



ECOSYSTEM ACCELERATOR COMPASS

Insights on Start-Ups and Mobile in Emerging Markets

ISSUE 7, APRIL 2020



The GSMA represents the interests of mobile operators worldwide, uniting more than 750 operators with almost 400 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and internet companies, as well as organisations in adjacent industry sectors. The GSMA also produces the industry-leading MWC events held annually in Barcelona, Los Angeles and Shanghai, as well as the Mobile 360 Series of regional conferences.

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Ecosystem Accelerator

The Ecosystem Accelerator programme focuses on bridging the gap between mobile operators and start-ups, enabling strong partnerships that foster the growth of innovative mobile products and services. These partnerships bring impactful mobile solutions to the people and places that need them most, generating the greatest socio-economic impact. In particular, the programme operates an Innovation Fund which supports African and Asian start-ups with direct funding, technical assistance, and connections with mobile operators. The programme is supported by the GSMA, its members, the UK Department for International Development (DFID) and Australia's Department of Foreign Affairs & Trade (DFAT).

Learn more at www.gsma.com/ecosystemaccelerator or contact us at accelerator@gsma.com

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MOBILE TECHNOLOGY FOR THE SDGs

How civic technology start-ups are leveraging mobile technology to unlock socio-economic impact in emerging markets

Civic technology (*civic tech*) empowers citizens to engage and participate in governance, improves access to government services and enables governments to deliver services in more accessible, efficient and effective ways.¹ Ultimately, this can help build public trust, improve civic life and strengthen the public sector.

In the space of a decade, civic tech has grown dramatically in emerging markets, with a proliferation of new technologies connecting residents in neighbourhoods, catalysing community discussions, changing the way governments and citizens interact and making governments more transparent.² Mobile technologies like SMS, USSD and voice (or IVR) have been central to this growth, and mobile apps and mobile-responsive websites have supported broad public participation.

In this seventh issue of *Ecosystem Accelerator Compass*, we take a close look at different types of civic tech and their use cases, and shine a light on how these technologies are contributing to the UN Sustainable Development Goals (SDGs).

Types of civic tech start-ups

According to Village Capital, Omidyar Network and ClIE.CO, civic tech falls into two complementary verticals: **streamlining government services** and **improving civic engagement**.

- Streamlining government services:** These solutions augment and streamline government's work by providing **front-end tech** and **back-end infrastructure**. Front-end tech enhances the quality, efficiency and accessibility of services provided to the public, particularly in areas like transportation, water and sanitation, and waste management. Back-end infrastructure, also known as "govtech", includes software and hardware that help government collect, organise and make decisions based on data, engage more proactively with citizens and deliver public services more effectively, accessibly and transparently.
- Improving civic engagement:** These solutions empower citizens by enhancing participation in public decision-making processes. There are two sub-categories of solutions: **government-to-citizen communication**, which allows citizens to engage with government more easily and proactively, and **citizen-to-citizen communication**, which allows citizens to engage with each other and organise around civic issues more easily. The table below provides examples of start-ups active in each of these civic tech verticals.

1. Village Capital, ClIE.CO and Omidyar Network (2019), *Catalyzing Civic Tech in India*.
 2. Knight Foundation (2015), *Assessing Civic Tech: Case Studies and Resources for Tracking Outcomes*.
 3. Village Capital, ClIE.CO and Omidyar Network (2019), *Catalyzing Civic Tech in India*.

	 STREAMLINING GOVERNMENT SERVICES		 IMPROVING CIVIC ENGAGEMENT	
	Front-end government: transportation, water and sanitation, waste management Provides front-end tech that increases the quality, efficiency and accessibility of civic services provided to the public.	Back-end government management tools Provides back-end tech infrastructure that improves government operations, particularly better ways of collecting, organising and making data-based decisions.	Government-to-citizen communication Facilitates direct engagement between governments and citizens in one or both directions, from direct service delivery to feedback and communication platforms.	Citizen-to-citizen engagement and communication Connect citizens with each other to discuss, organise and/or fund civic projects through community-based platforms.
CityTaps (Niger) ⁴	✓			
Coliba (Côte d'Ivoire)	✓			
NextDrop (India)	✓			
MOPA (Mozambique)	✓	✓		
Gaia (India)		✓		
Sudpay (Senegal)		✓		
TransGovGh (Ghana)			✓	
Glue (Indonesia)			✓	
BudgIT (Nigeria)				✓
Milaap (India)				✓

4. See the GSMA Mobile for Development Utilities case study.

Civic tech start-ups and the Sustainable Development Goals (SDGs)

Civic tech start-ups provide solutions for all the SDGs and strengthen socio-economic equality as citizens can engage with a range of civic issues.

