



GESCI

STRATEGY

(2017-2020)

FROM VISION TO ACTION –
DELIVERING WHAT WE PROMISE

The present document, 'GESCI Strategy, 2017-2020: From Vision to Action – Delivering What We Promise' was developed by GESCI in 2015 and 2016.

It is the outcome of a collective and collaborative process which spanned over one year and involved all GESCI staff, drawing on their work, experience and expertise. The process and methodology for developing the strategy are outlined in Appendix 1 of the document.

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Foreword

When GESCI embarked on crafting its new strategy for the period 2017-2020, its first concern was to ensure that the programmes and services offered would continue to be highly relevant and would address the most pressing human challenges. The strategy was developed against the backdrop of a rapidly changing environment, with special attention given to the 17 new sustainable development goals (SDGs) the global community has set itself to achieve by 2030.

Designing the new strategy also involved reflecting on what GESCI has achieved since its creation in 2004:

- GESCI was established under the aegis of the United Nations, with the mandate to help developing countries in their socio-economic development, through the widespread integration of information and communications technologies.
- It initially undertook to help governments develop strategies to integrate ICT into education.
- It adapted its programmes when it became clear that countries needed more support to implement the strategies and to strengthen the capacities of government leaders on how best to develop inclusive knowledge societies.
- Over time, GESCI has developed and consolidated models for the delivery of

capacity building programmes in three strategic areas: government leadership for ICT and knowledge society planning and development; technology - driven youth skills and enterprise development; and implementation of the digital schools of distinction framework focusing on whole school ICT development and, in particular, Teacher Professional Development (TPD) in Science, Technology, English and Mathematics. (STEM).

Today, governments are increasingly recognizing the crucial need to integrate ICT in all sectors and strands of society, in particular, education, thereby intensifying the relevance of GESCI's work.

With four editions of the African Leadership in ICT and Knowledge Society development (ALICT) programme delivered from 2011 to 2015 across 16 African countries, three cycles of the African Knowledge Exchange (AKE) project, focused on Digital Creative Media skills, and the experience acquired by the Strengthening Innovation and Practice in Secondary Education (SIPSE) through ICT integration which has inspired the African Digital Schools Initiative (ADSI), GESCI is now poised to deliver a comprehensive package of thriving programmes to effectively contribute to the advancement of knowledge societies in Africa and to continue to make an expert contribution at global level, influencing ICT integration in Education and training policy and

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implementation and in the provision of advice and expertise to governments.

GESCI is also committed to developing solutions and initiatives in dealing with three pressing global challenges:

- The Need to address Gender Equality and empower women and girls in society through inclusive education and training.
- The rising number of under-educated and unskilled youth and adults, despite significantly increased investments made in basic education provision;
- The growing number of displaced people, half of them children, as a result of the crisis in Syria and other regions, as well as climate change and degradation.

We are immensely thankful for the strong and sustained support provided by Sida, the Ministry of Foreign Affairs of Finland and The MasterCard Foundation. We will strive to continue to earn their trust as a respected international non-governmental organisation with a track record of achievement and expertise working closely on the ground with governments.

We also look forward to partnering with other donors and organisations as we are confident that forging alliances with key bilateral, multilateral and regional organisations will be crucial for the successful scaling up of GESCI's initiatives in Africa and in other regions.

In Africa and other regions around the world, GESCI will work to build strategic and long-term partnerships to address the breadth and richness of its mission to achieve mutually-identified impact.

Introduction

GESCI's Strategy for the period 2017-2020 comes at an important juncture: In September 2015, for the first time in human history, a global agenda for the next 15 years (2016-2030) was adopted, calling the world's entire community in both developed and developing countries to collectively pull their efforts together to achieve sustainable development in its three dimensions – economic, social and environmental.

Agenda 2030, known as *Transforming Our World: The 2030 Agenda for Sustainable Development*¹ resonates with GESCI's own priorities in that it:

- a. further asserts the enabling power of education, Science, Technology and Education (STE) and Information and Communication Technologies (ICT) to advance inclusive growth and sustainable development - a cross-cutting theme to the Sustainable Development Goals (SDGs);
- b. calls for more innovative and scalable models to complement formal education and provide relevant and effective life-long learning opportunities for all (SDG #4);

- c. stresses the urgency of addressing the challenges faced by the youth to access decent jobs and professional opportunities (SDG #8).

In addition to the challenges addressed by Agenda 2030, the 2016 World Bank's *World Development Report 2016*² states that "while digital technologies have spread rapidly in much of the world, the broader development benefits from using these technologies have lagged behind." This statement holds for the education sector, where still much needs to be done for the effective and efficient use of ICTs in education and training to improve access to and the quality of teaching and learning practices.

Three other significant global trends are worth highlighting as they also challenge GESCI:

- The population surge (global population is expected to increase by 38%, from 6.9 billion in 2010 to 9.6 billion in 2050) will affect the education sector, putting tremendous pressure on governments to deliver high quality education services to all citizens and to provide the number of teachers required (twice as many teachers are needed globally by 2030, i.e. 2.5 million additional teachers).

1. Transforming Our World : The 2030 Agenda for Sustainable Development, United Nations, sustainable-development.un.org

2. World Development Report 2016: Digital Dividends, World Bank, 2016.

- Throughout the developing world and in Africa in particular the increasing numbers of young unemployed people is causing increasing concern to governments who must seriously address the unemployment crisis by equipping young people with the skills required by the modern work place and for self-employment.
- Worldwide, the forced displacement of people due to the crisis in Syria, other conflicts and crises, including environmental, has reached the highest levels ever recorded and the trend is expected to continue.

In the face of these challenges, GESCI's mandate – to assist governments in the socio-economic development of their countries through the widespread integration of digital technology for inclusive and sustainable knowledge society development – remains more relevant than ever.

Increasingly, digital technologies are seen as critical tools and enablers to address the immense global challenges, and in particular the following SDGs:

- *SDG #4*: Ensure inclusive and equitable quality education for all and promote lifelong learning;
- *SDG #5*: Achieve gender equality and empower all women and girls;
- *SDG #8*: Promote inclusive and sustainable economic growth, employment and decent work for all;
- *SDG #17*: Revitalize the global partnership for sustainable development.

List of Acronyms

ADSI	African Digital Schools Initiative
AKE	African Knowledge Exchange – Creative Media Venture
ALICT	African Leadership in ICT and Knowledge Society Development
LATIC	<i>Leadership africain dans les TIC et le développement de la société du savoir</i> (ALICT for Francophone countries)
CBA	Community Based Learning
COP	Community of Practice
CPA	Country Programmable Aid
DGSD	GESCI Digital Schools of Distinction
GESCI	Global e-Schools and Communities Initiative
ICT	Information and Communication Technology
ICT4E/D	ICT for Education and Development
LFA	Logical Framework Approach
ODA	Official Development Aid
OER	Open Education Resources
OLA	Outcome Approach
OM	Outcome Mapping
RAF	Results Assessment Framework
RBM	Results Based Management
SDG	Sustainable Development Goal
SIPSE	Strengthening Innovation and Practice in Secondary Schools
SO	Strategic Objective
STEM	Science, Technology, English and Mathematics
STI	Science, Technology and Innovation
TVET	Technical and Vocational Education and Training
TVSD	Technical and Vocational Skills Development



GESCI'S VISION AND MISSION

GESCI's Vision

To be a global thought leader and expert organisation in supporting the utilization of new technologies to transform learning and empower individuals and communities with competencies and skills for inclusive and sustainable development.

GESCI's Mission

To advance equitable access to high-quality education, GESCI will work with governments and development partners to design and implement innovative and scalable models for the integration of ICTs in education and training systems and to build leadership competencies in ICT for knowledge society development and the achievement of key Sustainable Development Goals.

GESCI envisages a world where the widespread use and integration of digital technologies will transform learning and realise higher levels of equality and inclusiveness. It is a world where ICTs are efficiently used to support governments and communities for:

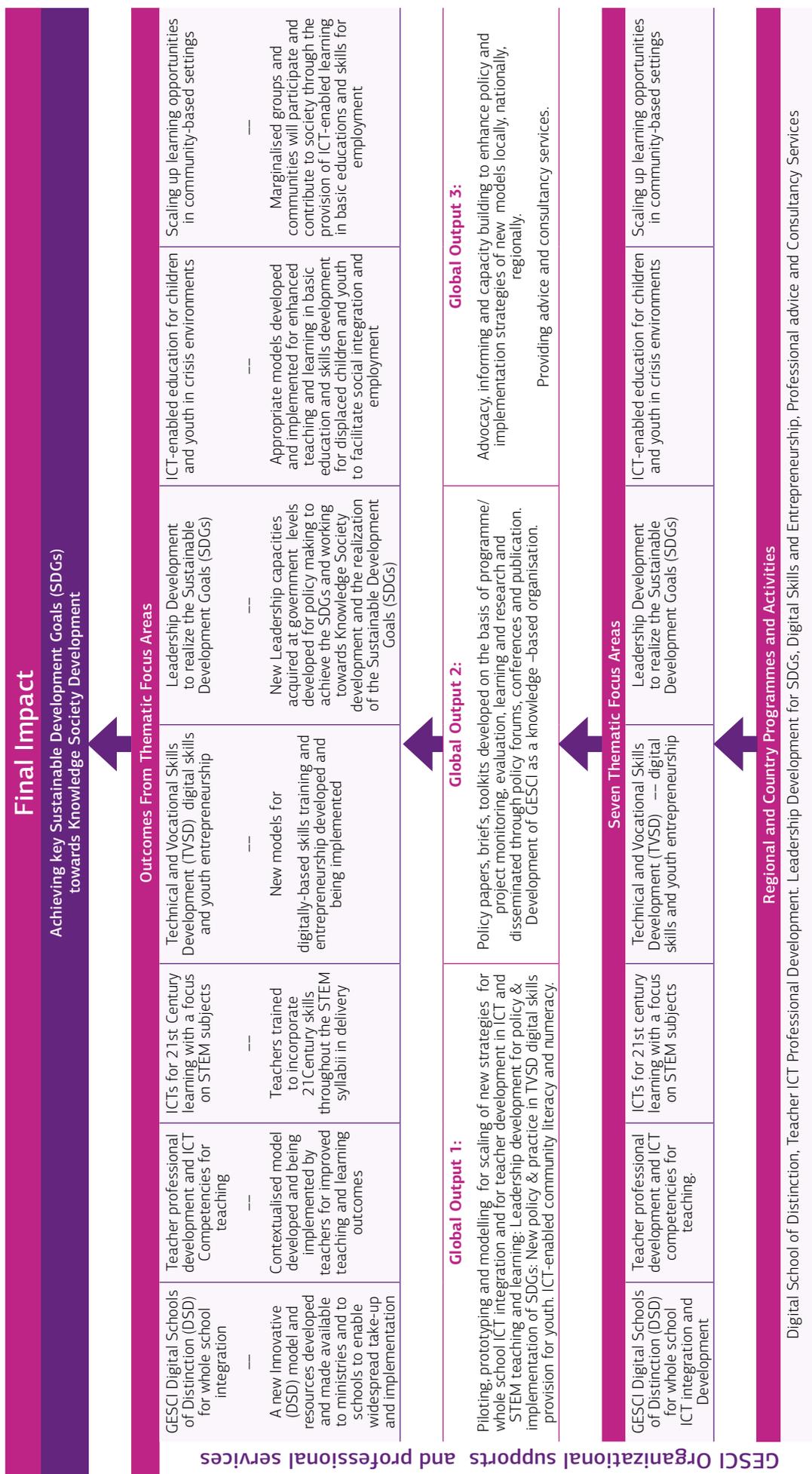
- Equitable access to a high quality education in formal and informal learning environments;
- ICT competency skills for better teaching and learning to improve student achievement and acquisition of 21st century skills;
- Digital skills development for youth employment and entrepreneurship to equip young people with the technology-driven skills and capabilities required for self-employment and the job market;
- Securing gender equality in participation and achievement in education and training.
- Enabling effective special needs education.
- Multi-level leadership competencies at Government levels for planning inclusive and sustainable social and economic development in line with the Sustainable Development Goals (SDGs);
- Scaling-up learning opportunities in community-based settings for social transformation towards sustainable lives and livelihoods;
- Access to quality monitoring, evaluation and learning and to policy advice and dialogue.

