



# **Digital Transformation Programme**

## **Annual Budget Monitoring Report**

**Financial Year 2023/24**

**March 2024**

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## ACRONYMS AND ABBREVIATIONS

4IR	Fourth Industrial Revolution
BFP	Budget Framework Paper
BPO	Business Process Outsourcing
CERT	Computer Emergency Response Team
COVID-19	Coronavirus Disease - 2019
DC	Data Centre
DLG	District Local Government
DNS	Domain Name Server
DT	Digital Transformation
DTT/DTH	Digital Terrestrial Television/Direct-to-Home
EMIS	Education Management Information System
EDRMIS	Electronic Document and Records Management Information System
E-GP	Electronic Government Procurement
ERP	Enterprise Resource Planning
ESA	Enterprise Security Architecture
ETA	Electronic Transactions Act
FIA	Financial Intelligence Authority
FOSS	Free and Open Source Software
GB	Giga Byte
GCIC	Government Citizens Interaction Centre
GoU	Government of Uganda
GOVNET	Government Networks
IAC	Information Access Centre
ICT	Information, Communications Technology
ICTAU	Information Communications Technology Association of Uganda
IFMS	Integrated Financial Management System
iHMIS	Integrated Health Management Information System
IPPS	Integrated Payroll and Pension System
ISO	International Standards Organisation
ITES	Information Technology Enabled Services
ITU	International Telecommunication Union
IXP	Internet Exchange Point
LG	Local Government
MBPS	Mega Byte Per Second
MBSA	Microsoft Business and Services Agreement
MDAs	Ministries, Departments and Agencies
MoICT&NG	Ministry of Information, Communications Technology and National Guidance
MoU	Memorandum of Understanding
NBI	National Backbone Infrastructure
NDC	National Data Centre
NDP III	Third National Development Plan
NEMA	National Environment Management Authority
NISF	National Information Security Framework
NITA-U	National Information and Technology Authority
NOC	Network Operating Centre

OFC	Optic Fibre Cable
PDMIS	Parish Development Model Management Information System
PBS	Programme Budgeting System
PWG	Programme Working Group
RCIP	Regional Communication Infrastructure Programme
SIGNET	Signal Network Limited
SLA	Service Level Agreement
SMS	Short Messaging System
SOPs	Standard Operating Procedures
ToRs	Terms of Reference
TV	Television
UBC	Uganda Broadcasting Corporation
UCC	Uganda Communications Commission
UDAP	Uganda Digital Acceleration Project
Ug shs	Uganda Shillings
UICT	Uganda Institute of Information Communication Technology
UMC	Uganda Media Centre
UMCS	Unified Messaging Collaboration System
UPL	Uganda Posts Limited
US\$	United States Dollar
Wi-Fi	Wireless (Internet)

## FOREWORD

At the start of this Financial Year 2023/24, the Government of Uganda outlined strategies to accelerate the country's economic growth agenda. Some of these strategies centered on enhanced domestic revenue mobilization and collection, and effective implementation of various initiatives to improve the efficiency and effectiveness of government programs and projects.

Within your programmes, I urge you to undertake a comprehensive reflective exercise to find out if indeed the interventions being implemented are achieving the true essence of efficiency and effectiveness. If not, why? How can this situation be remedied? Without efficiency and effectiveness, the impact and the ensuing sustainability from the interventions will not be achieved, thus reducing the opportunities for investment in new and more productive ventures.

The government is concerned that some programmes have stagnated at fair performance over the years, although they receive a considerable amount of their budgets annually. These monitoring findings form a very important building block upon which the programmes can begin the reflective exercise. I will be happy to hear your ideas on how the last-mile service delivery can be improved.



Ramathan Ggoobi  
**Permanent Secretary/Secretary to the Treasury**

## EXECUTIVE SUMMARY

The Digital Transformation (DT) Programme seeks to increase information and communication technology (ICT) penetration and use of ICT services for social and economic development. The Ministry of Information, Communication Technology and National Guidance (MoICT&NG) plays the lead and coordination role of programme activities with the National Information Technology Authority (NITA-U), Uganda Institute of Communication Technology (UICT) and Uganda Communications Commission (UCC) as the other key stakeholders.

The DT Programme interventions are implemented under four sub-programmes: Enabling Environment; Research, Innovation and ICT Skills Development; ICT Infrastructure; and e-Services. This report contains key performance highlights for the period 1<sup>st</sup> July 2023 to 31<sup>st</sup> December 2023.

### Overall Performance

The Digital Transformation Programme's approved budget for Financial Year (FY) 2023/24 is Ug shs 247.8 billion (bn) which was revised upwards to Ug shs 295.1bn. A total of Ug shs 120.6bn (48.7%) was released and Ug shs 99.8bn (82.7% of the release) spent by 31<sup>st</sup> December 2023. The release and expenditure performance were good. The NITA-U had the lowest budget release of only 17.7% of the total vote budget. This is because the external funds under the Uganda Digital Acceleration Project (UDAP) were not released pending obtaining effective disbursement approval from the World Bank.

The overall programme performance was fair at 69.4%. The Enabling Environment; and Research, Innovation and ICT Skills Development sub-programmes performance was good, whereas the ICT Infrastructure and E-services sub-programmes performed fairly. The zero-budget release on infrastructure outputs under the UDAP project at NITA-U and limited connections under e-services affected the overall programme performance.

### Enabling Environment Sub-programme

The sub-programme performance was good at 75.1%. The MoICT&NG supported the development of Business Process Outsourcing (BPO), Communications, and National Guidance policies. In addition, procurement of equipment for the upgrade of three selected existing transmission sites in Western Uganda to ensure redundancy and provision of local and regional program streams was undertaken.

The NITA-U certified eighty-two new IT service providers and companies and seven entities were audited. Two IT standards were reviewed and submitted to the National Technical Standards Committee for approval. The UICT developed an innovator coaching scheme through a collaborative mechanism involving subject specialists from UICT and industry innovators affiliated with the National ICT Innovation Hub (Microfuse Computer Technologies). This scheme aims to provide support to students within the research and innovation pipeline.

### Research, Innovation and ICT Skills Development Sub-programme

The sub-programme performance was good at 72.7%. The intervention of developing and implementing ICT research and innovation ecosystem, and developing an ICT professional's

quality assurance framework had good performance. The MoICT&NG reviewed the drafted Intellectual Property (IP) guidelines to ensure alignment with international standards and key stakeholders were identified to participate in the review of the draft IP guidelines.

A zero draft of the National Business Process Outsourcing (BPO) Implementation Strategy was developed. Compilation of an inventory of existing BPO international standards and best practices was initiated, and a capacity skills gap report based on previous studies of the BPO industry in Uganda was compiled.

Upgrading of the ODeL Support System progressed to 40%, and the detailed Terms of Reference (ToRs) for the procurement of a reputable firm to provide the necessary support and expertise for the ODeL system upgrade were developed. Development of a Monitoring and Evaluation Framework for the ICT research and innovation ecosystem achieved 80% progress. Two ICT /Engineering Hackathon programs were organized.

