

Infrastructure for Open Banking in Africa The BluePrint



Introduction

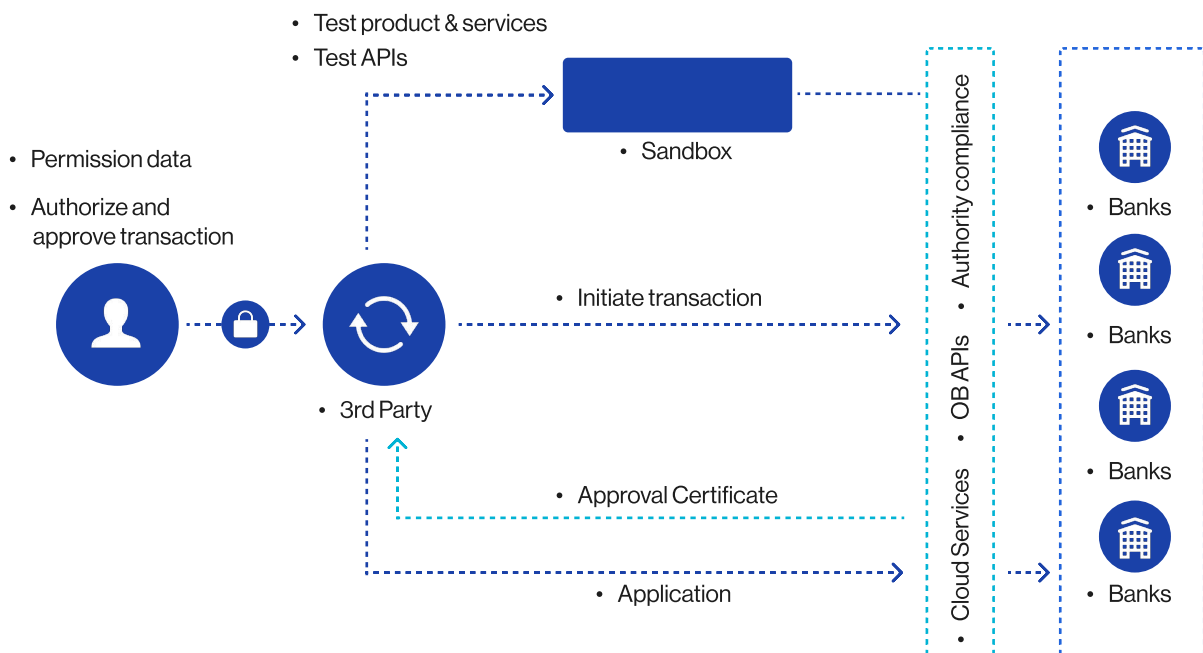
Overview and Drivers of Open Banking

The sharing of customer-consented financial data amongst Regulated Financial Institutions (RFIs) for the provision of financial and non-financial personalized services is becoming a mainstream strategic agenda for most central banks worldwide. Breaking barriers where one institution holds customers' data and cannot share or be used on similar service provision taking a new decentralized approach through the adoption of Open Banking.

Open Banking, which allows third-party developers to build applications and services around financial institutions to share vital data for the provision of new or personalized services to customers who need them. This Open Banking project provides a holistic business model in that financial and non-financial data-holding institutions automatically and securely share consumer-permissioned data through an application programming interface (API).

Several countries have laid grounds for OB to grow and network with third-party technology providers to develop secure infrastructure for smooth open banking. While Open Banking has gained momentum in Europe and parts of Asia, Africa's unique financial landscape characterized by high mobile money usage and fintech innovation positions it as a fertile ground for Open Banking adoption.