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STRATEGIC FOCUS AREAS



Figure 1. Overview of thematic focus areas towards achievement of overall outcomes



For the 2017-2020 period, GESCI will place its efforts on 7 thematic focus areas, and 2 cross cutting activities.

THEMATIC FOCUS AREAS

The 7 thematic focus areas are:

- GESCI Digital Schools of Distinction for whole school ICT integration and Development
- Teacher professional development and ICT competencies;
- ICTs for 21st century learning with a focus on STEM subjects;
- Technical and Vocational Skills Development (TVSD) and digital skills and youth entrepreneurship;
- Leadership Development to realize the Sustainable Development Goals (SDGs)
- ICT-enabled education for children and youth in crisis environments;
- Scaling up learning opportunities in community-based settings;

CROSS-CUTTING ACTIVITIES

The 2 cross-cutting activities are:

- GESCI organisational activities
- Consultancy and expert services



THEMATIC FOCUS AREA N°1

GESCI DIGITAL SCHOOLS OF DISTINCTION FOR WHOLE SCHOOL ICT INTEGRATION AND DEVELOPMENT

GESCI will work with Governments, Ministries of Education, national institutions and schools to:

- Implement the GESCI Digital Schools of Distinction (GSD) framework in 140 schools in Kenya, Tanzania and Côte d'Ivoire starting 2017;
- Learn from the first phase of implementation of the DGSD to successfully scale-up its application to other countries starting 2018;
- Adapt the GSD framework so that it may be applied to different contexts, including in community based settings and crisis environments.

For schools to develop into effective and transformative entities facilitating quality teaching and learning, the focus must be on the school as a whole unit of change (Harris 2002)³ and targeting all areas: the classroom, teachers, leadership and governance.

The GESCI Digital Schools of Distinction (GSD) framework encompasses a comprehensive whole school approach incorporating ICT integration on a whole school basis to bring about better teaching and learning across the curriculum, which will prepare children to actively participate in the development of knowledge societies and knowledge economies.

The GESCI Digital Schools of Distinction framework provides a pathway, guidelines and resources for participating schools to do more with the technology they have. Through the implementation of the framework GESCI will provide schools and their communities with the guidelines, professional development

and tools to make progress from 'e-initial' to 'e-confident' to e-mature' to attain the Digital Schools of Distinction status.

Expected outcomes are:

- a school leadership that supports an environment conducive to excellence in teaching and learning and improves the planning and management of curricula and resources through the planned integration of ICT;
- collaborative work among members of the school community and stakeholders;
- hubs of excellence within particular counties and regions demonstrating how the use of technology can enrich and enhance learning, teaching and student achievement;
- better prepared youth equipped with 21st skills, with a greater proportion applying and graduating in STEM courses at university - an essential requirement for Knowledge Society development.

3. Harris A (2002) School Improvement, Routledge Falmer, London & New York



THEMATIC FOCUS AREA N°2

TEACHER PROFESSIONAL DEVELOPMENT AND ICT COMPETENCIES

There is a renewed focus in the SDGs on the need for high quality teaching and learning. More attention is paid to the role of teachers and teaching which are key to improving the quality of education.⁴ Now the need is for a radical shift in teacher preparation

4. UNESCO, Education For All: Global Monitoring Report Team (2015) Investing in Teachers is Investing in Learning: A Pre-requisite for the Transformative Power of Education – Background Paper for the Oslo Summit on Education for Development, Oslo, UNESCO, retrieved from: <http://unesdoc.unesco.org/images/0023/002338/233897e.pdf>

towards school based professional learning and collaborative design approaches that are timely and relevant to teacher professional learning needs. The requirement to reform and transform teacher education as an ongoing life-long engagement will be a critical challenge in the post 2015 education. Quality ICT-enabled teaching and learning can only occur in school environments which enjoy a positive ICT culture, have at least a basic level of digital equipment and where ICT use and integration is championed by the school principal and senior staff.

For the period 2017-20, GESCI will work with Governments, Ministries of Education, partners and national institutions linked to teacher professional development to:

- Expand its 'phased approach' models for teacher professional development, based on ICT competency frameworks and the GESCI Digital Schools of Distinction Framework which includes head teacher capacity building to support digital whole school development;
- Integrate blended learning approaches to ensure practical application of professional learning with technology (mobile and fixed) and the use of Open Education Resources (OERs) in school and classroom practice;
- Improve the quality of teaching and learning through school-based and virtual teacher communities of practice for collaboration on e-lesson and e-resource design.



THEMATIC FOCUS AREA N°3

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ICTS FOR 21ST CENTURY LEARNING WITH A FOCUS ON STEM SUBJECTS

The technology driven 21st century work place is creating rapid shifts in demands for knowledge and skills. The specific need is for Science, Technology, English and Mathematics (STEM) related skills to meet demands for new emerging knowledge economy sectors related to information technology (cloud computing, advanced software development) and science,

engineering and technology convergence (nanotechnology, bio-technology and electronics engineering).

The addition of art and design subjects is crucial to the development and practice of creativity, Innovation and originality in Science, Technology and Innovation (STI)

GESCI will work with Governments, Ministries of Education, national institutions and schools to:

- Develop systematic approaches and models towards the integration of 21st Century skills in general and in STEM school curricula and classroom practices;
- Develop ICT in STEM quality exemplary curriculum materials for teachers and students in secondary schools using OER and local resources and various new education technology tools;
- Enhance the quality of fixed and mobile technology use in classroom practice to support new pedagogy and content in STEM subject teaching and learning;
- Improve learner motivation, engagement, retention and achievement in STEM subjects – paying particular attention to gender issues in girl and boy performance;
- Develop policy briefs and evidence- based research and evaluation studies to inform scaling up models for ICT use to enhance 21st century learning and STEM skills.



THEMATIC FOCUS AREA N°4

TECHNICAL VOCATIONAL SKILLS DEVELOPMENT(TVSD) - DIGITAL SKILLS AND YOUTH ENTREPRENEURSHIP

Youth employment has become a top priority policy concern across countries and regions.⁵ This results in part from the fact that the 15-25 age cohort is increasing and many young people have little or no technology-driven relevant skills and are therefore largely excluded from productive economic and social life.

5. To "develop and operationalize a global strategy for youth employment and implement the Global Jobs Pact of the International Labour Organization" is proposed as an implementation mechanism toward SDG Goal 8: "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all". See <https://sustainabledevelopment.un.org/post2015/transformingourworld>.

Moreover, policy makers are increasingly recognizing the importance of the need to develop strategies to foster youth employment and self-employment. Such strategies are required to factor in the rapidly evolving labour market and the technological changes that have opened new frontiers, created new jobs, eliminated others and created new ways of working.

ICT is now considered by many governments as a critical component of a responsive, demand-driven Technical and Vocational Education and Training (TVET)/ Technical and Vocational Skills Development (TVSD) system tasked with meeting the needs for learners in formal and other learning environments.

For the period 2017-20 GESCI will work with research, education and business communities to:

- Consolidate and expand its informal 'living lab' education-enterprise models and frameworks designed to equip unemployed youth with digital and entrepreneurial skills;
- Consolidate and disseminate the Living Lab model toolkit for building youth digital start-up and take-up capacities to create and avail of employment opportunities in digital and cultural media industries.



THEMATIC FOCUS AREA N°5

15

LEADERSHIP DEVELOPMENT TO REALISE THE SUSTAINABLE DEVELOPMENT GOALS (SDGs)

We are witnessing increasing demand for public sector leadership capable of driving sustainable development. “Leadership [is] becoming more collective, less individual. Many thinkers today (Clay Shirkey, Andrew Hargadon, Josh Bernoff, Charlene Li) suggest that innovation, change, new directions, and strategies emerge not from individuals, but from the social network” (The Forum Corporation, 2013), stressing the need for collective and distributed leadership to meet the challenges of social and economic development.

In addition, 2 critical dimensions must be seriously taken into account when formulating and planning development policies: (a) “the SDGs recognize the vital role that women play in social and economic development and reform and the need for their full and equal participation and leadership in all areas of sustainable development” (The World Health Organization, 2015); (b) Based on the outcome of the COP21 conference, climate change and ecology are to be reflected in every aspect of social and economic development.

GESCI will work with Governments, Ministries of ICT, STI, Education, Universities and School of School of Governments partners linked to leadership development to:

- Scale up a distributed model of the ALICT-LATIC programme regionally and internationally.
- Enhance the programme to include critical themes for sustainable development-inclusive of environmental sustainability, women leadership, social equity and inclusive development.