A total of 1,325 Government-sponsored students were admitted and supported across all various academic cohorts through the Joint Admission Board (JAB). One animal tag prototype was developed and submitted to the accelerator program to begin the pre-incubation and commercialization phase and eight applied research and innovations publications were generated. An innovator coaching scheme was developed while thirty private innovators were hosted at the National ICT Innovation Hub.

Acquisition, upgrade and operationalization of the Electronic Document and Records Management System (EDRMS), and maintenance of the Online Business Registration System (OBRS) were delayed. The appreciation and uptake of a meeting app called “CAUCUS” was still low.

### **E-services Sub-programme**

The sub-programme performance was fair at 64.9%. The project implementation plans on e-waste management were developed and a policy review exercise on e-waste extended producer responsibility was initiated. The terms of reference (ToRs) for additional modules on the Parish Development Model Information System (PDMIS) were developed, while four existing modules were supported. The PDMIS integration Application Interfaces (APIs) were developed and PDM SAACO data uploaded onto the PDMIS.

A zero draft project profile for the interconnection and digitization programme for PWDs was developed and an assessment of the Information and Communications Bill 2022 was conducted. BSMART Technology Limited was on-boarded to develop the IT/BPO park in Entebbe under a public-private partnership (PPP) arrangement and an evaluation of the bid submitted by the identified investor was initiated.

The Unified Messaging and Collaboration System (UMCS) was rolled out to seven additional Government entities cumulatively bringing the number to 145 entities with 26,034 active users. The first draft of the feasibility study report for the development of a BPO and software development hub at Kampala Industrial and Business Park, Namanve was presented to NITA-U.



Nine entities were on-boarded onto the Whole-of-Government integration and data-sharing platform bringing the total number of entities on-boarded to 126 entities cumulatively. Two new websites were developed and five were revamped. Twenty-five Computer Emergency Response Team (CERT) advisories were issued to trigger proactive defence against cyber-attacks.

### **ICT Infrastructure Sub-programme**

The sub-programme performance was fair at 65.5%. The draft standards for delivery of e-services through Postal outlets were developed. A draft information paper on the implementation status of the National Broadband Policy was prepared and the final project concept was developed for the Interconnection and Digitization Programme for PWDs. An assessment of the Information and Communications Bill 2022 was conducted, and provisions were established for developing regulations with input from UCC, mobile network operators and ICT infrastructure providers.

The National Backbone Infrastructure (NBI) connectivity provided internet access to 15 sites, some of these included: Entebbe International Airport, Speke Resort Munyonyo, Hotel Africana, Kajjansi Trading Centre, three Entebbe Expressway road tolls, and Uganda Airlines. Twenty-three (23) new systems were hosted at the National Data Centre, and 20 Wi-Fi sites were maintained. Surveys for the relocation of 10 Optical Fibre Cable (OFC) were conducted at the sections of Nakawa-new Port Bell-Jinja Road junction, Katalima Junction and Spear Motors junction to prevent damage due to road construction works. The extension of ICT infrastructure countrywide and the planned activities under the UDAP project were not executed because no funds were released.

### **Conclusion**

The overall Digital Transformation Programme performance was fair, with the NITA-U recording a poor release. An innovator coaching scheme was developed through a collaborative mechanism and IP guidelines were reviewed for consistency. Upgrading of the ODeL support system progressed to 40%, while the development of a Monitoring and Evaluation Framework for the ICT Research and Innovation Ecosystem progressed to 80%. Thirty private innovators were hosted at the National ICT Innovation Hub, although the facility remained underutilised. Project implementation plans on e-waste management were developed and a policy review exercise on e-waste extended producer responsibility was initiated. The UMCS was rolled out to seven Government entities bringing the number of entities on the UMCS to 145 with 26,034 active users. Generally, efforts were made to increase ICT penetration and use of ICT services for social and economic development though on a low scale.

The programme faced delayed funding for the UDAP which affected the establishment of ICT infrastructure, insufficient staffing levels at both NITA-U and UICT, limited funding for research and innovation, and inadequate infrastructure to support specialized ICT training.

### **Recommendations**

- i) The NITA-U should finalise the requirements for external financing to facilitate the release of funds to support infrastructure development under the UDAP.
- ii) The MoICT&NG should fast-track the acquisition, upgrade and operationalisation of EDMS and maintenance of the OBRS to achieve the intended objectives of these systems
- iii) The MoICT&NG should support the UICT in establishing the required infrastructure such as lecture rooms, equipment and staff to facilitate specialized ICT training.

# CHAPTER 1: INTRODUCTION

## 1.1 Background

The mission of the Ministry of Finance, Planning and Economic Development (MFPED) is, “*To formulate sound economic policies, maximize revenue mobilization, and ensure efficient allocation and accountability for public resources so as to achieve the most rapid and sustainable economic growth and development.*”

The MFPED through the Budget Monitoring and Accountability Unit (BMAU) tracks the implementation of programmes/projects by observing how values of different financial and physical indicators change over time against stated goals, indicators and targets. The BMAU work is aligned with budget execution, accountability, and service delivery.

Commencing FY 2021/22, the BMAU began undertaking Programme-Based Monitoring to assess performance against targets and outcomes in the Programme Implementation Action Plans (PIAPs)/Ministerial Policy Statements. Semi-annual and annual field monitoring of Government programmes and projects was undertaken to verify receipt and expenditure of funds by the user entities and beneficiaries, the outputs and intermediate outcomes achieved, and the level of gender and equity compliance in the budget execution processes. The monitoring also reviewed the level of cohesion between sub-programmes and noted implementation challenges.

The monitoring covered the following Programmes: Agro-Industrialization; Community Mobilisation and Mindset Change; Digital Transformation; Human Capital Development; Innovation, Technology Development and Transfer; Integrated Transport Infrastructure and Services; Mineral Development; Natural Resources, Environment, Climate Change, Land and Water Management; Public Sector Transformation; Private Sector Development; Sustainable Development of Petroleum Resources; and Sustainable Energy Development.

This report presents findings from monitoring the Digital Transformation Programme for the budget execution period from 1<sup>st</sup> July 2023 to 31<sup>st</sup> December 2023.

## 1.2 Programme Goal and Objectives

The Digital Transformation Programme is envisaged to increase ICT penetration and use of ICT services for social and economic development. The objectives of this programme as laid out in the NDP III are to:

- i) Increase the national ICT infrastructure coverage.
- ii) Enhance usage of ICT in national development and service delivery.
- iii) Promote ICT research, innovation and commercialization of indigenous knowledge products.
- iv) Increase the ICT human resource capital.
- v) Strengthen the policy, legal and regulatory framework.

## 1.3 Sub-programmes

The National Digital Transformation Programme is implemented through the following sub-programmes:

- i) Enabling Environment.
- ii) Research, Innovation and ICT Skills Development.
- iii) E-services.
- iv) ICT Infrastructure.

