

02



# Ghana

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# Table of contents

[Summary frame](#)

[Setup and Ownership](#)

[Answers to Research Questions](#)

[Additional Context](#)

[Acknowledgement to Country Stakeholders](#)



# Summary Frame



# Country summary: Ghana

Country group

LMIC

% adults with a financial account (Findex, 2017)

58%

## ACCOUNT TO ACCOUNT R/T:

STATUS

Name of scheme/s	<b>Financial Inclusion Triangle: GhIPSS Instant Payment (GIP) Services which later included mobile money interoperability (MMI) and e-zwich</b>
Date of launch	<b>2015 (GIP) and 2018 (MMI &amp; e-zwich)</b>
Scheme manager	<b>GhIPSS</b>
Switch operator	<b>GhIPSS</b>
% financial accounts included in scheme	<b>Thought to be all 24 GhIPSS partner banks and the 6 Mobile money providers - TBC</b>

## Highlights from country:

HIGHLIGHTS

- Ghana has been able to achieve relative interoperability success across both bank accounts and mobile money wallets within a short time frame through mandates which followed extensive industry consultation
- At the same time the BOG/GhIPSS has been able to roll out features relatively quickly to facilitate a variety of usecases and additional convenience in making interoperable payments
- Supposedly the fastest growing mobile money market in Africa
- It was noted by all that the regulatory environment is very accommodative, it encourages dialogue and feedback and all voices are included. However, this was not the case when interoperability was first pursued through e-zwich

## INTEROPERABILITY JOURNEY:

- Ghana's mobile money journey is anchored in achieving an efficient payment ecosystem to improve access and foster financial inclusion. This was ushered in by the e-zwich , a retail payment system established and mandated by GhIPSS in 2008. There was little buy in from implementing FSPs and ultimately it fell short of achieving desired results
- Ghana Interbank Payment and Settlement Systems Limited (GhIPSS), a wholly owned subsidiary of the Bank of Ghana (BOG), was incorporated in 2007 with a mandate to implement and manage interoperable payment system infrastructures for banks and non bank financial institutions in Ghana.
- GhIPSS launched the GhIPSS Instant Payment Services (GIP) in Aug 2015 to facilitate instant interoperable payments across accounts at different banks.
- The retail payments interoperability project made up of the mobile money sub-sector and the interbank retail payment sub-sector was successfully launched in May 2018 enabling transfer of funds across mobile money wallets and bank accounts. Similarly, transfer of funds from mobile money wallets to e-zwich biometric payment cards was also made feasible.
- BOG also instructed all banks to complete the integration to allow customers to transfer monies from bank accounts to their mobile money accounts by July 2018.
- GIPS and MMI Pay had achieved an average of about 947K transactions per month in 2019, compared to 4.2 mil in 2020.

# Calibrating the role of public sector in GIP & MMI

## Funding & implementation role

		Funding & implementation role			
In setup and beyond		0: None	1: Participate/ co-fund	2. Incubate only	3: Sole fund
Policy role	0: Endorse				
	1: Catalyze 1--Encouragea		<ul style="list-style-type: none"> <li>The Central Bank initiated, led, implemented, funded, manages and owns the instant payment scheme.</li> </ul>		At this level, regulator applies moral suasion but takes no direct action
	2: Catalyze 2 -Actively convene & participate		<ul style="list-style-type: none"> <li>The Central Bank went further to issue deadlines by which the different forms of interoperability were to be achieved</li> </ul>		Regulator also takes direct steps, such as studies, convening or threats
	3: Mandate				Mandate could include 1 or more of: <ul style="list-style-type: none"> <li>Required connection to central switch</li> <li>Required participation in a scheme</li> <li>Method and/or level of interparty fees set</li> </ul>
	Oversee		<ul style="list-style-type: none"> <li>However, the industry viewed the mandate as a codification of what had been agreed upon following extensive consultation. It was not viewed as an imposition</li> </ul>		Typical role may be oversight, but this may not apply to non-prominent RPS

# GIP & MMI Interoperability summary frame

Initiated, led and implemented by the regulator with ex-post mandates following a consultative process to achieve considerable success

A2A or CICO		PUBLIC POLICY ROLE IN INCEPTION					PUBLIC ROLE IN IMPLEMENTATION			
		0. Endorse	1. Catalyze 1	2. Catalyze 2	3. Mandate	None	0. None	1. Co-fund	2. Incubate	3. Fund and own
O U T C O M E	0. Uncertain /too early									
	1. Below expectations									
	2. In line with expectations									
	3. Above expectations									

According to stakeholders the scheme has been highly successful especially because all financially included Ghanaians can conveniently transact across platforms irrespective of whether they have a bank account or wallet. It is said to have created room for less dominant players to function in the market. Also, GhIPSS employs an agile approach, 'move and iterate', and has thus introduced multiple features and changes within a short period of time as it continues to tweak and refine based on consultation and results. However, it was noted there is still room for improvement such as expansion of usecases, reliability and lowering costs further.

