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List of Acronyms and Abbreviations

Acronym / Abbreviation	Description
ACTS	African Centre for Technology Studies
AFI	African Futures Institute
AI	Artificial Intelligence
AIC	Academia Industry Collaboration
AIMS	African Institute for Mathematical Sciences
APBT	Africa Policy Bridge Tank
AUDA-NEPAD	African Union Development Agency-New Partnership for Africa's Development
BMGF	Bill & Melinda Gates Foundation
BRD	Business Requirements Document
CAD	Canadian Dollar
CEO	Chief Executive Officer
CSM	CSM Technologies
EIMF	Entrepreneurial Institutional Maturity Framework
EU	European Union
FY	Fiscal Year
GCE	Grand Challenges Exploration
GDP	Gross Domestic Product
GoR	Government of Rwanda
HLI / HLIs	Higher Learning Institution(s)
HEC	Higher Education Council
HPC	High-Performance Computing
HVAC	Heating, Ventilation and Air Conditioning
ICT	Information and Communication Technology
IDRC	International Development Research Centre
IFs	International Futures
IEWRS	Integrated Early Warning and Response System
INES	INES Ruhengeri
IoT	Internet of Things
IP	Intellectual Property
IPO	Input-Process-Output
KCC	Kigali Convention Centre
KeNIA	Kenya National Innovation Agency
KTH	KTH Royal Institute of Technology
M&E	Monitoring and Evaluation
MINICT	Ministry of ICT and Innovation
MoU	Memorandum of Understanding
MTR	Mid-Term Review

NCST	National Council for Science and Technology
NIRDA	National Industrial Research and Development Agency
NIS	National Innovation System
NRF	National Research Foundation
NRIA	National Research and Innovation Agenda
NRIF	National Research and Innovation Fund
NISR	National Institute of Statistics of Rwanda
NST2	Second National Strategy for Transformation
OECD	Organization for Economic Co-operation and Development
PI / PIs	Principal Investigator / Principal Investigators
PNP	Private Not-for-Profit
PPS	Probability Proportional to Size
R&D	Research and Development
RAB	Rwanda Agriculture and Animal Resources Development Board
RBA	Rwanda Broadcasting Agency
RBC	Rwanda Biomedical Centre
REDCap	Research Electronic Data Capture
RIC-R&D	Research and Innovation Challenge- Research and Development
RIGMS	Research Innovation Grants Management System
RISA	Rwanda Information Society Authority
RP	Rwanda Polytechnic
RWF	Rwandan Franc
SFA	Science for Africa Foundation
SGCI	Science Granting Councils Initiative
SDGs	Sustainable Development Goals
SSD	System Design Document
STI	Science, Technology and Innovation
STISA	Science, Technology and Innovation Strategy for Africa
STRI	Science, Technology, Research and Innovation
ToT	Training of Trainers
TTC	Technology Transfer and Commercialization
TTO	Technology Transfer Office
TUBITAK	Scientific and Technological Research Council of Türkiye
UAT	User Acceptance Test
UGHE	University of Global Health Equity
ULK	Kigali Independent University
UR	University of Rwanda
UR-ACEIoT	University of Rwanda -African Center of Excellence in Internet of Things
USD	United States Dollar
WIS	Women in Sciences

Message from the Co-Chair of NCST Council



I have the honor to recommend that all stakeholders take an ample time to read this Annual Report for the Fiscal Year (FY) 2025/2026. The report underscores the continued accomplishment of the National Council for Science and Technology (NCST) to support national agenda for Science, Technology, and Innovation (STI) to be a backbone driver for long-term national social economic growth.

This report takes into considerations several key superiority edges of national development; including survey findings of the first ever Rwanda National Innovation Survey (RIS) 2022-2024, that promotes a better understanding of innovation trends, expenditures, activities, and barriers across sectors. The survey recommends increasing investment in research and development (R&D), promoting academia-industry collaboration, enhancing innovation-related skills, and supporting entrepreneurship and technology commercialization among others. These findings are key to facilitate dialogue on policy and implementation implications for strengthening Rwanda's innovation ecosystem. As a result of increasing need to utilize emerging technologies such as AI and others in facilitating routine and technical activities, as Assessment of the Status, Adoption, Application and Impact of Emerging Technologies in Rwanda is being carried out.

This report also highlights the role of NCST in contributing to Rwanda's Vision 2050, through a reviewed NCST Strategic Plan 2024-2029, which builds on National Strategy for Transformation (NST2) agenda. These efforts contribute to expanded public access to information on research, innovation, capacity-building initiatives and institutional achievements while strengthening engagement with researchers, innovators, policymakers and the general public.

I would like to express sincere gratitude to the NCST Secretariat, researchers, innovators, partners, and stakeholders for their dedication. Together, we will continue to advance development of novel technology and innovation for Rwanda's sustainable development and shared prosperity.

Hon. Joseph Nsengimana

Minister of Education and Co-Chair of NCST Council

Message from the Executive Secretary



It is our pleasure to present this Annual Report for the Fiscal Year 2025/2026, which describes progress made in implementing National Council for Science and Technology (NCST)'s mandate and strategic plan priorities.

The year was marked by important advances in strengthening Rwanda's Science Technology and Innovation (STI) ecosystem. Significant information was generated and disseminated to all stakeholders on Rwanda Innovation Survey (RIS) 2022–2024 report. It was worth noting that service-related innovation sector had the highest proportion of institutions with innovation-driven economic activities. While progress on service-related innovation is key and shall be consolidated, there is a need to underscore the importance of improving innovation in other economic activities such as utilities, mining and quarrying. The nationwide assessment of the status, adoption, application and impact of emerging technologies including AI, machine learning, biotechnology, big data analytics, Internet of Things and robotics, among others, was advanced this year, with nationwide data collection completed. The findings will inform future policy and strategic decisions on the adoption and utilization of emerging technologies in Rwanda.

The Secretariat broadened funding opportunities through national research and innovation fund (NRIF), specifically increasing external fund and resource mobilization. There were improved mechanisms to strengthen grant management through internal controls, monitoring and evaluation (M&E) systems. Progress was also made in technology transfer and commercialization through capacity assessments, training, and development of mechanisms to strengthen up-take of research outputs.

We strengthened the Secretariat's internal control systems and service delivery through digital platforms such as the upgrading of Research and innovation management system (RIGMS). We further developed and launched an open science resource- Rwanda Research and Innovation Repository which provides free online digital access to data on peer-reviewed journals, policy briefs and data on scientific conference proceedings and outcomes, among others. This resource is key to elevate national academic and scientific credibility to enable improved linkage to international collaborations. It also provides valuable information to private sector and industry actors, connecting innovators with businesses to transform novel scientific outputs into market solutions. The institution also maintained strong financial internal controls and performance through capacity building, recording 99% overall budget execution for this year.

These achievements reflect the commitment of the NCST Secretariat and the collaboration of all stakeholders. As we move into future, the focus will be to consolidate these gains, strengthening the effectiveness and impact of NCST programs, and ensuring efficient delivery of the Secretariat's mandate.

We sincerely thank all partners and the dedicated Staff at NCST.

Dr. Eugene Mutimura
Executive Secretary

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1. Background and context

The Rwanda National Council for Science and Technology (NCST) operates as the primary body responsible for advising the government on matters related to science, technology, and innovation (STI), with the aim of accelerating socio-economic transformation through knowledge-driven development. As outlined in its mandate, strengthening policy frameworks, promoting research and innovation, mobilize research funding and expanding national and international collaborations, coordinating STI activities, and setting national priorities, to strengthen Rwanda's science and innovation ecosystem.

1.1. NCST's Mandates

The National Council for Science and Technology (NCST) has been established by the Law No 40/2017 of 16/08/2017, with the responsibilities to:

- Advise the Government on policies, legislation and regulation in the fields of science, technology, research and innovation (STRI) and monitor the implementation of such polices and legislations;
- Advise the government on setting national priorities in the fields of science, innovation, technology, research and development as well as modalities for funding such as activities
- Identify and promote new sectors of activities that require special means and measures for innovation through technology and research essential for the country
- Carry out an analysis of the nature and efficient use of national resources and infrastructures in order to support science and technology as well as their innovative use in a sustainable manner
- Regulate science, technology, innovation and research;
- Mobilize funds and manage the National Research and Innovation Fund;
- Promote science and technology community outreach activities;
- Prepare and disseminate annual report on the status of science and technology; Cooperate and collaborate with other advanced regional and international institutions of excellence with similar mission

NCST is aligning and contributing to the implementation of the national strategic development plan NST2 (2024-2029) that pursue the medium- to long-term goals of Rwanda's Vision 2050, namely economic growth, prosperity, and a high standard of life for Rwandans. In particular priority area 3: *Establish Rwanda as a globally competitive knowledge-based economy,* under the key strategic intervention: *"Promote research and development"* as a key to fast-tracking Rwanda's economic transformation especially in the area of technology for industrial development

1.2. Overview of the NCST Annual Report FY 2025-2026

The fiscal year 2025-2026 marked a period of significant progress for NCST, and was guided by the implementation of the NCST's five-year Strategic Plan[1] (2023-2028) and Annual Plan for FY 2025-2026, by focusing on three main objectives:

- Developing STI policies, strategies, and regulatory frameworks for productivity and sustainable growth.
- Enhance national STI and R&D performance
- Promote and foster collaboration and partnerships in areas of STI and R&D to boost value addition, industrialization, and enhancing institutional and human capacity for research and innovation

Additionally, the report is expanded to include other coordination and operational activities, such as administration, finance, and human resource management. It serves as an accountability tool, detailing achievements, challenges and lessons learnt, and the impact of activities and programs carried out during the FY 2025-2026. The success of implementation of the Action Plan 2025-2026 was informed by major stakeholder engagements.

Examples of key achievements include the launch of first ever Rwanda Innovation Survey report 2022-2024 which provides data on national innovation status and performance; launch of developed Rwanda Research and Innovation repository which is a centralized platform to curate and disseminate national research outputs.

1 NCST Strategic plan 2023-2028

In addition, NCST initiated development of several strategic instruments, such as the Rwanda Research and Innovation Resource Sharing Framework, STI Skills and Capacity Building Strategy, and Resource mobilization manual. These tools collectively aim to enhance evidence-based decision-making, access to knowledge, research outputs, collaboration, and resource sharing. They also provide strategic tools to build capacity, mobilize resources, and drive sustainable innovation and socioeconomic development.

Furthermore, NCST leveraged R&D investment through resource mobilization and expansion of its funding partnerships. NCST mobilized 750,000 Canadian dollars to implement the programme "Fostering climate resilience through funding strategic research and innovation projects in Rwanda. Also expansion of funding partnerships through establishment of collaborative letters of intents aiming to fund research under the 2026 New Frontiers in Research Fund (NFRF) international joint initiative for research harnessing disruptive technologies to address global challenges (2026-2030) (the "IIDTAC Call") where NCST will mobilize up to 2,750,000 Canadian Dollars; funding collaboration for Nexa which is a global climate and health innovation initiative co-led by Grand Challenges Canada and the Science for Africa Foundation mobilizing up to 600,000 US Dollars; and funding partnerships through SGCI Forum for a joint initiative grounded in the priority sectors of the African Union's Science, Technology and Innovation Strategy for Africa 2034 (STISA-2034) aiming to address Africa's challenges and national priorities (STISA-2034), strengthens institutional networks and a more integrated African STI ecosystem." Resource mobilization is implemented through co-funding approaches which promotes and strengthens national ownership. By expanding the share of research funding managed directly by African Councils, and embedding co-funding mechanisms, these calls will catalyze a more self-sustaining and locally led research ecosystem.

In addition, capacity building emerged as an opportunity to strengthen capacity with a greater focus on institutionalizing capacity building efforts, supporting high-quality research, advancing STI policy leadership.

The NCST also invested in promoting public awareness and outreach through initiatives like the "Bikora Bite" science media series, stakeholder engagement workshops, and the dissemination of research findings through national platforms. These efforts bridged the gap between research and society, fostering a culture that values scientific knowledge, innovation, and inclusive development.

Overall, the 2025/2026 fiscal year represented a significant period of consolidation, innovation, and strategic repositioning for NCST. Through visionary leadership, strengthened partnerships with stakeholders, and the implementation of evidence-based programmes, NCST reinforced its commitment to positioning Rwanda as a regional leader in research, science, and innovation. The achievements recorded during the reporting period have established a strong foundation for expanding the institution's impact in the coming years, while enabling it to effectively respond to emerging global challenges and capitalize on new opportunities in science, technology, and sustainable development.

2. STI Development and Outreach Programs

STI development and outreach programs resulted in various initiatives including development of STI strategies and frameworks, NCST' system digitization and platforms, promoting partnerships for STI and research and development (R&D) excellence, and engaging in STI communication, dissemination and outreach activities. The following sections summarized key achievements as aligned with the NCST Strategic Plan (in particular Strategic Objective 1: Develop specific STI polices, strategies and regulatory frameworks, and Strategic Objective 3: Promote cooperation, collaboration and community engagements in areas of STI and R&D), and the NCST Action Plan for the FY 2025-2026.

2.1. Develop specific STI policies, strategies and regulatory frameworks

During FY 2025-2026, the development of STI polices, strategies and frameworks focused on development of Rwanda research resource sharing framework and STI skills Capacity Building Strategy for enhancing the research capacity and national innovation system.

2.2.1. Development of Rwanda Research and Innovation Resource Sharing Framework and STI Skills and Capacity Building Strategy

The National Council for Science and Technology (NCST) convened a three-day stakeholder consultation workshop on 10 -12 June 2026 (Figure 1), to support the development of the Rwanda Research Resource Sharing Framework and the STI Skills and Capacity Building

Strategy. The workshop brought together representatives from government institutions, universities, research centers, private sector organizations, and development partners to review and validate assessment tools, identify challenges, and propose strategic interventions for the resource sharing framework and strengthening Rwanda's STI ecosystem.





Figure 1: Stakeholders who participated in the consultation meeting

a) Key discussions

Research Resource Sharing: Participants acknowledged that Rwanda has invested significantly in research infrastructure, scientific equipment, digital platforms, and human resources. However, these resources remain fragmented, underutilized, and poorly coordinated across institutions. Major challenges identified included limited visibility of available resources, duplication of expensive equipment, inadequate maintenance systems, weak data-sharing mechanisms, and the absence of a structured platform for sharing expertise and research outputs. Stakeholders emphasized the importance of establishing a national inventory of research infrastructure, equipment, digital resources, and expertise to improve access, utilization, and collaboration. Discussions also highlighted the need for stronger governance, accountability mechanisms, and sustainable financing models to support resource sharing.

STI Skills and Capacity Building: Participants noted that while Rwanda has made progress in developing STI capacity through academic programs, research grants, fellowships, innovation hubs, and training initiatives, significant gaps remain. Key challenges include a limited number of researchers, weak research culture, inadequate industry-academia collaboration, insufficient commercialization and technology transfer skills, limited postdoctoral opportunities, and shortages in emerging technology skills such as artificial intelligence, data science, advanced manufacturing, and electric mobility. The workshop further highlighted the need to strengthen research leadership, innovation management, intellectual property (IP) protection, and entrepreneurship skills to increase the contribution of research and innovation to national development.

b) Rwanda Research Resource Sharing and STI Skills and Capacity Building Gap analysis

The stakeholder consultations identified several systemic, institutional, technical, and human capacity gaps affecting the effectiveness of research, innovation, and STI development in Rwanda. The following gap analysis summarizes the key issues raised by participants (Tables 1,2 and 3), and proposed areas of interventions (Table 4).

Table 1: Research Resource Sharing Gap Analysis

Thematic Area	Key Gaps Identified	Implications
Research infrastructure and equipment	▪ No national inventory of research infrastructure and equipment ▪ Low awareness of available resources across institutions ▪ Duplication of expensive equipment purchases ▪ Limited access to specialized facilities ▪ Inadequate maintenance systems and consumables ▪ Shortage of trained operators and technicians ▪ Dependence on foreign experts for maintenance	▪ Underutilization of infrastructure ▪ Increased operational costs ▪ Reduced return on research investments ▪ Lower research productivity

Digital resources and data haring	▪ Limited High-Performance Computing (HPC) capacity ▪ Restricted access to institutional datasets ▪ Poor interoperability among digital systems ▪ Limited availability of local datasets for AI and machine learning ▪ Weak open data practices ▪ Data sovereignty concerns	▪ Reduced collaboration and innovation ▪ Duplication of data collection efforts ▪ Slower development of AI and digital solutions
Human capital and expertise sharing	▪ No national database of STI experts ▪ Absence of structured researcher mobility mechanisms ▪ Limited incentives for knowledge sharing ▪ Uneven distribution of expertise across sectors ▪ Weak mentorship and collaboration structures	▪ Difficulty accessing expertise ▪ Slow transfer of knowledge and skills ▪ Missed collaboration opportunities
Governance and financing	▪ Weak implementation of existing policies ▪ Unclear institutional leadership and accountability ▪ Lack of coordination mechanisms ▪ Heavy dependence on donor funding ▪ Weak cost-sharing frameworks ▪ Limited visibility of ongoing research projects	▪ Fragmented implementation ▪ Research duplication ▪ Sustainability risks for shared infrastructure

Table 2: STI Skills and Capacity Building Gap Analysis

Thematic Area	Thematic Area	Implications
Research capacity	▪ Limited number of researchers and postdoctoral fellows ▪ Weak research leadership pipeline ▪ Senior researchers overloaded with administrative responsibilities ▪ Inadequate mentorship structures	▪ Reduced research output and quality ▪ Slow development of future research leaders
Skills mismatch and workforce development	▪ Training not aligned with labor market needs ▪ Limited practical and industry-oriented learning ▪ Weak workforce planning mechanisms	▪ Skills shortages in priority sectors ▪ Underemployment of trained graduates
Emerging technology skills	▪ Limited expertise in AI, Data Science, Advanced Manufacturing, Biotechnology, Electric Mobility, and Industrial Engineering,etc	▪ Reduced competitiveness in emerging industries ▪ Continued reliance on external expertise
Innovation and commercialization	▪ Weak IP management and technology transfer capacity ▪ Poor commercialization pathways ▪ Limited product development and market-entry support ▪ Weak researcher-industry-investor linkages	▪ Research outputs fail to reach the market ▪ Low economic returns from R&D investments
Industry-academia collaboration	▪ Weak institutional partnerships ▪ Poor implementation of industrial attachments ▪ Limited industry participation in training and supervision	▪ Skills not aligned to industry needs ▪ Reduced innovation uptake by the private sector

Research culture	▪ Limited motivation and incentives for research ▪ Weak culture of collaboration and knowledge sharing ▪ Research often treated as a secondary activity	▪ Low research productivity and innovation outputs
Capacity building systems	▪ Irregular training programs ▪ No accreditation framework for short-term STI training ▪ Limited continuous professional development opportunities	▪ Inconsistent quality of training programs ▪ Fragmented capacity development efforts
Gender and inclusion	▪ Underrepresentation of women in STI fields ▪ Unequal access to advanced training opportunities	▪ Loss of talent and diversity in research and innovation

Table 3: Cross-cutting systemic challenges

Cross-Cutting Challenge	Evidence from Participants	Strategic Significance
Weak coordination	Resource sharing and capacity development initiatives operate independently with limited coordination among institutions.	Reduces efficiency and collaboration across the STI ecosystem.
Lack of accountability	No clear mechanisms to ensure implementation of policies, MoUs, and strategic commitments.	Weakens execution and sustainability of interventions.
Limited visibility of Resources and Expertise	Researchers and institutions are often unaware of available infrastructure, datasets, expertise, and ongoing research.	Leads to duplication and underutilization of national assets.
Unsustainable financing	Heavy dependence on donor funding and lack of dedicated budget lines for research infrastructure and skills development.	Threatens long-term sustainability of STI investments.
Weak link between infrastructure and skills	Investments in infrastructure are not always matched by investments in human capacity to operate, maintain, and utilize resources.	Limits impact and utilization of available facilities.
Weak research-to-innovation pipeline	Research outputs rarely progress to commercialization and market uptake.	Reduces contribution of STI to economic transformation.
Weak research culture	Limited incentives, recognition, and institutional support for research activities.	Constrains innovation and scientific productivity.

Table 4: Priority Areas for Intervention

Priority Area	Proposed Actions
Resource visibility	Develop a national inventory and digital platform for infrastructure, expertise, datasets, and research outputs.
Governance & accountability	Establish a clear national coordination and accountability framework led by NCST.
Human capital development	Create national expert directories, researcher mobility programs, mentorship schemes, and incentives for knowledge sharing.
Emerging skills development	Invest in AI, Data Science, Electric Mobility, Biotechnology, Industrial Engineering, and Technology Transfer skills.
Academia-industry collaboration	Strengthen industry-academia partnerships, internships, co-supervision, and innovation commercialization pathways.
Sustainable financing	Establish dedicated funding mechanisms, cost-sharing models, and private-sector contributions.
Research culture	Introduce research incentives, recognition systems, and structured research leadership development programs.
Open data & digital infrastructure	Expand HPC infrastructure, promote open data policies, and strengthen interoperability across institutions.

c) Assessment Tools Validation

Stakeholders reviewed and validated the assessment tools for resource sharing framework. Participants recommended simplifying and improving the questionnaires by incorporating objective indicators, sector-specific considerations, and additional skills categories such as research ethics and grant management.

Key Recommendations from Participants

The workshop successfully generated consensus on the major challenges, opportunities, and priorities for strengthening research resource sharing and STI capacity development in Rwanda. Participants underscored the importance of coordinated governance, improved resource visibility, sustainable financing, stronger research-industry linkages, and investment in emerging skills. The recommendations (Table 5) and proposed assessment tools will guide NCST in the next phases of data collection, analysis, and development of an evidence-based framework to enhance Rwanda's research, innovation, and STI ecosystem. Also, the workshop established a strong foundation for a nationally coordinated approach to research resource sharing with stakeholders committing to continued engagement throughout the strategy development process.

Table 5: Recommendations and Actions

NS	Recommendations	Action
1	Develop a National Resource Sharing Platform	- Establish a centralized national database for research infrastructure, equipment, digital resources, research outputs, and STI experts. - Improve visibility and reduce duplication of investments across institutions.
2	Strengthen Governance and Coordination	- Establish a clear national governance structure led by NCST to coordinate implementation, monitoring, and accountability. - Clarify institutional roles and responsibilities for resource sharing and capacity development.

3	Promote Open Data and Interoperability	- Encourage open access to publicly funded research data. - Develop national standards that enable digital systems and repositories to communicate and share information effectively
4	Enhance Human Capital Development	- Create a national directory of STI experts. - Establish structured mechanisms for staff mobility, mentorship, postdoctoral development, and peer learning. - Introduce incentives to encourage knowledge sharing and research collaboration.
5	Strengthen Industry-Academia Collaboration	- Build stronger partnerships between universities, research institutions, and industry to ensure research responds to market needs and supports innovation commercialization.
6	Establish Sustainable Financing Mechanisms	- Diversify funding sources for research infrastructure and capacity-building initiatives. - Promote cost-recovery models and private-sector participation where appropriate.
7	Conduct a Comprehensive Desk Review Before Data Collection	- Utilize existing studies, surveys, policy documents, and administrative data to reduce duplication and improve the quality of the assessment process.
8	Integrate the Two Assessment Processes	- Combine the Resource Sharing and STI Skills Gap Assessment tools into a single integrated instrument to improve efficiency and data quality

2.2.2. NCST Strategic Plan 2023-2028 Mid-Term Review: Strengthening Alignment with NST2 for Enhanced National Impact

The National Council for Science and Technology (NCST) conducted a Mid-Term Review (MTR) of its Strategic Plan 2023–2028 on 28-30 April 2026 (Figure 2). The review assessed progress made during the first half of the strategic planning period and examined how the Strategic Plan can better respond to emerging national priorities, rapid technological advancements, and Rwanda's Second National Strategy for Transformation (NST2). It resulted in a proposal to extend the Strategic Plan to 2029 and strengthen its contribution to NST2 and Rwanda's Vision 2050 aspirations of becoming a knowledge-based and innovation-driven economy.

The MTR indicated that NCST has made significant progress in implementing its strategic priorities, with more than half of planned interventions achieving high levels of implementation. Key achievements include:

- Strengthened science, technology and innovation policy and regulatory frameworks.
- Increased support for research and innovation activities.
- Growth in research outputs and emerging innovations.
- Improved resource mobilization for research and development programmes.
- Enhanced collaboration among stakeholders in Rwanda's innovation ecosystem.

The MTR also strengthened the focus of NCST interventions on national development priorities, including:

- Economic transformation and productivity growth.
- Employment creation, particularly for youth and women.
- Digital transformation and emerging technologies.
- Research and innovation financing.
- Sustainable industrialization and competitiveness.
- Evidence-based policymaking.

The review further reinforced alignment with regional and international frameworks, including the Science, Technology and Innovation Strategy for Africa (STISA 2034) and the Sustainable Development Goals (SDGs).

The MTR resulted in an updated implementation framework, refined performance indicators, and a clearer focus on measurable outcomes.



Figure 2:Participants and Facilitators during NCST Strategic Plan Mid-Term Review Workshop.

2.3. Digitalization and System Optimization

In pursuit of its mandate to promote research, innovation, and technology advancement, the NCST has prioritized digital transformation as a critical enabler of its operations. During the 2025/2026 Fiscal Year, NCST continued to strengthen its digital transformation agenda by enhancing key digital platforms that support research management, innovation, and service delivery, and significant progress was made in optimizing digital systems and developing new platforms to support evidence-based policy, funding transparency, and knowledge sharing. These platforms include the development of the Rwanda Research and Innovation Repository, the upgrade of the Research Innovation Grants Management System (RIGMS), and the digitalizing national assessment of emerging technology survey data collection through REDCap. Through these platforms NCST has laid strong groundwork for a smarter, more integrated, and data-driven research and innovation ecosystem in Rwanda. These advancements reflect NCST's commitment to harnessing technology for greater efficiency, transparency, and impact in science and innovation governance.

2.3.1 Development of the Rwanda Research and Innovation Repository

Recognizing the need for a centralized platform to curate and disseminate national research outputs, the NCST, in collaboration with University of Rwanda-African Center of Excellence in Internet of Things (UR-ACEIoT), CSM Technology Ltd and other national stakeholders, successfully completed the development and deployment of the Rwanda Research and Innovation Repository (Figure 3). This centralized digital platform has been designed to preserve, manage, and disseminate research and innovation outputs generated in Rwanda. It serves as a one-stop knowledge hub for accessing research reports, policy briefs, scientific publications, and other outputs generated from publicly funded and nationally relevant research. Also, the repository provides researchers, policymakers, academic institutions, and other stakeholders with improved access to scientific publications, research reports, innovations, and other knowledge products.

The main objectives of the repository are to: i) increase visibility and accessibility of Rwandan research, ii) promote open access and data-driven decision-making, and iii) foster collaboration between researchers, institutions, and policymakers. That is, the platform enhances the visibility and accessibility of Rwanda's research outputs while promoting knowledge sharing, collaboration, and evidence-based policymaking. It also supports the country's open science agenda by providing a secure and sustainable digital infrastructure for long-term preservation and retrieval of research information. The repository is accessible at: https://research-innovationhub.gov.rw/

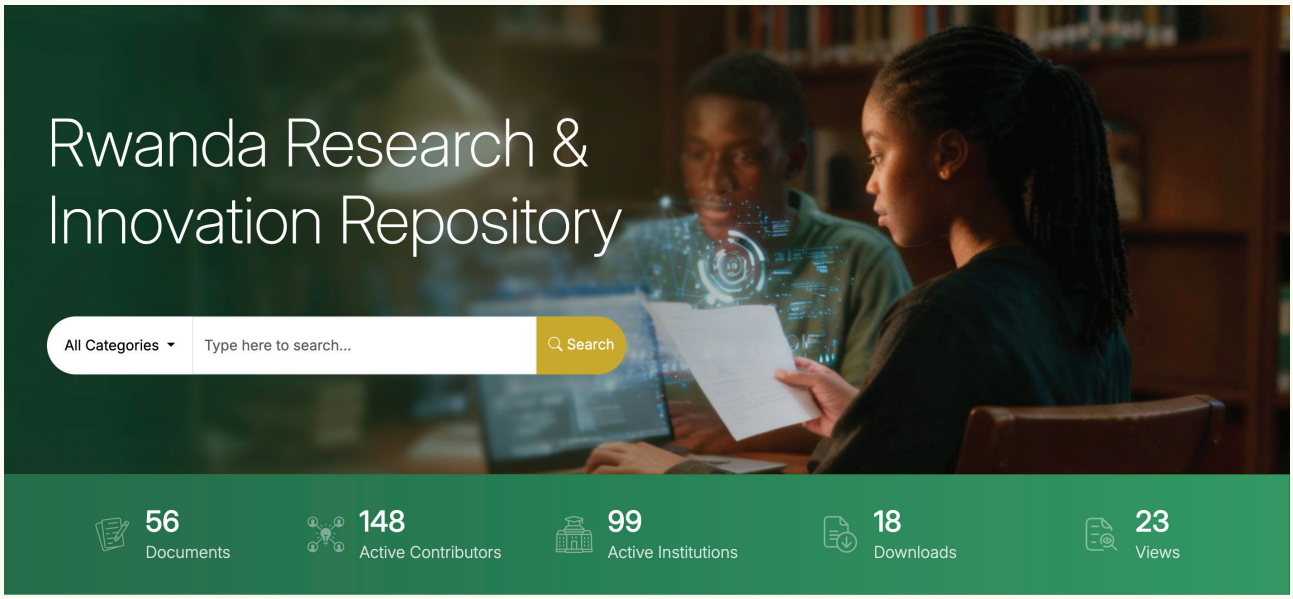


Figure 3: Dashboard of the Rwanda Research and Innovation Repository

The development process of the repository platform included:

- **Stakeholder engagement:** Collaborative consultations were held with key academic and research institutions, including among others the University of Rwanda (UR), Rwanda Polytechnique (RP), African Institute for Mathematical Sciences (AIMS), the University of Global Health Equity (UGHE), INES Ruhengeri, Kigali Independent University (ULK), University of Kigali, Mont Kigali University, Rwanda Information Society Authority (RISA), Rwanda Biomedical Centre (RBC), National Industrial Research and Development Agency (NIRDA), Rwanda Agricultural Board (RAB), and Higher Education Council (HEC). During the repository development, a series of workshops have been organized and conducted to engage various stakeholders. These workshops include, for example, the needs assessment and development of user requirements on 24-28 February 2025, prototype demonstration on 04-13 August 2025, User Acceptance Training (UAT) and Training of Trainer (ToT) on 10-14 November 2025, and Dissemination workshop on 23rd January 2026.
- **Partnerships and development roadmap:** NCST partnered with the University of Rwanda and CSM Technologies to build the research repository, with a focus on sustainability, scalability, and user-friendliness
- System design and development: user and functional requirements and specifications, business requirement document (BRD), and system design document (SSD) were defined to ensure the repository meets the national demand as well as global standards. Also, prototype demonstration and approval, user acceptance test (UAT) and user training have been conducted.