Figure 1: Open banking framework



Source: Agpaytech 2025

Drivers of Open Banking in Africa

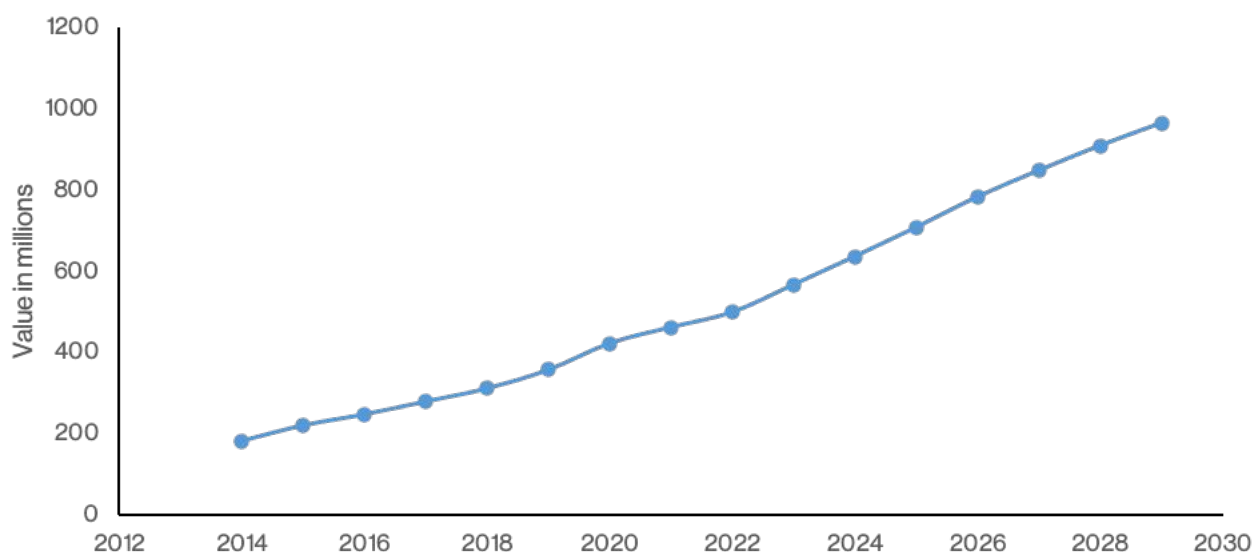
Africa's financial ecosystem is characterized by a mix of traditional banking, mobile money, and emerging FinTech solutions. Mobile money services like M-Pesa in Kenya have demonstrated the potential of digital financial services to transform economies. However, the lack of interoperability between systems and the absence of a unified regulatory framework hinders the full realization of open banking's potential. Despite these challenges, Africa's youthful population, increasing smartphone penetration, and growing fintech sector present a fertile ground for open banking adoption.

Accelerating Smart Devices and Digital Financial Services is a Major Boost

Mobile phone ownership in Africa is high with some surveys indicating over 80% ownership across the continent but access to the internet is relatively low. Statista Insight (2024) provided that Africa's share of global internet users is 13% with North Africa being the region with the most internet users. With over 500 million mobile phone users in Africa, mobile banking and payments have become ubiquitous, providing a foundation for Open Banking. Nigeria has the largest mobile market in Africa, with 217.5 million subscriptions at the end of 2023.

80% Mobile phone ownership across the continent	500M Mobile phone users in Africa
13% Africa's share of global internet users	217.5 M Subscriptions at the end of 2023 in Nigeria

