

Finternet:

Towards a Unified and Fully Interoperable Banking Future in Africa.

A deep dive into the current state of financial infrastructure and digital assets adoption through the lens of Nigeria, Kenya, South Africa and Rwanda.



Aurelio Mofuga

🌐 aureliomofuga.com

🌐 [Aurelio Mofuga](#)

✉ aureliochelestino@gmail.com

☎ +255 759 060 408 | Telegram: [@aurelio408](#)

📍 Dar es Salaam, Tanzania

Table of Content

Table of Content.....	2
I. Introduction.....	4
Brief Overview of Finternet.....	4
Why Africa, Why Now?.....	4
Financial Disintermediation as an Opportunity for Modernization.....	4
Africa’s Digital Assets Adoption Leads the Way Globally.....	5
AfCFTA – The Single Largest Opportunity for a Truly Pan-African Robust Financial Infrastructure.....	6
Purpose of the Report.....	6
II. African Fintech Market Assessment.....	7
Financial infrastructure landscape.....	7
Digital Banking and Payments Penetration.....	7
Regulatory environment for digital assets.....	8
Friendly Regimes Foster Innovation; The Predators Constrict Adoption.....	8
Key stakeholders and potential partners.....	8
1. Regulators and Central Banks.....	8
2. Digital Public Infrastructure and Policy Advocates.....	9
3. Humanitarian Organizations and Development Partners.....	9
4. Digital Assets Startups and Fintechs.....	9
5. Community Builders and Talent Developers.....	9
6. Event Organizers and Think Tanks.....	9
Technical infrastructure and talent.....	10
Innovation and Digital Asset Ecosystem Maturity.....	10
EVM remains the Largest Digital Assets Ecosystem Followed by Solana.....	10
Digital Asset Service Providers and Ecosystem.....	10
Technical Talent Availability.....	11
There are About 6438 Developers in Africa.....	11
Ethereum Leads as the #1 Developer Ecosystem in Africa.....	11
Multi-skilled Developers will power Finternet Ecosystem Growth.....	11
III. Use Case Deep Dive.....	12
Market gaps and Pain Points.....	12
Currency Depreciation Drives Inflation and Stablecoin Adoption.....	12
Trade Financing.....	12
Dollar Shortage and Liquidity Problems Affect Cross-Border Payments.....	13
Higher Remittance and Transaction Costs.....	13
Use case for Finternet.....	13
Development Sector Financing Pilots Could Pave way for Finternet Adoption.....	13
Cross-Border and FX Payments using Stablecoins.....	14
Trade Financing for SME and Smallholder Farmers.....	14
IV. Implementation Strategy.....	15
Market entry approach.....	15
Partnering with NGOs to Build Evidence Through Pilots in Development and Humanitarian Financing.....	15

Establish Finternet Working Groups for Financial Inclusion.....	15
Capacity Building and Real-World Use Case Development.....	15
Position Finternet as a Digital Public Infrastructure (DPI).....	15
Potential Markets and Compliance Pathways.....	16
Spotlight: Project Khokha - Blockchain Case Study for Central Banking in South Africa.	17
Goals Achieved.....	17
Critical challenges and solutions.....	17
User trust and education.....	17
Institutional resistance.....	18
Infrastructure gaps.....	18
Competition analysis.....	18
Risk assessment.....	19
Technical risks.....	19
Regulatory uncertainty.....	19
User adoption risks.....	19
Success metrics.....	19
User and Network Growth (Institutional and Last mile users).....	19
Products and Use Cases Growth.....	19
Transaction volume and velocity.....	20
Cross Border Payments Cost Reduction and Settlement Time to finality.....	20
V. Conclusion and Recommendation.....	21
Summary of findings.....	21
Final recommendation.....	21
1. Prioritize Institutional Client Acquisition to Drive Retail Adoption.....	21
2. Deploy Humanitarian Finance Pilots with NGOs to Build Evidence.....	22
3. Lead the Formation of Pan-African Tokenized Finance Working Groups.....	22
4. Build Developer Ecosystem and Incentivize Use Case Creation.....	22
5. Position Finternet as Digital Public Infrastructure (DPI).....	22
Broader implications for Africa’s financial future.....	22
VI. References.....	23

I. Introduction

Brief Overview of Finternet

Globally, robust payment infrastructure such as blockchain and unified ledger technologies have been touted as the solution for financial fragmentation due to their unique programmability, higher security, faster transaction and settlement speed, as well as their token-based architecture that opens up further opportunities for embedding self-executing smart contracts. Furthermore, tokenization of financial assets would, for the first time, enable seamless transaction and settlement of various assets such as stocks, investments, bonds, and even insurance repayments creating a truly globally interconnected and interoperable network of financial institutions.

Finternet is a novel approach to unifying global financial institutions, leveraging tokenization and unified ledger architecture to enable a robust financial system that works with both business and end user in mind. Finternet architecture allows for instantaneous cross-border payment settlements and lower cost high trust transactions, empowering billions of people and businesses worldwide. The novelty of Finternet hopes to supersede and put an end to the inefficiencies of the existing real-time gross settlement (RTGS) and traditional banking messaging services like SWIFT and other outdated systems for exchanging value. This game-changer move, though daunting, is anticipated to create a truly global exchange-of-value network with effects trickling down and benefitting mainly least developed nations in the global south.

For emerging markets like Africa, Finternet hopes to bring the much-needed interoperability and robust integration of African countries' payment infrastructure, further unlocking trading and exchange of value for a region that, for decades, has traded the least among itself compared to other continents. This is anticipated to increase efficiency in speed, transaction finality and settlement, and provide a seamless cross-border foreign exchange experience further slashing the expensive cross-border transaction costs and enabling instant payment with up to sub-second cross-border settlement.

Why Africa, Why Now?

Financial Disintermediation as an Opportunity for Modernization

Africa remains among the regions where the majority of the world's fastest-growing economies have been registered. In 2023, six of the ten fastest-growing economies globally were in Africa, including Niger, Senegal, and Côte d'Ivoire¹. As this growth continues on an upward trajectory supercharged by a population expected to double to 2.5 billion by 2050, a strengthened economic base, and the opportunities presented by digital trade and the digital economy Africa is on the verge of taking off.

However, this rapid growth is mismatched with the pace at which money and value are transacted across borders in Africa. The continent's financial sector remains highly fragmented, relying on decades-old, dysfunctional banking infrastructure. Despite having over 1.4 billion people, only about 45% of adults in sub-Saharan Africa have access to

¹ Africa dominates list of the world's 20 fastest-growing economies in 2024—[African Development Bank](#)

formal financial services, leaving an estimated 700 million Africans underserved by traditional banking systems².

There is hope in Mobile Money systems like M-Pesa, which, for nearly two decades, has emerged as a major challenger to the traditional banking industry. In Kenya, M-Pesa alone accounts for over 96% of mobile money transactions, with mobile money penetration reaching 68% in 2022, compared to 40% for the banking sector³. However, rising transaction levies and increasingly stringent regulatory environments have driven many users back to cash. For instance, with mobile money levies increasing by up to 17% in countries like Tanzania and Kenya, the majority of citizens most of whom live below the poverty line are forced to absorb these high costs.

While the rest of the world is actively rolling out robust, globally connected payment networks, most African countries still struggle with in-country interoperability. Mobile money platforms and banks often operate in silos, making it difficult to transfer value between them. The situation is even more challenging for cross-border remittances and trade. Intra-African trade accounts for less than 15% of total African exports, and remittance fees between African countries average 8% to 12%, often with additional foreign exchange charges among the highest in the world.

Each of these challenges presents an opportunity for modernising Africa's financial infrastructure, and several ambitious plans are already in motion from the Pan-African Payment and Settlement System (PAPSS) to local initiatives promoting interoperability and digital identity. But for Africa to truly unlock its economic potential, a unified, inclusive, and affordable payment infrastructure is essential.