THEMATIC FOCUS AREA N°6

SCALING UP LEARNING OPPORTUNITIES IN COMMUNITY- BASED SETTINGS

It is widely recognized that literacy is an indispensable foundation and means to empower people to cope with the complexities of life and to enable active participation in society. 38% of children in the world are not learning the basics and illiteracy is rising throughout the developing world – this despite significantly increased investment in basic education provision. Institutionalised education is failing and new models of learning and teaching are required. In its report *“Millions Learning : Scaling Up Quality Education in Developing Countries”*⁶ The Brookings Institution states that, as of today, it will take over 100 years for average-scoring students in developing countries to catch up with their counterparts in developed countries. Within

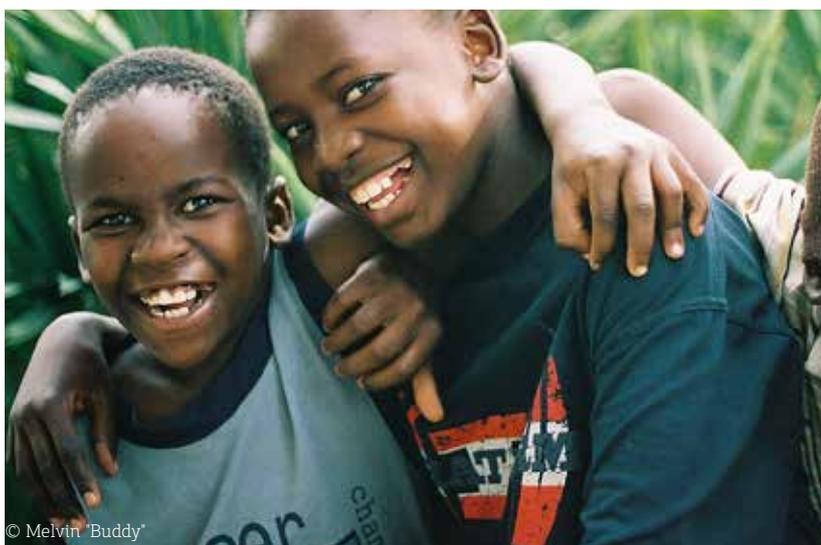
6. Robinson, J., Winthrop, R., McGivney, E. *Millions Learning : Scaling Up Quality Education in Developing Countries*, Washington, D.C. : Brookings Institution.

a framework of research and evaluation of progress, innovative and flexible programmes, with supporting infrastructure, which are specifically designed for scaling are urgently required. These initiatives should be supported by governments and aligned to national policies.

There are approximately 781 million illiterate adults in the world and many in regions experiencing booming economic growth. Particularly in Africa, illiteracy may reach even greater heights, challenging countries to make heroic efforts in order to deliver basic education services to all. ICTs, including mobile technologies, hold tremendous potential to address both child and adult basic educational needs in terms of the credible design and access to intergenerational quality learning in informal environments and in reaching the unreachable.

GESCI will work with governments, partners and local communities to:

- Develop and implement new scalable models for the use in digital technologies, including mobile, to support community-wide basic education literacy and life skills;
- Adopt its models and frameworks, piloted and scaled up in existing programs and projects for community-based and cross- generational initiatives and basic life skills.



© Melvin 'Buddy'

THEMATIC FOCUS AREA N°7

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ICT ENABLED EDUCATION FOR CHILDREN AND YOUTH IN CRISIS ENVIRONMENTS

GESCI will work with partners to improve education in crisis situations. It will:

- Explore learning needs of displaced children and youth in crisis situations
- Partner with organizations providing assistance to refugees/ displaced persons to develop models and resources to address the learning and skills needs of children and youth in crisis environments and help contribute to sustainable recovery and development in crisis regions.

Education in crisis situations is a critical need. It fosters social cohesion, provides access to life-saving information, address psychosocial needs, and offer a stable and safe environment. It also helps people to rebuild their communities and pursue productive, meaningful lives.⁶

In 2015, the Office of the United Nations High Commissioner for Refugees (UNHCR) reported that there were 16.6 million refugees worldwide. The number of refugees and internally displaced people has considerably increased as a result of the crisis in Syria, which has caused the internal displacement of almost 7 million people and displacement of approximately 3.8 million Syrian people in neighbouring countries.

Over half of the world's refugees are children under 18 years of age. Access to education for this marginalised group

is limited: only 1 in 2 refugee children has access to education; 1 in 4 refugee adolescents has access to secondary education; and 1% of youth has access to higher education. Even in countries where refugee children have access to national education services, a significant proportion remain out of school, or have low attendance and completion rates.⁷

It is expected that large movements of people will continue and possibly increase as a result of conflicts, poverty, climate change and environmental degradation.

ICT can facilitate the delivery of education in places and in contexts where children and youth are more difficult to reach, enhance collaboration and the development of teaching and learning resources among teachers through online platforms.

GESCI's Cross Cutting Work areas are critical for GESCI's development as a knowledge and expert organisation and for building an enabling environment to support its operations and the design and implementation of its programmes and projects. The cross cutting areas support GESCI's growth and building of organisational capacities, strategies, structures, systems and policies.

CROSS-CUTTING ACTIVITIES

The 2 cross-cutting activities:

- GESCI organisational activities
- Consultancy and expert services



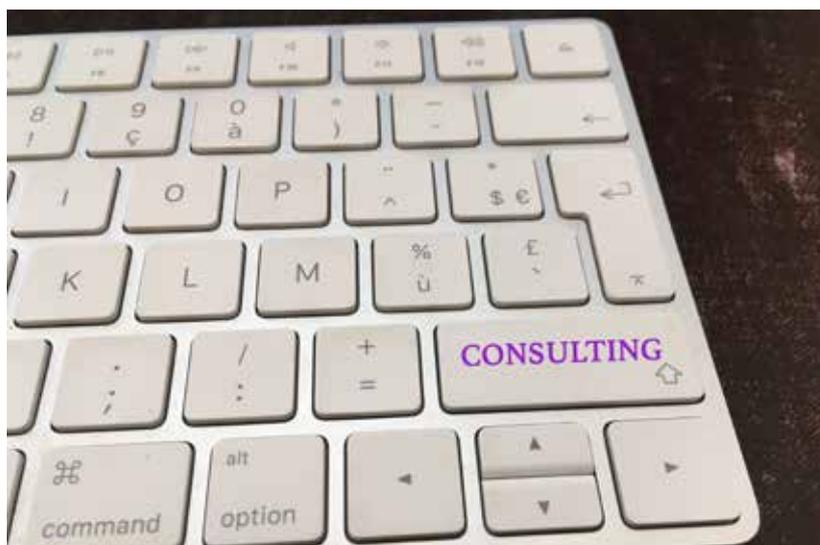
CROSS-CUTTING ACTIVITY N°1

GESCI CORE ORGANISATIONAL ACTIVITIES

GESCI's core organisational activities are the engine of its interventions, serving to support organisational development and operations.

For the period 2017-20 GESCI's core organizational activities will include:

- Serving the operations through the functional departments of Human Resources, Information Technology (IT), Finance and Programme Management and Communication and Public Relations;
- Building GESCI internal capacity, organisation design and individual skills , implementing good administrative practices and governance and developing individual skills;
- Research and development of knowledge products that can feed regional programmes or be customised and used in country engagements. This includes situational and needs analysis studies, targeted research on emerging issues such as quality assurance in large scale and distributed models of e-capacity building, e-readiness surveys and capacity audits for engagement in partner countries;
- Building a Knowledge Management System and an organization website
- Advocacy and fostering partnerships through participation in global and regional forums.



CROSS-CUTTING ACTIVITY N°2

CONSULTANCY AND EXPERT SERVICES

Through its work with governments, ministries and agencies GESCI has built a comprehensive range of relevant, high-quality products and services. These include monitoring, evaluation and learning frameworks, impact research approaches, policy advice and dialogue methodologies, innovative ICT in education models (ICT in STEM, ICT in leadership

development and the Digital Schools of Distinction Framework. The focus is on service and product utilisation to expand overall understanding and to strengthen the capacity of partners to leverage ICTs in education and training and in high-level leadership development for advancing national development agendas.

GESCI will work with Governments, Ministries and research partners to:

- Provide monitoring, evaluation and research services to assess the effectiveness of different models of ICT use in education and training systems;
- Provide policy advice and facilitate high-level dialogue;
- Provide capacity building and training services on utilisation and contextualisation of emerging good practice models for integrating ICT in education, teacher education, youth skills development, and school and community based development.

3



01 STRATEGIC OBJECTIVES AND OUTCOMES



GESCI'S 2017-2020 FOCUS AREAS AND THEIR RELATED STRATEGIC OBJECTIVES AND OUTCOMES ARE IN TABLE 1 BELOW

TABLE 1. GESCI FOCUS AREAS, STRATEGIC OBJECTIVES AND STRATEGIC OUTCOMES

Thematic Focus Areas	Strategic objectives	Strategic outcomes
1. GESCI Digital Schools of Distinction for whole school integration and development	Strategic Objective 1: Develop a systematic and incremental approach to inform a scalable model for inclusive whole school development for effective ICT integration	Strategic outcome 1: A Digital School of Distinction (DSD) model developed - for building school capacity to incrementally progress towards digital schools of distinction and create enabling conditions for improved learning outcomes
2. Teacher professional development and ICT competencies	Strategic Objective 2: Develop rigorous and scalable models for the integration of ICT in teacher professional development to improve quality and relevance of education provision and learning outcomes.	Strategic outcome 2: Innovative teacher professional development models developed which integrate ICTs to contribute to Improved learning outcomes and enhanced quality of education provision.
3. ICTs for 21st Century Learning – with a focus on STEM subjects	Strategic Objective 3: Develop implementable and scalable initiatives for ICT integration in education systems to address gaps in 21C Learning – and in STEM specific knowledge and skills critical for social, economic and knowledge society development.	Strategic outcome 3: Quality teaching and learning of STEM subject knowledge and associated 21C skills achieved and students incentivized to take up STEM programmes at third level which will contribute to social, economic and knowledge society development
4. TVSD and digital skills and youth entrepreneurship	Strategic Objective 4: Empower African youth through the use of ICT in TVSD curricula and entrepreneurial skills development to avail of job opportunities and self-employment options, in particular, in the creative media and arts industries.	Strategic outcome 4: African youth empowered with the digital and entrepreneurial skills through innovative TVSD models which will lead to employment - particularly, in the creative media and arts industries.

Thematic Focus Areas	Strategic objectives	Strategic outcomes
5. Leadership for SDGs capacity building	Strategic Objective 5: Build new leadership capacities in developing countries to design and implement knowledge-based social and economic policies, strategies and programmes which will contribute to the realisation of key identified SDGs goals.	Strategic outcome 5: Developing countries' new leadership capacities built which will positively influence the design, development and implementation of knowledge-based social and economic policies, strategies and programmes which will achieve key identified SDG goals.
6. ICT enabled education for children and youth in crisis environments	Strategic Objective 6: Work with partner to leverage ICT to provide relevant and effective learning opportunities for children and youth populations in crisis environments	Strategic outcome 6: Models and resources developed to address learning and skills needs of children and youth in crisis environments and contribute to sustainable recovery and development in crisis regions
7. Scaling up learning opportunities in community-based settings	Strategic Objective 7: Harness the power of new technologies and the Internet to provide marginalized groups and communities with relevant learning opportunities in informal environments to ensure their readiness for inclusive participation in society.	Strategic outcome 7: Marginalized groups and communities empowered to participate and contribute to societies through the provision of relevant learning opportunities and new technologies and the Internet.

Cross Cutting areas	Strategic objectives	Strategic outcomes
1. Organisational capacity-building	Strategic Objective 8: Strengthen GESCI's organizational capabilities to carry out its mission and enhance its positioning as a leading knowledge organization in its areas of expertise.	Strategic outcome 8: GESCI's organizational capabilities to carry out its mission strengthened and its positioning as a leading knowledge organization in its areas of expertise enhanced and recognised.
2. Consultancy and Expertise	Strategic Objective 9: Provide expert services based on GESCI's knowledge products and expertise in the areas of monitoring, evaluation and impact research, policy and strategy advice and models of ICT integration in education and training systems	Strategic outcome 9: GESCI products and services utilized by partners in research and development of models for ICT integration, that in turn inform their policies and strategies for technology use to improve the quality of teaching and learning and systems and practices



BOUNDARY PARTNERS

GESCI will work with the following institutions, organisations, groups and individuals to implement its mission and achieve its goals.

