



# Digital Transformation & Digital Economy Cluster

## Digital Transformation Center Rwanda

The digitization of Rwanda's economy and society are declared priorities of the Rwandan government to noticeably advance the country's sustainable development. By establishing the Ministry of ICT and Innovation (MINICT) as the responsible ministry and Rwanda Information Society Authority (RISA) as the subordinate authority for implementing and coordinating IT projects in the government, Rwanda has created a structural framework for shaping its digital transformation. Rwanda has set ambitious goals for the upcoming years and is re-lying heavily on the positive contribution of digitalization to achieve them. The National Strategy for Transformation (2017-2024) describes digital technologies as the cross-sectoral driver that can make a positive contribution to economic growth and drive Rwanda's development toward becoming a middle-income country by 2035.

## Challenges

Although being a digital pioneer in Africa, Rwanda's digital transformation still faces various challenges. Even though high investments have been made to improve the digital infrastructure and digital public services, the public sector still lacks capacities to plan and implement large digital transformation projects and depends heavily on external funding. Furthermore, ICT experts who are internationally competitive are scarce, affecting the demand for highly skilled workers both for the public and the private sector. Another challenge for businesses lies in the rather small market size of Rwanda due to a lack of digital skills, especially in the rural areas. Growth is therefore challenging and additionally affected by limited access to investment and venture capital for the development of innovative solutions and services. Another potential lies in the digital inclusion and empowerment of women in tech. Although 34% of ICT university graduates are female, the number of women in tech professions is still as low as 20%.

## Solutions

The Digital Economy and Digitalization portfolio in Rwanda supports both the public and the private sector in transferring knowledge and skills as well as in developing organizational, structural, and technological capacities. Instruments include organizational development, support to policy creation and dialogues, capacity-development, solution development and ecosystem-building. Within this scope, the Digital Economy and Digitalization cluster focuses on these focus areas:

### Public Sector Innovation

To improve public services and enhance efficiency of government offices, the Digital Economy and Digitalization cluster supports the public sector through the development of digital solutions. For that purpose, the cluster works closely with RISA to manage digitalization requests from public offices across all sectors and to build a sustainable architecture using ICT building blocks. So far, 22 digital solutions have been developed including the Government Enterprise Repository for the Rwandan government, which simplifies the inventory of applications and IT infrastructure as well as their budget planning.

### Artificial Intelligence(AI)

In this focus topic, the Digital Economy and Digitalization cluster 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. For example, the cluster has supported the development of the Mbaza Chatbot, which was built to inform Rwandan citizens about Covid-19 related data, has been already accessed by 2 million unique users.



*L: During the Cybertech Africa conference 2023 we signed an MOU with the National Cybertech Security Authority Strengthening Rwanda's cybersecurity through Capacity Building & Research Collaboration for the Rwandan Cybersecurity Academy.*

*R: a delegation of the German embassy, BMZ central Africa a division visiting a smart waste management system at*



Norman Schräpel  
Head of Digital Economy & Digitalization Cluster  
norman.schraepel@giz.de  
**Social Media**  
Twitter: @DigiCenterRW  
Facebook: DigiCenterRW  
Website: www.digicenter.rw

*L: The Launch of Smart City Hub Rwanda at the Africa Smart cities Investment Forum 2023*

*R: in partnership with MINICT we handed over IT lab equipment to G.S saint Pierre Nkombo students.*

## Promoting Startups and Innovation within the Digital Ecosystem

To mitigate the challenge of Rwanda's rather small market size and limited access to funding, the Digital Economy and Digitalization cluster tackles these obstacles from three angles: 1. by providing trainings and consulting services on various ICT and business management topics to startups; 2. by implementing design challenges, **incubation**, and accelerator programs; and 3. by supporting networks and innovation hubs as well as hosting community events. For example, 28 Rwandan startups have benefitted from the Open Innovation Program to improve their ideas, products, and services.

## Digital Inclusion & Digital skills.

In the interest of closing the digital divide in Rwanda, interventions in this area aim at fostering digital literacy and digital inclusion. As a crucial step, the Digital Economy and Digitalization cluster supported the development of a National Strategy for Digital Inclusion. Based on this policy, training interventions for various target groups such as women and people with disabilities have been implemented. For example, the cluster has supported the Digital Ambassador Program through which more than 90.000 Rwandan citizens have already been trained on basic ICT skills.

## Impact

22	1900	159	191	14
Solutions Developed	Professionals trained	Events hosted	Startups hosted	Policies developed

## Smart cities

To reduce duplication of efforts and silos, the cluster focuses on improving the coordination among Smart City ecosystem players and to strengthen partner capacities for a successful implementation of Smart City solutions. Therefore, support is provided to setup an overall coordination entity for all Smart City related activities, the Smart City Lab, to fill the gap of funding opportunities, skilling programs and testing. So far, the cluster has successfully implemented an accelerator program for Smart City startups (Smart City Innovation Program), organized a study tour to Sweden and developed the Smart Waste Management Dashboard.

## Principles

The work of the Digital Economy and Digitalization cluster is based on the principles stipulated by the 2030 Agenda for Sustainable Development: 1. Human Rights-Based Approach, 2. Leave No One Behind and 3. Gender Equality and Women Empowerment

## Partners

The main partners are MINICT, 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), National Industrial Research and Development Agency (NIRDA), and the Rwanda ICT Chamber.

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Digital Transformation Center Rwanda  
41 KN Str 17  
P.O. Box 59 Kigali Rwanda  
Phone +250 252 572 439  
Fax +250 252 572 439  
dtc-rwanda@giz.de  
www.giz.de/rwanda

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Photographer a: page 1  
Photographer b: page 2

### Text

Sandra Niyigena Kayitaba

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