

Fintech in Rwanda Market Scan



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Why this report

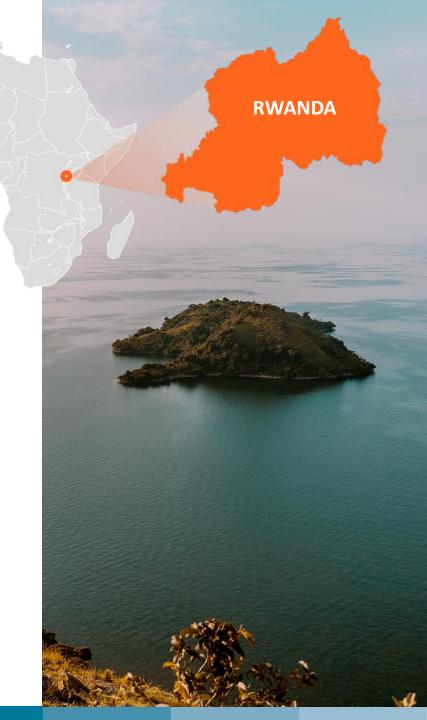
This report aims to inform and create a better understanding of the fintech sector in Rwanda.

It is intended for interested individuals and businesses that want to explore the fintech sector in Rwanda.

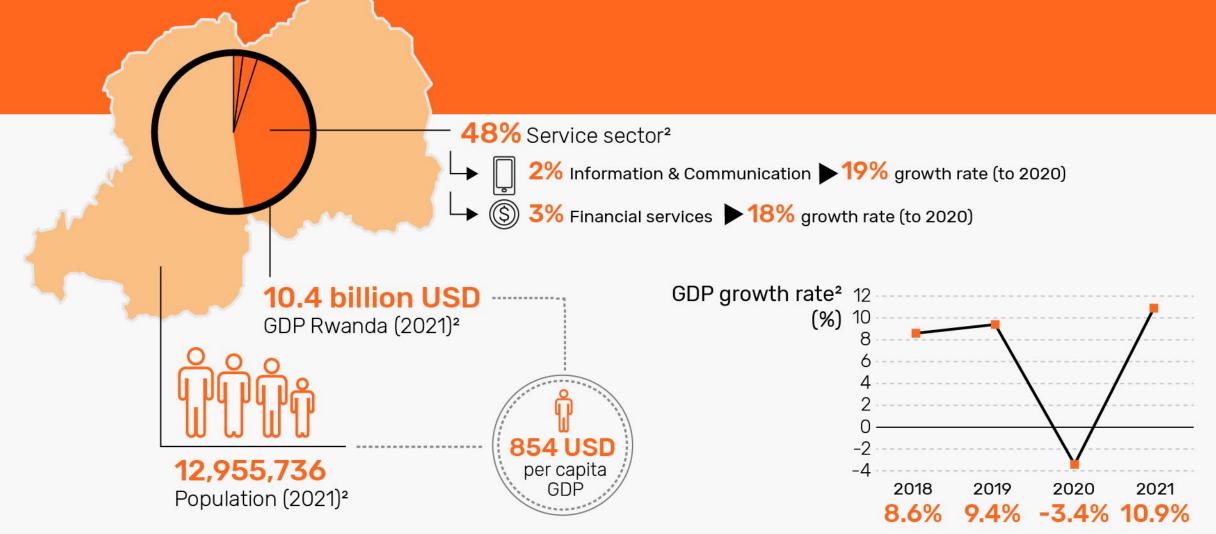


About Rwanda

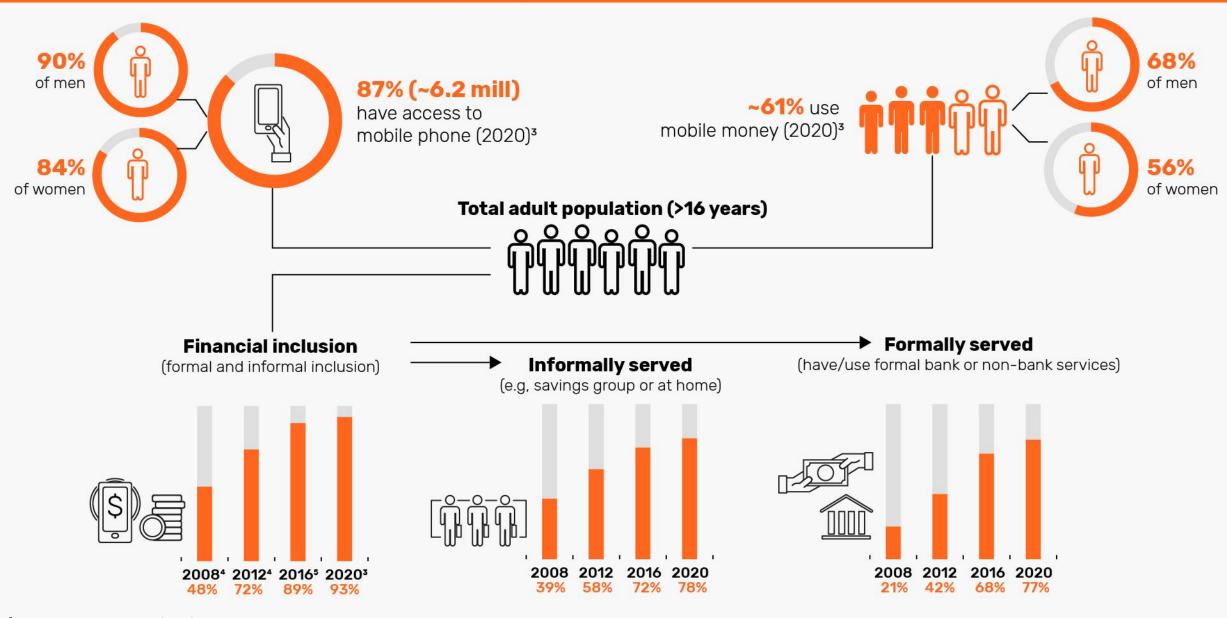
- Rwanda has one of the fastest growing economies on the continent in recent years, with a growing and young working population.
- Rwanda is strategically located in the heart of Africa.
 Businesses have access to a regional market of 345 million people from Eastern and Central African countries.
- Rwanda is a safe and stable country and ranks 2nd of Africa on the Ease of Doing Business Index of the World Bank¹.
- Rwanda has a young and growing bilingual, educated workforce. This can be seen in the growing pool of tech talent.



Fintech in Rwanda Factsheet



Mobile (money) access and financial inclusion



³ Access to Finance Rwanda (2020).
