

Scoping report

# Tech startup scoping report

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# Abbreviations and acronyms

ACE	Africa Coast to Europe
AfDB	African Development Bank
Al	artificial intelligence
AI4AI	Artificial Intelligence for Agricultural Innovations
AML/CTF	anti-money laundering and counter-terrorism financing
API	application programming interface
B2B	business-to-business
B2C	business-to-consumer
BSL	Bank of Sierra Leone
BSO	business support organisation
CEAC	Commission for the Evaluation, Support and Coordination of Startups
CIPIT	Centre for Intellectual Property and Information Technology Law
CSIRT	National Computer Security Incident Response Coordination Center
CSOs	civil society organisations
DFS	digital financial services
DLT	distributed ledger technology
DPA	Data Protection Agency
DPI	digital public infrastructure
DSTI	Directorate of Science, Technology and Innovation
ECOWAS	Economic Community of West African States
ERP	enterprise resource planning
ESG	environmental, social and governance
FTTH	fibre-to-the-home
GIZ	German Agency for International Cooperation
GNI	gross national income
GSMA	Groupe Spéciale Mobile Association
ICT	information and communications technology
IMF	International Monetary Fund
IP	intellectual property
ISPs	internet service providers
ITC	International Trade Centre
KYC	know your customer
LDCs	least developed countries
MAF	Ministry of Agriculture and Food Security
MBSSE	Ministry of Basic and Senior Secondary Education
MFIs	microfinance institutions
MIT	Massachusetts Institute of Technology
MMOs	mobile money operators

MNOs	mobile network operators
MoCTI	Ministry of Communication, Technology, and Innovation
MSMEs	micro-, small and medium-sized enterprises
MTHE	Ministry of Technical and Higher Education
MTNDP	Medium-Term National Development Plan
NatCA	National Communications Authority
NC3	National Cybersecurity Coordination Centre
NCRA	National Civil Registration Authority
NDDP	National Digital Development Policy
NDDS	National Digital Development Strategy
NIB	National Investment Board
NIDS	National Innovation & Digital Strategy
NITDA	National Information Technology Development Agency
NSA	Nigeria Startup Act
OSTechSL	Oswald's Tech Sierra Leone
PAYG	pay-as-you-go
R&D	research and development
RAIN	Redsalt Angel Investment Network
SaPS	Salone Payment Switch
SLINT	Sierra Leoneans in Technology
SMEs	small- and medium-sized enterprises
SSO	startup support organisation
STEM	Science, Technology, Engineering and Mathematics
TSC	Teaching Service Commission
TVET	technical and vocational education and training
UADF	Universal Access Development Fund
UCLG	United Cities and Local Governments
UIN	unique identification number
UNDP	United Nations Development Programme
USL	University of Sierra Leone
USSD	unstructured supplementary service data
VC	venture capital
WEF	World Economic Forum
WIPO	World Intellectual Property Organization
WTO	World Trade Organization
MMOs	mobile money operators
MNOs	mobile network operators
MoCTI	Ministry of Communication, Technology, and Innovation

# Executive summary

Sierra Leone's economy is evolving, with the tech sector showing potential for growth and innovation. Tech startups can play a crucial role in driving economic diversification, creating jobs and addressing local challenges through innovative solutions. Considering this, the UK-funded Invest Salone project requested a rapid scoping of the tech startup sector, including a specific focus on blockchain technology applications, to inform strategies for supporting emerging tech companies, attracting investment and shaping policies to foster a vibrant and innovative startup ecosystem. As Invest Salone winds down its six-year period of performance, gaining a clearer understanding of the tech startup ecosystem can provide valuable insights for policymakers, investors, development partners and entrepreneurs.

In March 2025, an assessment team comprising a senior digital expert from Cadmus and a Sierra Leonean expert with deep knowledge of Sierra Leone's entrepreneurship, innovation and tech startup ecosystem began this assessment using a mixed-methods approach, beginning with a literature review to assess existing research, reports and data, followed by approximately two weeks of fieldwork (March 2025) in the Freetown/Western Area. The team interviewed tech startup founders, startup support organisations (impact hubs, incubators and accelerators), business support organisations, impact investors, government stakeholders (e.g., Ministry of Communication, Technology, and Innovation or MoCTI) and Invest Salone's long- and short-term technical experts.

Looking at a range of different tech sectors (fintech, e-commerce, agritech, edtech and greentech), the team found the greatest concentration of Sierra Leonean startups in the fintech sector. This sector also currently appears the most promising. These startups offer a diverse range of services spanning digital payments, mobile wallets, group savings, micro-lending and financial infrastructure. Some target individual consumers with tools for daily transactions, informal savings (e.g., osusu) and financial literacy, while others provide backend platforms and application programming interfaces (APIs) for businesses, merchants or government agencies. These models align well with impact investment, blended capital and donor priorities, with the potential to scale; however, they also face several structural constraints. These constraints, many of which we have addressed in our examination of the broader tech startup ecosystem, include the following:

- Small/limited market. With a national population of roughly 8.5 million and low per capita income, the potential market of digitally active, financially included users in Sierra Leone is currently small. Regional expansion, e.g., to the other Mano River Union countries, could address this, but (except for Côte d'Ivoire), these countries have equally low or lower levels of digital connectivity and digital skills. These countries also face comparable challenges in the enabling and institutional environments for digital financial services.
- Potential disruption by the Salone Payment Switch (SaPS). The rollout of Sierra Leone's national payment switch, SaPS, is a major development that should standardise interoperability between banks and mobile money operators and transform digital payments in the country. While positive for the ecosystem overall, it may also erode the core value

proposition of some of Sierra Leone's new fintechs whose value add is bridging siloed systems.

- Low digital literacy and infrastructure gaps. Despite improvements in mobile access, many users in Sierra Leone still rely on feature phones and unstructured supplementary service data (USSD) menus. Smartphone penetration, consistent electricity and data affordability remain barriers to digital product adoption especially outside the Freetown/Western Area. Although some fintechs have built their systems to accommodate these limitations, this may limit the reach of more sophisticated fintech offerings.
- Fragmented support ecosystem. Although donor-backed incubators, accelerators and challenge funds have supported innovation and inspired entrepreneurship, the broader startup support ecosystem lacks technical depth in the complexities of fintech revenue modelling and legal/regulatory compliance. This may limit the ability of startups to mature past pilot or pre-revenue phases.
- Regulatory and institutional uncertainty. While the Bank of Sierra Leone (BSL) fintech sandbox was a positive step, fintech regulation in Sierra Leone is still emerging. For example, there is no clear licensing regime for blockchain-based financial service providers, limited legal infrastructure for digital payments beyond mobile money, and opaque guidance on topics such as cross-border transfers or data privacy. Startups must often operate in legal grey zones or engage regulators case by case. There is also a lack of clarity on issues around unique identification numbers (UIN), anti-money laundering and counter-terrorism financing (AML/CTF) and 'know your customer' (KYC) provisions.

In the blockchain/distributed ledger technology (DLT) space, institutions such as the Christex Foundation are assisting Sierra Leoneans to learn the technology as well as exploring potentially transformative use cases; however, blockchain may ultimately have the most potential by returning to its origins – the fintech sector. Blockchain and crypto technologies can improve financial services in frontier markets like Sierra Leone, particularly in reducing the cost and friction of cross-border payments, including remittances.

Stablecoins or blockchain-based remittance platforms could enable near-instant settlement and bypass costly correspondent banking networks – making remittances faster, cheaper and more transparent. This is not to say that blockchain cannot be meaningfully applied to use cases in other sectors; however, this should be approached in a tech-neutral way. Technology choices should always be fit for purpose, context aware (especially in a frontier market such as Sierra Leone) and user centred.

The serious challenges facing blockchain and crypto adoption in Sierra Leone also cannot be ignored. There is no clear legal framework for virtual assets, leaving startups and users in a regulatory grey zone and exposing them to legal and compliance risks. As noted earlier, the legality of cryptocurrencies in Sierra Leone is an open question. The BSL, despite the regulatory sandbox programme, can be risk averse, as are many of Sierra Leone's commercial banks. Moreover, without

strong digital identity systems, consumer protection policies or technical oversight capacity, blockchain-based systems could be misappropriated to facilitate fraud, data breaches or volatility exposure. Overpromising blockchain solutions without first addressing regulatory clarity and institutional readiness could undermine trust and draw scrutiny from already cautious regulators.

Recommendations. Though the tech startup sector (including fintech) in Sierra Leone is nascent, Invest Salone can support fintechs by building off proven assistance models (e.g., PROSPER Salone and investor roundtables) to create potential investment opportunities. The following recommendations present practical ways to increase investment, support startups (fintech and otherwise) and improve the tech startup policy environment.

- Provide grant assistance to a fintech-specific fund through PROSPER Salone. Given its successful track record under PROSPER Salone, Invest Salone is well-positioned to support a fintech-specific investor with a targeted grant to explore opportunities in Sierra Leone's emerging fintech sector. Sierra Leone's fintechs require investors with deeper sector-specific expertise. A PROSPER Salone grant could fund a market scoping trip, legal and regulatory diligence, investment readiness workshops and small-scale technical assistance to help fintechs align with investor expectations, reduce market entry risk for the investor and strengthen the fintech pipeline. This type of support could also generate more practical insights about Sierra Leone's investment climate for fintech helping regulators, hubs and founders better understand what constraints matter most to fintech-specific impact investors and venture capitalists.
- Support a fintech track within the existing startup support organisation ecosystem. Though Sierra Leone's fintech startups have demonstrated early innovation, they also face sector-specific hurdles that general incubators may not be equipped to address such as regulatory compliance, payments integration, licensing, and engagement with commercial banks and mobile money operators. At the same time, the fintech ecosystem remains too small to support a standalone incubator. Embedding a targeted fintech track within a reputable existing hub offers a pragmatic, low-risk way to deliver specialised support, while leveraging existing infrastructure and relationships. This track could also strengthen the pipeline of investment-ready firms for commercial or impact-focused funds, complementing Invest Salone's existing PROSPER Salone work and its broader market systems strategy. Co-funding could also be sought from the World Bank-funded Sierra Leone Financial Inclusion Project (or its successor), commercial banks and mobile network operators/mobile money operators (Orange and Africell). This could also tie in with the mandate of MoCTI and BSL to stimulate public—private dialogue on identity (UIN), AML/KYC and the use of blockchain/crypto and artificial intelligence (AI) in fintech.
- Leverage Invest Salone's convening power for fintech investment roundtables. Previously, Invest Salone has convened investment roundtables in Sierra Leone and the UK to facilitate dialogue between investors and local firms. The same model could be applied to the fintech sector. Local companies' travel to West African fintech hubs (e.g., Lagos and Accra) to present their business models and funding needs could be supported by Invest Salone. As was done at the AFSIC 2024 Sierra Leone Investment Summit, Invest Salone could create a

fintech-focused deal book profiling Sierra Leonean fintechs, outlining their growth trajectories, market positions and funding needs. The event could also stimulate dialogue on how other countries are regulating blockchain and crypto, best practices for fintech regulatory sandboxes. Lastly, the event could highlight emerging opportunities (e.g., blockchain-enabled cross-border payments), and present the potential role of Sierra Leonean blockchain players (e.g., the Christex Foundation) in the broader West African ecosystem.

Consider broader, tech startup legislation/policy support. A national startup law could differentiate startups from low-risk, low-growth, small- and medium-sized enterprises, and set the foundation for a broader legal framework that will accommodate equity financing, the definition of angel investment and venture capital, and failure tolerance. It is also a strong signal that startups and innovation are national priorities, and may establish a lead ministry or agency to collect data, e.g., on the number of startups and startup sectors, through a national registry. Invest Salone should continue its support to MoCTI by reviewing drafts and building on the momentum begun during the collaboration between MoCTI, Fourah Bay College and Columbia University.

Sierra Leone's tech startup ecosystem is young, but it is gaining definition, momentum and visibility — driven by a mix of creative founders, evolving digital infrastructure and a government that has signalled strong interest in innovation. Yet this ecosystem remains constrained by foundational challenges. Proven approaches can be applied by Invest Salone to strengthen firm-level support, align capital with startup readiness, and inform smart enabling policy reforms. From fintech-specific investment discovery to coordinated technical assistance and startup legislation support, Invest Salone has clear opportunities to help shape a more vibrant and investable innovation ecosystem — one that reflects Sierra Leone's realities, but also its aspirations.

## Introduction

Sierra Leone's economy is evolving, with the tech sector showing potential for growth and innovation. In April 2025, Sierra Leone hosted the Startup World Cup West Africa Semi-Final, in which Sierra Leone startups comprised 15 of the 30 competitors pitching 20 regional and international investors for a chance to present at the Startup World Cup 2025 in Silicon Valley and a chance at a US\$1 million investment. Oswald's Tech Company, a Sierra Leonean renewable energy firm developing a solution to produce off-grid power using seawater, emerged as the semi-final winner, and two other Sierra Leonean firms, Monime (fintech) and LifeBlood (healthtech), were among the finalists. This high-profile event is the latest demonstration of Sierra Leone's support for entrepreneurship and innovation, as articulated in several national plans and policies, including the Medium-Term National Development Plan 2024–2030, National Digital Development Policy, the Sierra Leone National Innovation & Digital Strategy 2019–2029 and the Directorate of Science, Technology and Innovation (DSTI) Digital and Entrepreneurship Ecosystem Mapping. The event also showcased Felei TechCity, an ambitious infrastructure project spearheaded by MoCTI, that will serve as "a hub for innovators, researchers, tech enthusiasts, venture capitalists and startups, designed to promote collaboration and innovation in Sierra Leone."

