REPUBLIC OF RWANDA
MINISTRY OF ICT & INNOVATION

THE NATIONAL DIGITAL INCLUSION STRATEGY

2022

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List of Acronyms

AMIR	Association of Microfinance Institutions in Rwanda
ASSAR	Rwanda Insurers Association
B2B	Business-to-Business
B2C	Business-to-Customer
BNR	National Bank of Rwanda
CMA	Capital Markets Authority
FinTech	Financial Technology
G2B	Government-to-Business
G2C	Government-to-Customer
GDP	Gross Domestic Product
GNI	Gross National Income
GPRS	General Packet Radio Services
ICT	Information and Communications Technology
KPIs	Key Performance Indicators
MIGEPROF	Ministry of Gender and Family Promotion
MINALOC	Ministry of Local Government
MINECOFIN	Ministry of Finance and Economic Planning
MINEDUC	Ministry of Education
MINICT	Ministry of Information, Communication and Technology
MNOs	Mobile Network Operators
MSMEs	Micro, small and medium enterprises
NCPD	National Council of Persons with Disabilities
NCSA	National Cyber Security Authority
NCST	National Council for Science and Technology
NIDA	National Identification Agency
NUDOR	National Union of Disability Organisations of Rwanda
PSF	Private Sector Federation
PwDs	People with Disabilities
RBA	Rwanda Broadcasting Authority/ Rwanda Bankers Association
RDB	Rwanda Development Board
RFL	Rwanda Finance Limited
RRA	Rwanda Revenue Authority
RISA	Rwanda Information Society Authority
RUB	Rwanda Union of the Blind
RURA	Rwanda Utilities Regulatory Authority
RwF	Rwandan Franc
SACCO	Savings and Credit Co-operative Society
STEM	Science, Technology, Engineering and Mathematics
UNDP	United Nations Development Programme

Definition of terms

Term:	Definition:
Affordability[1]	The cost effectiveness of the resources utilized by an enterprise/organisation or consumer over a specified period of time.
Accessibility[1]	The degree to which a product, device, service, or environment (virtual or real) is available to as many people as possible.
Assistive technology[1]	Any product (including devices, equipment, instruments, and software), especially produced or generally available, used by or for persons with disability for participation; to protect, support, train, measure or substitute for body functions/structures and activities; or to prevent impairments, activity limitations or participation restrictions.
Attitude	One's disposition or orientation that causes them to think or feel a certain way about something or someone.
Broadband	Transmission capacity that is faster than primary rate Integrated Services Digital Network (ISDN) at 1.5 or 2.0 Megabits per second (Mbits)
Cybersecurity[1]	The protection of data and systems in networks that are connected to the Internet.
Digital content	Any type of data or media that is available online for download or distribution on digital devices
Digital device	An electronic device that can create, generate, send, share, communicate, receive, store, display, or process information.
Digital divide[1]	The disparity of conditions between those populations that have widespread, easy, and affordable access to ICTs and those that have difficult or no access.
Digital exclusion	The situation where a section of the population/persona has continuing unequal access and capacity to use ICTs essential to fully participate in society.
Digital inclusion[1]	The process of adding a new section of the population/persona to the digital environment in a way that they can equitably interact with other existing personas and equally leverage ICT objects.
Digital innovations	The practice of implementing modern digital technology to solve business and social problems by optimizing processes, improving customer experiences, and delivering new business models.
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.

[1] Source: ITU Terms and Definitions – www.itu.int

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.
Digital technologies	Systems, hardware and processes that use digital data or signals to achieve a particular set of user-defined results
Digitally literate person	Someone with competencies required for full participation in a knowledge society. She/He must have knowledge, skills, and behaviours for effective use of digital devices such as smartphones, tablets, laptops, and desktop PCs for purposes of communication, access digital services, and collaboration.
Enabling environment	Existence of supportive conditions that allow the effective and safe access, use and application of digital devices.
Gender digital divide	The inequalities between men and women in terms of access to information and communication technologies.
Gender disaggregated data	Any data on individuals broken down by gender that reflects the realities of men and women.
ICTs	Technologies and equipment that handle (e.g., access, create, collect, store, transmit, receive, disseminate) information and communication.
People living with disabilities (PwDs)	Individuals with any of various difficulties (such as a physical, emotional, behavioural, or learning disability or impairment) that causes them to require additional or specialized services or accommodations.

Executive Summary

Executive Summary

The Government of Rwanda, as illustrated in various strategy and policy documents, is committed to driving a knowledge based economy and digital led social and economic transformation. The non-government actors (for profit and non-profit organisations) are also actively seeking ways to improve how value is delivered to their stakeholders through optimal use of technology. However, there exists sections of the population (notably people with disabilities, the elderly, the poor, women and the rural population) that are traditionally excluded in the digital transformation journey-unless deliberate interventions are put in place to include these groups.

Digital exclusion is caused by various barriers that can be broadly categorised into:

1. Socio-economic barriers that speak to an individual's or family's economic access to resources and social stratification that led to their digital exclusion; and
2. Systemic barriers that are external to individuals but are associated with the environment in which digitally excluded individuals and groups operate.

The national digital inclusion strategy therefore seeks to address these challenges and to serve as an instrument to ensure effective implementation of the principle of "leaving none behind" in the context of ICT/digital technologies and implementation of digital innovations.

The strategy development exercise defined digital inclusion as, "The process of adding a new section of the population/persona to the digital environment in a way that they can equitably interact with other existing personas and equally leverage ICT objects." Given the construct and composite nature of the state of digital inclusion, it is herein defined as a state where "All Rwandans, businesses, and institutions have equitable access and ability to use or create digital technologies and/ or content that enable them to create and support healthy, prosperous, and cohesive lives."

Literature review revealed that Rwanda has made commendable progress from a policy and strategy perspective to drive digital transformation. There are a raft of policies and strategies that speak directly to digital inclusion or the underlying drivers e.g., literacy and digital literacy, device penetration, network coverage, among others.

Synthesis of the findings from the review of the policy landscape resulted in the following Strength, Weaknesses, Opportunities and Threats (SWOT) analysis:

Strengths	Weaknesses
1. Disability and Social Inclusion as a cross cutting theme. 2. Deliberate projects and policies to support traditionally excluded groups (Women, Elderly, Youth, PwDs) 3. Ongoing programmes to drive digital literacy, smartphone penetration and ICT mainstreaming in the education sector. 4. Investments to reap ICT related demographic dividends from the youth. 5. Presence of institutions/ bodies to uphold online/ digital safety for all. 6. Presence of a general framework of private sector involvement in the digital transformation journey.	1. Lag in implementation of initiatives/ policies that would result in digital inclusion due to: a. Budgetary constraints b. Multiplicity of initiatives posing a prioritisation challenge and the risk of change saturation 2. Scarcity of comprehensive and publicly available M&E reports/ data. 3. Inadequate gender disaggregated data in ICT. 4. Inadequate understanding on the case for digital transformation/ and inclusion by multiple stakeholders. 5. Lack of an overarching policy on digital inclusion.

7. Strong presence of women in political leadership roles and progress in gender mainstreaming in the public sector.	

Opportunities	Threats
1. Streamlining initiatives across different players to achieve desired synergies given resource constraints. 2. Incorporating co-regulation and self-regulation design principles as a way of accelerating digital inclusion. 3. Tapping into the teaching workforce, community-based organisations, leaders in the civil society and an empowered younger section of the population (over 15 years in schools) to be digital ambassadors/ champions. 4. Defining policies for mobile, audio-visual and web accessibility for persons with disabilities. 5. Exploit the impact of the agriculture, trade, education, tourism and health sectors to improve the perception of value towards digital transformation by the general public and digitally excluded groups.	1. Presence of priority initiatives that create budgetary constraints to implementation of initiatives. 2. External socio- economic and geo-political shocks that disrupt normal economic operations and disposable incomes. 3. Natural resistance to change by the population that is comfortable with the status quo.

The Government of Rwanda, through the Ministry of ICT and Innovation and partner stakeholders, further acknowledges the cross-cutting nature of digital inclusion. The institutions appreciate that digital infrastructure, digital skills, digital platforms, digital financial services, and digital entrepreneurship are the foundational pillars of the digital economy in Rwanda. There, therefore, exists a **National Digital Inclusion Council.** The objective of the council is to boost digital literacy and adoption leading to the enhancement of the value proposition of technology investments, digital tools, and services through efficient multi-stakeholder collaborations.

The private sector and not- for profit organisations in Rwanda also play a significant role in the digital transformation in the country. The smart Rwanda Masterplan acknowledged that the private sector needs to be a driver of digital transformation in Rwanda. However, stakeholder insights during the diagnosis stage of strategy development reveal that whereas some sectors have embraced digital transformation, a sizeable section of the private sector lags in the transformation journey compared to the strides made by the government and government institutions.

There were recurrent calls to encourage and reinforce measures that would steer digital entrepreneurship, digital platforms, process digitalisation and automation for the private sector. This included calls to encourage competition across different business segments.

Primary data collected from the six (6) rural districts in Rwanda identified non-affordability of digital technologies, digital illiteracy and limited proximity to digital technologies as the top three barriers to the adoption and use of digital solutions.

Based on the data from primary and secondary sources, the national digital inclusion strategy therefore seeks to prioritise:

1. **Improving affordability of digital devices and data** for traditionally digitally excluded groups,
2. **Raising the awareness, knowledge and understanding of the value** of digital technologies in transforming livelihoods,
3. **Strengthening the ability** to use ICTs/ digital technologies,
4. Improving **the proximity and usability** of digital technologies,
5. **Improving safety and security** of the public and vulnerable groups related to access and use of digital technologies, and
6. Creating **an enabling environment** that encourages institutional capacity for digital inclusion and participation.

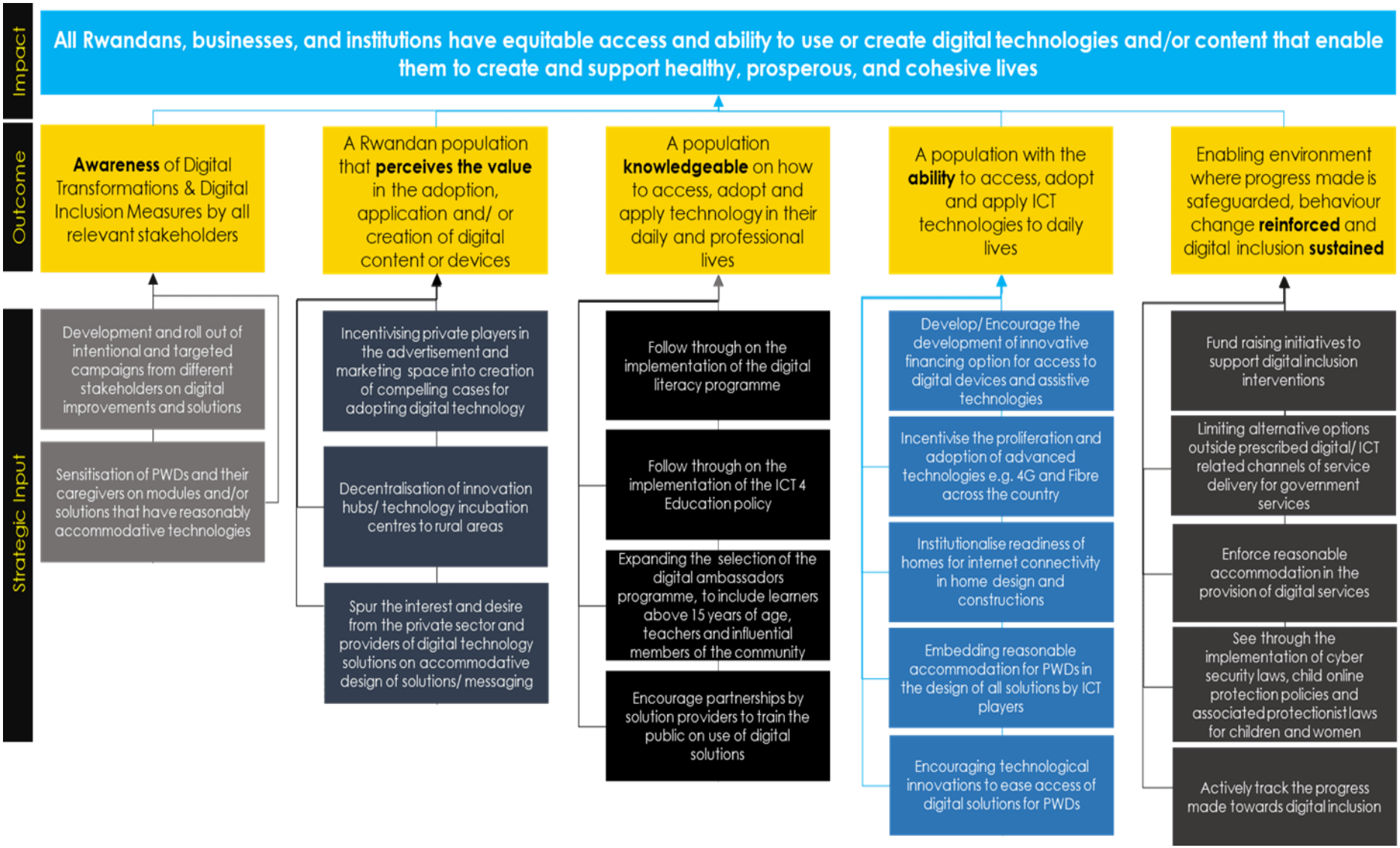
The current state assessment reflected that digital inclusion further constitutes a change of behaviour and culture. This is a journey that takes time. The strategy therefore also seeks to provide a framework that guides and effectively manages change.

Using globally accepted change management frameworks, the Rwanda National Digital Inclusion theory of change was developed. This would serve as the high-level blueprint in the roll out and implementation of other digital/ ICT projects in the country as part of the journey to the achievement of Vision 2050. This is illustrated in the page overleaf.

For the National Digital Inclusion Strategy to be successful, it will be socialised with all the stakeholders to ensure maximum buy-in. Effective implementation of the strategy will be dependent on the following factors:

1. Visible championing of the strategy to provide visibility, credibility and accountability in the digital inclusion journey
2. Functional Private -Public sector partnerships
3. Positive attitude and perception of high derivative value from technology by the citizens
4. Vision alignment and understanding of the case for change/ digital inclusion by different stakeholders
5. Improved socio-economic conditions and disposable incomes for the poor and vulnerable groups
6. Reasonable accommodation in solution design to cater for the needs of all special groups
7. Financing of digital inclusion initiatives/ projects
8. Anchoring the strategy in a mother policy and alignment of national policies to ensure they do not work at cross

The National Digital Inclusion Theory of Change.



Whereas different strategic initiatives as called out in the National Digital Inclusion Theory of Change have specific risks associated with them, it is paramount that the key strategic risks are effectively mapped out and mitigated. These include:

Risk	Likelihood of Occurrence	Impact on Occurrence	Mitigating Actions
Change Saturation	High	Medium	1. Clear prioritisation of initiatives 2. Change readiness assessments ahead of roll out of initiatives/ programmes
Resource constraints	High	High	1. Minimise/ reduce duplicity of efforts across different stakeholders 2. Centralisation of fund raising to avoid multiplicity of efforts
Over-regulation	Medium	High	1. Encourage co-regulation across the private sector and government for digital inclusion
Cultural barriers to change	Low	Medium	1. Partner with societal opinion shapers e.g. elders, religious leaders and political leaders to raise awareness of the benefits of digital devices for digitally excluded groups to help address social norms that restrict their access and use of digital devices 2. Design and roll out programmes for engagement activities that seek to address unconscious biases against women, PwDs and the rural population in ICT 3. Active sponsorship of digital inclusion initiatives from the Minister of ICT, Prime Minister and/or President
Non-competitiveness & monopolisations in certain sectors	High	High	1. Liberalisation/ encouragement of competition in internet service provision
Lagging of certain private sector players in the digital transformation journey	Medium	Medium	1. Incentivise digitalisation of business operations and practices 2. Definition of minimum standards and penalties for non-compliance e.g., on reasonable accommodation 3. Create an environment for digital businesses to thrive and enable the digital transformation of priority sectors and SMEs

Chapter 1

Introduction and Background

1. Introduction and Background

1.1 Context and Purpose of the National Digital Inclusion Strategy

The Government of Rwanda, through the Vision 2050, National Strategy for transformation (NST 1), the Smart Rwanda Masterplan and sector specific strategies, is committed to driving a knowledge-based economy and digitally driven economic transformation. The private sector (for profit and not-for profit) is also keen to pursue digital transformation to drive efficiency and effectiveness in meeting the interests of their stakeholders.

Globally, and as the case in Rwanda, there are early technology adopters, sections that gradually adopt technology solutions and others that are traditionally excluded in the digital transformation journey-unless deliberate interventions are put in place to include these groups. It follows, therefore, the need to develop a national digital inclusion strategy that ensures all individuals and communities, including the most disadvantaged in Rwanda, can access, adopt, apply, or create Information and Communication Technologies.

The strategy seeks to serve as an instrument to ensure effective implementation of the principle of "leaving none behind" in the context of ICT/digital technologies and implementation of digital innovations. It is also designed to establish a holistic approach to bridge the digital divide in its different forms and enable a streamlined framework for co-ordinated efforts and investments towards citizens' digital participation.