STRATEGIC PARTNERSHIPS WITH DONOR GOVERNMENTS, OTHER PUBLIC DONORS, FOUNDATIONS AND THE PRIVATE SECTOR

GESCI is particularly interested in building strategic partnerships for longer term collaboration in fulfilling its mission and that of its partners to ensure more effective outcome and impact.

For the period of 2017-2020 GESCI will work to expand the current base of donor partners. We will strengthen relations with traditional and current donors fostering new partnerships

Governments, ministries and specialized authorities from developing countries

Within this cluster, GESCI will give special attention to actors that play a pivotal role to prepare and support youth to participate in and contribute to the dynamic development of national and regional economies. This is critical in the face of very rapid growth in the African youth population⁷. Here, GESCI will focus on new skills development, in particular through projects in digital skills linked to the media industry and leading to the creation of start-ups.

After it successfully expanded its presence in Francophone Africa through the implementation of ALICT/LATIC and ADSI during 2013-16, GESCI will continue its work in Africa and will seek during the next strategic period 2017-2020, to explore projects in other developing regions in Asia and Latin America.

Donor governments and other public donors

For the period 2017-20 GESCI will work to expand the current base of donor partners. This implies strengthening relations with traditional and current donors and fostering new partnerships.

7. According to the « Briefing Notes for the African Development Bank's Long-Term Strategy: Briefing Note 4 Africa's Demographic Trends », African population aged 15-39 is expected to reach 637 million in 2030.

Schools, TVSD centres, teacher training centres, teachers/trainers and learners

During 2017-20, GESCI will increase the number and size of interventions aiming at school/TVSD centres transformation and, education/TVSD curricular, teacher/trainer ICT competencies and teacher/trainer education models incorporating ICT integration for better teaching/training and learning.

Private sector, foundations and other organisations

During 2013-2016, GESCI started engaging with the philanthropic arm of the private sector, and in particular with MasterCard Foundation (MCF) which funded SIPSE and is currently providing the financial resources for ADSI. Over the strategic period 2017-20, GESCI will consolidate its relationship with MCF and engage with large multi-national players, to fund strategic initiatives and activities in non-proprietary manners, and in partnerships for ICT implementation, ICT deployment, digital skills development and creative digital media start-up creation.

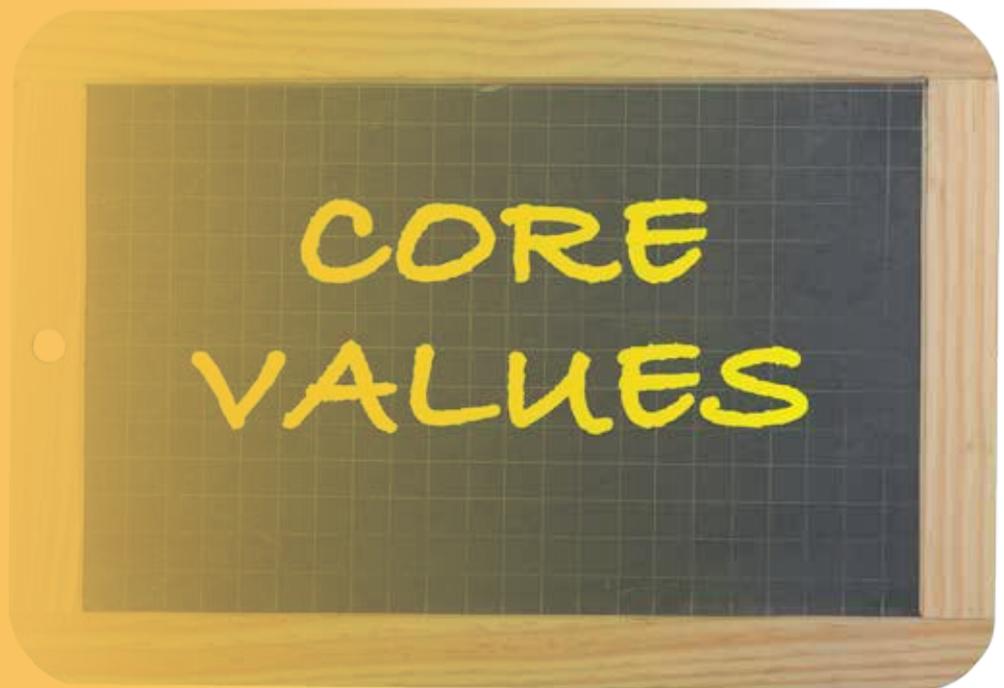
Strategic partners, networks and Communities of Practice

During 2017-20, GESCI will identify key governments and organisations that belong to this cluster of boundary partners and initiate with them a dialogue on mutualisation of expertise, influence and resources on relevant initiatives, which will strengthen GESCI's outreach and advocacy ability and also reinforce its role as thought leader.

Boundary partner specific outcomes are described in Table 3 [see Appendix 2. Strategic outcomes for boundary partners]. They illustrate the positive changes that GESCI will deliver in conjunction with boundary partners.

5

GESCI'S VALUES



Core values are the key drivers of organisational culture and the level of sharing, subscription and adherence to core values by staff members determine to a large extent the success of an organisation.

At GESCI, we take our responsibility to our beneficiaries, partners, staff and the public seriously and all our operations and interventions are guided by best practice in governance and ethical conduct. We endeavour to contribute towards building **A Knowledge Society for All** based on the principles of democratic participation, equal opportunities, non-discrimination, inclusiveness, transparency, empowerment, accountability and sustainability. In this regard we subscribe to the following values:

We recognise that in today's world, **knowledge** is the key engine of growth, innovation and socio-economic development, and that developing and least developed countries are lagging behind as the knowledge-gap widens.

We believe that a **quality and equitable education** is a human right and a major pillar of a knowledge economy. We value **continuous learning** and creation of knowledge to improve and enhance our programmes and results, to adapt to our changing environment and to learn from our successes and failures.

We place special emphasis on **accountability** for efficient utilisation of our resources and delivering what we promise. We consistently pursue **efficiency and effectiveness** in our work to provide the best solution in every intervention.

We believe that we can better achieve our vision and mission through **partnership and collaboration** with relevant organisations that share our quest for empowering communities and individuals through knowledge and technology.

We strive to develop **new and innovative solutions** to address critical education and skills development issues. We focus on **results** and never stop aspiring to provide our programmes and services to the highest quality standards. We never compromise our reputation and always act in the best interests of children.

The focus of our work is on developing **sustainable and lasting solutions.**

We strive to develop robust and integrated solutions with long term impact. We aim to build strong institutions and sustainable communities with healthy ecosystems and resilient structures, effective and responsive leadership and local ownership.

We subscribe to open communication with our partners, beneficiaries and stakeholders to build **strong partnerships based on trust.**

Transparency guides all our actions, procedures, policies and processes so that our partners, stakeholders and beneficiaries can rely on our advice and our interventions. We apply good governance principles in all our operations.

We value **inclusiveness** and apply it in all our operations and approaches through consultation, participation, collaboration and building local ownership. We respect diversity and seek to provide equal opportunities and equitable solutions to our stakeholders and beneficiaries.

Our approach to our work is gender sensitive and we promote **gender equality** as a human right and prerequisite for sustainable people-centred development.

In all we do we strive to show **respect and affirm the dignity, potential and contribution** of participants, donors, partners and staff.

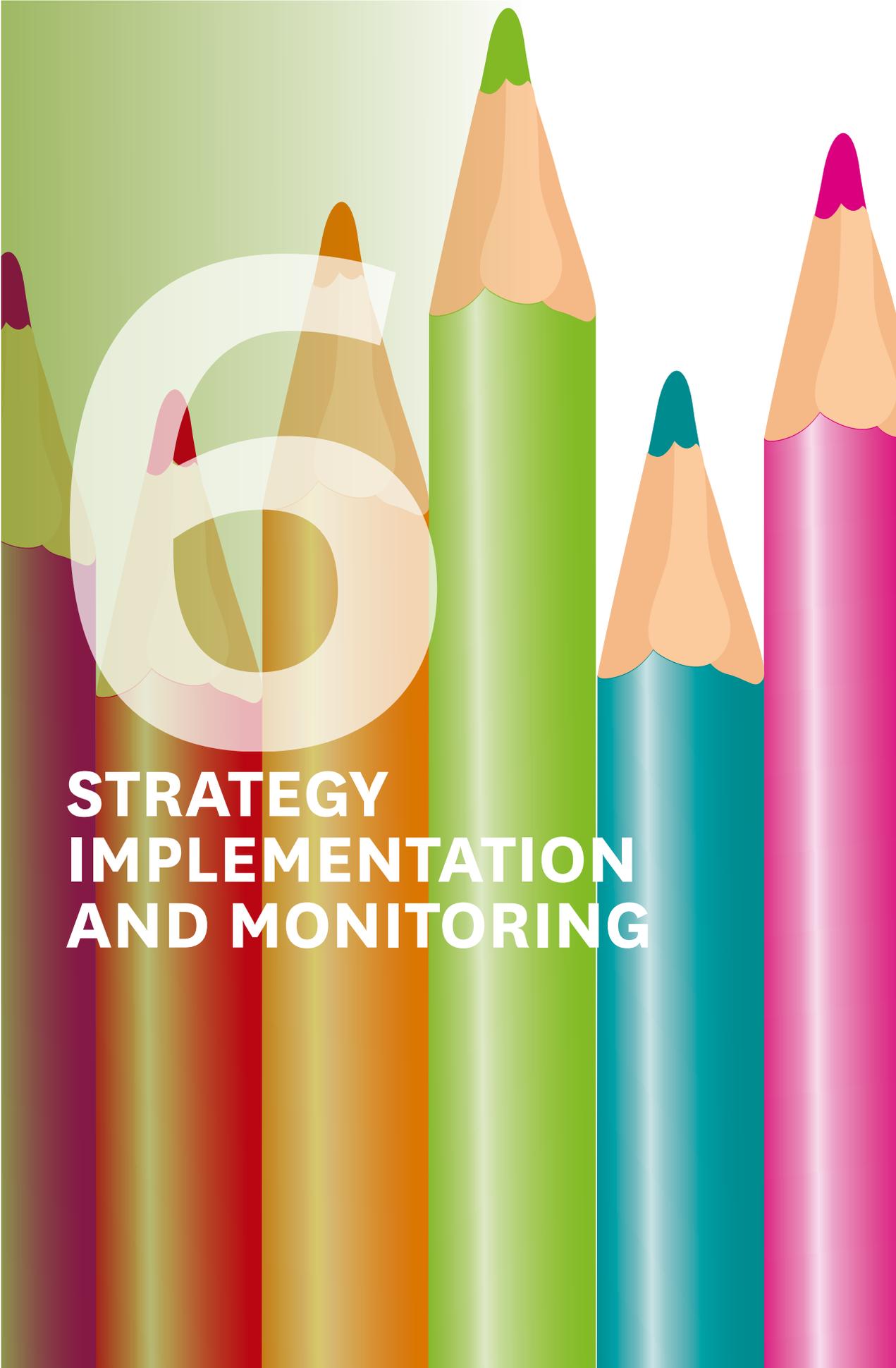
We subscribe to high **ethical standards** and do our work with **integrity, passion and commitment**, and accept **responsibility** for our collective and individual actions

Our trustworthiness comes from our adherence to independent and impartial perspectives in our advice and guidance.