The Startup World Cup success is more notable given that these 15 Sierra Leonean startups (including the three finalists) have faced considerable obstacles in the tech and innovation ecosystems; as stated by one Startup World Cup judge, "constraints breed creativity". Sierra Leone startups struggle with limited access to early-stage risk capital, underdeveloped angel investor networks and high transaction costs. In addition, Sierra Leone still faces challenges in last-mile digital connectivity (and high digital divide), an unreliable energy infrastructure, low digital literacy/digital skills, weak linkages between innovation ecosystem actors and constraints in the business and investment enabling environments. For example, Sierra Leone scores relatively low (129/133) on the Portulans Institute Network Readiness Index, against regional comparators such as Côte d'Ivoire (92), Ghana (87), Nigeria (112) and Senegal (101); fellow Mano River Union countries Liberia and Guinea do not appear on the index. Sierra Leone does not appear on the Global Innovation Index of the World Intellectual Property Organization (WIPO).

Nonetheless, the Government of Sierra Leone, among other least developed countries (LDCs), has embraced new and emerging technologies relatively early compared to its neighbours. For example, in 2019, Sierra Leone's National Civil Registration Authority (NCRA), the BSL and the DSTI partnered with Kiva to pilot a blockchain-enabled national digital identification system, based on the Kiva protocol. The government has also partnered with the elite Massachusetts Institute of Technology (MIT) GOV/LAB to help civil servants use digital technologies and platforms to improve government service delivery, and the former head of DSTI is an MIT graduate. In 2023, the Government of Sierra Leone was also a "first mover" country on the 50-in-5 campaign to promote the development and adoption of digital public infrastructure (DPI). Regarding AI, the DSTI National Innovation & Digital Strategy (NIDS) calls for a "country-as-AI-lab" model, and GIZ (German Agency for International Cooperation) and InnovationSL recently collaborated on a Freetown Pitch Night AI Pitch Competition, which attracted several young digital entrepreneurs in the agriculture, education and sustainability sectors.

# Methodology

Tech startups can play a crucial role in driving economic diversification, creating jobs and addressing local challenges through innovative solutions. With this in mind, in March 2025, the UK-funded <a href="Invest Salone">Invest Salone</a> programme requested a rapid scoping of the tech startup sector, including a specific focus on blockchain technology applications, to inform strategies for supporting emerging tech companies, attracting investment and shaping policies to foster a vibrant and innovative startup ecosystem. As Invest Salone winds down its six-year period of performance, gaining a clearer understanding of the tech startup ecosystem can provide valuable insights for policymakers, investors, development partners and entrepreneurs.

The objectives of Invest Salone for the assessment included the following:

- Provide a comprehensive overview of the current state of the tech startup sector in Sierra Leone, describing the range and nature of startups and the ecosystem in which they are operating
- Identify key challenges and opportunities for tech startups in the country, with a particular focus on blockchain technology
- Develop recommendations to support the growth and sustainability of the tech startup ecosystem, including blockchain-based initiatives
- Propose strategies for attracting investment into the sector, especially for blockchain-related projects
- Suggest policy interventions to improve the enabling environment for tech startups and blockchain technology adoption.

The assessment team comprised a senior digital expert from Cadmus and a Sierra Leonean expert with deep knowledge of Sierra Leone's entrepreneurship, innovation and tech startup ecosystem. The team employed a mixed-methods approach, beginning with a literature review to assess existing research, reports and data on Sierra Leone's tech startup ecosystem. This was followed by approximately two weeks of fieldwork (March 2025) in the Freetown/Western Area, where the team interviewed tech startup founders, startup support organisations (SSOs, including impact hubs, incubators and accelerators), business support organisations (BSOs), impact investors, government stakeholders (e.g., Ministry of Communication, Technology, and Innovation or MoCTI) and Invest Salone's long- and short-term technical experts.

The challenge of definitions. Before embarking on assessing tech startups there should be a common understanding of what differentiates a "tech startup" from, for example, a "growth-oriented SME." While tech startups and small- and medium-sized enterprises (SMEs) are both critical to job creation, innovation and economic resilience; each type of firm may require a different type of support, depending on their respective business model. In the UK, startups are defined as new, emerging businesses whose mentality is fast-paced, whose culture is driven by a powerful or charismatic founder(s), whose business is designed to solve sticky problems at a larger regional or global scale in a new and technologically innovative way, and whose funding tends to be bootstrapped and/or funded by angel investors or venture capital (VC) firms.

Growth-oriented SMEs may pursue steady, organic growth using proven business models within established markets and sectors to maintain or increase sales and jobs, without necessarily leveraging emerging technologies or seeking VC. The SMEs may benefit more from working capital, tax incentives or access to equipment financing. Table 1 summarises some (non-legal) practical and policy differentiators between tech startups and other small businesses.

Table 1: Practical and policy differentiators (non-legal): tech startup vs growth-oriented SME

Criteria	Tech startups	Growth-oriented SMEs
Goal	Rapid growth, scaling	Stable, sustainable income
	Typically innovation-driven	May or may not innovate – could be low
Innovation	(frontier tech)	or incrementally innovative
Funding (see also	VC, angel investors, equity-based,	Bank loans, small business loans,
below)	bootstrapping	bootstrapping
	Included in programmes targeting	Targeted in policies for job creation and
Policy Interest	innovation	economic stability

In the Sierra Leone context, this distinction may become blurred, as capital markets and the innovation ecosystem are more nascent. In some cases, incubators and accelerators supporting "startups" might more accurately be described as helping a combination of tech startups and growth-oriented SMEs. Considering this, the assessment team attempted to inventory tech startups according to sectors common to SSOs (e.g., venture studios, incubator or accelerator programmes) in West Africa and beyond. These sectors include fintech, e-commerce, agritech, edtech and greentech. These categories also sometimes lack globally accepted definitions, so we attempted to define each sector, provide some emerging tech use cases and identify Sierra Leonean tech or techenabled startups. These firms are described in the section "Tech startups".

This assessment also addresses various categories of SSOs including impact hubs, venture studios, incubators and accelerators. As noted in the Centre for Entrepreneurs 2022 publication <u>Incubation Nation: The Acceleration of UK Startup Support</u>, there is a lack of universal definition and performance metrics for these institutions in the UK, which can confuse classification and evaluation. This may also apply to Sierra Leone. For the purposes of this report, we accept Sierra Leonean SSOs' self-classification at their word, but MoCTI may eventually wish to adopt specific definitions and metrics.

Needs first vs. technology first. The Principles for Digital Development, originally developed in 2014 and updated in 2024, can be a critical guide in promoting sustainable and inclusive digital development. This assessment follows the first digital principle: Understand the Existing Ecosystem. Related to this principle is the first digital standard: Start with the need; i.e., do not start with a technology in mind (e.g., blockchain) and look for a solution. Invest Salone's terms of reference for the rapid assessment understandably cited the use of blockchain or DLT, given Sierra Leone's historic emphasis; the assessment team accordingly considered current and potential use cases for blockchain/DLT. However, the team also approached our work in a tech-neutral way. In other words, we analysed the readiness of Sierra Leone's overall digital ecosystem to accommodate blockchain-based solutions, the presence of other emerging technologies (such as Al/machine learning) and the

fact that for many use cases more "traditional" digital infrastructure (e.g., relational databases with audit trails) may be more cost-effective and sustainable. In the end, Sierra Leone's technology choices should be fit-for-purpose, context-aware and user-centred. This should be considered on a sector-by-sector and problem-by-problem basis, working backwards from user needs.

Assessment roadmap. This assessment begins with a detailed overview of Sierra Leone's tech startup ecosystem, including institutional actors, as well as key digital enablers such as digital connectivity and digital skills. After the ecosystem overview, we address some nascent potential market opportunities for Invest Salone firm-level and policy-level support (which respectively relate to two key pillars of Invest Salone, namely 'Market Development' and 'Investment Climate Reform').

# Tech startup ecosystem

The tech startup ecosystem comprises many actors, including tech startups; SSOs such as incubators, pre-accelerators, accelerators, innovation hubs and co-working spaces; BSOs; funders/financers such as VC firms, angel investors, impact investors and donors; larger firms who may benefit from innovation and research and development (R&D), such as internet service providers (ISPs) and mobile network operators; government institutions; universities; and technical and vocational education and training (TVET) providers. This section will briefly examine the current status of each set of actors in Sierra Leone.

## Tech startups

Invest Salone is interested in analysing the number, types and focus areas of Sierra Leone's tech startups, evaluating the growth stages and trajectories of current startups, identifying success stories and highlighting when startups harness blockchain, AI or other emerging technologies to innovate and refine their product/service.

In Sierra Leone, startup-related data are scattered among several SSOs (see below) and have not been aggregated under one government institutional home (i.e., a national startup registry). Sometimes SSOs present aggregate data on their websites (e.g., number of startups supported and value of investment catalysed) but do not present individual startup or portfolio profiles. As startups frequently participate in multiple different programmes concurrently, or over extended periods, this could lead to data duplication. It is also unclear whether all startups who participate in incubation or pre-acceleration programmes are formally registered with the government. Considering this, the startups we present below in major innovation categories (fintech, e-commerce, agritech and edtech) are illustrative.

#### Fintech

#### Sector overview

The <u>Bank of England</u> broadly defines fintech as "technology-enabled financial innovation that could result in new business models, applications, processes, or products with an associated material effect on financial markets, institutions and the provision of financial services". As presented in the UK House of Commons Briefing <u>Fintech: A Guide to Financial Technology</u>, fintech encompasses a wide range of products and services, broadly split into two categories depending on customer: business-to-consumer (B2C) or business-to-business (B2B). The B2C products and services give consumers new and innovative ways to do things they have already been doing, whereas B2B focuses more on developing financial software to businesses that give their customers a better user experience. Fintech innovations have been especially prominent in payments (e.g., contactless and mobile payments, digital banks and digital wallets, and payment using cryptocurrencies) and alternative lending/financing (e.g., crowdfunding and peer-to-peer lending). These products and services are delivered via software combining APIs, mobile applications and web-based services. Fintech is also closely associated with the use of new and emerging technologies, especially blockchain/<u>DLT</u> and <u>cryptocurrencies</u> (e.g., Bitcoin). As the UK briefing points out, a key distinction

between conventional currency and a cryptocurrency is how transactions are recorded and accepted. Whereas with a traditional currency transfer, there are intermediaries to record and store transaction details (often for a fee) and who is involved with them, crypto transactions "cut out the middlemen" by using some variation of DLT, relying on multiple verification of each transaction. The results of these transactions are recorded on a publicly available record known as blockchain (i.e., recorded "on chain"). This record is therefore (reputedly) traceable, transparent, auditable, secure and efficient. In 2022, blockchain and crypto took a reputational hit due to the prominent prosecution of Sam Bankman-Fried for embezzling funds through the failed crypto exchange FTX; however, in 2024, the World Economic Forum (WEF) reported that blockchain was "coming in from the cold" and was once again poised to disrupt the world of finance. As WEF reports, stablecoins — blockchain-native versions of fiat currencies like the US dollar — may be the linchpin to these new systems, particularly for cross-border payments.

Fintech is also being shaped by innovations in AI. IBM <u>presents several use cases</u> for AI in fintech, including credit risk assessment, fraud detection, chatbots or virtual assistants to help customers with personalised advice or recommendations, AI-based personal finance tools and services, and algorithmic trading and portfolio management. As these emerging technologies become more prominent and instrumental in fintech, there are increasing concerns about <u>consumer protection</u>, <u>data protection and data privacy</u>, and cybersecurity. That said, given banks' and financial institutions' critical infrastructure status, <u>fintechs and banks often lead the way on cybersecurity improvements</u> that can later be adopted for other economic sectors.

#### Fintech in Sierra Leone

Sierra Leone's National Strategy for Financial Inclusion II (2022–2026) includes digital financial services (DFS) as one of three priority intervention areas (the others are access to client-centric financial products and services and financial education, financial literacy and consumer protection). In 2023, UNCDF and the BSL published State of the DFS Market in Sierra Leone, which indicated, among other findings, that the number of active digital financial accounts had significantly increased (probably due to the COVID-19 pandemic). Given Sierra Leone's "mobile-first" digital environment, the DFS landscape remains dominated by mobile money, particularly Afrimoney and Orange Money, and commands a larger customer base than all other digital payment providers combined. Traditional commercial banks have been slower to embrace DFS (with one interviewee responding that their current business models use "bricks-and-mortar" infrastructure); however, many have introduced online banking and mobile apps, and have expressed interest in integrating with the mobile money providers (e.g., wallet-to-bank and bank-to-wallet transfers).

Until recently, the absence of interoperable infrastructure was a critical constraint to DFS and fintech development in Sierra Leone, as DFS providers could not integrate services across platforms and institutions. The <u>launch of the Salone Payment Switch (SaPS)</u> should significantly improve this situation. While initial integration efforts are focused on banks, with mobile money operators (MMOs) to follow, fintechs are expected to benefit downstream. That said, interoperability alone will not address other challenges, including KYC compliance (including the need to integrate and establish a <u>UIN</u>) and ongoing challenges with digital connectivity outside of the Freetown/Western Area.

Nonetheless, a growing number of fintech startups are leveraging limited resources to build teams and test products, with some engaging the BSL's <u>fintech regulatory sandbox</u> to navigate uncertainties. These startups offer a diverse range of services spanning digital payments, mobile wallets, group savings, micro-lending and financial infrastructure. Some target individual consumers with tools for daily transactions, informal savings (e.g., osusu) and financial literacy, while others provide backend platforms and APIs for businesses, merchants or government agencies. Together, they reflect both B2C and B2B models, addressing gaps in access, efficiency and trust within Sierra Leone's evolving financial ecosystem. These firms are summarised in Table 2.