The expected impact of the repository includes, among others improved access to scientific knowledge for policymakers, students, and researchers.; better coordination among institutions to reduce duplication and fragmentation of research efforts; and a national platform to showcase Rwanda's research excellence at regional and global levels.

In addition, the Rwanda Research and Innovation Repository was officially disseminated during a stakeholders' workshop held on 23rd January 2026 (Figure 4), promoting wider access to Rwanda's scientific research and innovation outputs.



Figure 4:Stakeholders at the repository dissemination workshop

2.3.2. Upgrading the Research Innovation Grants Management System (RIGMS)

NCST successfully upgraded the Research Innovation Grants Management System (RIGMS) (Figure 5) to improve system performance, work flow process, security, reliability, and user experience. The upgrade introduced enhanced functionalities that streamline management of research grants (from applications to project closing process) and strengthened the administration of research permits.

Key improvements included optimization of system performance, enhanced security controls, improved workflow automation, and increased system stability. The upgraded platform enables more efficient processing of applications while providing better monitoring, reporting, and data management capabilities. These enhancements have significantly improved operational efficiency and service delivery for researchers and NCST staff.

2.3.3. Research Permit Service Delivery

The NCST has mandate among others to regulate science, technology, innovation and research in Rwanda. In this line, NCST offers research permit to facilitate researchers from all over the world to conduct their research activities in Rwanda. NCST continued to provide efficient online research permit services through the upgraded RIGMS platform. The digitalized application and review process reduced processing time, improved transparency, and enhanced communication between applicants and reviewers. During the 2025/2026 fiscal year, NCST has reviewed, processed and approved 68 research permit applications. The approved research permits generated a total revenue of USD 16,140 contributing to national treasure and revenue generation.

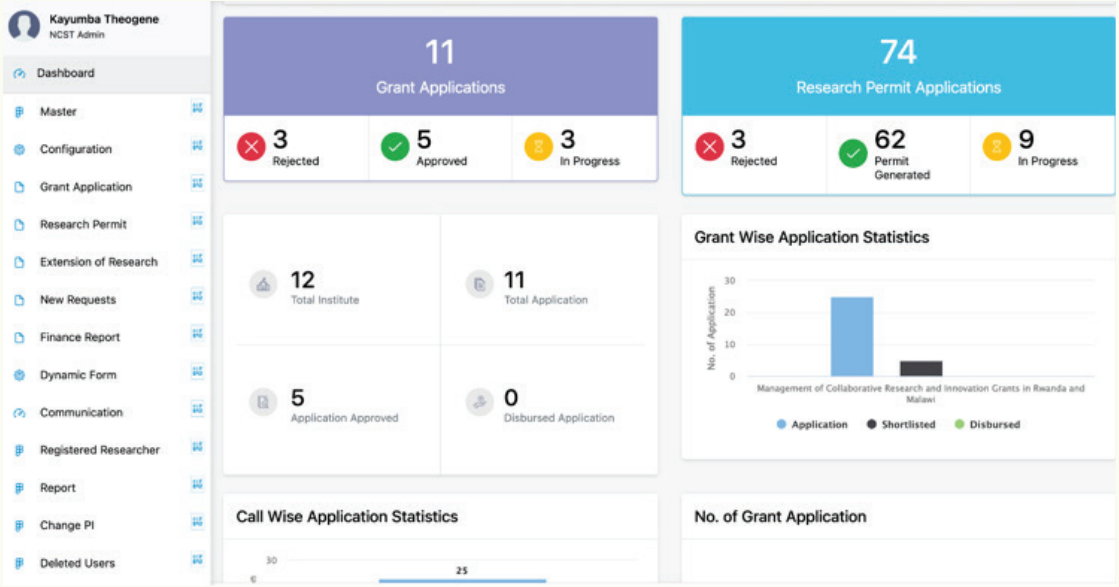


Figure 5:Dashboard of RIGMS

2.3.4. Digitization of the Assessment of Emerging Technologies in Rwanda

During the FY 2025/2026, NCST coordinated the Assessment of the Status, Adoption, Application, and Impact of Emerging Technologies in Rwanda, which is intended to generate robust evidence that will support informed decision-making by both the Government and the private sector on the most effective approaches for leveraging emerging technologies to accelerate national development and achieve the country's strategic targets. The developed survey questionnaire for the assessment has been configured into REDCap (Research Electronic Data Capture) as a secure, flexible, and customizable platform for electronic data collection and management. During the FY 2025/2026, NCST leveraged REDCap (Figure 5) to fully digitize the Assessment of the Status, Adoption, Application, and Impact of Emerging Technologies in Rwanda as a milestone in transforming how nationwide research data is collected and managed.

2.3.5 Overall impact of the NCST's system digitization

The successful implementation of these digitalization initiatives has strengthened NCST's capacity to deliver efficient, transparent, and technology-driven services. The enhanced digital infrastructure has improved accessibility to research information, streamlined research administration processes, increased operational efficiency, and reinforced NCST's role in promoting research, innovation, and evidence-based decision-making in Rwanda.

2.4 STI Communication, Awareness and Community Outreach

The NCST is mandated, among other responsibilities, to promote community outreach activities in the field of STI. During the fiscal year 2025/2026, NCST made great progress in raising public awareness and promoting the importance of science, technology, and innovation in Rwanda's development. Through different activities such as the dissemination of Rwanda innovation survey, Inspiring talk, documentaries and shows, Radio and TV awareness and broadcasts, and Newsletters. These activities engaged researchers, policymakers and general public to communicate and promote the role of STI in addressing national development challenges, as well as increased the visibility of NCST-funded research, facilitated knowledge sharing among stakeholders, and promoted the adoption of science-based solutions for national development.

2.4.1. Dissemination of national innovation survey 2022-2024

Innovation Survey is an important tool for monitoring the performance of the national innovation systems and technological development to support the nation's ambitious targets for economic growth. The NCST in collaboration with the Ministry of ICT and Innovation (MINICT) conducted the first Rwanda Innovation Survey for the reference years 2022-2024. To disseminate the findings of this survey and engage key stakeholders in dialogue on their implications, NCST organized a dissemination workshop on 4th November 2025 at Kigali Convention Centre (KCC) (Figure 6).

The dissemination workshop brought together government officials, researchers, academia, private sector representatives, development partners, innovators, and other stakeholders to officially launch the innovation survey report, with objectives to:

- Share key findings and insights from the Rwanda Innovation Survey 2022–2024 with national stakeholders;
- Promote understanding of innovation trends, expenditures, activities, and barriers across sectors;
- Facilitate dialogue on policy and implementation implications for strengthening Rwanda's innovation ecosystem.

The dissemination workshop highlighted that more than half of the surveyed institutions were innovation-active, with most innovations focusing on products, processes, and services. It also revealed that innovation activities are primarily driven by the need to improve product quality, enhance competitiveness, and respond to customer needs. However, participants noted key constraints, including limited financing for innovation, high innovation costs, shortages of skilled personnel, and low international commercialization of innovations.



Figure 6: Participants and presentation session of finding of Rwanda Innovation Survey report

The survey findings informed discussions on strategic priorities for strengthening Rwanda's National Innovation System, including increasing investment in research and development, promoting academia-industry collaboration, enhancing innovation-related skills, supporting entrepreneurship and technology commercialization, strengthening monitoring and evaluation systems, and building institutional capacity. Participants commended the survey as Rwanda's first comprehensive national innovation assessment conducted using internationally recognized OECD and Frascati standards, providing an important baseline for tracking innovation performance and guiding future policy interventions.

The dissemination workshop of the Rwanda Innovation survey report marked an important milestone in Rwanda's innovation journey by providing evidence to support strategic decision-making and reinforcing the country's commitment to building a competitive, knowledge-based economy driven by science, technology, research, and innovation.

2.4.2. Grant awarding for Rwanda–Malawi Collaborative Research and Innovation Grant Scheme

During the dissemination workshop of Rwanda Innovation survey report, NCST awarded five grants (Figure 7) under the Rwanda–Malawi Collaborative Research and Innovation Grant Scheme recognizing projects applying Artificial Intelligence (AI) and the Internet of Things (IoT) to manufacturing in support of industrial development and regional collaboration. The award ceremony aimed at recognizing efforts for joint initiative between Rwanda and Malawi in advancing research and innovation development, and regional collaboration.



Figure 7:Awardees of NCST Rwanda - NCST Malawi collaborative grant

2.4.3. Innovation Inspiring Talk

The afternoon session of the dissemination workshop of the Rwanda Innovation survey report, NCST featured an Innovation Inspiring Talk (Figure 8), where young innovators and participants interested in understanding the state of innovation in Rwanda were offered a valuable opportunity to engage directly with leading innovators in Rwanda. Moderated by Ms. Enora Gladis of Rwanda Broadcasting Agency (RBA), Mr. Audace Niyonkuru, CEO of Digital Umuganda and Ms. Niyigena Hawa, CEO of Whiz Upp Ltd, shared their innovation journeys, lessons learned, and practical advice for aspiring innovators. This interactive discussion encouraged participants

to embrace research, creativity, collaboration, and entrepreneurship as drivers of sustainable innovation. Also, the session provided a platform for open dialogue, where the speakers shared their personal innovation journeys, highlighted key milestones and challenges, and offered practical insights on how young innovators can remain committed to research, creativity, and continuous innovation. Through this exchange, participants gained practical perspectives on leveraging innovation platforms, embracing collaboration, and sustaining a research-driven mindset to translate ideas into impactful and scalable solutions.



Figure 8: Innovation Inspiring talk and Dialogue with young innovators

2.4.4. Documentaries, social media and digital communication

NCST produced two 15-minute documentaries under the Grand Challenges Rwanda initiative to showcase the impact of funded research projects. The documentaries highlighted: (i) the development of an Integrated Early Warning and Response System (IEWRS) for health in the context of climate change in Rwanda by Dr. Didier Ntwali (Rwanda Space Agency), and (ii) the design of community and health workers-centered data collection systems for the Health National Adaptation Plan by Dr. Maria Albin (University of Global Health Equity). Both documentaries were broadcast on Rwanda Television, increasing public awareness of research addressing national challenges.

Moreover, NCST continued to leverage social media and digital platforms to increase the visibility of STI activities and achievements. Key events disseminated included the Innovation Dinner Meeting organized jointly with the University of Rwanda, the Rwanda Research and Innovation Repository Users' Training Workshop, the dissemination of the 1st Rwanda Innovation Survey findings, publication of the NCST Newsletter (Issue 017), the Strategic Foresight Training on STI, Kwibuka 32 commemoration activities, and the training of enumerators for the Assessment of the Status, Adoption, Application and Impact of Emerging Technologies in Rwanda. These digital communication efforts expanded public access to information on research, innovation, capacity-building initiatives and institutional achievements while strengthening engagement with researchers, innovators, policymakers and the general public.

2.4.5. Radio and Television Outreach

NCST strengthened public engagement through national radio and television programmes. A televised InspireMe talk show aired on Rwanda Television, featuring accomplished leaders who shared their experiences

to inspire young innovators and entrepreneurs, complementing the dissemination of the Rwanda Innovation Survey findings.

Furthermore, on 12th October 2026, NCST conducted a livetalk show broadcast on Radio Rwanda and Rwanda Television under the theme "Ubumenyi n'Ikoranabuhanga ku Isonga ry'Iterambere ry'u Rwanda: Uruhare rw'Ubushakashatsi mu Gushaka Ibisubizo byo Guhangana n'Imirire Mibi." The programme highlighted the contribution of NCST-funded research, implemented in collaboration with IDRC-Canada, in addressing malnutrition through science and innovation.



Figure 9: Livetalk show broadcast on Radio Rwanda and Rwanda Television

NCST also conducted field documentation visits from 1st to December 2025 to capture success stories and impact case studies from projects funded jointly by NCST and the University of Rwanda under the initiative Strengthening Rwanda's Research and Innovation Ecosystem through Training, Coordination and Collaboration.

2.4.6. Bikora Bite Television Programme

As part of community engagement and science communication, NCST developed and aired various episodes of the Bikora Bite television programme on Rwanda Television. The episodes covered among others (Figure 10):

- The operation and importance of satellites (Imikorere y'ibyogajuru n'akamaro kabyo);
- The use of indigenous Rwandan plants in producing processed beverages (Imikoreshereze y'ibimera bitandukanye byo mu Rwanda n'akamaro kabyo mu gukora ibinyobwa bitunganyije);
- The application of modern technologies in poultry farming (Ikoreshwa ry'ikoranabuhanga rigezweho mu bworozi bw'inkoko);



Figure 10: Bikora Bite programmes

2.4.7. Publication of NCST Quarterly Newsletters

The publication quarterly newsletter aims at sharing updates and summarizing progress and key achievements, made. Since the launch of the publication of the NCST quarterly newsletter in September 2022, NCST has since issued 20 editions. For this reporting period, FY2025/2026, NCST Quarterly Newsletters have been published as per the following topics:

- **Issue No: 17 July-September 2025:** "Driving Research Excellence: Digitization of Systems, Skills development, and broadening Collaborations" The 17th Edition of the NCST Newsletter highlights Rwanda's continued progress in strengthening its research and innovation ecosystem. This issue features key developments such as the prototype review of the Rwanda Research and Innovation Repository, the national consultation on data protection and privacy guidelines for the research sector, capacity-building workshops on fundraising and commercialization, and field visits

to assess the impact of funded research projects in priority areas. Collectively, these initiatives underscore NCST's commitment to advancing science, technology, and innovation as drivers of Rwanda's transformation into a knowledge-based and sustainable economy. For more details about NCST quarterly newsletter issues, visit the following link NCST Quarterly Newsletter issue 17

- **Issue No:18 October-December 2025:** "Innovation in Motion: New Insights, Tools, Pathways to Inspire the Next Generation". This 18th edition of the NCST Quarterly Newsletter showcases Rwanda's innovation journey in motion, highlighting key evidence, digital tools, and initiatives that strengthen the national innovation system and advance the country's transition toward a knowledge-based and sustainable economy. This issue presents key insights from the Rwanda Innovation Survey 2022-2024, updates on the Rwanda Research and Innovation Repository, and inspiring science communication initiatives that cultivate the next generation of innovators. It concludes with findings from NCST's Monitoring and Evaluation (M&E) field visits, illustrating how funded research and innovation activities are generating tangible socioeconomic impact across national priority sectors. For more details about NCST quarterly newsletter issues, visit the following link NCST Quarterly Newsletter issue 18

- **Issue No:19 January-March 2026:** "From Research to Impact: Advancing Innovation and Partnerships in Rwanda". The NCST Quarterly Newsletter – Issue 019 (January - March 2026) highlights Rwanda's progress in advancing STI for national development. This edition showcases NCST's efforts in strengthening partnerships, promoting research commercialization, and building a resilient innovation ecosystem. Key features include initiatives in higher education reform, nuclear infrastructure preparedness, and private sector engagement. It also highlights the growing impact of youth-led innovations supported through strategic programmes such as RISA. These efforts reflect Rwanda's commitment to translating research into practical solutions for socioeconomic transformation. NCST remains dedicated to driving collaboration, innovation, and sustainable growth toward a knowledge-based economy. For more details about NCST quarterly newsletter issues, visit the following link NCST Quarterly Newsletter issue 19

- **Issue No:20 April-June 2026:** "Driving Rwanda's Science Technology and Innovation Future". The NCST Quarterly Newsletter-Issue 20 highlights major activities undertaken to strengthen Rwanda's science, technology, and innovation ecosystem. This edition features the Strategic Foresight Training on STI, which enhanced national capacity for future-oriented planning and evidence-based policymaking. It also highlights the Mid-term Review of the NCST Strategic Plan, which strengthened alignment with NST2 and Vision 2050 while placing greater emphasis on innovation commercialization and measurable impact. The newsletter also covers NCST's participation in the 32nd Commemoration of the 1994 Genocide against the Tutsi at Kiziguro Memorial and the institution's Labour Day celebrations, which promoted professional ethics, staff recognition, and teamwork. Together, these initiatives demonstrate NCST's commitment to fostering innovation, strengthening institutional excellence, promoting national unity, and advancing sustainable socio-economic development through science, technology, and innovation. For more details about NCST quarterly newsletter issues, visit the following link NCST Quarterly Newsletter issue 20.

More details on published Newsletter Issues as per Annex 1

3. Strengtherning National STI and R&D Performance

The Government of Rwanda through the NST2and the National Vison 2050 underscores the need for promoting R&D and innovation as key drivers of science, technology and industrial development for economic transformation. Rwanda's vision is to strengthen the capacity for research and innovation funding as important avenue to boosting national effort towards achieving a globally competitive knowledge-based and innovation-led economy.

To this end the NCST is mandated among others to provide resources and leverages other funding opportunities to manage the Rwanda National Research and Innovation Fund (NRIF). The NRIF provides merit-based funds to support both public and private sector research and R&D performing institutions. By coordinating research programs in public and private institutions and funding from development partners,

NRIF promotes well-managed basic, applied research and Research and Development programs aligned with national priority areas in the National Research and Innovation Agenda (NRIA) and has aims to promote the research performance and productivity towards socio-economic transformation.

In addition, effective coordination and collaboration in the areas of STI and R&D requires assessment of the status of STI through regular national surveys, R&D surveys, Innovation surveys, and STI foresight studies. The goal is to monitor research and development performance, measure innovation capacity, support evidence-based policymaking and strengthening collaboration among key players and stakeholders of the STI ecosystem.

The information on effective management of NRIF, research capacity building for grant management, monitoring evaluation and learning of supported projects, leveraging R&D Funding through resource mobilization as well as monitoring STI and R&D Status is provided in the following subsections.

3.1. Promote effective Management of National Research and Innovation Fund (NRIF)

NCST manages the NRIF by developing and implementing funding schemes and instruments that offer competitive, merit-based opportunities aimed at enhancing national research and innovation capacity and productivity. Furthermore, the NRIF supports and promotes basic and applied research as well as experimental development programs aligned with the national priority areas in the National Research and Innovation Agenda (NRIA). In this regard, the NRIF program has supported grants to researchers and innovators in 6 priority areas, namely a) Sustainable Energy; b) Food Security and Modern Agriculture; c) Life and Health Sciences; d) Local Production and Value Addition; e) Digital Services, Products and Lifestyles; and f) Resilient Environment and Climate Change with aim to addressing societal needs and grand challenges through improved research performance and productivity.

Since the establishment of NRIF in June 2018, over one hundred thirty-one (131) research and innovation projects have been funded and over 8 billion Rwandan Francs have been invested in the growth of technology readiness level of these innovations (over 90% of funding is already disbursed).

Effective management of research and innovation funding is crucial for achieving strategic objectives and maximizing impact. This involves a structured approach that encompasses strategic planning, management and coordination of funding programs, maintaining a national research agenda in collaboration with stakeholder institutions, lead efforts in regional and international collaboration on areas scientific research and technology innovation, monitoring, evaluation, and learning with a strong focus on fostering innovation and ensuring project success, and leveraging R&D investment through establishment of strategies to mobilize research and innovation funds.

3.1.1. Supporting research and innovation projects

The desired impact for the supported projects is to establish high quality and sustainable research and innovation output that directly addresses socio-economic challenges of national and global markets, both in terms of fostering research performance and productivity, technology development, uptake and scaling up innovations towards improving industrial development, economic growth and societal impact

During the Fiscal Year 2025-2026, the NCST through NRIF supported Thirty one (31) research and innovation projects under various grant schemes. . The total grant amount disbursed during this fiscal year is equivalent to Nine hundred ten million, nine hundred thirty-four thousand, two hundred sixty-three. Rwandan Francs (RWF 910,934,263). This budget had two sources of finance which is Government of Rwanda represented 80.6% and external financing represented 19.4%. The external financing includes sources from International Development Research Center (IDRC) Canada, National Research Foundation (NRF) South Africa, Bill and Melinda Gates Foundation (BMGF). The following tables (Tables 6 and 7) provide summary of the projects supported by scheme which received funding and source of funding during FY 2025-2026.

Table 6: Summary of research and innovation projects received funds in the fiscal year 2025-2026 by funding grant scheme

No	Funding Grant Scheme	Number	Amount (frw) disbursed in FY 2025/2026
1	Academia Industry Collaboration-AIC	3	35.571.301
2	Rwanda Innovation Challenges for Academia-Industry Research and Development Collaboration Grant (RIC-R&D)	8	174,136,500
3	Women in Science Research and Innovation Grant (WIS)	5	137.944.215
4	Accelerating and Catalyzing Solutions for Climate Change's Impact on Health (GC Rwanda Climate for Health)	3	167.305.427
5	Implementation Research to address Malnutrition & Stunting in Rwanda	1	15.185.000
6	Implementation Research on and Fertilizers in Rwanda	1	16.383.120
7	Sector Strategic Research Grants	1	13.998.924
8	Innovative frontier technologies for climate resilient agriculture, food security and safety in Africa	3	169.956.000
9	Management of Collaborative Research and Innovation Grants in Rwanda and Malawi: Application of Artificial Intelligence (AI) and Internet of Things (IoT) in Manufacturing processes for industrial growth	5	175.453.776
10	Implementation Research for Scaling Up and Commercialization of Innovations	1	5.000.000
	Sub-total	**31**	**910,934,263**

Table 7: Summary of NRIF projects supported by source of funding

No	Grant scheme	Source of fund	Number of projects supported	Amount disbursed	%
1	Management of Collaborative Research and Innovation Grants in Rwanda and Malawi: Application of Artificial Intelligence (AI) and Internet of Things (IoT) in Manufacturing processes for industrial growth	National Research Foundation-South Africa (NRF)	5	139,042,875	15%
2	Implementation Research to address Malnutrition & Stunting and fertilizers in Rwanda	International Development Research Centre Canada (IDRC)	2	31.568.120	3%
3	Accelerating and Catalyzing Solutions for Climate Change's Impact on Health (GC Rwanda Climate for Health)	Bill and Melinda Gates Foundation (BMGF)	1	6.177.441	1%
	Sub-total of NRIF Projects supported under External Financing		8	**176,788,436**	19%
	Sub-total of NRIF Projects supported under Government of Rwanda		23	**734.145.827**	81%
	OVERALL DISBURSED FRW FOR THE FY 2025-2026		**31**	**910,935,263.**	100%

3.1.2. Reporting on NCST funded projects

The project Principal Investigators (PIs) periodically produce technical and financial reports under the terms and conditions stipulated in the agreement and strictly follow the timeline as presented in plan of activities. The progress technical and financial reports are submitted through NCST's Research and Innovation Grants Management System (RIGMS) or in exceptional circumstances through e-mail: research@ncst.gov.rw. The pre-final and final reports must be endorsed by the host institution competent authority.

In addition, the NCST provided required reports for its funders. These include:

- **Technical reports:** have been submitted and approved for the funding partnerships between NCST and BMGF, and NCST and NRF South Africa
- **Audit reports:** The final audit report and audited financial statements have been prepared, submitted and approved for the grant 110108-001 '' Management of Research and Innovation funds '' for the period ended September 30, 2025. This funding partnership existed between NCST and IDRC

3.1.3. Supporting implementation and compliance for NCST funded projects

Occasionally, NCST especially the NRIF department receives from project PIs through host institutions requests such as no cost extensions and budget reallocations. These requests are reviewed and assessed on a case-by-case basis to determine whether the project requires approval for such requests. The requests for no cost extensions are normallyapproved when there has been delays in project implementation due to justifiable reasons.

The cases for budget reallocation requests are not so common. This is mainly because most of NCST Grant agreements provide room for the PI's host institution to make budget reallocation between budget categories of not more than 5% of total budget when needed. However, when the reallocation requires more than 5% of total budget, the PI through the host institution provides to NCST a new justified proposed budget which is reviewed and assessed to ensure that the budget still complies to the set project's approved goal and objectives. The requests are always approved or denied in due time to make sure that the project implementation is not affected.

3.1.4 Monitoring evaluation and Learning of NCST Funded projects

Every quarter, NCST conducts Monitoring Evaluation and Learning (MEL) field visits for the research and innovation NCST funded projects and reports produced. NCST MEL team is normally composed of two teams each containing four to five staffs who spend each a week conducting MEL. NCST understands how the research grant projects results feed into the achievement of overall project goals and mainly the overall goal of NRIF ''boosting the national research and innovation capacity and productivity towards socio-economic transformation''.

The objective of M&E is to specifically field visit rather than presentations only to assess the progress made, appreciate, and support current implementation status. In the M&E, an emphasis is put on productivity and quality of expected outputs. The specific objectives of conducting M&E include:

- To assess the progress of research and innovation projects and specific outputs and achievements.
- To assess the overall projects financial management progress and compliance with the signed grant agreement.
- To understand the data collected, experiments established (laboratories/fields work done).
- To understand the plans and how NCST can support projects implementation status.

The M&E activities gather; project Principal Investigators (PIs), Co-PIs, project team members, project partners, Host Institution leadership, and NCST M&E teams. In the just completed fiscal year FY:2025/26, over 34 research projects were conducted on M&E. Below is an example of a plan and timeline for conducting M&E:

Below are two funded projects whereby M&E activities have been conducted and summarize the project achievements below:

Project1: Enhancement the processing and standardization technics towards the production of certified phytomedicines and food supplements in response to critical health needs in Rwanda (Figures 11 & 12).



Figure 11: Heating, Ventilation, Air Conditioning (HVAC) system outside the production unit under construction

The project is led by Mr. Andre Ndagijimana and hosted at National Industrial Research and Development Agency (NIRDA) to standardize the production process of selected and reputable phytomedicines and food supplements to meet international standards. Specifically, the project aims: (1) To identify and domesticate plant species for phytomedicines and food supplement development from local and available raw material. (2) To standardize the extraction process of active fractions for phytomedicines and food supplements developments.



Figure 12: Pythomedecines

Phytomedicines	Food supplement
1. Batankor syrup	1. Aloe gel- based capsules
2. Rusendina ointment	2. Lippia-tea
3. Calendula ointment	

(3) To standardize the production and quality control of phytomedicines and food supplements. (4) To initiate the products registrations, IP right, certification and awareness. Currently NIRDA and partners have entered a new phase towards commercialization of developed products. Construction of a production unit that meets Good Manufacturing Process and other health products requirements are underway.

Project2: IoT Empowered Precision Agricultural Techniques for Improved Rice Production: An Automated Irrigation and Fertilization Application System for Small-scale Rice Producers in Rwanda (Figure 13).

This project is led by Dr. Peace Bamurigire and hosted at University of Rwanda to implement an automated irrigation and fertigation system based on real-time soil monitoring. The primary objectives of the project include: (1) To assess the readiness of the rice farmers to use the IoT empowered irrigation and fertigation system for rice farming. (2) Investigate how control algorithms within an IoT water and fertilization management system might be used for rice crop farming in Rwanda. (3) Design a mobile application and website, which will enable interfacing of the system and farmers.