Through our efforts and interventions we provide building blocks, models and frameworks that could enable country partners towards achieving the Sustainable development goals. Specifically to internal operations and our staff,

We strive for **excellence** and constantly challenge ourselves to the highest levels of learning and performance to achieve greater impact. We recognise excellence in staff performance and provide staff with professional development opportunities as needed. We provide a **safe and secure work environment** and encourage staff to maintain a healthy work-life balance.

We see our **diversity of staff** as a strength and create **unity of purpose** through team work, mutual support and collaboration.



STRATEGY IMPLEMENTATION AND MONITORING

GESCI's Results Based Management approach

GESCI uses a Results Based Management (RBM) approach for all of its activities, programmes and projects. Its RBM approach and strategy development integrates a 'Theory of Change' [See Appendix 3. GESCI's Theory of Change], a 'Results Assessment Framework' (RAF), [See Appendix 4., Table 5. GESCI's Results Assessment Framework] and a 'Performance Monitoring, Evaluation and Learning Framework' [See Appendix 5. Table 6. GESCI's Performance, Monitoring and Evaluation Framework].

GESCI's Research and Development (R&D) agenda

GESCI will continue to conduct research in each of its areas of engagement to inform its strategic advice to governments and the development and implementation of its strategies. Its research agenda will seek to get results in three key areas, namely:

- Evidence on good practice to better inform decision-making about the use of ICT to improve the quality of teaching and learning;
- New technology integration models developed and used in partner countries and communities;
- Knowledge products produced annually, such as policy papers, published research, analytical and planning tools, toolkits and models and original or ground-breaking reports on ICT4E/D).

Leveraging partnerships for the implementation of the strategy

Partnerships will need to be leveraged and resources mobilized to ensure that GESCI's

strategy is implemented in the most efficient and effective way and for GESCI's strategic objectives and desired outcomes to be realised [See Appendix 6. Rationale underlying GESCI's approach to partner relations and actions].

A resource mobilisation strategy, including a boundary partner mapping exercise and donor management activities will be developed in 2016 to support GESCI's 2017-2020 strategy. The strategy will encompass the broader notion of "partners" who may be funding partners or/ and partners conveying to GESCI their contextual experience and knowledge, their technical expertise and/or their political clout.

With respect to donors, the highest priority will be donors who are currently supporting GESCI (and getting back donors who have supported it in the past). However, as GESCI is in the process of expanding, it will also need to diversify its funding sources. In addition to the traditional bilateral and multilateral donors, it will start engaging with private corporations, foundations and philanthropists. GESCI will also work with bilateral donors and countries to attract funding channelled through Country Programmable Aid (CPA). GESCI will also start engaging with non-traditional players, including corporations of the ICT industry, and philanthropists and players in the digital, cultural, arts and creative media industries.

With respect to strategic partners, much effort in 2016 will go into identifying and engaging with partners who will deliver the franchised ALICT programme. GESCI will also focus on strengthening its ties and establishing partnerships with regional organisations having the legitimacy and political ability to champion, advocate for and enhance GESCI's credibility, visibility and reach.

CONCLUSION

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GESCI's strategy for 2017-2020 'From Vision to Action Delivering What We Promise' represents a qualitative development in the growth of the organisation, as it: (a) continues to build on the lessons learned from previous strategies and evaluations to inform GESCI's growth; (b) strikes a balance between GESCI's engagement at strategic and operational levels, translating the dialectical relationship that existed between both into a comparative advantage; (c) develops a theory of change and result assessment plans that focus on outcomes and impacts rather than outputs; (d) defines GESCI's focus areas as its fields of knowledge and expertise and also opens the door for exploring

new domains such as technology-driven community based cross-generational learning to address literacy and numeracy challenges; (e) includes expert services to inform policies and strategies through policy advice and dialogue, providing monitoring, evaluation and learning services and improving the quality of teaching and learning, systems and practices. It also aligns GESCI's work and operations towards the achievement of the SDGs.

To operationalize the strategy and achieve the strategic goals and outcomes, GESCI will consolidate and build on previous achievements and rely on a cluster of strategies, frameworks and programmes.

APPENDICES

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APPENDIX 1. GESCI STRATEGY DEVELOPMENT METHODOLOGY

GESCI's strategy for the period 2017-2020, was developed by GESCI's staff in 2015 - 2016.

The work involved four phases:

- (i) undertaking research and collecting evidence to inform the new strategy;
- (ii) reviewing the strategy for the previous period (2013-2016) and conducting a SWOT analysis to assess GESCI's strengths and weaknesses, opportunities and threats;
- (iii) determining GESCI's areas of knowledge and expertise in relation to the 2030 agenda for sustainable

development 'Transforming our World' and the rapidly changing environment; and (iv) identifying future trends impacting the implementation of the SDGs and exploring how GESCI could address related gaps.

Identifying future trends was a key activity to explore and subsequently decide on GESCI's strategic focus areas for the period 2017-2020.

Examples of the identified trends for the 7 thematic focus areas and 2 core focus areas that will be addressed by GESCI are included in Table 2 below.

Table 2. Trends identified related to GESCI's 5 thematic strategic focus areas

Strategic focus areas	Identified trends
GESCI Digital Schools of Distinction for whole school ICT integration	For schools to develop into effective and transformative entities facilitating quality teaching and learning, the focus must be on the school as a whole unit of change (Harris 2002) ¹⁰ targeting : ICT leadership and planning, ICT in the curriculum, school's ICT culture, teacher professional development, ICT infrastructure and teaching and learning resources.
Teacher professional development	Greater attention to teacher quality, initial teacher education, in-service training, use of ICT and OER teaching resources.
ICTS for 21st century learning with a focus on STEM subjects	Rapidly increasing industry demand for STEM qualifications and competencies - initially best delivered through ICT integration in STEM in teaching and learning in school with a focus on team work, innovation and higher order skills.
TVSD & digital skills and youth entrepreneurship	Changing nature of work due to the application of new technologies but new areas of technology-driven employments are emerging including self-employment
ICT-enabled education for children and youth in crisis environments	Refugee numbers are growing rapidly and internally displaced people are increasing in number and are expected to grow as a result of conflicts, poverty, climate change and environmental degradation.
Scaling up learning opportunities in community-based settings	38% of children in the world are not learning the basics and there are approximately 781 million illiterate adults in the world. Illiteracy is rising throughout the developing world despite significantly increased investment in basic education provision.
Leadership for SDGs capacity building	Growing decentralization of public service provision in developing countries and economies and rapidly increasing demand for public sector leadership capable of meeting changing requirements in relation to: (a) changing political and social landscapes; (b) global issues like climate change; technology-driven economic & social change and (c) driving sustainable development.
Core organisational activities	Rapidly evolving and increasingly competitive environments call for continuous strengthening of GESCI's functional departments and human resources as well as ongoing scan of environment and research on knowledge products that can feed programs.
Consultancy and experts- services	Increasing demands for expert services in 'utilization focused' monitoring, evaluation and learning - for timely 'sharing and acting on' information with primary users (boundary partner practitioners and beneficiaries) as well as secondary users (donors, policy makers)

10. Harris A (2002) School Improvement, Routledge Falmer, London & New York

The strategy design process included a visioning exercise to collectively define GESCI's vision and mission statements. This was followed by identifying and defining the organisation's boundary partners, defining the strategic objectives in relation to the organisation's areas of knowledge and expertise, and reflecting on how to improve GESCI's capacities to achieve its mission.

In planning for implementation of the strategy, a theory of change was developed to articulate how articulate 'how' GESCI would engage with boundary partners

and 'what activities' we would engage in so as to achieve the strategic outcomes and objectives and contribute to GESCI's overall strategic mission and goal [See Appendix 4].

GESCI's implementation framework specifies the types of boundary partners GESCI will engage with as well engagement approaches. It also includes a Performance, Monitoring, Evaluation and Learning mechanism.

The inclusive strategy development process started in November 2015 and concluded in August 2016.

APPENDIX 2. STRATEGIC OUTCOMES FOR GESCI'S BOUNDARY PARTNERS

Table 3: Strategic outcomes for GESCI's boundary partners

Strategic Outcomes	Governments, Ministries & Local Authorities of Development Countries	Private Sector, Foundations and other Organizations
1 GESCI Digital Schools of Distinction for Whole School ICT Integration	Use of digital school model as a key instrument in national and regional reform programmes that puts classroom and school practices at the centre stage for improving quality of educational provision	Collaboration opportunities for researching, developing, monitoring and evaluating whole school development for ICT integration that inform reform and new forms of policy for educational improvement
2 Innovative teacher professional development models integrating ICTs developed that contribute to Improved learning outcomes and enhanced quality of education provision	Institutionalization of ICT in STEM competency based teacher professional development models and digital school head teacher professional development models from national to regional/ county to local school levels addressing the quality gaps in teaching and learning	Collaborative opportunities for contributing to and disseminating ICT professional development and whole school development toolkits – modules, OERs, M&E tools, curricula
3 STEM skills critical for social and economic advancement developed through scaled models of ICT integration in education	National education curricula primary and secondary enhanced through the inclusion of exemplary curricular materials for 21st century skills and STEM skills development with a view to improving relevance and responsiveness of education provision to knowledge age workplace - i.e. addressing the STEM skills gap and models for STEM scale-up facilitated through new technologies	Collaboration opportunities for building partnerships around research and development for ICT integration in STEM
4 African youth empowered with the digital and entrepreneurial skills through innovative TVSD models leading to employment in particular in the creative media and arts industries	Policies & strategies integrating AKE Model in TVSD – enhanced with focus on digital skills and incentives for start-ups – linked to new industry – such as emerging cultural and media industry	Collaborative opportunities for TVSD skills development, mentorship, advice, employment, support and investment in innovation, new talents and marketable products
5 ICT enabled quality education provided for children and youth in crisis environments	Host Governments, Ministries and Agencies working with GESCI to identify and coordinate logistics for schools, resources and contribution to model development and implementation	Collaborative partnership networks (INEE – UNHCR and UNICEF) developed to strengthen interventions and consult on model design and its appropriateness
6 Marginalized groups and communities empowered to participate and contribute to societies through the provision of relevant learning opportunities and new technologies and the Internet	Governments, ministries and county levels adopting community-based learning models related policies and programs integrating the use of new technologies and the internet to provide access and alternative learning opportunities	Collaborative partnerships developed to enhance community-based learning initiatives utilizing new technologies - with a focus on equipping and tooling individual and community for participation in and contribution to social and economic development
7 Developing countries' new leadership capacities built which is enhancing the design and implementation of knowledge-based social and economic strategies and programmes for achieving SDGs	Enhanced knowledge-based social and economic development policies and strategies and programmes for achieving the SDGs; change in leadership culture and use of tools introduced by GESCI; future leadership competencies and skills and capacity development models identified, recognized and embraced by governments and ministries as critical for leadership development in public sectors and for coherent social and economic development policy design and implementation	Collaborative/ funding and technical support opportunities for developing leadership capacities to enhance the design of knowledge-based social and economic strategies and programmes for achieving the SDGs
8 GESCI's organizational capabilities strengthened to carry out its mission and its positioning as a key knowledge organization and to provide expert consultancies and services	GESCI's profile as a neutral, trusted and reliable expert knowledge organization and expertise in developing and effectively implementing innovative models and programmes recognized and therefore willing to engage, collaborate, participate and partner with GESCI on ICT integration, TVSD skills development, leadership capacity building, community learning and TPD initiatives	GESCI's organizational capabilities for innovation and successful delivery of initiatives appreciated and leading to funding and technical support for its initiatives and to grow and expand these initiatives in other regions
9 GESCI capability to respond to the changing environment and development needs strengthened	Ministries availing of GESCI services in relation to strategic advice and engagement, integration of around models, tools and frameworks (AKE, Leadership for SDGs, MEL, TCO)	GESCI services and knowledge products assisting and used by partners and foundations to achieve goals and strategies and to design and implement programmes