SDGs	Name	Citizen engagement
 	SANERGY (KENYA)	In 2015, Sanergy was awarded a Mobile for Development (M4D) Utilities grant with SweetSense to install GSM- and RFID-enabled infrared sensors to record Fresh Life Toilet activity and estimate fill levels. Waste collectors and Fresh Life toilet operators used the sensors to record servicing events and request assistance by swiping RFID tags. A mobile app was also developed to capture waste weight data.
	WHEREIS MYTRANSPORT (SOUTH AFRICA)	Founded in 2015, WhereIsMyTransport's integrated mobility data platform (API) holds data on formal and informal public transport networks in over 30 cities in emerging markets worldwide. The start-up empowers governments and service providers to improve transport services for hundreds of millions of people.
 	SUDPAY (SENEGAL)	TownPay is a solution developed by SudPay to allow municipalities to automate, and later digitise, the collection of local taxes from MSMEs to reduce fraud and improve collection rates. The solution initially equips municipal tax collectors with proprietary mobile terminals and municipalities with digital dashboards to track tax collection.
 	MANKIWWA (SRI LANKA)	ManKiwwa provides innovative ways to engage with government to resolve civic issues through a mobile app. Citizens can take photos or videos as evidence to report mishaps or problems in their communities.
 	QLUE (INDONESIA)	Qlue's mobile-enabled platform offers two-way communication for city residents and governments. Residents can request government services, and city governments can respond to and provide updates on the status of those requests. The data is compiled into actionable reports for city leaders to better manage and allocate resources. The reports are also available to the public and media, improving transparency.
 	COLIBA (CÔTE D'IVOIRE)	Coliba is a web, mobile and SMS platform that connects households and businesses with Coliba-affiliated, trained and equipped plastic waste pickers. In exchange for plastic waste, users receive points that can be converted into airtime. Plastic waste is converted into pellets in Coliba's local factory and then sold to local plastic-based industries.

SDGs	Name	Citizen engagement
 	AMANDLA.MOBI (SOUTH AFRICA)	Amandla.mobi empowers South Africans to initiate online campaigns and offline advocacy and take coordinated, strategic action for a more just society.
	BUDGIT (NIGERIA)	BudgIT is a Nigerian civic tech start-up that enables citizens to participate in institutional improvements to promote social change. So far, BudgIT has reached over 4,850,000 Nigerians digitally and in person by facilitating online and offline conversations on government finance and public sector efficiency. With over 8,000 unique data requests from private, corporate and development entities/individuals, BudgIT is now widely regarded as a trusted source of public finance data in Nigeria.

Opportunities for collaboration between mobile operators and civic tech start-ups

Partnerships between mobile operators and civic tech start-ups can increase the quality, efficiency and accessibility of public services while also improving government operations. Mobile operators can help raise awareness so that more citizens make use of civic tech services through SMS, USSD or voice services. By collaborating with civic tech start-ups in emerging markets, mobile operators can act as a bridge between citizens and governments (at national and local levels) while also supporting start-ups as trusted providers of technology based applications and services.

Civic tech innovations can help cities become truly smart and sustainable, and partnerships with civic tech innovators can help mobile operators deploy smart city solutions in emerging markets more effectively. The following are examples of civic tech start-ups and mobile operators that are working together:

- **CityTaps (Niger)** has developed a water utility subscriber management solution that includes a smart prepaid water meter using Orange Mobile Money and machine-to-machine (M2M) technologies. In September 2015, the GSMA M4D Utilities Innovation Fund awarded CityTaps a grant to launch 250 smart prepaid water meters in Niamey, Niger, in partnership with the local water

utility, Société d'Exploitation des Eaux du Niger (SEEN) and Orange Niger. In April 2018, CityTaps received another GSMA grant to continue scaling this service.