## CHAPTER 2: METHODOLOGY

### 2.1 Scope

This report is based on selected sub-programme interventions and outputs under the Digital Transformation Programme that are contributed to by the following votes: Vote 020: Ministry of Information, Communication Technology and National Guidance (MoICT&NG), and Vote 126: National Information Technology Authority of Uganda (NITA-U). The selection of areas to monitor is based on a number of criteria:

- Outputs were planned for and undergoing implementation in the review period
- Significance of the budget allocations to the sub-programmes within the programme budgets, with the focus being on large expenditure interventions. Preference is given to development expenditure.
- Potential of interventions to contribute to programme and national priorities.

Out of the 22 interventions, 11(50%) were monitored. However, the reprioritised PAIP reduced the interventions to eight. (Annex 1: List of interventions sampled for monitoring).

### 2.2 Approach and Methods

Both qualitative and quantitative methods were used in the monitoring exercise. The physical performance of planned outputs was assessed through monitoring a range of indicators and linking the progress to reported expenditure and/or planned targets. The purposive sampling method was used in selecting outputs from the Programme Implementation Action Plans (PIAPs), Ministerial Policy Statements (MPSs) and progress reports of the respective Ministries, Departments, and Agencies (MDAs) for monitoring. Multi-stage sampling was undertaken at three levels: i) Sub-programmes, ii) intervention, and iii) outputs.

### 2.3 Data Collection and Analysis

#### Data Collection

Both primary and secondary data was collected from the sources and by the means that are indicated below:

- i) Literature review: MPS FY2023/24; National and Programme Budget Framework Papers; PIAPs, the third National Development Plan (NDP III), periodic progress reports and work plans for the respective implementing agencies, Budget Speech, Public Investment Plans, Approved Estimates of Revenue and Expenditure, project reports.
- ii) Review and analysis of data from the Integrated Financial Management System (IFMS), Program Budgeting System (PBS), institutional websites, and quarterly performance reports.
- iii) Consultations and key informant interviews with project managers and activity implementers.
- iv) Field visits to various project sites for primary data collection, observation and photography.
- v) Callbacks in some cases were made to triangulate information.

#### Data Analysis

Both qualitative and quantitative approaches were used to analyse the data. Qualitative data was examined and classified in terms of constructs, themes or patterns to explain events among the beneficiaries (interpretation analysis) and reflective analysis where the monitoring teams provided an objective interpretation of the field events.

Quantitative data on the other hand was analyzed using advanced Excel tools to aid interpretation and presented in the form of tables.

Comparative analysis was done using the relative importance of the outputs and the overall weighted scores. Relative importance (weight) of an output monitored was based on the amount of budget attached to it; thus the higher the budget the higher the contribution of the output to the programme performance. This was derived from the approved annual budget of each output divided by the total annual budget of all outputs of a particular programme/project.

The weight of the output and percentage achievement for each output were multiplied to derive the weighted physical performance. The attained outputs contributed 100% to the overall semi-annual programme performance.

The overall programme performance is an average of individual sub-programme performances assessed. The performance of the programme and sub-programme was rated on the basis of the criterion in Table 2.1. Based on the rating assigned, a BMAU colour-coded system was used to alert the policymakers and implementers on whether the interventions were achieved or had very good performance (green), good performance (yellow), fair performance (light gold) or poor performance (red).

**Table 2.1: Assessment guide to measure performance in FY 2023/24**

Score	Comment	Colour Code
90% and above	Very Good (Achieved at least 90% of outputs)	Green
70%-89%	Good (Achieved at least 70% of outputs)	Yellow
50%- 69%	Fair (Achieved at least 50% of outputs)	Light Gold
49% and below	Poor (Achieved below 50% of outputs)	Red

*Source: Author's Compilation*

## 2.4 Limitations

- i) Lack of disaggregated financial information for some outputs that contribute to several interventions.
- ii) Duplicate reporting of similar outputs in different interventions.

## 2.5 Structure of the Report

The report is structured into four chapters. These are: Introduction, Methodology, Programme performance, and Conclusion and Recommendations respectively.

## CHAPTER 3: PROGRAMME PERFORMANCE

### 3.1 Overall Programme Performance

The Digital Transformation Programme overall performance was fair at 69.4%. The Enabling Environment, and Research Innovation and ICT Skills Development sub-programmes performance was good, whereas the ICT Infrastructure and E-services sub-programmes performed fairly as shown in Table 3.1. Zero-budget release on infrastructure outputs under the Uganda Digital Acceleration Project (UDAP) at NITA-U and limited connections under E-services affected the performance of the ICT Infrastructure Sub-programme.

**Table 3.1: Digital Transformation Programme Performance as at 31<sup>st</sup> December 2023**

Sub-programme	% Output Performance	Remark
Enabling Environment	75.1	Good performance
E-services	64.9	Fair performance
ICT Infrastructure	65.5	Fair performance
Research Innovation and ICT skills development	72.7	Good performance
<b>Average</b>	<b>69.4</b>	<b>Fair performance</b>

*Source: Authors' Compilation*

The DT Programme approved budget for FY2023/24 is Ug shs 247.8bn which was revised upwards to Ug shs 295.1bn. A total of Ug shs 120.6bn (48.7%) was released and Ug shs 99.8bn (82.7% of the release) was spent by 31<sup>st</sup> December 2023 (Table 3.2). The release and expenditure performance were good. The NITA-U had the lowest budget release of only 17.7% of the total vote budget. This is because the external funds under the UDAP were not released pending obtaining effective disbursement approval from the World Bank.

**Table 3.2: Financial performance of the Digital Transformation Programme as at 31<sup>st</sup> December 2023**

Vote	Approved Budget	Revised budget	Release	Spent	% Release	% Spent
Ministry of ICT and National Guidance	106.7	154.1	95.8	80.7	89.8	84.2
National Information Technology Authority-Uganda	141.1	141.1	24.8	19.1	17.6	76.9
<b>Total</b>	<b>247.8</b>	<b>295.1</b>	<b>120.6</b>	<b>99.8</b>	<b>48.7</b>	<b>82.7</b>

*Source: PBS*

### 3.2. Enabling Environment Sub-programme

The sub-programme aims at strengthening the policy, legal and regulatory framework of the DT Programme and has two interventions that are implemented over the NDPIII period. These are: i) review and develop appropriate policies, strategies, standards and regulations that respond to industry needs; and ii) regulate, coordinate and harmonize ICT infrastructure planning, sharing and deployment within the public and private sector. The second intervention was dropped under the reprioritised PIAP. It was therefore not funded and not monitored for the period under review.

## **Performance**

The overall sub-programme performance was good at 75.1% (Table 3.3). Two standards were being developed against a target of five and the MoICT&NG supported the development of BPO, communications, and national guidance policies. In addition, four out of the planned five NITA-U staff were enrolled on the “Artificial Intelligence (AI) for Policy Makers” course. The detailed performance of the monitored interventions is given in the ensuing sub-sections.