Boundary Partners		
Schools, Training Institutions, Teachers and Learners	Strategic Partners , Networks & Communities of Practice	Donor Governments and Other Public Donors
Teacher development and practice models synergized between theory and practice and integrating leadership whole school components as integral support to building teacher capacity	Digital School model and strategy planning toolkit adopted by networks of schools and leadership communities of practice as a key support for phased integration of ICT in whole school development strategies	Research and development on the Digital School of Distinction Model shared and disseminated with Donor Governments and other funders as a viable and feasible way of investing in practical school-based solution for quality improvement through and with ICT
National institutions and schools supporting and implementing school based teacher professional and whole school development for ICT use and integration in teaching and learning practice across the curriculum	Teachers and head teachers Communities of Practice (CoPs) developing and sharing plans, content and strategies for ICT integration for improving teaching and learning experiences within and across school communities nationally and regionally	Impact assessment and research on the use of ICT to improve the quality of teaching and learning and address issues of teacher shortages particular in under-resourced areas and subjects etc. - emanating from digital schools head teacher and teacher professional models disseminated through donor networks and procuring new funds for national and regional level scale-up
National and local level school based teacher professional development supporting new pedagogies and content and enhancing learner motivation, attitudes and performance through the use of ICT in STEM subject teaching and learning	Communities of practice in STEM specialization building and sharing knowledge through action research, teacher portals and online communities to inform and influence policy and practice from national to local levels	Impact studies and research findings on ICT in STEM disseminated through donor network policy forums and networks, informing new strategies for supporting ICT in STEM models for scale up
Training institutions adopting and adapting AKE model in partnership model training programmes across partner countries and region	Living lab research, policy and practice / business stakeholder communities building and sharing ideas, knowledge and products and creating advocacy for employment opportunities and growth in DCM sector	TVSD innovative model (digital skills related to DCM industry) informing policy priorities and strategies for ODA and technical assistance investment; donors sharing results among donor communities as part of sustainable development agenda
Schools (formal and informal) and teachers engaged in ICT practice focused professional development for appropriate learning interventions that are contextualized and respond to student needs	Teacher learning networks sourcing and developing and sharing content and materials appropriate for local needs in GESCI portals and intervention programmes	Applied research and development of GESCI models for quality education in crisis environments to inform donor policy and lead to funding considerations for intervention.
Schools and teachers extending their educator roles into community development utilizing new technologies and adopting CBL approaches for providing outreach learning and access opportunities to the wider school communities	Stakeholders sharing ideas, knowledge and approaches on the provision of relevant opportunities for community based learning utilizing new technologies and internet	Community-based learning approaches utilizing new technologies are shared within the donor community and inform priorities for ODA and lead to funding opportunities;
Enhancement of school leadership (school heads, teachers, administrators, boards of management, PTAs) vision, planning and implementation for holistic approaches to achieve educational SDGs	Leadership networks (public sector, researcher institutes, policy makers, practitioners) sharing ideas, knowledge and experiences on policies, programmes, research on the relevance of ICT integration, KS development and strategies for achieving the SDGs	Leadership development program results inform and is recognized as an enabler for achievement of ODA priorities and objectives and lead to adoption and funding opportunities for implementation in other countries and regions;
GESCI's innovative and practice-oriented approaches and strategies to enhance teaching and learning embraced and applied. Institutions, teachers and students willing to try out new approaches and practices and adopt and adapt to their own context to inform the improvement and enrichment of the original models	Collaboration on research and development, joint initiatives, and promotion, advocacy and sharing of knowledge influencing and informing agendas pertinent to the sustainable development agenda	GESCI's capabilities to effectively and efficiently deliver programmes are recognized leading to funding and their trust in GESCI's capabilities to further their development agendas/policies. GESCI's research and development are also influencing and informing donor development policies and interventions.
GESCI capacity and expertise assistance in translating policies and strategies for ICT integration into sustainable and scalable practice	GESCI networks, products and tools and capacities leveraged for shared objectives, goals and enhanced models of ICT integration in different contexts (national, regional and international)	Donors and funding partners leveraging GESCI expertise, knowledge and service capacities to meet requirements for policy research and development strategies

APPENDIX 3. THE GESCI THEORY OF CHANGE MODEL

GESCI has developed a Theory of Change (TOC) to show how the **five thematic areas of its strategy interventions** will contribute to organizational outcomes and long term goals for change that is innovative, empowering and transformational and more importantly for change that is responsive to the needs and aspirations of partner countries for inclusive and sustainable development.

The TOC is like a roadmap showing the pathways for change. The logic of the roadmap starts with the challenges that are linked to GESCI's five thematic areas of strategic engagement, the potential of technology to address the challenges and more specifically the capacity of GESCI's models and frameworks of intervention to contribute to sustainable solutions.

The problem /challenge

- **On education quality for sustainable development:** The technology driven 21st century workplace is creating shifts in demand for knowledge and skills that go beyond traditional schooling 'scientific' knowledge. The Incheon Declaration 2030 Framework of Education Targets that are proposed as part of the sustainable development agenda places an emphasis on 'non-cognitive' 21st Century skills qualities that enable students to develop to their full potential. The Africa Union Continental Educational Strategy (CESA) 2016 – 2025 underscores the challenges to 'reorient education and training systems to meet the knowledge, competencies, skills, innovation, and creativity required to promote sustainable development at the national, sub-regional and continental levels' (p7). Central to sustainable development challenges are requirements for

Science, Technology, and Engineering and Mathematics (STEM) skills to meet dual demands for traditional and new technology driven economies and societies. Central to education system reorientation challenges is a new emphasis at primary and secondary levels on general skills and competencies (communication, mathematics and science skills, new literacy skills, problem-solving and interpersonal skills, and self-directed learning skills to learn other subjects) and at tertiary level on capacity building in science and technology, discipline-specific skills, research and development.

- **On education quality and teacher professional development:** The preparation of teachers is key to challenges for making education more flexible and responsive to social and economic needs for sustainable development. The Incheon Declaration underscores the centrality of teachers to improve learning. 'Increasing access must be accompanied by measures to improve the quality and relevance... [We will ensure] that teachers and educators are empowered, adequately recruited and remunerated, well trained, professionally qualified, motivated, equitably and efficiently deployed across the whole education system, and supported within well-resourced, efficient and effectively governed systems.' The opportunity to reform and transform teacher education as an on-going life-long engagement versus once-off training will be a critical challenge in the post 2015 education agenda. The UNESCO 2015 Global Monitoring report on 'Teachers and Education Quality underlines massive teacher shortages that are looming countries

APPENDIX 3. THE GESCI THEORY OF CHANGE MODEL

particularly in sub-Saharan Africa, the Arab States and South Asia. A more critical issue will be support systems for teachers and teacher quality. This is linked to new demands for high level skilled graduates to energize emerging knowledge based economies and societies. Yet, only one third of the worlds students are exposed to the kinds of deeper learning strategies that meet these higher level skills according to a 2015 OECD report on teaching and learning in 21st century schooling. Another rarity according to the report is the kinds of deep teacher professional collaboration and development models that are associated with more effective teaching and learning.

- **On renewed significance of Technical and Vocational Skills Development (TVSD):** In all of the quality education system challenges, the most urgent is the failure to equip young people with the skills required by the modern workplace. Youth comprise 17 percent of the world's population and 40 percent of the world's unemployed. The African Economic Outlook (2016) reported a youth unemployment estimation of over 20% in 2015. The report however also estimated over 50% (133 million) of the African youth population as functionally illiterate with skills irrelevant to current demand in the labour market. These young people would therefore be largely excluded from productive economic and social life. The urgency for equitable access to appropriate skills development has never been greater - skills that will enable young people to work their way out of poverty, to find mechanisms to cope and adapt to the rapid changes in their environments, to find work and/or indeed to create work whether in formal or informal economies.

Increasingly, countries are recognizing the role of relevant, digitally driven technical vocational and skills development (TVSD) training as having a major contribution to economic competitiveness. That is TVSD that moves beyond perceptions of it as a 'top up' or a way 'to bring young people back' where the basic education system has failed (op.cit.). In Africa, as elsewhere, TVSD must cater for a variety of participants in particular the unemployed and the large numbers of low skilled workers. Increasingly, TVSD needs to serve educational options to provide young people with durable achievements in literacy, basic knowledge and lifelong learning skills – and to improve specific skills in the application of new technologies for jobs develop them further in the changing work-place.

- **On community based learning:** A key challenge in community development particularly among marginalized and disadvantaged communities in urban slums and remote rural and isolated areas, lies in access to quality education opportunities. Another key challenge lies in the continuing high rates of functional illiteracy among youth and adults in these communities. The UNESCO Global Monitoring Report (2015) on 2000 – 2015 trends on adult literacy make for dismal reading. There has been little progress in reducing illiteracy rates worldwide – with rates dropping from 18% in 2000 to 14% in 2015. In this respect literacy needs to be understood as something more than the personal ability to read and write. It is a powerful tool to empower youth and adults and help them obtain 'adequate life skills and entrepreneurship capacities to tackle contemporary challenges and optimize opportunities for sustainable

APPENDIX 3. THE GESCI THEORY OF CHANGE MODEL

development'. Without basic literacy, young people and adults are locked out of engagement and utilisation of digital technology. Community based learning (CBL) presents an alternative model at grass-roots levels to enhance and empower local communities to address their socio-economic challenges and improve their standard of life, living and learning. A key focus of CBL would be providing skills training and the knowledge required by these under-served groups to strengthen and develop individual capacities to generate sustainable work and income, to survive and contribute to the development of their local communities and societies.

