical) and Outcome Mapping (behavioral) methodologies. The LFA/OM framework combines the best of a number of approaches to enrich the PME process. It allows us to take a results based approach to programme management through the consistent monitoring of measurable indicators and, where required, resulting in adjustments to the programme throughout the programme cycle.

GESCI continues to narrow the gap between implementation and achieving results. Outcome Mapping is fully integrated in all internal practices and programmes. We conduct monthly and quarterly reviews as part of programme and organisational management. These reviews feed back to strengthening the programmes by identifying and removing barriers to successful programme implementation.

Funding

GESCI is mostly funded by the governments of Finland, Sweden, MasterCard Foundation and a number of other minor project funding partners.

Financial results for the year

Income for the 12months to June 30th 2014 was approximately €2.2 million. Expenditure for the same 12months was approximately €1.69 million and closing funds at 30th June 2014 (cash at Bank) was €1.71 million. As a non-profit organization, GESCI manages its expenditure prudently within its available resources.

In summary, as with any non-profit organisation, GESCI depends on the on-going support of its donors and   partners in order to continue its activities and achieve its objectives. GESCI will continue its efforts to broaden and diversify the income base and will continue to monitor income and expenditure closely to ensure the on-going success and stability of the organisation

Below is a summary of the income exclusively received within the 12 months period ending on 30th June 2014

	July 2013-June 2014 (12months)
Donors	€
Swedish Intenational Development Cooperation Agency (Sida)	570,144
Ministry of Foreign Affairs of Finland -AKE 2	250,000
Ministry of Foreign Affairs of Finland -ALICT 2	1,300,000
British Council	27,748
Ghana USAID Project	10,950
Miscelleneous(Small Projects)	31,381
	2,190,223

High level Policy statement (short form)

Delivered at the WSIS+10 Forum by the Chief Executive Officer, Global e-Schools & Communities Initiatives.

Thank you Chairman, and thanks to Dr. Touré, Secretary General of ITU, for the opportunity to participate in the multi-stakeholder consultative process over the past year.

I wish to briefly talk about leadership development for ICT policymaking in Education in the context of wider policy development for knowledge-based societies.

The successes in meeting the **Millennium Development Goals** has led to sharp increases in primary school enrolments since 2000 but education systems in many emerging economies are being stretched beyond their capacities to provide E*ducation for All* (EFA). Enormous pressure is placed on current resources to educate a growing youth population.

Increasing enrollment rates has led to a decline in the **quality** of education. The emphasis on *access* still exists but is now being replaced by *access* **AND** *quality*. Globally, at least 250 million young people cannot read or write after four years of primary schooling.

Low uptake and poor delivery of science, technology, language and mathematics (STEM) at primary and secondary level lead to reduced numbers of school leavers capable of entering third level to become technicians, engineers or programmers.

Bearing in mind the pivotal importance of education and skills development for future social cohesion, employment and for wider knowledge society development, countries must refocus on a revised model of education. Without a better and more relevantly educated majority, a country will lack the wisdom, problem solving skills, foresight, creativity and knowledge to bring about alternative transformational futures.

Matters of **access, quality and gender equity** in educational provision are at system- wide and system- deep levels. The capacitation of leaders for policy development and implementation at every level of the education system is required to ensure effective ICT- enabled solutions.

Teachers cannot be replaced by technology. If the provision of ICT devices **does not** take serious account of the teacher's central role in the learning process, devices will have very limited impact on the achievement of learning objectives. Accordingly, resources will be wasted.

While championing its use and effectiveness, GESCI discourages technology trends that dictate the nature of interventions in education as it has witnessed failures of initiatives that were seduced by the glamour of technology without paying due heed to the capacity and readiness of its teachers to integrate that technology in teaching and learning.

There is also a need for capacity development for those in positions of leadership at higher national levels**.** GESCI's mission is to **build a critical mass of leaders** with the skills, knowledge and capability to develop and implement coherent policies which will advance technology -driven and sustainable socio-economic development.

GESCI is implementing the programme *Leadership in ICT & Knowledge Society Development -* currently running in 16 countries in Africa. In partnership with the **African Union Commission and with the substantial support of the Ministry for Foreign Affairs of Finland**, this programme focuses on multi-sectorial capacity building, enhancement of leadership skills and the acquisition of a commanding understanding of the key pillars of knowledge society development.

Education, more than any other Government intervention, will shape countries' futures. The adage that no country can raise about the quality of its education provision still rings true.

Education leaders who fail to take account of prevailing trends such as population growth, youth unemployment, rural /urban digital divides, rural/urban migration, digital communications, the internet as an information source and gender disparities will create policies that are based on inadequate forecasts of the future.

GESCI will work with leaders at every level of the education system from ministries to classrooms to local communities, to provide practical insight into the transformative potential of ICT on learning, to support learning environments - formal and informal - and to equip them with the skills and knowledge to effectively integration new digital technologies in all learning scenarios, through coherent policy development and implementation.

GESCI's extended statement is on the WSIS+10 website.

GESCI Legal and Administrative Details

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Mr. Jerome Morrissey - Secretary
Mr Joseph Okelo - Treasurer

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