Table 2: Currently active fintechs in Sierra Leone

Name	B2B or	Services/solutions provided	Target market
	B2C		segment
<u>MiKashBoks</u>	B2B2C	Fintech platform augmenting well-understood existing	Low-income and
		community-based financial interactions (osusus) to	unbanked users in
		build new pathways towards financial inclusion.	informal savings
		Digitises informal savings/lending groups (osusus).	groups, both rural
		Replicates offline saving and lending models and can	and urban
		be used either just to create a digital record of physical	
		transactions, or integrated with payment systems.	
		Supports unstructured supplementary service data	
		(USSD) and smartphone; integrates with Orange	
		Money and Afrimoney. Open API protocol enables	
		third parties to innovate on MiKashBoks along with a	
		set of rules that govern and safeguards user	
		interaction with them.	
<u>Mocha</u>	B2C	Blockchain-powered digital banking experience on	Individuals and small
		WhatsApp. Allows users to receive US\$ deposits, send	businesses who
		money internationally starting from just US\$1 and	typically lack access
		access a growing suite of financial tools including	to traditional
		virtual cards and a "send now pay later" service. Also	banking, offering a
		supports cash-in or withdrawal of digital currency (like	simple and secure
		USD Coin and USD Tether).	way to access
			financial services
<u>Monime</u>	B2B	Payment processing platform that provides	SMEs and online
		comprehensive APIs enabling developers to	merchants seeking
		incorporate mobile money payments and bank options	easy digital payment
		into applications and websites. Leading infrastructure	integration
		providers in Sierra Leone's fintech space, quietly	
		powering a lot of other platforms behind the scenes.	
<u>Mosabi</u>	B2B2C	Fintech and edtech platform that combines mobile	Low- to middle-
		learning with financial services access to drive financial	income individuals in
		inclusion in emerging markets. It offers users short,	emerging markets
		gamified learning modules on topics such as	who are underserved
		budgeting, saving, business skills and digital literacy –	by traditional

		This "learn-to-earn" model is designed to improve	financial institutions. Works through partnerships with financial institutions, NGOs and mobile platforms to reach their end users and embed its tools into broader digital inclusion efforts
<u>Salone</u>	B2B2C	Decentralised payments and micro-loans for	Rural/agriculture
Money		, .	
SafulPay	B2C	Digital wallet that bridges the gaps between different	General consumers
		financial services. Connects banks, mobile money and fintech platforms, allowing smooth transfers across all systems. For users juggling multiple accounts or payment methods, SafulPay brings it all into one platform.	needing local and cross-border money transfers
<u>Systems</u>	B2C	to another e-wallet or digital gift card. SmartBill is a web-based system that securely consolidates all e-bills into one simple digital interface.	agencies, private companies and merchants needing secure digital tools
The Community (ConNet)	B2C	Digital finance platform offering membership-based savings and benefits ecosystem. Members contribute regularly into a savings pool via mobile money and, in return, gain access to rotational savings (similar to osusu), discounts, rewards and micro-credit	Low- to middle- income individuals, especially young adults and informal sector workers in

		opportunities. Lenders earn up to 3% interest per	Sierra Leone who are
		month. Uses WhatsApp and USSD as primary	familiar with
		interaction channels, making it accessible even to users	traditional savings
		with basic feature phones. Licensed by BSL.	schemes and are
			seeking more
			structured, digital
			alternatives with
			added lifestyle perks
<u>Vult</u>	B2C	Payment solution with a mobile application, offering	Tech-savvy users
		services like domestic payments, international	needing multi-
		remittances and debit card. Multi-currency digital	currency or global
		wallet with global Visa access; supports transfers, bill	digital wallets
		pay and budgeting via mobile app.	

#### E-commerce/digital trade

#### Sector overview

As discussed in the House of Commons Library Briefing <u>Digital Trade Governance</u>: the <u>UK's Approach</u>, the World Trade Organization (WTO) originally defined e-commerce as "the production, distribution, marketing, sale or delivery of goods and services by electronic means." However, some have argued that "digital trade" may be more appropriate, as it encompasses digital assets (e.g., data) rather than only narrowly focusing on goods and services. For this reason, e-commerce and digital trade are sometimes used interchangeably. Digital trade is widely viewed as a <u>potential source of economic growth for developing countries</u>, creating new opportunities for market access and supporting livelihoods for micro-, small- and medium-sized enterprises (MSMEs), <u>women</u> and youth.

Emerging technologies such as blockchain and AI are also changing the nature of e-commerce and digital trade. In the <u>blockchain space</u>, developments in fintech (e.g., payments and digital wallets) are closely tied to e-commerce as online merchants increasingly accept payments in cryptocurrencies such as Bitcoin and Ethereum. Blockchain technologies are also being used to increase transparency and traceability of global supply chains (see also "agritech" below) and to verify the authenticity of luxury goods. Finally, blockchain/DLT tokens are being used as the basis of loyalty programmes. Ultimately, <u>AI</u> may have an even more profound impact on digital trade and e-commerce. Predictive AI has long been used to analyse historical customer data, preferences and purchase history to suggest related products or services and generative AI-driven chatbots are now addressing customer enquiries.

#### E-Commerce in Sierra Leone

In Sierra Leone, e-commerce/digital trade has been <u>slow to take root for a range of reasons</u>, including a relatively low level of digital connectivity and other challenges related to e-commerce customer fulfilment (e.g., transport and logistics); however, in some regards the legislative base – the Electronic Transactions Act (2019), Consumer Protection Act (2020), Cybercrime Act (2020) and Cybersecurity Act (2021) – is outpacing actual e-commerce implementation (see also below for more information on cybersecurity). Sierra Leone signed the United Nations Convention on the Use of

Electronic Communications in International Contracts (2005) in 2006 but has not yet ratified the convention.

Presumably some social selling is occurring domestically through social media platforms such as Facebook and TikTok; however, this situation has not been studied/reported upon widely. The International Trade Centre (ITC)-implemented <a href="Ready Salone programme">Ready Salone programme</a> plans to build capacity in digital marketing and e-commerce as are <a href="prominent members of the Sierra Leone diaspora">programme</a> plans to build capacity in digital marketing and e-commerce as are <a href="prominent members of the Sierra Leone diaspora">prominent members of the Sierra Leone diaspora</a>. Though not "e-commerce" per se, the Government of Sierra Leone is also turning its attention to <a href="helping Sierra Leonean creatives on YouTube">helping Sierra Leonean creatives on YouTube</a>, TikTok and other social media platforms to monetise their <a href="content">content</a>. Sierra Leone should also investigate the growing area of smart logistics startups in Africa, to support e-commerce and digital trade.

In Table 3, we present several Sierra Leonean e-commerce startups uncovered during fieldwork and online searches. One startup (SendMe) is being supported by the Christex Foundation, while other companies appear to be meeting the demands of mining employees based outside of Freetown.

**Table 3: E-commerce firms in Sierra Leone** 

		Target market
Name	Services/solutions provided	segment
<u>BuyNaYa</u>	One-stop online marketplace dedicated to providing convenience,	
	quality, and variety. Their mission is to redefine the shopping	
	experience by providing a seamless platform where customers can	
	find everything they need in one place. Owned by WeonetSL, a	
	local ISP.	
<u>Freetown</u>	Multi-vendor e-commerce business platform built for Sierra	Connect Sierra
<u>Makit</u>	Leonean businesses to be able to showcase their product whether	Leonean sellers
	from B2B or B2C in Sierra Leone or to the world at large. Provides a	with regional and
	unified digital commerce marketplace to facilitate trade among	global buyers
	informal merchants and leading consumer brands. Provides access	
	and easy-to-use solutions for businesses to sell their products	
	online, enabling them to reach customers locally and globally and	
	expand their market reach.	
<u>Salone</u>	Digital online platform based in Sierra Leone that connects farm to	Domestic (Sierra
<u>AgroMarket</u>	market in an easy, secure and convenient manner. Provides a	Leonean)
	bridge to solve the connectivity gap between buyers and sellers of	consumers hoping
	agricultural produce.	to buy fresh local
		agricultural
		products
<u>SaloneMakit</u>	Sierra Leone's first global online marketplace, aiming to empower	
	local artisans and entrepreneurs by providing a platform to	
	showcase and sell their products worldwide. Offers a diverse range	
	of items, including handmade accessories, African-inspired	
	clothing, beauty products and home décor. Vendors can set up and	

	manage their own stores, facilitating direct engagement with customers and expanding their reach beyond local markets.	
<u>SendMe</u>	Online platform for ordering and delivering groceries, food and essentials in Sierra Leone. Offers same-day delivery and integrates mobile money payments. Also leverages its logistics infrastructure for pickup and delivery of range of goods.	Freetown area
Shop2Site		Mining operations outside of Freetown

#### Agritech

#### Sector overview

According to the Royal (Dick) School of Veterinary Studies at the University of Edinburgh, agricultural technology (agritech) "uses data technologies, combining AI, robotics and biotech, along with local and global data on livestock, food species, disease state, soil conditions, weather patterns and more, to improve agricultural productivity and sustainability while reducing emissions." In 2021, the WEF and the Government of India launched the Artificial Intelligence for Agricultural Innovations (AI4AI) initiative, which aimed to bring together public and private sector partners to scale impactful agritech solutions and accelerate the transformation of global food systems, emphasising inclusivity, sustainability and efficiency.

The AI4AI initiative explores use cases for AI and other emerging technologies (including blockchain) in intelligent crop planning, smart farming, farmgate-to-fork and data-driven agriculture, summarised in WEF's 2024 report Agritech: Shaping Agriculture in Emerging Economies, Today and Tomorrow. In the AI space, specific use cases include using predictive AI for gene editing of seeds, determining optimal sowing periods, crop management, weather prediction and yield prediction. These AI tools are often paired with data collected through drone technology and satellite imagery. The report also suggests how AI-based tools can be used for smart logistics solutions – collecting data at various nodes in the post-harvest supply chain to optimise routes and reduce market waiting times (and therefore, crop loss). The World Bank also offers several Africa-specific examples.

Blockchain/DLT use cases in the WEF report include developing index insurance linked to smart contracts on a blockchain platform; this use case is similar to a <u>pilot from the Crypto Council for Innovation and Mercy Corps Ventures</u>, which uses satellites to detect drought conditions and trigger the execution payments for farmers in Northern Kenya via blockchain-enabled smart contracts. Traceability – particularly for closely scrutinised value chains such as coffee, cocoa or cotton – is also a major use case for blockchain-based shared ledgers, as detailed in publications from <u>GIZ</u> and <u>A3 Logics</u>.

#### Agritech in Sierra Leone

In Sierra Leone, the assessment team could not find any local agritech startups per se, but there are several notable programmes and initiatives underway. Sierra Leone's Feed Salone strategy has a dedicated agritech pillar and the National Digital Development Strategy features a section on eagriculture, which calls for, among other things, the development of a National Digital Agriculture Strategy, to be led by the Ministry of Agriculture and Food Security (MAF) with MoCTI support. The World Bank-funded Sierra Leone Agro-Processing Competitiveness Project is exploring ways to use AI and digital tools for e-extension services, as well as blockchain-enabled payments to farmers and other nodes along key value chains. Sierra Leone's National Data Strategy (2023) references an e-extension advisory system (presumably similar to what is explained here), but there is no online record of a rollout of this system. Additionally, in June 2024, on the heels of the Sierra Leone Innovates Tech Summit, MoCTI signed a five-year memorandum of understanding with the Farmerline Group to "transform Sierra Leone's agricultural landscape through cutting-edge technology and innovative initiatives," including leveraging satellite imagery for boundary delineation, tree counting, deforestation tracking and monitoring illegal mining activities and developing a Krio-language AI Agronomist Chatbot on WhatsApp.

In the fintech space, <u>Salone Money</u> (see also above) and <u>Smart Systems</u> are both implementing or working on platforms or initiatives to introduce fintech solutions and cashless payments in rural environments. Smart Systems is supporting the Ministry of Agriculture and the aforementioned World Bank-funded Sierra Leone Agro-Processing Competitiveness Project to roll out e-vouchers (a priority for e-agriculture) via banking apps, cards and point of sale terminals on a pilot basis to rural farmers in partnership with Apex Bank and its network of rural financial institutions. The e-voucher system may also integrate with current mobile money offerings such as Orange Money. In Table 4, we present one example of an agritech startup active in Sierra Leone. These startups were uncovered during fieldwork and online searches.

Table 4: Agritech firms active in Sierra Leone

Name	Services/solutions provided	Target market segment
<u>Farmerline</u>	Supports smallholder farmers and agribusinesses with	Smallholder farmers and
<u>Group</u>	digital tools, logistics, field agents and farm resources.	agribusinesses in Ghana,
(Ghana)	Mergdata platform generates valuable intelligence from	Côte d'Ivoire, Sierra
	and for every stakeholder, at every phase of the	Leone and beyond
	growing season. Launched <u>Darli</u> , a multilingual chatbot	
	that provides crop-specific guidance, disease diagnosis	
	and market and logistics advice.	

#### Edtech

#### Sector overview

In <u>Realising the Potential of Technology in Education: A Strategy for Education Providers and the Technology Industry</u>, the UK Department for Education defines edtech as the practice of using "hardware (such as tablets, laptops or other digital devices), and digital resources, software and services that help aid teaching, meet specific needs, and help the daily running of education

institutions (such as management information systems, information sharing platforms and communication tools) " to ultimately make the education sector more efficient, remove barriers to education and improve educational outcomes. Edtech should ideally be safe, inclusive and impactful, as embodied by UNICEF's <a href="EdTech for Good Framework">EdTech for Good Framework</a>. This approach also informs the <a href="World Bank's approach to the sector">World Bank's approach to the sector</a>. The COVID-19 pandemic caused a huge boom in digital education and edtech, as education increasingly needed to be delivered online; but five years later, <a href="the impact,">the impact,</a> effectiveness and adoption of edtech has had mixed or ambiguous results.