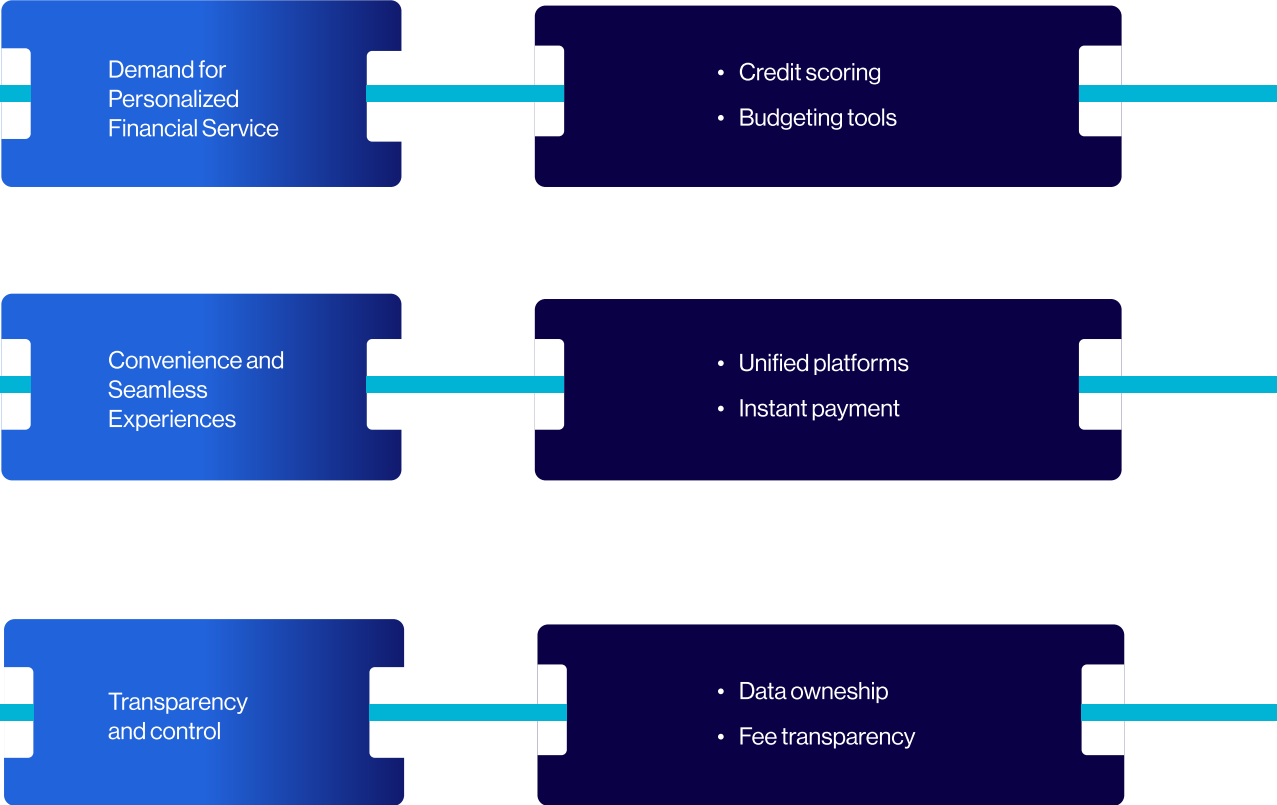
Figure 2: Number of Internet Users in Africa



Source: Statista 2025

Consumers Need Open Banking More than Ever

African consumers are increasingly seeking financial products tailored to their unique needs. Open banking enables the creation of personalized services by allowing third-party providers to access consumer data (with consent) and develop customized solutions. There is a growing demand for personalized, convenient, and transparent financial products that Open Banking can deliver. Open banking empowers consumers by giving them greater control over their financial data. This transparency builds trust and encourages adoption. Consumers can choose which third parties access their data and for what purpose. Open banking enables consumers to compare fees and services across providers, promoting competition and better pricing.



Government and Regulatory Support is Increasing Globally

Open Banking projects have witnessed government-led regulatory approaches in notable countries like the EU, UK, India, Canada, etc. In Africa, countries like Nigeria, South Africa, Rwanda, Ghana, and Kenya are introducing regulations to support Open Banking, recognizing its potential to drive innovation and inclusion.

Table 1: Open Banking development in Africa

	Nigeria	South Africa	Kenya	Ghana	Rwanda
Preparation	Has declared official intention to adapt OB	The intention to start OB is incorporated into Vision 25 objective	OB initiative included in the Five-Year Digital Economy Strategy	OB was hinted at in Ghana's National Payment Systems Strategic Plan (2019-2024)	OB is based on the EU regulatory framework.
Approach	Regulatory led	Regulatory led	Unknown	Regulatory led	Regulatory led
Regulatory guidelines	Has issued guidelines on 17th February 2021	A consultation paper on OB was published by NPSD of SARB in November 2020.	Yet to issue official guidelines. OB initiative is proposed under the "Data Access and Management".	Draft OB directive on December 2024	Implementation of technical standards by 2024
API	Has issued a guideline on standard API	Lack of uniformity of APIs for OB	No specific guidelines on APIs	Yet to develop a road map for data sharing on API	Follows EU PSD2
Fintechs	Fintechs are collaborating with the Nigeria Open Technology Foundation	Fintechs have embraced OB	The fintech industry is the backbone of OB	Fintechs are ready for the initiative	Fintechs are ready for the initiative

Source: Agpaytech

More Fintech Firms and Techpreneurs Understand the Ecosystem Dynamism

Africa's vibrant fintech scene, with startups addressing everything from micro-lending to cross-border payments, is a key driver of Open Banking adoption. These Fintechs thrive on access to data and the ability to offer personalized, customer-centric solutions, which open banking facilitates by enabling secure data sharing between banks and third-party providers through APIs. For instance, fintechs leveraging open banking can analyze transaction data to offer tailored credit products to underserved populations or create seamless payment solutions that integrate multiple banking platforms.