 ⁴ Access to Finance Rwanda (2012).
 ⁵ Access to Finance Rwanda (2016).

Financial Institutions in Rwanda

Licensed banks[•]

16



11 Licensed commercial banks
3 Licensed microfinance banks
1 Licensed cooperative bank
1 Licensed development bank

Cost to income ratio Banks

2020	80%
2021	72%



Licensed Microfinance Institutions (non SACCO)⁶





Total **assets** of MFIs⁷ 2021

> 2020 2021 Assets growth rate: +5.4% +16.8%

66.9% Banks 9.2% Insurance 17% Pension 5.6% MFIs 0.9% Private pension 0.4% NDFIs

Total assets of financial sector in 2021': RWF6,914 billion



RWF386 billion

Total outstanding loans of financial sector in 2021': RWF2,729 billion

416



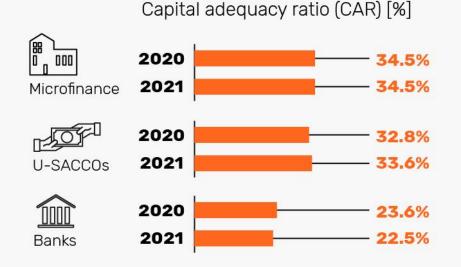
Umurenge Savings and Credit Cooperatives Societies (SACCOs)^e



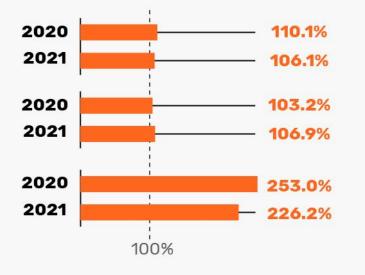
⁶ National Bank of Rwanda (2021).

⁷ National Bank of Rwanda (2021). Annual Financial stability report 2020–2021.

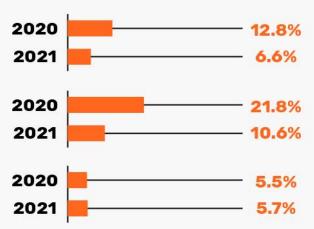
These indicators provide an insight into the efficiency, performance and profitability of various financial institutions in Rwanda.