Africa's Digital Assets Adoption Leads the Way Globally

In 2024 Africa received over \$175 Billion through crypto transfers, with over 43 percent of the transaction being made using stablecoin. Among the most compelling use cases of crypto include business payments, as a hedge against inflation, remittance and most frequently smaller retail-sized (P2P) transfers⁴. Notably, the Global blockchain intelligence firm Chainalysis ranked Africa's as the leading continent with the most retail use case of crypto in 2023, this and surge of Decentralized Finance (DeFi) activities among Africans indicate high literacy and adoption of crypto among Africans⁵.

Nigeria has been ranked for two consecutive years among the top countries globally in crypto and blockchain adoption, placing second worldwide in 2023 and 2024. Other African countries in the top 30 include Ethiopia (26), Kenya (28), and South Africa (30) signalling massive adoption across retail and business use cases. As inflation continues to erode the value of many African currencies, often accompanied by foreign exchange crises, businesses and individuals are increasingly turning to stablecoins as a store of value, cross-border payment medium, and hedging instrument. The presence of local crypto exchanges and business payment providers like Yellow Card, which operates in over 16 African countries,⁶ combined with a growing pool of blockchain-savvy talent, is poised to accelerate adoption.

² Ibid

³ A decade of change: The surge of financial inclusion in Sub-Saharan Africa: [The World Bank](#)

⁴ "Sub-Saharan Africa: Nigeria Takes #2, South Africa Grows Crypto-TradFi." [Chainalysis](#)

⁵

⁶ <https://yellowcard.io/>

This trend is further fueled by investments from leading Layer 1 and Layer 2 blockchain networks in homegrown product and service development across the continent.

AfCFTA – The Single Largest Opportunity for a Truly Pan-African Robust Financial Infrastructure

The African Continental Free Trade Area (AfCFTA), once fully operational, is expected to create the world's largest trading zone, encompassing 43 countries. This transformative agreement addresses Africa's decades-long challenge of limited intra-continental trade, setting the stage for enhanced regional integration. Central to AfCFTA's ambition is the harmonisation of trade regulations and improved ease of doing business, including resolving the pressing issue of financial sector fragmentation and lack of interoperability.

A key initiative under AfCFTA is the Pan-African Payment and Settlement System (PAPSS) a real-time gross settlement (RTGS) infrastructure that facilitates cross-border payments in local currencies, reducing reliance on third-party convertibility using USD. Currently, PAPSS connects over 15 reserve and central banks, more than 40 commercial banks, and regional payment switches, operating under the auspices of the African Union Commission for AfCFTA⁷. Aligning with Finternet and Bretton Woods goals, PAPSS could be a gateway for piloting the Finternet approach.

Purpose of the Report

Africa's financial infrastructure is undergoing rapid modernization, catalyzed by key developments such as the introduction of the Pan-African Payment and Settlement System (PAPSS), a surge in fintech innovation, and an increase in venture capital investments across the fintech and broader financial services sectors.

Building on this momentum, this report seeks to provide a strategic overview of Africa's evolving financial landscape, with a focused deep dive into five of the continent's fastest-growing markets: Nigeria, Kenya, Rwanda, South Africa, and Ghana. Each of these markets presents unique characteristics and opportunities that Finternet can strategically leverage to introduce and scale its solution. In addition to examining market dynamics, this report maps out critical infrastructure, regulatory frameworks, and partnership ecosystems that are essential for successfully implementing Finternet's unified ledger and token-based architecture.

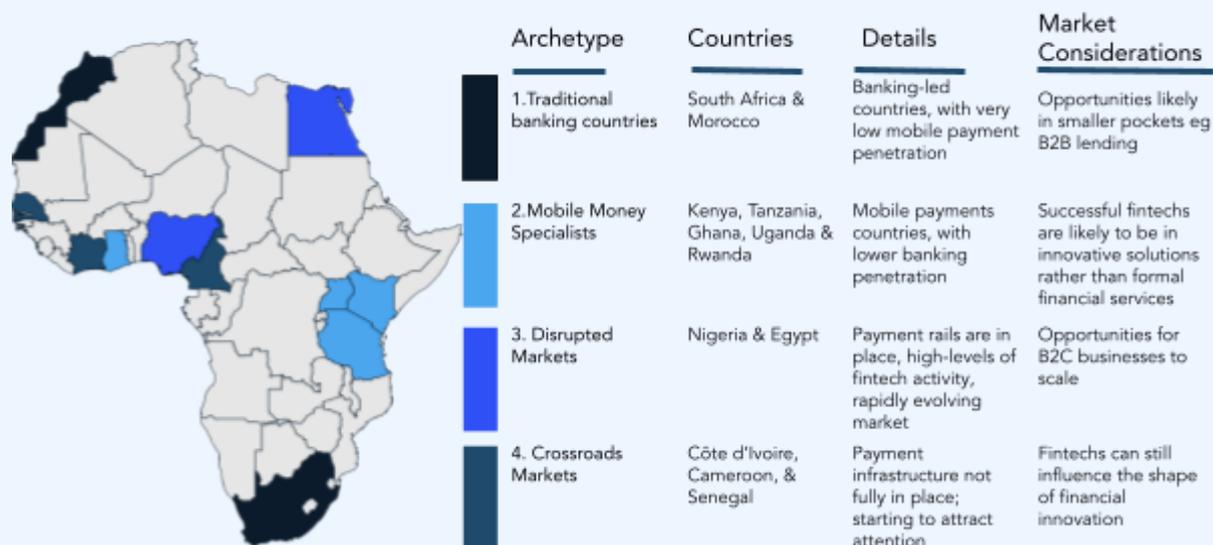
To set the stage, the report identifies cross-cutting opportunities across all five markets and poses a key inquiry: *Why is each market uniquely positioned as a viable pilot for Finternet's launch?* While variations in financial infrastructure maturity and digital asset regulation exist, countries like Kenya, Rwanda, and Ghana, though currently lacking comprehensive digital asset regulations, stand out as promising landscapes for launching impact-led pilots.

On the other hand, South Africa and Nigeria offer well-established regulatory and licensing regimes for digital assets, making them ideal environments for more structured and scalable deployments. The overarching goal is to unpack the key opportunities within each market, while also outlining go-to-market (GTM) strategies tailored to each country's unique context and regulatory landscape.

⁷ Pan-African Payment & Settlement System: <https://papss.com/network/>

II. African Fintech Market Assessment

Financial infrastructure landscape



Source: McKinsey Africa Consulting

Three key market archetypes exist across the continent. Countries like South Africa represent a traditional banking market due to its higher banking penetration, accounting for over 91 percent⁸ of financial inclusion. Similarly, Kenya, Rwanda, and Ghana are categorized as Mobile Money specialists, given the presence of higher levels of mobile money penetration as opposed to banking services—responsible for financially including over 75 percent in Kenya, 86 percent in Rwanda, and 59.7 percent in Ghana, respectively.

The third market archetype is disrupted markets like Nigeria, whose financial infrastructure is largely composed of fintech service providers, digital banking services, and mobile payment providers. This is largely due to the presence of robust financial infrastructure that further enables the development of financial services that are disruptive. Nigeria enjoys over 64 percent financial inclusion, largely driven by fintech service providers such as Moniepoint, Kuda, and Paga neobanks catering to various individual and business needs.