For this strategy, and after consultations with different stakeholders, the following definitions of digital inclusion were adopted:

1. The process of adding a new section of the population/persona to the digital environment in a way that they can equitably interact with other existing personas and equally leverage ICT objects.

2. All Rwandans, businesses, and institutions have equitable access and ability to use or create digital technologies and/ or content that enable them to create and support healthy, prosperous, and cohesive lives.

The latter defines the desired end state of digital inclusion in Rwanda. Achievement of this defined state would be characterised by the following 6 composite features:

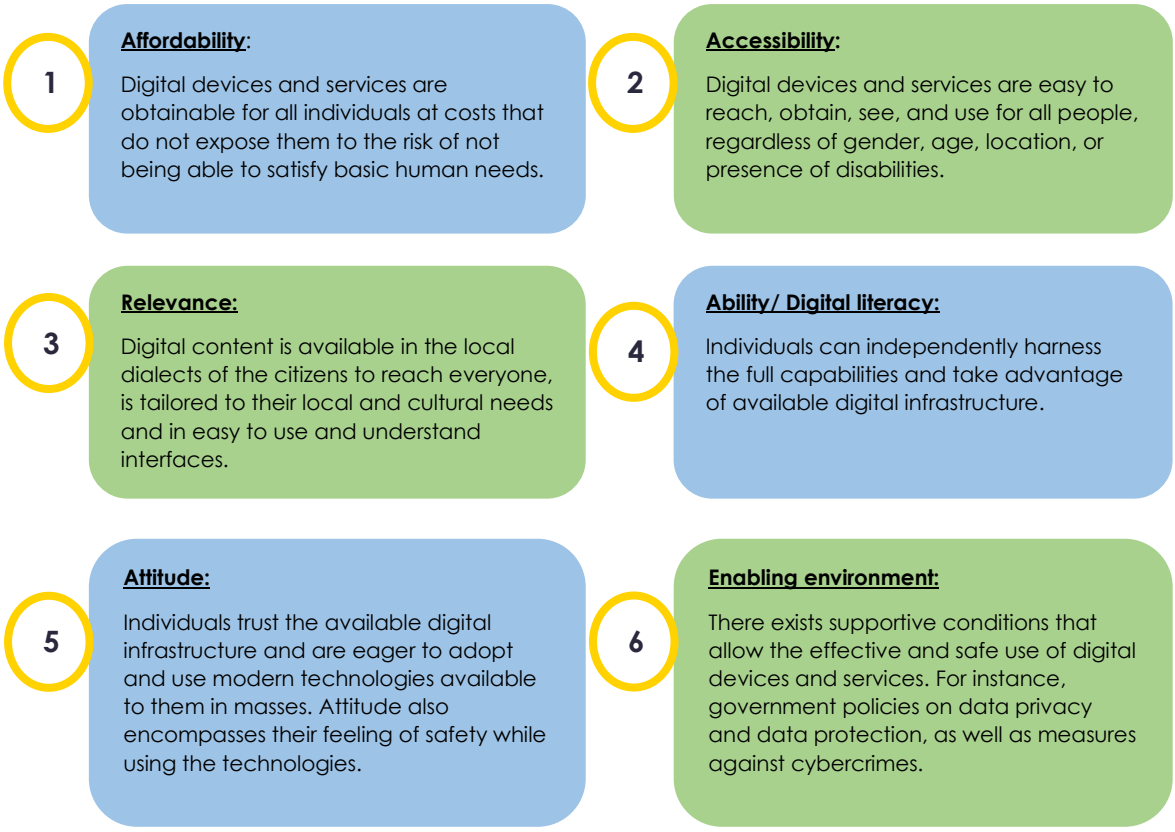


Figure 1: Composite Features of Digital Inclusion

These features, coupled with the involvement and active participation of all the citizens of Rwanda and key stakeholders in their respective roles, would lead to the desired state of digital inclusion.

1.2The Digital Exclusion Challenge

Access to and use of digital technologies and the internet can transform the lives of Rwandans by providing access to critical information, services and life-enhancing opportunities such as digital financial services and employment opportunities. However, many in Rwanda still remain digitally excluded.

Whereas digital innovations and technologies are meant to improve the livelihoods of users, not all target users take up the solutions. Research across low- and middle-income countries (LMICs) indicates that the unconnected are disproportionately women, the poor, the elderly, people living in rural areas and persons with disabilities.[2] These groups are hence digitally excluded. Across LMICs, women are 16% less likely to use mobile internet than men.[3] However, additional gender-disaggregated data at the country-level is needed to understand the full context of digital exclusion in Rwanda.

The barriers that lead to digital exclusion can be broadly categorised into two:

1. Socio-economic barriers- these are measures that speak to an individual's or family's economic access to resources and social stratification that led to their digital exclusion.

[2] GSMA. (2022). Mobile Gender Gap 2022.
[3] GSMA. (2022). Mobile Gender Gap 2022.

2. Systemic barriers- these are external to individuals but are associated with the environment in which digitally excluded individuals and groups operate.

The following section breaks down these factors and gives corresponding observations and insights:

Socio-economic Factors	
Factor	Observations and Insights
Literacy level	Individuals who are not literate or who reached only low levels of education are more likely to be digitally illiterate and, consequently, digitally excluded. Various interviewed stakeholders mentioned digital illiteracy among the population as the biggest challenge hindering the journey towards digital inclusion. According to the Rwanda Household Survey (2019/2020), the literacy rate among the population aged 15 years and above stood at 76.1% for males and 69.3% for females, with a total of 72.4% of the entire population being literate. Social norms and gender disparities in education result in women having lower levels of literacy and digital skills. The computer literacy rate of the population aged 15 years and above stood at 14.7% for males and 9.6% for females, with 11.9% of the entire country's population being computer literate. In addition, most digital skills training programmes do not include a focus on mobile despite it being the way most people access the internet.[4]
Disposable incomes and competing needs	Poor individuals are less likely to have enough disposable income to cater for the purchase and use of digital devices and services. Their income would be spent on basic needs. According to World Bank statistics on poverty headcount, as of 2019, 56.5% of the population of Rwanda lived below the international poverty line of USD 1.19 a day. In 2021, this percentage increased by 5.7% to 62.2% due Covid19-related economic difficulties.[5] Affordability, particularly of handsets, is one of the primary barriers to mobile ownership, and a challenge for both men and women to start using mobile data and services. Women usually experience the affordability barrier more acutely than men, due to lower average incomes, lower access to external sources of finance and less financial independence.[6] For the poorest 20 per cent of the population in Sub-

[4] GSMA. (2022). Policy Considerations to Accelerate Digital Inclusion for Women in Low-and Middle-Income Countries.
[5] World Bank's January 2021 *Rwanda Economic Update*
[6] GSMA. (2022). Policy Considerations to Accelerate Digital Inclusion for Women in Low-and Middle-Income Countries.

	Saharan Africa, for example, the median cost of these handsets represents over 120 per cent of monthly income[7] Lack of affordability of handsets is a key reason for the gender gap in mobile phone ownership. According to the GSMA, across low- and middle-income countries, women are 7% less likely than men to own a mobile phone, and 18% less likely than men to own a smartphone.[8] To illustrate, one stakeholder mentioned that the Orbit reader (a refreshable braille display used by the visually impaired) costed approximately USD 700 while the screen reader with speech synthesizer costed close to USD 3,000. Braille edge technology costed between USD 4,000 and USD 5,000. These were reported to be expensive and unaffordable by most of the visually impaired individuals.
Socio-economic priorities	Most individuals, especially those in rural areas or from poor backgrounds, would prefer to learn about and participate in activities that would benefit them financially and provide them with income such as agricultural activities. As such, digital devices, which are viewed as an expense and luxury, are not given priority and are hence not actively sought after. It was brought up during an interview that individuals in rural areas would rather go to digital service centre to obtain digital services than purchase digital devices which would become a recurring expense. Data from GSMA Intelligence indicate that less than 10% of the population in rural areas use mobile internet compared to 52% in urban areas. A stakeholder mentioned that PwDs are more focused on obtaining livelihoods and basic needs hence digital devices are not a priority.
Language and content	Lack of relevant content, services and products that meet users' needs and capabilities has been identified as a key barrier to digital inclusion and broadband adoption.[9] There is little digital content that is available in local Rwandan languages. According to Web Technology Surveys, less than 0.01% of content on the world wide web is available in Kinyarwanda. As a result, many people, especially the elderly, illiterate and those living in rural areas, tend to be shut out from accessing and using such content and more so if it is irrelevant to their lifestyles. There are efforts to boost the quantity of locally generated, owned, hosted and adapted content that is relevant to the country's situation, for instance, texts and images that speak to the Rwandan culture. As an example, Google Translate added, in February 2020, the option of using Kinyarwanda. However, according to '*The East African*', Google Translate still had problems with basic Kinyarwanda phrases (as of 2021).

[7] GSMA. (2020). The State of Mobile Internet Connectivity Report 2020.
[8] GSMA. (2022). The Mobile Gender Gap Report 2022.
[9] https://www.gsma.com/r/wp-content/uploads/2021/09/The-State-of-Mobile-Internet-Connectivity-Report-2021.pdf

	It was noted during two stakeholder interviews that there is need to customize available digital content to local Rwandan languages to enable inclusion for non-English speaking individuals.
Interest	Many individuals are not open to adopting digital solutions due to the lack of awareness of their benefits or the mindset that they are too costly and difficult to obtain and use or a preserve for the youth. Nearly a quarter of adults in low- and middle-income countries (LMICs) are not aware of mobile internet and its benefits, including people who already own a mobile device This lack of awareness is one of the greatest contributors to the gender gap in mobile internet use in LMICs[10] It was brought up during a stakeholder interview that the elderly are more likely to resist learning about digital technologies as they rely on digital agents to access digital technologies and hence little interest in learning.
Safety	Safety and security concerns can be another barrier to mobile ownership and mobile internet use.[11] Individuals, particularly women and children, may have safety and harassment concerns related to being online. For example, women may face fears of intimidation, harassment, violence, fraud, surveillance, identify theft, misuse of personal images and data, exposure to unsolicited explicit content, disinformation, privacy challenges and more.[12] It was noted during a stakeholder interview that the 2018 Child Online Protection policy is yet to be fully implemented. One stakeholder mentioned rejection of online services like mobile banking by some individuals due to the fear of losses.

Table 1: Socio-economic Factors that contribute towards Digital Exclusion

Systemic Factors	
Factor	Observations and Insights
Diffusion of enabler technologies	According to data from RURA, internet penetration stood at 64.4% while 4G subscriptions stood at 1.5% as at Q4 2021. According to the World Bank 2020 Accelerating Digital Transformation report, 74% of people still relied on 2G that has limited services (SMS and voice). In 2022, the cumulative rate of electrification that enables connection and access stood at 70.1% of households. These statistics indicate that there is still some way to go to in the penetration and adoption of infrastructure to ensure digital inclusion for all people.

[10] GSMA. (2020). The Mobile Gender Gap Report 2020.

[11] GSMA. (2022). The Mobile Gender Gap Report 2022.
[12] GSMA. (2022). Policy Considerations to Accelerate Digital Inclusion for Women in Low-and Middle-Income Countries.

Design of Solutions	Traditionally, ICT and affiliated service providers design solutions suitable for the mass market. i.e., sections that would yield highest returns/ impact at the earliest possible time. This tends to alienate sections of the populations who do not fit into the criteria of their target markets. PwDs and the rural poor tend to be among the most excluded groups. Most digital solutions are not designed with accessibility for people with disabilities in mind. As a result, these individuals become digitally excluded and have to obtain extra devices or rely on abled people to access such solutions. One stakeholder mentioned that despite the roll out of the orbit reader, some subjects like Mathematics and Science are difficult to learn since braille is only applicable for text and not graphics and drawings. Blind people cannot use the Irembo platform fully on their own and still require assistance from a sighted person for some processes like filling in forms despite the presence of a talkback feature- the feature does not cover all processes on the platform. Another stakeholder stated that telecentres are not properly equipped, designed and located for efficient use for training of PwDs. The pricing model for a number of digital devices and solutions by service providers render them unaffordable to certain sections of the population.

Table 2: Systemic Factors that contribute towards Digital Exclusion

1.3 The Approach and Methodology of the Strategy Development

The strategy development process followed a highly iterative and participatory approach in the development of the outcome.

The development process was clustered into four phases as illustrated in the roadmap below.

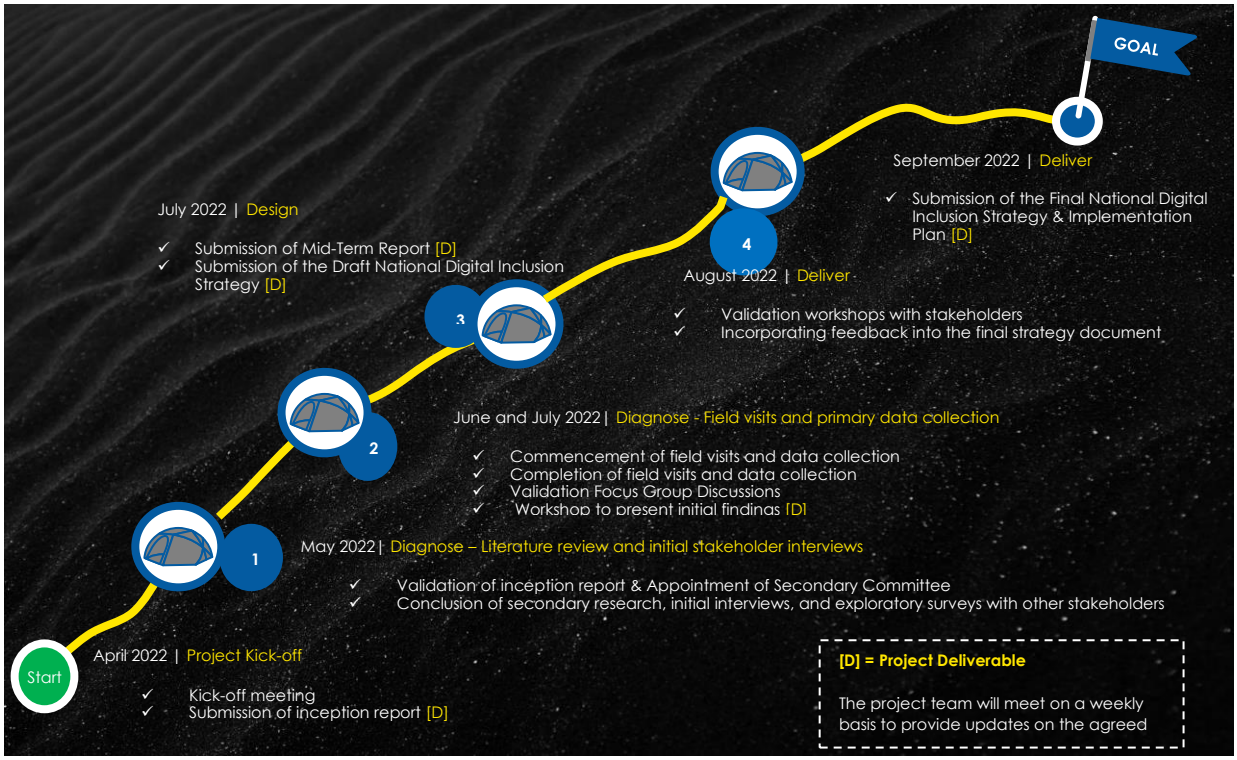


Figure 2: The Project Roadmap

The assessment of the current state of digital inclusion comprised of literature review, interviews with different stakeholders, facilitated focus group discussions, primary data collection from six (6) rural districts, and a current state validation workshop with representative stakeholder groups.

The strategy development process adopted a governance structure that ensured cross representation from different stakeholders throughout the strategy development process. A project steering committee was constituted and mandated to review the outcome of the assignment. The constitution was as illustrated below:

Steering Committee members	
From the Contracting Authority (CA) side	**From the Contractor's side**
1. Rwanda Information and communication Society Agency-RISA (Chair) 2. Ministry of ICT and Innovation 3. Ministry of Local Government 4. The National Council of Persons with Disabilities (NCPD) 5. Ministry of Gender and Family Promotion (MIGEPROF) 6. GIZ Representatives 7. The Civil Society (NUDOR) 8. The National Bank of Rwanda (BNR) 9. The Ministry of Education **Project Management Unit:** • Project Co-ordinator from RISA and GIZ an escalating authority	1. Team Leader 2. Expert 1 3. Expert 2 **Project Management Unit:** • Project Co-ordinator and an escalating authority

Table 3: The Project Steering Committee

The Rwanda Information Society Authority (RISA) led the co-ordination of the assignment and the project stakeholders. More than four hundred and fifty (450) individuals were engaged throughout the assignment, all drawn from different stakeholder groups. These groups included but were not limited to: The public, District Executive Secretaries, representatives from government ministries and institutions, the private sector, the civil society, mobile network operators, the private sector federation and development partners.