Emerging technologies (especially generative AI) are significantly shaping the edtech landscape. For example, AI is increasingly being used to develop personalised learning paths for students, adapting content delivery based on learning pace, performance and learning style. AI chatbots are also serving as tutors, providing real time instruction and feedback: in Nigeria, AI tutors improved student outcomes in English, AI knowledge and digital skills – achieving in six weeks what normally would have taken two years. Additionally, AI is helping teachers: assisting in the development of lesson plans and classroom management. Fab Inc. (see also below), a UK-based network of international education advisers, has inventoried and mapped AI-for-education tools has inventoried and mapped AI-for-education tools (including for Sierra Leone). Blockchain use cases in edtech include storing tamper-proof, verifiable student IDs, academic records and educational credentials on the blockchain. There is also discussion of issuing digital tokens to students to incentivise learning and course completion.

#### Edtech in Sierra Leone

In Sierra Leone, there is not yet a digital education or digital learning strategy, but EdTech Hub has conducted a Digital Learning Landscape Analysis for the Ministry of Basic and Senior Secondary Education (MBSSE) and the Teaching Service Commission (TSC). With support from the UKAidfunded Leh Wi Lan (2016–2022) project, MBSSE also established an Education Knowledge Platform and a Learning Passport. In the emerging tech space, Rising Academies – a Sierra Leone-based education company funded by Solon Capital Partners – has developed a chatbot named RORI who students can talk with on any smartphone in their natural language via WhatsApp. The RORI chatbot runs on Claude, from Anthropic. Rising Academies has also developed a chatbot for teachers, named Tari, which helps teachers with lesson planning and offers "private subject knowledge support." Fab. Inc. has also developed its own chatbot called The Teacher.AI, which helps teachers create lesson plans and custom tests, drawing on lesson plans from the MBSSE Education Knowledge Platform. In 2023, EducAid helped Teacher.Al train 1,000 teachers to use the tool. For a detailed assessment of this pilot project, please consult this study. Finally, local IT firm Kingmedo Tech Solutions has developed digital platforms (Sierra Grade and EduBursary) to streamline school management. It is unclear how widely these tools have been adopted in Sierra Leone. In Table 5, we present several edtech or tech-supported education startups active in Sierra Leone. These startups were uncovered during fieldwork and online searches.

Table 5: Edtech or tech-supported education firms active in Sierra Leone

Name	Services/solutions provided
Kingmedo Tech	Sierra Grade streamlines academic assessment, revolutionising grading with an
<u>Solutions</u>	intuitive interface and advanced features. Grades and report cards can be
	shared via WhatsApp. Kingmedo EduBursary streamlines the processes of fee
	collection, income and expense recording, staff payroll, inventory management
	and purchase order tracking, allowing educational institutions to manage their
	finances more efficiently and focus more on achieving educational performance
	outcomes.
Rising	Launched in Sierra Leone, Rising Academies is one of the fastest growing quality-
<u>Academies</u>	focused education companies in Africa and is a Certified B-Corp. Through great
(RORI chatbot)	curriculum materials, intensive teacher coaching and actionable data, Rising
	Academies helps teachers and school leaders bring quality to every classroom.
	Rising Academies innovates through low-cost private schools that it owns and
	operates, then takes these learnings and works with governments and other
	partners to improve the quality of their schools at scale. Not an "edtech
	company" per se, Rising Academies has invested in edtech tools to further its
	mission, including tablet-based learning, and the use of AI-based chatbots (RORI
	and Tari) that run via WhatsApp on every smartphone, no matter how simple.

#### Greentech (cleantech)

#### Sector overview

<u>Digicatipult</u> defines greentech as "an umbrella term for a broad range of environmentally friendly innovations from renewable energy to recycling models, electric vehicles to sustainable agriculture." Within this umbrella are several subcategories including climate tech (technologies specifically aimed at addressing or mitigating climate change-related problems) and cleantech (technologies and business models designed to reduce costs, minimise energy consumption and use fewer materials, all while improving products or services). Greentech has frequently been paired with emerging technologies such as blockchain and AI to improve upon current products and services.

<u>Blockchain use cases</u> include <u>peer-to-peer energy trading</u>, smart contracts for automated operations, renewable energy tracking, <u>grid management</u>, EV charging and more. <u>Use cases</u> for AI include tracking sunlight and voltage fluctuations (solar energy), analysing data to optimise wind turbine performance and developing AI-powered grid solutions. That said, it is important to consider the environmental impact of these technologies themselves. In 2019, it was reported that <u>Bitcoin mining expends more energy annually than the country of Switzerland</u>; this environmental impact has also been validated in <u>more recent studies and publications</u>. The MIT has also pointed out the <u>negative environmental impacts of generative AI</u>.

#### Greentech/cleantech in Sierra Leone

In Sierra Leone, cleantech (energy) is overseen by the Ministry of Energy. The Ministry recently released an Energy Transition and Green Growth Plan and a National Energy Policy and Strategic Plan, which calls for R&D and innovation in renewable energy technologies. In Sierra Leone's growing cleantech sector, three startups — Easy Solar, Greentech Bioenergy and Oswald Tech

Company Ltd. – offer a diverse array of innovative solutions addressing energy access and sustainability. Easy Solar provides nationwide solar energy products and appliances through a payas-you-go (PAYG) model, while Greentech Bioenergy delivers waste-to-energy solutions via biogas digesters for households and institutions. Oswald Tech pioneers saltwater-powered lighting and offgrid devices, showcasing a unique blend of localised innovation and environmental impact across urban and rural markets. These firms' products and service offerings are described below. In Table 6, we present several greentech startups or tech-supported green firms active in Sierra Leone. These startups were uncovered during fieldwork and online searches.

Table 6: Greentech or tech-supported green firms active in Sierra Leone

		Target market
Name	Services/solutions provided	segment
Easy Solar	Provides affordable solar-powered energy solutions – including	Off-grid and
(tech-enabled)	solar home systems, appliances and clean cookstoves – to off-	underserved
	grid and underserved populations through a PAYG model.	populations
	Customers can make small, flexible payments over time via	
	mobile money or cash, making the products accessible to low-	
	income households. Operates a vertically integrated model,	
	handling product design, distribution and after-sales service	
	through a network of agents and retail outlets across Sierra	
	Leone and Liberia. Partners with telecom operators like Orange,	
	financial institutions and international development	
	organisations such as Shell Foundation and Acumen to expand	
	access to energy and scale its impact.	
<u>Greentech</u>	Social enterprise founded in 2022, dedicated to addressing the	Low-income
<u>Bioenergy</u>	challenges of poor waste management and limited access to	households,
	clean cooking energy. Designs and manufactures biogas	canteens and
	digesters of various sizes, enabling households, canteens and	livestock farmers
	livestock farmers to convert biodegradable waste into clean	
	cooking gas and organic fertiliser. Provides an affordable and	
	sustainable energy source and contributes to environmental	
	conservation by reducing reliance on traditional biomass fuels.	
	Operates with a small team of professionals, including electrical	
	and mechanical engineers, and has been recognised for its	
	innovative solutions in renewable energy. In 2024, it was among	
	18 grant awardees selected to implement over 40,000 litres of	
	biogas digester solutions in Freetown, supported by the	
	Freetown City Council, Bloomberg Philanthropies and United	
	Cities and Local Governments (UCLG).	
Oswald Tech	Innovation-driven renewable energy company based in	Low-to-middle-
Company Ltd.	Freetown, Sierra Leone. Dedicated to transforming access to	income countries
(energy)	clean, reliable and affordable electricity for underserved	facing energy
	communities. One of its flagship innovations is the Water Light	challenges
	Technology, which harnesses the power of saltwater to generate	

electricity, providing	eco-friendly lighting solutions to off-grid
regions across Africa	and beyond. Its product offerings include
lamps, power station	s, power banks and cook stoves, all
designed to promote	sustainable energy usage. (Winner of the
West Africa Startup	Vorld Cup Semifinals).

## Tech startup support organisations

Sierra Leone's SSOs have provided aspiring tech entrepreneurs – many of them young and first-time founders – with access to mentorship, technical training and community. In a context in which formal business support systems are limited, these institutions (including co-working spaces, innovation hubs, venture studios, incubators and accelerators) have fostered a spirit of innovation and experimentation within a challenging operating environment.

The tech startup ecosystem in Sierra Leone is supported by a diverse array of what we collectively label SSOs. Some (the Christex Foundation and KNESST Collective) explicitly focus on technology and work closely with founders to build digital tools and solutions using emerging technologies such as blockchain and AI. Others, such as InnovationSL, the United Nations Development Programme (UNDP) Accelerator Lab and Aurora Foundation, provide sector-agnostic financial and capacity-building support for socially driven innovation and rely heavily on donor funding. Still others, like the Limkokwing Innovation Hub and IPAM's Centre of Excellence, are housed within universities, designed to help student entrepreneurs move from idea to execution.

Table 7 summarises some of the key SSOs operating in Sierra Leone. This list, and accompanying observations, should be cross-referenced with the <u>Aspen Network of Development Entrepreneurs</u> <u>West Africa chapter's</u> mapping of SSOs, which will be publicly released imminently, as well as with <u>ITC READY Salone's recent analysis of entrepreneurship support organisations</u>.

**Table 7: Startup support organisations in Sierra Leone** 

Name of			
organisation	Туре	Location	Focus areas/services offered
Aurora Foundation	Accelerator	Freetown	Provides startups with a nurturing environment to
			grow and succeed. Entrepreneurs gain access to
			mentorship, resources, networking opportunities
			and expert guidance. Previous startup mentees
			include <u>Dreamday Technology Fellowship</u> , which
			helps small businesses improve their digital skills.
			Helped 90+ startups across eight cohorts.
			Partnered with InnovationSL and Byte Limited.
			Funded (partially) by the Government of Iceland.
Christex Foundation	Venture studio	Freetown	Non-profit organisation that aims to empower
	(within non-profit		Sierra Leoneans by harnessing the potential of
	organisation)		blockchain and the Solana ecosystem. Includes a
			venture studio focusing on incubating and

			accelerating innovative blockchain and tech- driven projects. Provides strategic guidance, technical support, funding and access to a robust network of partners. Currently supporting Mocha and SendMe (see also above). Has supported virtual hackathons where winners are eligible for acceleration support. Main tracks of the hackathon are health, consumer apps, digital payments and public goods. Receives funding from UNDP, UNICEF and Solana Foundation; works with MoCTI.
IPAM Centre of	Incubator/co-	Freetown	Dedicated to fostering a culture of creativity and
Excellence in	working space	rectown	impact among students, entrepreneurs and
Entrepreneurship	within University		innovators. Incubator/co-working space provides
and Innovation	of Sierra Leone		a supportive environment where aspiring
	(USL)		entrepreneurs collaborate, access resources and
			receive guidance. Provides workspace, networking
			opportunities and hands-on support to transform
			ideas into viable businesses, fostering community
			and innovation under one collaborative roof. Per
			website, they have supported 200+ startups
			(unclear whether they are tech startups) at a 75%
			success rate.
<u>InnovationSL</u>		Freetown	Perceived as the "go-to" partner for international
	support		donors and businesses supporting startup and
	organisation		innovation ecosystem in Sierra Leone. From 2021
	(incubator,		to 2022, facilitated the creation of 350 direct jobs,
	accelerator)		with an additional 186 jobs created in 2023 to
			date. Supported businesses have seen revenue
			growth of 5–15% on average. Played a pivotal role
			in helping SMEs and startups raise significant
			funding, totalling US\$1,718,000 in grants, private
			investments and own investments between 2022 and 2024. Website mentions support for 4IR
			(fourth industrial revolution) technologies (AI and
			blockchain) but it is unclear how many/which
			firms harnessed these technologies. InnovationSL
			has portfolios in <u>incubation</u> , <u>acceleration</u> and
			data.
KNESST Collective	Tech	Freetown	data.  Seeks to up-skill and provide support to tech
KNESST Collective	Tech		Seeks to up-skill and provide support to tech
KNESST Collective	community/social		Seeks to up-skill and provide support to tech builders, founders and explorers that are
KNESST Collective			Seeks to up-skill and provide support to tech

			entrepreneurs, develop 10 products and build one
			unicorn. Hosts fireside chats and community
			meetups. Has hosted several tech challenges in Al
			and machine learning, frequently partnering with
			Qcell to engage participants in developing
			solutions to real-world problems. Hosts <u>Harya</u> , an
			automated recruitment platform powered by AI
			and blockchain.
		Freetown	Aims to enable digital enthusiasts and foster
	working space		innovative thinking through teamwork to address
			community issues. Provides an open space for IT
			entrepreneurs to collaborate and innovate.
		Freetown	Provides practical, hands-on acceleration
	(startup		programme that helps entrepreneurs validate
	bodyshop)		their business models, implement financial and
			management systems, and gain access to capital.
			Supported the growth of more than 2,900
			entrepreneurs and businesses in Sierra Leone
			(52% women, 48% men), channelling over US\$2.9
			million in debt, equity and grant funding.
			Incubated and accelerated at least three
			businesses that each went on to generate more
			than US\$500,000 in annual revenue. LBD Group is
			also affiliated with <u>iDT Labs</u> , the IT company
			started by MiKashBoks founder Salton Massally.
Limkokwing	Innovation hub	Freetown	The entrepreneurship and innovation support unit
University of			of the Limkokwing University of Creative
Creative Technology			Technology, Sierra Leone Campus: (1) Promotes
Innovation Hub			collaboration between academia, government and
			industry to create a supportive ecosystem for
			entrepreneurs. (2) Encourages students to think
			creatively to come up with new and innovative
			ideas to drive entrepreneurial development. (3)
			Encourages education and training in
			entrepreneurship to help students develop the
			skills and knowledge they need to start and grow
			their own businesses. (4) Facilitates access to
			finance and accelerated growth.
			One-stop shop that provides academic training, a
			laboratory, a studio with a digital multimedia
			production content library and data bank, as well
			as incubation space for students. Supported 110+
			student-led startups across three cohorts. Sister
			innovation hubs have been launched at Milton
			innovation habs have been faunthed at ivilital

			Margai Technical University and the University of Makeni.
<u>Muzambiringa</u>	Venture building	Freetown	Aims to build sustainable sector-disrupting
	studio		businesses and nurture responsible business and
			social leaders to improve the socio-economic
			landscape of the people of Africa and African
			descent. Provides venture building (24-month
			programme), incubation (12-month programme),
			acceleration (12-month programme) and access to
			investors (investment vehicle in progress). Trained
			500+ entrepreneurs, incubated 18+ businesses
			and raised US\$3 million+ in follow-on capital.
Project 1835/Bo	Innovation hub	Во	Supports social entrepreneurship and innovation
Innovation Hub			as vehicles of economic and social development in
			Sierra Leone. Builds companies that will have an
			impact on social, economic and industrial
			structures. Coaches and mentors early-stage
			startups. Established first innovation hub in a
			provincial district. Includes a digital garage and fab
			lab for Sierra Leone youth.
UNDP Sierra Leone	Accelerator lab	Freetown	Works with government, development partners,
Accelerator Lab			academia, the private sector, civil society
			organisations and the local communities to
			support the innovation ecosystem and enable
			these innovators to establish themselves as part
			of the national development agenda. Support for
			young innovators in the plastic waste
			management, agriculture and access to water and
			energy sectors. Partner with Orange and Africell.
			Helped establish a <u>UniPod at Fourah Bay College</u> .