Digital Banking and Payments Penetration

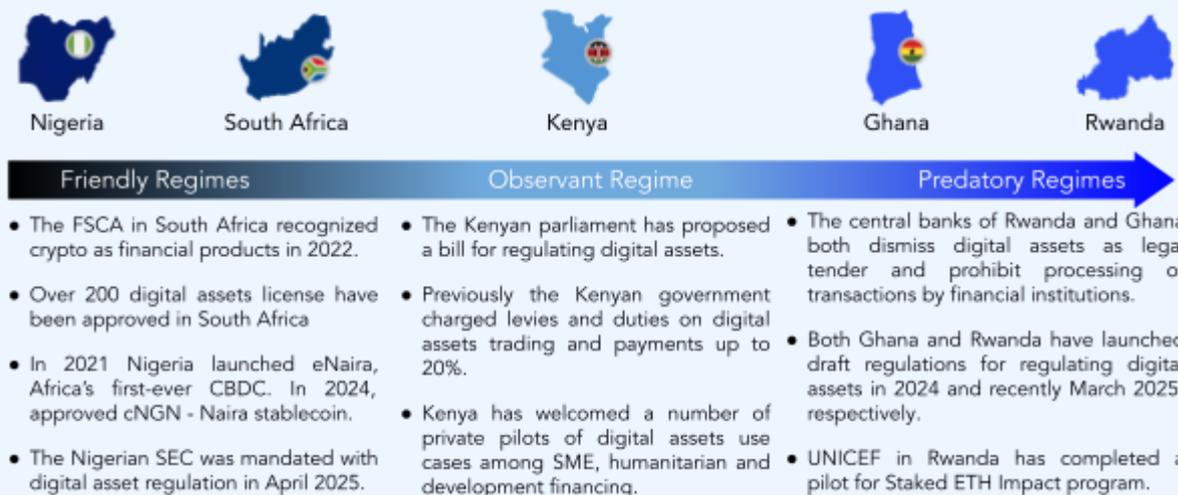
	Internet Penetration	Mobile Device Penetration	Banking Penetration	Mobile Money Penetration	Digital Assets Penetration
South Africa	72.6%	72.6%	91%	36.6%	5.8M users equal to 9.4 percent of the population.
Kenya	48%	48%	44.1%	75.1%	6.1M users equal to 10 percent of the population.
Ghana	69.8%	69.8%	39.2%	59.7%	700K users equal to 2.6 percent of the population.
Rwanda	34.4%	87.4%	22%	86%	194K users equal to 1.3 percent of the population.
Nigeria	35.5%	93%	45%	8.7%	22M users equal to 10 percent of the population.

Source: World Bank Financial Inclusion Data, Chainalysis Geography of Crypto 2024 report

⁸ Redefining success: A new playbook for African fintech leaders: [McKinsey & Company - Africa](#)

Regulatory environment for digital assets

The level of regulatory environment readiness can be categorized into three major segments: Advanced Markets, comprising Nigeria and South Africa, both of which are ahead of the rest; Observant Markets like Kenya, which despite lacking clear digital asset regulations, has introduced a tax bill that recognizes and taxes digital asset transactions. This can be seen as a precedent before a full-scale rollout of a dedicated digital assets bill. Finally, the third category comprises Rwanda and Ghana, whose stance on digital assets has remained wary over the years.



Friendly Regimes Foster Innovation; The Predators Constrict Adoption.

South Africa and Nigeria enjoy the benefits of digital assets in the modernization of their economies and have gone further to spur adoption—South Africa has approved over 200 licenses, while Nigeria launched its own eNaira CBDC in 2021.

On the other hand, the move toward regulating crypto in Kenya, Ghana, and Rwanda has been largely driven by predatory rather than innovative motives, such as targeting money laundering or broadening tax collection. In Kenya's case, this includes a reported tax of over 20 percent on every digital asset transaction.

Key stakeholders and potential partners

1. Regulators and Central Banks

Across the five jurisdictions, regulators have published guidelines outlining how they intend to manage and support the adoption of digital assets. South Africa and Nigeria have taken the lead by fully regulating and approving digital assets—classifying them either as securities or financial products.

In countries where digital assets have yet to receive formal approval, fintech regulatory sandboxes have emerged as a novel approach. These sandboxes allow innovations to be piloted in controlled environments, creating opportunities for both innovators and regulators to gain firsthand insights. They are expected to enhance regulatory efficiency, foster a deeper understanding of digital asset technologies, and accelerate broader adoption across the continent.

2. Digital Public Infrastructure and Policy Advocates

Advocates for Digital Public Infrastructure (DPI) play a key role in shaping financial modernization conversations. These entities push for interoperable financial systems and often act as advisors to central banks and regulatory bodies. At the same time, they collaborate with independent stakeholders such as payment infrastructure operators, financial institutions, and end users. Organizations like Mojaloop Foundation and AfricaNenda have pioneered interoperability solutions in Africa. They have also developed open-source models that drastically reduce both the cost and time required to deploy Instant Payment Systems (IPS). Mojaloop's strong backing from entities like Ripple (XRP) and the Bill and Melinda Gates Foundation reinforces their mission toward achieving full financial inclusion.

3. Humanitarian Organizations and Development Partners

Digital asset pilots across these markets have often been championed by humanitarian organizations and development partners such as PAH, Mercy Corps, and The Red Cross. Likewise, institutions like UNCDF and UNDP have taken leading roles in the modernization of financial systems by working directly with central banks, regulators, and financial institutions. Finternet stands to benefit significantly from these partnerships, using them as strategic entry points for piloting tokenized financial systems aimed at boosting economic empowerment and resilience through collaborative programs.

4. Digital Assets Startups and Fintechs

Kenya, Nigeria, and South Africa remain hotspots for startup innovation and venture capital investment, with fintech dominating the fundraising landscape. In parallel, there has been a notable rise in digital asset startups, with over 20 active across the continent. These range from custodial wallet providers and exchanges to on/off-ramp providers and payment processors. Standout examples are Kotani Pay and Paychant, which have built a robust off-ramp to M-Pesa and bank infrastructure—supporting digital asset pilots in the humanitarian sector both in Kenya and across the continent. Finternet can leverage the multi-chain support and integration with mobile money networks these startups offer, enabling seamless digital asset transfers and localized financial services.

5. Community Builders and Talent Developers

The spike in digital assets adoption has attracted interests from various global technology companies. Entities such as Ethereum Foundation along with other EVM L2s such as Base, Polygon and Optimism, Ripple, Solana, and Celo have actively supported talent development bootcamps, hackathons and startup grants. Organizations like ETHSafari (Kenya) and Superteam (Nigeria) have fostered strong developer communities within the Ethereum and Solana ecosystems. These communities present Finternet with opportunities to co-develop open-source tools and applications that can accelerate the network's growth and relevance.

6. Event Organizers and Think Tanks

Finternet can gain visibility and traction by tapping into Africa's vibrant calendar of fintech and digital asset events. These gatherings attract policymakers, tech innovators, and financial institutions from across the continent. Notable events and platforms include Africa Money & DeFi Summit, NODO, Mariblock, and Bitcoin KE—which also function as think tanks and news hubs amplifying digital asset discourse and adoption in Africa.

Technical infrastructure and talent

Innovation and Digital Asset Ecosystem Maturity

The African innovation and startup ecosystem is still in its early stages and smaller in scale compared to the global ecosystem. Among African nations, South Africa stands out as the only country within the top 50 globally. Despite the slower but steady growth registered, the innovation and startup ecosystem secured over \$2.21 Billion USD funding across 488 deals closed in 2024, with half of it (\$1.04 Billion) channelled into fintech making it the largest funded vertical⁹.

The growth of the African digital asset ecosystem is closely tied to the broader development of the startup and innovation landscape. By funding volume, Nigeria leads the pack, followed by South Africa and Kenya. These three countries represent Africa's fastest-growing and most strategic innovation hubs, each serving as a key market for their respective regions.

Though still in early stages, Ghana and Rwanda are also seen as strategic markets due to their joint efforts in advancing financial inclusion. An example of this is the fintech license passporting initiative, which allows fintech companies to leverage a license obtained in one country to operate in another. This is expected to speed up product market entry and reduce the high costs associated with compliance and licensing, further enhancing the region's attractiveness for innovation.

EVM remains the Largest Digital Assets Ecosystem Followed by Solana

The Ethereum ecosystem—including both its native chain and Layer 2 solutions—continues to dominate as the largest digital assets ecosystem in Africa, followed by Solana and Internet Computer Protocol (ICP). This trend mirrors the global landscape, where Ethereum maintains a leading position, second only to Solana in activity and adoption.

