

Republic of Rwanda

MINISTRY OF YOUTH AND ICT



REPUBLICAN

GENERAL

Talent

Policy

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ACRONYMS

ACRONYM	EXPANSION
12YBE	Twelve Years Basic Education
ATM	<i>Automatic Teller Machine</i>
CIO	<i>Chief Information Officer</i>
CSR	<i>Corporate Social Responsibility</i>
EDPRS	<i>Economic Development and Poverty Reduction Strategy</i>
E-LEARNING	<i>Electronic Learning</i>
EICV	<i>Integrated Household Living Conditions Survey</i>
FDI	<i>Foreign Domestic Investment</i>
GDP	<i>Gross Domestic Product</i>
GoR	<i>Government of Rwanda</i>
HLI	<i>Higher Learning Institutions</i>
ICT	<i>Information and Communication Technology</i>
IECB	<i>ICT Engineers Certification Body</i>
IPRC	<i>Integrated Polytechnic Regional Center</i>
IT	<i>Information Technology</i>
MIFOTRA	<i>Ministry of Public Service and Labor</i>
MIGEPROF	<i>Ministry of Gender and Family Promotion</i>
MINALOC	<i>Ministry of Local Government</i>
MINECOFIN	<i>Ministry of Finance and Economic Planning</i>
MINEDUC	<i>Ministry of Education</i>
MYICT	<i>Ministry of Youth and Information & Communication Technology</i>
NCST	<i>National Commission for Science and Technology</i>
PhD	<i>Doctor of Philosophy</i>
PPP	<i>Public Private Partnership</i>
RDB	<i>Rwanda Development Board</i>
RISA	<i>Rwanda Information Society Agency</i>
SDG	<i>Sustainable Development Goals</i>
SRMP	<i>Smart Rwanda Master Plan</i>
TSS	<i>Technical Secondary School</i>
TVET	<i>Technical Vocational Education and Training</i>

DEFINITIONS

Digital Literacy:

The ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills at a basic level.

Digital Skills:

Advanced level of digital proficiency that allows an individual to perform specialized and complex functions in Information and Communication Technology and related fields.

FOREWORD

The five years program for priority skills development identified a number of skills units needed in the ICT sector to deliver on the EDPRS II. A recent study commissioned by the NCST confirmed a previously held notion, that while over the past decade or so our education systems has produced a commendable number of ICT professionals, there remains a recurrent problem of a glaring mismatch between the supply and demand of ICT skills.

The study rightly attributed this mismatch to weak and limited linkages between, on one side, the outputs of academia as well as training institutions and, on the other side, the specific skills needs of the ICT industry which requires more specialized workforce. This policy aims to among others address the issue of mismatch between ICT skills supply and demand.

Rwanda's noble ambitions to become an ICT Hub of the region will become a reality once the country transforms itself from an importer to exporter of ICT skilled manpower. This calls for production of excess capacity of ICT professionals with market-oriented, specialized skills.

The GoR has made significant investment into ICT's transforming the country into the most connected country in Africa. Coverage of high-speed broadband infrastructure has now reached all corners of the country. There is increased proliferation of broadband-capable devices particularly smart phones. A state-of-the-art cyber security facility has been operationalized to protect our business, government systems from cyber attacks. Sooner than later, all Government services will only be accessible on the Irembo Platform and payment for the same will only be accessible through electronic payment means. Banks are going paperless. Electronic cards, ATMs, online and Mobile Banking are replacing queues. The number of electronic services has increased significantly fuelled by disruptive advancements in electronic financial services. A thriving mobile money ecosystem is transforming lives and businesses.

ICT-illiterate citizens and businesses are increasingly finding themselves in an awkward position that those lacking functional literacy were occupying in the last century.

Rwanda's ambitions to become the ICT hub of the region will also be seriously curtailed if the issue of limited ICT Skills and Literacy is not addressed in a systematic manner. Globally benchmarked ICT literacy and skills are needed both in the ICT proper and ICT-enabled sectors like Finance, Tourism, Education, Agriculture, Health etc.