As Sierra Leone's innovation and entrepreneurship ecosystem matures, there is growing recognition – both in Sierra Leone and across many developing markets – that not all innovation support structures, despite the best intentions of donors and others, are equally positioned to move startups from ideation to investment readiness. While many of Sierra Leone's SSOs have effectively coached and mentored startups to win grants or pitch competitions, fewer SSOs have succeeded in helping tech startups transition into scalable, investor-ready enterprises. The system has been optimised to support donor-funded competitions rather than market traction – with startups excelling at "pitching" rather than "selling." Reorienting startups to market-based needs has more frequently been carried out by impact investors who provide technical assistance connected to funding rounds.

One means of improving the quality of startup support may be emphasising a sector focus over a more generalist approach – aligning training, mentorship and investment with the unique needs and

regulatory dynamics of specific industries. Entrepreneurs value this model (per the 2024 InnovationSL entrepreneur survey), and previous sector-focused efforts – such as agritech accelerators – suggest that demand exists. The fintech sector could particularly benefit from a dedicated accelerator that bridges startups with regulators, banks and telcos, while providing guidance on complex issues around compliance, interoperability and digital trust.

University-based incubators can often provide access to this sector-specific technical knowledge via university faculty and R&D activity. However, in Sierra Leone, incubators at IPAM, Limkokwing, Milton Margai Technical University and the University of Makeni operate in an academic environment where R&D is limited or does not exist. As a result, these incubators often focus more on basic business support and training rather than on leveraging university-led technical research or innovation. Strengthening the R&D capacity of universities could significantly enhance the role that these incubators play in driving technology-based entrepreneurship. Universities and large firms in Sierra Leone, with the exception of Sierra Leone's mobile network operators (MNOs), could also collaborate more to give student entrepreneurs the opportunities to work on real-world, market-driven challenges, unlock pathways for students to apply their skills in practical settings, drive innovation that responds to local industry needs and improve graduate employability.

## Business support services (ICT services and others)

In the <u>Sierra Leonean Investment Readiness Insights Report</u>, prepared for Invest Salone, Acumen Fund observed that there was limited or no integration of technology in operations – especially deployment of enterprise systems such as financial or customer resource management. This lack of digital adoption hampers operational efficiency and scalability, making it challenging for companies to attract investment and compete effectively. Bridging this digital divide is crucial for fostering a more robust and competitive business environment in Sierra Leone. In Table 8, we summarise some of the information and communications technology (ICT) firms currently operating in Sierra Leone. The scope of this assignment could not accommodate a comprehensive assessment of the quality, customer satisfaction or operational maturity of the firms listed; we include them here to illustrate the range of ICT services currently available in Sierra Leone.

These ICT firms offer a diverse and complementary range of digital services, from enterprise software development and IT infrastructure to blockchain-based solutions, AI, cybersecurity and strategic consulting. Several firms, such as Byte Limited, LBD Group and CJ BEM, market themselves particularly to startups, offering product development, digital skills training and platform design services tailored to local contexts. Collectively, these firms are well-positioned to support tech startups in Sierra Leone not only through technical services, but also through strategic, legal and investment readiness support provided by advisory firms like Sidi & Co and Terra Nova Solutions.

Industry associations, such as those for ICT and fintech, can play a pivotal role in setting standards, fostering trust, and facilitating collaboration between service providers and clients. They are also well-positioned to advocate for enabling policies and act as conveners between the private sector and government. However, in Sierra Leone – as in many other developing country contexts – such associations often face challenges related to limited funding, institutional capacity and member

engagement. While Sierra Leone once had a fintech association, it is no longer active. There is also no ICT association.

Table 8: Sierra Leone ICT firms and other business support organisations

Name of				
organisation	Туре	Location	Focus areas/services offered	
organisation  Big Bang World  Inc	Type ICT firm	Freetown	A registered Sierra Leonean company renowned in the implementation of innovat projects since 2012. Values and maintain partnerships with market leading innovators different spheres in cutting-edge platforms. Experienced in designing, developing and delivering solutions of the highest quality the promises to drive business performance and streamline operations. Collaborated with DS on several digital innovation hubs. Per their website, they provide IT engineering, logistic	
Byte Limited	ICT firm	Freetown	supply and e-solutions and other ICT services.  Provides innovative IT solutions and services to support digital transformation across sectors. Its offerings include software development, ICT consultancy, enterprise resource planning (ERP) systems, IT infrastructure deployment and digital skills training. Serves clients in government, education, finance and private enterprise, aiming to improve organisational efficiency and service delivery through tailored tech solutions. Emphasises local capacity building by training youth in coding and other digital skills to strengthen Sierra Leone's tech ecosystem. Partner to the Aurora Foundation Accelerator.	
CJ BEM	ICT firm	Freetown	Offers all-in-one mobile store management app (POS App) for small store owners to manage day-to-day activities and custom mobile and web app development for startups and SMEs.  Supports startups in fintech, edtech and healthtech space to design mobile or webbased apps, graphic design, etc.	
Domineum – Blockchain Solutions	ICT firm	UK, et al.	Offers blockchain-as-a-service to enhance transparency, efficiency and data integrity in public and private sector operations across emerging markets. Focuses on digitising land and property registries, streamlining cargo	

	1	1	1 .
			tracking systems and providing identity and
			credential verification solutions. Supports
			government agencies, real estate authorities
			and logistics operators by integrating secure,
			tamper-proof records into existing
			infrastructures. Aims to implement its
			blockchain solutions for the Government of
			Sierra Leone land registry.
<u>Geneline-X</u>	ICT firm	Freetown	Focused on solving several challenges faced by
			businesses in Sierra Leone, including limited
			access to AI technology, inadequate data
			collection infrastructure and the need for
			structured data for AI training. Developed
			<u>Xplain-ai</u> and <u>GeniStudio</u> .
LBD Group (iDT	ICT firm	Freetown	Provides digital solutions and services aimed at
Labs)			supporting startups, businesses and
			development organisations in Sierra Leone and
			beyond. Offerings include software and mobile
			app development, website design, IT
			consultancy and tech support. Builds digital
			platforms that promote social impact, such as
			tools for health, education and financial
			inclusion. With a focus on innovation and local
			capacity building, the company leverages
			technology to drive entrepreneurship and
			sustainable development in emerging markets.
			Formerly iDT Labs, which built MiKashBoks.
Sankofa Solutions	ICT firm	Freetown	Established in 2024, aspires to deliver
			innovative, sustainable and scalable IT solutions
			that empower businesses and organisations to
			thrive in the digital age while contributing to
			Sierra Leone's technological development.
			Provides digital transformation solutions
			tailored to West African businesses. Services
			include strategic consulting, business process
			digitisation, technology implementation, digital
			workplace solutions, software development
			and IT infrastructure.
SBTS Group	ICT and	Freetown (Also	Global technology and logistics firm that helps
	cybersecurity	USA, Liberia	governments and organisations conceptualise,
	firm	and	implement and support technology, security,
		Democratic	logistics and health-related solutions, and other
		Republic of	technological innovations in an integrated
		Congo)	enterprise. With numerous suites of products
		35667	The second series of products

			covering healthcare, e-government, logistics, biometrics, identification, payment solutions and strategic consulting, SBTS brings 20+ years of experience helping governments and organisations alike to innovate through strategic projects, research and technological initiatives.
Sidi & Co	Business advisory	Freetown	Established by Sidi Saccoh, a seasoned operations and business strategy executive with experience throughout Africa, the Middle East and the UK. Sidi & Co partners with companies and entrepreneurs (including tech) to unlock their full potential and achieve growth. Designs and facilitates bespoke programmes that build resilience, investment readiness and practical skills for tomorrow's business leaders. Helps startups craft a powerful story for investors, backed by data and strategy, and establish key partnerships that fuel growth.
Terra Nova Solutions	Legal, facilities and administration, transaction support	Freetown	Professional services firm launched in 2014 to empower clients in Africa's frontier and challenging markets. Offers a suite of finance and accounting services for both local market and multi-jurisdictional operations, including bookkeeping, financial reporting, third-party audit management and consolidations.  Supports corporate, legal, governance, impact, and environmental, social and governance (ESG) compliance and reporting requirements through functions such as framework development, policy drafting and implementation, monitoring and third-party audit management and response, transaction support and advisory, and impact management. Funded by Solon Capital.
Touchpoint (TP Solutions)	ICT firm	Freetown/USA	Offers a range of IT services in Sierra Leone, focusing on technology solutions for businesses and institutions. Their services include strategic advice on IT systems and digital transformation, design and installation of wired and wireless networks, custom software tailored to client needs, website design and hosting,

procurement and support for IT hardware and
peripherals, and on-demand support and user
training for IT systems. Full-service technology
partner for clients seeking to improve
operational efficiency and digital capabilities.

## Funding/financing landscape

In 2024, InnovationSL surveyed entrepreneurs on their biggest challenges; access to finance/funding emerged at the top, especially for women entrepreneurs or founders. Given their risky nature, tech firms may face higher obstacles accessing funding — particularly in developing countries. Tech startups typically have no collateral to offer, many are pre-revenue or cash burning by design, operate in experimental or frontier sectors with no guarantee of success and investor return on investment may take years (if there is a return at all). Tech startup funding requires VCs and angel investors seeking "high risk/high return." Given this orientation, VCs and angel investors are more active in West African countries like Nigeria, Ghana and Senegal, where larger consumer markets (including the broader region), stronger startup ecosystems and better digital infrastructure offer more attractive conditions for scale and exit.

In contrast, Sierra Leone's smaller market size, limited digital and power connectivity, and weaker investment pipeline make it less appealing to traditional VCs – creating space for impact-driven capital (impact investment) instead. These impact investors are more willing to accept higher risk and longer time horizons in exchange for measurable social and economic outcomes; this form of patient capital is better suited to early-stage ventures tackling basic service gaps in agriculture, health, education, finance and clean energy.

Invest Salone knows the impact investor segment well, having supported <u>Acumen Fund</u>, <u>Cordaid Investment Management</u>, <u>Incluvest</u>, <u>Solon Capital Partners</u> and <u>Truestone Impact Investment Management</u> to unlock more than £29 million for Sierra Leonean businesses through the <u>PROSPER Salone</u> grant programme. Several of these impact investors have funded some of the tech or techenabled startups described in the section "Tech startups". Given Invest Salone's familiarity with these institutions, we will not rehash them here. However, as Sierra Leone's digital and innovation ecosystems continue to evolve, Invest Salone or future programmes may wish to engage with other VCs and funds specifically dedicated to "pure play" tech startups.

#### Tech-specific funds

Listing every available tech-focused fund (even those catering exclusively to Africa) would be impractical and beyond the resources allocated to this assessment; however, Table 9 offers a representative sample. The list includes a mix of VCs and impact investors. Some funds – like FINCA Ventures, Mercy Corps Ventures and Redsalt Angel Investment Network (RAIN) – clearly focus on social impact, while others – such as Quona Capital, Orange Ventures and Flourish Ventures – blend commercial and inclusive finance goals. Mercy Corps Ventures also specifically emphasises the use of Web3 and other emerging technologies to develop innovative solutions to social challenges.

The inclusion of Redsalt Foundation is notable, as the Uganda-based foundation recently expanded operations to Sierra Leone and may hope to replicate/adapt the RAIN model; whereas the inclusion of Orange Ventures underscores the potential importance of Sierra Leone's largest mobile network operator as an ecosystem player. In addition to making major investments in digital infrastructure and digital skills acquisition (see also "Enablers" below), Orange sponsors the Orange Sierra Leone Social Venture Prize, a potential pathway for Sierra Leonean entrepreneurs to meet with investors and access funding. In 2022, LifeBlood (the Startup World Cup Semi-Finalist) was among three Orange International Grand Prix winners.