The sustained growth of Ethereum's footprint across Africa is largely driven by a rise in developer engagement and educational initiatives championed by its Layer 2 (L2) networks such as Base, Polygon, Optimism, Avalanche, and Lisk—all of which host frequent hackathons, developer events, and funding programs across the continent. Solana's momentum, on the other hand, is largely fueled by the global rise of meme coin culture, with Solana emerging as the leading ecosystem for such assets and community-driven innovation.

Digital Asset Service Providers and Ecosystem

The African digital asset service providers ecosystem is largely comprised of startups, payment processors and digital-asset-first companies that explicitly leverage blockchain and digital asset technologies. These entities facilitate services ranging from RWA financing, cross border payments, remittances, on and off-ramp, digital assets exchanges and payments. These service providers operate and support transactions across a growing list of blockchain networks such as Base, ERC-20, Solana, Polygon, BEP-20, TRC-20, Litecoin, Cardano, Stellar, Ripple, Bitcoin and TON.

⁹ "The State of African Tech in 2024 and an Outlook for 2025." TC Insights. <https://insights.techcabal.com/state-of-african-tech-in-2024-key-trends-and-2025-outlook/>.

Technical Talent Availability

There are over 6438 Developers in Africa.

Based on a global analysis of public open-source commits from the Developer Report, Africa accounts for an estimated 6,438 blockchain and digital asset developers, representing 6% of the global talent pool of over 110,000 developers. This figure includes both full-time and part-time contributors. It's worth noting that the actual number may be slightly higher or lower due to limitations in data attribution, particularly as over 70% of the commits were made by mid-to-senior level developers with more than two years of experience¹⁰.

Ethereum Leads as the #1 Developer Ecosystem in Africa

The Ethereum ecosystem stands as the most dominant in Africa, representing 22.3% of the continent's developer base. It is closely followed by Solana at 19%, and Internet Computer Protocol (ICP) at 10.2%. Within Ethereum, Base is responsible for an impressive 42% of new code contributions, solidifying its position as the fastest-growing Layer 2 network. Meanwhile, Solana has emerged as the leading ecosystem for new developers, boasting an 83% year-on-year growth rate in 2024. Ecosystems like ICP and Polkadot owe their developer growth to strong education programs and active community hubs in Kenya, South Africa, and the ICP Sahara Hub in Nigeria.

Multi-skilled Developers will power Finternet Ecosystem Growth

A key insight from the report reveals that 1 in 3 African developers possess multi-chain development skills, with most of them capable of building on both EVM-compatible chains and Solana, given their widespread presence across the continent.

The shared use of the Rust programming language across Solana, ICP, and Polkadot ecosystems ensures highly transferable programming skills, positioning Rust developers as a valuable asset for emerging protocols. Finternet can tap into these growing Rust developer communities and cross-ecosystem skillsets to accelerate its ecosystem development and adoption.

¹⁰ 2024 Crypto Developer Report: <https://www.developerreport.com/developer-report>

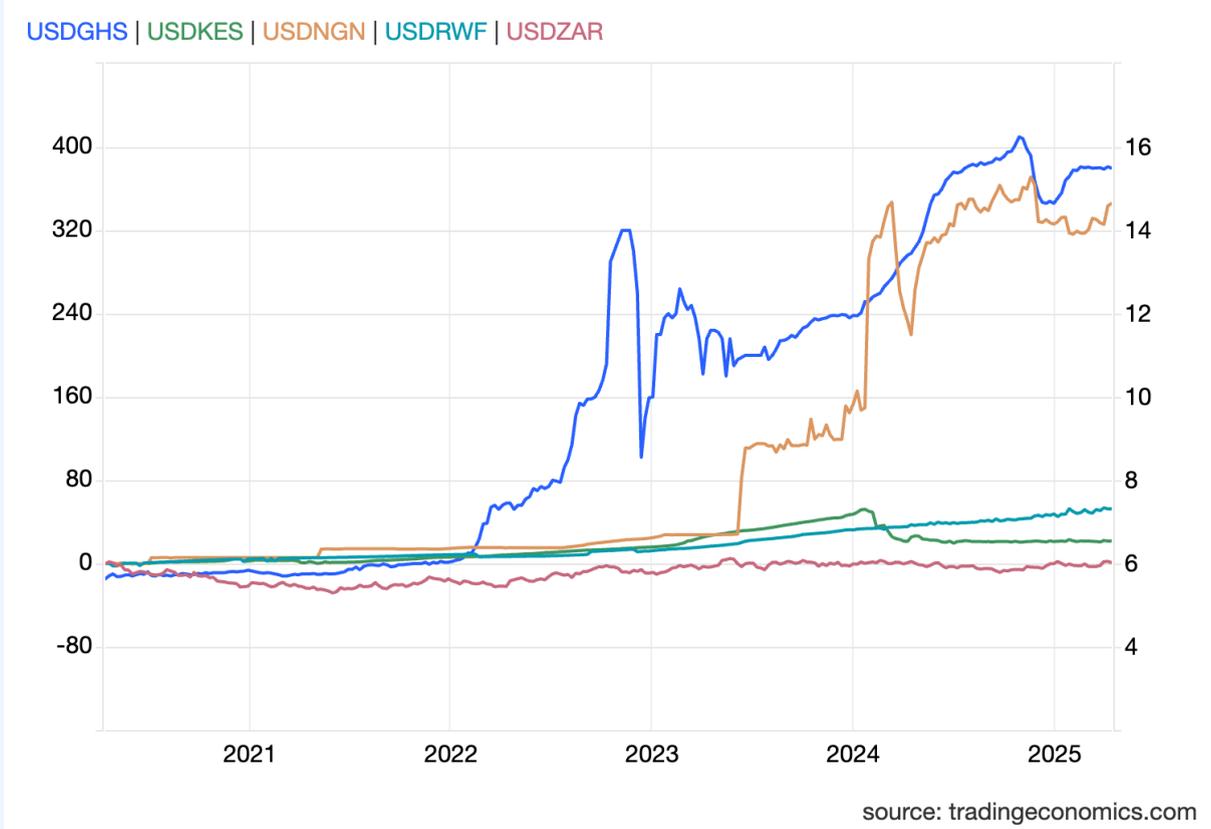
III. Use Case Deep Dive

Market gaps and Pain Points

Currency Depreciation Drives Inflation and Stablecoin Adoption

Over the past five years, four out of five African currencies have depreciated significantly against the U.S. dollar, leading to widespread inflation and making everyday goods and services increasingly unaffordable for the average citizen. This trend is most evident in Ghana, where the Cedi has been ranked the worst-performing currency on the continent. It is closely followed by the Nigerian Naira, South African Rand, and Kenyan Shilling. While Rwanda’s Franc has remained relatively more stable, it too is gradually losing value, with the effects of depreciation becoming more visible over time.

In Nigeria, the sharp depreciation of the Naira has become a key driver of digital assets adoption, particularly the growing use of stablecoins. Nigerians are increasingly turning to these digital assets as a hedge against inflation and a store of value, enabling them to preserve wealth in a more stable currency alternative.



Trade Financing

The cost for acquiring capital for SMEs and smallholders farmers in Africa is substantial with the majority of them still being left out undeserved due to lack of collateral as part of other requirements for qualifying for a bank loan. These loans are often over-collateralized upwards of 125 percent, rendering them costly. Digital assets through innovations like Decentralized Finance (DeFi) hold immense potential in lowering the barrier to accessing capital among SMEs, further creating significant opportunities for expanding businesses. Real World Assets (RWA) protocols like Goldfinch and Credix have previously availed

financing to companies across African and emerging markets, thus enabling economic opportunities enabled by digital assets¹¹.

Dollar Shortage and Liquidity Problems Affect Cross-Border Payments

Many African countries rely heavily on USD for international trading activities with the rest of the globe. However, this reliance creates a systemic imbalance and net-negative effect, as most countries import far more than they export. When dollar liquidity tightens, the result is soaring foreign exchange (FX) rates, leading to unaffordable imports—particularly of essential goods such as food, fuel, and medicine. This dollar dependency also limits the capacity of SMEs to operate effectively, often squeezing their profit margins or halting trade altogether. In response, a growing number of businesses have turned to stablecoins as a more efficient and cost-effective means of cross-border payment. Companies like Yellow Card and Flutterwave have played key roles in advancing this shift over the past two years¹².