On the whole, all ingredients are seemingly in place to achieve a knowledge-based economy. Yet, low levels of adoption of electronic services, if not addressed will continue to start in the way of achievement of a knowledge economy and society. Low adoption level is for the most part attributable to low levels of digital skills and literacy among our citizens.

This policy aim is to increase Digital Skills and Literacy across all levels of Rwanda society both in terms of quality and quantity. The policy calls for strengthening the framework for ICT training and qualification in Rwanda, placing emphasis on training and certification in hands-on, market oriented, globally benchmarked ICT Skills and Literacy courses.

Implementation of a nation-wide Digital Skills & Literacy programs will play an important role in achieving EDPRS II's target to create 200,000 new jobs.

1. ISSUE

While over the past decade, the education system has produced a commendable number of ICT professionals; there is a recurrent problem of a glaring mismatch between the supply and demand of ICT skills. This mismatch is attributable to lack of strong linkages between, on one side, the outputs of HLI's and other training institutions and, on the other side, the specific ICT skills needs of the ICT industry which requires more specialized, hands-on workforce.

Rwanda's noble ambition to become an ICT Hub of the region calls for the country to transform itself from an importer to exporter of ICT skilled manpower. Yet the number of ICT professionals with ICT market-oriented, specialized ICT skills particularly at expert level is not even sufficient to meet the country's national needs.

GoR investment into ICT infrastructure, shared services and content, cyber security has transformed the country into the most connected country on the African continent. However, adoption of digital services and content remains desperately low threatening to render GoR investments wasteful. Low adoption levels are mainly attributed to low levels of ICT Literacy among the Rwandan population.

2. INTRODUCTION

The GoR is embarking on developing the National Digital Talent Policy to:

- Supply adequately the skills needs of the ICT sector to enable the sector to deliver on the EDPRS II;
- Transform the country from a consumer/importer to a producer/exporter of ICT's to the region and global scene;
- Increase Digital Literacy across all levels of Rwandan society with particular emphasis on those in education sector (primary and secondary school leavers and those in the workforce (public, private sector and civil society) and also focus on women, marginalized groups and people with special needs.

2.1 CONTEXT

The GoR has rightly positioned the ICT sector as a crosscutting enabler of achievement of the EDPRS II. The five-year program for priority skills development to deliver EDPRS II, adopted by the Government of Rwanda in 2013, prescribed the number of skill units required over the period 2013-2018. These skills sets needs were prescribed in fields such

as telecommunications, computer networking, database, software engineering and mobile applications development, multimedia and digital design, information security as well as IT projects management, to cite but a few.

While output figures show availability in terms of skills of quantity, especially at certificate, diploma, as well as bachelor's levels, the issue of quality of the same output has been a recurring theme. There is a mismatch between ICT skills supply and demand. Most graduates of the current do not have the technical, market-oriented expertise required by employers in government and private sector. Also, the programs taught at higher learning institutions are not customized to address the skills required for current ICT projects or programs.

The above-mentioned mismatch is caused by weak limited linkages between the outputs of the education system on one hand and the specific skills needs of the ICT industry that requires more a specialized workforce.

The mismatch between ICT skills and supply is even more evident at post graduate level (Masters and PhD), a segment that has the potential to supply experts that would help Rwanda transform itself from an importer to exporters of ICT's. The number of post-graduate level professionals remains very low.

This is seriously holding back Rwanda's potential to become an ICT hub in the region. Rwanda's ICT sector has witnessed tremendous growth both in its own right and in terms of its contribution to the economy. For example during the year 2014, ICT grew at 25% while the rest of the economy grew at 7.1%. ICT contribution to GDP was valued at 3% representing more than all agriculture exports combined. Phone and Internet penetration is standing at more than 78.2% by March 2016 and 33.5% by December 2015 respectively, while mobile phones are increasingly contributing to financial inclusion with more than 6.5 million mobile wallets currently active. The Telecom sector attracted US 66,354,840 in investments in 2014.