The infrastructure required for automation has already been deployed, including a 250 m^3 water reservoir, which can support irrigation for up to two days, with six deployed 40-liter fertigation tanks. The system monitors seven agronomic parameters, including soil pH, moisture, temperature, nitrogen, and potassium to guide fertilizer application and optimize irrigation schedules. Controlled irrigation is currently performed twice per week, allowing improved water allocation compared to traditional methods and enabling better control of water consumption through coordinated release by scheme representatives. Conducted preliminary survey shows a positive impact on rice yields, with average production of 3 tons/ha, reaching 4 tons/ha sometimes. This performance surpasses that of neighboring farmers, demonstrating improved productivity due to optimized water usage and nutrient management. In addition, a prototype of the bird repelling system utilizing sound systems is already under development for integration into the system.



Figure 13:Photographs capturing key highlights from the field

The project future outlook is to finalize the system and look for opportunities for scaling up for wider utilization across the country.

3.2. National Assessments

3.2.1. Rwanda Innovation Survey 2022–2024 Report

NCST has conducted the first Rwanda innovation survey and the dissemination of the survey findings was conducted on 4th October 2026. The objective of dissemination of the Rwanda Innovation Survey 2022–2024 report was to share evidence-based findings on the status of innovation performance in Rwanda and promote the utilization of innovation statistics for policy development, strategic planning, investment decisions, and strengthening of the national innovation ecosystem. The dissemination aimed to enhance awareness among key stakeholders, including government institutions, private sector organizations, higher learning institutions, researchers, innovators, and development partners, on innovation trends, challenges, opportunities, and priority areas requiring targeted interventions.

Activities Undertaken

The activities undertaken to prepare and conduct the dissemination of Rwanda Innovation Survey 2022–2024 findings included:

- Preparation and finalisation of the Rwanda Innovation Survey 2022–2024 report, incorporating analysis of innovation activities across four major sectors: business enterprises, government institutions, higher education institutions, and private non-profit organisations.
- Organisation of stakeholder validation and consultation sessions to review key findings, gather feedback, and ensure that the results reflected the realities of Rwanda's innovation ecosystem.
- Conducting the official dissemination workshop for the Rwanda Innovation Survey 2022–2024 report, bringing together policymakers, researchers, innovators, private sector representatives, higher education institutions, and development partners to discuss findings and identify opportunities for strengthening innovation performance.

- Sharing key innovation indicators and findings through NCST communication channels and knowledge-sharing platforms to facilitate wider access and use of innovation evidence.

Key Outputs

The dissemination exercise generated the following key outputs:

- A comprehensive Rwanda Innovation Survey 2022–2024 Final Report providing national evidence on innovation performance and trends.
- Increased awareness among stakeholders regarding Rwanda's innovation strengths, gaps, and opportunities for improvement.
- Availability of innovation indicators to support monitoring of STI policy implementation and inform future interventions.
- Enhanced dialogue among government, private sector, academia, innovators, and development partners on strengthening innovation capacity and supporting innovation-driven economic transformation.
- Identification of priority areas requiring further investment, including innovation financing, skills development, collaboration, and institutional support.

Key findings for the innovation survey

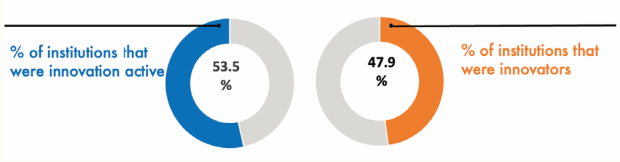


Figure 14: Innovation active and innovation rates at national-level

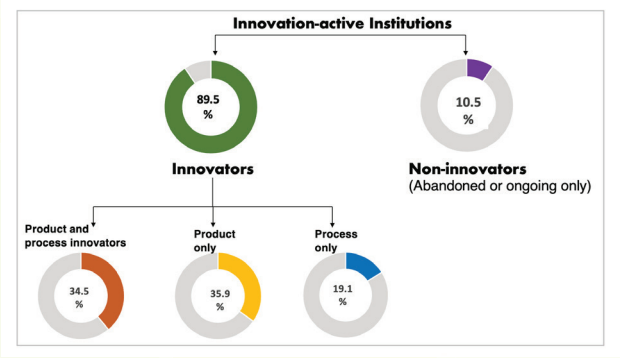


Figure 15:Breakdown of innovation-active institutions at national- level



Figure 16: Co-Chair of NCST addressing the audience during the dissemination workshop of Rwanda innovation survey report



Figure 17: Participants during the dissemination workshop of Rwanda innovation survey report survey

3.2.2. Assessment of the Status, Adoption, Application and Impact of Emerging Technologies

Emerging technologies are increasingly redefining how economies grow, how societies interact, and how governments deliver services. Globally, technologies such as Artificial Intelligence (AI), Internet of Things (IoT), Big Data Analytics, Blockchain, Biotechnology, Robotics, Automation, and related converging technologies are enabling productivity gains, improving service delivery, enhancing decision-making, and fostering new business models. Countries that strategically adopt and apply these technologies are better positioned to accelerate industrialization, improve public services, and achieve inclusive and sustainable development. Policymakers at both national and international levels contend that leveraging these emerging technologies offers developing countries significant opportunities to enhance industrial productivity and accelerate economic growth, while also promoting more sustainable production and consumption patterns.

In Rwanda, STI are explicitly recognized as foundational enablers for socio-economic transformation. Vision 2050 and the NST2 place strong emphasis on leveraging digitalization, innovation, and advanced technologies to transition Rwanda into a knowledge-based, high-income economy. Over the past decade, Rwanda has made significant investments in digital infrastructure, policy and regulatory frameworks, innovation financing mechanisms, and institutional coordination systems to promote the development, adoption, and application of new and emerging technologies in addressing socio-economic challenges. Despite these efforts, there is currently no consolidated, national-level evidence base that comprehensively captures the status, adoption, application, and impact of emerging technologies across sectors. Existing information is often fragmented, sector-specific, or project-based.

In order to optimize national efforts and strategically align future investments and policy interventions of current and future emerging technologies, there is need for detailed understanding of the current state of emerging technologies in Rwanda. The detailed comprehensive assessment of the current status, adoption and application of emerging technologies in Rwanda will provide and support informed decision-making to both government and private sector on what methods can be used to leapfrog and achieve national targets for development.

Goal and Objectives of the Assessment

The overarching goal is to assess the status, adoption, application, and impact of emerging technologies in Rwanda, and provide evidence-based recommendations for accelerating their integration into national development.

The specific objectives of the aforementioned assessment are to:

- Systematically map emerging technologies that are being developed, piloted, or adopted across key socio-economic sectors in Rwanda
- Assess the level and maturity of adoption and application of emerging technologies in relation to national development priorities
- Assess the impacts arising from the adoption and application of emerging technologies, including both benefits and potential risks
- Identify barriers, gaps, and enabling factors affecting the effective deployment of emerging technologies
- Formulate actionable, evidence-based policy, institutional, and strategic recommendations.

Expected outcomes

Findings from this assessment will guide and support propositions towards:

- Benchmarking Rwanda's progress on adoption and application of emerging technologies against regional and international best practices
- Identifying gaps and challenges that hinder effective integration of emerging technologies in key sectors
- Proposing actionable policy, institutional, and strategic recommendations to optimize the adoption and application of the emerging technologies

Assessment methodology and approach

This assessment is based on quantitative and qualitative analyses of the state of emerging technologies in Rwanda, using primary data collection from relevant stakeholders across Rwanda's innovation ecosystem to access data on technology-related activities, outputs, and outcomes.

Methodologically, the assessment employed a mixed-methods research design that combined quantitative and qualitative techniques. This approach ensured a comprehensive analysis of both measurable indicators such as adoption rates and investment levels, and contextual factors including institutional capacity and regulatory environments. Given that emerging technologies cut across multiple sectors, the assessment ensured comprehensive coverage of all relevant sectors, including government, higher education, business enterprises, and Private Not-for-Profit (PNP).

Also, the assessment employs a combination of census, stratified, and purposive sampling approaches depending on stakeholder category. Government institutions and higher learning institutions are covered through census approaches, while business enterprise and PNP are selected through stratified or purposive sampling. Number (sample size) of selected institutions participated in the survey is presented in Table 2.

Table 8: Sample sizes for the four sectors

Sector	Target Sample	Methodology
Business Enterprise	510	PPS Sampling
Private Non-Profit (PNP)	410	Systematic Random Sampling
Government Sector	92	Census (Take-All)
Higher Education	54	Census (Take-All)
	Total: 1,066	

Key achievements:

The assessment comprises three main steps: stakeholder consultations and literature review, data collection, and data analysis and report preparation. The following are the key achievements:

i) **Stakeholder consultations and literature review:** A consultative workshop with stakeholders from government institutions, higher learning institutions, research institutions, and the private sector was held on 3 December 2025 to discuss the rationale for the assessment and to gather feedback on the questionnaire developed for the Assessment of the Status, Adoption, Application, and Impact of Emerging Technologies in Rwanda. During the consultation workshop, NCST received valuable inputs from participants, which were used to refine both the questionnaire and the inception report.

ii) **Involve enumerators and supervisors:** Enumerators and their supervisors were recruited and trained on the data collection tool

ii) **Development and design of the data collection tools and questionnaire:** The questionnaire was developed and validated during the two-day technical workshop organized on 27-28 February 2026. Then the questionnaire was digitized using REDCap to enhance data quality, reliability, and tracking throughout the data collection process

iii) **Inception report and approval:** the inception report has been developed and submitted to NISR, which has been approved on 09 April 2026 towards for data collection phase

iv) **Data collection:** data collection was successfully completed on 30 June 2026, paving the way for the commencement of the data analysis stage. A total of 938 institutions participated in the survey, representing an overall response rate of 88.9%.

v) Data analysis and report preparation: The report structure and dummy tables have been developed based on the questionnaire and the inception report during a technical workshop organized on 23-24 June 2026.

Next steps

This assessment cross-cuts 2 FY years (2025/2026 and 2026/2027), and in accordance with the approved inception report and implementation plan, the data analysis and reporting phases must commence immediately following the completion of data collection. The next steps are as follows:

- Data cleaning
- Develop draft statical report
- Conduct a validation workshop to validate
- Develop final report
- Submitted final report to NISR
- Disseminate and published the final report

3.3. Capacity Building programs and institutional strengthening

Capacity building and institutional strengthening for research in Rwanda are anchored in Vision 2050, the NST2, and the National STI Policy. Vision 2050 emphasizes the transition to a knowledge-based, innovation-driven economy by investing in human capital, quality education, research, digital technologies, and strong institutions that can generate and apply knowledge for sustainable development.

Together, these strategies aim to build a robust research culture, strengthen institutional capacity, promote collaboration among academia, government, and industry, and ensure research excellence that contributes to Rwanda's socio-economic transformation and global competitiveness.

The NCST implemented capacity building workshops including:

3.3.1. Training on Strategic STI Foresight Analysis

As countries across the world grapple with accelerating technological change, climate uncertainty, demographic shifts, and evolving economic realities, the ability to anticipate and prepare for future challenges has become increasingly important. Recognizing this need, the NCST, in collaboration with AUDA-NEPAD Africa Policy Bridge Tank (APBT), the African Futures Institute (AFI), and the Frederick S. Pardee Institute for International Futures, organized a Strategic Foresight Training on

STI in Kigali from 4-6 May 2026. The training brought together (Figure 17) policymakers, researchers, innovators, development practitioners, and representatives from key institutions across Rwanda's National Innovation System. Its purpose was to strengthen national capacity for long-term thinking, evidence-based decision-making, and strategic planning that can help Rwanda navigate future uncertainties while accelerating progress toward its development aspirations.



Figure 18: Stakeholders, Facilitators, NCST staff, and AUDA-NEPAD delegation



Figure 19: Opening session and remarks

The training responded to Rwanda's ambition of becoming a knowledge-based economy under Vision 2050 and NST2, while contributing to the implementation of Agenda 2063 and the Science, Technology and Innovation Strategy for Africa (STISA 2034). Over three days of intensive engagement, participants explored strategic foresight methodologies, scenario analysis, and the application of the International Futures (IFs) model for policy planning and decision-making. The training emphasized that foresight is not about predicting the future, but about shaping it through informed strategic choices, adaptive governance, and proactive investment in science, technology, and innovation.



Figure 20: IFs model demonstration or participants during hands-on IFs exercises

Key outcomes included:

i. Enhanced understanding of strategic foresight concepts and methodologies;

ii. Practical exposure to the International Futures (IFs) model for long-term scenario analysis;

iii. Improved appreciation of the importance of data-driven policymaking;

iv. Increased awareness of the need to institutionalize foresight within national planning systems;

v. Stronger collaboration among actors within Rwanda's National Innovation System (NIS);

vi. Identification of priority actions to strengthen STI policy implementation and innovation performance.

Participants identified several national priorities requiring urgent strategic attention, including strengthening R&D investment, improving innovation uptake, enhancing human capital development, reinforcing data systems, and building institutional capacity for foresight.

Key Findings and Insights

The training generated several important findings and strategic insights.

(i) **Rwanda Has Strong Policy Ambition but Requires Greater Foresight Integration:** Rwanda has demonstrated strong commitment to innovation and transformation through Vision 2050, NST2, and STI policy frameworks. However, foresight methodologies remain insufficiently integrated into routine policymaking and planning systems.

(ii) **Data Systems Require Further Strengthening:** Reliable and integrated national data systems are essential for effective foresight analysis and evidence-based decision-making.

(iii) **Human Capital Development Is Critical:** Building a critical mass of foresight practitioners, researchers, analysts, and STI professionals remains a national priority.

(iv) **Multi-Stakeholder Coordination Must Be Enhanced:** The effectiveness of Rwanda's National Innovation System depends on stronger collaboration among government institutions, academia, industry, civil society, and development partners.

(v) **Long-Term Planning Must Be Mainstreamed:** Participants agreed that foresight should not be treated as a one-time exercise or standalone initiative but rather integrated into: National planning; Policy development; Budgeting processes; Investment decisions; Monitoring and evaluation frameworks.

(vi) **Foresight Supports More Resilient and Adaptive Governance:** Scenario analysis and strategic foresight approaches improve governments' ability to anticipate risks, prepare for uncertainty, and make proactive policy choices.

The training concluded with a strong consensus that Rwanda should institutionalize foresight approaches across government institutions and integrate foresight tools into national policy planning, budgeting, implementation, monitoring, and evaluation systems.



Figure 21: Closing session by AUDA NEPAD and NCST Representatives

Key Recommendations:

Based on the discussions, exercises, and reflections during the training, the following recommendations are proposed for consideration by high-level leadership and AUDA-NEPAD AFRICA POLICY BRIDGE TANK (APBT).

(i) Institutionalize Strategic Foresight Across Government

- Establish formal foresight units or focal points within key ministries and public institutions;
- Integrate foresight methodologies into national planning and policymaking frameworks;
- Include foresight analysis in policy design, budgeting, monitoring, and evaluation processes;
- Develop national guidelines and frameworks for foresight implementation.

(ii) Strengthen National Data and Analytics Systems

- Invest in integrated national data infrastructure;
- Improve access to quality, timely, and disaggregated data;
- Strengthen collaboration between data producers and policymakers;
- Expand use of digital tools, AI, and predictive analytics for policy planning.

(iii) Build National Foresight and Modeling Capacity

- Scale up training programs on strategic foresight and IFs modeling;
- Develop a national pool of certified foresight practitioners;
- Integrate foresight into university curricula and public sector training programs;
- Establish communities of practice for foresight and innovation planning.

(iv) Increase Investment in Research, Development, and Innovation

- Accelerate progress toward the AU target of allocating at least 1% of GDP to R&D;
- Expand public-private partnerships for innovation financing;
- Strengthen innovation commercialization and technology transfer mechanisms;
- Promote mission-oriented and problem-solving research.

(v) Strengthen the National Innovation System (NIS)

- Improve coordination among government, academia, industry, and civil society;
- Enhance knowledge-sharing platforms and collaborative innovation ecosystems;
- Foster stronger linkages between research institutions and industry;
- Promote regional and continental STI collaboration.

(vi) Mainstream Foresight into Vision 2050 and NST2 Implementation

- Utilize foresight tools to track progress toward national development targets;
- Conduct regular scenario reviews and stress-testing of policies;
- Align foresight outputs with national priority sectors including health, education, agriculture, energy, climate resilience, and digital transformation.

(vii) Develop a National STI Foresight Framework

- Develop a comprehensive national STI foresight framework and implementation roadmap;
- Define clear institutional mandates and coordination mechanisms;
- Establish periodic foresight reporting and review mechanisms.

(viii) Enhance Continental Collaboration with AUDA-NEPAD AFRICA POLICY BRIDGE TANK (APBT)

- Continue collaboration with AUDA-NEPAD AFRICA POLICY BRIDGE TANK (APBT) on foresight capacity-building;
- Align Rwanda's national STI targets with Agenda 2063 priorities;
- Share Rwanda's foresight experiences and lessons across Africa;
- Participate actively in continental foresight and innovation platforms.

3.3.2. Training on Fundraising and Business Planning for Commercialization of research outputs

Researchers and entrepreneurs often face several challenges when trying to scale and commercialize their products and innovations due to several barriers including mainly: lack of technology transfer and commercialization skills, Limited skills capacity to develop business plans and Limited access to funding and market access barriers to scale up and commercialize their innovations

Effective scaling often depends on access to knowledge, mentorship, strong partnerships, competitiveness and access to market. Resources and investment is very critical for commercialization of research outputs and innovations. In this context, researchers and innovators with scalable and market-ready innovations, prototypes, or products need targeted support to strengthen their capacities in fund mobilization and business plan development to ensure funding readiness.

In this regard, NCST has implemented a three days Training Workshop from 12-14 August 2025 (Figure 22) on Fundraising and Resources Mobilization & Preparation of Business Plans for Scaling up, Technology Transfer and Commercialization of their products for researchers and innovators from various national public and private research institutions, universities and industries. This was the second workshop of its kind, following the first session held in May 2025.

Objectives of the training workshop were:

The primary goal of the training was to equip researchers and innovators with the knowledge and practical skills needed to transform research outputs into viable business ventures.

The specific objectives were:

- Train participants in innovation readiness and business development skills
- Support the development of winning business models and plans attractive to investors
- Strengthen fundraising and resource mobilization capacity
- Foster stronger collaboration between researchers and industrial partners.

The training came up with key recommendations including:

- **Structured entrepreneurship mentorship:** Establish mentorship programs that pair researchers with industry partners and investors to provide entrepreneurship and business skills
- **Networking and collaboration platforms** Facilitate regular forums for researchers and industry partners to deepen collaboration, co-develop business objective and commercialization strategies, and build trust. The researchers master the production/technical related structures and the industrial partners assumed to master the entrepreneur approaches in commercialisation.
- **Capacity building in fund mobilization** Expand training modules on fundraising, financial literacy,

and navigating diverse financing instruments (banks, venture capital, green finance, grants, etc.). These modules should also be given enough time to help these people develop key business tools

- **Customized training tracks** Develop tailored training tracks (beginner vs. advanced) to ensure all participants are engaged meaningfully and progress according to their development stage





Figure 22: Participants to the capacity building training workshop on Fundraising and Resources Mobilization

The NCST workshop marked a significant milestone in bridging the gap between research and industry in Rwanda. By equipping researchers and industrial partners with entrepreneurial skills, tools for business planning, and strategies for fundraising, the workshop laid the foundation for transforming innovative ideas into impactful business ventures. Moving forward, sustained mentorship, multi-level support system, and stronger networking platforms will be essential to ensure that research outputs not only remain innovative, but also lead to useful innovation and technological progress, reach markets, create jobs, and contribute to Rwanda's socio-economic transformation.

3.4. Promote and support technology transfer and commercialization of research outputs

3.4.1. Development of entrepreneurial institutional maturity framework

The NCST in collaboration with the University of Rwanda (UR) supported the development of the **Entrepreneurial Institutional Maturity Framework (EIMF)** as a national framework to strengthen technology transfer, commercialization, and entrepreneurial capacity within Rwanda's Higher Learning Institutions (HLIs). The framework was developed to address persistent challenges in translating research and innovation outputs into commercially viable products, services, and enterprises despite increasing investments in research and development. Drawing on international best practices, including the OECD, the UNECA Entrepreneurial Universities Framework, and the Kenya National Innovation Agency (KeNIA) Entrepreneurial Institution Maturity Framework, the EIMF was contextualized to Rwanda's higher education and innovation ecosystem. During the reporting period, a comprehensive institutional assessment was conducted involving 15 public, private, and specialized HLIs using standardized assessment tools covering six strategic dimensions: leadership, governance and financing; infrastructure; human capital; policies and strategies; entrepreneurial education; and industry linkages. The assessment employed a five-level maturity model ranging from Traditional to World-Class Entrepreneurial Institutions and generated evidence-based institutional maturity profiles.

The assessment revealed that most Rwandan HLIs are at the **developing maturity level,** with relatively stronger performance in entrepreneurial education, infrastructure, and industry linkages, while leadership and financing, policy implementation, commercialization support, and innovation funding remain key areas requiring improvement. The exercise resulted in the development of a national Technology Transfer and Commercialization Institutional Maturity Framework, standardized assessment methodology, institutional scorecards, key performance indicators, and an implementation roadmap based on the Input–Process–Output (IPO) model. The framework is expected to strengthen innovation governance, improve technology transfer and commercialization systems, support the establishment and professionalization of Technology Transfer Offices (TTOs) and incubation services, enhance university-industry collaboration, increase intellectual property generation and research commercialization, and provide a national benchmarking tool for monitoring institutional

progress toward entrepreneurial and innovation-driven universities. Future efforts will focus on validating and rolling out the framework nationally, building institutional capacity, institutionalizing annual maturity assessments, and strengthening innovation financing mechanisms to accelerate Rwanda's transition to a knowledge-based economy.

3.4.2. Development of a Comprehensive Capacity Needs Assessment in Technology Transfer and Commercialization (TTC)

The objective of this activity was to develop comprehensive survey questionnaires for organizations and individual professionals involved in the innovation value chain to identify institutional and individual capacity gaps in technology transfer, commercialization, entrepreneurship, and innovation. The assessment aimed to generate evidence for the development of a national Technology Transfer and Commercialization (TTC) training guidebook and capacity-building programme.

Activities Undertaken

The NCST, in collaboration with the UR , designed and validated two structured survey questionnaires targeting institutions and individual technology transfer professionals. The questionnaires covered organizational profiles, technology transfer functions, institutional capacity, professional competencies, training needs, challenges, opportunities, and future workforce requirements. The survey instruments were subsequently administered to organizations participating in the national innovation ecosystem, and the findings informed a comprehensive Technology Transfer and Commercialization Training Needs Assessment Report and the development of a Training of Trainers (ToT) guidebook.

Questionnaire Development Process

The questionnaire development process began with defining the assessment objectives and identifying key stakeholders across the innovation value chain. Two complementary questionnaires were developed: one focusing on organizational capacity and another on individual competencies. The tools incorporated quantitative and qualitative questions covering technology transfer services, organizational structures, funding mechanisms, competency requirements, continuous professional development, training priorities, and technology commercialization challenges. The questionnaires were developed to support a comprehensive capacity assessment whose findings would guide the design of national training materials and institutional strengthening interventions.

Key Outputs

The assessment resulted in:

- Two validated Technology Transfer and Commercialization Training Needs Assessment questionnaires (organizational and individual).
- A comprehensive draft Technology Transfer and Commercialization Training Needs Assessment Report summarizing institutional and individual capacity gaps, competency requirements, and priority training areas.
- A Training of Trainers (ToT) Guidebook comprising three competency-based training programmes on Entrepreneurship, Commercialization, and Technology Transfer, developed directly from the identified training needs and prioritized capacity gaps.

Expected Impact

The survey provided the first comprehensive national evidence base on Technology Transfer and Commercialization capacity needs in Rwanda. The findings guided the development of targeted capacity-building programs, strengthen institutional technology transfer offices, improve professional competencies, promote research commercialization, enhance academia-industry collaboration, and contribute to a more effective national innovation ecosystem.

Three training of trainers program (Figure 23) were conducted using the developed guidebook, such as training in commercialization, technology transfer and entrepreneurship. The training involved key stakeholders in the Rwanda innovation ecosystem including, academia, government institutions, innovation, private sector, and other research institutions





3.5. Collaborations and Partnerships for STI and R&D Excellence

3.5.1. Promote and strengthen partnership & cooperation with national and international stakeholders

One of the mandates of NCST is to cooperate and collaborate with other advanced regional and international institutions of excellence with the objective to promote science, technology, research, and innovation (STRI) collaboration, cooperation and outreach. NCST has established a number of strategic partners and continues to do so in its capacity to have and increase its horizons for partnership opportunities.

NCST is committed to sustainable partnerships with a wide range of partners to develop, accelerate and sustain innovations in order to improve the quality and standard of living for national and African citizens. The goal is to ensure that R&D and innovative solutions address national and continental challenges leading to economic growth and prosperity. Therefore, NCST will continue to explore far-reaching partnerships and cooperation with all relevant stakeholders. Strong and well thoughtful partnerships are solidified with national and global research institutions, universities, business sectors, funders, philanthropists and other stakeholders to address national challenges under research priorities areas, to create demand for relevancy for innovations pipeline

Building strategic partnerships requires careful planning and consideration of several key elements including; clear objectives, mutual benefits, clear roles and responsibilities, aligned interests and goals, etc. The following table provides a profile of NCST's partners with existing MoUs or agreements.

Table 9: Profile of NCST's partners with existing MoUs or agreements

No.	Partner	Description	Objectives	Expiration
01	Private Sector Federation (PSF), Rwanda	Collaborative national existing Partner	• To facilitate collaboration between the Parties in matters related to improving utilization of science and technology to boost small- and large-scale businesses for improved innovations and promotion of industrial development; • To promote joint collaboration within their respective mandates through programs aimed at strengthening science, technology and research-based innovation, specifically focusing on supporting and funding experimental R&D projects through academia – industry collaborations; • To improve mutual collaboration to solidify use of STI to boost business turnover.	10th November 2026
02	Scientific & Technological Research Council for Turkiye (TUBITAK)	Collaborative international existing Partner	• Exploring possibilities on joint research, development and innovation projects; • Exchange of individual scientists for the purpose of conducting academic research work; • Organizing and participating in joint academic scientific and technological events • Exchange of information on the management of technoparks, conduct activities about joint centers of excellence and joint laboratories • Participation in EU framework programmes for research, development and innovation	11th January 2028 Automatically extendable for five years

No.	Partner	Description	Objectives	Expiration
03	International Development Research Centre (IDRC), Canada	Funding international existing Partner	1.1. To fund high-quality multidisciplinary research projects that generate market-ready technologies and evidence-based scientific solutions addressing climate challenges in key sectors, including agriculture, biodiversity, and water management; 1.2. To further strengthen NCST's internal systems, processes, and capacities for efficient research and grants management; 1.3. To foster strategic partnerships between academia, research institutions, industry, and other private sector actors to accelerate innovation uptake and commercialization; and 1.4. To integrate and strengthen gender-responsive and inclusive approaches in research and innovation design and implementation, ensuring equitable participation and benefits for women, youth, and marginalized groups.	30th September 2030
04	East African Science and Technology Commission (EASTECO)	Collaborative regional existing Partner	• Establish a strategic framework for cooperation in science, technology and innovation (STI) • Generate, disseminate and apply knowledge, technologies and innovative for socio-economic development; • Promote joint STI partnerships with other strategic actors in the regional and global space.	Until modified or terminated by any one of the parties by mutual consent
05	KTH Royal Institute of Technology, Sweden	Collaborative international existing partner	• Establish a strategic framework for cooperation in science, technology and innovation between both parties to address common regional and global socio-economic challenges through shared experiences; • Generate, disseminate and apply knowledge, technologies and innovative for socio-economic development; • Promote joint science, technology and innovation partnerships with other strategic actors in the regional and global space.	24th March 2028
06	Government of Malawi represented by National Commission for Science and Technology (NCST), Malawi	Collaborative regional existing Partner	a) Establish a strategic framework for cooperation in research, science, technology, and innovation between both parties to address common national, regional and global socio-economic challenges through shared experiences; b) Generate, disseminate and apply knowledge, technologies and innovations for socio-economic development; c) Promote joint science, technology and innovation partnerships with other strategic actors in the regional and global space.	Until modified or terminated by any one of the parties by mutual consent

No.	Partner	Description	Objectives	Expiration
07	Science for Africa (SFA) Foundation	Collaborative regional existing partner	• Operating a partnership between the parties modeled after the Grand Challenges Exploration (GCE) involving launching calls dedicated to Rwandan and African investigators and to implement research that leads to innovation in Rwanda.	17th May 2028 Automatically extendable for five years
08	Bill & Melinda Gates Foundation	Funding international existing Partner	To address the intersection of climate change and public health through research and innovation with the aim of fostering a healthier population.	30th September 2026
09	National Research Foundation (NRF), South Africa	Funding regional existing Partner	Management of Collaborative Research.	9th August 2028

3 6. Fund Mobilization Efforts FY 2025-2026

3.6.1 Leveraging R&D investment

The NCST has the mandate to mobilize funds to leverage the R&D investment. In keeping with the dedication to roll out its mandate, the NCST has over the years strived to mobilize resources to ensure a functional NRIF. This has greatly helped to leverage the subvention from GoR. For this FY 2025/2026, NCST was able to initiate and establish funding partnership with the Research and Innovation Systems for Africa (RISA) Fund and the International Development Research Centre (IDRC) Canada. Through these partnerships, NCST was able to mobilize Seven Hundred Fifty Thousand Canadian dollars (CAD 750,000) amounting to Seven Hundred Ninety-Five Millions, Five Hundred Seventy Thousand Rwandan Francs (RWF 795,570,000) from IDRC and Two hundred Seventy Thousand US Dollas (USD 270,000) from RISA Fund.