Table 9: Tech funds and impact investors

Name	Target sector(s)	Services/solutions provided		
FINCA Ventures	Agriculture, education,	Equity investments, hands-on support to early-		
	fintech, health, water &	stage social enterprises		
	sanitation			
Flourish Ventures	Fintech, digital banking,	Early-stage equity investments, ecosystem		
	financial health	building, policy advocacy		
Google Black	Technology (sector-	Equity-free cash awards, Google mentorship, cloud		
Founders Fund	agnostic)	credits, product support for black startups in the		
		US, Africa and Europe		
Madica Ventures	Sector-agnostic	Pre-seed funding, structured investment		
	(technology-driven	programme, venture building support for		
	companies)	underrepresented and underfunded African		
		founders		
<u>Meltwater</u>	Software development,	Entrepreneurial training, seed funding, incubation,		
<u>Foundation</u>	business, communications	mentorship for aspiring African entrepreneurs		
Mercy Corps	Agritech, edtech, fintech,	Early-stage investments, venture-led solutions,		
<u>Ventures</u>	healthtech, ICT, logistics	resilience building for underserved individuals and		
		communities in emerging markets		
Orange Ventures	Networks & IT, digital	Equity investments, strategic partnerships,		
	enterprise, cybersecurity,	corporate support for startups in Africa, Middle		
	fintech, e-health	East and Europe		
Quona Capital	Fintech, embedded	Growth-stage investments, financial inclusion		
	finance, challenger	focus for Underserved consumers and MSMEs in		
	banking	emerging markets		
Redsalt Angel	Sector-agnostic	Equity investments, mentorship, networking		
Investment Network	(technology-driven	opportunities for startups with social impact focus		
	companies)			
Solana Foundation	Blockchain, Web3,	Grants, funding programmes, ecosystem support		
	decentralised applications	for developers, creators and founders in the		
		Solana ecosystem		
THRIVE by SVG	Agritech	Create innovative solutions in the agritech sector		
<u>Ventures</u>		that provide food security by maximising the		
		efficiency of inputs and outputs. Support at		

ideation and research stage, validation stage, seed
to Series A funding and scale up

#### Funding successes and challenges

As mentioned above, many Sierra Leone startups have become stuck in a kind of "grant trap," remaining overly dependent on incremental, piecemeal donor-funded grants, hackathons and pitch competitions, unable to transcend ideation and move into market validation, early growth and scale. In its 2024 GIZ-funded survey of Sierra Leone's entrepreneurs, InnovationSL presented a correlation between experience and funding, positing that the longer a given startup had been operational, the more likely that startup would have access to diversified sources of funding, including government grants, financial institutions, VC and private equity. For example, young startups (less than one year old) rely more heavily on personal savings and bootstrapping, while "older" startups (3–5 years) do better at attracting outside investment. Investment readiness may thus be influenced by several other factors.

Examining some of the tech- or tech-enabled startups introduced in the section "Tech startups" who have attracted capital and achieved a higher degree of investment readiness – MiKashBoks, Mosabi, Farmerline (Ghana), Rising Academies and Easy Solar – may help expand upon InnovationSL's insight by identifying common characteristics or qualities that help firms advance beyond ideation, or the "grant trap". While these firms were all funded by impact investors, many of these same qualities or characteristics could equally apply to more commercially-driven startups in fintech or other sectors (see also below). These factors are presented in Table 10 and explained in the text below.

Table 10: Tech or tech-enabled startups that secured funding (beyond grants)

	Strong founder	Clear and	Social	Scalable in	
	team (global and	sustainable	impact/social	Sierra Leone	Tech-enabled service
Startup	local)	revenue model	problem	or region	delivery
MiKashBoks	Salton Massally	Earns transaction	Digitising	Piloted in	Mobile + USSD
	(local founder)	fees and	informal	Sierra Leone;	platform with group
	and Simon Levell	commissions from	savings	expanding via	savings, wallet and
	(current CEO with	financial services	(osusu) to	partnerships	agent features
	connections to	via app	promote	(Ecobank,	
	impact investors		financial	International	
	in UK and		inclusion	Labour	
	elsewhere)			Organization)	
				and looking	
				into other	
				countries	
Mosabi	Chris Czerwonka	Generates	Improving	Began in	AI-powered content
	and Francis Okeke	revenue through	financial	Sierra Leone,	delivery via SMS,
	(US- and Sierra	licensing mobile	literacy for	but operates	mobile app and
	Leone-based	learning content	underserved	in multiple	offline tools
	executive team)	and financial	populations	countries	
	with edtech and	tools		including	

	financial expertise			with scalable	
	in multiple			mobile	
	countries			learning	
	countries			platform	
<u>Farmerline</u>	•	•			Uses AI and digital
Group	·	and services with			platforms (Mergdata)
	and Emmanuel	margin; earns	farmer	Côte d'Ivoire;	for supply chain
	Addai (Ghanaian),	from digital	productivity	expanding	optimisation;
	with global	platform	and market	across West	developed
	agritech advisers	(Mergdata)	access	Africa,	multilanguage AI-
	and investors			including	based chatbot
				Sierra Leone	
Rising	Paul Skidmore	Affordable tuition	Improving	Began in	Digital curriculum,
<u>Academies</u>	and Stephanie	and government	learning	Sierra Leone	technology-enabled
	Dobrolowski –	contracts (e.g.,	outcomes	and	data analytics to
	founders. Global	Liberia public–	through	expanded to	monitor schools
	education experts	private	quality,	Ghana,	closely (Bambai) and
	and local teams	partnership	affordable	Liberia and	provide school
	managing schools	schools)	schooling	Rwanda;	leaders and teachers
	across West			expanding	with actionable
	Africa			reach via	feedback. Uses AI-
				radio and	based chatbot (RORI)
				digital tools	to teach maths
Easy Solar	Co-founded by	PAYG solar device	Expanding	Operates in	Solar tech with
	Alexandre Tourre,	sales with	energy access	Sierra Leone	innovative digitally
	Nthabiseng Mosia	recurring revenue	in off-grid	and Liberia;	enabled payments
	and Eric	via mobile	rural and	raised US\$5	and PAYG
	Silverman;	payments	peri-urban	million to	functionality
	executive team		communities	scale	
	also includes			operations	
	professionals				
	from Nigeria,				
	Sierra Leone and				
	Liberia				

Strong founder/leadership team combining global and local technical knowledge and management. A common strength among these tech or tech-enabled startups is the presence of founding teams that blend global experience with local insight. This combination brings both contextual knowledge and international financing experience. It is worth noting, however, that several of these founder teams/C-suites are exclusively expatriate, with global technical/financial networks and local operational teams often playing critical roles in delivery and outreach. This underscores the importance of forging linkages between potential Sierra Leone diaspora investors in the USA and the UK, and of building Sierra Leone's technical and managerial capacity.

Clear and sustainable revenue model. Each of these startups demonstrates a commercial model that aligns revenue with long-term sustainability and social impact. For instance, Easy Solar uses a PAYG model that allows users to purchase solar systems through small mobile payments, creating recurring revenue while expanding energy access. Similarly, Mosabi generates revenue through licensing its AI-powered financial education tools to microfinance institutions (MFIs) and NGOs, tying earnings to user engagement and institutional uptake. These models prove that financial viability and inclusive service delivery can go hand-in-hand.

Addresses social challenge/has a social impact. These startups all address critical, underserved needs in Sierra Leone and beyond (see also below), ranging from financial inclusion to education and clean energy. Rising Academies, for example, operates low-cost private schools, improving learning outcomes in regions where public education often falls short. Meanwhile, MiKashBoks digitises traditional savings groups (osusus), helping low-income users access secure, trackable financial services for the first time. Their missions make them attractive to impact investors seeking measurable social returns.

Scalable within and outside of Sierra Leone. Despite operating in small or low-income markets, these startups have demonstrated scale within Sierra Leone and/or across West Africa. Farmerline, originally launched in Ghana, has already expanded to Côte d'Ivoire and has signed a memorandum of understanding to expand operations and pilot projects in Sierra Leone. Mosabi's tech stack is inherently modular, allowing it to be deployed in multiple countries and languages via mobile or USSD channels. Their scalability lies in both product design and the universality of the problems they address. Easy Solar has expanded from Sierra Leone into the Liberian market. Rising Academies operate in Sierra Leone, Liberia, Ghana and Rwanda.

Tech-enabled (including emerging tech) service delivery. Technology plays a central role in enabling cost-effective, user-centred service delivery across these tech or tech-enabled startups. MiKashBoks uses mobile apps and USSD to bring digital savings tools to users with limited internet access, while Easy Solar leverages mobile money platforms to manage energy payments remotely. Rising Academies integrates edtech tools, digital content, data-driven school management systems and Al chatbots to support its teaching model. Farmerline also uses emerging tech (Al chatbots) and tech platforms to increase agricultural productivity in West Africa.

## Government support/regulatory environment

In Sierra Leone, several government institutions support the growth and development of tech startups – guided by key policy documents and strategies. The 10-year (2019–2029) NIDS was developed by the DSTI, which sits in the Office of the President and executes its functions through the Office of the Chief Minister. The DSTI aspires "to use science, technology and innovation to support the Government of Sierra Leone to deliver on its national development plan effectively and efficiently; and to help transform Sierra Leone into an innovation and entrepreneurship hub." The NIDS is driven by one core philosophy: Digitisation for All – digital identity, digital economy and digital governance. The digital economy aspect addresses financial inclusion, entrepreneurship and process optimisation for government, businesses and industries. It also references tech SSOs

(incubators and accelerators), R&D, inculcating a national innovation ideology and pursuing a vision of Sierra Leone as "country-as-Al-lab."

Whereas the NIDS is visionary and broad, Sierra Leone's <u>National Digital Development Policy</u> (NDDP) and <u>National Digital Development Strategy</u> (NDDS) provides a comprehensive, practical whole-of-government framework for the country's digital development, drawing inspiration from NIDS principles. The NDDP and NDDS also identify lead ministries (custodians), focal points, governance structures and short-, medium- and long-term tasks for the country's digital transformation. The <u>MoCTI</u> is the coordinating ministry for the NDDP and NDDS. The NDDP and NDDS also guide the implementation of the ambitious World Bank-funded <u>Sierra Leone Digital Transformation Project</u>, implemented by MoCTI.

The NDDP/NDDS is organised around seven thematic areas, including "Emerging Technologies, Innovation and Digital Entrepreneurship." This thematic area includes eight objectives:

- Enhance dialogue and institutional collaboration in the entrepreneurship ecosystem
- Develop and improve policies for digital innovation and entrepreneurship
- Facilitate access to capital for digital ventures and enhance the ease of doing tech-business
- Unlock digital innovation and support the scaling-up of tech solutions
- Develop a team of growth entrepreneurs and build their digital capabilities
- Support the demand and uptake of innovative digital solutions
- Build local industry leveraging the growth of a local ICT industry
- Support the local internet ecosystem by facilitating local hosting and content.

The NDDP/NDDS designates DSTI as the custodian of most of these tasks; however, there are signs that responsibility for this thematic area is shared with MoCTI. In 2024, MoCTI also launched the Felei TechCity project (briefly described in the Introduction) with a US\$1.4M AfDB (African Development Bank) grant, which will be "a hub for innovators, researchers, tech enthusiasts, venture capitalists and startups, designed to promote collaboration and innovation in Sierra Leone." As mentioned above, the April 2025 Startup World Cup served as a highly visible showcase of the TechCity, as well as MoCTI's commitment to supporting innovative tech startups. The MoCTI is also the custodian for the overall implementation of the National Data Strategy (2023) now that the functions of the Ministry of Information and Communication have been mostly absorbed into MoCTI.

#### Startup legislation

Sierra Leone currently lacks a Startup Act to clearly define what qualifies as a startup, distinguishes a tech startup from a more traditional growth-oriented SME and provides the foundation for a targeted policy framework for supporting innovation, attracting investment and reducing regulatory uncertainty. This kind of legislation would help align incentives, simplify compliance and signal a strong national commitment to fostering a modern, technology-driven economy. In 2024, MoCTI facilitated collaboration between law students from USL Fourah Bay College and Columbia Law School (USA) to develop a foundational digital tech startup bill that will eventually be approved by Parliament. Invest Salone is also reviewing the draft bill and providing comments.

Startup bills frequently mandate tracking the progress of registered startups on online platforms that also serve as a means of connecting innovation ecosystem actors; this is something that MoCTI could begin to prepare for, even before the official bill is passed. The MoCTI Directorate of Innovation is the logical candidate for the design and implementation of such an online platform, ideally mandated by the Startup Act (see examples from other West African countries in Table 11); in the meantime, data must be aggregated and analysed piecemeal by surveying Sierra Leone's range of SSOs.

Table 11: West African/other African comparators: startup laws and acts

Country	Law/policy	Status	Key features
Côte	Startup Act (Projet de Loi	In development	Inspired by Tunisia and Senegal
d'Ivoire	Startups)		models; expected to define startup
			support ecosystem
Ghana	Startup and Innovation Bill	Drafted	National startup registry, tax holidays,
			Ghana Innovation and Startup Fund
Nigeria	Nigeria Startup Act (NSA)	Enacted	Startup labelling, National Council, tax
	<u>(2022)</u>		incentives, regulatory sandbox, seed
			fund
Senegal	Startup Act (2019)	Enacted	Public–private governance council, tax
			exemptions, access to public
			procurement
Tunisia	Startup Act (2018)	Enacted	Labelling system, tax holidays, salary
			subsidies, flexible stock options, leave
			for entrepreneurs

For example, in Nigeria, the <u>National Information Technology Development Agency (NITDA)</u> under the Federal Ministry of Communications, Innovation and Digital Economy maintains <u>Startup Nigeria</u>, an online platform to collate and classify startups in Nigeria to benefit from the opportunities provided in the Nigerian Startup Act 2022. The portal also helps startups to connect with VC, angel investors and SSOs and to learn more about government benefits and incentives. In Tunisia, the <u>Startup Tunisia</u> platform plays a similar function, and is managed by Smart Capital, a management company approved by the <u>Financial Markets Council</u>. The creation of this platform also has its basis in Tunisia's Startup Act (2018). In Senegal, there are plans to create an online platform for startups, maintained by a Commission for the Evaluation, Support and Coordination of Startups (CEAC), <u>but its design and launch have been delayed by political turmoil</u>.