Rwanda has been recognized as the most connected country in Africa. By 2017, 95% of Rwandans will be covered by 4G/LTE. However, a world-class ICT infrastructure will only bear desired fruits if there is mass adoption of content and services that have been developed in the fields of e-Government, e-Business, e-Agriculture and e-Health. Low adoption is mainly attributed to low levels of ICT literacy and across all segments of Rwandan society.

Increasing Digital Literacy will also help increase demand for the above electronic services and content, improve productivity of economy due to improved workforce efficiency,

increase organizational productivity provide opportunities for innovation and entrepreneurship, attract Foreign Direct Investment (FDI) due to digitally literate and skilled citizens, facilitate youth employability and reduce social exclusion by giving opportunity to previously under-considered segments of society.

There is a need to formulate a policy framework that will help all citizens to fully and competitively participate in transforming Rwanda into a knowledge-based economy with equal access and use of advanced technologies.

Targeted beneficiaries of this policy framework will be all Government employees, employees of the private sector and civil society, private sector institutions, students at all levels of education, and all of Rwanda's active population.

The policy shall create and communicate an acknowledgement that Digital skills and Literacy are needed by Rwandans at all levels, and that every citizen must be competent in these new basic skills and literacies.

The policy shall help establish the institutional and operational framework that will govern the promotion of Digital Skills and Literacy in the Rwandan society.

More importantly, the policy will set the stage for an appropriate legal instrument that will enforce digital skills and literacy among all targeted segments of the Rwandan society.

2.2 BACKGROUND

The Government of Rwanda has a dedicated and strong public policy towards the development of the country, utilizing ICT as one of the crosscutting enablers.

2.1.1 Vision 2020

Adopted in 2000, Vision 2020 gives the overall vision for Rwandan development and establishes a goal to move Rwanda from an agrarian economy to information-rich, service oriented, knowledge-based economy by 2020. This vision is the driving force for Digital Talent Policy development and outlines the role of ICT in leapfrogging key stages of industrialization.

2.1.2 EDPRS II

The Economic Development and Poverty Reduction Strategy (EDPRS 2) guides Rwanda's medium-term plans to drive sustainable economic growth and fast poverty reduction under five thematic areas: Economic Transformation, Rural Development, Productivity and Youth Employment, and Accountable Governance. The EDPRS 2 rightly acknowledges the role that ICT will play in contributing to the targets of the five thematic areas.

2.1.3 SDG

All three pillars of sustainable development – economic development, social inclusion and environmental protection need ICTs as key catalysts, and ICTs will be absolutely crucial for achieving the SDGs.

2.1.4 The Smart Africa Initiative

The SMART Africa initiative is an implementation framework of the Smart Africa Manifesto. Original signatories to this Manifesto formed the SMART Africa Alliance and established its secretariat in Rwanda.

The Alliance has developed continent-wide goals and best practice for the implementation of Smart Africa. In turn, each adhering country will develop and implement its own SMART country programs aligned to the five principles of the Initiative.

The National Digital literacy program is one of the eight initiatives that each signatory country is required to implement in the framework of the SMART Africa initiative. Rwanda being the champion in ICT is obligated to lead by example by implementing its own National Digital Talent Program.

2.1.5 The Smart Rwanda Master Plan (SRMP)

The Smart Rwanda Master Plan (2015-2020) aims to power Rwanda's socio-economic transformation towards a knowledge-based economy through innovative, information-driven and ICT –enabled solutions.

Regarding ICT capacity building, the Master Plan highlights that Rwanda will embrace the policy approach to increase ICT skills in the general population. Particularly civil servants shall undertake professional ICT certifications courses to increase their productivity. Students shall graduate from high schools and universities with the appropriate ICT proficiency certifications. A national effort shall be undertaken to increase the available

professionally qualified ICT professionals as well as attracting Rwandans in the diaspora and foreign talent to support the growth and transformation of Rwanda's economy under this SRMP 2020. A National Digital Talent Policy shall be enacted for this purpose.