- **Coliba (Côte d'Ivoire)** is a mobile platform that connects households and businesses with plastic waste pickers trained and equipped by Coliba. Coliba has collaborated with MTN Côte d'Ivoire on a commercial and co-branding offering that gives MTN data credits to households that recycle plastic bottles through Coliba's mobile app, giving them to access to mobile internet.
- **Qlue (Indonesia)** is a mobile-enabled platform that offers two-way communication for city residents and governments. Qlue has a partnership with Telkomsel in Jakarta to provide a mobile app and software support, while Telkomsel provides devices, network coverage and marketing support to Qlue. In early 2019, Qlue secured an undisclosed investment from MDI Ventures (the investing arm of Telkom and owner of Telkomsel), and has gone on to secure more partnerships with other telecom operators, such as Indosat Ooredoo. Qlue is currently available in over 40 cities.

- **Wonderkid (Kenya)** tackles water and sanitation challenges in Africa by providing software-as-a-service solutions (SaaS) to over 30 utilities across the continent. Established in 2007, Wonderkid's partnerships with mobile operators began in 2012 when it rolled out mobile-based utility tools while providing software solutions to the water

sector. Since then, Wonderkid has worked with several mobile operators, including Safaricom, Airtel Kenya, Airtel Malawi, TNM Malawi and MTN Nigeria. With a strong focus on core messaging services, mobile apps and mobile money services, partnerships with mobile operators have been instrumental in Wonderkid's success.

Looking ahead: Calling on mobile operators to collaborate with civic tech start-ups to create gateways to greater citizen engagement

There are ample opportunities for mobile operators to partner with start-ups and have an impact in the civic tech space. These partnerships can help promote peaceful and inclusive societies for sustainable development, while ensuring institutions at all levels are accountable and inclusive. Mobile operators can be

technical and financial partners to civic tech start-ups by providing infrastructure or investments to scale civic tech solutions. Through civic tech, start-ups and mobile operators can have an impact on people, profit and planet, and help solve pressing issues that people in emerging markets grapple with every day.