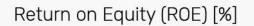


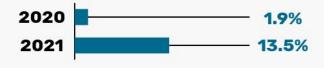






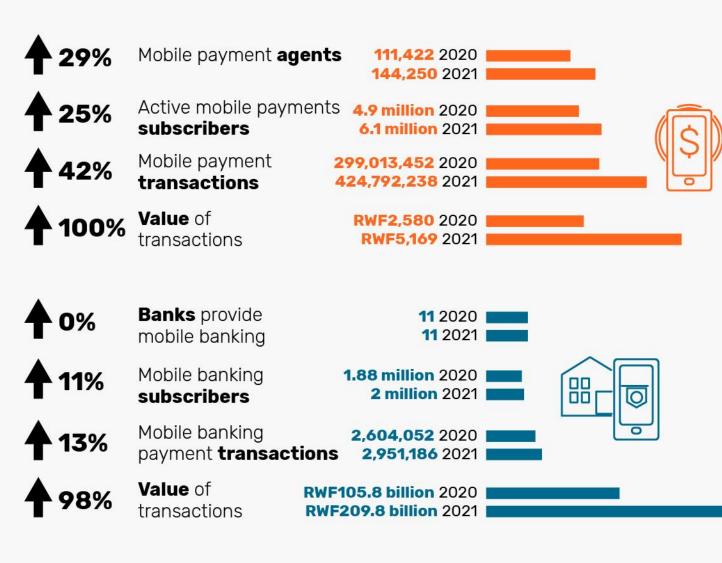








Mobile payments and banking[°]



Fintech sector overview¹⁰



⁹ National Bank of Rwanda (2021). Annual Financial stability report 2020–2021.
 ¹⁰ Cenfri (2022).

1. Fintech in Rwanda

Fintech is a growing sector throughout Africa. In 2021 only, African fintech's attracted over \$2 billion USD in investments. Also in Rwanda, the sector has been developing rapidly over the years. The following section provides a brief overview of some of the characteristics of the fintech sector in Rwanda, including challenges and opportunities.

What is Fintech?

Fintech refers to the use of technology to deliver financial services and products to consumers. This could be in the areas of banking, insurance, online payments, savings, investing and so on.

Fintech solutions are often faster, cheaper, have lower transaction costs and increase financial inclusion.



Government ambitions for fintech

- The Government of Rwanda (GoR) is ambitious when it comes to fintech. Amongst others, they want to become a financial hub for the region. The goal is to advance the competitiveness of Rwanda in the international financial sector and to attract international investments to Africa. Various initiatives are put in place to realise this ambition, such as the Kigali International Financial Center (KIFC).
- S
- The government is pushing for a conducive business environment to attract and support new and existing fintech companies. The government is putting in place regulatory instruments to support fintech companies, such as regulatory sandbox frameworks.



• The digitalisation and innovation agendas of the GoR are guided by various national-level policy frameworks such as the *National Financial Inclusion Strategy*¹¹ and the *Rwanda Payment System Strategy*¹².

Fintech in Rwanda at a glance

Rwanda is a suitable country **to pilot new business models**: the market might be small but is well-organized and manageable. Moreover, regulatory frameworks are clear, and the government is eager to test and launch innovations.

The demand for (complex) digital products is high amongst the Rwandan population and growing within the financial sector, driven by ambitious government policies and strategies to digitally transform the economy.

There is a **need for (foreign) expertise and capacity building** as local capacity and expertise on digital technology and respective integration at financial institutions (e.g., commercial banks, MFI's and SACCO's) is still somewhat limited.

Digitalisation is a priority amongst development actors. Fintech companies and development organizations can complement each other to jointly introduce effective and inclusive digital products in emerging markets.

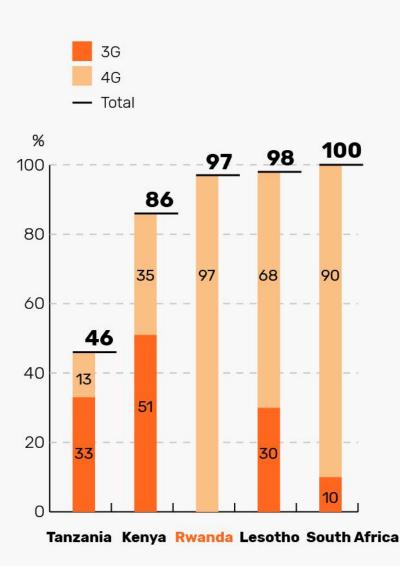
> The agricultural sector remains one of the major economic sector in Rwanda, significantly contributing to the county's GDP and employing majority of the working the financial population. Digital services are increasing financial inclusion by transforming the way financial services reach endconsumers. The demand for fintech solutions continues to rise in this which major sector, creates opportunities on the nexus between agriculture and fintech.

Communications infrastructure

Rwanda is experiencing a digital transformation, which is reflected by high mobile coverage and penetration. The country has 4G coverage of 96.6%, an impressive number considering the overall economic development of the country (Figure 1).

Internet coverage has grown rapidly over the past years. Access to international bandwidth experienced unprecedented growth in recent years (i.e., from approximately 6000 Mbps in 2015 to nearly 60.000 Mbps in 2019)¹⁴.

Rwanda heavily invested in a reliable fibre optic backbone of 7000 kilometers to further solidify the coverage throughout the country¹⁵.



Mobile money usage

In 2020, approximately 87% of Rwandan adults had access to a cellphone. 60% of the adults use mobile money for transactions, a significant increase in use compared to 46% in 2016¹⁶.