2.1.6 Regional Integration

Different projects that will be implemented as part of regional integration will need expertise and high-level skills in ICT.

2.3 CURRENT STATUS OF DIGITAL SKILLS AND LITERACY DIGITAL SKILLS

All the 29 public and private Higher Learning Institutions (HLIs), offer ICT related courses. Universities offering ICT courses concentrate on Bachelor of Science in Computer Science or Computer Engineering, Information Technology, Electronics & Communication Systems. Most of these programs are of a general nature focusing on basic aspects of computer management and engineering at the undergraduate level. HLIs have not been able to diversify their undergraduate and post-graduate academic programs towards specializations in key emerging ICT areas to target the SMART Rwanda Master Plan priority programs. These include courses like: Software development and Engineering, Mobile Computing & Distribution Systems, Forensic Information Technology & Cybercrime and, Networking and Digital electronics. With an increase in access and use of shared infrastructure and services, mobile services and cybercrime, these courses have become even more imperative for Rwanda. The ICT for Education Strategy has also been approved and calls specifically for improving ICT skills and integrating ICTs in teaching.

The five-year program for priority skills development to deliver EDPRS II, adopted by the Government of Rwanda in 2013, prescribed that a total aggregated number of 13,323 skills in ICT is required over the 2013 – 2018 EDPRS time frame. These skills sets needs were subdivided in 5,126 skills at associate level; 1,681 at professional level; and 6,716 at expert level, all distributed in various specific areas of specialization spanning the ICT sector.

A recently released NCST study revealed that the projected capacity to supply skills over the period 2015-2018 is estimated at 12,466 skills units with diploma or advanced diploma and secondary school certificates, 3,245 skills units at bachelor's degree level, 487 at Master level and 16 Skills Units at PhD level.

In terms of quantity, the country may relatively be able to supply its skills needs at associate and professional level, Rwanda desperately falls short on supply of skills at professional and expert level. In terms of quality, the NCST report confirms a big

mismatch between the supply and demand sides of skills particularly at professional and expert levels.

According to the EICV IV, computer literacy has increased in the past three years from 5.3% to 8.4% overall and almost doubled from 6.5% to 10.9% in the younger cohort. The urban/rural divide is very pronounced as around a quarter (26%) of all individuals living in urban areas report being computer literate compared to rural folks who stand at a paltry 6.8%. As can be seen, these figures are still alarmingly low and something needs to be done urgently to dramatically increase the levels of literacy

3. DIGITAL TALENT POLICY

3.1 PRINCIPLES

This policy is premised on the following principles:

- 1. *Integrating globally benchmarked certifications:*** A quick, surefire way to address the issue of mismatch between supply and demand sides of ICT skills is to integrate internationally accepted ICT Certification across all level of Education in Rwanda.
- 2. *Focus on both Quality and Quantity:*** There is no such thing as compromising one for the other. There is need to focus on maintaining consistently high quality based on international standards in large digital skills and literacy initiatives from the country's ICT training and education institutions.
- 3. *Market responsiveness of ICT Skills Units:*** The need to shift from a scattergun approach to a more systematic, market responsive approach to training ICT students has never been more pressing.
- 4. *Blended Learning as a preferred model of delivery:*** A blended learning solution utilizing methods and resources that are appropriate for the target audience should be adopted. The delivery approach must be suitable for the audience; citizens with no/low digital literacy levels can often get left behind by being left unsupported with "silver bullet" e-learning solutions. These solutions have been known to fail due to factors such as poor Internet accessibility, high ICT illiteracy, and poor user support and maintenance. A more appropriate approach involves using suitably trained trainers, who have attended training workshops specifically for ICT Skills development, using a range of resources such as printed books, and (only where suitable to the group and appropriately supported) learning management systems and/or e-learning.