In additions, NCST has been engaged in Regional and international collaborative research grant calls which support resource mobilization through match-funding. The following calls will be implemented through collaborative approach and match-funding:

International Global Call: NCST has joined international funders to implement the call ''2026 International Joint Initiative for Research Harnessing Disruptive Technologies to Address Global Challenges''. Focus will be on how disruptive technologies can be used in contextually appropriate interventions to have transformative economic or societal impacts to improve the lives of people and the planet. Subject to funds being made available by parliament or through other funding partnerships, IDRC intends to issue grants to the NCST council to be used to towards supplementing the member's grant(s) to projects funded through this Call NCST is committed to support eight projects. The commitment per project is two hundred fifty Million Rwandan Francs. The successful projects will receive co-funding from IDRC Canada

Grand Challenges Rwanda Call. NCST has joined funding opportunity on Climate and Health Innovation (i.e., Nexa Initiative), a global climate and health initiative co-led by Grand Challenges Canada (in partnership with the Government of Canada) and the Science for Africa Foundation (SFA) aiming to support locally led innovations that address the growing health impacts of climate change. The programme aims to support six projects three projects by Grand Challenges Canada and three projects by NCST. The commitment per project is two hundred Million Rwandan Francs.

STISA 2034 Call: NCST has joined other African Councils under SGCI Forum for a joint initiative grounded in the priority sectors of the African Union's Science, Technology and Innovation Strategy for Africa 2034 (STISA-2034) aiming to address Africa's challenges and national priorities (STISA-2034), strengthens institutional networks and a more integrated African STI ecosystem, and amplifies the development impact of SGCI investments across the continent. NCST will support five projects, with one project selected from each thematic area and NCST co-funding arrangements will apply for projects led by Rwandan Researchers as primary PIs. The commitment per project is One hundred Million Rwandan Francs. The successful projects will receive co-funding from IDRC Canada.

The figure below shows the trend in Resource mobilization over 5 years

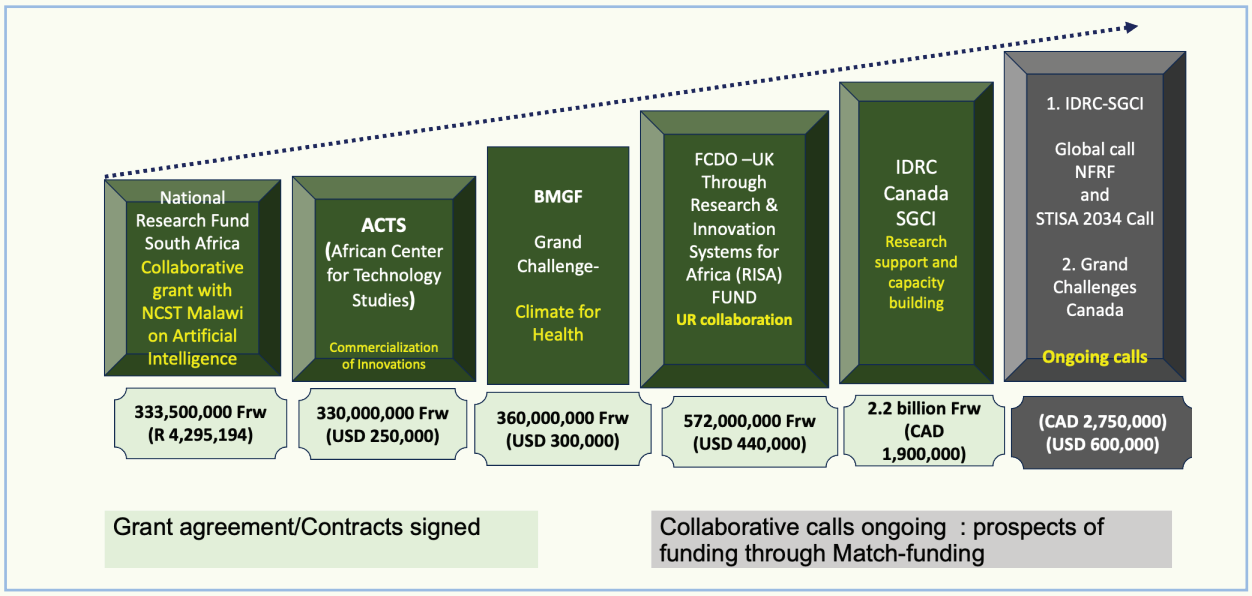


Figure 24: Research and Innovations funding trends through resource mobilization

3.6.2. Development of Resource mobilization manual

The National Council for Science and Technology organized a three-day working workshop from 12th to 14th May 2026 with the objective of developing a comprehensive NCST Resource Mobilization Manual. The workshop brought together NCST staff and external facilitators with expertise in grants management, partnership development, donor engagement, and innovation systems strengthening.

Specific objectives included:

I. To review NCST's current resource mobilization practices, examine challenges faced and identify potential opportunities that will guide development of the manual.

II. To design and develop a resource mobilization manual aligned with NCST's mandate and National Strategic documents.

III. To develop practical guidelines and instruments/ tools for proposal development, partnership engagement, and donor management.

IV. To define mechanisms for strengthening institutional capacity in resource mobilization and research and innovation management.

V. To produce a Draft Zero of the NCST Resource Mobilization Manual.

The workshop generated the following key recommendations:

I. NCST should institutionalize resource mobilization as a core strategic function and integrate resource mobilization plans into institutional strategic plans and annual action plans.

II. NCST should establish and maintain an internal funding opportunity tracking system and a database of donors, partners, and funding calls.

III. NCST should strengthen institutional capacity in proposal development, donor engagement, grants management, partnership coordination, and communication.

IV. Resource mobilization efforts should focus on areas where NCST and Rwanda have clear comparative and competitive advantage.

V. NCST should strengthen institutional visibility and positioning nationally and internationally to attract strategic partnerships and funding opportunities beyond open calls.

The draft resource mobilization manual has been presented to NCST Senior Management and the advice was to finalize the document after consultations and validation with key national stakeholders to enable optimization of its awareness and ownership

4. Administration, Finance and Human Resource Development

4.1. Statement of Budget Implementation

The NCST approved budget for the fiscal year 2025/2026 was 2,132,822,025 Frw, of which 2,113,937,152Frw was executed, resulting in an overall implementation rate of 99.11%. Wages and salaries, and recurrent non-wage funds from the government amounted to 1,865,064,617 Frw, with a high execution rate of 99.63%, covering sub-categories such as NRIF projects, strategic interventions, wages, salaries, and administrative costs. The budget for externally funded projects was 267,757,408 Frw, with an execution rate of 95.50%. These projects were supported by donors including IDRC Canada, BMGF, the National Research Foundation (South Africa).

NCST remains committed to fulfilling its mandate and focused on improving budget mobilization, allocation, and processing efficiency. Additionally, we are promoting gender equality in budgetary decisions. Our ultimate goal is to deliver effective services to NCST constituents.

4.1.1. Budget Implementation Rate per Funding Category for FY 2025-2026

This section presents the NCST budget implementation rate by funding category for FY 2025/2026. The overall budget execution rate stood at 99.11%, demonstrating a very high level of budget utilization during the financial year. Wages and recurrent non-wage expenditures recorded an execution rate of 99.63%, reflecting strong budget implementation in government-funded operational activities. Externally funded research projects and their administrative activities achieved an execution rate of 95.50%, indicating a high level of fund utilization. Overall, the budget execution performance reflects effective financial management and efficient implementation of planned activities across all funding categories.

Table 10: NCST Budget execution summary for FY 2025/2026

Budget category	Approved budget in FY 2025/2026	Executed budget in FY 2025/2026	% of executed budget FY 2025/2026
A. Wages and Recurrent non-wage	1,865,064,617	1,858,188,085	99.63%
B. External funded research projects with its administrative activities	267,757,408	255,749,067	95.50%
Overall budget execution (A+B)	**2,132,822,025**	**2,113,937,152**	**99.11%**

Table 11: Wages and Recurrent non-wage

Budget category	Source of funds	Approved budget in FY 2025/2026	Executed budget in FY 2025/2026	% of executed budget FY 2025/2026
Wages and salaries	GoR	322,982,042	319,277,026	98.85%
NRIF projects	GoR	1,002,142,872	989.894.894	99%
Strategic interventions	GoR	191,196,941	191.196.941	100%
Administrative costs (Lumpsum Allowance & other running costs)	GoR	616,500,170	613,328,649	99.48%
Total recurrent non-wage	**GoR**	**2.132.822.025**	**2, 113,697,510**	**99.11%**

Table 12: Government and External funded projects and their associated administrative activities

Budget category	Source of funds	Approved budget in FY 2025/2026	Executed budget in FY 2025/2026	% of executed budget FY 2025/2026
NRIF research and innovation funded projects	GoR	734,385,464	734,145,827	99.97%
External funded projects and their associated administrative activities	BMGF Subsidies and administrative activities	72,927,537	70,294,508	96%
Manage Research calls in food security and modern agriculture, local production, and value addition	IDRC new and its administrative activities	43,508,989	43,508,989	100%
Funding research and innovation projects through Management of Collaborative Research and Innovation Grants in Rwanda and Malawi: Application of AI and IoT in Manufacturing processes for industrial growth	NRF South Africa and its administrative activities	151,320,881	141,945,570	94%
Total for External funded projects with its administrative activities		**1,002,142,871**	**989,894,894**	**98.78%**

4.2. NCST 32nd Commemoration of the 1994 Genocide against the Tutsi Activities

NCST 32nd Commemoration of the 1994 Genocide against the Tutsi, the program began with a wreath-laying ceremony and a moment of silence at the memorial, followed by a guided remembrance walk retracing the victim's journey from KIZIGURO catholic church to the memorial site. The activities honored the thousands of victims buried in mass graves and highlighted the scale of the tragedy. They also reinforced the collective responsibility of NCST and individuals to preserve historical memory and ensure that the victims are never forgotten.





Figure 25: Honoring the Victims of the 1994 Genocide against the Tutsi and guide walk to remember at Kiziguro Genocide Memorial

4.3. Labour Day 2026: Celebrating Excellence and Commitment at NCST

International labour Day, celebrated annually on 1st May, recognizes the contribution of employees to national development. In line with guidance from the Ministry of Public Service and Labour, NCST celebrate the day on 15th May 2026 through activities promoting professional ethics, teamwork, and recognition of outstanding staff performance. The 2026 Labour Day celebration at NCST promoted professional ethics, teamwork, and excellence through a presentation on public service

values and ethical leadership. The event also recognized outstanding staff performance, with Mr. Elysee Uwimana elected as the best professional and ethical employee of the year 2025/2026.

4.4. Human Resource Development

Three trainings conducted during the fiscal year 2025/2026. The trainings aimed at strengthening staff capacity in financial management, workplace safety, and strategic planning to improve institutional performance.

The following trainings were delivered:

- Planning, Budgeting, Assets & Inventory Management, and Financial Statement Preparation
- First Aid Tools and Occupational Hazard Prevention
- Futures, Strategic Foresight, and Horizon Training Course

a) Planning, Budgeting, Assets & Inventory Management, and Financial Statement Preparation

This training significantly enhanced participants' understanding of financial planning, budgeting processes, and asset management. Staff demonstrated improved ability to align budgets with organizational priorities and apply proper financial reporting standards. As a result, there was increased accuracy and accountability in financial management practices.

b) First Aid Tools and Occupational Hazard Prevention

The training improved staff awareness of workplace safety and emergency response procedures. Participants acquired practical skills in first aid and hazard identification, contributing to a safer working environment. Increased preparedness to respond to emergencies was noted among staff.

5. Conclusion

The fiscal year was marked by significant progress and valuable learning to achieving the NCST's strategic objectives. The key achievements presented in this annual report demonstrate continued commitment and dedication of NCST's management, staff, partners and stakeholders in strengthening institutional capacity; reviewing the NCST strategic plan 2023-2029 aligned with NST2 for enhanced national impact; developing STI strategies, frameworks and STI surveys and reporting to promote better understanding of STI and R&D trends; improving services delivery through digitization and system optimization to deliver efficient, transparent and technology-driven services; enhancing national research and innovation ecosystem through funding and trainings for STI capacity and human resource development; enhancing collaboration and resource mobilizations to leverage NRIF; improving efficiency and accountability in annual budget implementation, as well as adopting innovative approaches to address emerging needs at institutional and staff levels. Moving forward, the next FY 2026-2027 will be implemented with focus sustaining the results achieved and ensuring that more research and innovation projects are funded and supported, expanding more collaboration and partnerships, preparing and disseminating reports on the status of the STI in Rwanda, and promoting human capital development through stakeholder's engagement to deliver measurable and lasting impact in national development.

ANNEXES

1. Detailed list of research and innovation Projects supported by NCST under the fiscal year 2025-2026.

List projects supported with funds disbursement in the FY 2025-2026 per funding grant scheme			
No	**Project / name**	**Funding Grant Scheme**	**Amount (frw) disbursed in FY 2025/2026**
1	Evidence-based Road Safety: An Automatic Road Traffic Crashes Data Management System (AutoRTC-DMS)	Academia Industry Collaboration (AIC)	5,573,961
2	Capitalization on Marigold Bio-Pesticide Properties to Leverage the Output of Natural Products Made in Rwanda	Academia Industry Collaboration (AIC)	15,000,000
3	Valuation of Ecosystem Services: Establishing Forests and Wetlands Ecosystem Services Values Using an Integrated Valuation for Sustainable Development in Rwanda	Academia Industry Collaboration (AIC)	14,997,340
4	IoT-AI Based Climate and Quality Monitoring System for Agricultural Value Chains (ICQMSA). Case of Cassava Value Chain.	Rwanda Innovation Challenges for Academia-Industry Research and Development Collaboration Grant (RIC-R&D)	9,000,000
5	Enhancement the processing and Standardization technics towards the production of certified Phytomedecines and food supplements in response to critical health needs in Rwanda	Rwanda Innovation Challenges for Academia-Industry Research and Development Collaboration Grant (RIC-R&D)	9,000,000
6	Infrastructure for remote and In-situ collection and aggregation of agricultural Data and Its Application to Yield Estimation	Rwanda Innovation Challenges for Academia-Industry Research and Development Collaboration Grant (RIC-R&D)	11,700,000
7	Lithium-ion Battery Direct Cathode Recycling and Battery Cell Manufacturing	Rwanda Innovation Challenges for Academia-Industry Research and Development Collaboration Grant (RIC-R&D)	8,999,700
8	Improving Food Security Through Production and Value Addition of Quality Tomatoes	Rwanda Innovation Challenges for Academia-Industry Research and Development Collaboration Grant (RIC-R&D)	9,000,000
9	Biodiversity, Beers, Bitters, Beverages, and a Bag of Crisps (5Bs Products)	Rwanda Innovation Challenges for Academia-Industry Research and Development Collaboration Grant (RIC-R&D)	63,170,046

10	Design and Fabrication of Improved Solar Water Heater Adaptive to Rwandan Weather Condition	Rwanda Innovation Challenges for Academia-Industry Research and Development Collaboration Grant (RIC-R&D)	54,266,754
11	e-Ruhuka: An E-Mental Healthcare Architecture as an Innovative Solution to Promote an Alternative and Conventional Support in Rwanda Category	Rwanda Innovation Challenges for Academia-Industry Research and Development Collaboration Grant (RIC-R&D)	9,000,000
12	Improving indigenous chicken productivity for enhanced livelihood and food security among the resources limited household in Rwanda.	Women in Science Research and Innovation Grant (WIS)	24,009,953
13	Design, fabrication and testing of solar powered induction cooker	Women in Science Research and Innovation Grant (WIS)	29,437,498
14	Design and Construction of Efficiency and Cost-effective solar Dryers for Low and medium -size farmers and food processing enterprises in Rwanda	Women in Science Research and Innovation Grant (WIS)	14,900,000
15	Telegenetics and Genomic Testing in Rwanda Patients with Neurodevelopmental Disorders (TELEGERNE)	Women in Science Research and Innovation Grant (WIS)	19,305,910
16	IoT Empowered Precision Agricultural Techniques for Improved Rice Production: An Automated Irrigation and Fertilization Application System for Small-scale Rice Producers in Rwanda	Women in Science Research and Innovation Grant (WIS)	50,290,854
17	Development of an integrated early warning and response system (IEWRS) for health in the context of climate change in Rwanda	Accelerating and Catalyzing Solutions for Climate Change's Impact on Health (GC Rwanda Climate for Health)	24,000,000
18	WALL: Evolution of the volcanic environment in western Rwanda with climate change: impact on health and mitigation	Accelerating and Catalyzing Solutions for Climate Change's Impact on Health (GC Rwanda Climate for Health)	71,306,580
19	Design of community and health workers' centered data collection systems for the health national adaptation plan	Accelerating and Catalyzing Solutions for Climate Change's Impact on Health (GC Rwanda Climate for Health)	71,998,847
20	IoT -AI Based Personalized Nutrition Assistant System for Available Food Products in Rwanda	Implementation Research to address Malnutrition & Stunting in Rwanda	15,185,000
21	National Program for Sustainable Usage of Organic Fertilizers Soldier Fies	Implementation Research on and Fertilizers in Rwanda	16,383,120
22	Pioneer Domestication of Common Carp Fish, Cyprinidae, In Rwandan Aquaculture Industry with Valorization of Silkworm Pupae for Low-Cost Nutritious Fish Feed	Sector Strategic Research Grants Scheme	13,998,924
23	An Aggregated Digital Platform for Agriculture for Supporting Decision Making by Agricultural Sector Stakeholders	Innovative frontier technologies for climate resilient agriculture, food security and safety in Africa	49,956,000

24	Fish Farm Computer Vision for Feed Optimization and Tracking	Innovative frontier technologies for climate resilient agriculture, food security and safety in Africa	50,000,000
25	Tapping into Emerging Technologies For Optimising The Integration of Cooperatives into Competitive Value Chains For Strengthening Horizontal and Vertical Growth Pathways and Building Resilience of Food Systems in Rwanda	Innovative frontier technologies for climate resilient agriculture, food security and safety in Africa	70,000,000
26	AI and IoT-Enhanced Dairy Farming in Rwanda and Malawi Smart Cooling Spoilage Prediction Prevention and Data Driven Logistics	Management of Collaborative Research and Innovation Grants in Rwanda and Malawi: Application of Artificial Intelligence (AI) and Internet of Things (IoT) in Manufacturing processes for industrial growth	51,953,776
27	Paygo smart system: a Technology driven approach to sustainable energy access in Rwanda and Malawi	Management of Collaborative Research and Innovation Grants in Rwanda and Malawi: Application of Artificial Intelligence (AI) and Internet of Things (IoT) in Manufacturing processes for industrial growth	52,000,000
28	Smart manufacturing of low-cost point of use water disinfection unit: Application of AI and IoT for optimizing Chlorine Loading in Chlorinated Resins	Management of Collaborative Research and Innovation Grants in Rwanda and Malawi: Application of Artificial Intelligence (AI) and Internet of Things (IoT) in Manufacturing processes for industrial growth	19,500,000
29	AI Drive Machine Vision for Quality Control and Waste Reduction in small scale Food Processing Manufacturing in Malawi and Rwanda	Management of Collaborative Research and Innovation Grants in Rwanda and Malawi: Application of Artificial Intelligence (AI) and Internet of Things (IoT) in Manufacturing processes for industrial growth	19,500,000
30	Optimizing industry in Malawi and Rwanda with AI driven recommender systems and deep learning: transforming agriculture, supply chains, and market forecasting (OPTMAR AI project).	Management of Collaborative Research and Innovation Grants in Rwanda and Malawi: Application of Artificial Intelligence (AI) and Internet of Things (IoT) in Manufacturing processes for industrial growth	32,500,000
31	Vehicle Pollution Monitoring System	Implementation Research for Scaling Up and Commercialization of Innovations (ACTS)	5,000,000
	Sub-total		**910.934.263**

2. Publication of NCST Quarterly Newsletter





Quarter 1(July-September 2025) Newsletter:

Driving Research Excellence: Digitization of Systems, Skills development, and broadening Collaborations

REPUBLIC OF RWANDA

NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

ncst National Council for Science and Technology

Driving Research Excellence: Digitization of Systems, Skills development, and broadening Collaborations

NCST Quarterly Newsletter – Issue 017- July – September 2025

PREAMBLE: The 17th Edition of the NCST Newsletter highlights Rwanda's continued progress in strengthening its research and innovation ecosystem. This issue features key developments such as the prototype review of the Rwanda Research and Innovation Repository, the national consultation on data protection and privacy guidelines for the research sector, capacity-building workshops on fundraising and commercialization, and field visits to assess the impact of funded research projects in priority areas. Collectively, these initiatives underscore NCST's commitment to advancing science, technology, and innovation as drivers of Rwanda's transformation into a knowledge-based and sustainable economy.

INSIDE THIS ISSUE:



PI Dr. Olive Tuyishime and her team demonstrating the process of producing organic fertilizer to the NCST team



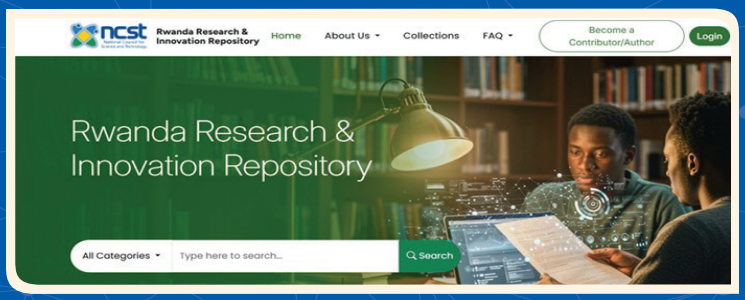
PI Dr. Delphine Abijuru presenting the process of induction cooker development project to the NCST team



Pond for Carp Domestication in Huye



PI Mr. Léandre Berwa presenting his project on building second life energy storage/battery



Rwanda Research and Innovation Repository HomePage

Driving Rwanda Research Innovation and Integrity: Repository Prototype Review and NCST contribution on Data Privacy Guidelines

Louis Sibomana[1], Theogene Kayumba[1], Felly Kalisa[1], Marie Chantal Cyulinyana[1], Japhet Niyibuhungiro[1], Didacienne Mukanyiligila[1], Jean-Louis Niragire[1], and Pachat Pacifique Hategekimana[2]

[1]National Council for science and Technology (NCST)

[2]Rwanda Information Society Authority (RISA)

1. Driving Rwanda Open Research: Prototype Review of the Research and Innovation Repository

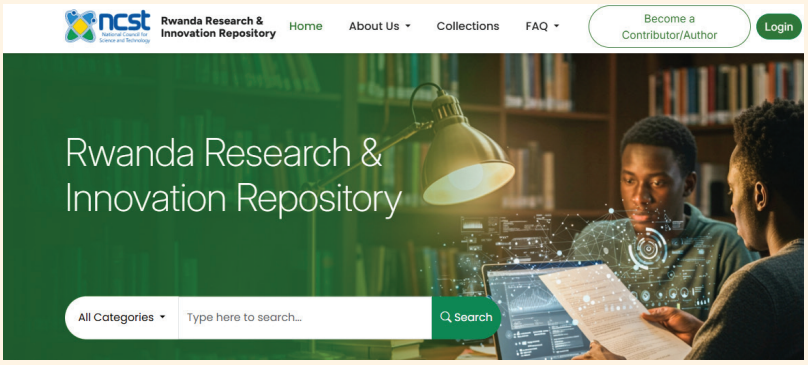
Introduction

The National Council for Science and Technology (NCST) in collaboration with the University of Rwanda (UR) secured a grant to implement a project titled **"Strengthening Rwanda's Research and Innovation Ecosystem through Training, Coordination, and Collaboration"**, funded by the Research and Innovation Systems for Africa (RISA fund, Kenya) program. The project is expected to contribute to the enhancement of National Innovation system by enabling effective technology and knowledge transfer that supports Rwanda's economy growth.

One of the project's specific objectives is to establish the Rwanda Research and Innovation Repository, a digital platform designed to store, disseminate, and enhance access to scientific and research outputs, thereby transforming the way research and innovation are managed and shared in the country.

Background

To support the development and implementation of the repository, NCST, the University of Rwanda, and CSM Technologies Private Limited (CSM Technologies Ltd) signed a tripartite agreement to establish the Rwanda Research and Innovation Repository. Since then, several activities have been undertaken, including a stakeholder workshop held from 26–28 February 2025 to define user requirements, and a virtual kick-off meeting on 4 June 2025 to present the development plan and clarify the roles of all stakeholders for successful implementation. In addition, the CSM Technologies Ltd developed an inception report with key deliverables and timeline, which has been approved by UR and NCST on 13 June 2025.



Rwanda Research and Innovation Repository HomePage

Following the readiness of the developed prototype repository by CSM Techn, the NCST in collaborations with national stakeholders hosted a **5 days' workshop, on 04th-08th August 2025**.

Objectives and Expected Outcomes of the workshop

The purpose of the workshop was to present and demonstrate the developed prototype of the repository to national stakeholders and gather feedback and inputs for improved prototype design. The specific objectives of the workshop were to:

- Present and demonstrate the developed prototype of the repository to national stakeholders.
- Gather feedback and further inputs form stakeholders for improved prototype design of the repository.
- Document revised business requirements document (BRD) and system design document (SSD).
- Prepare and document hosting requirement and specification of the repository.
- Review and address identified technical issues for the existing Research and Innovation Grant Management System (RIGMS).

The workshop had the following as expected outcomes:

- Prototype of repository demonstrated and approved by stakeholders.
- Key recommendations for prototype design improvement documented.

- Revised business requirements document (BRD).
- Hosting requirements developed and documented for the repository.
- Request of changes of the Research and Innovation Grant Management. Systems (RIGMS) documented and agreed with CSM Technologies Ltd.

Workshop approach and proceedings

The workshop brought together a diverse group of 20 participants, including: researchers, innovators and technology developers, government representatives, policymakers, NCST staff, and ICT expert from CSM Technologies Ltd.

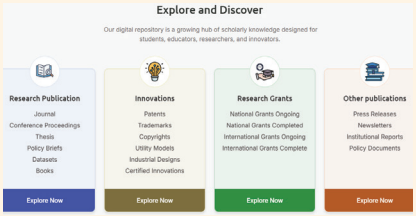
The workshop used a participatory approach, including:

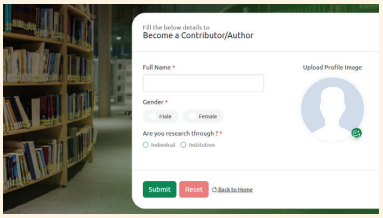
- Presentations from CSM Technologies Ltd experts on the developed repository prototype (accessible through: http://152.67.164.45/cms/Web/home).
- Group discussions to gather inputs, feedback, comments and additional requirements from participants.
- Technical sessions for addressing feedback and comments from participants.
- Interactive sessions to define hosting requirements and technical specifications.
- Technical session to agree for the revised Request of changes for the RIGMS.
- CSM Technologies Ltd experts addressing comments and presenting revised repository prototype to participants.





Working session to improve the repository with experts at UR Headquarter





Rwanda Research and innovation repository features

Workshop key insights

The five-day workshop resulted in the following key insights:

- The necessity of a centralized and accessible repository to enhance research and innovation visibility and impact, as well as significance of aligning the repository's functionality with national research and innovation priorities.
- The importance of user authentication, content management, publication management, and integration with other data sources.
- The need for robust search and discovery features, analytics, and user feedback mechanisms.
- Agreed revised Request of Changes for the RIGMS upgrade.

Key Recommendations and Next steps

The following are the key recommendations:

- CSM Technoloies Ltd to consolidate all functional and non-functional requirements into the final BRD.
- NCST and UR to develop an awareness plan and propose incentives.approaches to encourage researchers and innovators to upload their available. research outputs and promote their usage. This can be implemented for example in the form of a project aiming at awarding top researchers/innovators with more scientific production as number of documents uploaded during the specified period (retrospectively).
- Technical team (CSM Technologies Ltd) to finalize user requirements and develop technical specifications, i.e., Business Requirements Document (BRD).