In 2020, the use of mobile money strongly exceeded the use of traditional bank accounts for transactions, showing an increasing adoption of digital technology for financial services (Figure 2).

Transactional account usage (%)

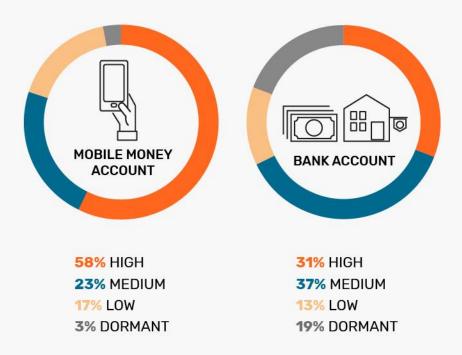
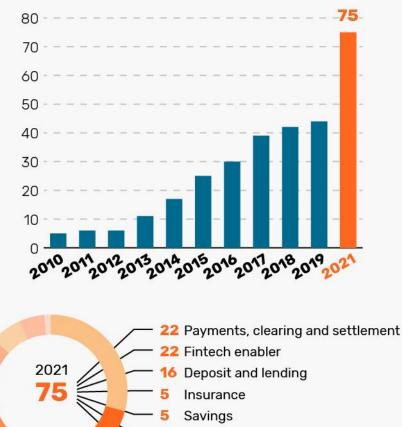


FIGURE 2: Mobile money constitutes the largest proportion of transactions initiated in Rwanda¹⁷

Fintech start-ups in Rwanda

Rwanda's fintech sector is rapidly developing. While many businesses are still at an early stage, the number of fintech start-ups is growing every year (Figure 3). According to the latest estimates, the sector counts approximately 75 businesses.

The ICT sector in general includes many incubator and accelerator programmes as well as entrepreneurship hubs that support the start-up ecosystem such as the FintechHub, kLab, Norrsken, and Impact Hub Kigali. These ecosystem facilitators provide training, network, and workspace to start-ups. Number of fintech start-ups in Rwanda at year-end (2010–2021)



Capital raising

Crypto assets

FIGURE 3: Rwanda knows an increasing fintech start-up ecosystem¹⁸

Economic and fiscal incentives

The government of Rwanda put in place economic and fiscal incentives to support and attract foreign investors to invest in the country's major sectors (e.g., manufacturing, energy, ICT).¹⁹

Incentives that apply for the ICT sector include:

- **Preferential corporate income tax rate of 15%** for registered investors in the ICT sector.
- Value added tax refund for ICT materials.
- Corporate income tax holiday of up to five (5) years for licensed microfinance institutions.
- Exemption from capital gains tax upon the sale of shares, provided the shares were initially purchased as a primary equity issuance by the start-up invested maximum \$500K.

Fintech businesses with new and innovative products or services can apply for a regulatory sandbox license. The license is provided by National Bank of Rwanda (BNR) and enables fintech players to experiment with innovative financial products or services within a well-defined space and duration. Guidelines for the sandbox are being developed by the Rwanda Utilities Regulatory Authority (RURA) and BNR.

For more information on incentives, please visit: <u>https://rdb.rw/investment-opportunities/ict/</u>



Challenges

- **Small national market** the small size of the national economy is a challenge, especially compared to other economies in the region.
- Data localization requirements the National Data Revolution Policy requires national data to be hosted locally or outside the country on agreed terms. Besides the high incurred costs this can lead to, the current in-country capability and infrastructure for data storage is inadequate.
- Low **financial and digital literacy** low literacy levels for both metrics impedes the adoption of digital technology.
- Limited human resource pool a lack of trained professionals is an issue in Rwanda. This is especially for senior IT capacity.
- Skills gap there is a mismatch between the digital and soft skills of (recently graduated) IT professionals and demanded skills by (international) businesses. Several training programmes have been set up to tackle this issue.
- Licensing and integration with traditional financial sector can be strenuous. A lack of clarity around the complex licensing processes is mentioned as an issue. Furthermore, the integration with traditional financial institutions can limit innovation and can be attributed to: (1) Limited in-house technological capacity at financial institutions, and (2) Low adoption rates of new technologies.

Opportunities

Through discussions with sector leaders and representatives, the following fintech opportunities were identified:





Insurance tech

In general, the insurance sector is still underdeveloped. The increasing amount of data collected through the digitisation of traditional sectors, especially in agriculture, is expected to increase the offering of insurance products. Furthermore, the overall uptake of insurance is growing in Rwanda.

This in turn creates opportunities for digital insurance products and services.

Wealthtech

Currently there is limited to no provision of capital market products and wealth management services in Rwanda. Offering these products and services is part of the mandate of KIFC. Furthermore, the KIFC aims to attract investments to Rwanda which can create a slipstream of opportunities for wealthtech companies.