5. ***Ensuring the participation of women and people with special needs:*** While the scope of this policy covers all sections of Rwanda's active population, a special component will be dedicated to ensuring the participation of women and people with special needs particularly those in rural areas.
6. ***Fostering Public Private Partnerships:*** The GoR acknowledges, and will be keen to harness the private sector's unique strengths i.e. finance, efficiency, initiative in implementation of this policy.

3.2 VISION

Transform Rwanda into the most digitally talented nation in the region.

3.3 MISSION

To Bridge ICT skills gap and educate Rwanda's active population in digital literacy and become an exporter of ICT skills in the region (Job Creation).

3.4 STRATEGIC OBJECTIVES

This policy aims to achieve the following objectives:

1. Address the recurrent mismatch between ICT skills supply and demand;
2. Transform Rwanda from an importer to an exporter of ICT expertise by 2020;
3. Increase the ratio of Digitally Literate Citizens from 8.4% to 20% by 2020.
4. Strengthen the legal and regulatory framework to provide digital skills and literacy;
5. Establish an institutional framework to govern and coordinate digital skills and literacy

3.5 KEY POLICY AREAS

POLICY AREA 1: ADDRESSING THE MISMATCH BETWEEN DEMAND AND SUPPLY OF DIGITAL SKILLS AND LITERACY

Objective 1: National Digital Skills and Literacy supply and demand matching measures

Measure 1: Carry out a National ICT Skills supply and demand matching study

At regular intervals, carry out a study to establish the quality and quantity of output of all ICT education and training providers as they relate to the demand for the same among public and private operators. The study shall build on previous reports by NCST on demand and supply of ICT skills in the public sector as well as a similar one carried out by the ICT Skills Council on demand and supply of ICT in the private sector.

Measure 2: Develop and Implement a National Digital Skills and Literacy supply and demand matching strategy

Develop and implement a National Digital Skills and Literacy supply and demand matching strategy. The ultimate goal of the matching strategy is to ensure that Digital Skills and Literacy units produced by education sector and training institutions at any given time frame are of sufficient quality and quantity as required by Rwanda's national needs and are of satisfying requirements to meet Rwanda's ambitions to become an ICT Hub of the region.

The matching strategy will prescribe the number of skills units at various levels (Associate, Professional and Expert) to be trained and certified in different ICT disciplines i.e. Software Development, Network and Cloud Computing, Hardware Services and Infrastructure, Cyber Security, Web and Mobile etc. and at Digital Literacy levels.

The strategy will be a dynamic one with clear monitoring and evaluation process as a feedback loop to ensure continuous skills quality improvement.

Objective 2: Strengthen ICT Curriculum in Education Institutions measures

Measure 3: Integrating Digital Skills and Certification in formal education curriculum at all levels

Globally-accepted ICT certifications will be integrated in the National Education Curriculum and recognized as an indispensable benchmark for ICT qualification and proficiency at all levels of education in Rwanda starting from 12YBE through Secondary, Diploma, Advanced Diploma to Degree and Post Graduate-level.

Rwandan students at various levels, regardless of their academic discipline will need to train and certify in the appropriate ICT Skills and/or ICT Literacy Certification(s) before graduation.

Measure 4: Introducing Computer programming skills at early education starting from 12YBE

IT in today's world is no longer a teacher's prerogative. Rwandan children are already exposed to many of the devices ranging from cell phones, tablets & laptops and are already much aware and smart in dealing with these devices and benefitting from the advantages of technology, much before they step into schools. There is need to prepare future ICT professionals and experts by introducing computing at a basic level of education (12YBE).

Measure 5: Providing upward mobility of technically endowed students

The new curriculum will provide for upward mobility such that students who were previously deemed inadmissible at current ICT Degree programs can be admitted into the same upon receiving qualified globally accepted certifications. ICT related courses at IPRCs/TVETs and other Diploma-issuing technical institutions, upon receiving qualified globally accepted certifications will now be able to join 3rd year of mainstream ICT Degree programs issued at Rwandan Universities

The National Digital Skills and Literacy Demand and Supply Matching Strategy will specify the types and level of Global ICT Certifications required for students at IPRCs/TVETs and other Technical Diploma-issuing colleges to qualify for entry into 3rd year of Degree programs.