Higher Remittance and Transaction Costs

In 2022, the World Bank estimated that Africa received over \$100 billion in remittances. Yet approximately 8.6% of that amount was lost to high transaction and transfer fees—the highest in the world. In countries like Nigeria, the remittance sector is 2.5 times larger than the oil and gas industry, yet a significant portion of its value is eroded during transfer. While many anticipated the rise of mobile money in countries like Ghana, Kenya, and Rwanda would be a game-changer for remittances and domestic transfers, these countries have recently experienced increased transaction costs across mobile money wallets. For cross-border transactions even among close nations like Tanzania and Kenya, over 30 percent of the value transferred is lost when transacting via banks.¹³

Use case for Finternet

Development Sector Financing Pilots Could Pave way for Finternet Adoption

Africa increasingly relies on development sector financing and humanitarian assistance from international organizations and donors. Furthermore, leveraging strengthened relationships between international organizations and African governments could open up opportunities for modernizing the payment rails powering this crucial sector, while at the same time offering collaborative opportunities between governments, financial sector regulators, and Finternet towards piloting and eventually adopting the tokenized financial infrastructure.

Collaborations between digital asset projects and development sector organizations have shown promising results, especially in countries like Kenya and Rwanda. Even in the absence of comprehensive regulatory frameworks, these partnerships have demonstrated how digital assets can offer real-world impact. First, they provide a novel financing mechanism, especially crucial now as traditional donor funding has significantly declined. Second, they offer a reliable and fast payment infrastructure, particularly useful during crises unlike slower legacy systems like SWIFT. From UNICEF Rwanda leveraging staked ETH to provide internet access to rural schools in Rwanda¹⁴, to Mercy Corps facilitating humanitarian and crop insurance repayments using Ripple's (XRP) - RLUSD Stablecoin in

¹¹ GoldFinch, a Leading DeFi Lending Protocol in Africa: [BitcoinKE](#)

¹² Ibid

¹³ Yellow Card's Complementary Role in Streamlining African Cross-border Payments: [Kenyan Wall Street](#)

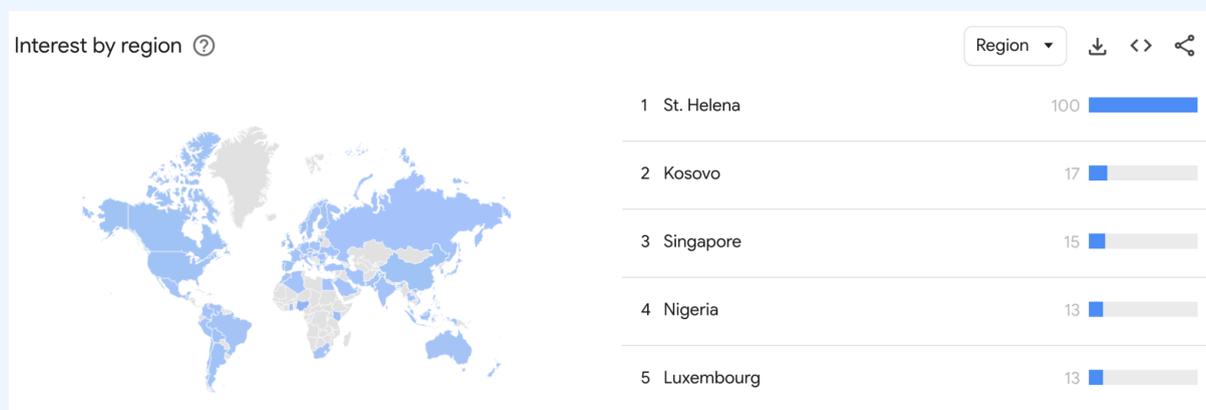
¹⁴ Rwandan Government takes lead on crypto connectivity Pilot: [Giga Global](#)

Kenya¹⁵, to PAH and CELO facilitating cUSD transfers to Maasai women in rural Kenya¹⁶. These pilots demonstrate practical use cases and provide valuable insights that can inform the broader rollout of Finternet for cross-sector adoption.

Cross-Border and FX Payments using Stablecoins

Amid shrinking USD liquidity, depreciating local currencies, and high cross-border transaction fees, stablecoins have emerged as a reliable alternative for both businesses and individuals across Africa. According to Chainalysis, stablecoins now account for up to 43 percent of all digital asset transactions in the region.¹⁷

Google search trends further support this growth, with Nigeria leading in stablecoin interest, followed by Kenya, Ghana, and South Africa, countries whose currencies have significantly declined against the dollar over the past year. As financial disruption deepens, stablecoins are increasingly poised to go mainstream. The Finternet infrastructure offers a timely opportunity to pilot stablecoin use cases by integrating with existing financial service providers such as banks and mobile money platforms.



Trade Financing for SME and Smallholder Farmers.

SMEs in Africa form the backbone of the economy, employing over 80 percent of the population. More than half of these are micro-enterprises that face chronic barriers in accessing affordable capital. Traditional banks often require high collateral and charge double-digit interest rates while lending minimally to this sector. In contrast, microfinance institutions and informal private credit options attempt to fill the gap, but typically impose interest rates of 40 to 50 percent. Finternet can introduce a new wave of decentralized finance (DeFi) tools for SME financing, offering more accessible capital through fractional interest rates and uncollateralized loans. This approach could significantly expand access to affordable financing for underserved businesses and smallholder farmers.

¹⁵ Ripple Impact Pilot: [RLUSD for Drought Relief in Kenya](#)

¹⁶ "Mambo Digital"— [Introducing Digital Cash to Maasai communities](#)

¹⁷ "Sub-Saharan Africa: Nigeria Takes #2, South Africa Grows Crypto-TradFi." [Chainalysis](#)

IV. Implementation Strategy

Market entry approach

Finternet's strategy to enter the market will focus on driving adoption of digital assets and tokenized infrastructure among two key user groups: institutional and retail users. In the early stages, Finternet's primary emphasis will be on institutional and enterprise clients, as their adoption will organically create downstream use cases that attract and onboard retail users. As a thought leader in tokenized finance, Finternet is well-positioned to influence institutional adoption, which is crucial in setting the stage for mass-market engagement.

Partnering with NGOs to Build Evidence Through Pilots in Development and Humanitarian Financing

Finternet should prioritize partnerships with NGOs in markets such as Kenya, Nigeria, and Rwanda to deploy pilot projects focused on humanitarian and development financing. These use cases, though relatively simple in nature, have proven to be impactful, drawing in broad participation from partners, regulators, and citizens. Importantly, such pilots typically fall outside the purview of strict central bank or securities regulatory oversight, making them ideal for early deployment.

Establish Finternet Working Groups for Financial Inclusion

As a pioneer of tokenized financial infrastructure, Finternet should initiate and lead working groups focused on digital asset adoption and financial inclusion. These groups, modeled on existing in-country financial inclusion working groups often led by regulators, would bring together NGOs, fintechs, central banks, and thought leaders. Organizations such as AfricaNenda, Mojaloop Foundation, UNDP, and UNCDF offer valuable partnership opportunities given their long-standing work in payments and digital finance. Additionally, Finternet should actively participate in leading forums like the Inclusive Fintech Forum (Rwanda), African Tech Summit (Kenya), and African Money & DeFi Conference (Ghana) to foster collaboration and share insights.

Capacity Building and Real-World Use Case Development

Finternet can harness the growing Solana ecosystem and Superteam communities in Nigeria, South Africa, and beyond to develop a strong builder ecosystem. These communities can help create, test, and iterate on use cases using Finternet's infrastructure. In the early stages, incentives such as grants, hackathons, and challenge bounties can encourage the development of applications that connect Finternet with existing financial services such as banks and mobile money providers via on and off ramps infrastructure.