The provision of wealthtech solutions is expected to rise, following the trend seen throughout the continent.

Regtech and cybersecurity

With the growing adoption of digital technologies, the need for compliance related technology is increasing (e.g., complying with financial regulation, data compliance and protection).

This leads to opportunities within regtech and cybersecurity. Especially the latter is often seen as a lacking aspect within economies that experience rapid digital transformation.

Opportunities

Through discussions with sector leaders and representatives, the following (enabling) opportunities were identified:

Business process outsourcing (BPO)

Although BPO services are not always directly linked to the financial industry, it is worth mentioning in the context of Rwanda. The RDB expects the BPO segment to see the largest growth rates within the countries' ICT sector in the coming years.

The GoR is working on improving competitiveness of Rwanda to attract more BPO companies, providing clear opportunities to tap into.

Data analytics

The digital transformation of the Rwandan economy and financial industry is accompanied by an increasing amount of (financial) data. However, sector observers mentioned that this wealth of data is being analysed only to a limited extent (e.g., mobile money user data).

This trend provides opportunities for businesses specialised in (financial) data analysis or software developers active in the field of data analytics.

Capacity building

The limited skill capacity on an institutional and private sector level creates opportunities for businesses involved in capacity building and training activities. Α skill gap between ICT and labour graduates the market is highlighted as a major challenge in the country.

The demand for improved skills ranges from advanced digital skills to soft skills which are especially relevant when working in cross-border teams.

Fintech in Agriculture

\$

Fintech solutions are reshaping financial the provision of services in agriculture. Loan management systems, digital overdrafts and payment platforms for agricultural inputs are solutions that increase finance and access to its affordability.

The market for fintech solutions (in)directly in agriculture is not saturated yet and offers opportunities for services such as payments and lending.

2. Services in the fintech space

Financial technology includes various products/services targeting different clients and customers. As such, each product/service domain has its own characteristics, key players and developments.

The following section touches upon different services provided in the Rwandan fintech sector.

Fintech services in Rwanda

According to the report, 'The Fintech Landscape in Rwanda'²⁰, the fintech services provided in Rwanda can be categorized into five domains. Each domain has its own challenges and opportunities, which are highlighted in the following slides. This categorization leaves out specific fintech services that are starting to break ground in Rwanda (e.g., crypto-related services and wealth management solutions).

THE FIVE SERVICE DOMAINS ARE:



Payments

A large group of fintech's in Rwanda provide payment products and services, operating in the slipstream of government initiatives that aim for a cashless society by 2024. The government and the National Bank of Rwanda are applying reforms to reduce the use of cash, making digital payment solutions increasingly important²¹.

In 2020, 45% of the Rwandan population either sends or receives money from people living abroad²². Mobile money is pushing the trend to remit money through formal channels. Given the quantity and importance of cross-border payments, this could be an interesting opportunity to tap into. Incoming remittances from diaspora reached \$296.5 million between 2020-2021²³.

There are limited opportunities for new (foreign) payment providers, based on the significant number of active players and offered products/services. The main opportunities would lie in solutions in the field of (pan-African) remittances platforms.



Lending & Financing

In Rwanda, innovations in digital lending and financing are enabling (financial) service providers to offer better products to more underserved clients in a faster, more cost-efficient, and engaging ways.

The provision of lending services is still at an early stage. Traditionally, the lending model in Rwanda (i.e., mostly through bank-offered products) focusses on corporate sectors. However, offered fintech solutions are expanding especially because an increasing amount of fintech companies are targeting other high potential sectors such as agriculture and energy. Fintech's are using alternative data sources to assess creditworthiness and extend financing solutions to the small and medium enterprise (SME) sector and the low-income population²⁴.

The need to digitise MFI's and SACCO's creates opportunities for new entrants with innovative solutions. These financial institutions have large networks of underserved customers but lack the capacity and means to reach them.



Savings

In Rwanda, the use of formal (bank or non-bank) saving products and services is relatively low. In 2020, 64% of the Rwandan population used, among other methods, informal savings channels to save their money, such as saving groups²⁵.

The number of Rwandans that save through formal channels is growing but has not yet reached similar levels of informal methods (Figure 4). This shows potential for fintech companies to provide a variety of saving products, either B2C or B2B. In combination with the digitalisation of financial institutions (i.e., especially in the MFI and SACCO segment), this domain creates opportunities for new entrants that provide digital savings solutions.