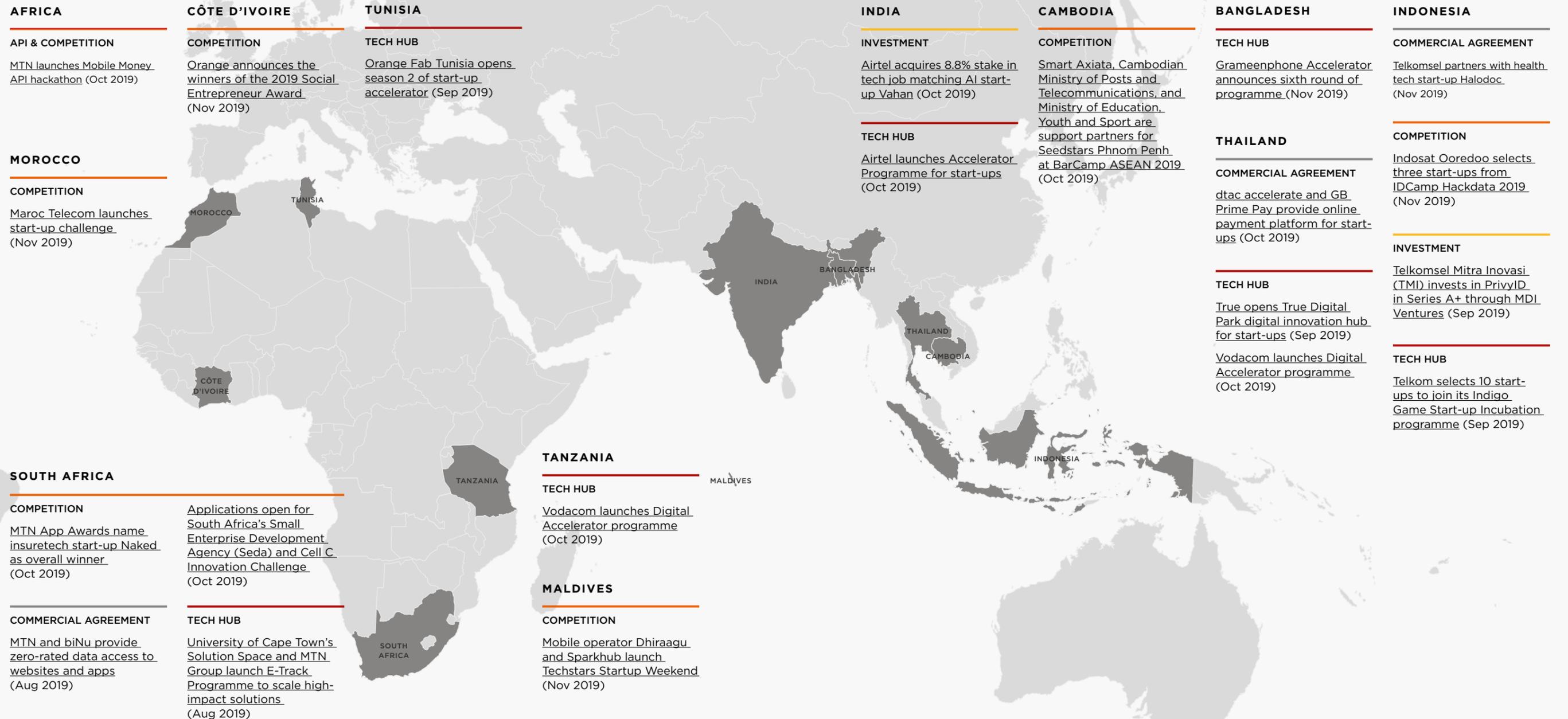
MOBILE OPERATORS IN THE NEWS

How mobile operators are collaborating
with local start-ups

This map provides a snapshot of collaborations between mobile operators and start-ups announced between August and November 2019. Each initiative has been mapped against a framework developed in our 2017 report, *Building Synergies: How Mobile Operators and Start-ups Can Partner for Impact in Emerging Markets*. This framework has evolved to include the following categories: investment, competition, API, commercial agreement, tech hub, co-innovation and joint offering. Here, we take a closer look at five of these initiatives.

Map 1

Mobile operator and start-up collaborations in emerging markets (August to November 2019)



API & COMPETITION:

MTN opens up its Mobile Money API across Africa and launches hackathon



MTN Group has granted third parties access to its Mobile Money (MoMo) Access Programming Interface (API) platform. The open API enables developers and programmers to innovate on the platform and develop products and other solutions that will provide a wider range of digital financial offerings for MTN's customers.

To foster innovation and enhance financial inclusion, in October 2019 MTN invited developers and entrepreneurs from across five countries to participate in the MoMo API Hackathon. Run in partnership with Ericsson (MTN's MoMo technology partner), the Hackathon gave app developers in Ghana, Uganda, Côte d'Ivoire, Cameroon and Zambia the opportunity to create innovative financial and transactional apps using the MTN MoMo API platform. With an open API, local third parties (developers and programmers) can sign up and test out the API to develop different solutions and products. Users can collect payments, disburse money, send remittances and receive money through a website using QR codes.

COMPETITION:

Orange announces the winners of the 2019 Social Entrepreneur Award



Now in its ninth year, the Orange Social Venture Prize aims to promote social innovation by supporting high-tech digital solutions that serve the needs of the poor in Africa and the Middle East.

Cameroonian medtech start-up [Chaque Souffle Compte](#) was the winner of the 2019 Orange Social Venture Prize, winning €25,000 (\$27,900). The start-up was chosen for its neonatal incubator concept, which is resilient to energy fluctuations and can be remotely controlled via a physician's smartphone. [J-Palm Liberia](#), which manages and operates mini palm oil mills in partnership with rural communities, was the runner-up and awarded €15,000. Malagasy ride-hailing marketplace [Flit Ride](#) placed second and was awarded €10,000 (\$11,200). In addition to their cash prizes, the three winners will each receive six months of support from one of Orange's partners.

INVESTMENT & TECH HUB:

Airtel launches start-up accelerator programme, acquires 8.8 per cent stake in tech job matching AI start-up Vahan and acqui-hires⁵ the Quikmile team



In October 2019, Bharti Airtel launched a start-up accelerator programme to support the growth of early-stage tech start-ups in India. Start-ups will get access to Airtel's online and offline distribution network, deep market understanding, ecosystem of global strategic partners and advisory services from its executive team. Bengaluru-based tech start-up [Vahan](#) is the first start-up selected to join the accelerator programme. The mobile operator has also acquired a minority 8.82 per cent stake in Vahan, which uses artificial intelligence (AI) to match job seekers with employers through a messaging app.