Chapter 2

Rwanda's Current Digital Inclusion Landscape

2. Rwanda's Current Digital Inclusion Landscape

The assessment of the state of digital inclusion comprised of literature review that covered relevant policies and strategy documents, stakeholder validation sessions and a primary data collection exercise from six (6) rural districts. This chapter and constituent sections break down the findings and insights from the aforementioned:

2.1 The Policy Landscape

Rwanda has made commendable progress from a policy and strategy perspective to drive digital transformation. There are a raft of policies and strategies that speak directly to digital inclusion or the underlying drivers e.g., literacy and digital literacy, device penetration, network coverage, among others. The fundamental policies and strategies include:

Policy/ Strategy	Digital Inclusion Aspect Covered
The Smart Rwanda Master Plan (2015 -2020)	Overall framework and definition of a private sector involvement framework including transforming non-ICT businesses with technology
7 Years Government Programme: National Strategy for Transformation (NST1)	Calls out cross cutting pillars for all sectors which include disability and social Inclusion, gender, and family protection in addition to the economic and social transformation pillars
The ICT in Education Policy (2016)	Mainstreaming ICT in education for all
Education Sector Strategic Plan (2018/19 to 2023/24)	Push for equity in access to quality education across gender, geographical location, economic status and disability status and strengthen ICT across all levels of education
The National Digital Talent Policy (2017)	Bridging the digital literacy gap using the digital ambassadors' programme among others
ICT Sector Strategy (PSDYES) 2018-2024	Consolidation of policy interventions from the digital literacy programmes and interventions to drive access and affordability of digital solutions across the country.
The Revised National Gender Policy (2021)	Gender mainstreaming in the private sector, ICT access and usage for women, boys, and girls and bridging the gender divide/gap in ICT
National Policy of Persons with Disabilities and Four Years Strategic Plan (2021-2024)	Mainstreaming of digital disability needs and call for digital disability promotion strategy
RURA Strategic Plan for 2022-2027	Accessibility of ICT and enabler technologies e.g., energy
Rwanda Payment System Strategy (2018-2024)	Strategy to enhance access to and inclusion in the national payment system: Ensure a fair and non-discriminatory access to payment infrastructure
Private Sector Development and Youth Employment Strategy	Calls out the importance of youth, women and private sector involvement in Rwanda's digital transformation journey

National Cyber Security Policy	Builds cyber security capabilities for detection, prevention and response to cyber security incidents and threats; Establishes an institutional framework to foster cyber-security governance and co-ordination
National Older Persons Policy	Developed with the ultimate goal of securing an environment in which older persons are ensured with full dignity, guaranteed to reach their rights to health, secured lives and responsibilities
Rwanda Fintech Strategy (2022-2027)	Developed to support the fintech ecosystem in the country, to maximise the potential that fintech holds for economic growth and socio-economic transformation, financial inclusion and to mitigate its potential risk
National Child Online Protection Policy and The Law N° 71/2018 of 31/08/2018 relating to the protection of the child	Provision of a framework to promote the safety of children when interacting with digital technologies
National Broadband Policy	Ensuring the transformation of Rwanda into an Information society driven by universal access to high speed, reliable, affordable and secure broadband infrastructure and services

Table 4: Fundamental Strategies & Policies driving digital inclusion

Synthesis of the findings from the review of the policy landscape resulted in the following Strength, Weaknesses, Opportunities and Threats (SWOT) analysis:

Strengths	**Weaknesses**
1. Disability and Social Inclusion as a cross cutting theme 2. Deliberate projects and policies to support traditionally excluded groups (Women, Elderly, Youth, PwDs) 3. Ongoing programmes to drive digital literacy, smartphone penetration and ICT mainstreaming in the education sector. 4. Investments to reap ICT related demographic dividends from the youth. 5. Presence of institutions/ bodies to uphold online/ digital safety for all. 6. Presence of a general framework of private sector involvement in the digital transformation journey. 7. Strong presence of women in political leadership roles and progress in gender mainstreaming in the public sector.	1. Lag in implementation of initiatives/ policies that would result in digital inclusion due to: a. Budgetary constraints b. Multiplicity of initiatives posing a prioritisation challenge and the risk of change saturation 2. Scarcity of comprehensive and publicly available M&E reports/ data. 3. Inadequate gender disaggregated data in ICT. 4. Inadequate understanding on the case for digital transformation/ and inclusion by multiple stakeholders. 5. Lack of an overarching policy on digital inclusion.

Opportunities	Threats
1. Streamlining initiatives across different players to achieve desired synergies given resource constraints 2. Incorporating co-regulation and self-regulation design principles as a way of accelerating digital inclusion. 3. Tapping into the teaching workforce, community-based organisations, leaders in the civil society and an empowered younger section of the population (over 15 years in schools) to be digital ambassadors/ champions. 4. Defining policies for mobile, audio-visual and web accessibility for persons with disabilities. 5. Exploit the impact of the agriculture, trade, education, tourism and health sectors to improve the perception of value towards digital transformation by the general public and digitally excluded groups.	1. Presence of priority initiatives that create budgetary constraints to implementation of initiatives. 2. External socio- economic and geo-political shocks that disrupt normal economic operations and disposable incomes. 3. Natural resistance to change by the population that is comfortable with the status quo.

The study further mapped out the institutional landscape contributing to digital inclusion in Rwanda as below:

2.2 The Institutional Landscape

The government, through the Ministry of ICT and Innovation and partner stakeholders, acknowledges the cross-cutting nature of digital inclusion. The institutions appreciate that digital infrastructure, digital skills, digital platforms, digital financial services, and digital entrepreneurship are the foundational pillars of the digital economy in Rwanda. There, therefore, exists a digital inclusion council whose objective and goals are as illustrated below.

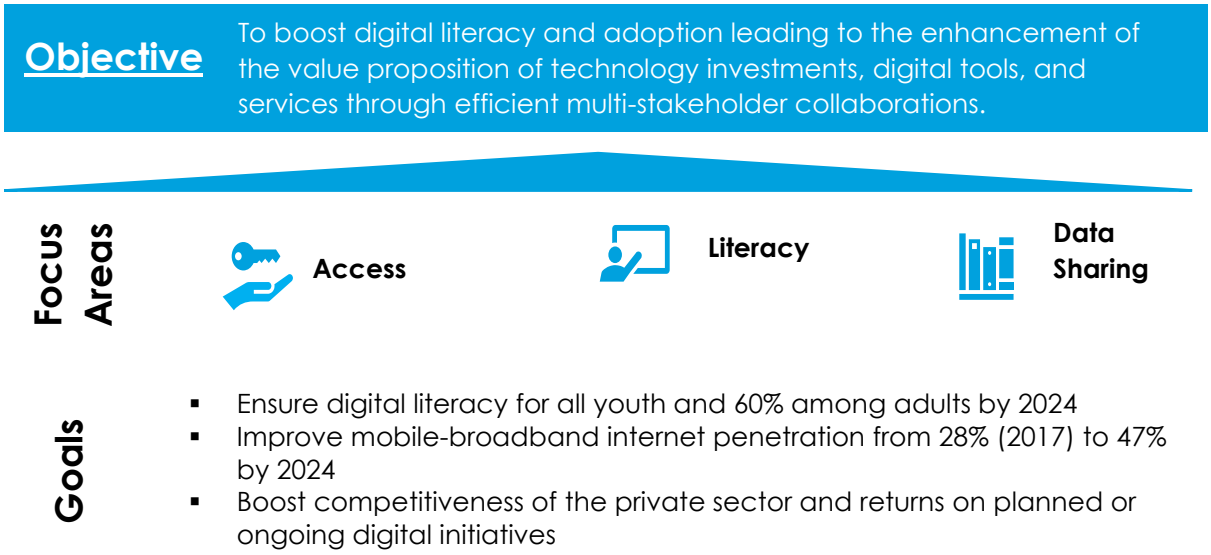


Figure 3: Objectives and Goals of the National Digital Inclusion Council

Six principles govern the council:

Global context:

The Council will leverage best practices in the global digital ecosystem to ensure the sustainability of its initiatives and contribute to enabling a future-proof Rwandan economy considering technological changes

Innovative think & do tank:

The Council will be a platform for several industry players to co-create innovative and actionable digitally enabled interventions that are context-appropriate, development-oriented, and scalable

Systemic thinking:

The Digital Inclusion Council initiatives would be integrated with other existing initiatives to stimulate effective public-private responses to complex challenges affecting various sectors

Open dialogue and data sharing:

Willingness of stakeholders to collaborate and share data and experiences will be essential to have a successful co-creation exercise and to lower barriers to entry for new digital solutions

Ecosystem approach:

Successful interventions require engagement on the part of the public sector, private sector, academia, and civil society

Sector-agnostic company engagement:

Active participation of all types of companies is essential for continued design of citizen-centric digital solutions and services and digitization of non-tech companies for better service delivery

Figure 4: Digital Inclusion Council Governing Principles

The Digital Inclusion Council is anchored within the Ministry of ICT and Innovation and consists of a secretariat, an advisory board, and working groups as demonstrated below:

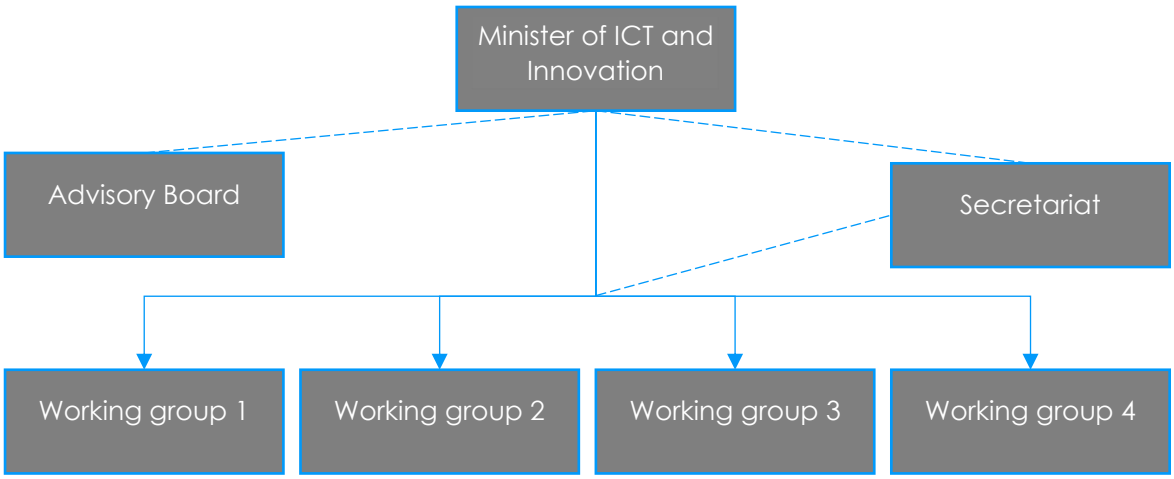


Figure 5: Governance structure of the National Digital Inclusion Council

The Secretariat is responsible for managing and co-ordinating activities of all working groups. Working groups are responsible for identifying interventions and executing activities for focus areas. Organisations can be part of several working groups depending on their mandate.

2.3The Private Sector and Not-For Profit Perspective

The private sector and not- for profit organisations in Rwanda play a significant role in the digital transformation of the country. In the current digital era, investment by the private sector is critical in driving digital transformation in an economy through innovation and technology advancement. The smart Rwanda Masterplan acknowledged that the private sector needs to be a driver of digital transformation in Rwanda. However, stakeholder insights reveal that whereas some sectors have embraced digital transformation, a sizeable section of the private sector lags in the transformation journey compared to the strides made by the government and government institutions.

There were recurrent calls to encourage and reinforce measures that would steer digital entrepreneurship, digital platforms, process digitalisation and automation for the private sector. This included calls to encourage competition across different business segments.

The section below highlights some notable statistics and progress from a private sector perspective on digital inclusion as at the date of the current state assessment reporting.

Mobile Network Operators (MNOs)	• There are two MNOs operating in Rwanda: MTN Rwanda Ltd with 65.1% market share and Airtel Rwanda Ltd with 34.9% market share. • According to RURA, the total number of active mobile-cellular telephone subscriptions in Rwanda at the end of March 2022 was 10,644,981 (82.2% of the total population). There were 7,838,633 (60.4% penetration) active SIM cards subscribed to the internet and 34,501 (0.3% penetration) active fixed internet subscriptions during the first quarter of year 2022. • The penetration rate for GPRS and Edge was 45.2%, 3G was 13.4% and 4G was 1.6% (despite 96% coverage of 4G network) • The number of fibre-to-the-home (FTTH) subscriptions reached 31,013 with Liquid Technologies continually expanding its FTTH services across Kigali and other towns. • The standard tariff for mobile internet per MB was at 10 RwF on MTN Rwanda Ltd and 5 RwF on Airtel Rwanda Ltd networks. According to 2021 data from the alliance for affordable internet, Rwanda has the lowest cost of broadband data per 100 MB in East Africa.
E-Commerce platforms	• Online vs offline sales channels for businesses in Rwanda stood at 4.1% vs 95.9%, with just 2.3million e-commerce users. • E- Commerce main actors in Rwanda are mostly made of small and medium enterprises such as Kasha, DMM. Hehe, Vuba, Yego cabs, Grocewheels, among others. • Many MSMEs have not yet taken the full advantage of e-commerce opportunities because of challenges such as gaps in technical knowledge to run the platforms, limited access to patient capital, sub-optimal logistics infrastructure, the digital divide especially outside urban areas, cultural preference for in person purchases and limited purchasing power of the population. • Mobile Payment is the most attractive method of payment. However, the method of payment has not been fully taken up by vendors with observed preference for cash payments. • A study inferred that the value proposition for digital enterprises was not fully appreciated by the players in the space.

Digital device manufacturers, vendors and donors	• The mobile vendor market share in Rwanda is composed of Samsung- 26.19%, Tecno- 25.69%, Apple- 20.87%, Infinix- 9.45% and Huawei- 1.87% • Mara group, speaking to the country's ambitions to become a regional technology hub, in 2019, became the first smartphone manufacturing company in Africa by releasing two models that operate on Google's android operating system. The Mara X and Mara Z models cost 175,750 RwF ($190) and 120,250 RwF ($130) respectively. In comparison, Samsung's cheapest smartphone costs 50,000 RwF ($54). • In general, assistive technologies for PwDs are unaffordable by most people. For instance, the Orbit reader costs approximately USD 700. Rwanda Assistive Technology Access (RATA) is an NGO founded in 2018 to help PwDs access ICTs using assistive technologies such as Android Talkback, Window Narrator and Rob Braille. • In 2021, UNDP, Rwanda Union of the Blind (RUB) and Beno Holdings launched a Smart White Cane locally developed in Rwanda that would increase the mobility independence of the visually impaired.

2.4 The Indicative State of Digital Inclusion in Rwanda

Having appreciated the policy, strategy and institution frameworks on National Digital Inclusion, a study of Rwanda's performance and how Rwanda compares to other countries in the world was done.

The study acknowledged that digital inclusion is considered an abstract concept, and as such, is difficult to quantify or measure. For instance, it cannot be focused on a binary concept of the digital divide of 'being connected' or 'offline' since there also exists the category of 'limited users' (users who face data poverty, limited access to shared devices, and those who rely on others to perform digital tasks on their behalf). Another challenge is the lack of sufficient disaggregated data on factors such gender, age, income, and educational level which would not lead to an accurate representation of the digital divide.

For these reasons, various indices with different parameters have been globally adapted to show the country's rankings in digital inclusion. Below is a highlight of these indices:

Index Name	Key Measurement Parameters	Rwanda's ranking
The inclusive internet index by the Economist and Intelligence Unit Source: Overall rankings - The Inclusive Internet Index (eiu.com)	▪ Availability, Affordability, Relevance and Readiness categories.	83rd out of 100
Technological readiness (a pillar of the global competitive index) Source: Global Competitiveness Index 2017-2018 - Reports - World Economic Forum (weforum.org)	▪ Availability of latest technologies, firm-level technology absorption, foreign direct investment (FDI) and tech transfer, individuals using the Internet, fixed broadband Internet subscriptions, international Internet bandwidth, and mobile broadband subscriptions.	101st out of 137

Index Name	Key Measurement Parameters	Rwanda's ranking
Countrywide Participation in e-commerce. UNCTAD Business to consumer B2C E- commerce index2020 Source: THE UNCTAD B2C E-COMMERCE INDEX 2020, Spotlight on Latin America and the Caribbean	▪ Account ownership at a financial institution or with a mobile-money-service provider (% of population ages 15+) (Source: World Bank) ▪ Individuals using the Internet (% of population) (Source: International Telecommunication Union, ITU) ▪ Postal Reliability Index (Source: Universal Postal Union, UPU) ▪ Secure Internet servers (per 1 million people) (Source: Netcraftretrieved from World Bank)	124th out of 152
UN E-Government Development Index (EGDI) Source: EGOVKB | United Nations > Data > Country Information	▪ EGDI is used to measure the willingness and capacity of national administrations to use information and communication technologies to deliver public services.	130th out of 193
E-Participation Index Source: EGOVKB | United Nations > Data > Country Information	▪ Quality, relevance, and usefulness of government websites in providing online information and participatory tools and services to their citizens.	82nd out of 193

Table 5: Rwanda's Ranking in Global Indices

The current state assessment further sought for other indicators that would refer to the six (6) composite features of digital inclusion. These indicators have been called out as part of the baseline in the monitoring and evaluation framework and national digital inclusion scale.