# GIP & MM interoperability: Features and Economics

<p><b>Year launched:</b> 2015 saw the launch of (GhIPSS) Instant Pay (GIP) which launched interbank interoperability, while wider retail payments interoperability came about in 2018 with the launch of Mobile Money Wallet Interoperability, as well as bank account to mobile wallet and e-zwich biometric payment cards interoperability</p>		<p><b>Objective:</b> Enhance the overall efficiency of retail payments 'to improved economic growth and performance'</p>
		<p><b>Speed of posting to accounts:</b> effected instantly</p>
<p><b>Maximum &amp; Minimum value:</b> Can range from GHS 0.01 going upward depending on respective FSP</p>	<p><b>Operating hours:</b> 24/7/365</p>	<p><b>Channels:</b> Mobile banking app, USSD, Internet banking, in-branch, ATM and POS devices</p>
<p><b>Usecases:</b> P2P, P2B, B2P, B2B, P2G, B2G &amp; G2G</p>		
<p><b>Consumer fees:</b></p> <ul style="list-style-type: none"> <li>Mobile money providers charge about 1.5% initially for interoperable transactions which was more than on-us transactions, now they charge 0 to 1% for all wallet to wallet transactions, and 0 - 3% for wallet to account transactions. Banks charge about 1%.</li> <li>This is based on mobile money tariffs in 2018 annual report and review of current tariff guides for <a href="#">MTN</a>, <a href="#">Vodafone</a>, <a href="#">Fidelity</a>, <a href="#">Standard Chartered</a> and <a href="#">GCB Bank</a>). According to <a href="#">CGAP</a>, customer fees are set by the scheme manager in Ghana.</li> </ul>		



Sources: [BOE 2018](#), [pay.uk](#)



# Setup and Ownership



# Financial Inclusion Triangle: Background and Stipulated objectives



To enable seamless flow of money across the mobile money platforms, banks and e-zwich thereby improving financial access by reducing cost and improving convenience of digital payments; hence attracting new users and providing improved value to existing users

- Ghana's mobile money journey is anchored in achieving an efficient payment ecosystem to improve access and foster financial inclusion.** This was ushered in by the e-zwich , a retail payment system established by GHIPSS in 2008. The platform explicitly targeted the unbanked due to its offline ability which allowed transactions in remote locations where connectivity was a challenge; and biometric authentication which made it easier for the illiterate to transact and facilitated customer identity verification in a country that lacked a NID system. It was envisioned that anyone holding an e-zwich smartcard could be served at any bank branch, ATM or POS.
- A few other interoperability efforts and payment system efficiency upgrades followed and more emphasis was put on becoming cashlite to achieve financial inclusion and transparency.** Global trends towards instant payments, and particularly NIBSS Instant Pay which was gaining traction in neighbouring Nigeria after its launch in 2011, motivated Ghana to launch GhIPSS Instant Pay (GIP) to reduce the use of cash. GIP is a real time interbank account-to-account credit transfer service.
- However, a large segment of Ghanaians (42% in 2017) was still excluded but mobile financial services were achieving notable success in reaching the excluded.** This presented an opportunity to leverage the success of mobile money services by facilitating seamless flow of money across the mobile money wallets. Wallet to wallet interoperability was the first phase of the financial inclusion triangle. Phase Two completed the Financial Inclusion Triangle by allowing the transfer of monies between telcos, banks and e-zwich accounts seamlessly. It was expected that the seamless transfers would replace the costly and inconvenient workarounds hence attracting new users and providing improved value to existing users.

# Financial Inclusion Triangle: Role of Regulator



Lessons from early implementation of interoperable schemes and regulatory frameworks provided a launchpad for effective implementation of the financial triangle

## Background:

- **Payment system reform to achieve a more efficient payment ecosystem became a priority in Ghana around 2000.** As a country with an estimated 84% unbanked population in early 2000s, BOG sought to encourage local financial institutions to move towards a more interoperable payment system in which financial access points and infrastructure could be shared by banks, thereby increasing usage and decreasing unit cost.
- Following consultations, BOG and the banking sector agreed on the **need to have a national switch for retail transactions which would facilitate greater interconnection of payment systems** in addition to the Real Time Gross Settlement System called Ghana Inter-bank Settlement (GIS) system set up in 2002.
- In 2007, **BOG formed a fully-owned subsidiary, Ghana Interbank Payment and Settlement System (GhIPSS) to enable establishment of a national switch.** BOG authority to “establish, operate, promote and supervise payment, funds transfer, clearing and settlement systems, subject to the rules that it may publish”, according to the [2003, the Payment System Act](#).

## a) e-zwich : Ex-Ante mandate lesson:

- **The journey of interoperability begun with e-zwich .** GHIPSS decided to launch the e-zwich platform in Jan 2008 and issued a circular that **mandated all deposit taking institutions to comply by 30 June. BOG also set the fee structure.** Although the platform promised to solve for financial inclusion through its features which specifically catered to the largely unbanked population (close to 80%), financial institutions were hesitant to promote it for various reasons:
  - The infrastructure cost outlay required financial institutions to integrate and enable e-zwich e.g smartcards, biometric complain POS and ATMS.
  - Competing payment trends e.g EMV adoption and mobile wallet payments were taking off globally made most financial institutions hesitant to promote e-zwich .
  - As result usage waned further discouraging investments and promotion. Ultimately, it fell short of achieving desired results.
- There had been little to no consultation to generate align incentives with the industry

# Financial Inclusion Triangle: Role of Regulator



Lessons from early implementation of interoperable schemes and regulatory frameworks provided a launchpad for effective implementation of the financial triangle

## b) Cheque clearing modernization: Stakeholder and donor engagement lessons

- It was noted that effective stakeholder engagement was learnt along the way as BOG/ GHIPSS developed different products. In particular, effectiveness of the electronic cheque clearing modernization process was highlighted as a teachable experience that proved that **proper coordination and facilitating understanding as the market develops is essential for getting stakeholder buy-in**.
- However, the same process highlighted that **relying on donors can sometimes slow down what should be an agile and iterative process** as it took them two years to launch the cheque clearing system. Input from donors, e.g market assessment reports are helpful but they should be used to inform the iteration if not timely delivered.