Experts presenting the revised repository content and structure based on stakeholders' comments

Conclusion

The prototype demonstration validated the feasibility and relevance of the Rwanda Research & Innovation Repository. Stakeholder inputs have been incorporated into the refinement plan, ensuring alignment with national research needs. Once implemented, the platform will improve research visibility, accessibility, and collaboration in Rwanda.

2. Consultation workshop on research sector data protection and privacy guidelines



Consultation workshop on research sector data protection and privacy guidelines

On July 31, 2025, the National Cyber Security Authority (NCSA) convened a consultation workshop on Data Protection and Privacy Guidelines for the research sector. The workshop together the government institutions that included National Council for Science and Technology (NCST), and members of the research community.

The workshop, led under the framework of Law Nº 058/2021 on the Protection of Personal Data and Privacy, brought together representatives from the public and private research institutions.

Why it Matters

With Rwanda's rapid digital transformation, the volume of personal data being processed has grown significantly. Protecting this data is not just a legal obligation, but a cornerstone of trust, accountability, and ethical practice. For researchers, it means ensuring that while data drives innovation, the rights and dignity of participants remain safeguarded.

Workshop Highlights

- Public & Research Sector Dialogue: Stakeholders that included the Chairperson of the Rwanda National Ethics Committee (RNEC), representatives from Rwanda Biomedical Centre (RBC), Centre for Impact, Innovation and Capacity building for Health Information Systems and Nutrition (CIICHIN) , University of Rwanda (UR), NCST, and NCSA among others, together with the consultant who is developing the guidelines had an extensive conversation on identifying practical ways to strengthen compliance with data protection law.
- **Balancing Needs:** participants discussed lawful bases for data use, anonymization, and safeguarding sensitive data.
- **Ethics at the Core:** Participants emphasized the role of research regulators, ethics committees, and cultural sensitivity in protecting research subjects.
- **Collaboration to streamline research permit and ethical clearance processes:** Participants highlighted the need to harmonize procedures for obtaining research permits and related approvals.

Next Steps

The workshop outcomes will feed into the finalization of the research sector specific Data Protection and Privacy Guidelines. These guidelines will be rolled out alongside awareness and capacity-building initiatives to support institutions in embedding data protection into everyday practice.

Empowering Innovators: NCST Hosts Training on Fundraising and Business Planning for Commercialization

Marie Chantal Cyulinyana [1], Amani Bugabo Faustin [1], Sano Anselme [1], Diana Umulisa[1], Didacienne Mukanyiligira [1], Japhet Niyobuhungiro[1], Kalema Juvenal[2] and Miriam Nsekonziza[3]

[1]National Council for Science and Technology (NCST)
[2]Agricultural Finance Consultant, Rwanda
[3]INKJUBEIT

Background

The National Council for Science and Technology (NCST) is mandated to ensure that Rwanda harnesses the potential of Science, Technology and Innovation (STI) to drive sustainable development, competitiveness, and wellbeing. Through the National Research and Innovation Fund (NRIF), NCST has supported research and innovation in key priority areas such as sustainable energy, agriculture, health sciences, digital services, local production, and climate resilience.



Group photo of all participants

However, many promising research outputs face challenges in scaling up and commercialization due to limited business skills, scarce funding, and weak linkages with industry. To address these barriers, NCST organized a 3-day workshop from 12th –14th August 2025, focusing on fundraising, resource mobilization, and business plan preparation for scaling up, technology transfer, and commercialization. This was the second workshop of its kind, following the first session held in May 2025.

Objectives

The primary goal of the training was to equip researchers and innovators with the knowledge and practical skills needed to transform research outputs into viable business ventures. Specifically, the objectives were:

- Train participants in innovation readiness and business development skills.
- Support the development of winning business models and plans attractive to investors.
- Strengthen fundraising and resource mobilization capacity.
- Foster stronger collaboration between researchers and industrial partners.

Workshop Proceedings

The 3-day workshop combined experts' facilitation, case studies, peer-to-peer learning, and mentorship. The sessions were highly interactive and practical, focusing on the following key areas:

- **Innovation Readiness:** Assessing customer, technology, and business feasibility.
- **Entrepreneurship Mindset:** Encouraging opportunity-driven approaches.
- **Business Model Development:** Using tools such as the Business Model Canvas.
- **Business Plan Preparation:** Drafting investor-ready plans and financial models.
- **Financing and Fundraising:** Exploring funding options from banks, grants, venture capital, and green finance.
- **Market Analysis:** Customer discovery, competitive analysis, and value chain mapping.
- **Pitching and Simulation:** Practicing investor engagement and negotiation skills.



Experts' facilitation sessions

Outcomes from the Workshop

The workshop successfully enhanced the participants' knowledge, skills, and networks for commercialization. Key outcomes include:

- Increased understanding of innovation readiness and commercialization pathways.
- Participants began drafting business plans for their innovations.
- Greater appreciation of the importance of market research and customer focus.
- Strengthened collaboration between researchers and industry players.
- Recognition of the need for continuous mentorship, tailored training, and structured support mechanisms.

Conclusion

The NCST workshop marked a significant milestone in bridging the gap between research and industry in Rwanda. By equipping researchers and industrial partners with entrepreneurial skills, tools for business planning, and strategies for fundraising, the workshop laid the foundation for transforming innovative ideas into impactful business ventures.

Moving forward, sustained mentorship, multi-level support system, and stronger networking platforms will be essential to ensure that research outputs not only remain innovative, but also lead to useful innovation and technological progress, reach markets, create jobs, and contribute to Rwanda's socio-economic transformation.



Experts' facilitation sessions

Bridging Academia and Industry: Strengthening Partnerships for Innovation and Commercialization

Esperance Munganyinka[1], Damien Hanyurwimfura[2], Didacienne Mukanyiligira[1]
[1]National Council for science and Technology (NCST)
[2]University of Rwanda (UR)

Introduction



Group Discussions

The University of Rwanda (UR), in collaboration with the National Council for Science and Technology (NCST) is implementing a project entitled "Strengthening Rwanda's Research and Innovation Ecosystem through Training, Coordination, and Collaboration." The project is funded through the Research and Innovation Systems for Africa (RISA fund) programme, which aims to enhance research and innovation ecosystems across Africa. The project follows the successful implementation of the previous project that developed the national technology transfer and commercialization strategy.

The project aims to build a nationwide capacity through Training of Trainers to boost research, entrepreneurship, and innovation skills. It fosters collaboration between academia and industry to drive market-relevant innovations. Strengthened systems will enable effective technology and knowledge transfer. The long-term goal for this project is a sustainable research and innovation ecosystem that supports Rwanda's economy growth. This will be achieved through the following project objectives: (1) Enhance research to commercialization pathway, skills and talents for innovation through technology and knowledge transfer, (2) Strengthen research and innovation systems partnerships and cooperation between entrepreneurs (from industries) and researchers (research institutions), and (3) Develop a national online centralized repository and database to enhance evidence-based decision-making and policy formulation for research and innovation to promote product commercialization.

In line with project objective 2 (strengthening partnerships between academia and Industry), a roundtable meeting between the academia and industry has been held on 13th August 2025 at University of Rwanda, Huye Campus. The roundtable meeting provided the opportunity for mentorship and networking events to link state-funded researchers and innovators with private sector to promote the scale up and uptake of research innovation outputs.

Objectives and expected outcomes of the meeting



Group Discussions

The main goal of the meeting was to strengthen partnership between academia and industry with a purpose of developing special programs and frameworks directed at the Private Sector and academia to support the engagement for commercialization and impact. The roundtable meeting gathered the total of 47 participants where 17 participants were from Industry and 13 participants from academia and 17 participants from research institutions. Involved researchers and academicians and industry partners are those that have NCST/NRIF funded projects that have substantial outputs and have the potential to scale up.

Objectives and expected outcomes of the meeting

Specific objectives	Expected outcomes
To discuss academia industry partnerships and future trends to better align academic research priorities with business demands.	Ideas and actions documented on establishment of academia-industry collaboration roadmap to support alignment of academic research priorities with business demands
To build trust & collaboration models for strong and sustainable academia-industry collaboration	Ideas and actions documented on establishment of mutual understanding, expectations, and long-term partnership frameworks between academic institutions and industry players.
To explore collaborative and joint Programs/ projects where academia and industry solve real-world problems collaboratively	A network platform initiated and a dedicated staff in charge of Academia-Industry linkage and collaboration identified to promote academia industry collaboration and networking for impact

Outcomes of discussions

Item discussed	Key interventions documented
How a clear academia-industry collaboration roadmap can be established to support alignment of academic research priorities with business demands.	1. Engage the right people within the academic community to ensure smoother collaboration. 2. Create a skills-matching platform similar to LinkedIn but focused on researchers, where the private sector can identify and connect with the right academic experts for their projects. 3. Strengthen communication channels between academia and the private sector to maintain alignment throughout the project. 4. Organizing seminars/conferences involving academia and local private players 5. High commitment from all involved parties 6. More Research Grant/Consultancy offers to encourage local researchers to contribute 7. Government funded projects to focus on R&D and Income generating project with social and community impact 8. Private partners to approach Researchers for R&D
How To build trust & collaboration models through establishment of mutual understanding, expectations, and long-term partnership frameworks between academic institutions and industry players?	1. Development of clear terms of reference to ensure transparent communication about resources and timelines, thereby building trust for the academia-industry joint grant 2. Involvement of both parties during the proposal-writing stage, for the academia-industry joint grants 3. Establish clear, mutually beneficial rules, requirements, and criteria for collaboration, including transparent regulations for joint funding so both academia and industry gain from the process. Funding platforms should be user-friendly for all parties. 4. Streamline the fund execution process to minimize bureaucracy, paperwork, and time delays. 5. Establish a sustainability plan of the research outputs and fund management and project scale-up (e.g: Establish agreement of how to manage the IPs registered) 6. Consider business idea in the projects during the development of research proposals 7. Align Interests and procedures between Researchers and business owners 8. Sharing expertise and experiences between parties
How can we initiate a network platform supported by a dedicated staff in charge of Academia-Industry linkage and collaboration identified to promote academia industry collaboration and networking for impact?	1. The participants found that it is very important to have such network platform where they can share information, opportunities, and other collaborative activities. The platform will facilitated easy communication. 2. Participants proposed to have workshops and meetings on regular basis (ex: quarterly, annually) to guide the proposal writing processes, pitching of research outputs, provide a space for discussing challenges, organize Research and Innovation Day, organizing workshops for researchers and the industry partners and involving funders 3. The WhatsApp group has been created as an initial network platform which include all participants to facilitate the exchange of information and opportunities.

Conclusions and way forward

The round table meeting was a success. The collected ideas and proposed actions will be implemented progressively through different initiatives and forums. As we plan to hold other meetings and events to establish strong and sustainable partnerships and collaborations between academia and industry, these ideas will inform planning of next meetings to ensure what came up is put in actions.

Assessing Research Impact: Insights from NCST's August 2025 M&E Field Visit

Marie Chantal Cyulinyana[1], Amani Bugabo Faustin[1], Japhet Niyobuhungiro[1], Didacienne Mukanyiligira[1], Jean Louis Niragire[1], Elysee Uwimana[1], Nabaana Bejamin[1], Emmanuel Uwlingiyimana[1] and Anitha Nishimwe[1]

[1]National Council for Science and Technology

Introduction

In August 2025, the National Council for Science and Technology (NCST) conducted a series of Monitoring and Evaluation (M&E) field visits to assess the progress and impact of ongoing research projects funded under its various innovation schemes. The aim of these visits was to track the implementation of projects, evaluate their achievements against set objectives, and document their contribution to Rwanda's socio-economic development. One of the key responsibilities of NCST as the grantor is to monitor and evaluate project implementation through quarterly and annual technical and financial reports submitted by researchers via their host institutions and Principal Investigators. In addition, NCST conducts field visits to observe on-the-ground progress, interact with project teams, and provide guidance to ensure that funded research is aligned with national priorities. These August field visits offered valuable insights into how research outputs are addressing critical challenges in aquaculture, health, renewable energy, sustainable agriculture, and clean technologies. The reviewed projects outlined below demonstrate Rwanda's growing capacity to leverage science, technology, and innovation (STI) as catalysts for food security, climate resilience, green industrialization, and community empowerment.

1. Strengthening Aquaculture through Carp Domestication

The Carp Project, led by Rukeratabaro Simon who is a Senior Lecturer at the University of Rwanda, specializing in Aquaculture and Fisheries Management., pioneers the domestication of common carp in Rwanda's aquaculture industry while valorizing silkworm pupae as a cost-effective and nutritious feed. The project has assessed reproduction and rearing conditions across agro-climatic zones and developed a prototype Recirculating Aquaculture System (RAS) using locally available materials. Draft manuscripts and training modules are under preparation, ensuring knowledge dissemination. This initiative is poised to enhance food security, reduce reliance on imported inputs, and improve farmer livelihoods through affordable, nutritious, and sustainable fish production.



Aquaculture through Carp Domestication project by PI Dr. Rukeratabaro Simon

2. Building Resilience to Climate Health Risks



PI Dr. Muhamed Semakula presenting his project on Building Resilience to Climate Health Risks

Led by Muhamed Semakula who is Permanent Secretary at the Ministry of Health of the Republic of Rwanda, the project "Building Resilience: Addressing Climate Change Impacts on Health in Rwanda" is pioneering an integrated approach to climate and health data management. Key achievements include the development of a centralized web-based platform, integration of meteorological and satellite data, and the organization of two international conferences on spatio-temporal modeling. A Kigali hub has also been inaugurated, and scientific manuscripts are underway. The project's societal impact lies in equipping policymakers, researchers, and health professionals with real-time surveillance tools, building local expertise, and laying the groundwork for a resilient health system that anticipates climate-driven disease risks.

3. Advancing Sustainable Energy through Battery Recycling



PI Mr. Léandre Berwa presenting his project on building second life energy storage/battery

The project "Lithium-ion Battery Direct Cathode Recycling and Battery Cell Manufacturing", led by Léandre Berwa

the co-founder of SLS Energy, is advancing Rwanda's green industrialization agenda by promoting circular economy practices. Achievements to date include comprehensive market research, supplier engagement, and procurement groundwork for a local battery production line. Despite some challenges, the project is preparing to launch laboratory-based recovery and assembly processes.

By fostering local innovation and reducing dependence on imports, this initiative has the potential to strengthen Rwanda's energy security, create green jobs, and position the country as a regional hub for sustainable battery technologies.



Advancing Sustainable Energy through Battery Recycling

4. Promoting Organic Fertilizer for Sustainable Agriculture

The National Program for Sustainable Usage of Organic Fertilizers (NAPROSUOF), led by Olive Tuyishime, a Lecturer and Researcher at University of Rwanda, is driving innovation in environmentally friendly farming. The project has developed prototypes of organic fertilizers from locally available materials such as Tithonia, cow dung, banana peels, eggshells, and biochar. Soil and vermicompost analyses have been completed, and field sites identified across five districts. The project also gained visibility at the 18th National Agricultural Show. By improving soil health, reducing chemical fertilizer dependency, and supporting women and youth entrepreneurs, NAPROSUOF contributes directly to food security, climate-smart agriculture, and inclusive economic growth.



PI Olive Explain to the team the process of making the organic fertilizer and where they are

5. Innovating for Clean Cooking Solutions

Under the leadership of Abijuru Delphine, a Head of Science and Technology (R&D Department)- Rwanda Energy Group, the project on Solar-Powered Induction Cookers aims to provide sustainable alternatives to biomass-based cooking. The design phase has been completed, components sized, and 50 pilot households identified in Rulindo district. Progress has also been made in assembling critical parts such as the coil and oscillator. Once deployed, this innovation will reduce indoor air pollution, curb reliance on charcoal and firewood, and promote Rwanda's renewable energy transition. Beyond health and environmental gains, it is expected to catalyze local entrepreneurship, job creation, and industrial growth in clean energy technologies.



PI Dr. Delphine Abijuru presenting the process of induction cooker develpment project to the NCST team

Conclusion

NCST's August 2025 M&E field visits underscored the transformative role of research and innovation in Rwanda's development agenda. From food systems and climate resilience to renewable energy and sustainable agriculture, these projects exemplify how strategic investments in STI generate tangible benefits for society. By bridging science and practice, they not only advance national priorities under NST1 and NST2 but also position Rwanda as a leader in harnessing homegrown innovation for sustainable development.



Group photo with NCST Monitoring and Evaluation Team

Quarter 2(October-December 2025) Newsletter:

Innovation in Motion: New Insights, Tools, Pathways to Inspire the Next Generation

REPUBLIC OF RWANDA

NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

ncst National Council for Science and Technology

Innovation in Motion: New Insights, Tools, Pathways to Inspire the Next Generation

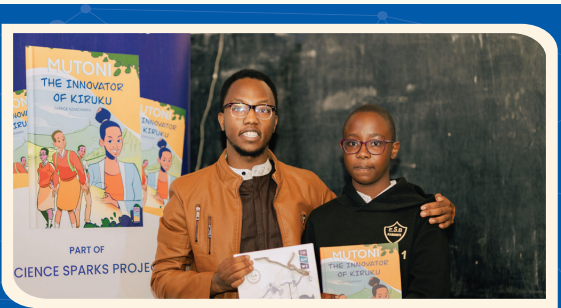
NCST Quarterly Newsletter – Issue 018- October – December 2025

PREAMBLE: This 18th edition of the NCST Quarterly Newsletter showcases Rwanda's innovation journey in motion, highlighting key evidence, digital tools, and initiatives that strengthen the national innovation system and advance the country's transition toward a knowledge-based and sustainable economy. This issue presents key insights from the Rwanda Innovation Survey 2022-2024, updates on the Rwanda Research and Innovation Repository, and inspiring science communication initiatives that cultivate the next generation of innovators. It concludes with findings from NCST's Monitoring and Evaluation (M&E) field visits, illustrating how funded research and innovation activities are generating tangible socio-economic impact across national priority sectors.

INSIDE THIS ISSUE:



Hon. Minister of Education officiating the dissemination workshop of the Rwanda Innovation Survey



Book Launch by Patrick Nzabonimpa at Ste Bernedette Kamonyi



Dr. Marie Chantal inspiring students at GS Kacyiru through her personal journey in Science



Awardees of NCST RWANDA - NCST MALAWI collaborative grant scheme

Insights from the Rwanda Innovation Survey 2022-2024: Policy and Implementation Perspectives

Esperance Munganyinka[1], Didacienne Mukanyiligira[1], Louis Sibomana[1], Japhet Niyobuhungiro[1], Marie Chantal Cyulinyana[1], Theogene Kayumba[1], Sano Anselme[1], Innocent Ngaruye [2], Alfred Nsabimana[3], Patrick Rebero[4], and Eugene Mutimura[1]

[1]National Council for Science and Technology
[2] University of Rwanda
[3]Ministry of ICT & Innovation
[4]Private Sector Federation

1. Rwanda Innovation Ecosystem

Rwanda's ambition to harness the potential of science, technology, and innovation (STI) reflects a strategic recognition that knowledge is central to addressing socio-economic challenges. Research and innovation are key drivers of economic growth, competitiveness, and improved quality of life.

To this end, Rwanda is implementing a range of strategic initiatives to strengthen its National Innovation System (NIS), including the establishment of globally renowned universities and research institutions. The Government of Rwanda supports research and innovation through dedicated funding mechanisms such as the National Research and Innovation Fund (NRIF), the Rwanda Innovation Fund, and other complementary instruments. These initiatives aim to empower researchers and innovators to develop solutions to social, economic, and environmental challenges, enhance research productivity, stimulate innovation, and strengthen national competitiveness.

In addition, the Government approved the National Science, Technology, and Innovation (STI) Policy[1] in June 2020, which provides a strategic framework to guide national interventions in science, technology, research, and innovation toward building a knowledge-based economy. Ultimately, these efforts seek to enable innovations to scale, attract investment, and generate value through new products and services, thereby enhancing Rwanda's innovation performance and improving its standing in global innovation rankings.

2. Rwanda Innovation Survey

2.1. Background and Rationale

Innovation is globally recognized as a powerful engine for social and economic progress, benefiting individuals, businesses, and national economies alike. Rwanda's Vision 2050[2] reflects this understanding by placing innovation at the heart of the country's socio-economic transformation, with the ambition to become an upper-middle-income economy by 2035 and a high-income country by 2050.

A strong innovation ecosystem depends on key elements such as knowledge, supportive policies, investment, and infrastructure. To guide effective action, many countries rely on reliable indicators to track innovation performance and progress over time.

In this context, assessing the state of innovation in Rwanda became essential. The assessment aimed to generate evidence on innovation and technology activities, their processes, and the interactions among key actors across Government, Higher Education, Business Enterprises, and Private Non-Profit organizations. This evidence is critical for informed decision-making, strengthening the National Innovation System, and aligning efforts with Rwanda's long-term development goals.



NCST's Executive Secretary welcoming the audience



[1] Science, Technology and Innovation Policy June 2, 2020, https://www.ncst.gov.rw/index.php?eID=dumpFile&t=f&f=25653&token=d6f1aeb0bb872e3c6792c0e26ac9318b77b72b0e
[2] https://www.minecofin.gov.rw/fileadmin/user_upload/Minecofin/Publications/REPORTS/National_Development_Planning_and_Research/Vision_2050/English-Vision_2050_Abridged_version_WEB_Final.pdf

While Rwanda has made steady progress, its performance in the Global Innovation Index has been limited by relatively low levels of mature innovation outputs. The National Innovation Report addresses this gap by providing improved measurement of innovation and its contribution to economic growth, sustainability, and inclusiveness.



Hon. Minister of Education officiating the dissemination workshop of the Rwanda Innovation Survey

Innovation statistics is therefore essential to support evidence-based policies and maximize the impact of past, ongoing, and future research and innovation investments. The findings offer valuable insights into how factors such as innovation expenditure, types of activities, and existing barriers interact to influence economic growth and the development of the national innovation system. To support this effort, the National Council for Science and Technology (NCST) conducted the first Rwanda Innovation Survey, covering the period 2022-2024. The survey report was officially disseminated during a workshop held on 4 November 2025 at the Kigali Convention Centre (KCC), marking an important milestone in strengthening Rwanda's evidence-based approach to advancing innovation, science, and technology for national development.



Group photo of the workshop participants together with Hon. Minister of Education

2.2. Objectives and insights of Innovation survey

The Rwanda Innovation Survey was guided by four specific objectives: to identify the types of innovation and related activities across the business enterprise, government, higher education, and private non-profit sectors; to quantify the proportional contribution of national expenditure allocated to different forms of innovation and innovation activities; to assess existing gaps and identify barriers to innovation and their impact on innovation performance; and to propose evidence-based strategies to strengthen, boost, and sustain national innovation growth. Some insights from the innovation survey are as follow:



INNOVATION INTENSITY

Business enterprises in Rwanda devotes less than 1% of their annual turnover to innovation activities. This low innovation intensity of **0.77%** (in comparison with 1-3% in developed countries) poses risks to long-term competitiveness, productivity, job creation and Rwanda's ambition to move up the value chain. There is a need to **strengthen financial and investment support for innovation growth including targeted incentives, financing and grant schemes** to encourage medium-sized and high-turnover firms.



HUMAN CAPACITY

The majority of workers engaged in innovation activities across four sectors namely Business, Government, Higher Education and PNP sector) (47.8%) had a high school, or TVET qualification or less. These findings highlight **the need for targeted skills development and promotion of youth talents** to create a more inclusive and effective innovation ecosystem capable of generating high-impact outcomes across sectors.



INNOVATION COMPETITIVENESS

Business sector motivation for innovation suggest that most Rwandan firms are pursuing innovation mainly as a strategy for productivity gains. The innovations created are of incremental in nature (i.e. increasing in the level of novelty) rather than

being highly globally competitive. Only 8.5% of new innovations reached the international markets, **and only 9.5% product innovations and 5.2% process innovations were new to international market.** This highlights that innovation in Rwanda is predominantly domestically driven. There is limited engagement to reach global and international markets. **Rwanda's innovation ecosystem shall benefit from improved expertise and partnerships between domestic and global academia and industry, as well as adoption of emerging technologies.**

MOST INNOVATIONS WERE SERVICE-RELATED

All institutions with innovations reported **over 85% as service-related economic activities, except business sector with 58.5% service-related activities.** These findings highlight low innovation activity in primary industries such as manufacturing to promote *"Made in Rwanda"* program. This hinders competitiveness and productivity in these areas. There is a need **to unlock innovation potential in primary industries** such as agriculture, forestry and fishery, utilities, mining and quarrying and others.

2.3. Perspectives for Rwanda's Innovation Future

Rwanda's Priorities and Interventions to ensure innovation growth for economic transformation should be implemented towards:

- **Boosting R&D funding and innovation intensity**: increase budget allocations and incentivize private sector investment in research and innovation
- **Fostering Academia-Industry collaboration**: encourage collaboration through innovation hubs, incubators, and joint research initiatives that align academic research priorities with business needs/demands
- **Enhancing human capital:** focus on practical, market-relevant skills
- **Improving innovation competitiveness:** support entrepreneurship, provide targeted support for startups, access to finance, mentorship, and regulatory reforms
- **M&E**: building robust systems to track innovation outcomes and adjust strategies
- **Capacity building**: Strengthening institutional and human capacity across. sectors



Granting Awards to the NCST Rwanda - NCST Malawi Collaborative Research and Innovation Grants

2.4. Honoring Innovation: NCST-RW/NCST-MW Collaborative Grant Awards

During the Innovation Survey dissemination workshop, the National Council for Science and Technology (NCST) had the honor and privilege of presiding over a Grant Award Ceremony recognizing outstanding efforts in advancing research, development, and regional collaboration. On this occasion, NCST awarded five competitive grants under the NCST-RW/NCST-MW/2024 Collaborative Research and Innovation Grants, a joint initiative between Rwanda and Malawi. The awarded projects focus on the application of Artificial Intelligence (AI) and the Internet of Things (IoT) in manufacturing processes, underscoring a shared commitment to driving industrial growth, strengthening innovation ecosystems, and fostering cross-border scientific collaboration.

2.5. Innovation Inspiring Talk

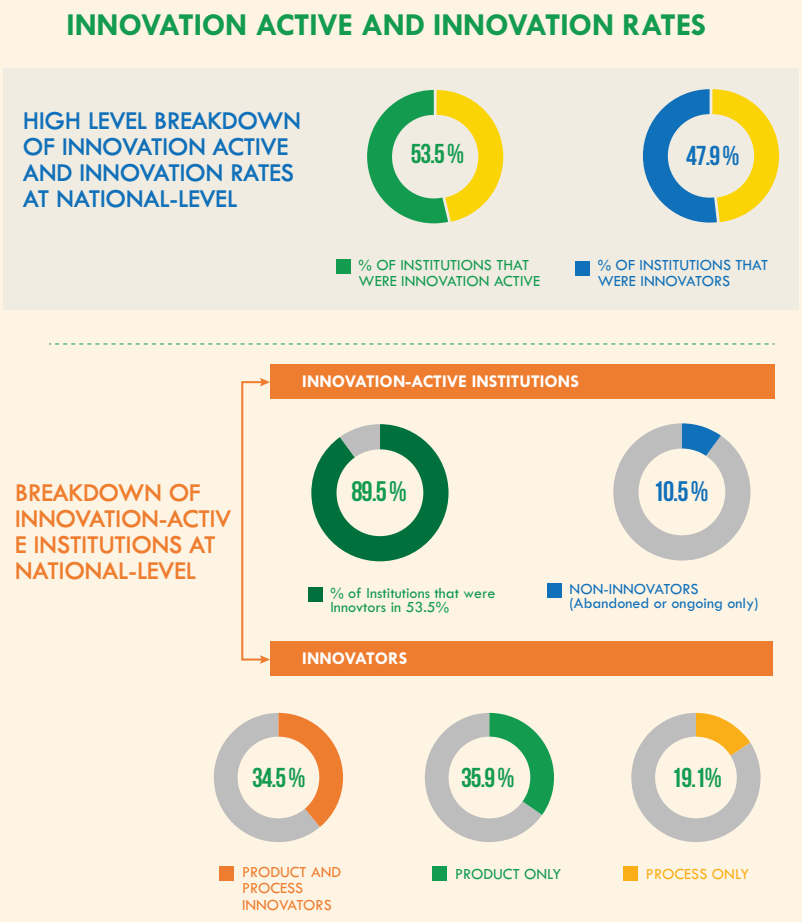


Dialogue with young innovators

In the afternoon session, emerging innovators and participants interested in understanding the state of innovation in Rwanda were offered a valuable opportunity to engage directly with two renowned Rwandan innovators. The session provided a platform for open dialogue, where the speakers shared their personal innovation journeys, highlighted key milestones and challenges, and offered practical insights on how young innovators can remain committed to research, creativity, and continuous innovation in their respective fields. The discussion featured Mr. Audace Niyonkuru, Chief Executive Officer of Digital Umuganda**,** and Ms. Niyigena Hawa**,** Chief Executive Officer of Whiz Upp Ltd, both of whom are recognized for their impactful contributions to Rwanda's innovation ecosystem. The session was expertly moderated by Ms. Enorah Gladis, a journalist from the Rwanda Broadcasting Agency (RBA)**,** who guided the conversation and facilitated meaningful interaction between the speakers and participants. Through this exchange, participants gained practical perspectives on leveraging innovation platforms, embracing collaboration, and sustaining a research-driven mindset to translate ideas into impactful and scalable solutions.