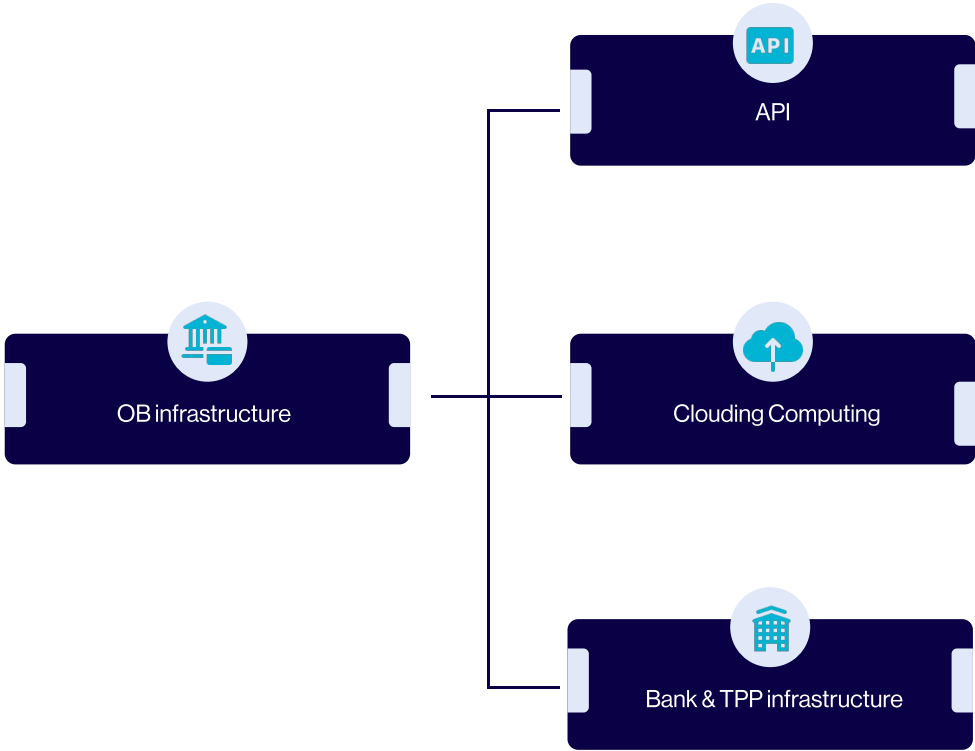
Fintech firms that could utilize open banking

Investment Platforms	   
Cross-Border Payments	   
InsurTech	  
Payment Processing	    
Telecom FinTechs	    
Cryptocurrency/Blockchain	   
Lending Platforms	    
Wealth Management	  
Buy Now, Pay Later (BNPL)	  
Ecommerce & Merchant Payment Process	  