### **3.2.1 Review and develop appropriate policies, strategies, standards and regulations that respond to industry needs**

The intervention aims at strengthening the ICT policy, legal and regulatory framework and the planned outputs for FY2023/24 include: audit and risk management; finance and accounting; human resource management; planning and budgeting services; procurement and disposal services; records management; administrative and support services; general administration; and data protection and privacy. The intervention attained good performance at 75.1%. The detailed performance is given hereafter:

The MoICT&NG supported the development of BPO, communications, and national guidance policies. The procurement of equipment for the upgrade of Kasese, Fort Portal and Bundibugyo Digital Terrestrial Television (DTT) transmission sites in Western Uganda was undertaken to ensure redundancy and provision of local and regional program stream and the procurement of equipment for the upgrade and deployment of one - Beam DTT/Direct-To-Home (DTH) satellite transmission system - phase one was undertaken.

Four out of the planned five NITA-U staff were enrolled on the “Artificial Intelligence (AI) for Policymakers” course offered by Germany’s Federal Ministry for Economic Cooperation and Development (BMZ). Thirty-eight awareness engagements were conducted in the categories of private sector-civil society associations (professional/industry), Government MDAs, TV and radio, print and newsletters international and regional fora, and social media (Twitter/X Spaces). An assessment of the birth, death, and adoption registration system at NIRA was conducted ensuring the incorporation of privacy by design principles.

The NITA-U also completed the technical evaluation process for procurement of consultancy services to develop guidelines and a compliance assessment toolkit under the Data Protection and Privacy Act under a project funded by a development partner - Financial Sector Deepening, Uganda (FSDU).

Two out of five IT standards and two policy documents were reviewed and submitted to the national standards technical committee of standards and technical committee for IT policies for approval. The NITA-U undertook Unified Messaging and Collaboration System (UMCS) user satisfaction survey, while the survey of e-services that citizens need was yet to be done. A monitoring visit to the youth start-up academy at Hive Colab was undertaken to assess the effect of the NITA-U support to the project and an orientation to the innovators on the regulatory framework in ICT was carried out. Table 3.3 highlights the output performance under the monitored intervention.



**Table 3.3: Performance of the Enabling Environment Sub-programme by 31<sup>st</sup> December 2023**

Output Performance								Remark
Intervention	Output	Financial Performance			Physical Performance			
		Annual Budget (Ug shs)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)	
Review and develop appropriate policies, standards and regulations that respond to industry needs	Planning and budgeting services	26,636,975,990	36.0	99	100	30	83.44	Good performance
	Procurement and disposal services	61,617,210	38.9	84	100	25	64.23	Fair performance
	Administrative and support services	10,124,995,564	54.9	80	100	50	91.03	Very good performance
	Data protection and privacy	111,734,000	73.4	50	6	4	90.84	Very good performance
	Facilities and Equipment Management	781,045,751	50.0	17	7	1.7	48.57	Poor performance
	Policies, Regulations and Standards	212,750,000	53.7	77	18	7	72.42	Good performance
	<b>Total</b>	<b>37,929,118,515</b>					<b>75.09</b>	<b>Good performance</b>

Source: Field Findings, PBS and IFMS

### Conclusion

The Enabling Environment Sub-programme’s performance was good at 75.1% with most outputs on track. Two standards were reviewed and submitted to the National Standards Technical Committee for approval. Procurement of equipment for the upgrade of Digital Terrestrial Television (DTT) transmission sites in Western Uganda was undertaken. A total of 167 pensioners were verified and gratuity was managed and paid out of the 1,208 retirees in batches against the 1000 personal files opened.

### 3.3 Research, Innovation and ICT Skills Development Sub-programme

The sub-programme aims to promote ICT research, innovation and commercialization of indigenous knowledge products and increase the ICT human resource capital. The sub-programme has 11 interventions of which six (6)<sup>1</sup> were under implementation and all were monitored.

#### Performance

The sub-programme overall performance was good at 72.7% (Table 3.4). The interventions of developing and implementing ICT research and innovation ecosystem, and developing an ICT professional’s quality assurance framework had a good performance at 100% each. On the other hand,

<sup>1</sup> Develop and implement an ICT research and innovation ecosystem, develop innovation and incubation centres, support local innovation and promote export of knowledge products, promote local manufacturing and assembly of ICT products, develop a well-grounded ICT professional workforce, and develop an ICT professional’s quality assurance framework.

the intervention of developing a well-grounded ICT professional workforce performed poorly at 27.9%. Table 3.4 highlights intervention performance under the sub-programme by 31<sup>st</sup> December 2023.

**Table 3.4: Performance of interventions under the Research, Innovation and ICT Skills Development Sub-programme by 31<sup>st</sup> December 2023**

Intervention	Colour code	Remark
Develop and implement ICT Research and Innovation ecosystem	100%	Very good performance
Develop a well-grounded ICT professional workforce	27.9%	Poor performance
Develop ICT centres of excellence and vocational institutions	98.2%	Very good performance
Support local innovation and promote export of knowledge products	64%	Fair performance
Promote local manufacturing and assembly of ICT products	54.9%	Fair performance
Develop an ICT professional's quality assurance framework	100%	Very good performance
<b>Average</b>	<b>72.7%</b>	<b>Good performance</b>

*Source: Authors' Compilation*

### 3.3.1 Develop and implement ICT Research and Innovation ecosystem

The intervention contributes to the objective of promoting ICT research, innovation and commercialization of indigenous knowledge products. The planned outputs for the FY2023/24 include: information systems and innovation fund managed, and support to the Uganda Institute of Information and Communication Technology (UICT) provided. The performance of the intervention was good. The detailed performance of the intervention is discussed below.

Completion of the hub program support initiatives was managed through the hub rate card, hub entry requirements, hub MoU with partners, hub code of conduct, and eco-systems scorecard. Two (02) ICT/Engineering Hackathon programs were organized and the ICT hub successfully developed and operationalized the hub's brand and public relations strategy. This included website updates with 700 hits, and active social media accounts with substantial followership on Twitter, LinkedIn, and YouTube.

An innovator coaching scheme was developed through a collaborative mechanism involving subject specialists from UICT and industry innovators affiliated with the National ICT Innovation Hub (Microfuse Computer Technologies). The process of publishing eight applied research and innovations publications was ongoing some of which include, an electronic walking stick for the blind, ethical practices in information service provision, and data-driven decision-making, among others.

### 3.3.2 Develop a well-grounded ICT professional workforce

The intervention aims at increasing the ICT human resource capital. The planned outputs under the intervention during the FY2023/23 include Support to UICT and Innovation fund management. The intervention performance was poor 27.9% attributed to the slow operationalization of PDMIS, EDRMS and ORBIS systems. detailed performance is discussed below.