## c) In addition to interoperability, an enabling environment that promotes innovation is essential for achieving financial inclusion

- Initially, Ghana focussed on a bank-led model and focussed on enhancing interoperability in the banking realm to foster it. However, over time, Ghana has made and continues to make regulatory and other reforms to enable participation by non-bank players upon realising that they might be better suited for expanding access to the unbanked. These include:
  - **In July 2015, the Bank published Guidelines for E- Money Issuers and the Agent Guidelines to replace 2008 Branchless banking guidelines which ruled out a non bank based approach.** There were four (4) Mobile Network Operators which offered mobile money services as at end of 2015. The number of mobile money customers exceeded the number of bank accounts for the first time.
  - **As the market developed, BOG facilitated interoperability between mobile money wallets and the other interoperable schemes** being GIP for banks accounts and e-zwich.
  - **In March 2019, the government of Ghana passed the [Payment Systems and Services Act 2019](#) to enhance financial innovations.** The Act is a guide the payments system landscape that allows for direct regulation of emerging financial digital environment by the Bank of Ghana, permitting Fintechs to operate in the payment ecosystem. It combined, the Electronic Money Issuers Guidelines (2015), Agents Guidelines (2015) and the Payment Systems Act (2003) into one.
  - The [DFS Policy](#), which was published in May 2021, recommended effective interoperability between bank and mobile payments, to support the development of digital financial services in Ghana.

# Financial Inclusion Triangle: Role of Regulator



Lessons from early implementation of interoperable schemes and regulatory frameworks provided a launchpad for effective implementation of the financial triangle



Regulator environment has been improving since 2010 around the time of mobile money, very accommodative. Encourages dialogue and feedback and all voices are heard. - **Bank**

# Financial Inclusion Triangle: Scheme Governance



## Bank of Ghana under advisorship from Payment Systems Advisory Committee

- The **Payment Systems Advisory Committee (PSAC)** under the Chairmanship of the Governor, as stated under Section 4(2) of Act 987, is required to advise the Bank on regulation and oversight of the payment systems, operational and technical standards of the payment systems, and any other matters affecting payment services clearing and settlement of payments.
- The committee is chaired by the Governor of Bank of Ghana and in his absence the Deputy Governor. Other members include representatives at a director level from:
  - National Informational Technology Agency
  - Ministry of Finance
  - Six other representatives of relevant stakeholders determined by BOG. **Currently they represent public and a private entity:** GhIPSS, Securities and Exchange Commission (SEC); Ghana Chamber of Telecommunications, Ghana Association of Bankers, National Information Technology Agency (NITA), Association of Ghana Industries (AGI) as a consumer group.
- To support its work, the Committee formed **five working groups that provide recommendations to the PSAC**
  - Membership is drawn from: **mobile network operators, merchants, consumers, payment service providers, Fintechs and third-party providers.**
  - As was the case with its predecessor, the Payments Systems Council (PSC) established in 2016 by BOG in line with the National Payment Systems, each working group focuses on a thematic areas. The five areas being: Pricing Promotion and Awareness, Legal, Innovation, Operation, Standards and Technology.

# Financial Inclusion Triangle: Scheme Governance



Although non-bank players can participate in the scheme either directly or indirectly, membership in the and board representation favour the banks. However, there was consensus that non-bank players get heard and their needs are addressed.

- Non-banks can participate in the clearing directly or indirectly, but participation in the Ghana Interbank Settlement (GIS) Systems is mainly restricted to licensed clearing banks that are mandated to have settlement accounts with the Bank of Ghana to facilitate settlement of interbank payment obligations in central bank money.
- Moreover, non-banks do not have a seat in the **Payment Systems Advisory Committee (PSAC)** which advises the Bank of Ghana as the scheme overseer and manager.
- However, non-banks are included in the **PSAC working groups** which deliberate and develop the necessary rules, standards and regulatory recommendations for committees consideration. One recent win for the FinTech and smaller EMLs was the switch to a receiver pays model.
- There was general consensus from non-banks that they have a direct line to the regulator through the said working groups as well as through the **FinTech and Innovation Office at BOG** meant to license, oversee and promote FinTech, innovation and interoperability in Ghana.



*“It would have been ideal to represent all players on the board but we have been engaged over the period to provide advice and support. The central bank has actually set up a department to focus on fintechs and we may sit at higher level soon. the central bank is doing a good job and we are gradually getting there.” - Fintech*

# Financial Inclusion Triangle: Scheme Oversight & Operations



**Overseer/ regulator:** Bank of Ghana

According to the Payment Systems And Services Act, 2019 Act 987, “The bank of Ghana shall have overall supervisory and regulatory authority in all matters relating to payment, clearing and settlement systems.”

## Switch operator: Ghana Interbank Payment and Settlement Systems Limited (GhIPSS)

- GhIPSS manages the National Switching and Processing System- gh-link which facilitates interoperable instant payments in the financial triangle.
- GhIPSS is wholly owned/ 100% subsidiary of the Bank of Ghana incorporated in May 2007 with a mandate to implement and manage interoperable payment system infrastructures for banks and non bank financial institutions in Ghana.
- Originally, it was envisaged that, as key stakeholders and potential beneficiaries, banks would co-own shares in GhIPSS, but they proved unwilling to invest the funds to do so.
- The GhIPSS [board](#) is chaired and co-chaired by the central bank governor and deputy governor. Other board members include the deputy minister of finance, GhIPSS CEO, banking heads, and select key experts in financial inclusion, IT and legal.

## Settlement:

### Bank of Ghana

- Through its Real Time Gross Settlement System: Ghana Interbank Settlement (GIS) System.
- The GIS facilitates net settlement of batches of multilateral retail payments emanating from GhIPSS.
- Participation in the Ghana Interbank Settlement (GIS) Systems is mainly restricted to licensed clearing banks that are mandated to have settlement accounts with the Bank of Ghana to facilitate settlement of interbank payment obligations in central bank money.