This provision will encourage students to join IPRCs/ TVETs and other Technical Diploma issuing institutions. In return, the country will see the number of technically endowed ICT Skill Units at professional level significantly increase.

Measure 6: Customize specialized ICT programs matching Rwanda and regional ICT industry/Market need

Instead of the current ICT general programs offered at HLI's, Educations institutions will introduce specialized courses as prescribed by the National Skills Demand and Supply Matching Strategy. Instead of having a Bachelor of Computer Science or Bachelor of Engineering there will instead be Bachelor of Network Engineering, Bachelor of Software Engineering, and Bachelor of Information Security etc.

Objective 3: Increasing productivity of Rwanda’s labor force through Certification of all ICT employees Measures

Measure 7: Train and certify all ICT professionals of the Government, private sector and civil society

Government institutions, private sector and civil society will every financial year plan and budget training of their existing employees in their respective carrier that will be prescribed by the ICT Sector Skills Council.

For IT staff, acquisition Professional Certification is mandatory and must be acquired 2 years after following approval of this policy. New entrants must have certifications prescribed by the Above-mentioned ICT Sector skills Council.

For non-IT employees of the Government, private sector and civil society and academia who happen to be the majority of the employees a separate program to train and certify them in Digital Literacy will be set.

A special program “**Pool of ICT Talents**” to train young ICT graduates who have not yet found the job to make them ready for future job will be introduced.

POLICY AREA 2: TRANSFORMING RWANDA FROM AN IMPORTER TO AN EXPORTER OF DIGITAL SKILLS AND EXPERTISE

Objective 4: Increasing the ratio of market-oriented, ICT skills units per capita and Increase the ratio of Digitally Literate Citizens from 8.4% to 20% by 2020 Measures

Measure 8: Identifying and developing Rwanda’s niche on the global and regional level

MYICT will carry out a study to determine Rwanda’s niche on the global and regional ICT expertise market place. Rwanda’s niche will be identified after taking into consideration, among other considerations, the niche’s own potential economic viability and the country’s (potential) competitive advantage in the region and globally. The niche could be (a) specific disciplines of ICT (e.g. Networking, Software Development, Mobile Value Added Services,

Infrastructure, Cyber security). Once identified, the ICT Sector Skills Council will prescribe the number of Skills Units needed in the identified niches in order to achieve Rwanda's ambition to become the global and regional exporter of ICT expertise.

The first priority will be to fill the skills gap at expert and professional levels as NCST rightly identified in its report. Second will be to ensure that Rwanda achieves the highest ratio of specialized ICT Certifications per capita in the region, with emphasis on disciplines and at levels prescribed by the ICT Sector Skills Council.

Measure 9: Attract internationally recognized training and certification providers

There is an urgent need to attract more internationally recognized training and certification providers. There will be concerted effort to attract world-class providers of ICT training and certification to come establish their presence in Rwanda. One way to achieve this is encourage existing Universities to enter into partnerships with these providers where the department of ICT could be outsourced to qualified internationally recognized training and certification companies on a revenue sharing basis.

Measure 10: Strengthen Industrial attachment for ICT students

The ICT Sector Skills council will prescribe ICT students industrial attachment by setting guidelines for implementation of ICT Students 'industrial training and attachment. ICT companies that are already established in Rwanda will provide industrial attachment to local students with a possibility of having employment if it is available.

Measure 11: Introducing strong ICT components at non-ICT graduate programs

New programs need to be introduced at both degree and post Graduate level that will incorporate strong, relevant ICT components to non-ICT programs such as Management, Law, Banking, Finance, Tourism, Business, Medical and Public Health. Students will be able to achieve such qualifications as Bachelor/Master of IT Management, Bachelor/Master of ICT Law, and Bachelor/Master of e-Banking, Bachelor/Master of e-Tourism, Bachelor/Master of e-Business, and Bachelor/Master of e-Health. etc.