3. Conclusion

Rwanda Innovation Survey 2022-2024 reaffirm the country's strong commitment to building a dynamic, knowledge-driven economy anchored in science, technology, and innovation. While notable progress has been made particularly in strengthening institutions, expanding the innovation ecosystem, and promoting inclusive participation, key gaps remain in innovation intensity, human capital, and global competitiveness. Addressing these challenges will require sustained investment, stronger collaboration across sectors, and strategic alignment of national priorities with emerging technological opportunities. By building on the evidence generated through this survey, Rwanda is well positioned to refine its policies, accelerate high impact research and innovation, and advance toward its vision of becoming a knowledge based economy.



Status of development of Rwanda Research and Innovation Repository: User Acceptance Test (UAT) and Training

Louis Sibomana[1], Felly Kalisa[1], Marie Chantal Cyulinyana[1], Theogene Kayumba[1], Jean-Louis Niragire[1], and Damien Hanyurwimfura[2]

[1]National Council for Science and Teachnolgy (NCST)

[2]University of Rwanda, African Center of Excellence in Internet of Things (UR_ACEIoT)

1. Introduction

The National Council for Science and Technology (NCST) in collaboration with the University of Rwanda (UR) secured a grant to implement a project titled "*Strengthening Rwanda's Research and Innovation Ecosystem through Training, Coordination, and Collaboration*", funded by the Research and Innovation Systems for Africa (RISA fund, Kenya) program. The project is expected to contribute to the enhancement of National Innovation System (NIS) to enable effective technology and knowledge transfer that supports Rwanda's economy growth.

One of the specific objectives of the project is to develop Rwanda Research and Innovation Repository, a digital platform set to transform the storage, dissemination, and accessibility of research and innovation outputs in the country.

2. Background

To facilitate the development and implementation of the repository, the NCST in collaboration with UR, partnered with CSM Technologies Private Limited (CSM Techn) to develop Rwanda Research and Innovation Repository. Thereafter, a number of activities have been completed including user requirements workshop (on 26-28 February 2025) and prototype demonstration and testing workshop (04-08 August 2025), respectively organized by NCST with national stakeholders. Following the readiness of the developed repository by CSM Techn Ltd, the NCST in collaborations with national stakeholders hosted a 5 days' workshop on 10th-14th November 2025, for user acceptance test (UAT) and user training of the developed Rwanda Research and Innovation Repository. The UAT and user training workshop have been conducted on 10 -14 November 2025, and brought together key stakeholders, researchers, librarians, ICT specialists, policy-makers, editors, and system administrators.



NCST Team together with CSM Techn and Stakeholders group photo

3. Objectives and Expected Outcomes of the workshop

The purpose of the workshop was to conduct user acceptance test (UAT) of the developed Rwanda Research and Innovation Repository, and to train users (contributors, reviewers, administrators) on the use and operationalization of the repository, as well as document additional inputs and feedback for improvements, and assess Go-Live readiness.

The User Acceptance Testing (UAT) and user training aimed to ensure that the repository and related systems function effectively, securely, and meet user needs. Key objectives included validating system functionality and workflows, confirming a user-friendly interface and effective data management, and ensuring accurate search, discovery, and retrieval of datasets.

The process also assessed integration with external systems such as RIGMS, ORCID, and DOI services, verified notification mechanisms, access controls, and user permissions, and ensured data integrity, long-term preservation, and system performance under high demand.

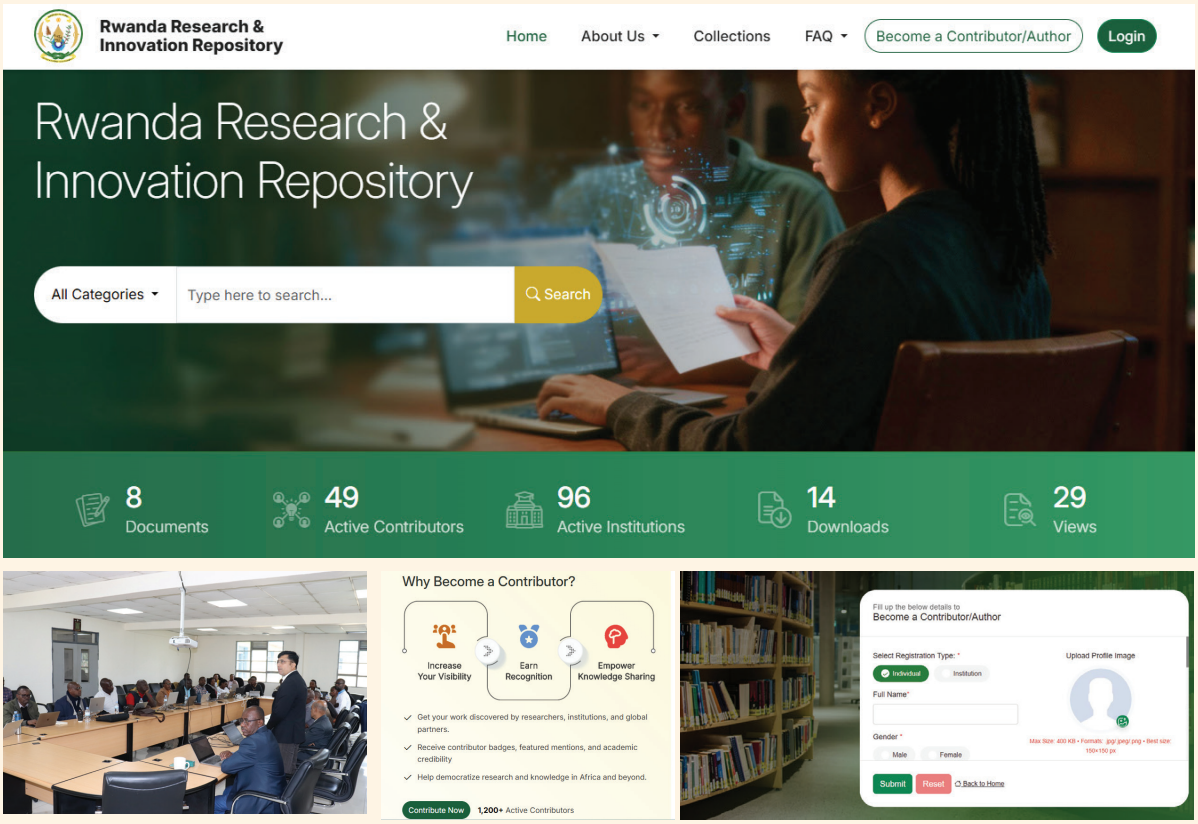
In addition, security, privacy, and compliance with national policies and legal frameworks were reviewed. User training focused on equipping participants with practical skills to use the repository efficiently, troubleshoot common issues, and support administrators in managing content and maintaining system sustainability. The exercise also included testing the upgraded version of the Research and Innovation Grant Management System (RIGMS).

4. Workshop approach and proceedings

The UAT and user training workshop brought together a diverse group of 40 participants, including researchers, innovators, technology developers, librarians, government representatives, policymakers, NCST staff, and ICT experts and system administrators.

The workshop used a participatory approach, including:

- Presentations from CSM Techn experts on the developed repository (accessible through: http://152.67.164.45/cms/Web/home)
- Group discussions, testing and practicing registration and upload of research outputs, gather inputs, feedback, comments and additional requirements from participants
- Technical sessions for addressing feedback and comments from participants
- Technical session to review and test the request of changes for the RIGMS upgrade



Rwanda Research and Innovation Repository

5. Key Recommendations and Next steps

After presentations, testing and practicing the repository functionalities and features, the five-day workshop resulted in the following key recommendations

5.1. Outcomes of the Workshop

The workshop successfully achieved its objectives and yielded several key outcomes.

- **Validated system:** The Rwanda Research and Innovation Repository (RRIR) was thoroughly tested and found to meet most of the user requirements, demonstrating robust functionality across core modules.
- **User Approval for Go-Live:** Stakeholders provisionally approved the platform for Go-Live, contingent upon the incorporation of the documented issues and recommendations.
- **Users Trained:** Participants acquired practical skills in using the repository, including submission workflows, review and approval processes, content management, and basic troubleshooting.
- **Documented Issues and Resolutions:** All technical issues, feedback, and recommendations were consolidated and shared with CSM Tech for resolution.
- **RIGMS Module Validated:** The upgraded RIGMS module was tested and approved, with only minor adjustments required to fully align with repository operations.

5.2. Way Forward

The next steps for finalizing and launching the RRIR include:

- CSM Techn will implement the required improvements and report progress within the agreed timeframe by 30 Nov 2025.
- NCST and the University of Rwanda will review and validate the fixes before Go-Live.
- User manuals, standard operating procedures (SOPs), and institutional rollout plans will be prepared.
- A pilot Go-Live will be conducted with selected institutions to ensure readiness.
- The official national launch will follow successful validation from the pilot phase.
- Long-term plans will address the establishment of a governance structure, development of a sustainable repository model, and continuous training and ongoing helpdesk support

Driving a Passion for Science: *"Mutoni: The Innovator of Kiruku"* Inspires Young Learners across Rwanda

Partick Nzabonimpa[1], Angelique Mbabazi[2], Nsengimana Sylvestre[3], Sano Anselme[4], Louis Sibomana[4], Marie Chantal Cyulinyana[4]

[1]The New times

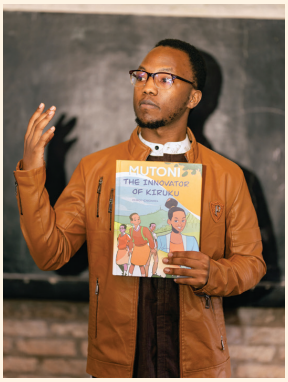
[2]Rwanda Association for Women in Science and Engineering (RAWISE)

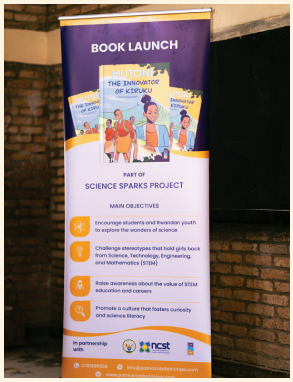
[3]UMUT ARTs

[4]National Council for science and Technology (NCST)

1. Introduction

In line with the National Council for Science and Technology's (NCST) mandate to promote a knowledge-based and innovation-driven society, NCST continues to champion initiatives that bring science closer to young Rwandans. One such initiative is *Mutoni: The Innovator of Kiruku*, a science-themed comic book developed by a journalist and author **Patrick Nzabonimpa**, the 2023 NCST Best Science, Technology and Innovation Communicator Award recipient. The book tour conducted in three secondary schools has sparked renewed enthusiasm for science and innovation among O'Level learners, particularly by connecting science to real-life challenges and future career pathways.



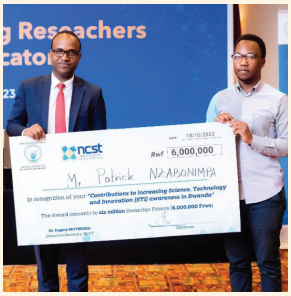


The book launch by the author Partick Nzabonimpa

2. Background: from award to action

In October 2023, NCST recognized **Patrick Nzabonimpa** fWor his outstanding contribution to raising awareness about science, technology and innovation (STI) in Rwanda[3]. Using part of his award, he created the *Mutoni: The Innovator of Kiruku* comic book, published by Imagine We Rwanda. Written in simple English and illustrated with engaging visuals, the comic introduces learners to scientific thinking, creativity, and problem-solving core skills needed for Rwanda's transition to a science-driven economy under Vision 2050.

Nzabonimpa launched the book and science outreach initiative in three schools: **Groupe Scolaire Kacyiru II**, **Lycée Saint Jérôme Janja** and **École Sainte Bernadette de Kamonyi.** The outreach forms part of his ongoing **Science Sparks Initiative**, designed to nurture curiosity, inspire innovation, and motivate students to embrace STEM disciplines.





NCST Best Science, Technology and Innovation Communicator Award recipient

3. Highlights from Schools Book Launch Events

3.1. Groupe Scolaire Kacyiru II Outreach (October 29, 2025)[4]

This was the first school, and in Kigali City, where the book was launched. The session included:

- Reading and discussion of selected pages from the comic book
- Student Q&A on innovation and scientific careers
- Inspirational messages encouraging girls to participate in STEM by Dr Marie Chantal Cyulinyana, Foresight Analysist at national Council for Science and Technology (NCST)
- A poetry performance integrating science and art by Nsengimana Sylvestre, poet and founder of UMUT Arts, a local performing arts company.

[3] https://www.newtimes.co.rw/article/11663/news/technology/the-new-times-reporter-wins-rwf6m-sciencetech-awareness-award

[4] https://www.newtimes.co.rw/article/30913/entertainment/art/new-comic-book-inspires-rwandan-students-to-embrace-science-innovation





The event left learners energized and motivated to pursue scientific curiosity in their studies. Sylvestre Nsengimana performed his poem *"Siyansi Yacu"* for the students, a piece celebrating the role of science in everyday's life and inspiring learners to embrace it with curiosity and innovation. He also shared reflections from his own journey, reminding students that creativity and science are not opposites, but partners. He encouraged them to stay curious, stay persistent, and dare to imagine solutions that don't exist yet. After his performance, he invited students to recite the poem in a friendly competition, and the top two participants received gifts.

NCST was represented by **Dr. Marie Chantal Cyulinyana**, Science and Technology Foresight Analyst. She engaged students in a lively conversation on how science impacts daily life and how STEM opens doors to vast career opportunities. Dr. Marie Chantal shared her journey with the students and they also got time to ask her curious questions. She emphasized on 5 things for them to be successful in STEM as a career. Driven by curiosity, discipline, innovation, and a strong problem-solving mindset, the future we aspire to build begins with the actions we take today. The event motivated learners and deepened their interest in pursuing science in their studies.

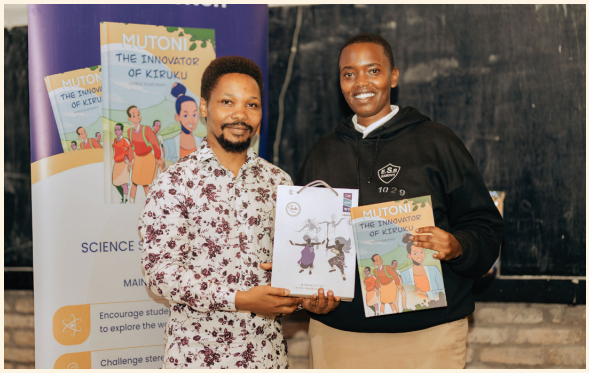
3.2. Launch Events at École Sainte Bernadette de Kamonyi

Similar activities were conducted, characterized by Welcome remarks from school leadership, Joint reading sessions, Awards for outstanding student engagement and Inspirational talks by the author, scientist/ Engineer Angélique **Mbabazi** from RAWISE[5], poet Nsengimana.







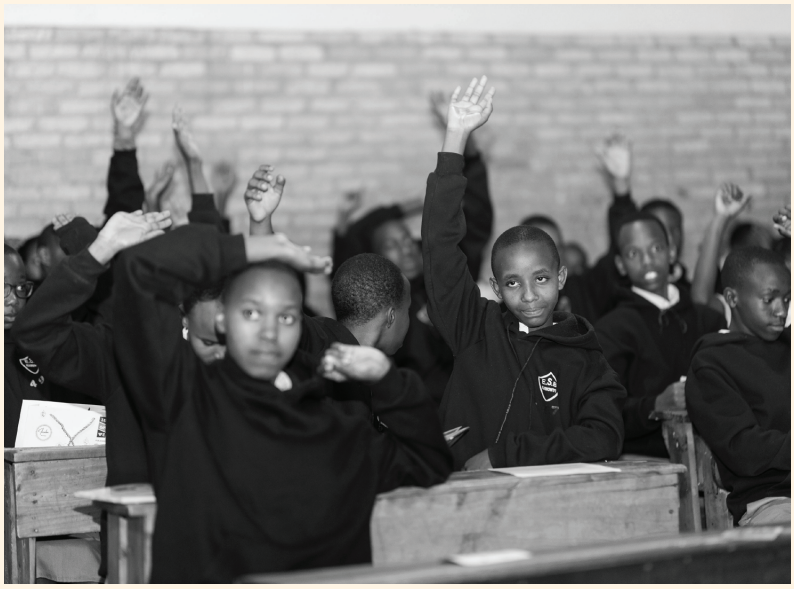


[5] Rwanda Association of Women in Science and Engineering



On 15th November 2025, **Angelique Mbabazi**, a Mechanical Engineer with a Master's degree, working as a Maintenance Planning Engineer at Rwanda Energy Group (REG), led a STEM outreach activity for secondary school students at **École Sainte Bernadette de Kamonyi** in Kamonyi District. The purpose of this engagement was to inspire young learners, especially girls to build interest and confidence in Science, Technology, Engineering, and Mathematics (STEM). The outreach was conducted alongside the introduction of *Mutoni: The Innovator of Kiruku*, a story that promotes resilience, creativity, hard work, teamwork, and the courage to pursue one's dreams. Angelique used the book as a motivational tool to encourage students to cultivate a reading culture, believe in their abilities, and appreciate learning as a continuous journey. During the session, Angelique shared insights from her academic and professional journey, highlighting how hard work, resilience, and teamwork contributed to her growth as an engineer addressing real challenges in Rwanda's energy sector. Her testimony helped students understand the real-life relevance of STEM and the diverse opportunities it creates. Students actively participated, asked insightful questions, and demonstrated strong enthusiasm for STEM-related subjects.

This outreach activity highlighted the value of early exposure and mentorship in nurturing future innovators. Angelique remains committed to supporting similar initiatives that empower young people across Rwanda to unlock their potential through STEM. Learners asked insightful questions about STEM pathways, and the speakers emphasized core success values such as curiosity, discipline, problem-solving, innovation, and making the most of available opportunities.



3.3. Book Launch at Lycée Saint Jérôme Janja (November 29,2025)

The school community welcomed the book launch with excitement. Headmaster **Fr. Protogène Hategekimana** appreciated the partnership, noting its role in strengthening students' interest in science and fostering creativity. Key activities included:

Author introduction message



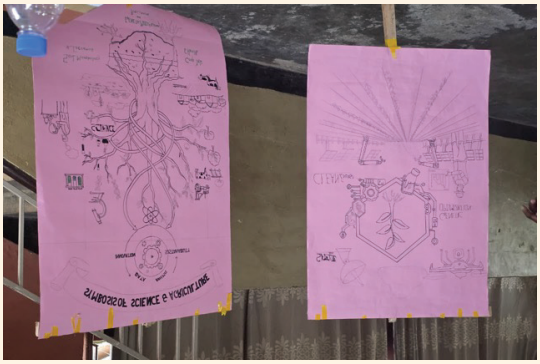
Comprehension exercises, with top performers awarded



A science poem *Siyansi Yacu* performed by poet **Sylvestre Nsengimana**, followed by student recitations



A presentation by the school's science club on a smart-bell innovation, with detailed feedback from NCST



Student poem



Dr. Marie Chantal inspirational talk



Dr. Marie Chantal Cyulinyana delivered a compelling keynote on her academic journey from Rwanda to becoming the first Rwandan woman to earn a PhD in physics and encouraged students, especially girls, to pursue STEM fields with discipline and passion. Learners asked insightful questions about STEM pathways, and the speakers emphasized core success values such as curiosity, discipline, problem-solving, innovation, and making the most of available opportunities. These events demonstrated how storytelling, science communication, and youth engagement can transform learners' perception of science and encourage early interest in scientific careers.

4. Impact and Significance



The book launch and outreach program is bringing science to the grassroots particularly to O'Level students while strengthening the connection between scientific concepts and everyday challenges. It is also promoting gender equity in STEM, with many girls finding inspiration in female role models, and stimulating creativity in schools through student-led projects and active participation. Moreover, the initiative contributes to Rwanda's long-term ambition of building a research-driven economy supported by a skilled STEM workforce. The growing reach of the Science Sparks Initiative demonstrates promising potential for an even wider national impact.

5. Recommendations for the Government

To maximize the benefits of such grassroots science-promotion initiatives, the following recommendations are proposed:

Recommendations	Action
Strengthen National Science Outreach Programs	Establish a coordinated STI outreach framework under NCST to support innovators, educators, and science communicators in reaching more schools countrywide (NCST)
Integrate Science Communication in School Curricula	Encourage the inclusion of science storytelling, comics, and hands-on inquiry in teaching science, making STEM subjects more relatable and enjoyable for young learners (i.e. MINEDUC, REB)
Expand Support for Youth Innovation Clubs	Increase funding and mentorship for school science clubs through national competitions, incubation programs, and access to simple laboratory resources (I,e, MINEDUC)
Promote Female Role Models in STEM	Institutionalize programs that connect female scientists with schools to inspire girls and address gender gaps in STEM participation. (I.e. RAWISE, MINEDUC)
Support Local Creators Producing Educational Content	Provide grants, publishing support, and distribution channels for innovators and writers who are developing science-themed materials for children and youth. (PSF, NCST, ect)

6. Conclusion

The *Mutoni: The Innovator of Kiruku* school outreach initiative demonstrates the power of creative science communication in inspiring young minds. Through collaborative efforts between NCST, schools, artists, and scientists, Rwanda is nurturing a generation that is curious, innovative, and ready to contribute to national development. NCST remains committed to amplifying such initiatives and calls for continued support to ensure that every learner regardless of location has the opportunity to experience the transformative power of science.

Assessing Research Impact: Insights from NCST December 2025 M&E Field Visit

Elysee Uwimana[1], Jean Louis Niragire[1], Violette Mukamugema[1], Emmanuel Uwiringiyimana[1], Benjamin Nabaana[1], Chantal Cyulinyana[1], Didacienne Mukanyiligira[1], and Japhet Niyobuhungiro[1]

[1] National Council for Science and Technology

Introduction

In December 2025, the National Council for Science and Technology (NCST) conducted Monitoring and Evaluation (M&E) field visits to assess the progress and impact of research projects funded under its research and innovation grant schemes. The visits aimed to track project implementation, evaluate achievements against planned objectives, and document contributions to Rwanda's socio-economic development. Through direct engagement with research teams and on-site observations, NCST gained valuable insights into how funded projects are addressing national priorities in health, renewable energy, and sustainable agriculture. The visits highlighted the growing role of science, technology, and innovation in advancing food security, climate resilience, green industrialization, and community empowerment, reaffirming NCST's commitment to ensuring that publicly funded research delivers meaningful and sustainable impact.

This article highlights a few among several visited projects.

Enhancing the processing and standardization techniques towards the production of certified phytomedicines and food supplements in response to critical health needs in Rwanda

The project led by Mr. Andre Ndagijimana and hosted at National Industrial Research and Development Agency (NIRDA) to standardize the production process of selected and reputable phytomedicines and food supplements to meet international standards. Specifically, the project aims: (1) To identify and domesticate plant species for phytomedicines and food supplement development from local and available raw material. (2) To standardize the extraction process of Active fractions for phytomedicines and food supplements developments. (3) To standardize the production and quality control of phytomedicines and food supplements. (4) To initiate the products registrations, IP right, certification and awareness. Currently NIRDA and partners have entered a new phase towards commercialization of developed products. Construction of a production unit that meets Good Manufacturing Process and other health products requirements is underway.



Heating, Ventilation, Air Conditioning (HVAC) system outside the production unit under construction

Design and Construction of Efficient and Cost- Effective Solar Dryers for Low and medium size farmers and food processing enterprises in Rwanda

The primary goal of the project led by Mrs. Annoncee Mukeshimana and hosted at ULK Polytechnic Institute, is to ensure the adoption of solar drying technology in Rwanda. This entails leveraging scientific insights to develop optimized designs that prioritize high efficiency, affordability, and durability. These designs will be tailored to suit the specific needs of different regions within the country and the unique characteristics of various crop products.

This study aims to advocate for the implementation of in-house solar drying methods as an environmentally friendly approach to reducing postharvest losses, enhancing the quality of dried food, and lowering the overall expenses associated with post-harvest processing in Rwanda. More specifically, the project aims: (1) To determine current status of national crop drying needs and food drying conditions. (2) To design optimization models and Apps for solar crop driers. (3) To test and analyze performance data of designed solar crop driers in two different locations. (4) To build a prototype of a solar crop drier customized for specific environments and specific foods.



Greenhouse upgrades implemented at the Bugesera site, featuring prototypes made from different materials for option selection (left), and an improved greenhouse prototype constructed at the ULK–Gisozi site (right).

Currently, the project team has constructed an improved version of the solar dryer at ULK, prototype improved toward food-grade trays, and other key technical considerations including automated data collection system, overnight heating system, automated Temperature/ humidity control system. The future outlook of the project is to look for opportunities for commercialization.

IoT Empowered Precision Agricultural Techniques for Improved Rice Production: An Automated Irrigation and Fertilization Application System for Small-scale Rice Producers in Rwanda

The primary objective of the project led by Dr. Peace Bamurigire and hosted by University of Rwanda is to implement an automated irrigation and fertigation system based on real-time soil monitoring. Specifically, the project aims: (1) To assess the readiness of the rice farmers to use the IoT empowered irrigation and fertigation system for rice farming. (2) Investigate how control algorithms within an IoT water and fertilization Management system might be used for rice crop farming in Rwanda. (3) Design a mobile application and website, which will enable interfacing of the system and farmers.

The infrastructure required for automation has already been deployed, including a 250 m^3 water reservoir, which can support irrigation for up to two days, with six deployed 40-liter fertigation tanks. The system monitors seven agronomic parameters, including soil pH, moisture, temperature, nitrogen, and potassium to guide fertilizer application and optimize irrigation schedules. Controlled irrigation is currently performed twice per week, allowing improved water allocation compared to traditional methods and enabling better control of water consumption through coordinated release by scheme representatives. Conducted preliminary survey shows a positive impact on rice yields, with average production of 3 tons/ha, reaching 4 tons/ha sometimes. This performance surpasses that of neighboring farmers, demonstrating improved productivity due to optimized water usage and nutrient management. In addition, a prototype of the bird repelling system utilizing sound systems is already under development for integration into the system.



Photographs capturing key highlights from the field in Nyagatare

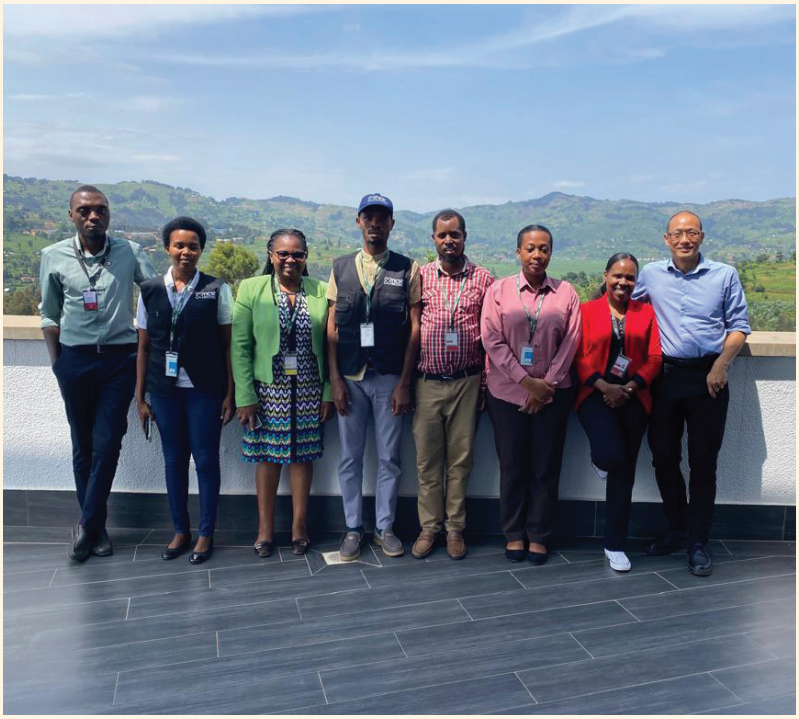
The project future outlook is to finalize the system and look for opportunities for scaling up for wider utilization across the country.

Design of community and health workers centered data collection systems for the health national adaptation

The project led by Dr. Maria Albin Qambayot and hosted by University of Global Health Equity (UGHE) aims to: (1) Map the intersections of climate and health through a comprehensive secondary literature review and data analysis. (2) Understand the vulnerability of communities to climate risks, and how health professionals understand and track climate-related health effects, including their data needs and existing gaps. (3) Co-create a robust set of health-specific vulnerability indicators and a multi-purpose M&E framework.