0%		% 10	100%	
		BANK SAVING PRODUCTS	21% 2020 14% 2016	
FORMAL		MFI	6% 2020 3% 2016	
		MOBILE MONEY	25% 2020 19% 2016	
	<u>S</u>	PENSION FUND	7% 2020 2% 2016	
		UMURENGE SACCO	26% 2020 21% 2016	
INFORMAL	<u>[</u>	SAVING GROUPS	55% 2020	
		SOMEONE IN THE HOUSEHOLD	40% 2016 2% 2020 8% 2016	
		SECRET PLACE AT HOME	10% 2020 20% 2016	

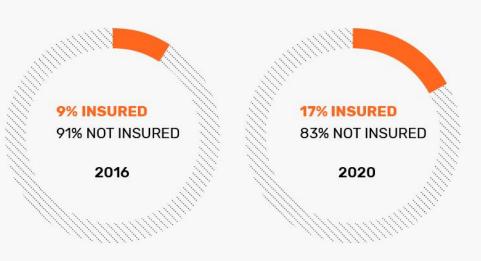
FIGURE 4: Sources of savings in Rwanda²⁶

Insurance

Although the use of insurance products is still low in Rwanda, the uptake is rapidly increasing in recent years (Figure 5). The main barriers for the uptake of insurance are affordability and a lack of awareness and knowledge on the usage, purpose and benefits of insurance products.

The growth in uptake and the fact that there is only a small number of digital insurance providers active in Rwanda, points to business opportunities for companies providing the insurance services. Especially on the nexus of fintech and agriculture, observers mention high opportunities as existing solutions are scarce.

Given the low awareness of insurance products and its benefits, activities related to capacity building and awareness raising could be included into the implementation of digital solutions (e.g., in collaboration with NGO's or other development organizations).





Enabling processes and technologies

These fintech's provide enabling technological solutions focussing on business-tobusiness (B2B) and business-to-government (B2G), not business-to-consumer (B2C). They offer solutions for financial institutions and other clients to enable an effective delivery of financial services.

Several software development and IT consultancy businesses occupy this space within the Rwandan fintech landscape. Amongst others, they provide solutions to the financial industry such as business process automation, e-governance solutions, credit risk management, and the development and implementation of digital banking systems. These fintech's provide solutions that allow their clients to provide digital products.

Given the growth trend of the fintech sector and increasing digitalisation of the financial industry, observers believe opportunities for enabling fintech's that provide crucial software, support and/or consultancy services will continue to grow as well.



Examples of active companies

Below are examples of businesses in the different fintech domains, to provide some insight into the type of fintech solutions that are already available on the Rwandan market.

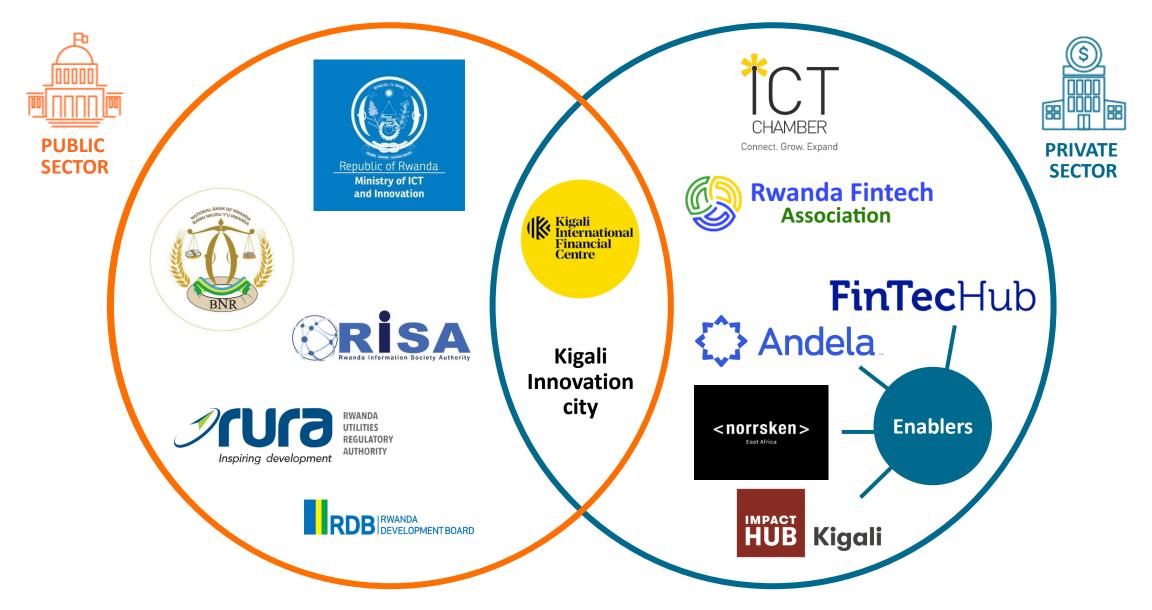




3. Stakeholders & initiatives

Alongside fintech companies, there are other stakeholders that contribute to the growth of the Rwandan fintech ecosystem. These stakeholders range from sector associations to development partners, private networks and public actors who are dedicated to create favorable regulatory frameworks and support.