**Support to UICT:** A total of 1,325 government-sponsored students against a plan of 1,200 were admitted and supported across all various academic cohorts through the Joint Admission Board (JAB). These include 619 for cohort 2020-21, 626 students (353 for students in the first batch and 273 students as supplementary enrolments) for cohort 2022-23 and 80 students for cohort 2023-24. The female students admitted contributed 30% of the total applicants. The supplementary was made to address inequalities in regions and cater for quotas for persons with disabilities. The primary objective of this initiative was to improve educational access for marginalized and disadvantaged students.

**Innovation fund management:** To ensure a security audit of the locally developed systems, the MoICT&NG undertook an initial review of the PDMIS to assess the system's current functionality,



efficiency, and effectiveness in managing the PDM project. In addition, a quality assurance exercise of the online business registration system, the PDMIS and the source code files for EMIS were reviewed. The acquisition, upgrade and operationalization of the Electronic Document and Records Management System (EDRMS), and maintenance of the URSB system (The Online Business Registration System-OBRS) were yet to be undertaken.

### 3.3.3 Develop ICT centres of excellence and vocational institutions

The intervention contributes to the programme's objective of increasing the ICT human resource capital. The planned output for FY2023/24 is; inclusive access to quality ICT training at the tertiary education level ensured. The intervention performance was good at 92.8% and details are discussed hereafter:

A total of 648 participants (13 staff and 635) students, received training in applied research and innovation through the UICT while one animal tag prototype was developed and submitted to the accelerator program. The UICT established an innovator coaching scheme involving industry specialists, such as Microfuse Computer.

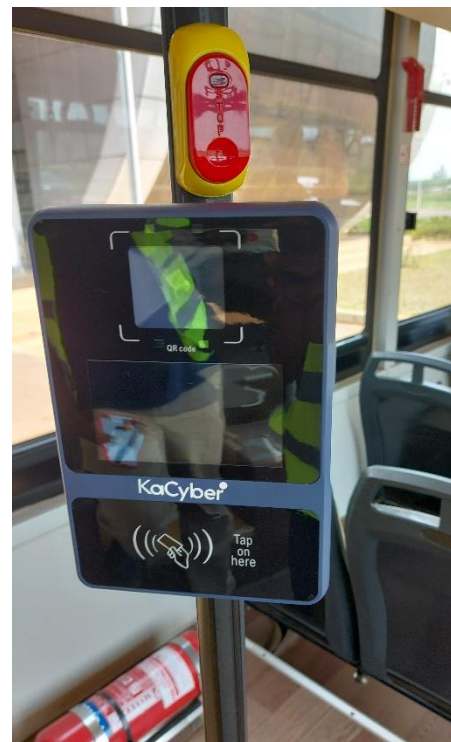
The Open Distance and e-learning (ODeL) support system was upgraded to 40% and the detailed Terms of Reference (ToRs) for the procurement of a reputable firm to provide the necessary support and expertise for the ODeL system upgrade were finalized. The monitoring and evaluation framework for the ICT research and innovation ecosystem was developed to 80%. A total of 13 staff and 635 students were trained in applied research and innovation.

Two (2) boot camps were organized in partnership with Innovent LTD and Crossroads Animation as follows; In partnership with Mbarara University of Science and Technology (MUST) and CamTech Uganda, the Hub held a three-day health hackathon for young people to create solutions around; non-communicable diseases, road traffic accidents and mental health problems.

A grant offer for the development of the Virtual Reality (VR) Centre was approved by the Office of the Solicitor General and funds were disbursed to MoICT&NG. As a result, a project Implementation Team was set up at UICT and was undergoing training, and a project management plan was developed and approved.

A total of 30 private innovators were hosted at the National ICT Innovation Hub. These include: Citz Technologies, Kacyber Technologies, Askari Project, Microfuse, Elago Technologies, Questlyft, Uzazi, Technology Innovation Association, Sumic Online, Autofore, Info Consults International, Code Impact, Crossroads Animation, Alipata Limited, Wal-E Visual, Iotec, Uriel Ltd, Rent Beta, Deron Limited, Wacloud, SMS One, Omugundu Gwa Tech, Pesasmart Digital Financial Literacy Money Game, Kwetu Auctions and Reality, Mpungu Analytics, Streamline Education, and Spovo (U) Ltd.

Eleven Fourth Industrial Revolution (4IR) events were coordinated with other stakeholders. These were: Digital education network in partnership with Micro fuse Technologies, unlocking the potential of Artificial Intelligence (AI) and Blockchain in the field of IT with the Institute of Electrical and Electronics Engineers Association; Google developers' students club workshop; Digital skilling in collaboration with Edutech clubs on basics of the internet; Python



**A digital ticket reader from Kacyber installed on Kayoola EV bus**

conference in Uganda; and Edutech monthly meet up on internet essentials. Others were a cyber-security awareness campaign, Citizen Participation Information System (CPIS) training, IT and digital marketing skills workshop, Twende Africa innovation challenge by code impact, and the National Innovation Summit with the Institute of Electrical and Electronics Engineers (IEEE).



**L-R: Delivered equipment for the National ICT hub and improved layout of the hub**

### **3.3.4 Support local innovation and promote export of knowledge products**

The intervention contributes to the programme’s objective of promoting ICT research, innovation and commercialization of indigenous knowledge products. The planned outputs for the FY2023/24 are: e-services provided, and Business Process Outsourcing (BPO) support services provided. The performance of the outputs under the intervention was fair at 64%.

**E-services provided:** To develop the National ICT Intellectual Property (IP) guidelines, the MoICT&NG gathered existing IP guidelines on ICT and corresponding strategies in the region and identified key stakeholders, both internal and external to participate in the review of the draft IP guidelines. As a result, a zero draft of the ICT sector Intellectual Property guidelines was developed.

**BPO Support Services provided:** A zero draft of the National Business Process Outsourcing (BPO) implementation strategy was developed and a comprehensive analysis of all stakeholders involved in the BPO industry, including government agencies, BPO service providers, industry associations, and relevant media outlets was undertaken. A situational baseline report on branding Uganda as a BPO and innovation destination, and a National BPO Publicity and Marketing Plan were developed. An inventory of existing BPO international standards and best practices and a capacity skills gap report based on previous studies of the BPO industry in Uganda were compiled. Specifications for skilling BPO companies were developed and subsequently, fifty BPO companies were trained in International BPO standards.

### **3.3.5 Promote local manufacturing and assembly of ICT products**

The intervention aims at promoting and supporting local ICT assembly and manufacturing through the promotion of ICT research, innovation and commercialization of indigenous knowledge products. The planned output for the FY2023/24 is - grants to ICT innovators provided. Overall intervention performance was fair at 54%.

To successfully manage the E-Government systems acquired under the National ICT Initiatives Support Program (NIISP), the MoICT&NG held quarterly project implementation and contract management meetings onsite and in the field for fifteen (15) local ICT products. In addition, project implementation and contract management meetings for PDMIS, EDRMS, EMIS, OBRS, and E-GP were held to review the progress of ongoing projects and address any challenges encountered.