# Financial Inclusion Triangle: Business Model



The business model achieved through a consultative process led by the regulator incentivises participation by smaller players and advocates for lowering of consumer pricing as transaction volumes grow

## Switching fees:

- **Switch to receiver pays (switching fees) model in 2021.** This was approved by BOG following recommendation by the pricing and promotions working group. It was deemed to be:
  - a. Inline with best practice, and
  - b. Responsive to market structure effects: It was observed that interoperable payment mostly flowed from smaller senders to larger more dominant players like MTN. This meant that smaller players bore a larger cost burden of interoperable transfers, making the playing field even more uneven. Reversing the fees reduced the cost to smaller players.
  - c. Served as an incentive to clearing through the switch as opposed to bilaterals.
- **The receiver pays 0.2% capped at Ghc 2 and a floor of 0.002% of the transaction value to GhIPSS.** GHIPSS allocates 0.15% as switching fees and 0.05% to the marketing and promotions budget.
- **There is no interchange for P2P transactions but it is likely that an interchange will be implemented for P2M.** Commercials are still being determined.



*Fintechs have an interest to maintain the bilaterals. When we realised it was a commercial thing we changed to receiver pays from sender pays which is making the fintechs damp payments on interoperability because it is free, incentivising the smaller players - Payments Operator*

# Financial Inclusion Triangle: Business Model



The payments regulators actions appear to be measured and evidence based

## Customer fees:

- To be inline with best practices, BOG recommended in 2021 that:
  - **Fees on interoperable transfers should not exceed 1% which was the average cost of non-interoperable transfers.**
    - The lack of disparity in offnet and onnet charges is expected to encourage more transactions but providers can obviously choose to charge less/ no fees for interoperable transactions which Vodafone is already doing.
  - **A price ceiling of 10 Cedis.** This had been applied across all the providers we reviewed.
- The payments regulator noted that fees ought to be even lower but volumes would have to increase to sustain the model before they can get buy-in from FSPs.
  - However, in Nov 2021 after we had already collected stakeholder interviews, **Ghana's Minister of Finance announced a 1.5% levy on the value of electronic transactions** including mobile money payments above GH¢100 (\$16) per day. See an analysis by the [UNCDF\(2022\)](#) on recent developments and expected outcomes.

**GhIPSS is a sustainably run entity.** GhIPSS received initial funding from the BOG but all other developments are self funded / self-generated from the services GhIPSS provides.

# Financial Inclusion Triangle: Competition & Innovation



Financial triangle created room for less dominant players by lowering barriers of entry and giving them a competitive edge although some participation concerns were noted

- The financial triangle created room for less dominant players to function in the market which has begun to drive innovation e.g termination of remittances in wallets as opposed to only bank accounts only.
  - Cost savings through central integration lowered barriers of entry
  - Competitive edge



*"Small players don't have to integrate with multiple players - 23 banks and 3 MNOs" - regulator*  
*"Bilaterals were more expensive as you have to have prefunded accounts with each non-bank you have bilaterals with." - EMI*



*"The improved Improved integrations helped drive down our costs to be inline with mobile wallet transfers which are the cheapest - This is great achievement for a fintech. It also enabled an enhanced user experience for our users due to access to a wider network - Fintech*  
*"Zeepay and G-Money have also benefited through opportunity to have customers bring money into their system without the cash in outlets." - MMO 1*  
*"There's been no market share difference (dilution of larger players), but revenue from interoperability is now significant enough to be reported on." - MMO 2*  
*"..Customer retention as their customers could transact with users beyond their limited platform." - bank*

- However, some players noted a few participation constraints:
  - Fintechs can be direct participants only if they qualify as enhanced payment providers which requires
  - Prefunding requirements appeared subjective

# Financial Inclusion Triangle: Performance



Overall, performance is considered to be above expectation ...

Based on stakeholder feedback, to a large extent the financial triangle has met expectations because:

- It has **reduced cost and enabled seamless flow of funds across platforms.**
- Representing **100% of accounts and wallets** as all Bank and EMIs are included
- **Informal are able to transact with the formal sector seamlessly** as majority of the banked population is included because of the inclusion of wallet holders.
- In 2021, it **averaged 11.9 million transactions per month**, compared to 3.5 million in 2020.
- It has **created room for less dominant players to function in the market.**



# Financial Inclusion Triangle: Performance



... but there is room for improvements

Noted areas to improve were:

- **Majority called for incorporation of more usecases, particularly P2M**
  - P2M was highlighted as being a key usecase for creating more value to users. Although the universal QR code (GhQR) had been launched in 2020, the commercials are yet to be finalized before it can be used to widely facilitate interoperable P2M payments.
  - Some stakeholders called for agent interoperability but the regulator highlighted that enabling P2M would drastically reduce the need to cash out as users will be able to make payments to anyone seamlessly.
- **Some operational challenges were also noted:**
  - Uniformity of integrations was highlighted as a concern especially where some EMIs were required to have prefunded accounts which made it expensive to participate while others had not implemented the same.
  - Moreover system downtime was highlighted as a key concern yet there was only one approved connectivity provider leaving no room for redundancy.
  - Some players called for more standardization in the user experience. We also noted that in most cases the onus is on the user to realize that the recipient is on a different platform failure of which would result in transactions failing or being routed at a higher cost (unregistered recipient).
  - More continued effort could be made to build awareness
- **Bilaterals are highly used for wallet to bank transactions instead of GhIPSS.** It was also noted that only about 6 banks were facilitating bank to wallet transaction via GhIPSS as opposed to bilaterals. However, it was noted that bilateral integrations facilitate much more than just transfers. For example, they enable flow of funds into and out of EMI trust accounts held at banks. GhIPSS does not explicitly prohibit bilaterals because most were in place before GhIPSS was launched and they could act as a redundancy measure in case of failure.