Position Finternet as a Digital Public Infrastructure (DPI)

Globally, there's a rising movement to adopt digital public infrastructure (DPI) that accelerates the deployment of financial technologies. Founded by the Bill and Melinda Gates Foundation and backed by Ripple Foundation, Mojaloop is a prime example of such digital public infrastructures that have helped shorten the time for central banks in emerging markets to deploy Instant Payment Systems. Finternet could explore a similar positioning as a DPI to gain traction in institutional and enterprise environments. Integration with Mojaloop or national IPS frameworks could further enhance Finternet's role in transitioning Africa's payments ecosystem toward a unified ledger and tokenized infrastructure.

Potential Markets and Compliance Pathways

Country Selected by Order of Potential and Use-Case	Factors for Selection	Compliance Pathway
<p style="text-align: center;">Nigeria</p>  <p>Use Cases: - FX and cross-border payments - Remittances</p>	<ul style="list-style-type: none"> - Availability of a vast developer talent pool i.e Superteam Nigeria. - Strong experience with disruptive fintech - Least Penetration of banks and Mobile money - Higher Digital Asset Adoption - Friendly Regulation. - Strong Diaspora Network 	<p>The Securities and Exchange Commission (SEC) is responsible for regulation of digital assets.</p> <p>Finternet will be required to log an application at the SEC, then join the Virtual Asset Providers (VASP) sandbox and receive an operational license¹⁸.</p>
<p style="text-align: center;">Kenya</p>  <p>Use Cases: - Remittance, FX and cross-border payments - SME and Agriculture Financing - Humanitarian Pilots</p>	<ul style="list-style-type: none"> - Strong Social, Development and Humanitarian Sectors - Experience piloting digital assets - Strong talent networks and digital assets hubs like ICP. - Growing digital Asset Adoption - Potential for growth across agriculture, SME financing and climate financing. - Strong mobile money market 	<p>Once passed the VASP Bill gives mandate to the Capital Markets Authority (CMA) to regulate digital assets. Finternet can also engage with CMA and NGO partners allowing it to launch pilots across different use cases in the absence of the passed law.</p>
<p style="text-align: center;">Rwanda and Ghana</p>  <p>Use Cases: - FX and cross-border payments - Remittances - SME and Agriculture Financing</p>	<ul style="list-style-type: none"> - Fintech license Passporting Opportunity - Strong strategic ties existing between both governments - Relatively strong mobile money markets - Low bank penetration 	<p>The CMA is responsible for issuing the licenses in Rwanda. In Ghana the SEC is responsible for regulating digital assets.</p> <p>Both countries have issued draft regulations mandating respective regulators powers.</p>
<p style="text-align: center;">South Africa</p>  <p>Use Cases (Institutional and Entreprises): - FX and cross-border payments - Custodying and Tokenization - Explore integration with project Khokha, a blockchain interbank settlement system.</p>	<ul style="list-style-type: none"> - The most advanced market - Higher banking penetration - Growing interest among institutional clients and enterprises like corporate and investment banks - Presence of a strong capital market and investment banking open opportunities for institutional use cases. - Majority of transactions in South Africa are made by institutions and professionals (1M - 10M) proving need for Institutional use cases¹⁹. 	<p>The Financial Sector Conduct Authority (FSCA) is the VASP regulator. It can take up to six months to become licensed, although potentially longer if there is a backlog²⁰.</p>

¹⁸ Nigeria's SEC announces regulatory sandbox for crypto firms: [Mariblock](#)

¹⁹ ibid

²⁰ South Africa's Crypto Regulations in 2025: A Catalyst for Digital Asset Expansion: [Wyden](#)

Spotlight: Project Khokha - Blockchain Case Study for Central Banking in South Africa

The South African Reserve Bank (SARB), consortium of seven commercial banks, Conesys and Adhara launched a project to test the DLT use case in interbank settlement that complex with its standard. The aim of project Khokha was to assess the performance, scalability, privacy, resilience and finality of a DLT solution under realistic conditions close to day-to-day banking operations.

The network was built on JP Morgan Chase's Quorum network, using Istanbul Byzantine fault tolerance, Pedersen commitments and range proofs to deliver on the combination of scalability, resilience, confidentiality and finality. The project created a distributed ledger between participating banks for a wholesale payment system, backed by central-bank deposits, allowing participating banks to pledge, redeem and track balances of the tokenized sovereign currency (rand) on the ledger. Each bank was responsible for the setup of its own node, and these nodes were then distributed.

Goals Achieved

1. Exceeded the transaction performance target at 70,000 transactions in less than two hours.
2. Fast validation and block propagation with 95 percent of transactions validated and block propagation time in less than 1 second, while 99% propagated and validated in less than 2 seconds. This demonstrated that acceptable performance is achievable, despite the geographical distribution of the banks' hardware.
3. Achieved privacy while meeting required transaction volumes, with all transaction details remaining undisclosed and fully confidential, meaning the banks were unable to see each other's transactions, while SARB retained visibility.
4. This was the first time that the IBFT consensus mechanism, Pedersen commitments, and range proofs for confidentiality were used together with Quorum. Combined, all key elements delivered a combination of scalability, resilience, confidentiality, and settlement finality.
5. The project won the Best Distributed Ledger Initiative Award in 2018 by the Central Banking magazine.

Read more the technical implementation of the project Khokha 2 [here](#) and Summary project Report [here](#)

Critical challenges and solutions

User trust and education

Low financial and digital literacy rates across the continent are anticipated to hamper swift adoption of digital assets. Among the reasons blockchain and digital assets have little penetration is due to this, further constricting opportunities. Finternet could leverage the account abstraction model that enables seamless user interaction and experience similar to that of existing financial institutions, thus removing complexity likely to hinder many from adopting Finternet. Similarly, Finternet could become a global tokenized and unified settlement layer, where existing solutions would plug into it further reducing the complexity out as this arrangement will enable seamless continuation of existing financial system experience but with a modern tokenized infrastructure backend.

Institutional resistance

Given lack of clear guidance on how institutions should adopt digital assets, ambiguity and uncertainty are likely to arise further affecting institutional adoption. This is anticipated to change as more countries issue regulations boosting institutional clients' confidence. Forming alliances and working groups with these organizations will be crucial in lowering the likelihood of resistance and further supply them with strong evidence from the pilots.

Infrastructure gaps

Low device and internet penetration are likely to affect the rollout and adoption of blockchain and ledger-based payments systems like Finternet especially among rural areas. This calls for the ability to customize accessibility through leveraging technologies like USSD that would help localize Finternet making it accessible using a basic feature phone.

Competition analysis

	Finternet	Hamsa	Rayls	Project Khokha
Competitive Edge	Strong partnerships and backed by industry thought leaders. The only fully interoperable tokenized infrastructure unifying CBDCs, interbank settlement and with existing financial systems.	Strong use case and adoption. Used by Central Banks in 3 continents, tier 1 & 2 banks, and CBDC pilots	Strong API for interoperability within the blockchain space, lacks focus with global financial system integration and interoperability.	Strong use case led by a regulator through a pilot for CBDC in South Africa.
Network	Solana	EVM - Based on Microsoft ZKP Nova + ZK rollups	EVM Based, but interoperable with over 120 chains through LayerZero integration	Private Ethereum (Quorum), Hyperledger in early phases
Geographic Focus	Global with African priority (especially Nigeria, South Africa, Kenya)	Global - strong footprint in LATAM - Asia, US, APAC, EU and LATAM	Global	South Africa (South Africa Reserve Bank Project)
Strategic Partnerships	Solana, Bank for International Settlement	Microsoft, Selected for CBDC pilot with Bank of Brazil. Launched a CBDC Pilot with Bank of HongKong	Mastercard, AWS, Arbitrum - EVM L2, and LayerZero	Consensys (Metamask Parent Company), Quorum - private EVM blockchain for enterprises.
Interoperability	High – integrates with CBDCs, stablecoins, banks, and crypto ecosystems	High – bridges TradFi and DeFi	Moderate – intra-Africa focused	Low – closed system for sandbox testing
Regulatory Approach	Pro-compliance, layered KYC/AML	Compliance embedded in code + APIs	Seeks regulatory buy-in via partnerships	High, Regulator-le
Use Cases	Interbank transfers, CBDCs, cross-border payments	Transaction Clearing and Sub Accounting platform, tokenization, trade finance, CBDC	B2B, remittance, cross-border commerce	Wholesale CBDC, Stablecoins and Interbank settlement