So far, the project team has completed

- Data collection from Community Health Workers (CHWs), Nurses/doctors, District Veterinary Officers (DVOs) and Environmental Health Officers (EHOs) in five districts.
- Data collection on the community health professionals' knowledge and training needs on climate change and its effects on health.
- Scoping Review analysis



The future outlook of the project is to finalize and validate a set of health-specific vulnerability indicators and a multi-purpose M&E framework. This M&E framework has the potential for engaging communities, local health professionals, and stakeholders for community-based climate risk assessment and informing future health-focused National Adaptation Plan and climate vulnerability indices in Rwanda.

Conclusion

NCST's December 2025 M&E field visits underscored the transformative role of research and innovation in Rwanda's development agenda. From food and health systems to climate resilience and sustainable agriculture, these projects exemplify how strategic investments in STI generate tangible benefits for society. By bridging science and practice, they do not only advance national priorities under NST2 but also position Rwanda as a leader in harnessing homegrown innovation for sustainable development.

Quarter 3(January-March 2026) Newsletter:

From Research to Impact:
Advancing Innovation and Partnerships in Rwanda

REPUBLIC OF RWANDA

NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

ncst National Council for Science and Technology

From Research to Impact: Advancing Innovation and Partnerships in Rwanda

NCST Quarterly Newsletter – Issue 019 - January – March 2026

PREAMBLE: The NCST Quarterly Newsletter – Issue 019 (January - March 2026) highlights Rwanda's progress in advancing science, technology, and innovation (STI) for national development. This edition showcases NCST's efforts in strengthening partnerships, promoting research commercialization, and building a resilient innovation ecosystem.

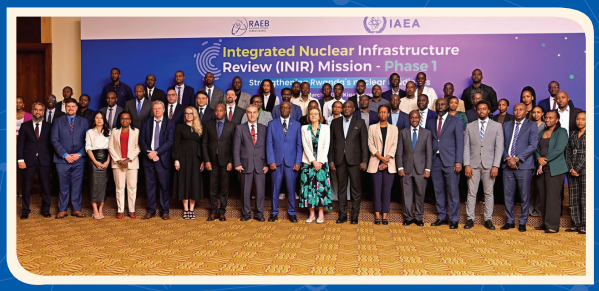
Key features include initiatives in higher education reform, nuclear infrastructure preparedness, and private sector engagement. It also highlights the growing impact of youth-led innovations supported through strategic programmes such as RISA. These efforts reflect Rwanda's commitment to translating research into practical solutions for socio-economic transformation. NCST remains dedicated to driving collaboration, innovation, and sustainable growth toward a knowledge-based economy.

INSIDE THIS ISSUE:













Engaging partners in science technology and innovation (STI) for impact

Esperance Munganyinka[1], Didacienne Mukanyiligira[1], Louis Sibomana[1], Marie Chantal Cyulinyana[1], and Eugene Mutimura[1]

[1]National Council for Science and Technology

1. Reimagining Higher Education as a Catalyst for Research and Innovation in Rwanda

1.1. Background

On the 18th February 2026, a team from National Council for Science and Technology (NCST) participated and presented at a conference entitled, "***Re-imagining Higher Education as a Catalyst for Research and Innovation in Rwanda"*** that was organized by Rwanda Higher Education Council (HEC). This conference that took place at Kigali Serena Hotel was attended by several participants from various Ministries and policy institutions such as Ministry of Education, universities, private sector and industry players as well as private for non-profit originations. Key dignitaries included Hon. Minister Joseph Nsengimana who officiated over the conference, Dr Edward Kazozi the Director General of HEC, Prof Kayihura Didas the Vice Chancellor University of Rwanda, Dr Eugene Mutimura Executive Secretary of NCST, Dr Raymond Ndikumana Deputy Vice Chancellor for Strategic Planning & Administration at University of Rwanda, DG NIRDA Dr Christian Sekomo, AIMS President, Prof Sam Yala, among others.

1.2. Goals and Objectives

The conference aim was to convene policy makers and experts to deliberate and propose actionable consensus-based recommendations on how higher education can continue to catalyze research and innovation for impact in Rwanda.



Officials attending the conference

Key objectives were:

i. To facilitate expert-led discussions on re-imagining higher education as a catalyst for research and innovation

ii. To share national and international best practices on building higher education institutions and research ecosystems, including an overview of the state of research and innovation

iii. To generate actionable, consensus-based recommendations to strengthen a coordinated national research and innovation ecosystem.

Key expected outputs were:

a. Strengthened partnerships among academia, industry, policymakers, and development partners

b. A shared national vision and roadmap for research-driven higher education reform

c. A formal conference communiqué outlining evidence-based policy recommendations and strategic actions

1.3. Rationale

The premise for this conference was based on the role of higher education as a globally recognized driver of research and development (R&D), innovation and knowledge-based economic growth. Over the last 3 decades or so, the higher education sector in Rwanda has achieved a solid and steady progress; currently with over 40 public and private institutions of higher learning and Universities, including a multi-campus University of Rwanda (UR) as the largest university in Rwanda. The government of Rwanda's policy prioritizes science, technology, Engineering and Mathematics (STEM) disciplines in higher education so that priority sectors (*Sustainable Energy, Food Security and Modern Agriculture, Life and Health Sciences, Local Production and Value Addition, Digital Services, Products and Lifestyles; and Resilient Environment and Climate Change*) are pillars of economic development goals.





Panelists from different Institutions

Perhaps Rwanda's achievements in research and innovation are guided by improving higher education programs, that have been catalyzed by appropriate policies and strategies. These include but not limited to science technology and innovation (STI) policy as well as National Research and Innovation Agenda (NRIA) both of which underscore the need for use of digital frontier or emerging technologies to foster technological and R&D excellence. The goal is that technology and innovation result into tangible products and services that should continue to transform national economy and modernize the lives of Rwandans. In the next 2-3 decades, the role of emerging technologies as key enablers of industrial growth will contribute most to global market size. Therefore, research and innovation will continue to prioritize use of technologies such as artificial intelligence (AI), robotics, biotechnology, 5G, data science and analytics, nanotechnology, gene editing, 3D printing among others.



The development and outcome of Centers of Excellence (CoEs) in Rwanda has played a key role in higher education growth and scale of R&D and innovation (Table 1). The examples these CoEs at University of Rwanda (UR) include the African Center for Excellence in Internet of Things (ACEIoT), African Center for Excellence in Energy for Sustainable Development (ACE-ESD), African Center for Excellence in Data Science (ACEDS), African Centre of Excellence for Innovative Teaching and Learning Mathematics and Science (ACEITLMS), Regional Centre of Excellence in Biomedical Engineering and e-Health (CEBE), Regional Centre of Excellence for Vaccines, Immunization and Health Supply Chain (RCESCM), Center of Excellence in Biodiversity and Natural Resources Management (CoEB), Centre of Mental Health, and Centre of Geographical Information System (GIS) and Remote Sensing. In addition, there are other institutional CoEs that support R&D and innovation such as Carnegie Mellon University Africa (CMU-A), University of Global Health Equity (UGHE), African Institute of Mathematical Sciences (AIMS), African Leadership University (ALU), and the African School of Governance (ASG) among others.

As shown in table 1, Rwanda has registered a growth of Gross domestic expenditure on R&D (GERD/Frw) of 0.66 % in 2015/2016 to 0.79% of GERD/Frw in 2022/2023. Although this is key, there is still much more to achieve in order to get at least GERD/Frw of 1% as recommended by African Union. There has also been an increase of researcher full time efforts (FTI) per 1 million population that increased from 14 in 2015/16 to 130 in 2022/23.

Table 1: Key indicators on growth of R&D in Rwanda

Key Indicator/Reference year	2015/2016	2018/2019	2022/2023
Gross domestic expenditure on R&D (GERD) (Frw)	**44,457,113,816**	**70,601,673,966**	**129,931,312,584**
Total researchers (FTE)	**162**	**742**	**1,837**
GERD as a percentage of GDP (%)	**0.66**	**0.69**	**0.79**
Total researchers (FTE) per 1 000 000 inhabitants	**14**	**59**	**130**
Definition	❖ GERD expressed as a percentage of GDP indicates the R&D intensity in an economy, and is a measure of the innovation capacity as well as a measure of investments on innovation strategies for wealth creation and economic development. ❖ The researchers (in full-time equivalent - FTE) per million inhabitants is a direct measure of the number of research and experimental development (R&D) workers per 1 million people		

1.4. Conclusions and recommendations

As R&D is central for the development of new knowledge, innovative products and services that enable economic growth in all societies, the following were key conclusions and recommendations:

1. Higher education should prioritize R&D and innovation growth through openness to global sources of knowledge and technologies exchange and transfer, as key benchmarks for growth
2. Promoting industrial competitiveness and optimizing R&D investment for socio-economic impact is key for Rwanda to achieve its aspirations of vision 2050 of becoming a high-income economy
3. Higher education should continue to play a key role for technology development towards products and services so that novel innovation becomes a key pillar for job creation and economic growth
4. There is a need for improved advocacy for funding R&D and innovations to develop an effective and economically viable National Innovation System (NIS)
5. There is a need for improved and outcome-based collaboration and partnerships between national, regional and global partners aimed at Joint R&D projects (local International, firms, Universities).
6. Policy is key to incentivize private sector and industries to play a more crucial role in investing and harnessing the power of R&D for growth.

2. NCST at the Forefront of Strengthening Rwanda's Nuclear Infrastructure Preparedness

2.1. Background

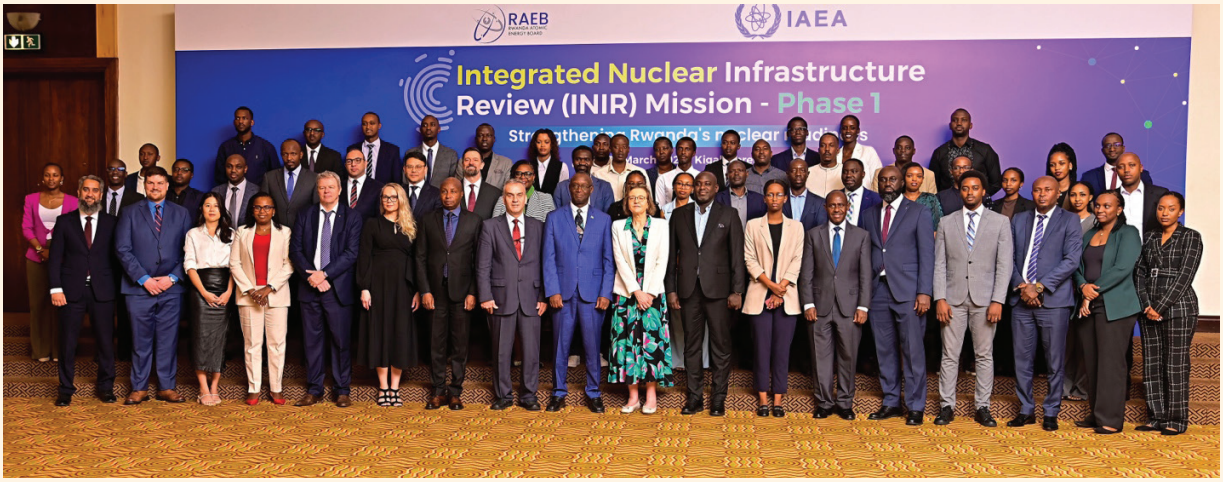
Rwanda is steadily advancing toward the development of a safe, secure, and sustainable nuclear energy programme as part of its long-term vision for economic transformation. As the country positions nuclear energy at the center of its development strategy, the National Council for Science and Technology (NCST) continues to play a pivotal role in building the foundational pillars required for nuclear infrastructure preparedness.



2.2. A National Vision Anchored in Strong Institutions

During the Nuclear Energy Summit held in Paris in March 2026, President Paul Kagame reaffirmed Rwanda's commitment to integrating nuclear energy into its energy mix to support its ambition of becoming a high-income country by 2050. He emphasized that achieving this goal requires strong institutions, sound regulatory frameworks, and a highly skilled workforce areas in which NCST is actively contributing.

Rwanda's progress has already been recognized internationally through the Integrated Nuclear Infrastructure Review (INIR) Mission conducted by the International Atomic Energy Agency (IAEA), which confirmed advancements across key pillars of nuclear readiness.



Participants Group photo

2.3. Supporting Policy and Regulatory Framework Development

NCST has been instrumental in supporting the development of science, technology, and innovation (STI)-informed policies that underpin Rwanda's nuclear programme. Through its coordination role, NCST contributes to strengthening governance systems, ensuring that nuclear development aligns with international standards and national priorities. During the INIR Mission (March 2-9, 2026), NCST actively participated in critical discussions on management structures, legal frameworks, regulatory systems, and human resource development, demonstrating its central role in shaping a robust and compliant nuclear ecosystem. These engagements highlight NCST's commitment to ensuring that Rwanda's nuclear ambitions are built on a solid institutional and policy foundation.



IAEA Experts on the INIR Mission in RWANDA

2.4. Facilitating Stakeholder Engagement and National Consultations

Beyond policy development, NCST plays a key role in convening stakeholders and fostering national dialogue around nuclear energy development. Through its collaboration with institutions such as the Rwanda Atomic Energy Board (RAEB), ministries, academia, and international partners, NCST contributes to organizing and participating in consultative workshops and awareness initiatives. These platforms are critical for:

- Enhancing stakeholder understanding of nuclear energy opportunities
- Promoting industrial participation and localization
- Aligning national priorities with global best practices

Notably, recent consultations on industrial participation in Rwanda's nuclear programme emphasized the importance of integrating local industries into the nuclear value chain, an approach that supports economic diversification and strengthens domestic capacity.



2.5. Advancing Human Capacity Development



A cornerstone of nuclear infrastructure preparedness is the development of a skilled workforce. In this regard, NCST works closely with the University of Rwanda and other partners to support human capital development in nuclear science and technology. During the INIR Mission, NCST contributed to discussions on human resource development, reflecting its role in:

- Promoting STEM education and research aligned with nuclear science
- Supporting capacity-building programmes for scientists, engineers, and regulators
- Encouraging collaboration between academia and industry to develop relevant skills

Through these efforts, NCST helps ensure that Rwanda builds a knowledge-based workforce capable of sustaining a nuclear energy programme.

2.6. Driving Innovation and Research for Nuclear Development

NCST's broader mandate in promoting research and innovation also contributes directly to nuclear preparedness. By supporting research initiatives, fostering innovation ecosystems, and encouraging interdisciplinary collaboration, NCST helps create a strong scientific base necessary for nuclear technology adoption and adaptation. This aligns with Rwanda's ambition not only to adopt nuclear technology but also to internalize knowledge and participate in high-value segments of the global nuclear value chain.

2.7. Looking Ahead

As Rwanda progresses to the next phase of its nuclear programme, institutions like NCST remain central to ensuring that development is inclusive, well-coordinated, and aligned with international standards. With continued investments in policy development, stakeholder engagement, and human capacity building, Rwanda is laying a strong foundation for a nuclear energy programme that will Enhance energy security, Drive industrial growth and Support sustainable socioeconomic transformation.



Celebrating Research and Innovation impact: Youth-led Innovation Advancing Rwanda' Agriculture, Health and Technology Sectors through RISA Funding

Louis Sibomana[1], Didacienne Mukanyiligira[1], Esperance Munganyinka[1], and Damien Hanyurwimfura[2]
[1]National Council for Science and Technology (NCST)
[2]University of Rwanda, African Center of Excellence in Internet of Things (UR-ACEIoT)

1. Introduction

On 04 March 2026 at the Kigali Convention Center (KCC), delegates and representatives from the Government of Rwanda, development partners, private sector, innovators and researchers came together to celebrate key achievements and impact on strategic partnerships in strengthening and driving Rwanda's research and innovation (R&I) ecosystem.

The event was organized by RISA (Research and Innovation System for Africa) fund, a flagship programme funded by UK International Development through Foreign Commonwealth Development office (FCDO) aimed at strengthening research and innovation ecosystems across Africa. The RISA programme focuses on improving policy coherence, unlocking sustainable financing, strengthening institutional capacity, and catalyzing inclusive partnership among governments, academia, private sector and society.

In Rwanda, the RISA fund programme has worked closely with government institutions, universities and private sector, including the Ministry of ICT and Innovation (MINICT), Rwanda Agriculture and Animal Resources Development Board (RAB), National Council for Science and Technology (NCST), University of Rwanda (UR), Rwanda Polytechnic (RP), INES Ruhengeri, and R&I ecosystem actors such innovators, start-ups and researchers. From 2023 to 2026, the RISA fund programme has funded a number of projects in Rwanda focusing on: Strengthening institutional readiness and coordination within the national R&I ecosystem; ii) Supporting research commercialization and the translation of research into socio-economic impact; iii) Unlocking sustainable and innovative financing mechanisms for research and innovation; iv) Advancing inclusivity, gender responsiveness, and the participation of early-career researchers; and v) Catalysing partnerships between public institutions, the private sector, and development partners. Through RISA fund, young innovators and researchers in Rwanda have developed a number of projects aimed at addressing challenges in sectors such as agriculture, health and emerging technologies including Artificial Intelligence (AI) and Internet of Things (IoT).



Group photo of participants



Group photo RISA fund, FCDO, MINICT, NCST and UR representatives

As the RISA fund programme drew to a close, the organized event on 04 March 2026 at KCC provided an opportunity to reflect on achievements and impact, share lessons learned and explore pathways for sustaining and scaling gains within Rwanda's research and innovation ecosystem. From climate-smart agriculture, strengthened value chains to AI and IoT innovation hubs, the progress achieved demonstrates what is possible when government leadership, academia, and development partners align around a shared national vision. This milestone is not just about closing a chapter it is about celebrating impact and reinforcing Rwanda's position as a knowledge-driven, innovation-led economy.

2. Youth-led Innovation driving practical solutions

Young innovators and researchers in Rwanda have received support to implement a number of projects in national priorities sector such as agriculture, health, energy and climate change through applications of emerging technologies including AI and IoT.

Among the innovators is Happy Axel Muyombano, a Master's student in Embedded Computing Systems at the UR-ACEIoT, who developed an irrigation drone designed to help farmers improve efficiency and productivity in line with efforts to mechanize and professionalize agriculture. Muyombano's project goal is to reduce cost and time management for farmers. The developed drone prototype can irrigate six hectares in about 30 minutes, with its 10-litre capacity. It is eventually being expanded to between 20 and 40 litres (as development continues) with capability to spray up to 12 hectares in an hour. The next plan is to collaborate with farmers and institutions such as the RAB to scale up the innovation as technology could help improve agricultural yields while reducing labour costs and enabling more precise pesticide application.



Mr Happy Muyombano demonstrating his drone innovation project

In the health sector, Ms Prisca Nikuze, a prosthetics student at the University of Rwanda, with her team developed a "Smart In-Sole" device designed to detect early signs of diabetic foot complications, a condition that can lead to amputation if not addressed in time. Nikuze explained that many diabetic patients lose sensation in their feet due to reduced blood circulation, making it difficult to detect injuries that can later develop into severe wounds. The developed Smart in-soles device is equipped with sensors that monitor the condition of the foot and send information to both the patient and healthcare providers. This allows early intervention and reduces the risk of diabetic foot complications progressing to amputation.

Another innovation showcased at the event was developed by Mr. Elsa Rebayezu, founder of M-Tech, who created a Proactive Maintenance System for Industrial Electric Motors, that collects motor data in real time and sends alerts to technicians when anomalies are detected. The system is currently about 80 percent complete, uses sensors and cloud-based analytics to monitor the performance of industrial electric motors in real time, helping prevent unexpected equipment failures that can disrupt production in factories and other industrial operations.

Mr Jean d'Amour Tubanambazi, founder of Damson Mushroon Farm Ltd, demonstrated a Damson Mushroom Monitoring Systems (DMMS) as a smart system that helps farmers to care and monitor their mushroom gardens automatically. The DMMS has been designed for a sustainable agribusiness specializing in mushroom farming organic production with integrated monitoring systems. In addition, Jean D'Amour trained a number youth and his company is supplying hotels and recycles crop waste into mushroom tubes in Western province of Rwanda. Mr. Jean d'Amour's innovation shows a strong commitment to advancing smart agriculture and Rwanda's broader tech ecosystems.



Innovators Mr. Elsa Rebayezu, Ms Prisca Nikuze and Jean D'Amour showcasing their projects

3. Strengthening national research and innovation ecosystem

Beyond supporting individual innovators, the RISA fund programme contributed to the strengthening Rwanda's broader research and innovation ecosystem. For examples, the NCST and UR received funding support to develop national technology transfer and commercialization strategy that guides how research outputs can be transformed into marketable products and ensures knowledge and technology transfer. During the Celebration on 4th March 2026, the Executive Secretary of NCST, Dr Eugene Mutimura, highlighted that NCST and UR received more than Rwf 700 million over time through the RISA programme to support development of required strategic documents that promote national R&I ecosystem and ensured that researchers and innovators are linked with private sector and industry to perform research that results into technological products and entrepreneurial results that's very critical to the national development. Dr Mutimura added that NCST has put in place frameworks that allow technology and knowledge transfer to happen more easily so that the needs of the market can meet the solutions developed by researchers.



Dr. Eugene Mutimura, Executive Secretary of NCST addressing the audience

According to Prof Damien Hanyurwimfura, Director of the African Center of Excellence in the Internet of Things (ACEIoT) at the University of Rwanda and the RISA fund project lead at UR, the RISA fund programme strengthened research commercialization and entrepreneurship skills by bridging the gap between research and practical application. Since 2023, the UR-ACEIoT has received funding from the RISA fund programme that established an IoT and AI innovation hub to support researchers and students in transforming prototypes developed in university laboratories into market-ready products through collaboration with industry partners. The IoT and AI incubation hub has supported 60 innovative projects and enabled the development of 40 prototypes. In addition, more than 150 young innovators have been trained in IoT prototyping, entrepreneurship and commercialization to help them bring their ideas to market. The programme also provided seed funding of 14 promising projects and connected them with industry mentors to accelerate commercialization.



Prof. Damien Hanyurwimfura, Director of the UR-ACEIoT addressing the audience

Moreover, Prof. Ignace Gatare, Principal of the College of Science and Technology at the University of Rwanda, said the programme aligns with the university's mission to encourage and prepare young innovators and researchers for real-world impact through the development of solutions that address real societal challenges for agriculture, health, nutrition and emerging technologies like AI and IoT.



Prof .Gatare Ignace, Principal, College of Science and Technology, UR addressing the audience

4. Conclusions and recommendations

Ms Grace Anyibu, Monitoring and Evaluation Advisor at the British High Commission, highlighted that the RISA-funded programme was designed to move research beyond academic settings and into practical use. The aim was to bring research from universities into tangible actions that work for society.

She noted that initiatives such as the Farm to Fork programme, which was developed at INES Ruhengeri, have supported agricultural innovations to improve crop yields and strengthen value chains. The programme also developed tools such as the Angel Investment Playbook, which was implemented at Catapult, designed to guide investors on how to support startups and help innovations scale to the market.



Ms Grace Anyibu speaking at the project close out event

As for the sustainability beyond the programme, Ms. Anyibu said that the supported projects and innovators will enable future innovators to keep developing solutions that contribute to Rwanda's economic growth and technological advancement.

Strengthening academia- private Sector partnership to optimize funding for commercialization of research and innovation Outputs

Esperance Munganyinka[1], Japhet Niyobuhungiro [1], Marie Chantal Cyulinyana[1], Sano Anselme[1], Florent Uwacu[2], and Damien Hanyurwinfura[3]

[1]National Council for Science and Technology (NCST)

[2]Private Sector Federation (PSF)

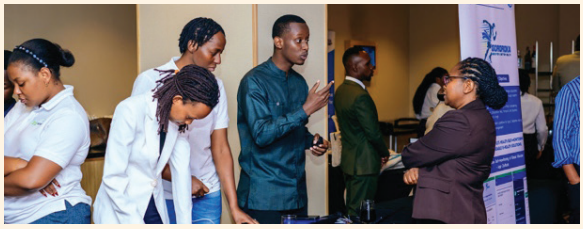
[3]University of Rwanda, African Center of Excellence in Internet of Things (UR_ACEIoT)



1. Background

On December 12, 2025, a high-level dinner meeting was held at the Kigali Marriott Hotel, bringing together key stakeholders from the National Council for Science and Technology (NCST), the University of Rwanda (UR), and representatives from the Private Sector Federation (PSF). The meeting focused on a critical national priority: strengthening private sector engagement in the commercialization of research and innovation outputs. The event provided a unique platform for dialogue, collaboration, and the exploration of investment opportunities aimed at transforming promising research into viable business ventures that contribute to Rwanda's economic growth.

2. Showcasing Innovation with Market Potential



The evening began with an exhibition of innovative products developed through funded research projects. These innovations demonstrated strong potential for commercialization across priority sectors such as agribusiness, health, energy, ICT, manufacturing, and environmental sustainability. The exhibition offered private sector leaders a first-hand look at locally developed solutions ready for scaling and market entry.









Exhition of some productions ready to go to the markers

3. Strengthening Academia-Industry Linkages

In his welcome remarks, the Vice Chancellor of the University of Rwanda emphasized the importance of aligning academic research with industry needs. He highlighted that impactful research must respond to real market demands to drive economic transformation.





The Executive Secretary of NCST underscored the Government of Rwanda's commitment to science, technology, and innovation (STI) as a key engine for development. He noted that over 126 projects have already been funded with more than RWF 8 billion, some of which are now ready for commercialization. However, he pointed out a persistent gap: innovators often lack access to affordable capital, limiting their ability to scale. To address this, NCST has initiated targeted funding for commercialization and is working with partners, including RSSB, to establish a dedicated R&D fund that will require strong private sector participation.

4. Insights from the Private Sector

The open discussion session provided valuable insights from private sector leaders. Participants emphasized the need for:

- Developing innovations that are competitive on both local and international markets
- Addressing real industry challenges to attract private investment
- Strengthening collaboration between researchers and businesses

It was also highlighted that support from the private sector does not always have to be financial. Access to production facilities, mentorship, and market networks can play a crucial role in advancing innovations.

5. Key Action Points for Moving Forward

The meeting concluded with several strategic action points to enhance collaboration and accelerate commercialization:

- **Increased participation of researchers in PSF exhibitions** to improve visibility and market engagement
- **Advocacy by PSF** to connect innovators with industry opportunities and resources
- **Mobilization of investors** through the PSF Business Research Center to support promising innovations
- **Establishment of collaboration platforms** linking academia and industry
- **Launch of targeted calls by NCST** addressing national challenges identified by the private sector



Interaction and exchange with participants

6. Looking Ahead

This engagement marks an important step toward building a vibrant innovation ecosystem in Rwanda; one where research outputs are not only generated but effectively translated into impactful, market-driven solutions.

The outcomes of this meeting will inform a broader national workshop aimed at unlocking the full economic potential of research and innovation. With continued collaboration between academia, government, and the private sector, Rwanda is well-positioned to foster a thriving, innovation-led economy driven by homegrown solutions.

Assessing Research Impact: Insights from NCST March 2026 M&E Field Visits

Elysee Uwimana[1], Jean Louis Niragire[1], Violette Mukamugema[1], Emmanuel Uwiringiyimana[1], Benjamin Nabaana[1], Chantal Cyulinyana[1], Didacienne Mukanyiligira[1], Japhet Niyobuhungiro[1]

[1] National Council for Science and Technology

Introduction

The National Council for Science and Technology (NCST) conducted Monitoring and Evaluation (M&E) activities to assess the progress and impact of selected funded research projects addressing national priorities in Rwanda. These projects span biodiversity valorization, climate change, health, and digital innovation. The "*5Bs Products*" project focuses on transforming indigenous biodiversity into innovative food and beverage products, while the "*WALL*" project investigates the impact of volcanic environments and climate change on human health through advanced modeling and field studies. The *Computer Vision Automated Fish Feed Monitoring* project led by Jesse Thornburg applies artificial intelligence and automation to improve aquaculture efficiency and food security. In parallel, the *IEWRS* project uses machine learning and integrated environmental and health data to develop a nationwide early warning system for climate-sensitive diseases. Together, these initiatives highlight Rwanda's commitment to leveraging science and innovation to address societal challenges and support sustainable development.