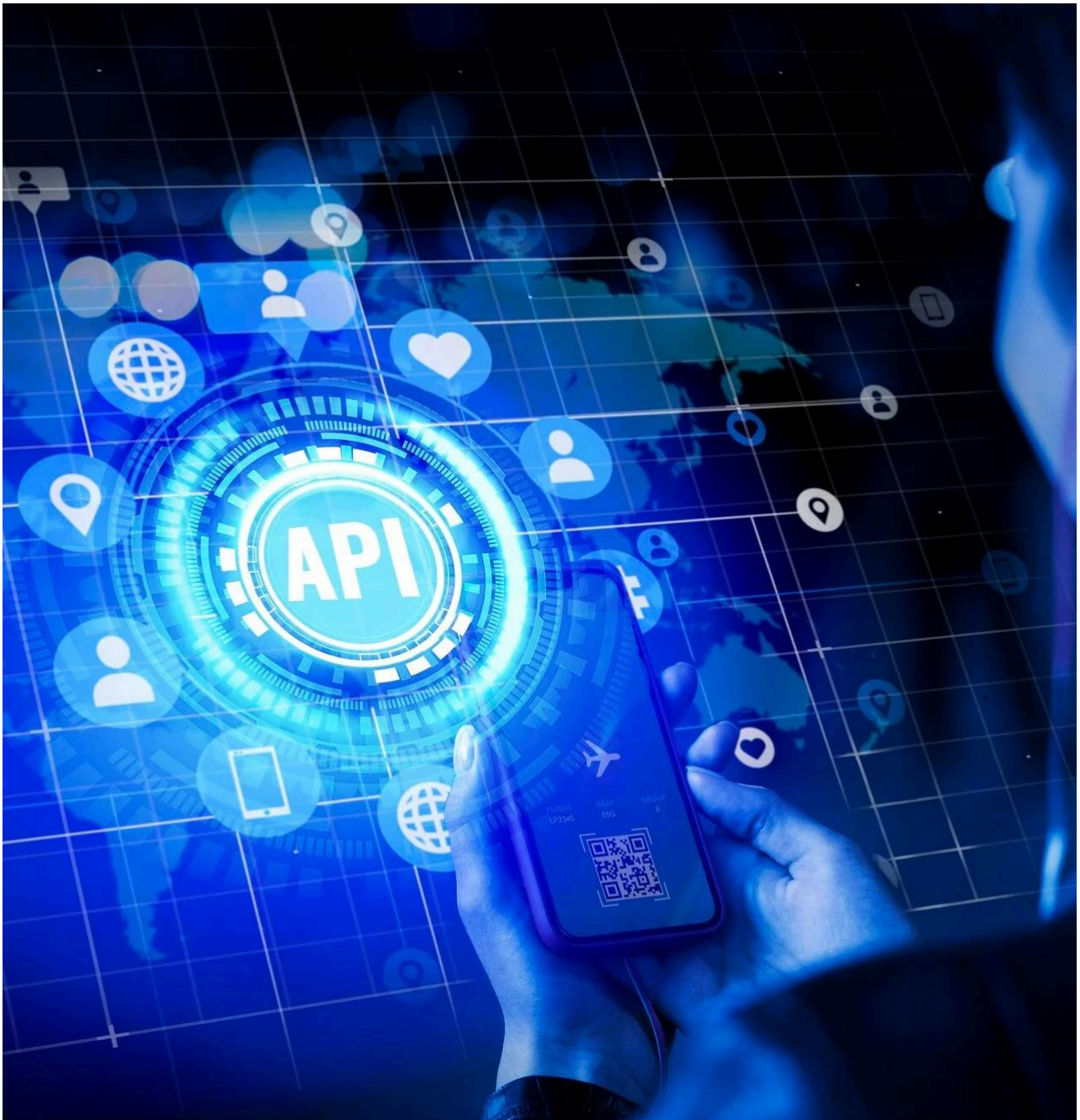
Infrastructure for Open Banking in Africa

Imagine a financial ecosystem where consumers can seamlessly switch between banking services, access personalized financial products, and make instant payments across platforms—all while retaining full control over their data. This is the promise of open banking, a transformative model that is reshaping the global financial landscape. However, unlocking this potential requires more than just innovative ideas it demands a robust and scalable infrastructure capable of supporting secure data sharing, real-time transactions, and interoperability across diverse systems. In Africa, where financial inclusion remains a critical challenge, building the right infrastructure for open banking is not just a technical necessity but a gateway to economic empowerment. From secure APIs and cloud computing platforms to cybersecurity frameworks and data privacy protocols, the foundation of open banking lies in the seamless integration of technology, regulation, and collaboration.

Figure 3: Key Components of Open Banking Infrastructure



Application Programming Interface (APIs)



Standardized, secure APIs are the backbone of Open Banking, enabling seamless data sharing and interoperability between banks and third-party providers. Standard APIs are required to facilitate seamless data sharing. In Open Banking, APIs act as the communication bridge between a customer's bank and third-party financial service providers, allowing these providers to securely access the customer's financial data with their consent, enabling features like budgeting tools, personalized financial advice, and account-to-account payments, all through a standardized interface provided by the bank.