The following section provides an overview of some of the key stakeholders in Rwanda.



The overview above presents some of the most important sector stakeholders both on the public and private side. Fintech's operating in Rwanda are often in contact and/or collaborating with these stakeholders when it comes to regulation or sector-wide activities.

Stakeholders

Stake	holders	Explanation
	Ministry of ICT and Innovation https://www.minict.gov.rw/	This is the ministry that addresses national priorities for economic growth and poverty reduction through the development and coordination of national technology and communication (e.g., Department of Innovation and Cybersecurity).
	National Bank of Rwanda (BNR) https://www.bnr.rw/home/	BNR ensures financial stability in a free-market economy as it embraces innovation, diversity, inclusiveness and economic integration such as the Rwanda payment system strategy. Depending on the products/services offered, some fintech companies might need to apply for a license at BNR (e.g., E-money issuance). BNR is also involved in the issuance of the fintech regulatory sandbox license , that allows companies to experiment with innovative solutions.
	Rwanda Information Society Authority (RISA) <u>https://www.risa.rw/home/</u>	RISA has the mission to digitise the Rwandan society through an increased usage of ICT as a crosscutting enabler for the development of other sectors. One of their focus areas is skills development in the ICT sector.

Stakeholders

Stakeholders	Explanation
Rwanda Utilities Regulatory Authority (RURA) https://rura.rw/index.php?id=23	RURA is a key regulator in the ICT sector (affiliated to the Ministry of ICT and innovation). Besides drafting regulation, RURA is also involved in the development of the regulatory sandbox that aims to attract innovative and disruptive fintech solutions to Rwanda.
Rwanda Development Board (RDB) https://rdb.rw/	The Rwanda Development Board is a government department that integrates all government agencies responsible for the attraction, retention and facilitation of investments in the national economy. Amongst others, RDB provides sector specific investment incentives and is the key institution for businesses to register their company (for more info on business registration, please visit the RDB or <u>TRAIDE</u> website).
Kigali International Financial Centre (KIFC) https://rfl.rw/	The KIFC is a financial center that aims to transform Rwanda into an international financial destination for investors seeking opportunities across the African continent. See page 34 for more information.
Kigali Innovation City (KIC)	KIC is currently being developed and aims to be a mixed-use, master- planned, innovation city that will seek to facilitate the development of pan-African talent whilst acting as a technology innovation hub.

Stakeholders

Stakeholders	Explanation
ICT Chamber https://ictchamber.rw/	The ICT chamber is a member-based organization set up in 2012 to strengthen the ICT value chain ecosystem. Objectives of the chamber include facilitating digital innovations, stimulating entrepreneurship, supporting existing members with growth pathways, and increase the adoption of digitalisation in the ecosystem.
Image: Second system Rwanda Fintech Association http://www.rwandafintech.org/	Non-profit sector association uniting some of the leading fintech companies in Rwanda. The association organizes capacity building and network activities.
Enablers	There are various incubators, accelerators, tech hubs, and IT training programmes that support (Rwandan) fintech startups to grow and scale. These include the Fintech Hub, Norrsken, Impact Hub Kigali and Andela.

To keep an eye on: Kigali International Financial Centre (KIFC)

Kigali International Financial Centre

KIFC is a government initiative that aims to position Rwanda as a major business and financial hub in Africa and drive pan-African investments. Rwanda Finance Limited is in charge of promoting and developing the KIFC through investment promotion, policy advocacy and sector upskilling.

KIFC works closely together with the GoR and other stakeholders to build an innovation-friendly regulatory environment and attract investment funds and venture capital into the fintech sector.

Early 2022, it announced the launch of a \$50 million investment fund for the African fintech space, to further develop the sector, connect global investors to local fintech opportunities and create a thriving fintech sector in Rwanda and other African countries²⁸.

Through coordinated projects, bilateral (tax) agreements, and partnerships, the KIFC facilitates knowledge sharing and trade between countries and financial centres. An example of such a project is the realization of a pan-African diaspora investment platform, an initiative for which the KIFC is seeking investors.



The Netherlands & Rwanda in Fintech

The Netherlands is one of the leading countries in developing and adopting digital technologies in the financial sector. With new innovations from disruptive start-ups to larger financial institutions that are embracing digitalisation, the Netherlands is globally recognized as a fintech hub.

The TRAIDE programme aims to increase sustainable trade and investments between the Netherlands and Rwanda. Several Dutch organizations and fintech solutions already found their way to Rwanda, such as Simbuka, MoneyPhone, 100 Weeks, and Maji Milele (subsidiary of Water Forever). At TRAIDE, we aim to support even more Dutch companies and initiatives to become part of the Rwandan fintech sector.