This will help the country reduce the current skills gap at expert and professional level and reverse the current over reliance to foreign ICT as the number of Skill Units in ICT enabled sectors will be significantly increased. This measure will strengthen the CIO concept by which each non ICT Sector will have a CIO who understands ICT applications in his respective sector.

Measure 12: Establish ICT Engineers' Certification body

The ICT Engineers' Certification Body (IECB) role will be to acknowledge the expertise of ICT engineers and also to recognize that ICT engineers' abilities in ICT profession. This certification is not meant to replace professional certification.

The body's certificate at national level will help for:

1. Validation of knowledge
2. Increased marketability
3. Enhanced reputation, credibility, and confidence

POLICY AREA 3: CERTIFY RWANDANS' GENERAL POPULATION IN GLOBALLY BENCHMARKED DIGITAL LITEARCY

Objective 5: Computer Literacy increased up to 20% of active population

Measure 13: Certify all Government employees in Digital Literacy

All employees governed by the public service law and those employed in Government owned corporation will undergo training and be certified with globally accepted digital literacy providers. New job entrants must have at least Basic level certificate from globally accepted digital literacy providers.

Government institutions, private sector institutions and other organizations will plan and budget every year digital literacy certification for their employees.

Measure 14: Certify all Students at all levels of formal education institution

All students at all levels of formal education will need to undergo training and get certified in Digital Literacy. At all schools with Computer Labs, primary and secondary school leavers should attain a globally accepted Digital Literacy standard before progressing to the next tier of education. Students in HLI's should also graduate with an appropriate globally accepted Digital Literacy standard.

Measure 15: Certify all women through organized groups and other people with special needs

In collaboration from the Ministry of Gender and Family Promotion and the Ministry of Local Government there will be training of all women and training will be organized through their cooperatives. People with special needs (people with disabilities, youth in rehabilitation programs, etc.) will also have special digital literacy program.

POLICY AREA 4: ESTABLISH A LEGAL AND REGULATORY FRAMEWORK TO GOVERN DIGITAL SKILLS AND LITERACY

Objective 6: Enforcement of Digital Talent development by Prime Minister order

Measure 16: the Prime Minister's order will enforce the following but not limited to:

- Stipulate general timeline and deadlines for implementation of Digital Skills and Literacy programs
- Allow the development of Ministerial instructions governing development of Digital Skills and Literacy in Rwanda
- Provide enforcement mechanisms to ensure that every individual, organization and institution covered by the scope of this policy is trained or has trained its staff following deadlines set by the PM order.
- Define Institutional framework governing digital skills and literacy program
- Strengthen the mandate of ICT Sector Skills Council giving it jurisdiction to coordinate implementation of Digital Skills and Literacy program

3.6 INSTITUTIONAL FRAMEWORK

A successful Digital Skills and Literacy program for Rwanda requires that various key players are coordinated and work together. It requires periodic assessments of progress in achieving targets of the Digital Skills and Literacy Program and monitoring of how it contributes to achievements of the SMART Rwanda Master Plan. ICT Skills Council will be derived from institutions below:

Tasks Institutions	Coordination And M&E	Studies and Research	Implementation	Investment	Financing	Citizen & People with special needs Capacity Building	Women ICT Capacity Building	Capacity Building Employees	Academic	Local Certification Body
MYICT	X									
RDB				X						
MINEDUC		X							X	
NCST		X								
MINALOC						X				
MIFOTRA								X		
MIGEPROF							X			
RISA			X							
MINECOFIN					X					
ICT engineering Body										X

3.7 FINANCIAL IMPLICATIONS

A separate, dedicated effort will need to be implemented by the ICT Sector Skills Council to identify sources of financing and develop a financing model for the National Digital Literacy Program. The program will be implemented through an appropriate PPP model, bringing together resources from Government, the private sector, academia and civil society.

Government institutions will set aside a budget for training and certification of their employees and will include a budget for Digital Literacy in their procurement plan.