- **On leadership and strategy for sustainable development:**

The capacity of underdeveloped and developing countries to explore the future and anticipate challenges for policy planning and implementation are a difficult endeavour. It is made even more complicated by the 'blind spots' of today's globalized environment often dominated by 'drastic, violent and rapid shifts'. It is these blind spots that seriously hinder the development and implementation of sound and effective sustainable development policies.

The requirement is for new mindsets and skills to provide leadership in the political, economic, social and cultural dimensions of sustainable development amid the turbulence of exponential change. The challenge lies in building leadership capacity for understanding and responding to the patterns of interdependence characterizing national and regional development that is informed by sound social and economic development policies/strategies and programmes.

ICT as an enabler and opportunity

Despite the complexity of the challenges, ICTs can provide new opportunities and modalities for supporting and enabling sustainable development within GESCI's strategic areas of intervention engagement.

- **Formal and informal learning access and quality:** ICTs can be exploited to strengthen and enhance educational delivery in relation to access and quality and to address gaps in provision to marginalized groups. ICTs can be used to bring skills training to larger populations where basic technology (radio) to new technology devices (mobile technology) and internet connectivity can play important roles in training delivery. More specifically ICTs can support open and distance education delivery models to respond to growing demands for secondary education and skills training especially for students living in remote areas, part-time students combining study with work & marginalized groups who cannot access mainstream schooling. Using innovative ICT tools to enhance learning, can be successful at enhancing learning outcomes and equipping students with 21st century skills for future employability.
- **Teacher development:** ICTs can enhance the quality of teaching and learning by providing access to a great variety of educational resources that teachers can use on their own or in the classroom to buttress subject teaching and improve conceptual understanding. ICTs can support open and distance learning models for teacher development and address existing constraints and gaps in teacher supply

APPENDIX 3. THE GESCI THEORY OF CHANGE MODEL

and demand. ICTs can also enable networking of teachers for sharing of resources and lesson plans.

- **Technical Vocational and Digital Skills (TVSD) :** ICT is now considered by many governments as a critical component of a responsive, demand-driven TVSD system tasked with meeting the needs for learners for more flexible, individualized training. ICTS can help improve the quality of educational provision, prepare youth with digital skills required by the modern work place and provide career opportunities in the ICT sector itself. ICTs offer tremendous potential to enable sustainable employment opportunities for youth – inclusive of youth start-up of their own business. ICT tools, especially mobile technologies, help develop entire new business models, such as establishing micro-markets in disadvantaged areas by ordering goods and services in bulk using mobile phones. ICTs can further enable previously isolated countries/communities to participate in global business and allows work to be more easily distributed and performed far from its original source.
- **Alternative models:** ICTs can provide alternative approaches to learning skills outside the classroom supporting open and distance learning modalities, community training centres, work-based learning, innovation hubs, living labs, incubators and other emerging models for learning & skills development.
- **Leadership and ICT capacity building:** The opportunities for ICT integration in systems can only be realized when leaders are capacitated to make informed policy and investment decisions for enabling ICT to support socio-economic development effectively.

This would encompass building both leadership functional ICT skills and ICT management skills. It would also involve building leadership capacity to articulate and convince stakeholders in highly challenging cross-sectoral and multi-stakeholder environments of the value of ICT investment and diffusion to achieve their development goals. More particularly it would involve understanding of ICT use to explore future development potential of 'being connected' in the dynamic local and global world with a common agenda for sustainable development.

In summary ICTs have the potential to assist and support education and development goals and initiatives in ways that can be both transformative and responsive to the needs of national, regional and global agendas for sustainable development.

GESCI's Catalyzing Strategic Interventions

GESCI's catalyzing strategic interventions lie at the heart of its theory of change. As an International Non-Government Organization, we are in a unique position to contribute strategic models, frameworks and research for ICT use to address education and development issues that are aligned to global agendas for sustainable development and continental transformation.

The five catalyzing components of the GESCI strategy

- GESCI's **African Leadership in ICT (ALICT) programme rolled out across 16 Anglophone and Francophone countries** presents an innovative model for building foundational leadership capacities for influencing knowledge and ICT driven

APPENDIX 3. THE GESCI THEORY OF CHANGE MODEL

social and economic transformation – from individual to organization to sectoral and national and regional levels and contexts..

- In education GESCI has developed national, regional and international partnership models exploring the use of ICT to strengthen teaching, learning and new skills development. GESCI's **Digital Schools of Distinction (DSD)** framework presents a phased and integrated approach for whole school development in the use of ICT for enhanced teaching and learning and innovative practice taking ICT integration from e-initial to e-enabled to e-confident and ,finally, reaching an e-mature stage of whole-school ICT Integration.
- The **ICT Competency Framework for Teachers (ICT-CFT)** has been contextualized and implemented in GESCI partnership programmes in the African region – from Rwanda to Kenya to Tanzania to Cote D'Ivoire. It is another foundation tool for building human resource capacity for ICT use in a phased approach encompassing technology literacy, knowledge deepening and knowledge creation stages of teacher professional development
- The DSD and ICT-CFT models can be adapted for application in different learning contexts from formal to informal to non-formal education alternative models – inclusive of **models for ICT enabled education** to address learning needs of children and youth in crisis environments

- GESCI has developed **innovative 'Living Lab' models designed to equip unemployed youth with digital and entrepreneurial skills** that can enable them to start their own small businesses or to take up employment opportunities.
- GESCI has focused on **21st century learning and skills progression in STEM subjects** as critical to meet the demands of the modern workplace, continental shortfalls of scientists and engineers, take-up of STEM at tertiary level, as well as addressing aspirations for 'the transformative shift in African development and growth'.

Outcomes

- All models leading towards competency and skills outcomes - teacher ICT competency for teaching and learning, student ICT and STEM skills, youth digital skills for employability, community literacy for development, whole school ICT integration for quality curriculum delivery, leadership in ICT to meet the SDGs.
- All competencies contribute to knowledge deepening and knowledge creation learning and development capacities across GESCI strategic areas of engagement

Results

- The accumulative effects of the catalysing strategic interventions and outcomes will contribute towards 'deep and meaningful learning outcomes' and product results;

APPENDIX 3. THE GESCI THEORY OF CHANGE MODEL

- These effects will contribute to new dynamics and enabling conditions for community, industry, digital and knowledge society development.

Impacts

- Consolidated models and toolkits to assist in whole-school ICT integration and to improve skills development in STEM, literacy and innovative teaching and learning practices with the use of ICT in formal, informal and non-formal education delivery scenarios as well as digital skills and entrepreneurship.
- Leadership and research capacity to inform policy and strategy for ICT use in system wide development towards SDGs and KS.

Results

- The accumulative effects of the catalysing strategic interventions and outcomes will contribute towards 'deep and meaningful learning outcomes' and product results, enabling new dynamics in communities and industry

Impacts

- Consolidated models and toolkits to improve skills development in STEM, literacy and innovative teaching practices with the use of ICT (Impact 1);

- Leadership and research capacity to inform policy and strategy for ICT use in system wide development towards SDGs (Impact 2).

The success or failure to the strategic interventions are underscored by the assumptions behind their design as presented in Table X. The assumptions that would facilitate GESCI success would be ownership and institutionalization to ensure sustainability and influence beyond programme implementation. A critical impeding assumption would be the level of commitment and space of national ministerial and donor and funder communities to support the use of ICT to shape and influence sustainable development.

Ultimately the key assumptions that would facilitate the sustainability of GESCI programmes beyond the interventions would be the commitment of the programme stakeholders from national to local levels to use the models, frameworks and evaluation research and learnings to inform effective and transformative use of ICT in national and regional development.

APPENDIX 3. THE GESCI THEORY OF CHANGE MODEL

THEORY OF CHANGE

GESCI catalysing strategic interventions & results framework

GESCI VISION

To be a global thought leader and expert organisation in supporting the utilization of new technologies to transform learning and empower individuals and communities with competencies and skills for inclusive and sustainable development

IMPACTS

Disseminated Models & Toolkits contributing to attainment of SDG

GESCI models and tools kit for system wide development approaches integration education, teacher development, TVSD, community development and leadership development contributing to vision and mission for inclusive and sustainable development

IMPROVES

Results

Deep & meaningful knowledge outcomes and products

Student achievement in STEM, youth digital start-ups, teacher e-content knowledge products, leader future-oriented strategies for sustainable development

CHANGES

Outcomes 1	Outcomes 2	Outcomes 3
Teacher, Leadership, Community, Youth Innovation Teachers, students, community members, youth and leaders empowered with ICT competencies for educational, policy and life-work innovation and transformation	Digitally-based Technical & Vocational Skills Development Youth digital skills for employability, entrepreneurship and work creation	Digital-literacy- STEM- 21st century skills Students, communities, teachers, leaders, youth capability to engage in higher order skills for individual, community, organizational, sector and national development

INTERVENTIONS

ICT-CFT TPD Model for building human resource capacity for ICT use in teaching and learning – in a phased approach encompassing technology literacy, knowledge deepening and knowledge creation stages	Digital School of Distinction Model a phased and integrated approach for whole school development in the use of ICT for innovative practice (e-initial, e-enabled, e-confident and e-mature).	ICT-Leadership Model for SDGs building foundational leadership capacities for influencing knowledge and ICT driven social and economic transformation	Digitally-driven models for skills development and entrepreneurship that can enable youth to start their own small businesses or to take up employment opportunities
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PARTNERSHIP INPUTS

Regional, National to Local Engagement Multi-stake-holder engagement from national to local levels in Project/ Programme activities and their institutionalization into day to day work practices	ICT Infrastructure & Resources Models for formal and informal ICT integration Platform for course delivery, sharing artefacts and research	Research & Development Using approaches like 'Living Lab' to capture model design, development & implementation – such as AKE model to equip unemployed youth with digital and entrepreneurial skills that can enable them to start their own small businesses or to take up employment opportunities
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APPENDIX 3. THE GESCI THEORY OF CHANGE MODEL