### 3.3.6 Develop an ICT professional's quality assurance framework

The intervention contributes to the NDP III objective of increasing the ICT human resource capital. The planned key deliverable over the NDPIII period is a certification framework to regulate ICT professional standards developed. The planned output for the FY2023/24 was legal and advisory services provided. The intervention performance was good.

During the FY2022/23, the NITA-U developed ToRs for the review and development of identified laws and regulations in Uganda's information and communications technology. Two standards were reviewed and submitted to the National Technical Standards Committee for approval while eighty-two new IT service providers and companies were certified by NITA-U. Seven entities were audited and thirty-two sensitization sessions were conducted against a target of twenty-five. Table 3.5 shows the performance of the monitored interventions and outputs under the sub-programme.

**Table 3.5: Performance of the Research, Innovation and ICT Skills Development Sub-programme by 31<sup>st</sup> December 2023**

Output Performance								Remark
Intervention	Output	Financial Performance			Physical Performance			
		Annual Budget (Ug shs)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)	
Develop and implement ICT Research and Innovation ecosystem	Support to UICT	2,700,000,000	11.8	100	100	56	100	Very good performance
Develop a well-grounded ICT professional workforce	Innovation fund management	4,397,370,730	39.5	34	100	11	27.87	Poor performance
Develop ICT centres of excellence and vocational institutions	Support to UICT	14,307,888,000	40.7	86	100	40	98.22	Very good performance
Support local innovation and promote export of knowledge products	E-services provided	537,777,080	45.0	98	100	40	88.85	Good performance
	BPO Support Services provided	3,014,000,000	35.1	40	16	2.2	39.14	Poor performance
Promote local manufacturing and assembly of ICT products	Grants to ICT innovators provided	12,618,057,624	45.8	56	2	0.5	54.54	Fair performance
Develop an ICT professional's quality assurance framework	legal and advisory services provided	150,090,000	50.4	85	100	60	100	Very good performance
<b>Average Output Performance</b>							<b>72.66</b>	<b>Good performance</b>

Source: *Field Findings, PBS and IFMS*

## Conclusion

The sub-programme performance was good at 72.7%. The National ICT Hub brand and public relations strategy was operationalised and an innovator coaching scheme was developed through a collaborative mechanism. The ODeL support system was upgraded to 40% and the monitoring and evaluation framework for the ICT research and innovation ecosystem was developed to 80%. The drafts of the ICT sector Intellectual Property guidelines, and National Business Process Outsourcing (BPO) implementation strategy were developed. There were delays in the acquisition, upgrade and operationalization of the Electronic Document and Records Management System, and maintenance of the Online Business Registration System-OBRS.

## 3.4. E-services Sub-programme

The sub-programme goal is enhanced usage of ICT in national development and service delivery and has six interventions to be implemented over the NDPIII period. The current monitoring covered two funded interventions namely: mainstream ICT in all sectors of the economy and digitize service delivery; and strengthen cyber security in the country.

### Performance

The sub-programme performance was fair at 64.9% (Table 3.6). The intervention to mainstream ICT in all sectors of the economy exhibited fair performance, while the intervention of strengthening cyber security attained good performance. The detailed performance of the three monitored interventions is given hereafter:

**Table 3.6: Performance of selected interventions under the E-Services Sub-programme by 31<sup>st</sup> December 2023**

Intervention	Colour code	Remark
Mainstream ICT in all sectors of the economy and digitize service delivery	63.6	Fair performance
Strengthen Cyber Security in the country	70	Good performance

Source: *Authors' Compilation*

### 3.4.1 Mainstream ICT in all sectors of the economy and digitize service delivery

The intervention contributes to the programme's objective of enhanced usage of ICT in national development and service delivery. The intervention aims to promote interoperability, data sharing and integration of government systems; and rollout of e-services to citizens and government institutions.

The planned outputs for the FY2023/24 include: ICT Infrastructure Planning; e-services rolled out; Parish Development Model (PDM) equipment procured; and PDM operations supported. The overall intervention performance was fair at 63.6%. the detailed performance of the monitored outputs is discussed here under.

**ICT infrastructure planning undertaken:** An assessment to extend broadband infrastructure connectivity in health centres III, and IV, General hospitals, and selected Private-Not-For-Profit health facilities in Namutumba district was conducted. Additionally, a draft information paper on the implementation status of the National Broadband Policy was prepared and a report on emerging issues and recommendations given the National Broadband Policy was developed.

Technical support and guidance was provided to the Ministry of Works and Transport for the inclusion of ICT infrastructure in the design and upgrade of road projects. In addition, a review of existing policy frameworks and the integrated transport master plan was conducted. An assessment was conducted for incorporating ICT infrastructure deployment into WASH and Energy infrastructure planning and



management in the new cities of Jinja, Masaka, and Mbarara, and Ministries of Energy and Mineral Development, Lands, Housing and Urban Development, and Water and Environment.

The final project concept and a zero draft project profile for the interconnection and digitization programme for PWDs were developed. An assessment of the Information and Communications Bill 2022 was conducted, and provisions were established for developing regulations with input from UCC, mobile network operators and ICT infrastructure providers.

**E-services:** A total of seven out of the planned 20 entities were on-boarded onto the UMCS to ease Government communication. This increased the cumulative number of entities on-boarded to 145 with 26,040 active users out of 30,740 licenses issued. Ten BPO centres were supported through the provision of subsidized internet, technical support especially in terms of IT regulation requirements, and enabling linkage of innovators to potential markets. The interoperability framework was rolled out to two (02) out of the planned five entities (Ministry of Local Government and Ministry of Health) which enabled them to revise their frameworks.

Nine entities were integrated on the Whole-of-Government integration and data-sharing platform against a target of 40 bringing the cumulative number of entities on the platform to 126. Furthermore, seventy-three of the entities integrated were utilizing services through the platform with a cumulative total of 97,176,756 transactions recorded during the period under review.

To deploy digital authentication and mobile ID solution to 100,000 users in both public and private entities, the NITA-U, engaged forty-four entities to create awareness of the mobile ID solution to increase uptake. Online service for registration of women in business across the country was identified and a proposal was developed and submitted to Women in Business for approval. To establish the ICT/BPO Park, BSMART Technology Limited was on-boarded to develop the IT/BPO park in Entebbe under a PPP arrangement.

A stakeholder consultation workshop on Electrical and Electronic waste equipment (e-waste) management and Extended Procedure Responsibility (EPR) regulation in Uganda was held with the involvement of stakeholders such as UCC, UICT, MoES, NITA-U, UBOS, UIA, private sector, electrician's association, e-waste collectors, Makerere University, and e-waste consultants. The TORs and concept note were being drafted by the MoICT&NG for e-waste management while the procurement of two motor vehicles to support NBI implementation was initiated.