The financing model is summarized in the table below:

Beneficiary Category Source Of fund	Private sector	Youth, Women, people with special interest	12YBE	TSS, HLI, TVET	General Public	Gov. Employees	Special Expertise
Universal access fund		X			X		
Grants	X	X	X	X	X	X	X
Loans				X	X	X	X
Gov. Procurement		X	X	X	X	X	X
Self sponsored	X			X	X	X	X
Subsidies, CSR		X			X	X	
Levies		X			X	X	X
Tax incentive	X	X	X	X	X	X	X
PPP	X	X	X	X	X	X	X
Special focus on RDF and RNP, RCS and other institutions with financial autonomy						X	x
Resource Mobilization		x	x	x	x	x	x

ANNEX

Implementation strategy (in Millions Rwandan Francs)

#	Projects/Programs/Flagships	2016-2017	2017-2018	2018-2019	2019-2020	Responsible
1	Publish ministerial instructions governing ICT Skills development in Rwanda;	23				MYICT
2	Establish ICT Sector Skills Council	5				MYICT, NCST, MINEDUC, PSF-ICT Chamber
3	Setting standards and guidelines for ICT career path progression and for quality research progression;	8				MYICT, RISA, NCST MINEDUC, PSF-ICT Chamber
4	Exoneration of ICT certifications	5				MINECOFIN, RRA, MYICT, RISA, PSF-ICT Chamber
5	Establish ICT Engineers' Certification Body		7			PSF-ICT Chamber, MYICT, RISA, RDB, MINIJUST
6	Establish ICT Pool of Talents		100			PSF-ICT Chamber, MINEDUC, MYICT, RISA
7	Coordinate with University of Rwanda to provide programs related to the critical and scarce skills in priority sectors;		7			MYICT, MINEDUC, HEC, UR, WDA
8	Develop and Implement a National ICT Skills supply and demand matching strategy	20				MYICT, MINEDUC,
9	Attract International recognized training centers to establish their academies in Higher learning institutions;	4	1	4	1	RDB, MINEDUC, PSF-ICT Chamber, RISA, MYICT
10	Attract investors to establish ICT e-Learning centers in Rwanda;	1	4	1	4	RDB, RISA, MYICT, PSF-ICT CHAMBER
11	ICT Basic Certificate as Job Entry Requirement guidelines.		8			MINFOTRA
12	Training and Certifying all professionals working for Government Digital Literacy	20	20	20	20	
13	Put in place internationally recognized ICT centers of excellence and attract private sector to invest in establishing ICT training centers;	2	4	2	4	RDB, RISA, MYICT PSF-ICT CHAMBER
14	Strengthen ICT innovation center (Kigali Lab) by initiating a program titled "Digital Knack Detection Bus - (DKD-Bus)" by which a tour will be made in different schools and different ICT talents shall be detected;	30	200	30	30	RISA, RDB, MYICT, PSF-ICT CHAMBER, Girls in ICT

15	Launch eUmuganda programme;	20	10	10	10	MINALOC, MYICT, RDB RISA, Dot Rwanda
16	Start Radio and TV programmes about digital literacy awareness;	50	50	50	50	RISA, MYICT, RISA RDB, PSF- ICT CHAMBER
17	Review primary, secondary and HLI curriculum by considering certifying pupils/students with specific international certification at the end of their courses before they leave schools or universities.	5	50	10	10	MINEDUC, HEC, REB, MYICT
18	Trainings in ICT industry related courses (8200 people trained)	500	500	500	500	RISA, NCBS, MYICT
19	Digital Literacy training for government employees (55,000 employees trained)	700	700	700	700	RISA, NCBS, MYICT, MIFOTRA, NCBS
20	Digital literacy awareness for Rwandan community (2,000,000 of Rwandans reached by digital literacy awareness campaigns)	500	500	500	500	RISA, NCBS, RISA, MYICT, MINALOC
	TOTALS	1,893	2,161	1,827	1,829	
	TOTAL FOR 5 YEARS	7,710				