Project 1: Biodiversity, Beers, Bitters, Beverages, and a Bag of Crisps (5Bs Products) by Prof. Elias Bizuru

The project entitled "Biodiversity, Beers, Bitters, Beverages, and a Bag of Crisps (5Bs Products)" is hosted and implemented by the University of Rwanda, College of Science and Technology, Center of Excellence in Biodiversity and Natural Resource Management, in collaboration with Kweza Craft Brewery as the industry partner. The project is led by Prof. Elias Bizuru, the Principal investigator. The purpose of the project is to develop prototype of natural flavor enhancers for both alcoholic and non-alcoholic beverages, including the isolation and selection of indigenous yeast strains for consistent fermentation in Ikigage production and to determine and establish appropriate preservation processes, along with a final yeast starter formulation for consistent use in Ikigage production. The research team has already produced five aroma-based products derived from five indigenous plant species including Mondia whitei, Rhamnus prinoides, Vernonia amygdalina, Combretum molle and Artemisia afra, which have also been successfully tested. The research team requested support from NCST to advocate for locally produced flavors and aromas, which are difficult to recognize and license because they are not recorded in the CODEX global food databases



Prof. Bizuru updating on the project progress

Project 2: WALL: Evolution of the volcanic environment in western Rwanda with Climate Change: impact on health and mitigation by Prof. Catherine Meriaux

The project is hosted by the University of Rwanda, College of Science and Technology, East African Institute for Fundamental Research (an ICTP partner institute), under the grant scheme of 'Accelerating and Catalyzing Solutions for Climate Change's Impact on Health', co-funded by Bill and Melinda Gate Foundation and National Council for Science and Technology (NCST). The purpose of the project is to study the impact of climate change on health via volcanic emmissions, volcanic soil, and Landslide. First, the study on volcanic emmissions aims to develop numerical models of



Prof. Catherine's photo with the NCST Monitoring & Evaluation Team at the University of Rwanda

volcanic plume (ash and gas) dispersion and deposition of Nyamuragira and Nyiragongo volcanoes. Preliminary data indicate that areas closest to the volcanoes may not always experience the highest levels of volcanic emissions.

Secondly, the study on volcanic soil focuses on testing soil and the climatic data, analyzing and identifying irritant volcanic soil particles associated with podoconiosis and recommending appropriate measures. Lastly, the project also examines the impact of climate change on health via Landslide. The research team has applied modelling approaches to identify areas prone to landslide. The results revealed that existing data do not fully capture all high-risk areas; however, simulation models have identified zones with significant susceptibility to landslides. Overall, the projects demonstrated encouraging progress, with three physical and Numerical Models developped: volcanic dispersion models, slope stability models and dynamic landslide models. However, during the M&E field visit, the research team reported that they have challenge of lack of climate change projection for the last 20 years by year in temperature and precipitation in Western Rwanda.

Project 3: Fish Farm Computer Vision for Feed Optimization and Tracking by Prof. Jesse Thornburg

The *Computer Vision Automated Fish Feed Monitoring* project, led by Prof. Jesse at Carnegie Mellon University Africa, aims to enhance aquaculture productivity and sustainability through the development of an intelligent system that integrates computer vision, automated feeding, and data analytics. The project focuses on designing and testing a prototype that uses cameras, microcomputers, and machine learning algorithms to monitor fish feeding behavior and optimize feed usage in real time. Key progress includes successful deployment and monitoring of a pilot system at a tilapia farm, as well as continuous training of computer vision models using field data. Challenges related to image segmentation accuracy were addressed by integrating advanced deep learning techniques and improving image processing workflows. The project also emphasized capacity building by training local technicians to ensure effective system operation and troubleshooting. Moving forward, efforts will concentrate on testing the fully integrated system, refining performance, and scaling its application to support climate-resilient and efficient aquaculture practices.

Project 4: Development of an Integrated Early Warning and Response System (IEWRS) for health in the context of climate change in Rwanda led by Dr. Didier Ntwali



Presentation from Prof. Jesse and Prof. Tim on the progress of the Fish Farm Computer Vision for Feed Optimization and Tracking project

The *Integrated Early Warning and Response System (IEWRS)* project is a national research and innovation initiative in Rwanda designed to predict and respond to climate-sensitive diseases, including malaria, flu, pneumonia, and diarrhea, across all 416 sectors using advanced machine learning and integrated environmental data. The project combines large-scale climate, satellite, and health datasets to analyze spatial and seasonal disease patterns, revealing strong correlations between disease incidence and factors such as temperature, rainfall, vegetation indices, and air pollutants. Building on these insights, the team has successfully developed robust predictive models (Random Forest, XGBoost, CatBoost) capable

of forecasting disease trends up to 12 months ahead, forming the backbone of a real-time early warning system. The system architecture integrates data ingestion pipelines, machine learning model management, and interactive dashboards to support data-driven decision-making, early alerts, and rapid health response. Progress to date includes full data collection for climate variables, near-complete health datasets, development of predictive models, and ongoing platform implementation, alongside capacity building such as PhD training and multi-institutional collaboration. Ultimately, IEWRS aims to strengthen Rwanda's resilience to climate-related health risks by enabling timely interventions, targeted resource allocation, and evidence-based public health strategies.





NCST Monitoring and Evaluation Team visiting the IEWRS project led by Dr. Didier Ntwali at Rwanda Space Agency

Quarter 4(April-June 2026) Newsletter:

Driving Rwanda's Science Technology and Innovation Future

REPUBLIC OF RWANDA

NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

ncst National Council for Science and Technology

Driving Rwanda's Science Technology and Innovation Future

NCST Quarterly Newsletter – Issue 020- April-June 2026

PREAMBLE: The NCST Quarterly Newsletter-Issue 20 highlights major activities undertaken to strengthen Rwanda's science, technology, and innovation ecosystem. This edition features the Strategic Foresight Training on STI, which enhanced national capacity for future-oriented planning and evidence-based policymaking. It also highlights the Mid-Term Review of the NCST Strategic Plan, which strengthened alignment with NST2 and Vision 2050 while placing greater emphasis on innovation commercialization and measurable impact. The newsletter also covers NCST's participation in the 32nd Commemoration of the 1994 Genocide against the Tutsi at Kiziguro Memorial and the institution's Labour Day celebrations, which promoted professional ethics, staff recognition, and teamwork. Together, these initiatives demonstrate NCST's commitment to fostering innovation, strengthening institutional excellence, promoting national unity, and advancing sustainable socio-economic development through science, technology, and innovation.

INSIDE THIS ISSUE:



ES NCST delivering his opening remarks during Strategic Foresight Training on STI



Foresight tool Demonstration to participants



NCST ES rewarding the Best NCST Employee



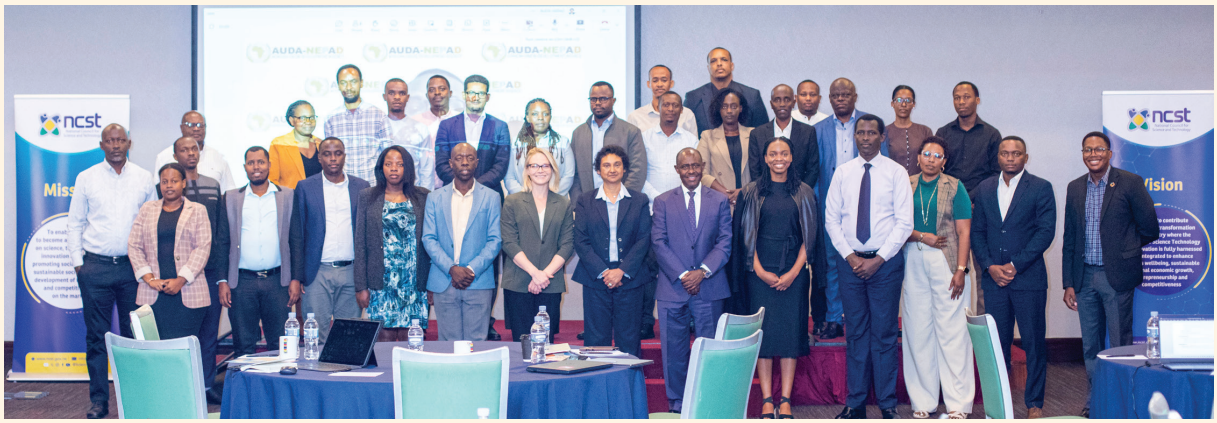
NCST team and Partners at Kiziguro Genocide Memorial

Building Rwanda's Future STI through Strategic Foresight Training

Marie Chantal Cyulinyana[1], Mukanyiligira Didacienne[1], Naabana Benjamin[1], and Eugene Mutimura[1]
[1]National Council for Science and Technology

Background

As countries across the world grapple with accelerating technological change, climate uncertainty, demographic shifts, and evolving economic realities, the ability to anticipate and prepare for future challenges has become increasingly important. Recognizing this need, the National Council for Science and Technology (NCST), in collaboration with AUDA-NEPAD Africa Policy Bridge Tank (APBT), the African Futures Institute (AFI), and the Frederick S. Pardee Institute for International Futures, organized a Strategic Foresight Training on Science, Technology and Innovation (STI) in Kigali from 4-6 May 2026. The training brought together policymakers, researchers, innovators, development practitioners, and representatives from key institutions across Rwanda's National Innovation System. Its purpose was to strengthen national capacity for long-term thinking, evidence-based decision-making, and strategic planning that can help Rwanda navigate future uncertainties while accelerating progress toward its development aspirations.



Group photo: National Stakholders, Facilitators, NCST staff, and AUDA-NEPAD delegation

The initiative forms part of Rwanda's broader ambition to become a knowledge-based economy under Vision 2050 and the National Strategy for Transformation (NST2). It also contributes to the implementation of African Union (AU) Agenda 2063 and the Science, Technology and Innovation Strategy for Africa (STISA 2034), reinforcing Rwanda's commitment to leveraging STI as key drivers of sustainable development and economic transformation.

Why Strategic Foresight Matters

The world is experiencing unprecedented levels of complexity and uncertainty. Rapid advances in artificial intelligence, biotechnology, automation, and digital technologies are transforming industries and societies. At the same time, countries are confronting climate change, resource pressures, shifting geopolitical dynamics, and changing labor markets. In such an environment, traditional planning approaches that rely heavily on historical trends are no longer sufficient. Strategic foresight offers governments and institutions a structured way to explore alternative futures, identify emerging opportunities and risks, and make informed decisions today that will shape tomorrow's outcomes. Throughout the training, facilitators emphasized a powerful message that resonated strongly with participants: "Foresight is not about predicting the future; it is about shaping it." Participants explored how foresight can support adaptive governance, strengthen resilience, improve policy coherence, and enable institutions to respond proactively rather than reactively to change. Opening remarks by NCST and AUDA NEPAD leadership highlighted the growing importance of embedding long-term thinking into national development planning and public policy processes.



Opening session: Dr Eugene Mutimura, Executive Secretary of NCST and Ms. Pamla Gopaul, AUDA-NEPAD Team leader

Building Practical Foresight Skills

The training adopted an interactive and highly participatory approach designed to move beyond theory and build practical competencies. Participants engaged in expert presentations, group discussions, case studies, scenario-building exercises, policy simulations, and hands-on modeling sessions. Both qualitative and quantitative foresight methods were introduced, demonstrating how different approaches can complement one another in policy analysis and strategic planning. A major focus of the training was helping participants understand how to identify and analyze key drivers of change. Using the PESTLE framework, Political, Economic, Social, Technological, Legal, and Environmental factors: participants examined trends that are likely to shape Rwanda's future STI landscape. Among the drivers identified were digital transformation, artificial intelligence adoption, climate change, urbanization, demographic transitions, education reform, infrastructure development, and social cohesion. These discussions encouraged participants to broaden their perspective beyond immediate challenges and consider how long-term developments could influence Rwanda's development trajectory over the coming decades.



Interactive training sessions with participants

Harnessing the Power of the International Futures (IFS) Model

One of the most significant components of the training was the introduction to the International Futures (IFs) model, a sophisticated integrated forecasting system developed by the Frederick S. Pardee Institute for International Futures. The model enables users to analyze interactions across multiple sectors and assess the long-term implications of policy choices. Through practical exercises, participants learned how the IFs model incorporates data related to demographics, economic growth, health, education, infrastructure, governance, and technology. They explored Rwanda's current development trajectory, simulated alternative policy scenarios, benchmarked national targets, and examined potential future outcomes under different assumptions.



IFs model demonstration to participants during hands-on IFs exercises

Participants worked with indicators such as maternal mortality, infant mortality, fertility rates, urbanization levels, years of schooling, Technical and Vocational Education and Training (TVET) participation, and broader human capital development measures. These exercises demonstrated how data and modeling tools can support more informed policymaking and improve strategic planning processes.

The Critical Role of Data and Evidence

A recurring theme throughout the training was the importance of data in supporting effective foresight and policymaking. Participants noted that strategic foresight depends on access to high-quality, reliable, and up-to-date information. Without robust data systems, it becomes difficult to accurately assess trends, model future scenarios, or evaluate policy options.

Discussions highlighted the need for improved data collection, stronger institutional coordination, enhanced monitoring and evaluation systems, and greater information sharing across sectors. There was strong recognition that investments in national data infrastructure and analytics capabilities are essential for strengthening evidence-based governance and supporting Rwanda's long-term development agenda.



Aligning National Ambitions with Continental Priorities

The training also reinforced the importance of aligning Rwanda's national priorities with broader continental development frameworks. Experts from AUDA-NEPAD highlighted the goals of AU Agenda 2063 and its Second Ten-Year Implementation Plan, emphasizing Africa's aspiration for inclusive growth, responsive institutions, stronger regional integration, productive citizens, and enhanced global competitiveness. Participants explored how Rwanda can localize these continental ambitions within its own planning systems and STI priorities, ensuring that national development efforts contribute to Africa's wider transformation agenda. The discussions underscored the value of regional cooperation, knowledge sharing, and collaborative foresight initiatives in addressing shared challenges and opportunities across the continent



Key Insights Emerging from the Training

Several important insights emerged from the three-day engagement. Participants concluded that while Rwanda has demonstrated strong political commitment to innovation and transformation through Vision 2050 and NST2, foresight approaches remain insufficiently integrated into routine policy and planning processes. The training also highlighted the need to strengthen national data systems, expand foresight expertise, enhance collaboration across the National Innovation System, and mainstream long-term thinking into government planning and budgeting processes. Participants recognized that foresight should not be viewed as an occasional exercise but rather as an ongoing capability that supports adaptive governance and resilience. Importantly, the sessions demonstrated that strategic foresight can help governments better anticipate risks, prepare for uncertainty, and make proactive policy choices that contribute to sustainable development outcomes.

From Learning to Action



The training concluded with a series of recommendations aimed at strengthening Rwanda's national foresight ecosystem. Participants called for the establishment of formal foresight units within key public institutions, integration of foresight into national planning frameworks, expansion of foresight training programmes, increased investment in research and innovation, and the development of a comprehensive national STI foresight framework. Short-term actions include establishing an NCST-led national foresight coordination mechanism, developing institutional action plans, conducting advanced training on foresight and scenario building, operationalizing IFs tools, and initiating work on a national STI foresight framework. Over the medium and long term, participants envisioned a future where foresight is fully integrated into government systems, national planning, and sector strategies, positioning Rwanda as a regional center of excellence in strategic foresight and STI policy.

Looking Toward 2050



The Strategic Foresight Training on Science, Technology and Innovation marks an important step in Rwanda's journey toward becoming a resilient, innovative, and knowledge-driven economy. More than a capacity-building exercise, the programme served as a catalyst for a broader conversation about how Rwanda can prepare for the future while shaping it in line with national aspirations and continental goals. As participants returned to their respective institutions, they carried with them new skills, tools, and perspectives for addressing complex development challenges. The real measure of success, however, will be the extent to which these insights are translated into concrete institutional reforms, stronger policies, and more effective governance systems. By embracing strategic foresight today, Rwanda is investing in its ability to anticipate change, harness innovation, and build a future that is not only prosperous but also resilient, inclusive, and sustainable for generations to come.

NCST Strategic Plan 2023-2028 Mid-Term Review: Strengthening Alignment with NST2 for Enhanced National Impact

Elysée Uwimana[1], Louis Sibomana[1], Esperance Munganyinka[1], Japhet Niyobuhungiro[1], and Felly Kalisa[1]
[1]National Council for Science and Technology

Background and Rationale

The National Council for Science and Technology (NCST) conducted a Mid-Term Review (MTR) of its Strategic Plan 2023-2028 from 28-30 April 2026. The review assessed progress made over the first half of the strategic planning period and examined how the strategic plan can better respond to emerging national priorities, rapid technological advancements, and Rwanda's Second National Strategy for Transformation (NST2). The review resulted in a proposal to extend the Strategic Plan to 2029 and strengthen its contribution to NST2 and Rwanda's Vision 2050 aspirations of becoming a knowledge-based and innovation-driven economy.

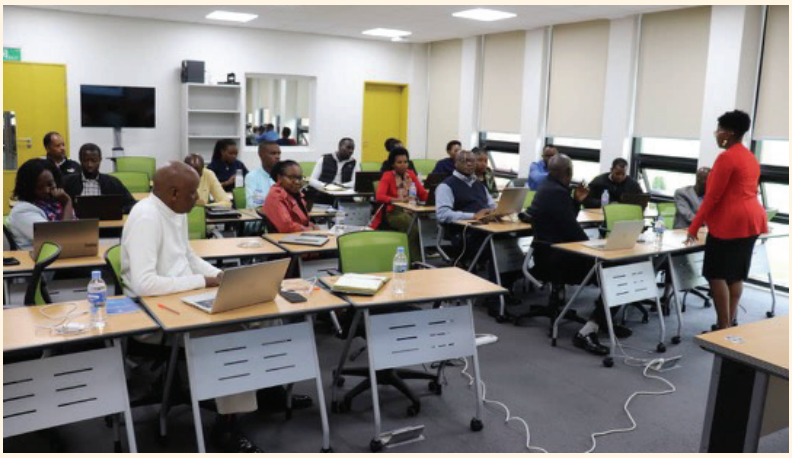
Progress Achieved So Far

The review found that NCST has made significant progress in implementing its strategic priorities. More than half of planned interventions have achieved high levels of implementation, demonstrating the institution's commitment to strengthening science, technology, innovation, and research systems in Rwanda.

Key achievements include:

- Strengthened science, technology and innovation policy and regulatory frameworks.
- Increased support for research and innovation activities.
- Growth in research outputs and emerging innovations.
- Improved resource mobilization for research and development programmes.
- Enhanced collaboration among stakeholders in Rwanda's innovation ecosystem.

These achievements provide a strong foundation for the next phase of implementation.





Photos for Participants and Facilitators during NCST Strategic Plan Mid-Term Review Workshop

From Research to Impact: A New Strategic Focus

One of the most important findings of the review was the need to accelerate the commercialization and utilization of research results. While Rwanda continues to generate valuable research findings, innovations, and prototypes, many of these outputs have not yet progressed to large-scale adoption or market application. The revised Strategic Plan therefore places stronger emphasis on:

- Innovation leading to commercialization.
- Technology transfer.
- Industry-academia collaboration.
- Entrepreneurship and start-up development.
- Job creation through science and innovation.

This shift reflects NCST's commitment to ensuring that research contributes directly to economic growth, industrial productivity, and societal development.

Stronger Alignment with NST2 and Vision 2050

The review provided an opportunity to align NCST interventions more closely with NST2 priorities and national development goals. The revised Strategic Plan strengthens NCST's contribution to:

- Economic transformation and productivity growth.
- Employment creation, particularly for youth and women.
- Digital transformation and emerging technologies.
- Research and innovation financing.
- Sustainable industrialization and competitiveness.
- Evidence-based policymaking.

The review also reinforced alignment with regional and international frameworks, including the Science, Technology and Innovation Strategy for Africa (STISA 2034) and the Sustainable Development Goals (SDGs).

Strengthening Partnerships and Accountability

Participants emphasized that achieving national innovation goals requires stronger collaboration among government institutions, universities, research organizations, industry, and development partners. The revised Strategic Plan therefore prioritizes:

- Improved coordination of the National Innovation System.
- Stronger academia-industry partnerships.
- Enhanced stakeholder engagement.
- Increased resource mobilization and co-investment.
- Robust monitoring, evaluation, and learning systems.

NCST will continue to leverage strategic partnerships to accelerate innovation uptake and maximize the impact of investments in science, technology, and innovation.

Looking Ahead

The Mid-Term Review resulted in an updated implementation framework, refined performance indicators, and a clearer focus on measurable outcomes. Going forward, NCST will prioritize innovation leading to commercialization, stronger coordination, evidence-based decision-making, and enhanced monitoring of results.

The revised Strategic Plan 2023-2029 positions NCST to play an even greater role in supporting Rwanda's transformation into a high-income, knowledge-based economy driven by science, technology, and innovation.

Key Takeaways

- Strategic Plan reviewed and proposed for extension to 2029
- Strong progress achieved across strategic priorities
- Increased focus on research commercialization and technology transfer
- Stronger alignment with NST2 and Vision 2050
- Enhanced partnerships, resource mobilization, and accountability
- Greater emphasis on measurable impact, job creation, and economic transformation

32nd Commemoration of the 1994 Genocide against the Tutsi at Kiziguro Genocide Memorial

Sano Anselme[1], Louis Sibomana[1], Esperance Munganyinka[1], Theogene Kayumba[1], Violette Mukamugema[1], and Diana Umulisa[1]

[1]National Council for Science and Technology (NCST)

Background and Rationale

On 24th April 2026, the National Council for Science and Technology (NCST), in collaboration with its partners, including the East African Science and Technology Commission (EASTECO), the University of Global Health Equity (UGHE), the African Institute for Mathematical Sciences Rwanda (AIMS), and NCST-funded Project Principal Investigators, organized a commemoration event at the Kiziguro Genocide Memorial Site in Gatsibo District. This event brought together NCST staff, representatives of partner organisations, local government authorities, and survivors of the genocide against Tutsi, united in the solemn act of remembrance.



NCST team and Partners at Kiziguro Genocide Memorial

The Kiziguro Memorial carries a particular historical gravity. Located in Gatsibo District, Eastern Rwanda, the site documents a tragedy of devastating scale. The memorial serves as a place of testimony and reflection, preserving the memory of victims whose lives were cut short by organised killings fuelled by genocide ideology. The choice of this site as the venue for NCST's commemoration reflects institutional commitment to acknowledging historical truth as an inseparable element of its broader mission in science, technology, and Innovation.

NCST 32nd Commemoration of the 1994 Genocide against the Tutsi Activities

The programme commenced with a visit to the memorial, where participants laid wreaths and observed a moment of silence in honour of the victims. The solemnity of this act set the tone for the entire day's proceedings. This was followed by a guided remembrance walk retracing the path taken by victims from Kiziguro Catholic Church to the memorial site where thousands were killed and burried in mass graves. The walk was conducted as an act of witness: a deliberate, collective effort to

bridge the present with the past, and to ensure that those who perished are not forgotten. For many participants, the experience underscored not only the scale of the loss of lives sustained at this location, but also the enduring responsibility borne by different institutions to safeguard the integrity of historical memory.





Honouring the Victims of the 1994 Genocide against the Tutsi and guide walk to remember at Kiziguro Genocide Memorial



During the dialogue session, various speakers provided historical insights and reflections. Mr. Sibomana Jean Nepo, President of Ibuka in Gatsibo District, explained how the genocide against the Tutsi was systematically prepared over time. He emphasized the importance of preserving this history and ensuring that future generations understand the truth. Similarly, Mr. Sibomana Jean Nepo, in a presentation prepared by MINUBUMWE, elaborated on the roots and execution of the genocide, calling on all Rwandans to actively fight genocide ideology and divisionism, particularly by leveraging modern technology.

The Vice Mayor in charge of Social Affairs in Gatsibo District, in her remarks, highlighted ongoing efforts to preserve genocide memory, including collaboration with the Catholic Church to install markers and information at the Kiziguro church to document the crimes that occurred there. She also called upon NCST to play a greater role in safeguarding genocide memory through science and technology, especially by using digital platforms and social media to counter denial and distortion of history.

A moving testimony from a genocide survivor further deepened the emotional significance of the event, reminding participants of the human cost of hatred and the resilience of survivors. The lighting of the "Flame of Hope" symbolized remembrance, resilience, and the collective commitment to unity and reconciliation.



In his closing remarks, the Executive Secretary of NCST emphasized that commemoration is not only about remembering the past but also about building a future grounded in unity, peace, and sustainable development. He paid tribute to the bravery of the former RPF soldiers, now RDF, whose intervention stopped the genocide and restored hope to the nation. He also reiterated NCST's commitment to integrating science and technology with human values, including the preservation of historical truth.

Supporting Vulnerable Genocide Against Tusti survivors

As part of supporting vulnerable genocide against Tutsi survivors, three survivors were each provided with a cow, symbolizing a contribution to their well-being and sustainable livelihood. This act reflects Rwanda's continued commitment to restoring dignity and supporting survivors. The event concluded with a renewed call to all participants, especially the youth, to learn from history, reject divisionism, and actively contribute to building a united and resilient Rwanda. The message was clear: remembering the past is a shared responsibility, and safeguarding it is essential for ensuring that such tragedy never happens again. **Twibuke Twiyubaka Remember, Unite, Renew**



Labour Day 2026: Celebrating Excellence and Commitment at NCST

Violette Mukamugema[1], Francois Munyemana[1], Anitha Nishimwe[1], Emmanuel Uwiringiyimana[1], Eric Ndayambaje[1], and Yamen Cyurishema[1]

1National Council for Science and Technology

Background and Rationale

International Labour Day, celebrated annually on 1st May, recognizes the contributions of workers to national development and economic growth. In 2026, Rwanda commemorated the day under the theme **"Partnering for Skills, Powering Job Creation, and Fostering Local Economic Resilience."** The event provided an opportunity for staff to reflect on their contributions to the institution's mission, strengthen teamwork, and reaffirm their commitment to excellence in service delivery. In line with guidance issued by the Ministry of Public Service and Labour, the National Council for Science and Technology (NCST) celebrated Labour Day on 15th May 2026. The event featured discussions on professional ethics, recognition of outstanding staff performance through the selection of the Best Professional and Ethical Employee of the Year. The celebration brought together NCST employees for a day of learning, recognition, and networking. Through discussions and interactive activities, staff reflected on the important role they play in advancing science, technology, innovation, and research for Rwanda's socio-economic transformation.

Key Highlights of the Labour Day Celebration

A key highlight of the event was a presentation on professional ethics delivered by the Acting Human Resource Management Specialist, Ms. Violette Mukamugema. The session emphasized the values that guide public service, including professionalism, accountability, integrity, transparency, collaboration, impartiality, and citizen-centered service delivery. Participants were encouraged to uphold these values in their daily work and contribute to a positive and high-performing institutional culture. The discussion reinforced the importance of ethical leadership and professionalism in achieving NCST's strategic objectives. As part of the 2026 Labour Day celebrations, NCST staff came together to strengthen teamwork, promote professionalism, and reaffirm their commitment to excellence in service delivery. The event also provided an opportunity to reflect on institutional achievements, discuss workplace values, and recognize outstanding staff contributions. A highlight of the event was the election of the Best Professional and Ethical Employee of the Year 2025/2026, recognizing exceptional commitment, hard work, discipline, teamwork, and contribution to the achievement of NCST's objectives. The celebration featured three key activities:

Promoting Professional Ethics

A presentation on professional ethics was delivered by the Acting Human Resource Management Specialist, Ms. Violette Mukamugema. The session emphasized the core values that guide public service and institutional excellence, including:

- Excellence and professionalism;
- Accountability;
- Integrity and trustworthiness;
- Transparency and collaboration;
- Impartiality in service delivery; and
- Citizen-centered service delivery.

Participants were encouraged to uphold these values in their daily work and contribute to a positive, ethical, and high-performing workplace culture. The session reinforced the importance of professionalism and ethical conduct in enhancing institutional performance and delivering quality services.

Recognizing Outstanding Performance

Labour Day also provided an opportunity to recognize and celebrate staff excellence. Through a transparent and participatory process, employees elected the **Best Professional and Ethical Employee of the Year 2025/2026**. The staff conducted the election of the Best professional and ethical employee of the Year 2025/2026. Employees participated in the voting process aimed at recognizing staff members who demonstrated outstanding performance, professionalism, teamwork, commitment, and discipline throughout the year. Mr. Elysee Uwimana was selected for his exemplary professionalism, commitment, teamwork, discipline, and contribution to the institution's goals. While presenting the award, the Executive Secretary congratulated the winner and encouraged all staff to continue striving for excellence and innovation in their work.




NCST Executive Secretary rewarding the Best Professional and Ethical Employee of the Year 2025/2026, Mr. Elysee Uwimana.

Strengthening Team Spirit

The celebration concluded with team-building and networking activities designed to strengthen collaboration and solidarity among staff. Through interactive games and social activities, participants reflected on the importance of teamwork, shared vision, and collective effort in achieving institutional success.

Looking Ahead

The Labour Day celebration reaffirmed NCST's commitment to professionalism, teamwork, and excellence as key drivers of institutional performance. As NCST continues implementing its revised Strategic Plan 2023-2029, staff remain committed to advancing science, technology, and innovation in support of Rwanda's NST2 and Vision 2050 aspirations.

*NCST's greatest asset is its people. By promoting professionalism, recognizing excellence, and strengthening teamwork, the institution continues to build a strong foundation for delivering impactful science, technology, and innovation outcomes for Rwanda***.**