Risk assessment

Technical risks

Finternet, like any tech-driven platform, faces some technical risks that could slow down or affect its rollout. First, if the system experiences bugs, downtime, or performance issues, it can damage trust early on, especially with institutional users who expect reliability. There's also the risk of poor integration with existing systems like banks or mobile money, which can make it harder to use in real life. Since Finternet relies on tokenized infrastructure, security is another big concern—any vulnerabilities in smart contracts, wallets, or bridges could expose users to hacks or loss of funds. Lastly, as the platform grows, it needs to be able to scale and handle many transactions at once. If it can't do this smoothly, it could lead to delays or expensive fees, making it less attractive to users and partners.

Regulatory uncertainty

The novelty of not only digital assets as well as the Finternet concept puts a regulatory hurdle and uncertainty on how this novel concept will be interlinked with the existing financial services. Notably, is the slow adoption approach among African regulators that is likely to result in delays as most of them prefer observing and learning on how innovative technologies are regulated in other jurisdictions. With the absence of many case studies to learn from, this is evidently the biggest risk of the three. However, recent developments suggest openness in accepting new solutions among regulators and with the help of Finternet Working groups this is anticipated to be accelerated at a significant pace.

User adoption risks

User adoption of Finternet may face a few key risks. Many people, especially in rural areas, may not fully understand how digital assets or tokenized systems work, which can lead to confusion or mistrust. Past experiences with scams and unstable crypto platforms have made people more cautious. On top of that, limited access to smartphones, internet, and electricity could slow down adoption in some regions. If the process of joining Finternet is too complex or not clearly connected to real-life benefits like cheaper fees or faster payments, users may not see the value. Without strong education, trust-building, and simple tools that connect easily with systems people already use—like mobile money—Finternet might struggle to reach the communities it's designed to support.

Success metrics

User and Network Growth (Institutional and Last mile users)

Finternet's adoption metrics will rely on the growth of its network and user adoption across different demographics and locations. This can be tracked through Month-over-Month growth of end users and number of partners integrated and using the Internet infrastructure in their daily transacting activities.

Products and Use Cases Growth

The availability of a wide array of products and services enabled by the Finternet network will be a crucial success metric. This will indicate its robustness and fully reap the benefits of unified ledgers and tokenization technologies that unlocks plethora of use cases from investments, value transfer to many others. The true benefits of the Finternet network will be reached when multiple service providers and institutions are onboarded thus further diversifying the products and use cases launched within the network.

Transaction volume and velocity

Perhaps the most obvious benefit of Finternet tokenized infrastructure is its ability to process thousands of transactions with sub-second time to finality and settlement. In Africa where trade among each other is lower, this is anticipated to increase the transaction volume across borders, further bringing efficiency enabling growth in the value transacted.

Cross Border Payments Cost Reduction and Settlement Time to finality

Cost saving per transaction and efficiency will be crucial in determining the success of Finternet. Measured in arbitrary value and benchmarked against existing data for transaction and remittance costs, this will be a crucial point in validating Finternet as a solution for reducing the cost of cross-border transaction. Similarly, instant settlement times with sub-second finality will be crucial in validating the usage of Finternet.

V. Conclusion and Recommendation

Summary of findings

Across the continent, there has been a growing tailwind accelerating the adoption of digital assets. Provable demand driven by ever-changing market dynamics and increasingly friendly regulatory regimes has not only spurred interest but will continue to pave the way for broader adoption going forward. Digital assets have made significant progress, largely fueled by the urgent need to modernize financial infrastructure. This progress has been anchored in practical use cases such as FX hedging, cross-border payments, and B2B stablecoin transactions, as each of the surveyed markets continues to grapple with high remittance costs, currency devaluation against the USD, and dollar liquidity shortages that affect local trading activity.

Equally important is the evolving regulatory environment. Countries like Nigeria and Kenya have emerged as pioneers, each having legalized digital assets and established proper frameworks for licensing virtual asset service providers. In addition, each jurisdiction has made meaningful strides in steering innovation through the launch of CBDC pilots, such as the eNaira in Nigeria and South Africa's Project Khokha 1 and 2. Regulators in these regions have expressed openness to collaboration with private enterprises and have launched regulatory sandboxes to allow digital asset providers—including exchanges and payment processors—to test and scale their solutions in compliance with local laws.

Beyond regulatory developments, notable progress has been made in the adoption and piloting of digital assets within the humanitarian and development sectors in countries such as Kenya, Ghana, and Rwanda. Spearheaded by NGOs and fintechs working at the intersection of humanitarian aid and blockchain technology including major players like Ripple Foundation. These pilots have delivered critical services, from providing livelihoods in remote areas of Kenya to supporting internet installations in Rwandan schools. In the absence of fully developed legal frameworks, these pilots have served to build compelling evidence and generate crucial learnings that have informed policy decisions and catalyzed the eventual legalization of digital assets in their respective countries.

Furthermore, each of these markets has made significant progress in laying the groundwork for future digital asset regulation by issuing policy directives and proposing bills to guide digital asset licensing and compliance. At the same time, a growing community of professionals and developers focused on digital assets has emerged. These individuals and organizations have built foundational infrastructure and cultivated talent capable of delivering real-world applications for Finternet. From building on-and-off ramps and wallet infrastructure to facilitating cross-border stablecoin payments and launching educational initiatives such as Superteam, there now exists a robust foundation of infrastructure, skill, and innovation necessary to support the development and deployment of Finternet across the continent.

Final recommendation

1. Prioritize Institutional Client Acquisition to Drive Retail Adoption

Focus initial go-to-market efforts on enterprise and institutional partners who can build and deploy use cases that indirectly onboard retail users. Leverage Finternet's thought

leadership position to influence institutional trust and drive top-down adoption, setting the foundation for broader ecosystem engagement.

2. Deploy Humanitarian Finance Pilots with NGOs to Build Evidence

Partner with NGOs in Kenya and Rwanda to pilot humanitarian and development financing use cases using Finternet infrastructure. Use these pilots as low-risk, high-impact proof points to demonstrate infrastructure capability and build regulatory confidence. Document outcomes to inform regulators and accelerate adoption through evidence-based advocacy.

3. Lead the Formation of Pan-African Tokenized Finance Working Groups

Establish and chair regional and continental Finternet working groups focused on tokenized infrastructure and financial inclusion. Engage with strategic partners such as Africa Nenda, Mojaloop Foundation, UNDP, and UNCDF to co-create frameworks and best practices.

Participate in key financial inclusion events like:

- *Inclusive Fintech Forum* (Rwanda)
- *Africa Tech Summit* (Kenya)
- *Africa Money & DeFi Summit* (Ghana)

4. Build Developer Ecosystem and Incentivize Use Case Creation

Collaborate with Superteam communities (Solana-based) across Africa to grow a technical base for Finternet use case development. Focus on integrating Finternet into existing financial services such as banks and mobile money systems via on/off ramps.

Support ecosystem growth through:

- Hackathons
- Developer grants
- Incentive-based learning programs

5. Position Finternet as Digital Public Infrastructure (DPI)

Explore pathways to recognize and integrate Finternet as a Digital Public Infrastructure (DPI) in emerging markets. Seek collaboration opportunities with initiatives like Mojaloop to complement and enhance Instant Payment Systems (IPS). Align with global movements toward unified ledgers and interoperable tokenized systems, reducing deployment friction for public institutions.