4. References

References

¹ World Bank (2020). Doing Business 2020.

https://www.worldbank.org/en/programs/business-enabling-environment/doingbusiness-legacy

² National Institute of Statistics of Rwanda (2022). <u>http://www.statistics.gov.rw</u>

³ Access to Finance Rwanda (2020). Financial Inclusion Rwanda 2020. https://www.statistics.gov.rw/publication/finscope-rwanda-2020

⁴ Access to Finance Rwanda (2012). Financial Inclusion Rwanda 2008-2012. <u>https://www.statistics.gov.rw/publication/finscope-survey-report-2012</u>

⁵ Access to Finance Rwanda (2016). Financial Inclusion Rwanda 2016. <u>https://www.statistics.gov.rw/publication/finscope-rwanda-</u> 2016#:~:text=The%20FinScope%20Survey%20not%20only.policy%20interventions%20

to%20be%20assessed.

⁶ National Bank of Rwanda (2021). List of Licensed Banks, MFIs, and SACCOs. https://www.bnr.rw/financial-stability/bank-supervision/licensed-banks/ and https://www.bnr.rw/financial-stability/microfinance-institutions/list-of-licensed-mfisand-sac/

^{7,8,9} National Bank of Rwanda (2021). Annual Financial stability report 2020-2021. https://www.bnr.rw/news-publications/publications/financial-stability-reports/

¹⁰ Cenfri (2022). Fintech in Rwanda Webinar Presentation (TRAIDE).

¹¹ Ministry of Youth and ICT (2017). National Data Revolution Policy. <u>https://statistics.gov.rw/publication/rwanda-national-data-revolution-and-big-data</u>

¹² National Bank of Rwanda and Ministry of Finance and Economic Planning (2018). Rwanda Payment System Strategy 2018–2024. <u>https://www.bnr.rw/payment-</u> systems/policies/?tx_bnrdocumentmanager_frontend%5Bdocument%5D=209&tx_bn rdocumentmanager_frontend%5Baction%5D=download&tx_bnrdocumentmanager_fr ontend%5Bcontroller%5D=Document&cHash=99f1bb2e46865242a30cbe8df8127020

^{13,14} World Bank (2020). Rwanda Economic Update: Leveraging Digital Transformation for Sustainable Growth.

https://www.worldbank.org/en/country/rwanda/publication/rwanda-economicupdate-leveraging-digital-transformation-for-sustainable-growth ¹⁵ Rwanda Development Board (2021). Business Process Outsourcing (BPO) Rwanda Opportunity.

^{16,17} Access to Finance Rwanda (2020). Financial Inclusion Rwanda 2020. https://www.statistics.gov.rw/publication/finscope-rwanda-2020

¹⁸ Cenfri (2022). Fintech in Rwanda Webinar Presentation (TRAIDE).

¹⁹ Rwanda Development Bank (2021). Investment Code 2021: LAW N° 006/2021 OF 05/02/2021 on investment promotion and facilitation.

²⁰ UNCFD (2019). The Fintech Landscape in Rwanda 2019. https://www.uncdf.org/article/5216

²¹ National Bank of Rwanda and Ministry of Finance and Economic Planning (2018). Rwanda Payment System Strategy 2018–2024. <u>https://www.bnr.rw/payment-</u> <u>systems/policies/?tx_bnrdocumentmanager_frontend%5Bdocument%5D=209&tx_bn</u> <u>rdocumentmanager_frontend%5Baction%5D=download&tx_bnrdocumentmanager_fr</u> <u>ontend%5Bcontroller%5D=Document&cHash=99f1bb2e46865242a30cbe8df8127020</u>

²² Access to Finance Rwanda (2020). Financial Inclusion Rwanda 2020. <u>https://www.statistics.gov.rw/publication/finscope-rwanda-2020</u>

²³ National Bank of Rwanda (2021). Annual Report 2020-2021. <u>https://www.bnr.rw/news-publications/publications/annual-reports/</u>

²⁴ UNCFD (2019). The Fintech Landscape in Rwanda 2019. https://www.uncdf.org/article/5216

^{25,26,27} Access to Finance Rwanda (2020). Financial Inclusion Rwanda 2020. https://www.statistics.gov.rw/publication/finscope-rwanda-2020

²⁸ KIFC News (2022). The Kigali International Financial Centre (KIFC) announces the first Fintech-focused Africa Fund at a high-level forum in Dubai. Retrieved from <u>https://rfl.rw/news.php?url=dubaievent</u>



Visit our website: www.traide.org to find more information about our activities related to the fintech sector and general information with respect to doing business in Rwanda.

Get in touch with us via <u>meanda@traide.org</u> to discuss how we can assist you and to learn more about our upcoming activities.

This market scan was commissioned by the Embassy of the Kingdom of the Netherlands in Rwanda and the TRAIDE Foundation.