To get an illustrative state of digital inclusion levels in rural Rwanda, a primary data collection exercise was commissioned whose findings are spelt out in the appendix 7.2.

Based on the data from primary and secondary sources, the national digital inclusion strategy therefore seeks to prioritise:

1. **Improving affordability of digital devices and data** for traditionally digitally excluded groups,
2. **Raising the awareness, knowledge and understanding of the value** of digital technologies in transforming livelihoods,
3. **Strengthening the ability** to use ICTs/ digital technologies,
4. Improving **the proximity and usability** of digital technologies,
5. **Improving safety and security** of the public and vulnerable groups related to access and use of digital technologies, and
6. Creating **an enabling environment** that encourages institutional capacity for digital inclusion and participation.

The current state assessment reflected that digital inclusion further constitutes a change of behaviour and culture. This is a journey that takes time. The strategy therefore also seeks to provide a framework that guides this transition.

Chapter 3

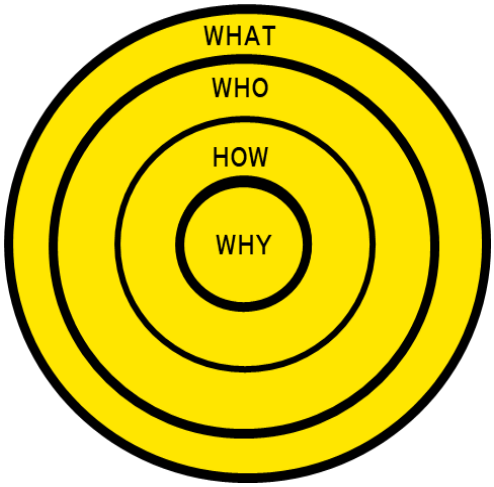
The Digital Inclusion Transformation Blueprint

3. The Digital Inclusion Transformation Blueprint

3.1 The Digital Inclusion Strategy Development Framework

The national digital inclusion strategy is designed to provide answers to the following:

1. Why do we need to pursue Digital Inclusion in Rwanda?
2. Why is digital inclusion important to?
   a. Women
   b. People With Disabilities
   c. Elderly
   d. Rural population
3. How do we include everyone?
4. What initiatives must we carry out to digitally include all individuals and sectors?
5. How will we track progress in the digital inclusion journey?



At the core of the development of the national digital inclusion strategy is **the Case for Change/** the 'WHY digital inclusion' and why it is important to the following groups that are traditionally digitally excluded:

Women and the digital gender gap

While digital divide speaks to the binary division of people into the connected and unconnected largely as a result of inequalities of technological access and use, the digital gender gap is more human centred. The gender aspect speaks to a gap in:

i. Digital skills and use of digital tools
ii. Participation in science, technology, engineering, and math (STEM) fields
iii. Technology sector leadership and entrepreneurship

According to GSMA, sub-Saharan Africa had the most significant digital gender gap in 2020, standing at 37%. Why then are women and girls being excluded from the digital world?

a) Affordability: the cost of digital connectivity, both in terms of smartphone unaffordability and high data tariffs, keeps African women offline. This is made worse with the already existing gender pay gaps.
b) Security: In general, and more particularly in Sub Saharan Africa, women have higher fears around online privacy and safety than men. According to an A4AI report focused on Sub Saharan African countries, women noted on the fear of being manipulated or targeted because of what they posted on social media – the internet being noted as an unsafe place for women and girls.
c) Educational gaps: Sub-Saharan Africa has the lowest level of adult female literacy (57 percent)[13], and this gap replicates itself into the digital world. As women have lower mean years of schooling, they, as a result, are exposed to lower levels of digital skill-building in an educational context. In essence, educational disadvantages against young girls develop into digital divides for adult women.

[13] Rwanda: The Digital Divide is Real and Sexist. Retrieved from https://allafrica.com/stories/202201040006.html

People with Disabilities

Across Africa, people with disabilities are facing a different kind of isolation – digital exclusion. As other members of the society continue to engage with digital applications, solutions and technologies, PwDs often face exclusion depending on their specific disability/health condition.

Common barriers faced by PwDs:

a) Low levels of ICT skills
b) High illiteracy levels
c) Poverty
d) High cost of assistive technologies
e) Digital inaccessibility of websites and mobile applications
f) Limited clarity on actions being taken by governments and the private sector to address the digital divide

Following multiple studies and discussions centred on digital inclusion for people with disabilities, the following were key take-aways to address the challenges faced by PwDs:

i. Increased domestic funding by governments for digital innovations that support people with disabilities.
ii. Increased awareness campaigns to sensitize PwDs on initiatives tailored to them
iii. Increased vigilance in enforcing implementation of national disability laws, codes of practice, consumer rights regulations, and ICT and disability policies.
iv. Increased vigilance in monitoring compliance to avoid empty claims when in reality, digital products and services are still inaccessible.

The Elderly

Digital inclusion is more than just being able to get online; it's also about having the confidence to learn new digital skills. As much as we shy from it, we are an aging society and digital inclusion needs to be a priority for older people.

The following are some of the main reasons why the elderly have lower levels of digital participation as opposed to their younger counterparts:

a) Fear and anxiety of using digital technology and services – technological developments have become more rapid in recent years, and with the pandemic, have increasingly become more of a 'need' than a 'want'. As a result, many elderly people find it difficult to keep up with the changes, made worse with the lack of societal support. As a result, they opt to maintain their non-digital routines.
b) Health barriers: older people are more likely to suffer from disabilities which would prevent or limit access to ICTs. As people grow older, their risk of developing health complications increases. Prevention and management of health conditions is important for ensuring digital inclusion for older adults. Vision impairment, hearing impairment and cognitive impairment are some common health conditions which can impede the use of digital devices or services among older adults.
c) Lack of interest: many elderly people bear a negative attitude towards digitalisation, unclear of its benefits to their age group. There is a perception that they are "too old" for new technologies.
d) Ageism: Ageism limits how society perceives the elderly and ICT e.g., older people do not know about new technologies/older people cannot learn new innovations. This perception translates to digital solutions that do not take into account the specific needs of the elderly.
e) Linguistic challenges: Elderly people are continuously marginalised by digital service providers that only develop content in a singular language e.g., English as opposed to their native languages. Similarly, the increasing rise of new technological terms without sensitisation further discourages the elderly from digital participation.

Rural population

Africa's biggest digital divide lies in its rural areas. The focus on urbanisation has led to rural communities being systemically digitally excluded in the digital journey.

a) As digital innovations and services continue to be concentrated in urban areas, more and more people migrate away from rural areas further increasing the digital skills gap.
b) Many businesses focus on setting up in urban areas as opposed to rural areas, further decelerating the modernisation of infrastructure in rural communities. Consequently, the lack of modern digital infrastructure limits the digital development in these areas – unable to keep up with new and evolving digital use cases.

Some of the ways in which rural communities can be digitally included are:

i. Rural communities need access to affordable internet and digital technologies to be able to equitably participate in the digital world in a cost-effective way.
ii. As digital innovations and services are developed, they need to be equitably launched and supported in rural areas as much as in urban areas.
iii. Expanding digital education programmes to rural schools so that rural youth have equal footing with regard to digital skills and exposure.

The Case for Change – Benefits of Digital Inclusion to Excluded Groups	
Digitally excluded group	Benefits of having them digitally included
Women	▪ Digital inclusion supports women's economic empowerment through: o Access to income and assets through access to business and employment opportunities. o Power to make decisions through access to information and communication technologies thereby increasing their self-esteem and confidence. ▪ Digital inclusion improves the quality of education through e-learning platforms and digital innovation programmes.
PwDs	▪ Digital inclusion helps people with disabilities to live independent lives and access basic services. ▪ Digital inclusion allows people with disabilities to reap the benefits of using smartphones as an alternative assistive technology that is more accessible and affordable through accessibility applications as opposed to expensive assistive hardware devices. ▪ Digital inclusion allows people with disabilities to access remote jobs, greatly increasing their employability.
The elderly	▪ With a variety of options to communicate digitally, the elderly can maintain relationships and share experiences, helping them feel connected to their community- they would be socially included. ▪ Using digital devices, the elderly obtain health and well-being information as well as attend virtual doctor visits (telemedicine) ▪ Improved brain health- with access to learning materials, the elderly are able to reskill, upskill or just learn about areas of interest to them. ▪ Digital inclusion provides an avenue for leisure and entertainment for the elderly who are physically inactive. ▪ The elderly are able to access shopping, banking and government services hence reducing their dependence on digitally abled individuals easily and quickly.
Rural population	▪ Digital inclusion provides alternative or additional sources of income to the main economic activity of the rural population (agriculture) and reduce the rate of poverty. ▪ Improved digital connectivity allows rural businesses to function more competitively with their urban counterparts, reach wider markets,

	collaborate with remote colleagues and stay informed of developments in their sectors. ▪ Digital inclusion enables remote academic learning for the rural population and provides an information repository to improve sectors of their life such as agriculture, mining. ▪ Global connectivity – digital inclusion enables rural communities to be part of the "global village" – connecting them to the global digital space.
The Case for Change – Overall Benefits to Rwanda	
1. Creates a stronger economy as a result of increased workforce participation in the digital economy and access to a global market. 2. Increases both local and foreign private sector investments due to the widespread instalment and uptake of modern technological infrastructure. 3. Creates a friendlier social, political and business environment that is driven by a diverse and inclusive national culture. 4. Positions Rwandan businesses competitively on the global market with ICT as a key business enabler. 5. Digital inclusion in rural communities reduces strain on urban resources as a result of reduced rural-urban migration. 6. Positions Rwanda as a digital leader both in Africa and the world at large, prime to becoming a globally recognized digital hub.	

Table 6: The Case for Change: Benefits of digital inclusion to the digitally excluded groups and Rwanda as a whole

The WHY FOR DIGITAL INCLUSION in Rwanda could, therefore, be summed as:

To ensure all Rwandans, businesses, and institutions have equitable access and ability to use or create digital technologies and/or content that enable them to create and support healthy, prosperous, and cohesive lives by 2030

3.2 The Digital Inclusion Theory of Change

Using globally accepted change management frameworks, the following theory of change was developed to drive digital inclusion in Rwanda. This would also serve as the high-level blueprint in the roll out and implementation of other digital/ ICT projects in the country as part of the journey to the achievement of Vision 2050.

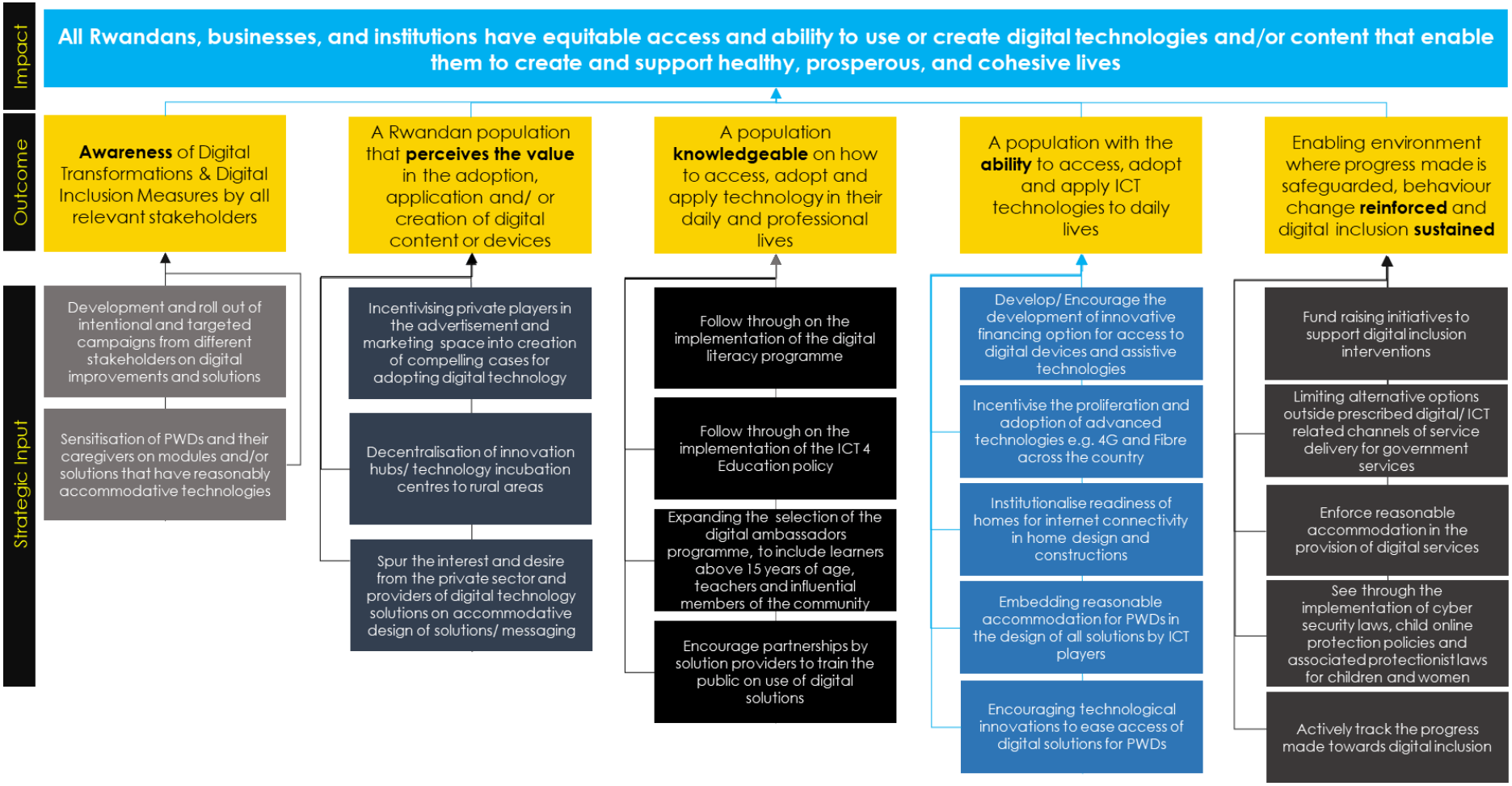


Figure 6: The Digital Inclusion Theory of Change

Chapter 4

The Implementation of the National Digital Inclusion Strategy

4. The Implementation of the National Digital Inclusion Strategy

The National Digital Inclusion Council will be responsible for driving and overseeing the implementation of the strategy. The following section breaks down the strategic input into activities and/or projects that would be executed to achieve the outcomes and the impact of the National Digital Inclusion Strategy:

4.1 The Implementation Log

Ref #	Strategic Input	#	Activity/ Initiatives/ Project	Lead	Key Partner Institution(s)	Timeline	Output
Outcome 1: Awareness of Digital Transformations & Digital Inclusion Measures by all relevant stakeholders							
S.I 1	Development and roll out of intentional and targeted campaigns from different stakeholders on digital improvements and solutions	Act. 1.1	Organise and roll out quarterly national wide media campaigns in partnership with MNOs and smartphone manufacturers and/or distributors communicating that "the future is now, and the future is internet"; and alongside the benefits, the potential risks to internet exposure and how to mitigate them	RISA	MNOs, Smartphones Manufacturers/ distributors, Academia, MINICT, Creatives and Content Creators, Broadcast Media, Financial institutions	2023/24	Nationwide awareness campaigns for products/ solutions conducted
		Act. 1.2	Engage the civil society, community-based organisations (CBOs) including self-help groups in rural areas and/or respectable members of the society with wide reach e.g., teachers, media personalities, medical personnel, youth, and women leaders from all economic sectors as well as community role models, as champions of different digital transformation and inclusion initiatives	MINALOC	MINICT, MIGEPROF, Sponsors of digital transformation initiatives	2023/24	Increased reach of awareness campaigns and visibility of the power of digital transformation

Ref #	Strategic Input	#	Activity/ Initiatives/ Project	Lead	Key Partner Institution(s)	Timeline	Output
S.I 2	Sensitisation of PWDs and their caregivers on modules and/or solutions that have reasonably accommodative technologies	Act. 2.1	Create a repository of "did you know" messaging on different technologies and/or programmes targeted to PwDs and their care givers and roll out biannual broadcast messages to PwDs in existing databases depending on the nature of disability	NCPD	RISA, RURA	2025/26	Increased awareness among PwDs and caregivers on available solutions
		Act. 2.2	Engage partners in the government and private sector e.g., MNOs, commercial banks, Irembo, BNR to include in their marketing campaigns information on how PwDs can access the services	NCPD	Irembo, RBA, BNR, MNOs, PSF	2025/26	Marketing campaigns on how PwDs can access digital services
Outcome 2: A Rwandan population that perceives the value in the adoption, application and/ or creation of digital content or technologies							
S.I 3	Incentivising private players in the advertisement and marketing space into creation of compelling cases/ demonstration of the benefits of adopting digital technology	Act. 3.1	Amplify/ sponsor awards for outstanding campaigns specifically targeting digital inclusion	MINICT	Broadcast Media, Content creators, All digital services providers	2025/26 To 2028/29	a) Increase in persuasive/ targeted media campaigns on digital solutions b) Improved perception towards digital services
		Act. 3.2	Sponsor/ co-facilitate talk shows on prime-time radio or TV to amplify the need for and benefits of adoption of digital technologies	MINICT	RBA	2023/24 To 2025/26	Increased airtime on the case for digital inclusion
S.I 4	Decentralisation of innovation hubs/ technology	Act. 4.1	Leverage existing and planned infrastructure at incubation & innovation centres across secondary	RISA	MINICT, RDB, Academia (institutions of higher	2022/23 To 2025/26	Satellite incubation centres in all secondary cities