Broader implications for Africa's financial future

The strategic implementation of Finternet's tokenized infrastructure across Africa holds transformative potential for the continent's financial future. By anchoring financial systems in decentralized, interoperable, and programmable frameworks, Africa can leapfrog traditional barriers such as high transaction costs, fragmented payment systems, and limited financial access. Finternet's approach aligns with a broader continental vision of financial sovereignty, inclusion, and innovation. Humanitarian finance pilots and partnerships with NGOs will not only build trust but also lay a grassroots foundation for adoption among underserved populations.

Simultaneously, institutional adoption, developer engagement, and positioning Finternet as a form of digital public infrastructure can catalyze systemic changes—paving the way for unified ledgers, real-time settlements, and seamless cross-border payments. This opens the door to a new era where African economies can thrive on homegrown, globally competitive infrastructure that reflects the unique socio-economic realities of the continent. Ultimately, Finternet's model could contribute to reshaping Africa's financial identity—from one of dependency and exclusion to one of agency, innovation, and interconnected prosperity.

VI. References

Rachael King. "Best Distributed Ledger Initiative: South African Reserve Bank." *Central Banking*, 2018, <https://www.centralbanking.com/technology/3711041/best-distributed-ledger-initiative-south-african-reserve-bank>.

Ekshian, Emily. "South Africa Leads Africa's DeFi Revolution with Crypto Reforms." *Crypto Council for Innovation*, 10 Feb. 2025, cryptoforinnovation.org/south-africa-leads-africas-defi-revolution-with-crypto-reforms/

Carstens, A., & Nilekani, N. (2024). Finternet the financial system for the future. Retrieved from [https://finternetlab.io/images/mustRead/Finternet the financial system for the future.pdf](https://finternetlab.io/images/mustRead/Finternet%20the%20financial%20system%20for%20the%20future.pdf)

Carstens, A., & Nilekani, N. (2024) A Dual Strategy to Transform Cross Border Payments. 2024 Retrieved from https://finternetlab.io/images/mustRead/ADualStrategytoTransformCrossBorderPayments_2.pdf

Ralepeli, N. (2024, November 14). The stablecoin surge: How a Chainalysis study reveals Africa's payments revolution. *Finextra*. Retrieved from <https://www.finextra.com/blogposting/27205/the-stablecoin-surge-how-a-chainalysis-study-reveals-africas-payments-revolution>

Ralepeli, N. (2024, October 30). Coins and conviction: Why South Africa's youth are warming to crypto (despite the chaos). *Finextra*. Retrieved from <https://www.finextra.com/blogposting/27149/coins-and-conviction-why-south-africas-youth-are-warming-to-crypto-despite-the-chaos>

Chainalysis. (2024, October 10). Sub-Saharan Africa: Nigeria takes #2, South Africa grows crypto-TradFi. Retrieved from <https://www.chainalysis.com/blog/subsaharan-africa-crypto-adoption-2024/>

Chainalysis. (2024, October). The 2024 geography of crypto report. Retrieved from <https://www.chainalysis.com/wp-content/uploads/2024/10/the-2024-geography-of-crypto-report-release.pdf>

Central Bank of Nigeria. (n.d.). Payments System Vision 2025 (PSV2025). Retrieved from <https://www.cbn.gov.ng/PaymentsSystem/PSV2025.html>

Giga. (2021, December). Rwanda government takes lead on Giga's crypto connectivity pilot. Retrieved from <https://giga.global/rwanda-government-takes-lead-on-gigas-crypto-connectivity-pilot/>

Bank of Ghana. (2024, August). Draft guidelines on digital assets. Retrieved from <https://www.bog.gov.gh/wp-content/uploads/2024/08/Draft-Guidelines-on-Digital-Assets.pdf>

Mariblock. (2024, August 18). Rwanda introduces draft regulations for cryptocurrencies. Retrieved from <https://www.mariblock.com/rwanda-introduces-draft-regulations-for-cryptocurrencies/>

Salami, I. (2023, July 19). eNaira: Nigeria's digital currency has had a slow start – what's holding it back. The Conversation. Retrieved from <https://theconversation.com/enaira-nigerias-digital-currency-has-had-a-slow-start-whats-holding-it-back-209470>

ConsenSys. (2024). 2024 ConsenSys Web3 perception survey – Nigeria. Retrieved from <https://4795067.fs1.hubspotusercontent-na1.net/hubfs/4795067/ConsenSys%20Web3%20Perception%20Survey%202024/2024%20ConsenSys%20Web%203%20-%20Nigeria.pptx.pdf>

ConsenSys. (2024). 2024 ConsenSys Web3 perception survey – South Africa. Retrieved from <https://4795067.fs1.hubspotusercontent-na1.net/hubfs/4795067/ConsenSys%20Web3%20Perception%20Survey%202024/2024%20ConsenSys%20Web%203%20-%20South%20Africa.pptx.pdf>

EMURGO Africa. (n.d.). Social blockchain projects in Africa. Retrieved from <https://www.emurgo.africa/blog/posts/social-blockchain-projects-in-africa>

Dappros. (2023, March). Worldwide blockchain and Web3 developers statistics 2023. Retrieved from <https://www.dappros.com/202303/worldwide-blockchain-and-web3-developers-statistics-2023/>

Outlier Ventures. (2024). Web3 workforce survey 2024. Retrieved from https://assets.ctfassets.net/gjyix7gst9lo/1gouFh7ej62gAU84YbpYlf/e609e6a985bc523fba2d7dc3c73eefc/Web3-Workforce-Survey-24_Final.pdf

CV VC & Standard Bank. (2024, July). Africa blockchain report 2024. Retrieved from https://cib.absa.africa/wp-content/uploads/2024/07/CVVC_AfricaBlockchainReport_2024_FINAL_V9.pdf

TechCabal Insights. (2024, December 19). State of African tech in 2024: Key trends and 2025 outlook. Retrieved from <https://insights.techcabal.com/state-of-african-tech-in-2024-key-trends-and-2025-outlook/>

The Conversation. (2023, May 10). Foreign exchange: Several African countries have a shortage of US dollars – why this happens and how to fix it. Retrieved from <https://theconversation.com/foreign-exchange-several-african-countries-have-a-shortage-of-us-dollars-why-this-happens-and-how-to-fix-it-202980>

Africanews. (2022, February 28). Cedi now worst among Africa's top currencies. Retrieved from <https://www.africanews.com/2022/02/28/cedi-now-worst-among-africa-s-top-currencies/>

Fernandes, B. (2023, August 15). Is Africa's dollar shortage ending anytime soon? Medium. Retrieved from https://medium.com/@Benji_Fernandes/is-africas-dollar-shortage-ending-anytime-soon-432f979cf906

Fernandes, B. (2023, September 5). Are African remittances finished? Medium. Retrieved from https://medium.com/@Benji_Fernandes/are-african-remittances-finished-4b5e20b256b6

Absa Corporate and Investment Banking. (2024, March). Currency liquidity drives financial innovation. Retrieved from

<https://cib.absa.africa/home/insights-and-events/african-foreign-currency-liquidity-shortages-are-driving-financial-innovation/>

United Nations Office of the Special Adviser on Africa. (2023, October 12). Reducing remittance costs to Africa: A path to resilient financing for development. Retrieved from <https://www.un.org/osaa/news/reducing-remittance-costs-africa-path-resilient-financing-development>

Kenyan Wall Street. (2024, June 20). Yellow Card's complementary role in streamlining African cross-border payments. Retrieved from <https://kenyanwallstreet.com/yellow-cards-complementary-role-in-streamlining-african-cross-border-payments/>

Center for Strategic and International Studies. (2024, February 15). Supporting small and medium enterprises in Sub-Saharan Africa through blended

Mojaloop Foundation. (2021). Ripple (XRP) and Mojaloop Creating an Inclusive Future for Everyone Everywhere. Retrieved from <https://mojaloop.io/ripple-xrp-and-mojaloop-creating-an-inclusive-future-for-everyone-everywhere/>