VC and angel investing. Sierra Leone also lacks a dedicated legal framework for VC or angel investing, presenting challenges for startup financing and investor confidence. Investment activity is currently governed by general business legislation such as the <a href="Companies Act (2009">Companies Act (2009)</a>, the <a href="Investment">Investment</a>
Promotion Act (2004) and financial sector regulations managed by the BSL. While foreign direct investment is broadly permitted and investors can hold 100% equity in most sectors, there is no specific guidance around investment terms commonly used in VC, such as liquidation preferences,

convertible notes or anti-dilution rights. These issues are typically handled through private contracts, which can deter institutional investors looking for more standardised legal protections.

In the absence of VC-specific legislation, startup funding in Sierra Leone often depends on diaspora networks and impact investors, who bring their own frameworks and due diligence requirements. Public institutions like <a href="National Investment Board">National Investment Board</a> (NIB) Directorate of Investment and Export Promotion are tasked with incentivising investment, but they lack tailored support for high-growth, investment-ready startups. Per the <a href="NDDS">NDDS</a>, supporting tech startups is the responsibility of DSTI. The regulatory gap extends to tax treatment of equity investments, exit mechanisms and investor protections, all of which affect the growth potential of the startup ecosystem and require interministerial coordination to advance. Reforms to clarify and enable early-stage investment – including the introduction of a Startup Act or VC-friendly provisions – could improve Sierra Leone's attractiveness as a destination for innovation financing.

Intellectual property legislation. Strong intellectual property (IP) laws and enforcement are also essential for Sierra Leone's tech startups to protect their innovations, attract investment and compete globally. While the country has enacted <u>foundational IP legislation</u>, major gaps remain in administrative procedures, enforcement mechanisms and international treaty alignment. Only trademarks benefit from relatively clear processes, while patents, copyrights and industrial designs lack effective registration systems. These shortcomings limit the ability of startups to commercialise and scale their innovations. Targeted reforms could help build a more supportive environment for technology-driven entrepreneurship.

#### Digital trade (e-commerce)

Robust legal and regulatory frameworks for digital trade, electronic transactions and cross-border data flows are vital to improving the competitiveness of Sierra Leone's tech startups, particularly those in fintech and e-commerce. Sierra Leone has made foundational progress through the enactment of the Electronic Transactions Act (2019), which recognises electronic contracts and electronic signatures in commerce, legal proceedings and government services and authorises digital communications in commerce. In addition, Sierra Leone's Cybercrime Act (2020) (see also below) establishes a legal framework that ensures the security and integrity of electronic transactions. However, gaps remain in enforcement and cross-border interoperability. For example, while Sierra Leone has signed the UN Convention on the Use of Electronic Communications in International Contracts, it has yet to ratify it and cross-border data transfers are allowed only with prior approval from the National Communications Authority (NatCA) and data localisation is required per the Telecommunications Act (2006). Sierra Leone's National Consumer Protection Act (2020) provides general consumer rights but lacks digital trade or e-commerce-specific dispute resolution mechanisms — especially for cross-border transactions.

#### Data protection, data privacy and cybersecurity (digital guardrails)

Sierra Leone's <u>National Data Strategy 2023</u> affirms the country's commitment to establishing a trusted, inclusive and well-regulated data ecosystem, with significant relevance to data protection and privacy. The strategy recognises that personal data protection is essential to building public trust and enabling a robust digital economy, particularly for sectors like digital government, fintech and e-

commerce. This strategy explicitly calls for the enactment of a Data Protection Law (see also below) and the establishment of an independent Data Protection Agency (DPA) to regulate public and private data practices, promote accountability and facilitate cross-border data flows. It also highlights the need to harmonise data protection rules with broader cybersecurity measures and regional frameworks like the <a href="Economic Community of West African States">Economic Community of West African States</a> (ECOWAS) Supplementary Act on Personal Data Protection.

Data protection and privacy are critical for tech startups in Sierra Leone, as they underpin user trust, enable secure digital transactions and facilitate cross-border data flows essential for scaling operations. While the country currently lacks comprehensive data protection legislation, the government has initiated steps to finalise a Data Protection Law that would safeguard personal information and align with international standards. This effort will be further supported by UNDP. In the meantime, sector-specific regulations provide some data protection measures; notably, the National Payment Systems Act (2022) mandates that payment system operators and service providers implement robust data protection and privacy measures, including the confidentiality of customer information and the secure handling of transaction data. This sectoral approach offers limited safeguards, but until a comprehensive Data Protection Law is enacted and effectively enforced, the absence of overarching data protection measures continues to pose challenges for Sierra Leone's digital economy and tech startups and their ability to access new regional and global markets.

As Sierra Leone moves more business and government functions online, cybersecurity must play a critical role in fostering a secure digital environment that protects consumer data and builds trust. Sierra Leone's <u>Cybercrime Act (2020)</u> focuses on criminalising offences such as unauthorised access, data interference and identity theft, while also facilitating the collection of electronic evidence and international cooperation in cybercrime investigations. In contrast, the <u>Cybersecurity and Crime Act (2021)</u> emphasises the establishment of institutional structures like the <u>National Cybersecurity Coordination Centre (NC3)</u>, the <u>National Cybersecurity Advisory Council</u> and the <u>National Computer Security Incident Response Coordination Center (CSIRT)</u>, aiming to bolster the nation's cybersecurity posture and coordinate responses to cyber threats.

Regionally, Sierra Leone aligns with the <u>ECOWAS Regional Cybersecurity and Cybercrime Strategy</u>, which advocates for the development of national cybersecurity policies, the establishment of dedicated authorities and the protection of critical infrastructures. Additionally, Sierra Leone is a signatory to the <u>African Union's Malabo Convention</u>, underscoring the national commitment to harmonising cybersecurity and data protection laws across the continent. Internationally, the country's <u>ratification of the Budapest Convention on Cybercrime</u> in April 2024 signifies its dedication to global cooperation in combating cybercrime.

#### Emerging technologies (blockchain and AI)

In many countries and economic blocs (including the US, UK and the European Union), the regulation of the digital economy and emerging technologies such as blockchain, cryptocurrency and AI have inspired spirited debate about the need to balance technological innovation while honouring social

safeguards around data protection, data privacy, IP rights and cybersecurity. This holds true for Africa, as the continent conducts more of its economic, political and social life online. For example, Smart Africa's <u>Blockchain in Africa report</u> outlines some of these policy and legal/regulatory tensions, such as balancing blockchain's inherent design principles – e.g., immutability and transparency – and data protection norms such as the right to be forgotten. Documents such as <u>The State of AI in Africa Report</u> by the Centre for Intellectual Property and Information Technology Law (CIPIT) present similar dynamics in the AI space, where the rapid advancements in generative AI, predictive AI and machine learning have generated excitement, but also concern about AI's potential impact on labour markets, IP, creativity and even the future of humanity.

Sierra Leone has begun to address some of these issues in the data protection, data privacy and cybersecurity legislation presented above. In the blockchain space, the legality of cryptocurrency in Sierra Leone should be examined, as online accounts and reports are contradictory. While some sources claim that the use of cryptocurrency is neither illegal nor fully recognised, others cite the BSL's 2021 warning that the activity of crypto traders engaged in financial transactions without a BSL licence is illegal. In 2022, an International Monetary Fund (IMF) blog post claimed that Sierra Leone was among 20% of sub-Saharan countries who had explicitly banned crypto – this is also cited in Sierra Leone's Financial Intelligence Unit's Second National Risk Assessment Report (2023), which states that "the BSL is on record to have issued a press release banning the use of crypto currencies/bitcoin in Sierra Leone. The BSL claimed that the country lacks the infrastructure to control and curtail the risks it poses to our economic system." However, our research team has searched extensively online and cannot find the press release cited.

A similar phenomenon arises in the AI policy and legislative space: for example, the 2022 Alt Advisory analysis <u>AI Governance in Africa</u> states that Sierra Leone has a national AI strategy and national expert body. While the DSTI <u>NIDS</u> posits Sierra Leone as an "AI lab" and the MoCTI <u>NDDP</u> generally mentions AI applications in several contexts, neither of these documents can objectively be seen as representing a holistic national AI strategy along the lines of <u>Ghana</u>, <u>Nigeria</u>, <u>Kenya</u> or Rwanda.

Development of AI applications depends fundamentally on the availability, accessibility and quality of data, often from public sources. If Sierra Leone's government agencies lack structured, interoperable datasets – or fail to implement basic data stewardship practices – then both the public and private sectors will struggle to build reliable AI tools. Poor data governance will not only limit innovation but also increase the risk of bias, error and distrust in any AI systems developed.

Though Sierra Leone's <u>National Data Strategy (2023)</u> acknowledges that poor data infrastructure, inconsistent data standards, weak inter-agency sharing and underdeveloped regulatory frameworks pose major risks to Sierra Leone's digital transformation, it is not specific on data readiness for Alspecific use cases. Firms such as <u>Geneline-X</u> and others are attempting to address this from the bottom up, but the climb is steep. Where Al applications draw on private datasets (e.g., consumer data), strong data protection, data privacy, cybersecurity and IP laws (see also above) should ideally be in place.

### Digital context/enablers

Digital infrastructure, connectivity and skills are key enablers to tech startup growth in Sierra Leone, directly impacting the ability to build, deliver and scale digital products and services. Limited broadband access and affordability and a shortage of digitally skilled talent can constrain both innovation and market reach. The issue of energy/power reliability is also relevant, though this issue has been widely covered <u>elsewhere</u>.

#### Digital infrastructure/connectivity

Sierra Leone's digital infrastructure has developed significantly in recent years, enhancing both first-mile and middle-mile connectivity. The country's primary international gateway is the Africa Coast to Europe (ACE) submarine cable, operational since 2012. This 17,000 km fibre-optic system connects 24 countries along the West African coast to Europe, providing crucial bandwidth for Sierra Leone's internet services. The ACE cable lands in Freetown and is managed by Zoodlabs under a public—private partnership. However, reliance on a single cable has exposed the nation to vulnerabilities; to address this, Sierra Leone, along with other ECOWAS member states, is participating in the Amilcar Cabral Submarine Cable Project. This initiative aims to provide redundancy and enhance regional connectivity, with plans for phased implementation as financing becomes available.

In terms of middle-mile infrastructure, Sierra Leone completed the National Fiber Optic Backbone in August 2023, <u>funded through a US\$30 million loan from China EXIM Bank and implemented with assistance from Huawei</u>. Operated by <u>Leonecom</u>, the backbone spans 14 of the country's 16 districts, connecting major towns and cities. Despite this progress, <u>fixed broadband penetration remains low</u>, <u>with less than 1% of the population having access</u>. The high cost of fixed connectivity – averaging US\$5.56 per Mbps per month, or about 38% of gross national income (GNI) per capita – limits widespread adoption. Consequently, fibre-to-the-home (FTTH) services are primarily used by government institutions, hospitals, schools and a select elite customer base.

In Sierra Leone, last-mile connectivity remains a major bottleneck to achieving universal internet access and expanding the potential user base for tech startups. The high cost of extending fibre or fixed wireless infrastructure to individual homes and small businesses – particularly in low-density rural areas – has limited private sector investment. Consequently, most Sierra Leoneans rely on mobile networks for internet access, with mobile penetration far outpacing fixed broadband. This mobile-first reality is driven by affordability (see also below) and coverage. Mobile internet is significantly cheaper than fixed broadband and requires less infrastructure per user. According to Datareportal, as of January 2025, there were 1.8 million internet users in Sierra Leone (out of a total population of 8.73 million) – representing a 20.7% internet penetration rate.

Sierra Leone's three private sector mobile service providers – <u>Orange Sierra Leone</u>, <u>Africell</u> and <u>Qcell</u> – are the main ISPs in Sierra Leone's mobile-first internet access environment (according to the Digital Learning Landscape Analysis, <u>less than 6% of Sierra Leoneans own a computer</u>). The <u>UNICEF Giga project</u> found that Orange has a 52% market share, closely followed by Africell (45%) and then Qcell (1–2%). Among them, according to the <u>GSMA (Groupe Spéciale Mobile Association) Mobile</u>

Connectivity Index, these firms provide 95.2% 3G coverage, and 65% 4G coverage (though "coverage" does not always reflect "penetration"; i.e., connected subscribers). Trials of 5G have been launched by both Orange and Africell, covering the Freetown area. Additionally, as UNCTAD's ECOWAS e-Trade Readiness report points out, in Sierra Leone and other ECOWAS countries "coverage rates are not weighted by the quality of connectivity." According to the Ookla Speedtest Global Index, download speed in Sierra Leone is 14 Mbps and upload is 8 Mbps, ranking the country 145th place among 181 countries. Notably, Starlink entered the Sierra Leone market in 2023 – providing another option for internet connectivity, though questions remain about its overall affordability for the typically underserved consumer.

Orange has sponsored the construction of a data centre in Freetown and is currently building a €23 million data centre in Bo, which will extend digital infrastructure to rural and regional parts of Sierra Leone, such as Makeni, Kenema and Kono. Like Orange, Africell has also built data centres in Freetown, and has committed to building an ultra-modern second data centre in Bo to support the Felei TechCity initiative. Africell and the US Trade and Development Agency have also collaborated on a feasibility study for Africell's expansion of fixed broadband networks. These investments should be considered alongside other initiatives including the World Bank-funded Sierra Leone Digital Transformation Project and the US\$50 million SMART Sierra Leone Project, a partnership between MoCTI and the China National Technical Import & Export Corporation.