# Answers to Research Questions



**There's been a notable increase in Financial Inclusion in Ghana but there is no clear correlation with increased interoperability.**

- According to [2019 Cashlite roadmap](#), **67% of Ghanaian adults were financially included by 2019 compared to 58% in 2017, 49% in 2014, and 39% in 2011** before the financial inclusion triangle was launched. Although there has been an improvement in financial inclusion, the correlation with financial inclusion is difficult to measure.
- Interoperability has indeed given an **edge to less dominant players** to function in the market, **but we could not track disruptive business models** that have resulted in the inclusion of the unbanked.
- However, pricing of offnet transactions has dropped, significant volumes of offnet transactions have been achieved and some innovation has been sparked by the PSPs that were facilitating interoperability and had to reinvent themselves following the triangle. As a result it is now possible to terminate international remittances into non-bank wallets.
- Demand-side survey results might help shed more light on the impact and uptake of interoperability.



## Research question 2:

## What are the effective policy levers for achieving interoperability success?

**Providing direction and leading in implementation, while consultatively creating the rules that harness incentives as well as providing mandates**

**Consultative approach and mandates:**

Codifying what is consultatively agreed through mandates and lightly enforcing them to accommodate market conditions e.g use of bilaterals as previously highlighted in previous slides.

**Funded and own the scheme, but included stakeholders in the decision making through various formalized channels**

- Payment Systems Advisory Committee which includes representation from banks and even a consumer group among other public sector entities (see slide on governance).
- Working groups that deliberates and makes recommendations to the Payment Systems Advisory committee includes non-banks (pricing working group was chaired by a non-banks)

“GhIPSS reluctant to play dictator role. They consult us before making certain changes and continuously engage to improve the platform. For example, among MNOs, they consult us as a group. For major conversations we have a roundtable discussion with GhIPSS, the other two, and telecoms chamber. We all agree and then presented to GhIPSS.” - **Mobile money provider**

“The regulator can mandate but the question is how is the mandate implemented. Governance and commercials must be right for an interoperable scheme to work. Mandates do not achieve outcomes without engagement and alignment of all small and big players.” - **Payments Regulator**

“The Central Bank is Interventionist. It facilitate all stakeholders when there are issues and gives them time to come back with possible solutions. It does not force a situation unless its the last resort. It take suggestions, request for timeline that are appropriate and then issue a directive to the effect/ based on what is agreed upon.” - **Scheme operator**

## Research question 2:

## What are the effective policy levers for achieving interoperability success?

**The regulator can own and develop the solution, but success may not be guaranteed especially if investment is required of the players without prior buy-in**

- BOG went ahead and owned the initiative and came up with an interoperable solution that would specifically foster financial inclusion: e-zwich . However, the banks failed to promote the platform. There had not been sufficient buy-in in its design and ultimately required heavy investment by them despite no clear value proposition for the banks.



“Mandates do not work as well as engagement with incentives (commercials)” - **Regulator**

### Fostering inclusion of non-traditional players and public policy objectives as the market develops

- **Opening up the payments system and thus the interoperability rails to non banks:** GhIPSS had introduced GhIPSS Instant Payment (GIP) in 2015 to facilitate real time interbank account-to-account credit transfer service. To push broader reach, EMIs who represent majority of the banked population and enhanced PSPs who build out value added services were included into the scheme in 2018. That was codified in the [Payment Systems and Services Act 2019 Act 987](#). The Bank now licenses and supervises PSPs giving them the option to participate directly in the national payments system.
- **Creating real inclusion and dialogue with fintechs and non-banks** by having the fintech department that licences non-banks under central bank.
- **Influencing pricing through mandates coupled with moral suasion and consultation as the market develops** e.g max 10 cedi cap on charging transactions, recommending price of offnet to be 1% which is similar to the on-net pricing on average, advocating for receiver pays model. This has ensured prices drop over time but FSPs are still incentivised to provide interoperable services.

## Research question 2:

## What are the effective policy levers for achieving interoperability success?

The key to moving quickly is embracing an agile approach to creating interventions: adopting the minimum viable product (MVP) while remaining open to making adjustments based on feedback

- In addition to facilitating interoperability across differentiated stores of value in phases as opportunity arose, GhIPSS has over 6 services built on top of its instant payments offering:
  - **Proxy Pay, Ghana's Universal QR Code, Request to Pay, E-Bills Pay, GIP Payment Gateway, GhIPSS Corporate Suit.**
  - *This is in addition to other initiatives such as launching a domestic card payment scheme that has undergone various iterations to improve value*
- **This was the same approach adopted for:**
  - **'Who' pays the switching fees.** *The consensus was to go with the sender pays model, which was later switched to receiver pays model on evaluation of outcomes*
  - **P2M, a key usecase for creating more value to users.** *Although the universal QR code (GhQR) was launched in 2020, the commercials are were yet to be finalized by the time of stakeholder interviews. The*
- *In some cases, **research has been used to refine solutions rather than waiting to inform solutions at launch.***
- *There is an ongoing pilot to test a Central bank digital currency (CBDC). The vision is to integrate the eCedi into the national switch for interoperability*

Source: BFA interviews (2021)