Figure 2. Theory of Change - GESCI Strategy 2017 - 2020

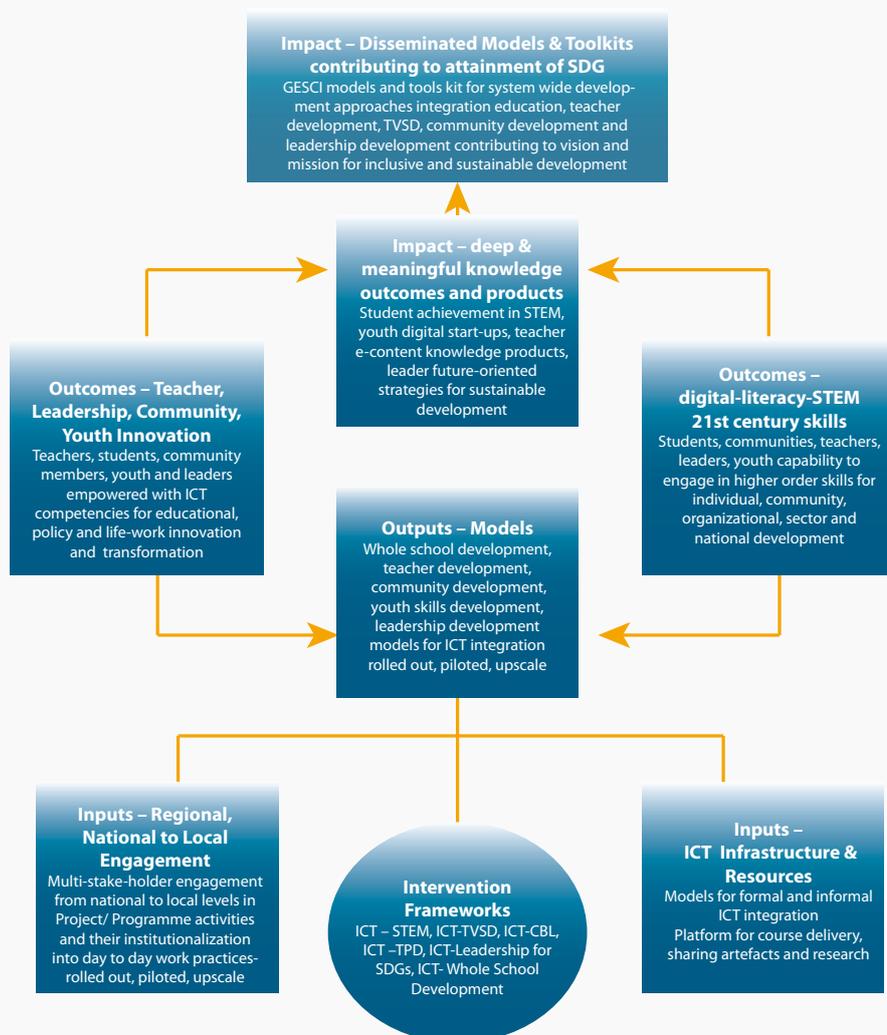


Table 4. Key assumptions underpinning GESCI's Theory of Change

- The government and the donor and funder community in partner countries jointly agree that ICT has the potential to improve education and development and that through technology there is the potential to build the technological capacity, innovation systems and knowledge structures of countries and regions for development towards sustainable inclusive societies for all
- That improving institutional (human/ individual, organization and overall policy environment) capacities of government agencies as well as the institutionalization of initiatives from national to local levels with those responsible for education and development is key to the effective use and integration of ICTs
- Country and regional partners express interest and are willing to work with, explore and scale up ICT initiatives to realize sustainable development goals
- Once deployed, schools and school communities, national TVSD institutions, teacher education pre and in-service, community based groups and final beneficiaries will take up opportunities offered by GESCI ICT models and frameworks
- Information from monitoring, evaluation and learning (MEL) of the interventions is used to make informed decisions about programme/ project adjustments and policy form national to local levels

APPENDIX 4. GESCI'S RESULTS ASSESSMENT FRAMEWORK

Table 5. GESCI-Strategy 2017 - 2020: RAF Result Areas / Programme Outcomes

<p>GESCI Organizational RAF Strategic Objective/ Goal To be a global thought leader and expert organisation in supporting the utilization of new technologies to advise, coordinate policy dialogue, research, develop and implement models of good practice for the widespread use and integration of ICTs in formal education and other learning environments within the context of supporting the development of inclusive knowledge societies and the achievement of the Sustainable Development Goals</p>		
<p>Strategic Outcome 1: A Digital Schools of Distinction (DSD) framework and toolkit providing a detailed e-Learning planning handbook to provide practical and detailed advice in the process of building capacity in schools to incrementally develop towards the award of digital school status</p>		
<p>Strategic Outcome 2: Innovative teacher professional development models integrating ICTs developed that contribute to improved learning outcomes and enhanced quality of education provision</p>		
<p>Strategic Outcome 3: Quality teaching and learning of STEM subjects achieved and students incentivized to take up STEM programmes at third level which will contribute to social, economic and knowledge society development</p>		
<p>Strategic Outcome 4: African youth empowered with the digital and entrepreneurial skills through innovative TVSD models leading to employment particularly in the creative media and arts industries</p>		
<p>Strategic Outcome 5: Models and resources toolkit developed to address critical learning domains for children and youth and encompassing capacity building of teachers, head teachers, school based coordinators, school support teams from local authorities will be a critical contribution to sustainable recovery and development of displaced populations</p>		
<p>Strategic Outcome 6: Marginalized groups and communities empowered to participate and contribute to societies through the provision of relevant learning opportunities and new technologies and the Internet</p>		
<p>Strategic Outcome 7: Developing countries' new leadership capacities built which will positively influence the design, development and implementation of knowledge-based social and economic policies, strategies and programmes that will achieve key identified SDG goals</p>		
<p>Strategic Outcome 8 (Core Organisational Outcome 1): GESCI's organisational capabilities to carry out its mission strengthened and its positioning as a leading knowledge organization in its areas of expertise enhanced and recognised</p>		
<p>Strategic Outcome 9 (Core Organisational Outcome 2): GESCI products and services utilized by partners in research and development of models for ICT integration, that in turn inform their policies and strategies for technology use to improve the quality of teaching and learning and systems and practices</p>		
<p>Global Output 1: Piloting, prototyping and modelling youth, teacher, leadership, STEM and CBL literacy and numeracy</p>	<p>Global Output 2: Policy papers, briefs, toolkits developed on the basis of programme/ project monitoring, evaluation, learning and research and disseminated through policy forums, conferences and publications</p>	<p>Global Output 3: Advocacy, informing and capacity building to enhance policy and implement new models locally, nationally, regionally</p>

APPENDIX 5: GESCI'S PERFORMANCE MONITORING AND EVALUATION FRAMEWORK

Table 6. GESCI's Performance Monitoring and Evaluation Framework

What to monitor?	Outcomes by boundary partner	Outputs and results of specific delivered programmes and projects	Impact of projects' outputs (activities and services)
When to monitor, report and evaluate?	<ul style="list-style-type: none"> ▶ Monitored on an ongoing basis ▶ Reported periodically ▶ Feeds into final evaluation (at the end of each strategy plan) 	<ul style="list-style-type: none"> ▶ Monitored on an ongoing basis ▶ Reported and evaluated with time frames agreed on each specific engagement with boundary partners ▶ Feeds into outcome monitoring 	<ul style="list-style-type: none"> ▶ Monitored on an ongoing basis ▶ Reported and evaluated with the time frames agreed on each specific engagement with boundary partners ▶ Feeds into outcome monitoring
What audience to share the information?	<ul style="list-style-type: none"> ▶ Advisory Board ▶ Prospective donors and partners ▶ Project Partners ▶ General audience 	<ul style="list-style-type: none"> ▶ Project partners 	<ul style="list-style-type: none"> ▶ Project partners ▶ End beneficiaries
How to monitor?	<ul style="list-style-type: none"> ▶ Quantitative monitoring criteria to provide measurable indicators in terms of <ul style="list-style-type: none"> ▶ Time frames ▶ Financial investment ▶ Volume of outputs (i.e. number of policies, training sessions...) ▶ Outreach (i.e. number of countries, ministries, attendees to training sessions...) ▶ Qualitative monitoring to provide measurable indicators of changes in boundary partner behaviour, relationships & actions in terms of <ul style="list-style-type: none"> ▶ Expect to see ▶ Like to see ▶ Love to see ▶ Progress markers ▶ Quantitative & qualitative evaluation criteria <ul style="list-style-type: none"> ▶ Relevance, ▶ Efficiency, ▶ Effectiveness, ▶ Impact, ▶ Sustainability, ▶ Accountability and Transparency. 		

APPENDIX 6. GESCI'S APPROACH TO PARTNER RELATIONS

Table 7. Rationale underlying GESCI's approach to partner relations and actions

Category of partners	Countries and communities GESCI programmes serves	Donors - public and private	Strategic partners
Who GESCI will engage with	<ul style="list-style-type: none"> ▶ Ministries of Education, TVET/ TVSD, ICT, Industry, Culture ▶ Specialized Agencies ▶ Schools, training centres and Tertiary Education Institutions ▶ School heads ▶ Teachers and teacher trainers ▶ Learners 	<ul style="list-style-type: none"> ▶ Governments/ bilateral donors (represented by Ministries of Foreign Affairs and national development agencies) ▶ Multilateral agencies (including UN agencies and development banks) ▶ Corporations ▶ Foundations/ philanthropists 	<ul style="list-style-type: none"> ▶ International organizations and NGOs ▶ Regional organizations and development banks ▶ Regional Economic Communities (RECs) ▶ Chambers of Commerce and Industry ▶ Parliamentarians (regional parliaments) ▶ Tertiary Education Institutions
Why engage with them	<ul style="list-style-type: none"> ▶ Better understanding of development issues facing countries GESCI programmes serves ▶ Ensure alignment of content and delivery of programmes to country priorities ▶ Ensure ownership and sustainability of programs ▶ Countries and GESCI jointly approach potential funders 	<ul style="list-style-type: none"> ▶ Receive funding for GESCI's operations and programmes ▶ Diversify sources of funding 	<ul style="list-style-type: none"> ▶ Engage partners in policy dialogue to take lessons learned to regional and global levels ▶ Draw on partners' technical expertise or political reach and influence to champion and/ or enhance the efficacy reach and visibility of GESCI's action ▶ Scale up successful programmes
On what basis they are identified	<ul style="list-style-type: none"> ▶ Countries respond to criteria and priorities set for countries / regions/ stakeholders ▶ These include countries that can be helped through GESCI's operations and that are keen to engage with GESCI with GESCI and take ownership of the programme. 	<ul style="list-style-type: none"> ▶ Potential donors are mapped and their policies and strategies investigated Donors who have visions/ missions/ priorities and strategic orientations converging with GESCI's are detected and convergence is identified. ▶ Donors respond to criteria and priorities set for donors. ▶ Key contacts and relationships are gathered 	<ul style="list-style-type: none"> ▶ Potential strategic partners are mapped and their policies and strategies investigated ▶ Partners who have agendas/ vision / mission converging with GESCI's are detected and convergence is identified ▶ Partners respond to criteria and priorities set for strategic partners ▶ Key contacts and relationships are gathered
How to engage with them	<ul style="list-style-type: none"> ▶ Policy dialogue and advocacy Pilots, research and needs assessment studies ▶ Joint proposals 	<ul style="list-style-type: none"> ▶ Policy dialogue and advocacy based on understanding of donor's strategy, proposals are built around how GESCI will contribute to achieving donors' goals 	<ul style="list-style-type: none"> ▶ Policy dialogue and advocacy ▶ Collaborative activities are explored to enhance efficacy of action and further objectives of respective parties



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