Ref #	Strategic Input	#	Activity/ Initiatives/ Project	Lead	Key Partner Institution(s)	Timeline	Output
	incubation centres to rural areas		cities to counter the perception that digital transformation is a preserve of the capital city.		learning including those with centres of excellence on technology)		
		Act. 4.2	Co-ordinate existing training initiatives and develop new rotational masterclasses/ sessions targeting developers and/or MSMEs across different sectors interested in digital technologies as a co-offering or as an enabler to business operations	ICT Chamber	RISA, Digital Service Providers, Partner government ministries/ institutions, Academia (institutions of higher learning including those with centres of excellence on technology)	2025/26 To 2027/28 (Ongoing/ started done by separate institutions)	Training and capacity building of users and creators of digital technologies
S.I 5	Spur the interest and desire from the private sector and providers of digital technology solutions on accommodative design of solutions/ messaging.	Act. 5.1	Definition of a compelling case for disability digital inclusion to providers of digital technology solutions	NCPD	RURA	2023/24	Increased affinity for disability inclusive ICT solutions and digitally inclusive workplaces
		Act. 5.2	Develop rebate/ exemption requests for expenses incurred in creating accessible versions of digital solutions/ conversion of existing solutions to accessible formats	MINICT	NCPD, RURA, BNR, PSF	2023/24	Reduced end cost for creation of content/ digital solutions in accessible format
	Outcome 3: A population knowledgeable on how to access, adopt and apply technology in their daily and professional lives						

Ref #	Strategic Input	#	Activity/ Initiatives/ Project	Lead	Key Partner Institution(s)	Timeline	Output
S.I 6	Follow through on the implementation of the digital literacy policy/ programme (for populations out of the traditional education system)	Act. 6.1	Include, as part of the adult literacy programmes and the civic education (Iterero) programme, modules on use and benefits of using digital technologies and how to stay safe online, co-facilitated by digital ambassadors.	MINALOC, RISA	RISA, Districts, Civil Society, Development Partners and faith-based organisations	2023/24 To 2025/26	Full implementation of the digital literacy policy/ programme
		Act. 6.2	Train adult education instructors to disseminate basic literacy training as part of their curriculum	MINALOC, RISA	RISA, Districts, Civil Society, Development Partners and faith-based organisations	2023/24 To 2025/26	Full implementation of the digital literacy policy/ programme
		Act. 6.3	Design a digital literacy programme for the elderly with a focus on digital communication, e-commerce and digital financial inclusion	MINICT	MIGEPROF, BNR, MINALOC, RBA, Content creators	2023/24 To 2025/26	Digital inclusion for the elderly
		Act. 6.4	Review the digital literacy training material to focus on mobile, given the mobile-first nature of digital access to many	RISA	RURA, MINICT	2023/24	Training material relevant to the mobile-first nature of access to digital technology
		Act. 6.5	Use a comprehensive framework with competency areas and proficiency levels to identify the skills involved in selected use cases, to map digital skills gaps, set digital skills training targets and measure progress	RISA	RURA, Academia	2023/24 To 2025/26	A published digital skills competency and proficiency framework

Ref #	Strategic Input	#	Activity/ Initiatives/ Project	Lead	Key Partner Institution(s)	Timeline	Output
S.I 7	Follow through on the implementation of the ICT 4 Education policy and the Education Sector Strategy (for the school going ages)	Act. 7.1	Follow through on the implementation of the ICT 4 Education policy and the Education Sector Strategy (for the school going ages)	MINEDUC	Academia, MINICT	2022/23 To 2028/29	Equitable access to ICT Technologies by all learners
S.I 8	Expanding the selection of the digital ambassadors' programme to include learners above 15 years of age, teachers and influential members of the community from social standpoints	Act. 8.1	Enrol teachers (trained on the ICT pedagogy) as digital ambassadors	RISA	MINEDUC	2023/24	Expanded Digital Ambassadors reach and expedited knowledge transfer
		Act. 8.2	Work with youth movements or relevant school programmes to enrol students as digital ambassadors	RISA	MINEDUC	2024/25	Expanded Digital Ambassadors reach and expedited knowledge transfer
		Act. 8.3	Enrol select religious leaders (priests and Imams) or leaders of the civil society as digital ambassadors	RISA	MINALOC, Civil Society	2023/24	Expanded Digital Ambassadors reach and expedited knowledge transfer
S.I 9	Encourage partnerships by solution providers to train the public on use of digital solutions	Act. 9.1	Organise and roll out co-funded/ subsidised mobile exhibitions by stakeholders in the digital space	MINICT	PSF, All digital providers, Smartphone manufacturers/distributors	2022/23 To 2028/29	Increased knowledge transfer campaigns by stakeholders in the ICT sector
		Act. 9.2	Offer subsidised or free spaces/ facilities to the private sector for conducting training sessions on digital solutions across the districts	MINALOC	MINICT	2022/23 To 2028/29	Easy to access training facilities for the private sector

Ref #	Strategic Input	#	Activity/ Initiatives/ Project	Lead	Key Partner Institution(s)	Timeline	Output
	Outcome 4: Rwandans with the Ability to access, adopt and apply ICT technologies to daily lives						
S.I 10	Develop/ Encourage the development of innovative financing options for access to digital devices and assistive technologies	Act. 10.1	Full Implementation of the ongoing digital acceleration project funded by World Bank	RISA	PSF, RURA, NIDA, World bank, NCSA	2022/23 To 2026/27	Increased ICT devices ownership and digital content access
		Act. 10.2	Revamp the Connect Rwanda Challenge project ingraining some form of commitment from beneficiaries	MINICT	MNOs, PSF, Civil Society, RURA	2023/24	Revamped connect Rwanda programme
		Act. 10.3	Encourage local hosting through differential pricing for digital contents hosted locally	MINICT	PSF, Civil Society, RURA	2023/20 24	More affordable local content
		Act. 10.4	Design and roll out a financing product for digital device ownership for boutiques/ MSMEs making use of mobile money or banking services	MNOs, Commerci al Banks, Saccos	MINICT, Development Partners	2023/24	Financing product to access digital devices for MSMEs
		Act. 10.5	Facilitate partnerships across industry players e.g. MNOs and digital device vendors to provide device and data subsidies/ concessions to targeted and digitally excluded groups (women, elderly, PwDs and the rural population)	MINICT	MNOs, Digital device vendors	2022/23 To 2028/29	More affordable digital devices and data
S.I 11	Incentivise the proliferation of advanced technologies e.g., 4G. Fibre, Fintechs, telehealth across the country	Act. 11.1	Encourage competition in internet service provision and last mile connection	RURA	PSF, RDB	2024/25 To 2025/26	Increased competition in internet service provision and last mile connection
		Act. 11.2	Review the list of tax-exempt ICT infrastructure equipment to connect homes to fibre networks	MINICT	RRA, RURA	2024/25 To 2026/27	Tax free last mile connection fibre infrastructure

Ref #	Strategic Input	#	Activity/ Initiatives/ Project	Lead	Key Partner Institution(s)	Timeline	Output
		Act. 11.3	Full implementation of the Rwanda Payment Systems Strategy (2018-2024) and the Rwanda Fintech Strategy (2022-2027)	MINECOFIN	BNR, MINICT, RURA, CMA, RFL, RBA, ASSAR, AMIR, Fintech Association	2022/2023 To 2026/27	Improved digital financial inclusion
		Act. 11.4	Improve access to electricity, including through off-grid energy solutions and smart metering technologies.	RURA	MINALOC, Private sector players in the renewable energy field	2022/23 To 2028/29	Improved access to electricity for the underserved populations
S.I 12	Institutionalise readiness of homes for internet connectivity in home design and constructions	Act. 12.1	Define standards and/or guidelines in making homes internet ready and embed them as part of the construction approval requirements	RURA	Professional bodies in the construction space, Academia, RDB, RISA, Rwanda Housing Authority (RHA), City of Kigali (COK)	2023/24	Mainstreaming ICT in construction designs
S.I 13	Embedding reasonable accommodation for PWDs in the design of all solutions by ICT players	Act. 13.1	Draft policies & guidelines for mobile, audio-visual and web accessibility for persons with disabilities including minimum guidelines on reasonable accommodation for all ICT/ digital technologies and platforms, and co-regulation framework	RURA	NCPD, PSF, BNR, Irembo, RISA, NCST	2022/23 To 2028/29	Defined parameters of reasonable accommodation for ICT& digital service providers
		Act. 13.2	Draft guidelines for web accessibility for government institutions	RISA	All government institutions, NCPD	2022/23	Defined parameters of reasonable accommodation for ICT& digital service providers

Ref #	Strategic Input	#	Activity/ Initiatives/ Project	Lead	Key Partner Institution(s)	Timeline	Output
		Act. 13.3	Institute a co-regulation mechanism by sector players to ensure reasonable accommodation in design of solutions	PSF- ICT Chamber	NCPD, Associations of various industry players e.g., RBA	2023/24	Empowered PwDs
S.I 14	Encouraging technological innovations to ease access of digital solutions for PwDs	Act. 14.1	Host, as part of existing technology innovation competitions or new initiatives, a segment on innovations to ease access to technology for PwDs with attractive rewards and incentives	MINICT	Development Partners. PSF, NCPD, Academia, RISA, MYCULTURE	2023/24 To 2028/29	Increased count of innovations to boost accessibility for PwDs
		Act. 14.2	Creating a pool of experts (through TVETs or other institutions of higher learning) to support in transformation of or new technologies/ interfaces into a state of reasonable accommodation	MINEDUC	Academia, MINICT, RURA, RISA, NCPD	2022/23 To 2028/29	Increased number of people with skills to develop inclusive interface and content
		Act. 14.3	Training ICT personnel & developers from different institutions (public and private) to develop web applications and infrastructure that are compliant with the accessibility standards	RISA (Public Sector), RURA (Private sector)	Academia, MINICT, PSF, NCPD	2023/24	Increased number of people with skills to develop inclusive interface and content
		Act. 14.4	Partner with neighbouring countries and/or countries that produce assistive technologies across the world to co-produce/ refurbish assistive technologies at affordable pricing	MINICT	Foreign affairs ministry, Development partners	2025/26 To 2028/29	Cheaper assistive devices
		Act. 14.5	Exempt assistive technologies from all taxes	RURA	RRA	In place	Tax exempt assistive devices
	Outcome 5: Enabling environment where progress made is safeguarded, behaviour change reinforced and digital inclusion sustained						

Ref #	Strategic Input	#	Activity/ Initiatives/ Project	Lead	Key Partner Institution(s)	Timeline	Output
S.I 15	Fund raising initiatives to support digital inclusion interventions	Act. 15.1	Develop fund raising proposals and/or appeals to finance digital inclusion interventions	MINICT	NCPD, RISA	2022/23 To 2028/29	Timely implementation of relevant policy initiatives
S.I 16	Limiting alternative options outside prescribed digital/ ICT related channels of service delivery for government services	Act. 16.1	Acceleration of the digitalisation of public services and processes as defined in the 2018-2024 ICT Sector Strategy and respective sector plans	MINICT	RISA, Host government Ministries	2022/23 To 2026/27	Increased number of services across different sectors available online
S.I 17	Enforce reasonable accommodation in the provision of digital services	Act. 17.1	Define a grace period for digital service providers to be compliant with defined policies and guidelines	RURA	PSF, digital service providers, MINICT	2022/23	Increased number of digital service providers compliant with reasonable accommodation standards
		Act. 17.2	Monitor compliance with the policies and guidelines and work with the players to mitigate any shortfalls	RURA	MINICT	2026/27	Reduction in non-compliant digital service providers
		Act. 17.3	Ensure inclusive and transparent registration processes for mobile and digital services.	RURA	MINICT	2022/23 To 2028/29	Inclusive and transparent registration processes mobile and digital services
		Act. 17.4	Review the usability and accessibility of e-government/ public service content and services to cater for individuals with limited literacy, language and ICT-related skills and	MINICT	All implementors of government digital technologies	2023/24 To 2026/27	Public service content and services that cater for individuals with limited literacy

Ref #	Strategic Input	#	Activity/ Initiatives/ Project	Lead	Key Partner Institution(s)	Timeline	Output
			confidence. For example, allowing for an interactive voice response (IVR) help line, use of simple terminology, local languages, icons/symbols/pictures/videos and comic-style stories in addition to (or instead of) text.				
		Act. 17.5	Include women and PwDs with lower literacy levels in pilot projects and user testing of e-government services.	MINICT	All implementors of government digital technologies	2023/24 To 2026/27	E-government services that can be accessed by women and PwDs
S.I 18	See through the implementation of cyber security laws, child online protection policies and associated protectionist laws for children and women	Act. 18.1	See through the implementation of cyber security laws, child online protection policies and associated protectionist laws for children and women	National Cyber Security Authority	MINALOC, Rwanda National Police, RURA, MINEDUC	2022/23 To 2028/29	Safer digital environment for children and the entire adult population
		Act. 18.2	Review and update the laws on prevention and punishment of gender-based violence to cover online violations of women's rights and safety	National Cyber Security Authority	MIGEPROF, MINALOC	2022/23 To 2028/29	A safer digital environment for women
		Act. 18.3	Implement effective strategies to tackle digital device theft and the trading of counterfeit devices.	Rwanda National Police	Rwanda Bureau of Standards, MINICT	2022/23 To 2028/29	Reduced digital device theft and counterfeit trading
S.I 19	Actively track the progress made towards digital inclusion	Act. 19.1	Roll out a National Digital Inclusion Survey once every two years	MINICT	RGB, MINALOC, RISA	2022/23 To 2028/29	Appreciation of the progress made in the digital inclusion journey
		Act. 19.2	Establish baselines for new KPIs in the Monitoring and Evaluation Framework	RISA	RGB, National Institute of Statistics of Rwanda	2022/23	Defined baselines to help measure progress in the

Ref #	Strategic Input	#	Activity/ Initiatives/ Project	Lead	Key Partner Institution(s)	Timeline	Output
							digital inclusion journey

Table 7: The Implementation Log

4.2 The Strategy Communication Plan

For the National Digital Inclusion Strategy to be successful, it needs to be properly socialised with all the stakeholders to ensure maximum buy-in. Below is the proposed communication plan for the strategy assuming approval by the cabinet. The plan is to be executed in two phases:

The Strategy Communication Plan				
Phase 1: Initial Communication (Year 1)				
Ref#	**Activity**	**Responsibility**	**Timeline**	**Outcome**
1.1	Official launch event for the strategy	MINICT	2023- January	• All relevant stakeholders in the implementation log are engaged and socialised on the strategy document's objectives and initiatives • Buy-in from all other relevant digital inclusion stakeholders in Rwanda
1.2	District to district caravans	MINICT	2023- February to April	• The public has ownership of the strategy and becomes an active stakeholder of digital inclusion
1.3	National broadcasts	MINICT	2023- January to April	• The public has continuous awareness and interest in digital inclusion, deepening the cultural transformation
1.4	Primetime interviews	MINICT	2023- January to December	• The media becomes an active stakeholder and communicator of digital inclusion initiatives
Phase 2: Continuous Communication (Year 2 – 7)				
Ref#	**Activity**	**Responsibility**	**Timeline**	**Outcome**
2.1	Sponsored events	MINICT in partnership with private-sector players	Quarterly, every year/aligned with project implementation milestones	• Ownership and buy-in from private sector players • Continuous sponsorship of the digital inclusion journey, highlighting key milestones and launch of localised initiatives
2.2	Quarterly prime time talk shows	MINICT in partnership with private-sector players	Quarterly, every year/aligned with project implementation milestones	• Preservation of the public's digital inclusion culture • The media is maintained as an active stakeholder and communicator of digital inclusion initiatives • Sensitisation of achieved milestones and upcoming initiatives, strengthening public trust in the strategy
2.3	Announcement of digital inclusion survey	MINICT in partnership with RGB	Every two years in November	• Increased survey awareness and participation by the public
2.4	Launch of digital inclusion survey results	MINICT in partnership with RGB	Every two years in the following January	• Increased accountability of the digital inclusion journey • Sustainable monitoring and evaluation framework • Increased availability of gender- disaggregated data

Table 8: The Strategy Communication Plan

4.3 Critical Success Factors and Risk Analysis

The critical success factors to the implementation of the National Digital Inclusion Strategy and realisation of the intended outcome of "Leaving none behind" include:

- Visible championing of the strategy to provide visibility, credibility, and accountability in the digital inclusion journey
- Functional Private -Public sector partnerships
- Positive attitude and perception of high derivative value from technology by the citizens
- Vision alignment and understanding of the case for change/ digital inclusion by different stakeholders
- Improved socio-economic conditions and disposable incomes for the poor and vulnerable groups
- Reasonable accommodation in solution design to cater for the needs of all special groups
- Financing of strategic initiatives/ projects
- Anchoring the strategy in a mother policy and alignment of national policies to ensure they do not work at cross

Figure 7: Critical Success Factors to the Implementation of the National Digital Inclusion Strategy

The following are the key strategic risks facing the implementation of the National Digital Inclusion strategy. Different initiatives and projects have their inherent risks, but these will be identified and mitigated at the implementing entity level.