In November 2019, Bharti Airtel announced the acqui-hiring of logistics start-up [Quikmile](#), which builds tech platforms for monitoring vehicles and drivers. The Quikmile team will merge with Airtel's digital solutions wing [Airtel X Labs](#), which works on Internet of Things (IoT), digital engineering, AI and machine learning. Through the deal, Bharti Airtel aims to help companies improve their logistical efficiency with technology and workforce management platforms.

5. Acqui-hiring is the process of acquiring a company to recruit its employees, not necessarily the products or services they developed.

TECH HUB:

Vodacom Tanzania launches Digital Accelerator programme



The Vodacom Digital Accelerator programme was launched in November 2019 to support early-stage and growth-stage technology start-ups. The programme will focus on companies with disruptive products and services with the potential to be brought into the market and scale into profitable, revenue-generating businesses. Vodacom Digital Accelerator seeks start-ups with innovative solutions and supports them to take their businesses to the next level.

Vodacom Tanzania is looking to select 20 start-ups with innovative solutions in fintech, e-commerce, telecommunications, health, mobile, education, agriculture and the media. Start-ups will benefit from mentoring, technical support, M-Pesa business services, assistance with marketing and growth strategy and follow-on investment. To be eligible to apply to the programme, start-ups must have a minimum viable product (MVP), a plan to (or already) use technology in their product/service, solutions to address relevant problems in Africa and the potential to scale (reach many users or generate high revenues).

COMMERCIAL AGREEMENT:

Telkomsel partners with health tech start-up Halodoc



In November 2019, Telkomsel in Indonesia collaborated with [Halodoc](#), a mobile app-based healthcare service to accelerate equitable, easy and convenient access to health services. Since it launched three years ago, Halodoc has provided access to healthcare services for over seven million active users per month in over 50 cities in Indonesia. Halodoc has also partnered with over 1,400 hospitals, over 20,000 licensed doctors and 1,300 pharmacies. Through this partnership, all Telkomsel customers who registered for the Halodoc app between 1 November 2019 and 31 October 2020 will get a five per cent discount for three months on all Halodoc services.

TECH HUB:

True opens True Digital Park digital innovation hub for start-ups



In September 2019, Thai mobile operator True Group opened digital innovation hub True Digital Park. Launched in cooperation with various partners, True Digital Park hosted T.O.P. 2019 : Togetherness of Possibilities, a tech conference designed to inspire and share knowledge and experiences from top executives and entrepreneurs from across Asia Pacific. The opening ceremony was presided over by Dr. Somkid Jatusripitak, Thailand's Deputy Prime Minister. Start-ups and digital technology enthusiasts visited the Innovation Space where public and private sector partners exhibited new technologies, innovation labs and learning centres.



START-UPS AND MOBILE INNOVATION

How Innovation Fund start-ups are using mobile technology to offer services with impact

CASE STUDY **Field Buzz**

Deploying mobile technology to manage last-mile distribution and operations in Bangladesh



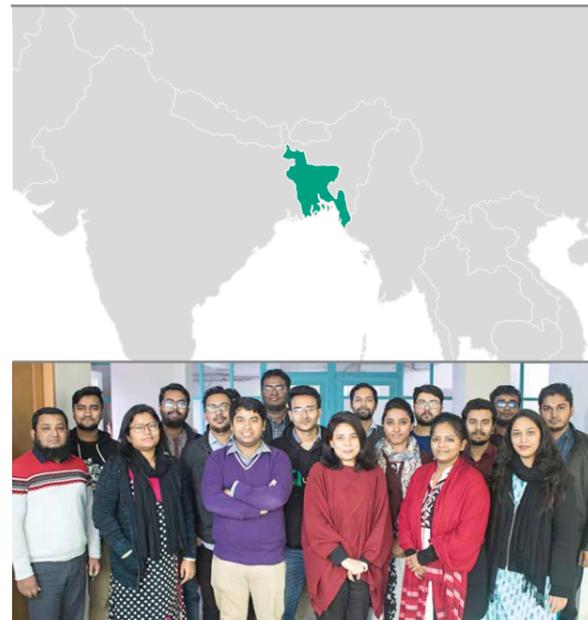
FOUNDING YEAR
2015

GEOGRAPHY
Bangladesh

FOUNDING TEAM
Alexis Rawlinson | Co-Founder, Sales and Growth Strategy
Habib Ullah Bahar | Co-Founder, Products and Engineering

TWEET PITCH
Field Buzz helps businesses manage last-mile distribution transparently and effectively through mobile technology.