To achieve capacity building and training of ICT cadres in key skills and competences for Digital Transformation, capacity building on cybersecurity was undertaken among MDAs and LGs with 90 participants from the Directorate of Veteran Affairs, ICT Hub, Judicial Service Commission, MAIIF, MoD&VA /UPDF Headquarters, MFPED, MoIA, MoTWA, MoWE, MoWT, MOES, MOH, MoICT & NG, MoLG, MUK, NDA, NTC Unyama, OPM, UBOS, UEPB, UHRC, UNHRO, UNRA, UPS, UICT. A training of trainers on Amazon Web Services for IT officers was facilitated for 2 staff from MoICT&NG and the National ICT Hub.

**Parish Development Model Equipment:** The PDMIS- Financial Inclusion System (FIS) module was rolled out to 133 districts while the PDMIS service desk/technical support was provided to 1,654,000 PDMIS users. The Terms of Reference for the infrastructure and economic services module of the PDMIS were developed while the PDMIS registration module, citizen participation interaction and monitoring and evaluation modules were rolled out and the status of their implementation was monitored by the MoICT&NG.

**Parish Development Model Operations:** During the period under review, a PDMIS data cleanup activity, data validation and qualification was undertaken. The PDM SAACO data was uploaded onto the PDMIS, and the PDMIS integration APIs were developed. The integration of the PDMIS with Centenary Bank, Insurance Association of Uganda, NIRA, Stanbic Bank and Equity Bank was completed and implementation with other PDM participating banks was ongoing.

### 3.4.2 Strengthen Cyber Security in the country

The intervention aims at enhancing cyber security through the implementation of the National Information Security Framework (NISF), provision of Computer Emergency Response Teams (CERTs) services, utilization of the national cyber threat intelligence platform, and training in cybercrime investigation and prosecution. The planned output for the FY2023/24 was cyber security strengthened. The intervention performance was good at 70%. The performance of the monitored output is discussed hereafter:

**Cyber security:** Seven MDAs were assessed against the NISF to improve cyber security in Government entities. Twenty CERT advisories and alerts were issued during the period under review that targeted a proactive defence against cyber-attacks, and 26 cybersecurity awareness sessions were conducted targeting both the public and private sectors. Additionally, the NITA-U conducted twenty-six cybersecurity awareness sessions targeting both the public and private sectors. Table 3.7 shows the performance of the monitored interventions and outputs under the sub-programme.

**Table 3.7: Performance of the E-Services Sub-programme by 31<sup>st</sup> December 2023**

Output Performance								Remark
Intervention	Output	Financial Performance			Physical Performance			
		Annual Budget (Ug shs)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)	
Mainstream ICT in all sectors of the economy and digitize service delivery	ICT Infrastructure Planning	432,519,560	52.7	99	100	57	100	Very good performance.
	E-services	6,834,606,500	50.6	94	100	20	39.49	Poor performance
	Parish Development Model Equipment	4,000,000,000	52.6	13	3	1	63.32	Fair performance
	Parish Development Model Operations	481,358,000	38.8	96	3	0.6	51.55	Fair performance
Strengthen Cyber Security in the country	Cyber security	306,400,000	36.9	-	31	8	69.97	Fair performance
<b>Average Output Performance</b>							<b>64.87</b>	<b>Fair performance</b>

*Source: Author's Compilation*

### Conclusion

The sub-programme performance was good at 64.9%. A draft information paper on the implementation status of the National Broadband Policy was prepared. The final project concept and a zero draft project profile for the interconnection and digitization programme for PWDs were developed. An assessment of the Information and Communications Bill 2022 was conducted to inform the development of regulations. Entities were on-boarded onto the UMCS and BPO centers were supported through the provision of subsidized internet and additional PDMIS modules were rolled out while others were under development. Despite the more than 50% release of funds, the absorption was poor under the

output of Parish Development Model Equipment leading to delayed operationalization of other modules.

### 3.5 ICT Infrastructure Sub-programme

The sub-programme goal is to increase national ICT infrastructure coverage and has three interventions to be implemented over the NDPIII period. The monitoring focused on two interventions namely; Implement the national addressing system, and extend broadband ICT infrastructure coverage countrywide in partnership with the private sector.

#### Performance

The sub-programme performance was fair at 65.5% (Table 3.8). The performance of the intervention to extend broadband ICT infrastructure coverage countrywide in partnership with the private sector and implement last-mile connectivity to key areas (Districts, sub-counties, schools, hospitals) was good, while the intervention to implement the National Addressing System had a fair performance. Table 3.8 highlights the performance of the monitored interventions.

**Table 3.8: Performance of monitored Interventions under the E-Services Sub-programme by 31<sup>st</sup> December 2023**

Intervention	Colour code	Remark
Implement the national addressing system	55.8	Fair performance
Extend broadband ICT infrastructure coverage countrywide in partnership with the private sector and implement last-mile connectivity to key areas (Districts, sub-counties, schools, hospitals)	70.3	Good performance

*Source: Authors' Compilation*

The detailed performance of the two monitored interventions is given hereafter:

#### 3.5.1: Implement the national addressing system

The intervention contributes to the objective of enhancing the usage of ICT in national development and service delivery. The planned output under the intervention for FY2023/24 is infrastructure development and management. The overall intervention performance was fair at 55.8%.

During the period under review, the first draft of standards for the delivery of e-services through postal outlets was developed after consultations with UCC and POSTA Uganda. In addition, ten new administrative units in Eastern and Northern Uganda postcodes were updated. These included the cities of Mbale, Gulu, Lira, Arua, and Jinja; and the municipalities of Iganga, Bugiri, Kumi, Ngora and Soroti.

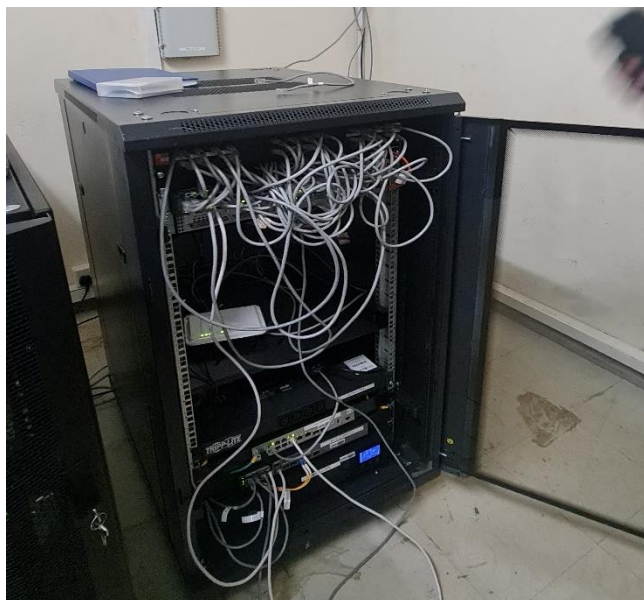
A survey of existing NBI infrastructure was done in nine (9) districts of Mukono, Jinja, Tororo, Mbale, Soroti, Lira, Masindi, Hoima, and Kiboga. The existing infrastructure of UTCL in 18 districts namely Kampala, Mpigi, Mityana, Luwero, Wakiso, Mbale, Jinja, Iganga, Soroti, Gulu, Arua, Lira, Masaka, Mbarara, Kabale, Fort Portal, Masindi and Mubende was monitored to inform the implementation of the Uganda Digital Acceleration Project.