Risk	Likelihood of Occurrence	Impact on Occurrence	Mitigating Actions
Change Saturation	High	Medium	1. Clear prioritisation of initiatives 2. Change readiness assessments ahead of roll out of initiatives/ programmes
Resource constraints	High	High	1. Minimise/ reduce duplicity of efforts across different stakeholders 2. Centralisation of fund raising to avoid multiplicity of efforts
Over-regulation	Medium	High	1. Encourage co-regulation across the private sector and government for digital inclusion
Cultural barriers to change	Low	Medium	1. Partner with societal opinion shapers e.g. elders, religious leaders and political leaders to raise awareness of the benefits of digital devices for digitally excluded groups to help address social norms that restrict their access and use of digital devices 2. Design and roll out programmes for engagement activities that seek to address unconscious biases against women, PwDs and the rural population in ICT 3. Active sponsorship of digital inclusion initiatives from the Minister of ICT, Prime Minister and/or President
Non-competitiveness & monopolisations in certain sectors	High	High	1. Liberalisation/ encouragement of competition in internet service provision
Lagging of certain private sector players in the digital transformation journey	Medium	Medium	1. Incentivise digitalisation of business operations and practices and reasonable accommodation 2. Definition of minimum standards and penalties for non-compliance e.g., on reasonable accommodation 3. Create an environment for digital businesses to thrive and enable the digital transformation of priority sectors and MSMEs

Table 9: Key Strategic Risks and Mitigating Actions

Chapter 5

The Monitoring and Evaluation Framework

5.The Monitoring and Evaluation Framework

To track the progress in the digital inclusion journey, a set of outcome indicators has been defined and targets set. Different strategy and policy documents as referenced in chapter two (2) formed a key source of the indicators and targets that have been collated in the section below. The baselines are defined based on official statistics from different government agencies.

The National Digital Inclusion Council will be the overarching monitoring body to which all accountable organisations will report their KPIs and target progress.

5.1 Outcome Indicators and targets

Outcome	Indicators/ KPIs	Baseline	Targets							Accountable organisations	Data Source
			2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29		
Awareness of Digital Transformations & Digital Inclusion Measures by all relevant stakeholders	Number of nation-wide digital literacy and adoption campaigns held annually	New	4	4	4	4	4	4	4	RISA, MINICT	RISA
	Level of awareness as measured in the biannual digital inclusion survey*	New	75%	75%	82%	82%	87%	87%	93%	RISA	National Digital Inclusion Survey
A Rwandan population that **perceives the value** in the adoption, application and/ or creation of	Level of interest in digital adoption as measured in the biannual digital inclusion survey*	New	60%	60%	65%	65%	75%	75%	80%	RISA	National Digital Inclusion Survey
	Market capitalization for homegrown digital solutions companies	X	X+USD 0.2 billion	X+USD 0.4 billion	X+USD 0.6 billion	X+USD 0.8 billion	X+USD 1.0 billion	X+USD 1.2 billion	X+USD 1.4 billion	Rwanda Development Board	Rwanda Development Board

Outcome	Indicators/ KPIs	Baseline	Targets							Accountable organisations	Data Source
digital content or technologies	% Of the population accessing internet banking services*	0.8%	2.0%	3.5%	5%	6.5%	8%	9.5%	11%	National Bank of Rwanda	National Bank of Rwanda
	% Of the population accessing mobile banking services*	15.67%	18%	22%	25%	28%	31%	34%	36%	National Bank of Rwanda	National Bank of Rwanda
	% Of the population accessing digital health platforms*	New	2.50%	4%	7%	10%	14%	18%	25%	Ministry of Health	Ministry of Health
	% Of the student population accessing e-learning tools*	New	2.50%	4%	7%	10%	14%	18%	25%	Ministry of Education	Ministry of Education
A population **knowledgeable** on how to access, adopt and apply technology in their daily and professional lives	% Of digital literacy for citizens (aged above15 years)*	35.1%	45%	50%	55%	60%	65%	70%	75%	MINICT, RISA	RISA
	% Of digital literacy among people with disabilities (PwDs)	New	20%	30%	40%	50%	60%	65%	70%	NCPD, NUDOR, Uwezo Youth, RUB	NCPD
	% Of students enrolling in STEM programmes in university*	49%	51%	52%	53%	54%	56%	57%	58%	Ministry of Education	Ministry of Education

Outcome	Indicators/ KPIs	Baseline	Targets						Accountable organisations	Data Source
	% Graduates with ICT professional certificates by gender*	43.8/56.2 (Female/ Male)	45/55 (Female/Male)	46/54 (Female/Male)	47/53 (Female/Male)	48/52 (Female/Male)	49/51 (Female/Male)	50/50 (Female/Male)	50/50 (Female/Male)	Ministry of Education	Ministry of Education
	Number of highly skilled people in cyber-security*	X	X+100	X+300	X+450	X+570	X+700	X+850	X+1000	MINICT	MINICT, National Institute of Statistics of Rwanda
The **Ability** of Rwandans to access, adopt and apply ICT technologies to daily lives	% Of ICT Contribution to GDP	2%	5%	5%	7%	7%	8%	8%	8%	MINICT	National Institute of Statistics of Rwanda
	% Of businesses (including MSMEs) /companies participating in e-commerce	X	X+20%	X+30%	X+35%	X+40%	X+45%	X+50%	X+55%	MINICT	National Institute of Statistics of Rwanda
	ICT jobs as % of formal total employment	X	X+4%	X+5%	X+6%	X+6.5%	X+6.5%	X+7%	X+7%	MINICT	National Institute of Statistics of Rwanda
	Electricity penetration	70.1%	85%	100%	100%	100%	100%	100%	100%	RURA	RURA
	Internet penetration*	62.3%	65%	70%	75%	80%	85%	87%	87%	RISA, RURA	RURA
	Mobile Phone Penetration*	83%	85%	87%	89%	91%	93%	95%	97%	RISA, RURA	RURA

Outcome	Indicators/ KPIs	Baseline	Targets						Accountable organisations	Data Source
	Proportion of smart phones as % of mobile subscribers	19%	25%	35%	45%	55%	65%	75%	80%	RISA, RURA	RURA
	% Of the population on social media*	6.9%	8%	10%	12%	15%	17%	20%	25%	RISA, RURA	RURA
	Mobile-broadband internet subscriptions /100 pop	15.3%	20%	25%	30%	35%	40%	45%	50%	RISA, RURA	RURA
	Cost of broadband access as a percentage of average monthly GNI per capita (average monthly income)	X	X-1%	X-2%	X-2%	X-2.5%	X-2.5%	X-3%	X-3.5%	RISA, RURA	RURA
	% Of Households with access to high-speed internet Fibre	X	X+10%	X+15%	X+20%	X+25%	X+30%	X+35%	X+40%	RISA, RURA	RURA
	% Of citizens with digital single ID*	X	X+5%	X+7%	X+10%	X+12%	X+15%	X+20%	X+25%	MINICT, RISA	MINICT
	Value of electronic payment as % of GDP	95%	96%	96%	96%	97%	97%	97%	97%	MINICT, RISA	MINICT

Outcome	Indicators/ KPIs	Baseline	Targets						Accountable organisations	Data Source
	Number of newly registered homegrown digital solutions companies	New	X	X+10%	X+15%	X+20%	X+25%	X+30%	X+35%	MINICT	MINICT
	% Of Rwandans report using ICTs to apply in income generating activities or to create content*	New	15%	20%	25%	30%	35%	40%	45%	MINICT, RISA	RGB Survey
Enabling environment where **progress made is safeguarded, behaviour change reinforced** and digital inclusion **sustained**	Fully digitized G2C, G2B, B2C and B2B services as % of total online services	X	40%	50%	60%	70%	80%	90%	100%	MINCT, RISA, IREMBO	MINICT, RISA
	% Of Rwandans using IREMBO platform*	74.7%	77%	80%	83%	86%	89%	92%	95%	IREMBO, RISA	IREMBO
	Number of innovation centres established per province	New	1	2	3	4	5	6	7	RURA, MINICT	RURA
	Number of accelerator programmes and start-up	New	3	3	5	5	5	5	5	MINICT, RISA	MINICT, RISA

Outcome	Indicators/ KPIs	Baseline	Targets							Accountable organisations	Data Source
	competitions held annually										
	Subsidies applied for assistive technologies for PwDs as a percentage of the total cost	New	30%	40%	40%	50%	50%	50%	50%	MINICT	MINICT
	% Of Rwandans reporting no barriers to accessing ICTs*	New	40%	50%	60%	70%	80%	85%	90%	All relevant stakeholders	National Digital Inclusion Survey
	% Of Rwandans reporting feeling safe while using the internet*	New	40%	50%	60%	70%	80%	85%	90%	MINICT, RISA, MIGEPROF, MYCULTURE	National Digital Inclusion Survey
Overall composite indicators	Network Readiness Index	68th	66th	65th	63rd	61st	59th	58th	55th	All relevant stakeholders	Global Information Technology Report
	The inclusive internet index by the Economist and Intelligence Unit	83rd	81st	79th	77th	75th	73rd	71st	69th	All relevant stakeholders	The Inclusive Internet Index website
	Countrywide Participation in e-commerce. UNCTAD Business to consumer B2C	124th	122nd	120th	118th	116th	114th	112th	110th	All relevant stakeholders	The UNCTAD B2C E-commerce Index Report

Outcome	Indicators/ KPIs	Baseline	Targets							Accountable organisations	Data Source
	E- commerce index										
	UN E-Government Development Index (EGDI)	130th	128th	126th	124th	122nd	120th	118th	116th	All relevant stakeholders	UN E-Government Development Index (EGDI) website
	E-Participation Index	82nd	80th	78th	76th	74th	72nd	70th	68th	All relevant stakeholders	E-Participation Index website
	Technological readiness	101st	99th	97th	95th	93rd	91st	89th	87th	All relevant stakeholders	World Economic Forum Global Competitive Index Report and website

Colour codes:	
No colour	ICT Sector plan
	Other sources
	New KPI
	RURA strategic plan

*KPIs disaggregated by gender, rural/ urban population, youth/ elderly and PwDs are attached in appendix 7.1

X- Baselines to be determined and filled by RISA in consultation with other relevant authorities

Table 10: The Monitoring and Evaluation Framework

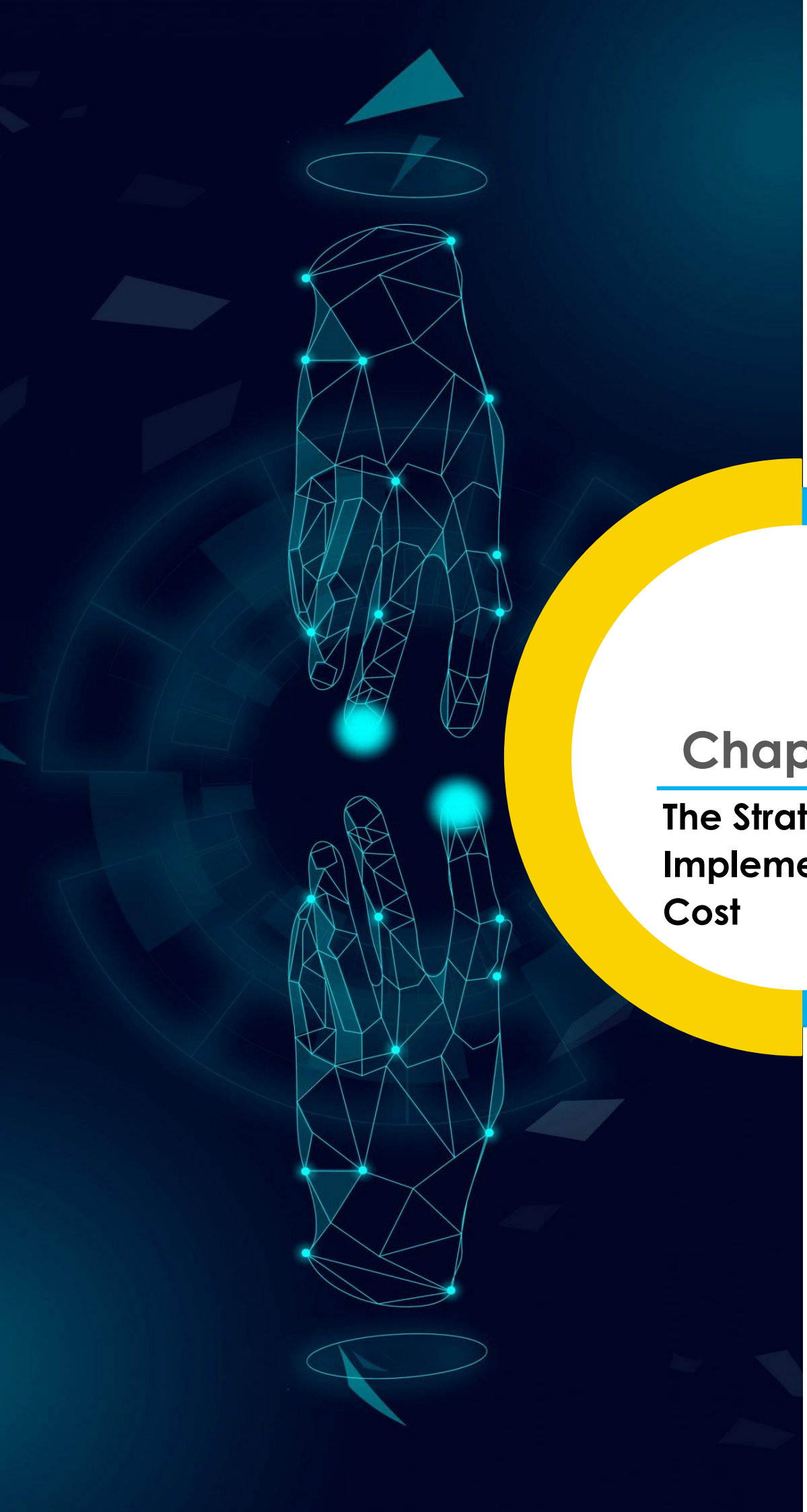
5.2The National Digital Inclusion Scale

This scale is a composite measure of unidimensional variables used to measure the construct of digital inclusion. *(A more comprehensive scale has been shared on a separate excel sheet for real time tracking)*

Parameters	Variables	Scale 0-100
Affordability	Cost of broadband access as a percentage of average monthly GNI per capita	To be filled in the attached Digital Inclusion Scale excel sheet
	Mobile-broadband internet subscriptions /100 pop	
	Average cost of smartphone as a % of GNI per capita	
	Cost of assistive technology vs average income of PwDs*	
Accessibility	Internet coverage	
	Mobile phone penetration*	
	Smartphone penetration*	
	Electricity penetration	
	% Of Households with access to high-speed internet (fibre)	
Relevance	% Of businesses (including MSMEs) /companies participating in e-commerce	
	% Of the population accessing internet banking services*	
	% Of the population accessing mobile banking services*	
	% Of the population accessing digital health platforms*	
	% Of the student population accessing e-learning tools*	
	Value of electronic payment as % of GDP	
	% Of Rwandans report using ICTs to apply in income generating activities or to create content*	
Ability	% Of digital literacy for citizens (aged above15 years) *	
	% Of digital literacy among people with disabilities (PwDs)*	
	Fully digitalised G2C, G2B, B2C and B2B services as % of total online services	
Attitude	Level of interest in digital adoption as measured in the biannual digital inclusion survey*	
	% Of the population on social media*	
Enabling environment	% Of Rwandans enterprises reporting no barriers to registering ICT businesses and Intellectual properties	
	% Of Rwandans reporting feeling safe while using the internet*	

*The survey statistics of these parameters are to be disaggregated by gender

Table 11: The National Digital Inclusion Scale for Rwanda



Chapter 6

The Strategy Implementation Cost

6. The Strategy Implementation Cost

The total estimated cost of effectively implementing the Rwanda National Digital Inclusion Strategy is **RwF 17,251,200,312.**

The table below summarises the project expenses per year:

Project Cost Summaries	Budget in RWF (2022/23)	Budget in RWF (2023/24)	Budget in RWF (2024/25)	Budget in RWF (2025/26)	Budget in RWF (2026/27)	Budget in RWF (2027/28)	Budget in RWF (2028/29)
Totals for projects commencing in 2022/23	1,283,601,000	265,843,050	282,344,205	288,589,180	309,847,532	319,008,656	345,056,907
Totals for projects commencing in 2023/24	-	2,913,443,500	2,529,456,875	1,681,717,573	1,625,072,369	1,639,210,536	1,663,083,326
Totals for projects commencing in 2024/25	-	-	91,745,000	98,167,150	1,202,145	1,286,295	1,376,336
Totals for projects commencing in 2025/26	-	-	-	437,470,000	1,184,370,000	134,376,913	143,783,297
Totals for projects commencing in 2026/27	-	-	-	-	3,467,750	3,710,493	3,970,227
Total Costs for implementing the National Digital Inclusion Strategy	**1,283,601,000**	**3,179,286,550**	**2,903,546,080**	**2,505,943,903**	**3,123,959,796**	**2,097,592,892**	**2,157,270,092**