Internet affordability/digital divide. Internet affordability is a challenge in Sierra Leone. As of 2023, the average cost of 1 GB of mobile data was approximately US\$0.67, which is relatively affordable compared to global standards, but still significant for low-income users. The cost of devices must also be considered, as most rural mobile subscribers cannot afford smartphones; consequently, many buy feature phones (basic mobile phone that supports voice calls, SMS and limited apps like a calculator or FM radio, compatible with 2G/3G networks) instead. Fixed broadband is far less affordable: the cost of a basic connection averages US\$5.56 per Mbps per month, amounting to about 38% of GNI per capita, making it unaffordable for most households. Affordability barriers are compounded by weak competition in the FTTH space and high deployment costs in areas outside of the Freetown/Western Area. Sierra Leone's Universal Access Development Fund (UADF) is tasked with extending affordable internet connectivity to remote and non-commercially viable areas.

#### Human capital and digital literacy/digital skills

Sierra Leone's population is relatively young, with a <u>median age of 20 years</u>, and digitally savvy, <u>accessing a wide range of digital apps and platforms such as Facebook, Instagram, WhatsApp, LinkedIn, YouTube and TikTok</u>; however, a population of "digital natives" does not always translate to hard computer science/digital skills needed to support firm-level or government digital transformation, or the design and application of solutions using emerging tech such as blockchain and AI. Sierra Leone faces a two-tiered challenge: first, expanding the base of digitally literate workers and end users/customers who can support digitisation in SMEs and public services; and second, cultivating a small but capable cadre of tech professionals, data scientists and digital entrepreneurs to engage in more sophisticated work, such as developing or localising AI tools or deploying blockchain solutions with real-world impact.

The Government of Sierra Leone has established a comprehensive framework for building the country's digital talent pipeline through its NDDS, NIDS and Medium-Term National Development Plan (MTNDP) 2024–2030. These plans collectively aim to mainstream digital skills across all levels of education and address structural weaknesses in ICT training and workforce development. The NDDS explicitly outlines a multi-pronged strategy led by the MBSSE and the Ministry of Technical and Higher Education (MTHE), emphasising the following: (1) development of digital learning infrastructure; (2) teacher training and curriculum modernisation to include computational skills; (3) targeted financial support to increase the participation of women and persons with disabilities in STEM (Science, Technology, Engineering and Mathematics); and (4) expanded tertiary and vocational ICT programmes to meet labour market needs. The NDDS assigns implementation to a wide range of ministries and agencies, including a coordination role for MoCTI. Specific objectives include setting up ICT learning hubs in every district, building local expertise in fields such as cybersecurity, data science, and AI, and promoting informal digital learning via media and community centres.

As reported in the World Bank's <u>Sierra Leone Digital Economy Diagnostic</u>, at the foundational level, the number of ICT graduates entering the labour market each year is small relative to national demand. Several universities and TVETs offer ICT-related programmes, but these often emphasise general computer science or information systems rather than specialised or applied digital skills. Many graduates are not job-ready for roles requiring hands-on experience in enterprise IT systems, cybersecurity, software development or data analytics – nor emerging technologies such as blockchain or AI. Per informant interviews, private institutions such as <u>CODE</u> and the <u>Limkokwing University of Creative Technology</u> produce the strongest ICT graduates with the digital skills demanded by private sector employers and required for digital entrepreneurship and tech startups (though demand still far outstrips supply). This is followed by the University of Sierra Leone (USL), a public institution (and the oldest university in West Africa).

As a "mobile-first" internet access environment, Sierra Leone's three private sector mobile service providers – Orange Sierra Leone, Africell and Ocell – are also significant contributors to the tech startup and entrepreneurship ecosystem. Orange has opened a Digital Centre and FabLab in Freetown, which teaches beginning, intermediate and advanced digital literacy and coding skills. They have since expanded these efforts outside of the Freetown/Western Area. Orange has also launched digital centres and ICT training courses specifically targeting women. Africell has launched a similar digital training centre in Freetown, sponsored internships for students from Limkokwing University and has partnered with the Internet Society Foundation and others to support grassroots digital literacy efforts such as Digitruck Salone, a mobile ICT classroom delivering training to underserved communities, especially women and girls.

InnovationSL, Limkokwing, MoCTI and DSTI have also hosted short-term training, hackathons and startup incubation programmes. Some donor-funded initiatives have supported digital skills training – particularly in coding, data science and entrepreneurship – for youth. Additionally, organisations such as <a href="Sierra Leoneans in Technology">Sierra Leoneans in Technology</a> (SLINT), a US-based diaspora-led initiative, are offering advanced training in areas like 3D printing, home automation and coding. The <a href="Christex Foundation">Christex</a> Foundation is also building digital skills by providing free blockchain education, including via videos in the Krio language, and giving ICT students the chance to "learn and earn" via <a href="boundation">bounties</a> posted to

the foundation's website. UNICEF, through its <u>Digital Public Goods University Champions</u> <u>programme</u>, has supported students from universities such as USL and Limkokwing with training and mentorship in open-source technologies and digital entrepreneurship.

Other civil society organisations (CSOs) active in this space include the <u>Bo Innovation Hub, CIJ Digital Hub, KNESST Collective</u>, <u>KNS Tech Hub</u>, <u>Tech Inspire SL</u> and the <u>Kamara Yokie Innovation Center</u>. These local or grassroots actors offer ICT and entrepreneurship training (often targeting youth, women and persons with disabilities) and rely heavily on donor funding.

# Market and policy support opportunities

This quick examination of the range of tech and tech-enabled startups in Sierra Leone ("Tech startups" section) shows the fintech sector as the most promising. Fintech startups are directly advancing financial inclusion through digitised savings groups, with success measured in both commercial and social terms: reaching rural women, enhancing financial capability or increasing digital engagement. These models align well with impact investment, blended capital and donor priorities, with the potential to scale.

There is also a cohort of more "pure play" fintechs catering to a more elite market segment and building payment APIs, mobile wallets or merchant tools. In some cases, they combine local founder talent/knowledge of the local market with global mentorship. These firms are more aligned with VC logic and could merit further examination/investor attention; however, they also face several structural constraints. These constraints, many of which we have addressed in our examination of the broader tech startup ecosystem, include the following:

- Small/limited market. With a national population of roughly 8.5 million and low per capita income, the potential market of digitally active, financially included users in Sierra Leone is currently small. Regional expansion, e.g., to the other Mano River Union countries could address this, but (except for Côte d'Ivoire), these countries have equally low or lower levels of digital connectivity and digital skills. These countries also face comparable challenges in the enabling and institutional environments for DFS.
- Potential disruption by SaPS. The rollout of Sierra Leone's national payment switch, SaPS, is a major development that should standardise interoperability between banks and MMOs and transform digital payments in the country. While positive for the ecosystem overall, it may also erode the core value proposition of some of Sierra Leone's new fintechs whose value add is bridging siloed systems.
- Low digital literacy and infrastructure gaps. Despite improvements in mobile access, many users in Sierra Leone still rely on feature phones and USSD menus. Smartphone penetration, consistent electricity and data affordability remain barriers to digital product adoption especially outside the Freetown/Western Area. Although some fintechs have built their systems to accommodate these limitations, this may limit the reach of more sophisticated fintech offerings.
- Fragmented support ecosystem. Although donor-backed incubators, accelerators and challenge funds have supported innovation and inspired entrepreneurship, the broader startup support ecosystem lacks technical depth in the complexities of fintech revenue modelling and legal/regulatory compliance. This may limit the ability of startups to mature past pilot or pre-revenue phases.
- Regulatory and institutional uncertainty. Although the BSL fintech sandbox was a positive step, fintech regulation in Sierra Leone is still emerging. For example, there is no clear

licensing regime for blockchain-based financial service providers, limited legal infrastructure for digital payments beyond mobile money and opaque guidance on topics such as cross-border transfers or data privacy. Startups must often operate in legal grey zones or engage regulators case by case. There is also a lack of clarity on issues around UIN, AML/CTF and KYC provisions.

In the blockchain/DLT space, institutions such as the Christex Foundation are doing much to share knowledge about the technology and to explore potentially transformative use cases; however, blockchain may ultimately have the most potential, returning to its origins – the fintech sector. Blockchain and crypto technologies can improve financial services in frontier markets like Sierra Leone, particularly in reducing the cost and friction of cross-border payments, including remittances. Stablecoins or blockchain-based remittance platforms could enable near-instant settlement and bypass costly correspondent banking networks – making remittances faster, cheaper and more transparent. This is not to say that blockchain cannot be meaningfully applied to use cases in other sectors; however, this should be approached in a tech-neutral way. Technology choices should always be fit-for-purpose, context-aware (especially in a frontier market such as Sierra Leone) and user-centred.

The serious challenges facing blockchain and crypto adoption in Sierra Leone can also not be ignored. There is no clear legal framework for virtual assets, leaving startups and users in a regulatory grey zone and exposing them to legal and compliance risks. As noted earlier, the legality of cryptocurrencies in Sierra Leone is an open question. The BSL, despite the regulatory sandbox programme, is risk-averse as are many of Sierra Leone's commercial banks. Moreover, without strong digital identity systems, consumer protection policies or technical oversight capacity, blockchain-based systems could be misappropriated to facilitate fraud, data breaches or volatility exposure. Overpromising blockchain solutions without first addressing regulatory clarity and institutional readiness could undermine trust and draw scrutiny from already cautious regulators.

#### Recommendations

Though the tech startup sector (including fintech) in Sierra Leone is nascent, Invest Salone can support fintechs by building off proven assistance models (e.g., PROSPER Salone and investor roundtables) to create potential investment opportunities. The following recommendations present practical ways to increase investment, support startups (fintech and otherwise) and improve the tech startup policy environment.

Provide grant assistance to a fintech-specific fund through PROSPER Salone. Given its successful track record under PROSPER Salone, Invest Salone is well-positioned to support a fintech-specific investor with a targeted grant to explore opportunities in Sierra Leone's emerging fintech sector. Sierra Leone's fintechs require investors with deeper sector-specific expertise. A PROSPER Salone grant could fund a market scoping trip, legal and regulatory diligence, investment readiness workshops and small-scale technical assistance to help fintechs align with investor expectations, reduce market entry risk for the investor and strengthen the fintech pipeline. This type of support could also generate more practical insights about Sierra Leone's investment climate for fintech — helping

regulators, hubs and founders better understand what constraints matter most to fintech-specific impact investors and VCs.

Support a fintech track within the existing SSO ecosystem. Though Sierra Leone's fintech startups have demonstrated early innovation, they also face sector-specific hurdles that general incubators are not equipped to address – such as regulatory compliance, payments integration, licensing and engagement with commercial banks and MMOs. At the same time, the fintech ecosystem remains too small to support a standalone incubator. Embedding a targeted fintech track within a reputable existing hub offers a pragmatic, low-risk way to deliver specialised support, while leveraging existing infrastructure and relationships. This track could also strengthen the pipeline of investment-ready firms for commercial or impact-focused funds, complementing Invest Salone's existing PROSPER Salone work and its broader market systems strategy. Co-funding could also be sought from the World Bank-funded Sierra Leone Financial Inclusion Project (or its successor), commercial banks and MNOs/MMOs (Orange and Africell). This could also tie in with MoCTI and BSL's mandate to stimulate public—private dialogue on UIN, AML/KYC and the use of blockchain/crypto and AI in fintech.

Leverage Invest Salone s convening power for fintech investment roundtables. Previously, Invest Salone has convened investment roundtables in Sierra Leone and the UK to facilitate dialogue between investors and local firms. The same model could be applied to the fintech sector; Invest Salone could support local companies' travel to West African fintech hubs (e.g., Lagos and Accra) to present their business models and funding needs. As was done at the AFSIC 2024 Sierra Leone Investment Summit, Invest Salone could create a fintech-focused deal book profiling Sierra Leonean fintechs, outlining their growth trajectories, market positions and funding needs. The event could also stimulate dialogue on how other countries are regulating blockchain and crypto, and best practices for fintech regulatory sandboxes. Lastly, the event could highlight emerging opportunities, e.g., blockchain-enabled cross-border payments, and present the potential role of Sierra Leonean blockchain players (e.g., the Christex Foundation) in the broader West African ecosystem.

Consider broader, tech startup legislation/policy support. A national startup law could differentiate startups from low-risk, low-growth SMEs and set the foundation for a broader legal framework that will accommodate equity financing, the definition of angel investment and VC, and failure tolerance. It is also a strong signal that startups and innovation are national priorities, and may establish a lead ministry or agency to collect data on the number of startups, startup sectors, etc. through a national registry. Invest Salone should continue its support to MoCTI by reviewing drafts and building on the momentum begun during the collaboration between MoCTI, Fourah Bay College and Columbia University.

## Conclusion

Sierra Leone's tech startup ecosystem is young, but it is gaining definition, momentum and visibility – driven by a mix of creative founders, evolving digital infrastructure and a government that has signalled growing interest in innovation. Yet this ecosystem remains constrained by foundational challenges, including a thin investment pipeline, limited regulatory clarity, weak coordination between support institutions and persistent gaps in connectivity, skills and market access. Addressing these systemic bottlenecks will be critical if startups – particularly those using emerging technologies – are to mature beyond ideation and become scalable, investable enterprises.

To support this evolution, Invest Salone can apply its proven market systems approach to strengthen firm-level support, align capital with startup readiness and inform smart, enabling policy reforms. From fintech-specific investment discovery to coordinated technical assistance and startup legislation support, Invest Salone has clear opportunities to help shape a more vibrant, investable innovation ecosystem – one that reflects Sierra Leone's realities, but also its aspirations.

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