#### 3.5.2 Extend broadband ICT infrastructure coverage countrywide in partnership with the private sector and implement last-mile connectivity to key areas (Districts, sub-counties, schools, hospitals)

The intervention contributes to the sub-programme goal of increased national ICT infrastructure coverage through the extension of the national backbone infrastructure and connection and provision of internet to MDAs. The planned outputs for the FY2023/24 are: infrastructure development and management; infrastructure planning; and ICT infrastructure deployment.

**ICT infrastructure planning:** The NBI connectivity was extended to give internet access to five sites at Entebbe International Airport, Speke Resort Munyonyo, Hotel Africana, Kajjansi Trading Centre,

Three Entebbe Express Way Road Tolls, and Uganda Airlines. Additionally, a total of 30 Wi-fi hotspots were maintained for the half-year period. The installed solar equipment was maintained at thirty-two (32) transmission sites and surveys for connectivity of 10 NBI sites and 10 sites for locations were conducted. The existing transmission sites and connections at districts were supported to provide IT services to the beneficiary institutions.



**L-R: A server at Mbarara District headquarters, and a transmission site at Posta Uganda offices in Fort-Portal City**

**ICT infrastructure deployment: (Under the Government Network (GOVNET) Project)** The ToRs for the upgrade of the Metropolitan Area Network (MAN) Centre facilities (Lot 1) were approved by the World Bank and the procurement was initiated. The comments by the World Bank to the ToRs for the last mile study were incorporated and awaiting World Bank clearance.

The ToRs for Unified Messaging and Collaboration Services to an additional 20 MALGs and parishes were submitted to the World Bank, input was provided and was being reviewed for re-submission. The comments on the ToRs for upgrading the existing national data centre and disaster recovery sites to host additional Government applications were re-submitted to the NITA-U top management for consideration before submission to the World Bank for approval. The establishment of the telecentres was delayed pending a study on the same. Table 3.9 shows the performance of the sub-programme monitored outputs.

**Table 3.9: Performance of the ICT Infrastructure Sub-programme by 31<sup>st</sup> December 2023**

Output Performance									Remark
Intervention	Output	Financial Performance			Physical Performance				
		Annual budget (Ug shs)	% of budget received	% of budget spent	Annual target	Cum. achieved quantity	Physical Performance Score (%)		
Implement the national addressing system	Infrastructure development and management.	487,721,570	44.8	99	4	1	55.79	Fair performance	



Extend broadband ICT infrastructure coverage countrywide in partnership with the private sector and implement last-mile connectivity to key areas (districts, sub-counties, schools, hospitals)	ICT infrastructure planning	18,397,281,895	53.8	80	100	56	100	Very good performance
	ICT infrastructure deployment (GOVNET)	4,464,000,000	49.2	21	100	20	40.68	Poor performance
<b>Average output performance</b>							<b>65.49</b>	<b>Fair performance</b>

*Source: Author's Compilation*

### **Conclusion**

The sub-programme performance was fair at 65.49%. The first draft of standards for delivery of e-services through postal outlets was developed and the NBI connectivity was extended to give internet access to five sites. The ICT infrastructure registered poor performance because most of the contracts under the UDAP had not commenced, and a delay in funding by the World Bank.

## CHAPTER 4: CONCLUSION AND RECOMMENDATIONS

### 4.1 Conclusion

The overall Digital Transformation (DT) Programme performance was fair at 69.4% with the Research, Innovation and ICT Skills Development, and Enabling Environment sub-programmes registering good performance, while the NITA-U recorded a poor release owing to delayed approvals from the World Bank on the counterpart funding. Two standards were reviewed and submitted to the National Standards Technical Committee for IT policies for approval. The National ICT Hub Brand and Public Relations Strategy was operationalized.

An Innovator Coaching Scheme was developed through a collaborative mechanism and Intellectual Property guidelines were reviewed for consistency. Upgrading of the ODeL support system progressed to 40%, while the development of a monitoring and evaluation framework for the ICT research and innovation ecosystem progressed to 80%. Drafts of the ICT Sector Intellectual Property Guidelines and National BPO Implementation Strategy were developed.

A draft information paper on the implementation status of the National Broadband Policy was prepared. The final project concept and draft project profile for the interconnection and digitization programme for PWDs was developed. Thirty private innovators were hosted at the National ICT Innovation Hub although the facility remained underutilised. The project implementation plans on e-waste management were developed and a policy review exercise on e-waste extended producer responsibility was initiated thus contributing to an enabled digital environment. The UMCS was rolled out to seven Government entities bringing the number of entities on the UMCS to 145 with 26,034 active users.

There were delays in the acquisition, upgrade and operationalization of the Electronic Document and Records Management System, and maintenance of the Online Business Registration System (OBRS). Despite the more than 50% release, the absorption was poor under the output of Parish Development Model Equipment leading to delayed operationalization of other modules.

The programme was faced with delayed funding for the UDAP which affected the establishment of ICT infrastructure, insufficient staffing levels at both NITA-U and UICT, limited funding for research and innovation, and inadequate infrastructure to support specialized ICT training.

### 4.2 Recommendations

- i) The NITA-U should finalise the requirements for external financing to facilitate the release of funds to support infrastructure development under the UDAP.
- ii) The MoICT&NG should fast-track the acquisition, upgrade and operationalisation of EDMS and maintenance of the OBRS to achieve the intended objectives of these systems.
- iii) The MoICT&NG should support the UICT to establish the required infrastructure such as lecture rooms, equipment and staff to facilitate specialized ICT training.

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**Annex 1: List of interventions sampled for monitoring in the FY2023/24**

Sub-programme	Intervention
Enabling Environment	Review and develop appropriate policies, strategies, standards and regulations that respond to industry needs
Research, Innovation and ICT Skills Development	Develop and implement ICT Research and Innovation ecosystem
	Develop a well-grounded ICT professional workforce
	Develop ICT centres of excellence and vocational institutions
	Support local innovation and promote export of knowledge products
	Promote local manufacturing and assembly of ICT products
E-services	Mainstream ICT in all sectors of the economy and digitize service delivery
	Strengthen Cyber Security in the country
ICT Infrastructure	Extend broadband ICT infrastructure coverage countrywide in partnership with the private sector and implement last-mile connectivity to key areas (Districts, sub-counties, schools, hospitals, post offices, tourism sites, police, LGs etc.)
	Implement the National Addressing System

*Source: Author's Compilation*