Table 12: A Summary of the Total National Digital Inclusion Strategy Implementation Cost

(A breakdown of the budget costs per project/ initiative for each year has been provided in a separate excel sheet)

Appendices

7. Appendices

7.1 Disaggregation of Key Performance Indicators in the Monitoring and Evaluation Framework

The Rwanda National Digital Inclusion Strategy Disaggregation of Indicators in the M&E Framework																		
			Baseline		2022/23		2023/24		2024/25		2025/26		2026/27		2027/28		2028/29	
Level of awareness as measured in the biannual digital inclusion survey	**Overall** Disaggregation		**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**
	Male	PWDs Youth (15-30) Elderly																
	Female	PWDs Youth Elderly																
	PWD (Male & Female)	Youth Elderly																
Level of interest in digital adoption as measured in the biannual digital inclusion survey	**Overall** Disaggregation		**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**
	Male	PWDs Youth (15-30) Elderly																
	Female	PWDs Youth Elderly																
	PWD (Male & Female)	Youth Elderly																

Internet Banking Usage	**Overall** Disaggregation		**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**
	Male	PWDs Youth (15-30) Elderly																
	Female	PWDs Youth Elderly																
	PWD (Male & Female)	Youth Elderly																
Mobile Banking Usage	**Overall** Disaggregation		**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**
	Male	PWDs Youth (15-30) Elderly																
	Female	PWDs Youth Elderly																
	PWD (Male & Female)	Youth Elderly																
Mobile Payments Usage	**Overall** Disaggregation		**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**
	Male	PWDs Youth (15-30) Elderly																
	Female	PWDs Youth																

		Elderly																
	PWD (Male & Female)	Youth Elderly																
% Of the population accessing digital health platforms	**Overall** Disaggregation		**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**
	Male	PWDs Youth (15-30) Elderly																
	Female	PWDs Youth Elderly																
	PWD (Male & Female)	Youth Elderly																
% Of the student population accessing e-learning tools	**Overall** Disaggregation		**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**
	Male	PWDs Learning Population																
	Female	PWDs Learning Population																
% Of digital literacy for citizens (aged above15 years)	**Overall** Disaggregation		**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**
	Male	PWDs Youth (15-30) Elderly																
	Female	PWDs Youth																

		Elderly																
	PWD (Male & Female)	Youth Elderly																
% Of students enrolling in STEM programmes in university	**Overall** Disaggregation		**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**
	Male	PWDs Learning Population																
	Female	PWDs Learning Population																
% Graduates with ICT professional certificates	**Overall** Disaggregation		**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**
	Male	PWDs Youth (15-30)																
	Female	PWDs Youth (15-30)																
	PWD (Male & Female)																	
Number of highly skilled people in cyber-security	**Overall** Disaggregation		**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**
	Male	PWDs Youth (15-30)																
	Female	PWDs Youth																
	PWD (Male & Female)	Total																

Internet penetration	**Overall** Disaggregation		**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**
	Male	PWDs Youth (15-30)																
	Female	PWDs Youth																
	PWD (Male & Female)	Total																
Mobile phone penetration	**Overall** Disaggregation		**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**
	Male	PWDs Youth (15-30)																
	Female	PWDs Youth																
	PWD (Male & Female)	Total																
% Of the population on social media	**Overall** Disaggregation		**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**
	Male	PWDs Youth (15-30) Elderly																
	Female	PWDs Youth Elderly																
	PWD (Male & Female)	Youth																

		Elderly																
% Of citizens with digital single ID	**Overall** Disaggregation		**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**
	Male	PWDs Youth (15-30) Elderly																
	Female	PWDs Youth Elderly																
	PWD (Male & Female)	Youth Elderly																
% Of Rwandans report using ICTs to apply in income generating activities or to create content	**Overall** Disaggregation		**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**
	Male	PWDs Youth (15-30) Elderly																
	Female	PWDs Youth Elderly																
	PWD (Male & Female)	Youth Elderly																
% Of Rwandans using IREMBO platform	**Overall** Disaggregation		**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**
	Male	PWDs Youth (15-30) Elderly																
	Female	PWDs																

		Youth Elderly																
	PWD (Male & Female)	Youth Elderly																
% Of Rwandans reporting no barriers to accessing ICTs	**Overall** Disaggregation		**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**
	Male	PWDs Youth (15-30) Elderly																
	Female	PWDs Youth Elderly																
	PWD (Male & Female)	Youth Elderly																
% Of Rwandans reporting feeling safe while using the internet	**Overall** Disaggregation		**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**	**Rural**
	Male	PWDs Youth (15-30) Elderly																
	Female	PWDs Youth Elderly																
	PWD (Male & Female)	Youth Elderly																

Table 13: Disaggregation of KPIs in the Monitoring and Evaluation Framework

7.2 Methodology and Findings from Primary Data from Six Rural Districts

7.2.1 The Methodology of the Primary Field Research

Guided by the scope of work in the assignment, a study designed to capture the indicative state of digital inclusion was conducted with a focus on rural Rwanda. The study was not designed to form the national digital inclusion baseline.

Six districts were selected as representative districts of rural Rwanda. The selection criteria for the six districts were as follows:

1. Districts spread across the Northern, Southern, Eastern and Western Provinces
2. Representative districts from those reported to have the lowest financial inclusion levels according to the 2020 finscope survey
3. Districts with reported extreme levels of smart phone adoption &/or Momo adoption (highest and lowest)
4. Districts far from the capital and control districts bordering the capital

The resultant sample districts for the exercise were:

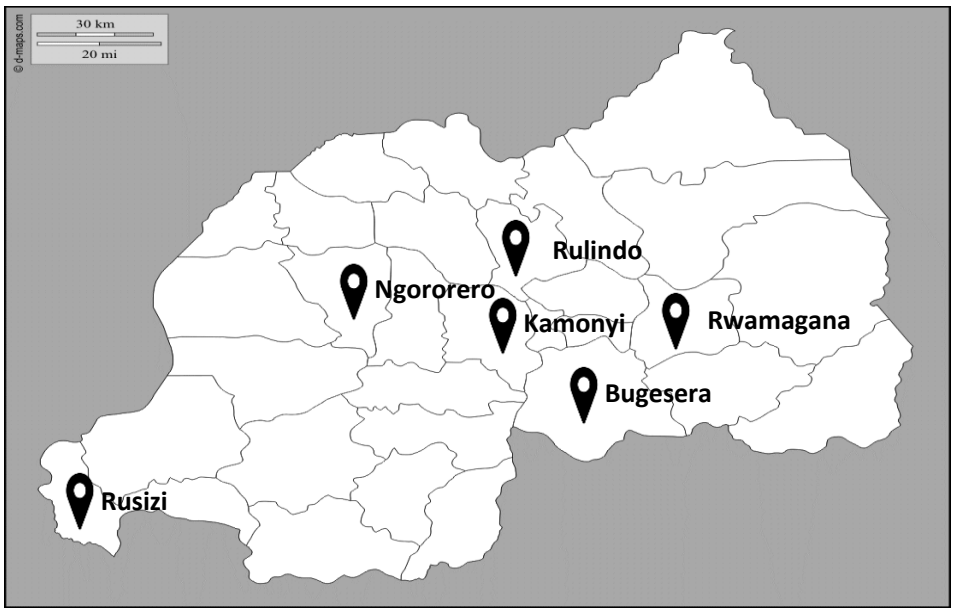


Figure 8: Primary Research - Sample districts

The study further sought to identify a relevant sample population that is representative of the whole and that captures traditionally digitally excluded persons. A stratified random sampling technique was therefore used for each of the six districts. Respondents were drawn from the following strata:

1. Persons with Disabilities
2. Persons almost equally split from both genders -male and female
3. Persons aged 30 to 65 Years
4. Youth Aged between 15 and 30 Years
5. The Elderly aged above 65 years

A total of four hundred and four respondents were interviewed during the primary data collection exercise.

The interviews were administered in Kinyarwanda using the survey tool approved in the inception report and adapted to audience needs where need arose.

The resultant profiles of respondents were as follows:

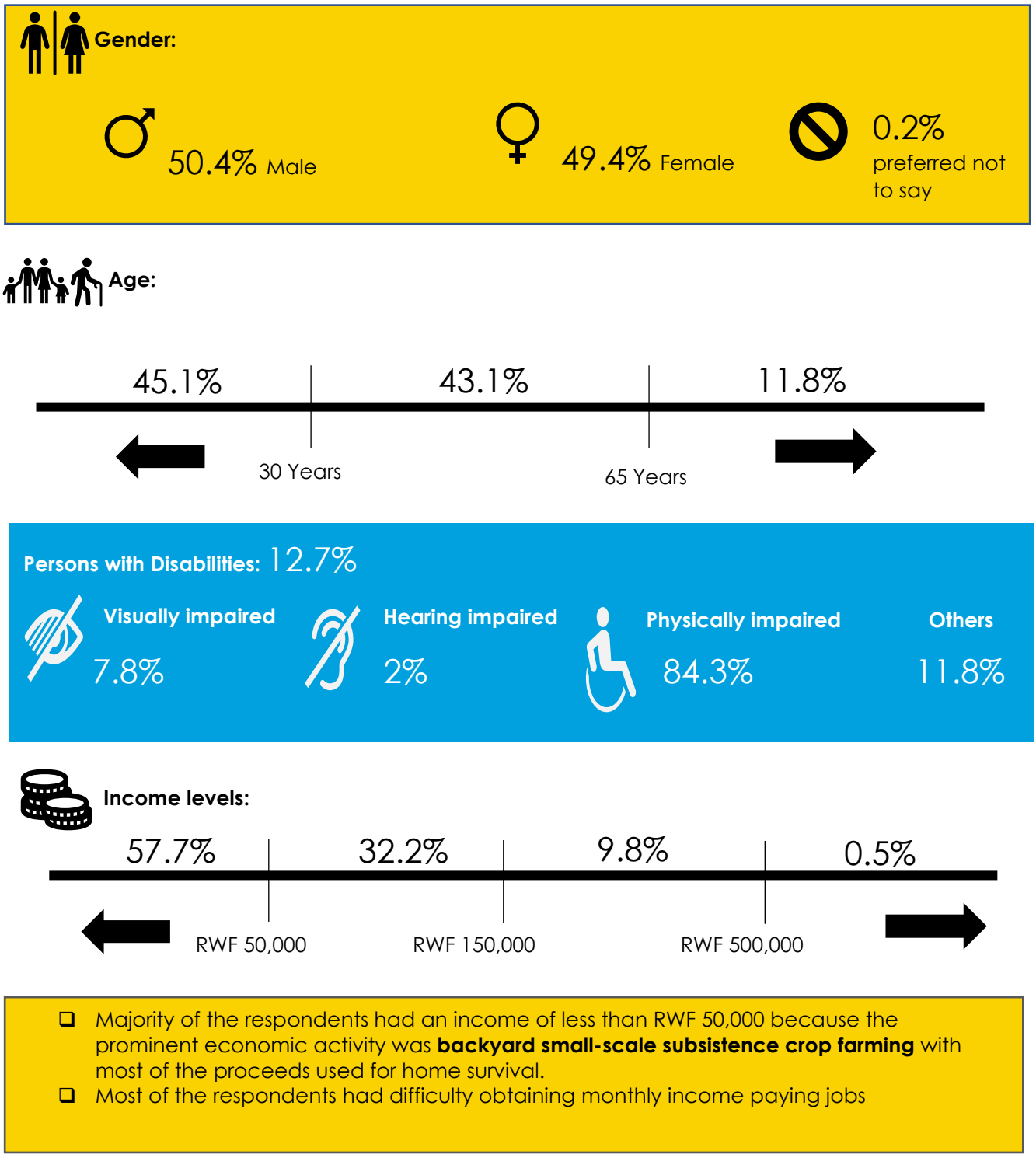


Figure 9: Primary Research - Profile of Respondents

7.2.2 Key Findings and observations

The formulation of the survey and analysis thereof was guided by the six components of digital inclusion and their definitions as (referred to in sections 1.2). The following section provides an aggregation of the responses to select questions from the six rural districts and for each of the following areas.

- **Affordability**

Definition: The cost effectiveness of the digital devices and services utilized by consumers over a specified period of time.

The study appreciated that in as much as affordability is a factor of disposable income, it is also a factor of perceived value attached to the item/ solution in question. The study therefore asked…

Responses (%)	Electricity	Feature phones	Smart phones	Internet
Affordable	64.0%	47.5%	32.5%	31.2%
Moderately affordable	26.3%	21.0%	27.0%	32.2%
Not affordable at all	6.8%	21.8%	29.5%	18.4%
Don't own/ No knowledge of prices	3.0%	9.8%	11.1%	18.1%

Table 14: Primary Research - Findings on Affordability

Key observations regarding affordability:

- Over 90% of the respondents see value in electricity. 68% see value in owning a feature phone owing to its communication and functionality.
- Over 30% of the population perceive the smartphone and the internet as unaffordable.
- This could be interpreted that a higher section of the population is not clear on the value they would derive from the use of the two compared to electricity and feature phones.
- A stakeholder gave a validating case where certain schools reported not to have funds to pay for internet supply yet they comfortably foot electricity bills.
- Targeted and clear communication of value therefore needs to accompany the digital solutions passed on to the public and should inform critical activities for the digital ambassadors.

- **Accessibility**

Definition: The degree to which digital devices and services are available to as many people as possible, regardless of gender, age, location or presence of disabilities.

The study appreciated the broad interpretation of accessibility but for purposes of the assignment, proximity was assessed. The study asked…

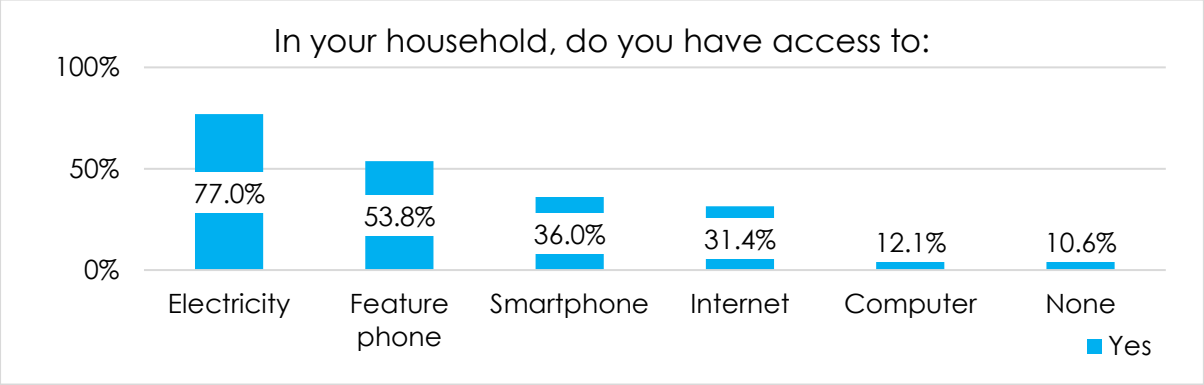


Figure 10: Primary Research - Findings on Household Accessibility

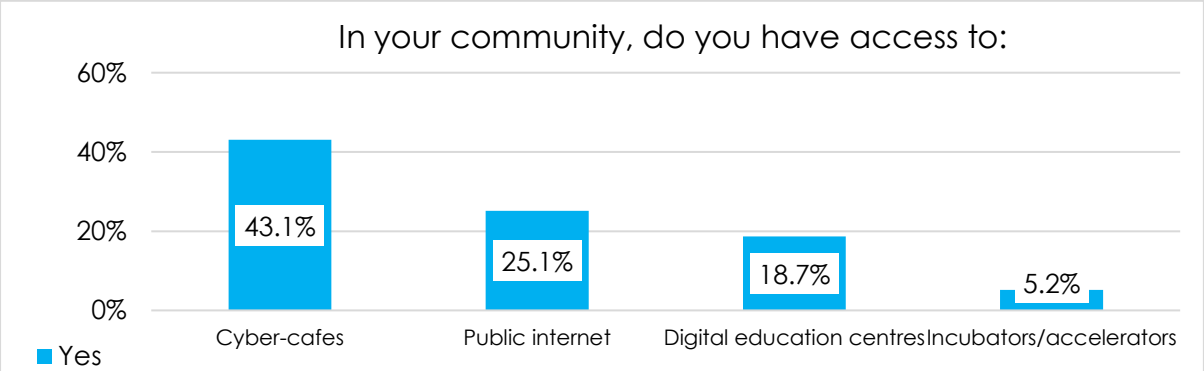


Figure 11: Primary Research - Findings on Community Accessibility

Key observations regarding accessibility:

- Access to electricity was assessed since it is, a key enabler of digital technologies. This was noted to be high by respondents and attributed to government intervention to ensure all Rwandans have access to power
- Access to the internet is lower than access to smartphones: Respondents noted that while they may own smartphones, inconsistent and unstable internet coverage limits their use of the internet. This was mostly noted in the districts of Rusizi, Bugesera and Ngororero.
- Micro enterprises running cyber cafes including Irembo agents were more popular among the respondents compared to public internet and other initiatives to provide access to digital infrastructure. Public internet, however, remain a viable option especially for the younger section of the population to encourage uptake of digital technologies
- Increased proximity to digital devices and visibility of the benefit thereof by community members could be used as an approach to appeal to the uptake of the solutions.