WEBSITE
<https://field.buzz/>



Traditional small-scale retail stores (*mudir doka*n) dominate the retail sector in Bangladesh. The vast majority of Bangladeshis regularly buy groceries from these traditional small shops⁶ and almost two million people work as microentrepreneurs in the sector, each serving roughly 100 customers a day.⁷ However, these stores are extremely inefficient and often operate informally with little or no transparency.

Meanwhile, fast-moving consumer goods (FMCG) distribution companies find it arduous to track and manage their geographically dispersed sales networks that serve these small shops. A lack of electronic tracking records creates several challenges in the value chain around placing orders, delivery, cash collection and inventory management. These systemic issues make it almost impossible for retail microentrepreneurs to grow their businesses.

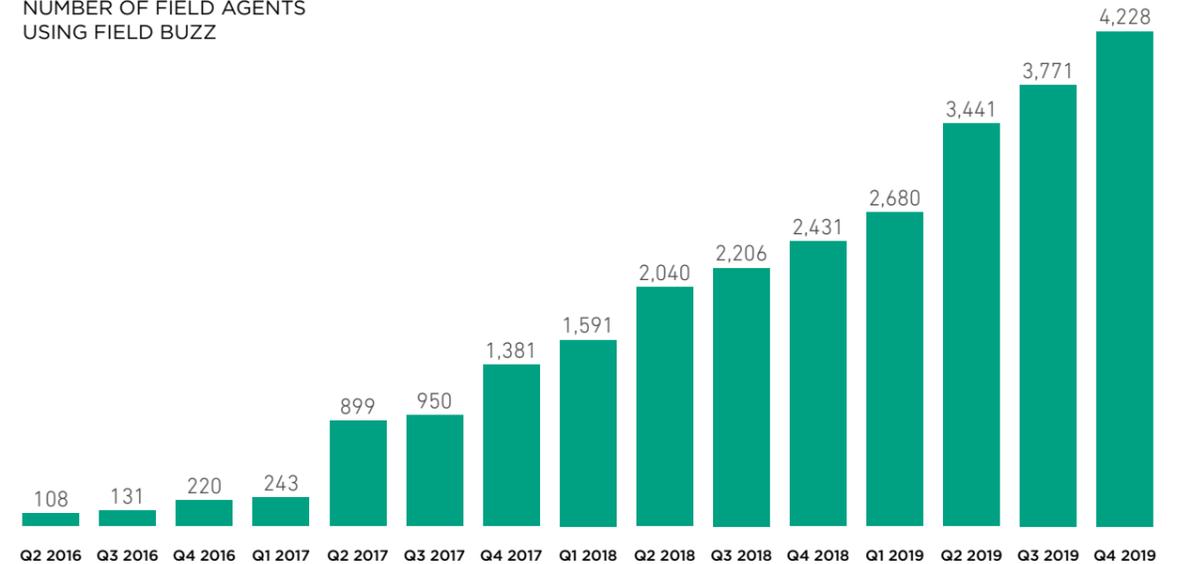
Field Buzz deploys mobile technology to help FMCG distribution companies manage their remote and

dispersed operations all the way to these small shops. With the Field Buzz software on their mobile phones, field agents from FMCG companies (such as sales agents and delivery persons) electronically record all orders, deliveries, payments and credit transactions with traditional retailers, saving time and effort compared to paper-based records. This information is then sent to their managers and warehouses in real time via mobile internet.