Table 2 Open banking key uses

Key Uses of APIs in Open Banking

Data Sharing and Account Aggregation		Payment Initiation Services (PIS)	
APIs allow third-party providers (TPPs) to access bank customers' financial data (with consent) to offer personalized services.	A budgeting app can access a user's multiple bank accounts and provide a consolidated view of transactions.	APIs enable third-party providers to initiate payments on behalf of users	A fintech app like Wise or PayPal can facilitate direct payments from a bank account without needing a credit card.
Identity Verification & Authentication		Credit Scoring & Loan Approvals	
APIs help with Know Your Customer (KYC) and Strong Customer Authentication (SCA) to ensure secure access to financial data and prevent fraud.	OpenID Connect and OAuth 2.0 allow secure authentication for logging into financial apps using banking credentials.	Lenders and financial institutions use APIs to access real-time financial data for credit assessment and risk analysis.	Fintech lenders can analyze transaction history via APIs to offer instant credit decisions.
Cross-Border Payments & Currency Exchange		Regulatory Compliance & Reporting	
APIs facilitate international transactions by integrating with payment networks and forex platforms.	Remittance services like Western Union and Flutterwave use APIs for seamless money transfers.	Open Banking APIs support real-time reporting, fraud detection, and compliance with regulations like PSD2 (Europe) and CBK's Open Banking Framework (Kenya).	Banks use APIs to report suspicious transactions to regulatory authorities in real-time.
Examples of Open Banking API Standards			
UK Open Banking Standard (OBIE)	Europe's PSD2 API Framework	U.S. Financial Data Exchange (FDX)	Nigeria Open Banking API Standard v1
Benefits of APIs in Open Banking			
Faster transactions and personalized financial services.	Encourages fintech startups to build new solutions	APIs ensure controlled and encrypted data sharing	facilitate real-time payments and eliminate intermediaries.

Cloud Computing

Cloud infrastructure provides the technological backbone that supports the dynamic, interconnected, and secure environment required for Open Banking to thrive. Cloud computing plays a critical role in Open Banking by providing the infrastructure, scalability, and security needed for banks, fintechs, and third-party providers (TPPs) to develop and offer seamless financial services.

Table 3 Clouding computing in OB

Cloud Computing in Open Banking

API Hosting and Management		Data Security and Compliance	
Cloud platforms	(e.g., AWS, Azure, Google Cloud)	Cloud providers offer encryption, access controls, and compliance with financial regulations.	GDPR, PSD2).
Fraud Detection and Cybersecurity		Real-time Data Processing and Analytics	
Detects unusual transaction patterns in OB	Cloud-based Security Information and Event Management (SIEM) solutions	Enable real-time transaction processing	No delays Personalize experiences
Collaboration and Innovation		Open Banking as a Service (OBaaS)	
Enables FinTech to integrate with banks without extensive infrastructure	OB in sandboxes to test APIs	Some cloud providers offer OBaaS that allows banks to operate without building from scratch.	OBaaS solutions

Conclusion



Open Banking represents a transformative shift in Africa's financial ecosystem, enabling seamless data sharing, financial innovation, and greater financial inclusion. With a unique blend of mobile money dominance, rapid FinTech growth, and increasing regulatory support, Africa has the potential to unlock the full benefits of Open Banking. However, realizing this vision requires a robust infrastructure that integrates secure APIs, cloud computing, and strong regulatory frameworks to ensure seamless interoperability and data protection. By adopting standardized API frameworks, fostering public-private collaborations, and leveraging scalable cloud solutions, African countries can overcome existing barriers such as fragmented financial systems and regulatory inconsistencies. This will create an open, dynamic financial environment where consumers have greater control over their data, FinTech can build cutting-edge solutions, and financial institutions can drive deeper customer engagement. As more African nations embrace Open Banking, the continent has an opportunity to set a new global benchmark for financial innovation. The blueprint outlined in this report provides a roadmap for building an inclusive, secure, and competitive Open Banking ecosystem, one that empowers consumers strengthens economies, and drives Africa's digital financial transformation. The time to act is now, and collaboration between regulators, banks, FinTech, and technology providers will be the key to making Open Banking in Africa a success.

About Agpaytech

Agpaytech Ltd. is a company pioneering in the Fintech space with a focused approach to building robust technologies for e-commerce Card Processing Solutions for Payment Service Providers (PSPs). Additionally, we provide Compliance and Regulatory Umbrella, Remittance-as-a-Service (RaaS), Banking-as-a-Service (BaaS), Foreign Exchange, Cross Border Payments, and digital currency technology.

We also provide practical white paper research support to central banks, government and private institutions, economic organizations, and NGOs in Africa. Our services expand from research projects, state-of-industry reports, project assessment, data collection, and consulting services in the fintech space.

Contact Us

United Kingdom

AGPAYTECH LTD.
3rd Floor, 86-90 Paul
Street
London, EC2A 4NE,
United Kingdom

United States of America

AGPAYTECH USA LLC
9701 Apollo Dr Suite 100
Largo MD, 20774,
United State of America



www.agpaytech.com



info@agpaytech.com

All rights reserved.

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording or any information storage and retrieval system, without prior permission in writing from Agpaytech Ltd.

The mention of specific companies, manufacturers or software does not imply that they are endorsed or recommended by the authors in preference to others of a similar nature that are not mentioned.