Digital Transformation Center Rwanda

Support for Digital Transformation and Digital Economy in Rwanda

Rwanda's digital transformation is fundamentally about empowering people and unlocking opportunities for inclusive growth. By prioritizing the digitization of the economy and society, the country is creating practical solutions that improve everyday life, from better access to public services and digital education, to more inclusive economic participation through technology. Rwanda is enabling startups, entrepreneurs, and small businesses to thrive in a connected economy. Digital technologies are being integrated into sectors like agriculture, healthcare, education, and commerce, helping individuals and communities become more resilient, informed, and economically active.

Project name	Digital4Rwanda
Commisioned by	German Federal Ministry for Economic Cooperation and Development (BMZ)
Project region	**Rwanda**
Lead executing agency	**Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH**
Duration	**2024-2027**

Challenges

In recent years, Rwanda has made significant strides toward becoming a digitally driven knowledge and service-based society. The country's digital transformation is strategically anchored in the National Strategy for Transformation (NST 2). Despite this progress, several challenges persist; including low levels of digital literacy, a shortage of skilled digital professionals, infrastructure gaps, a gender imbalance in the ICT sector, and the need for agile regulatory frameworks to keep pace with rapid technological advancements. Access to investment and venture capital also remains limited, posing further obstacles to the development of innovative services and products. While 34 % of ICT university graduates in Rwanda are women, only 20 % go on to work in tech professions, highlighting the need for greater efforts of the empowerment of women in tech. NST 2 addresses these issues through a proactive approach, focusing on strategic investments in digital infrastructure, capacity development, and the promotion of an inclusive digital economy.
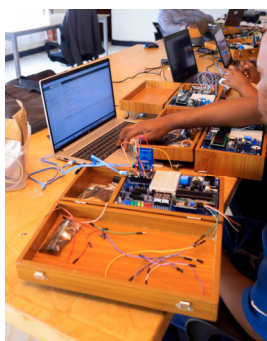
Approach

In support of these efforts, GIZ is actively contributing to Rwanda's digitalization journey, particularly in advancing technology-enabled urban solutions. Data and AI, promoting data-driven decision-making and responsible AI adoption. Digital Skills & Inclusion, integrating digital tools in education and training, empowering marginalized communities, and raising awareness about both the opportunities and risks of digital transformation. The Digital Transformation Center Rwanda (DTC) plays a central role as a competence hub, driving innovation, building local capacity, and supporting the implementation of impactful digital solution. Within this scope, the Digital Transformation Center is delivering services in the following focus areas:

Public Sector Innovation

The project supports the public sector through the development of tailored digital solutions. In close collaboration with RISA, the project manages digitalization requests from public institutions across all sectors and supports building a sustainable digital architecture using ICT building blocks. One notable example is the development of an Integrated Blood Bank Information System for the health sector, to be operated by the Blood Transfusion division of the Rwanda Biomedical Center (RBC). This system includes a donor management module to increase blood donor registrations and simplify donor communication for blood drives, a logistics module for streamlined requesting and dispatching of blood nationwide, and an inventory module for real-time stock management and transparency, particularly in tracking rare blood types. The lab module supports TTI testing, blood grouping, labeling, and

L: Women in Rwanda participating in AI capacity-building training to enhance their skills and representation in data science and AI

R: Teachers receiving hands-on training on robotics kits during the second phase of the National robotics program, preparing to integrate robotics into classroom sessions."

traceability, while the hemovigilance module ensures end-to-end monitoring of blood from donor to patient. The overarching goal is to increase Rwanda's blood donor base to 5 % of the national population and enhance the operational efficiency of the BT division—ultimately contributing to saving more lives through reliable and responsive blood services.

Artificial Intelligence (AI)

In this focus topic, the project is supporting Rwanda in building capacities and developing regulatory frameworks regarding the ethical use of AI. Moreover, support is provided in disseminating knowledge and in developing use cases, particularly for Machine Translation and Natural Language Processing. Furthermore, AI-driven solutions for climate adaptation, agriculture, and disaster risk management Success factors are facilitated. The establishment of The Responsible AI Office (RAIO) Facilitated shape the AI governance landscape in Rwanda, working on policy frameworks and ethical guidelines for AI development.

Digital Skills & Digital Inclusion

In the interest of closing the digital divide in Rwanda, interventions in this area aim to foster digital literacy and inclusion for all. As a crucial step, the project supported the implementation of the National Robotics Program, which has been introduced in 26 schools and is expected to reach over 5,000 students: equipping young learners with foundational skills in science, technology, and problem-solving. Additionally, five Apple-Accredited Training Centers for Education have been established in higher learning institutions across the country. These centers are helping students acquire globally recognized tech skills, preparing a future-ready workforce that is equipped to thrive in the fast-evolving digital economy and contribute meaningfully to Rwanda's development

Smart cities

To reduce duplication of efforts and break down silos, the project focuses on strengthening coordination among Smart City ecosystem players and building the capacity of partners for effective implementation of Smart City solutions. To that end, support has been provided to establish the Smart City hub, a central coordination entity for all Smart City-related activities. The hub addresses key gaps in funding, skills development, and solution testing. Through the Smart City Hub, the project has facilitated active dialogue on urban innovation and helped position Kigali as a growing smart city. A series of workshops, collaborative sessions, and a hackathon generated innovative, homegrown solutions for Kigali's transport infrastructure, with a particular focus on e-mobility, sustainable transport systems, and clean energy technologies.

The Digital Transformation Center

The Digital Transformation Center operates in line with the principles of the 2030 Agenda for Sustainable Development, driving inclusive and impactful progress through human-centered digital solutions. By empowering individuals, strengthening digital skills, and supporting innovation, the Center fosters sustainable development that leaves no one behind. As part of its contribution to the ecosystem, the Center offers a dedicated physical space that serves as a vital resource for startups, entrepreneurs, and ecosystem players, helping them save costs on events and workshop venues. Hosting hundreds of events, training, and collaborative sessions each year, the space acts as a neutral platform that encourages knowledge exchange, strengthens partnerships, and raises awareness about the benefits and opportunities within the digital economy

Partners

The main partners of the project are the Ministry of ICT and Innovation (MINICT), Rwanda Information Society Authority (RISA) and the Smart Africa Secretariat. Other partners include Rwanda Utilities Regulatory Authority (RURA), Center for the 4th Industrial Revolution (C4IR), Rwanda Biomedical Center (RBC) and the Rwanda ICT Chamber.