## Research question 3:

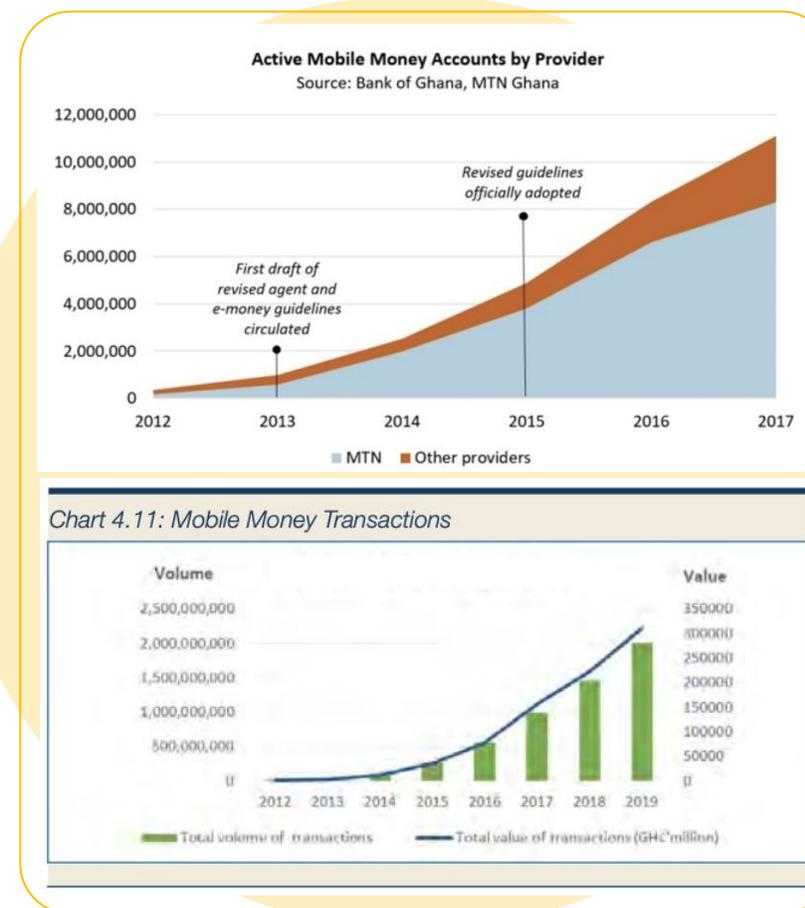
# When should the foundation/ policy makers advocate for interoperability - from the beginning or let it evolve over time?

In addition to the ‘how’ lessons, Ghana provides great lesson on the ‘when’

The case for interoperability is difficult to put forward in an underdeveloped market:

- In early 2000s, the banks declined being co-investors in GhIPSS, the body mandated with fostering interoperability. When BOG set out to enhance interoperability in the banking ecosystem in the early 2000s, about 80% of adults were unbanked. At the time the value proposition for interoperating or having shared services might have not been as clear for banks since the addressable market was still small.
- Although BOG set out to promote “maximum connectivity and hence maximum outreach as well as interoperability”, the 2008 Branchless banking guidelines which imposed a Many-to-Many Model at mobile money launched created obstacles for mobile money.
  - Among other concerns, the [guidelines](#) mandated interoperability under a many-to-many model with central processing of transactions through GhIPSS and exclusive partnerships were not allowed. MNOs were required to interconnect with at least 3 banks to issue electronic money and also share agents. As a result, only about 350,000 Ghanaians were actively using mobile money accounts three years on 9 compared to 8 million active users in Tanzania a year after launch ([CGAP, 2017](#)).
  - The regulation were revisited and updated in 2015 through the Electronic Money Issuers Guidelines (2015) and Agents Guidelines (2015). Following this exclusive arrangements became possible and by 2016 the number of mobile money customers exceeded the number of bank accounts for the first time.

As the market develops, advocating for interoperability might prove more successful. For instance, the financial triangle which was introduced after the market was relatively developed has attained great success compared to previous interventions. It averaged 11.9 million transactions per month in 2021, 4 years after launch.



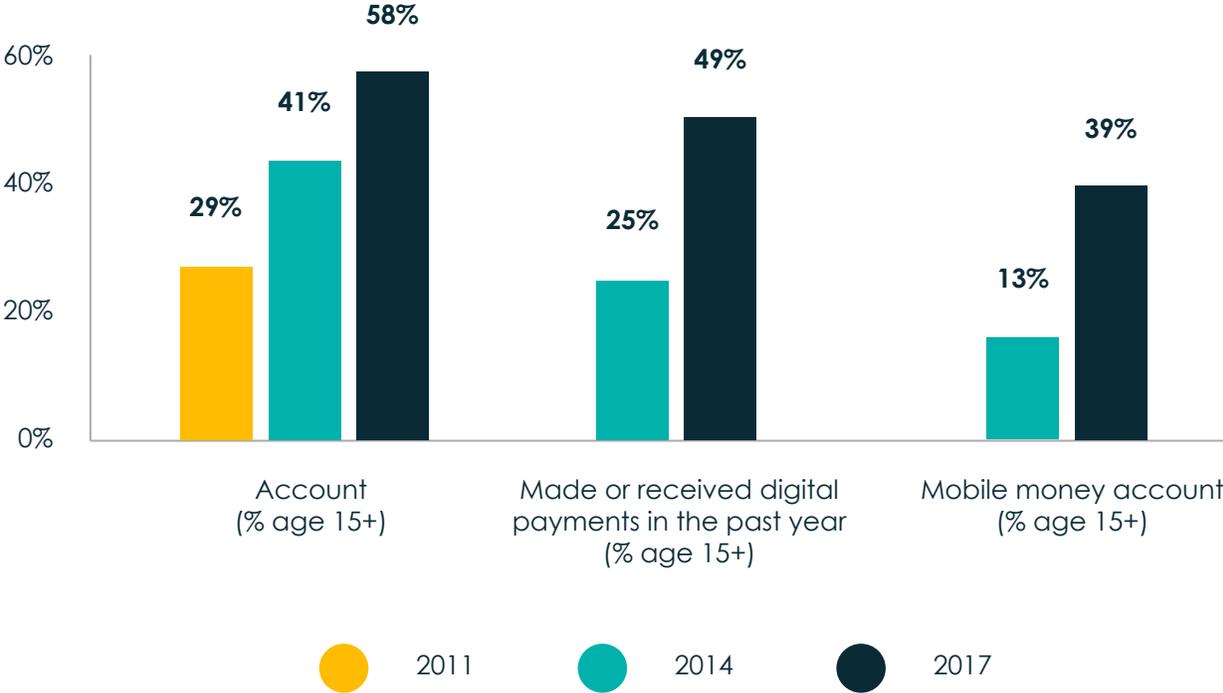
Source: BFA interviews (2021)