Remarks: Primary data analysis (from surveys and interviews) reflected the opportunity to improve on device accessibility

- **Attitude**

Definition: Individuals trust the available digital infrastructure and are eager to adopt and use modern technologies available to them in masses. Attitude also encompasses their feeling of safety while using the technologies.

The study sought to understand the aspiration of owning digital devices and the perception of safety. The study asked…On a scale of 1-10, how would you rate online safety in Rwanda?

District	Rating out of 10
Bugesera	7.15
Kamonyi	7.11
Ngororero	5.76
Rulindo	6.14
Rusizi	6.83
Rwamagana	7.09

Table 15: Primary Research - Findings on Attitude: Online Safety

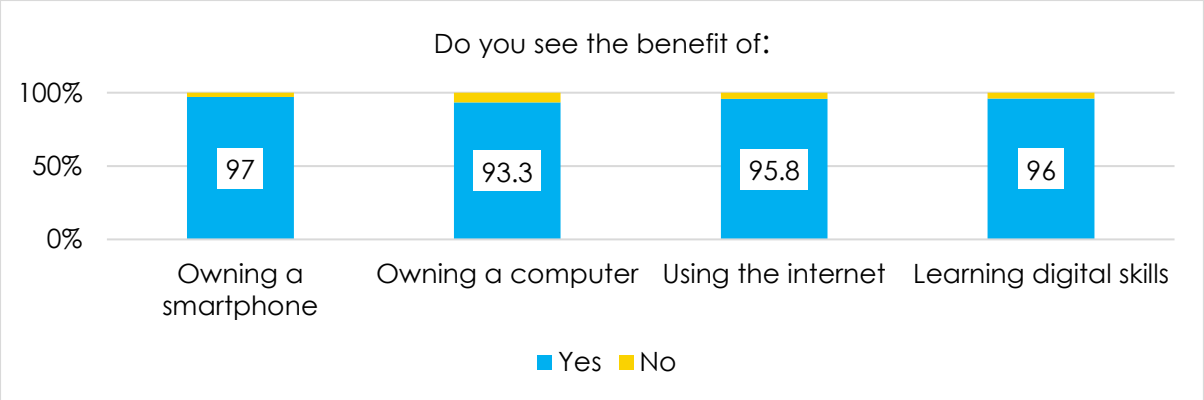


Figure 12: Primary Research - Findings on Attitude: Interest in ICTs

Key observations regarding attitude:

- Whereas 96.1% of respondents across the districts noted that online safety is not a barrier when seeking out digital services, respondents who were not knowledgeable of certain digital aspects such as google rated online safety at an average of 6.71/10
- The perception of online safety could therefore be interpreted as an indicator of little awareness of the imminent risks and gaps in digital literacy from the respondents.
- However, probes as to the positive rating reflected high levels of trust on the protection of the citizens by the government.
- The respondents were aspirational on owning digital devices. Notable also was that the main benefit of owning the digital devices was to access social media other benefits were not clearly spelt out by the respondents.

Remarks: Primary data analysis (from surveys and interviews) reflected the opportunity to tap into the general trust and aspiration to use digital technologies.

- **Ability**

Definition: Individuals can independently harness the full capabilities and take advantage of available digital infrastructure

Literature review flagged digital literacy as one of the biggest barriers to digital inclusion. The study sought to assess the digital literacy levels and ability to use digital technologies. The study asked…

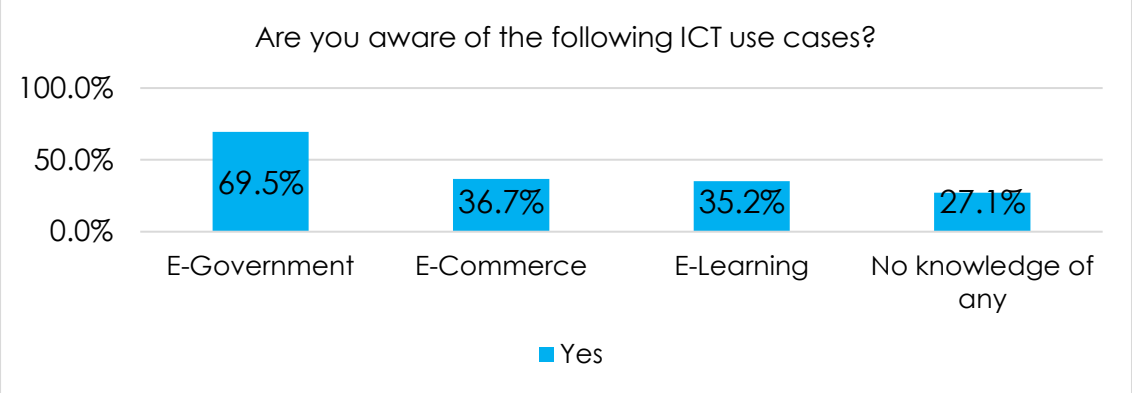


Figure 13: Primary Research - Findings on Awareness of ICT use cases

Are you able to use the internet to find information on an area of personal interest?

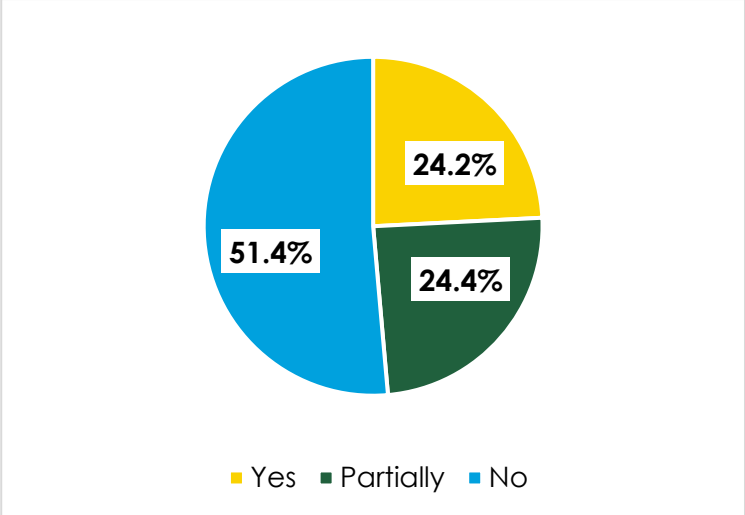


Figure 14: Primary Research - Findings on Internet Digital Literacy

Key observations regarding ability:

- 69.5% of the population were aware of e-government services. Majority of the respondents were aware of the existence of Irembo however not as a government e-service with self service capabilities but as a place where one goes to access government services (the agent's shops)
- 27% of the population were not aware of any of the ICT uses including Irembo. This could be attributed to the highly transactional nature of the platform. A stakeholder mentioned that repeat visits to Irembo within a year are very low.
- More than half of the respondents could not use the internet as a source of information. This emphasises the need to see to it the implementation of the digital literacy programme and onboarding private sector players on the journey.

Remarks: The ability to adapt, adopt, apply and create ICT technologies was relatively low-attributable to low readiness and low digital literacy

- **Relevance**

Definition: Digital content is available in the local dialects of the citizens so as to reach everyone, is tailored to their local and cultural needs and in easy-to-use interfaces

The ICT sector strategy calls out the need to create more local content and avail it to the population. The national disability inclusion framework and the fintech strategy further calls for reasonable accommodation to be embedded into the principle of the design of solutions. The study therefore sought to assess the ease of use of technologies and the underlying reasons. The study asked...

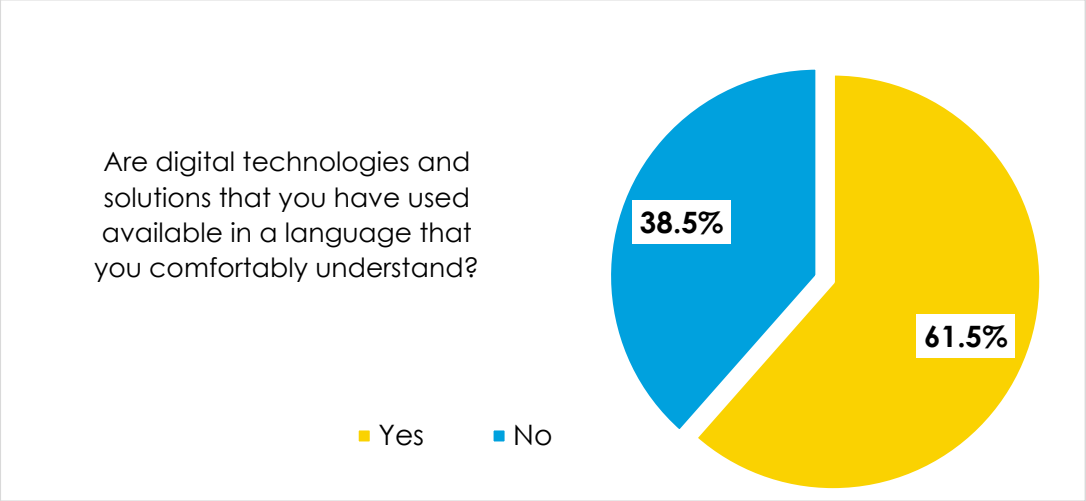


Figure 15: Primary Research - Findings on Language barriers in ICT

Key observations regarding relevance:

- 96.5% agreed that they would use more of the available digital technologies if they were available in Kinyarwanda
- While 38.5% of respondents noted that digital solutions are not available in a language that they can understand, they are still able to navigate popular websites that are graphic based to get the information that they need. This calls to action more emphasis to be placed on developing platforms that have global user interfaces that utilize universal visual cues
- For the 61.5% who are able to understand systems written in English, they accredited this to their formal education.
- 54.1 % of the respondents indicated that they can easily or find minor challenges in navigating digital technologies they own or have had in the past

Remarks: The ability to adapt, adopt, apply and create ICT technologies were relatively low-attributable to perceived irrelevance

7.2.3 Insights from various target groups

a) Spotlight on Gender

Inclusion Aspect	Observations from primary research
Accessibility	➢ Both women and men do not feel disadvantaged gender-wise when it comes to using digital technologies ➢ However, 16.2% of men have access to a computer vs 8.1% of women ➢ 43.1% of men have access to a smartphone vs 28.8% of women
Affordability	➢ 19.1% of women find internet to "not be affordable at all" vs 17.7% of men ➢ 31.4% of women find smartphones to "not be affordable at all" vs 27.6% of men
Ability	➢ 60.1% of women are not knowledgeable of digital terms vs 48.5% of men ➢ 55.1% of women are not able to effectively use the internet as an information resource vs 48% of men
Attitude	➢ Women rated online safety as 6.92/10 vs men who rated it at 6.68/10
Relevance	➢ Women show a higher appreciation of owning a smartphone than men (98.5% vs 95.6%) ➢ Women show a higher interest in learning digital skills than men (97.4% vs 94.6%)

Table 16: Primary Research - Spotlight on Gender

Key observations

- ❖ Gender is a cross-cutting issue that cannot be discussed in isolation. It must be actively considered across all proposed initiatives with the involved stakeholders across demand, supply and policy
- ❖ Uptake of ICTs by women in Rwanda is still low with key barriers being limited access to digital devices and well-structured training sessions to sensitize them on the value they can derive from digital technologies
- ❖ The perception of value for digital technologies is higher for men than women.
- ❖ Men rated online safety lower than women. This is reflective of the statistics that men are more knowledgeable on digital terms thus online dangers due to their more frequent use of digital technologies

b) Spotlight on Youth aged 15 – 30

Inclusion Aspect	Observations from primary research
Accessibility	➢ 17.3% of youth have access to a computer in their household, with 47% having access through community cyber cafes ➢ 43.5% of youth have access to a smartphone ➢ 42.3% of youth have access to the internet in their household
Affordability	➢ 38.7% of youth find the internet to be "affordable" ➢ 41.1% of youth find smartphones to be "affordable"
Ability	➢ 43.5% of youth are not knowledgeable of digital terms ➢ 37.7% of youth are not able to effectively use the internet as an information resource

Attitude	➢ Youth rated online safety at 6.71/10 ➢ For schools with ICT, child online policies are used to block unsuitable content for children – promoting digital safety
Relevance	➢ 99.4% of youth show interest in learning digital skills ➢ 99.4% of youth see the benefit of using the internet

Table 17: Primary Research - Spotlight on Youth aged 15 - 30

Key observations

- ❖ A significant youth population interact with online digital technologies through community hubs and centres.
- ❖ Smartphone ownership is the key driver of internet usage in households with youth aged 15 to 30
- ❖ This section of the population sees more value in the internet and digital technologies compared to other groups
- ❖ Digital literacy is still an issue that affects the youth. The implementation of the digital literacy programme to achieve the 100% literacy levels by 2024 for this groups would need to be accelerated.

c) Spotlight on the Elderly aged 65+

Inclusion Aspect	Observations from primary research
Accessibility	➢ 0% of the elderly have access to a computer in their household with primary access being through cyber cafes (noted by 12.5%) and digital education center (noted by 10.4%) ➢ 6.3% of the elderly have access to a smartphone in their household
Affordability	➢ 12.5% of the elderly find the internet to be "affordable" ➢ 14.6% of the elderly find smartphones to be "affordable"
Ability	➢ 91.7% of the elderly are not knowledgeable of digital terms ➢ 93.8% of the elderly are not able to effectively use the internet as an information resource
Attitude	➢ The elderly rated online safety at 7.1/10
Relevance	➢ 74.5% of the elderly show interest in learning digital skills ➢ 73.3% of the elderly see the benefit of using the internet

Table 18: Primary Research - Spotlight on the Elderly aged 65+

Key observations

- ❖ The elderly are more likely to resist being active users of digital technologies as they rely on digital agents/assistance from the youth
- ❖ There is a decrease in interest of adopting ICTs with increase in age – calling to action the need for Rwanda to create a culture of digital inclusion that transcends generations
- ❖ The elderly sees little to no benefit of using digital technologies, they believe that they are not designed for them (they could not identify a use case relevant to them)

- The elderly rated online safety higher than the sample average largely due to their low uptake of digital technologies – they do not regularly use technologies such as the internet and as such are largely unaware of the risks associated with them

d) Spotlight on PwDs

Inclusion Aspect	Observations from primary research
Accessibility	➢ Only 13.7% of PwDs have access to a smartphone in their household with only 9.8% having access to the internet
Affordability	➢ Assistive technologies such as orbit readers, Braille edges and screen readers are costly and not easily accessible in Rwandan shops
Ability	➢ Only 3.9% are knowledgeable of digital terms such as e-commerce ➢ 76.5% are not able to effectively use the internet as an information resource
Attitude	➢ PwDs rated online safety at 6.97/10
Relevance	➢ The local governments have no digital inclusion initiatives that focus on people with disabilities ➢ 88.2% of PwDs see the benefit of learning digital skills

Table 19: Primary Research - Spotlight on PwDs

Key observations

- Before training on digital literacy can be conducted, Rwanda needs to strengthen the available assistive technologies to ensure a Rwandan living with disabilities can be trained to use the available digital technologies independently and confidently
- Assistive technologies for people living with disabilities need to be made more affordable and easily accessible for both purchase and maintenance
- There needs to be more focus on not just initiatives to promote inclusion in schools but also at the workforce market – this increases the employability of PwDs
- It was noted that there is low encouragement from the community for PwDs to uptake digital technologies
- Awareness was also noted as a key challenge facing PwDs. They are simply not aware of digital technologies tailored to them

7.2.4 Summary of Key Findings

Affordability, Digital literacy and access stood out as the major drivers to digital inclusion from the six rural districts.

Respondents were asked to state the biggest barrier preventing them from comfortably using digital solutions. The table below summarises their responses.

District	Affordability of devices	Lack of digital literacy skills	Lack of access (proximity to digital technologies)	Ease of use	Language barrier	Online safety	Cultural limitations
Kamonyi	**48.4%**	21.9%	20.3%	3.1%	4.7%	1.6%	0.0%
Rusizi	**52.2%**	14.5%	17.4%	5.8%	4.3%	4.3%	1.4%
Bugesera	**44.1%**	27.9%	14.7%	8.8%	0.0%	4.4%	0.0%
Rwamagana	**67.7%**	16.1%	4.8%	8.1%	0.0%	3.2%	0.0%
Ngororero	**60.0%**	20.0%	7.7%	6.2%	6.2%	0.0%	0.0%
Rulindo	**73.3%**	5.0%	11.7%	3.3%	3.3%	3.3%	0.0%
Average from the 6 Rural districts	**57.62%**	**17.57**	**12.77%**	**5.88%**	**3.08%**	**2.80%**	**0.23%**

Table 20: Primary Research - Summary of Key Findings

Call to action

- The journey to the achievement of Rwanda vision 2050 and the resultant economic empowerment is not tenable amidst significant digital exclusion.

“Digital inclusion is not only good policy…

… it’s good economics”