# Additional Context

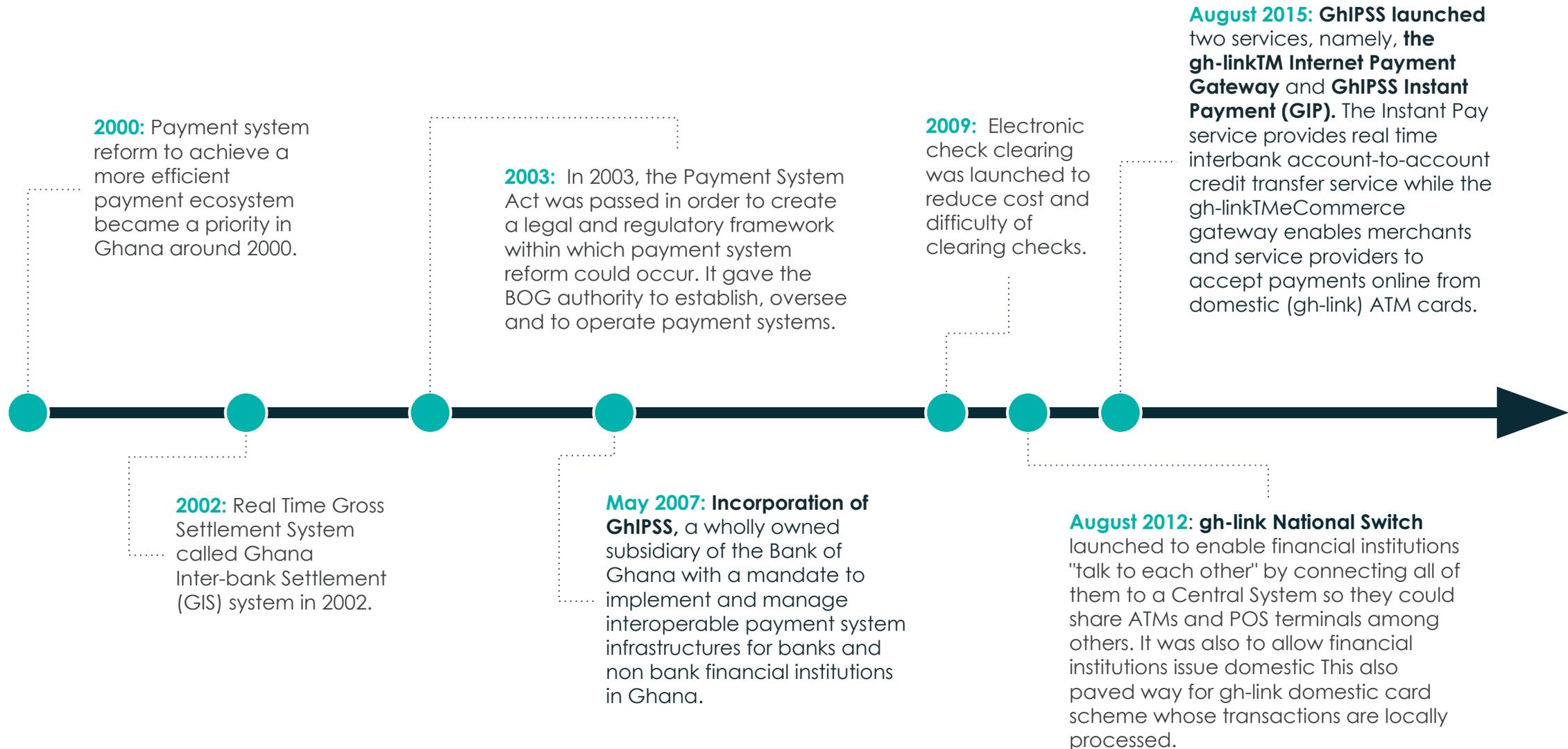


# Country context

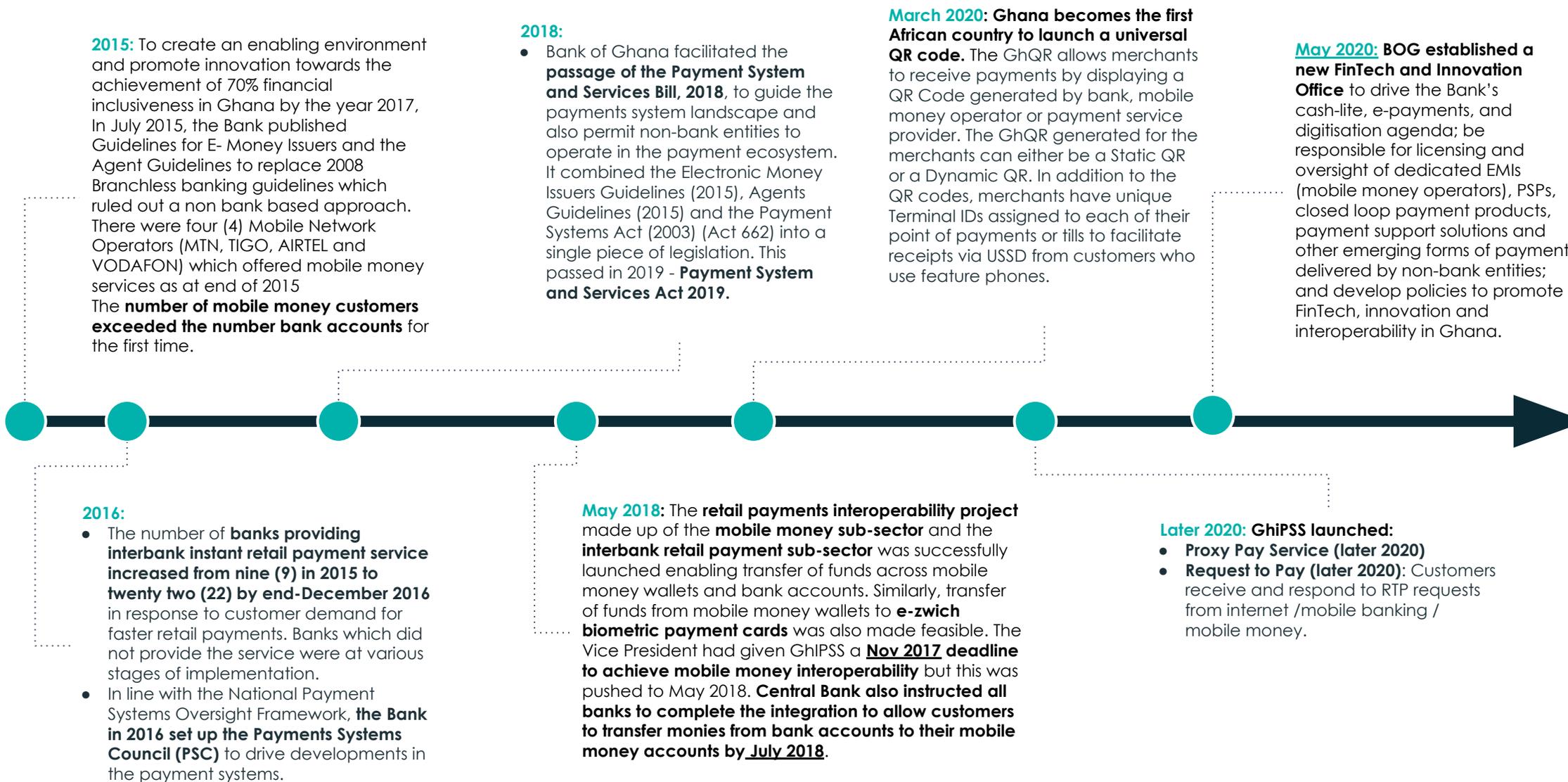


Source: FINDEX 2017

# A2A country timeline

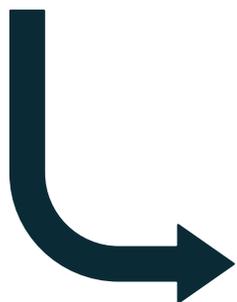


# A2A country timeline



# Financial Inclusion Triangle: Scheme Outcomes

Total non-cash volumes across the different payment systems													
Payment system	2012	2013	2014	2015	2016	2017	2018	2019	%	2020	%	2021	%
GIS	467,642	586,200	699,956	794,282	889,709	934,234	1,221,650	<u>1,376,094</u>	4%	1,393,439	2%		
CCC	6,710,475	6,796,712	6,962,297	7,146,259	7,309,406	7,334,460	7,255,220	6,540,000	17%	5,520,000	7%		
GACH Direct Credit	1,325,533	2,378,997	3,963,802	4,668,636	5,242,610	6,061,093	6,645,126	7,400,000	19%	8,130,000	11%		
GACH Direct Debit		172,908	341,875	692,615	874,846	940,649	861,169	720,000	2%	830,000	1%		
e-zwich	792,966	903,724	1,084,121	1,369,369	1,878,044	8,367,017	7,759,354	10,800,000	28%	10,480,000	14%		
gh-link	10,295	549,456	1,346,963	1,899,645	2,067,498	2,340,409	1,830,182	970,000	3%	810,000	1%		
GIP						41,795	143,879	1,910,000	5%	6,800,000	9%		
MMI								9,450,000	25%	43,940,000	57%		
<b>TOTAL</b>	<b>9,306,911</b>	<b>11,387,997</b>	<b>14,399,014</b>	<b>16,570,806</b>	<b>18,262,113</b>	<b>26,019,657</b>	<b>25,716,580</b>	<b>38,080,000</b>	<b>100%</b>	<b>77,000,000</b>	<b>100%</b>		



Breakdown of MMI transactions (Millions):				
	2019	%	2020	%
Wallet to Wallet	9.19	81%	42.89	85%
Wallet to Bank	0.25	2%	1.04	2%
Wallet to e-zwich	0.006	0%	0.012	0%
Account to Wallet	1.6	14%	5.83	12%
e-zwich to wallet	0.33	3%	0.64	1%

Source: [Ghana Payment System Report 2015-2018](#), [GHIPSS Update 2019](#) and [BOG quarterly bulletins](#)

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# Acknowledgement: Interviewed Country Stakeholders

# Acknowledgements to Ghana stakeholders:

Name	Position	Organisation
<b>Regulator</b>		
Kwame Oppong	Head of FinTech and Innovation	Bank of Ghana
<b>Scheme Manager and (or) operator</b>		
Archie Hesse	CEO of GhIPSS	Ghana Interbank Payment & Settlement Systems (GhIPSS)
<b>Participants</b>		
Alexander Awuku	Product Development and Commercial Projects Manager Mobile Financial Services (MFS)	AirtelTigo Ghana
Seyram Fiakegbe	Assistant Manager, MFS Technical & Commercial Projects	AirtelTigo Ghana
Ruth Badoo	Senior Manager, MFS Operations and Service Delivery	MTN Ghana
Godwin Kwami Tamakloe	Senior Manager - AML, Compliance & Analytics	MTN Ghana
Carl Nikoi Ashie	Head, Mobile Financial Services	GCB Bank Limited
Felicity Luktuka Jaforktuk	Product Manager	Zeepay Ghana Limited
Dede Quarshie	General Manager Commercial	Zeepay Ghana Limited
Francis Appiah	Head of Operations	exPressPay Ghana Limited
<b>Payment experts</b>		
Samuel Abbey Dodoo	Financial Services Expert	Independent
<b>Other Ecosystem Players</b>		
Dr. Kenneth Edem Ashigbey	CEO of the Telecommunications Industry Association	PGhana Chamber of Telecommunications