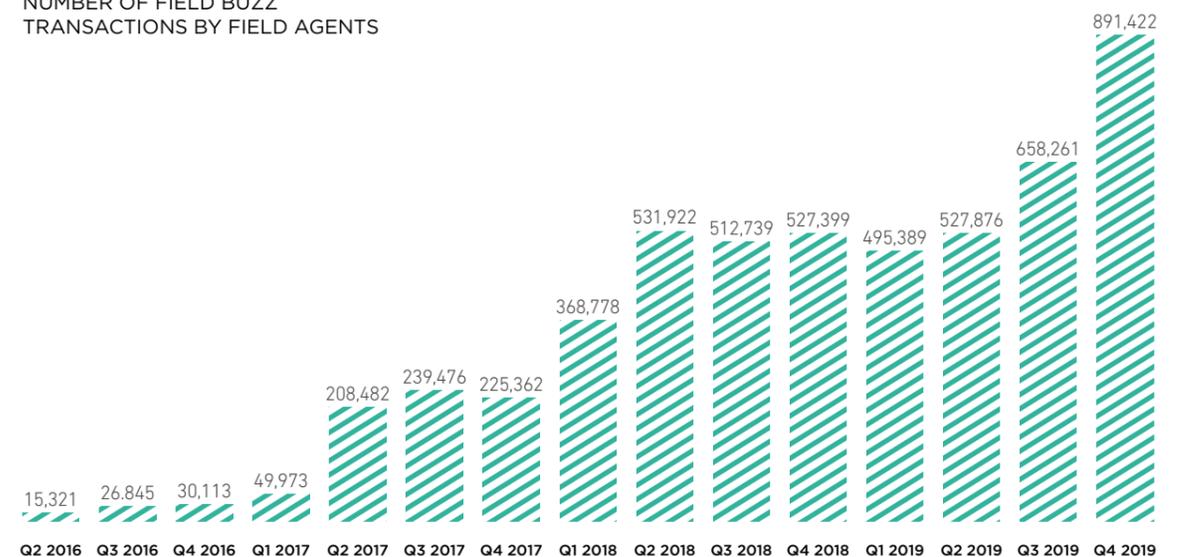
Field Buzz's transparent and efficient system helps FMCG distribution companies better serve their retail networks in the 'last mile'. This process of digitisation also has benefits for small traditional retailers, such as more reliable service from their distributors and less risk of running out of stock. The digital profiles and track records that Field Buzz software provides also helps to strengthen their reputation and trustworthiness, which can ultimately help them obtain credit terms and price discounts and grow their business.

6. BCG (2015), Bangladesh: The Surging Consumer Market Nobody Saw Coming.
7. UNCDF (2019), Landscape Assessment of Retail Micro-Merchants in Bangladesh.

FIELD BUZZ
NUMBER OF FIELD AGENTS USING FIELD BUZZ



FIELD BUZZ
NUMBER OF FIELD BUZZ TRANSACTIONS BY FIELD AGENTS



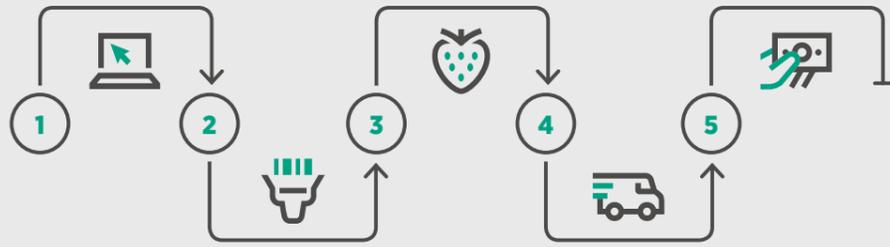
How the service works

The Field Buzz platform allows distributors and their sales agents to track orders and deliveries and make payments using a mobile app. Field Buzz provides each product distributor with a web interface to enable real-time order management and delivery tracking.

The field agent is registered by their company management⁸ on the **Field Buzz** "Mission Control" web interface. The field agent logs in to the multilingual⁹ mobile app using a unique username and password.

The field agent takes an order from the shop owner or assistant by clicking on the appropriate product icons displayed in the app.¹¹ The order is recorded and synced to the field agent's company warehouse where the order is processed.

The app prompts the sales agent to take a cash payment (in cash or mobile money) from the shop, which is then recorded in the app.¹² The payment and order delivery is validated by scanning the shop's QR code, receiving an electronic signature or taking a photograph.

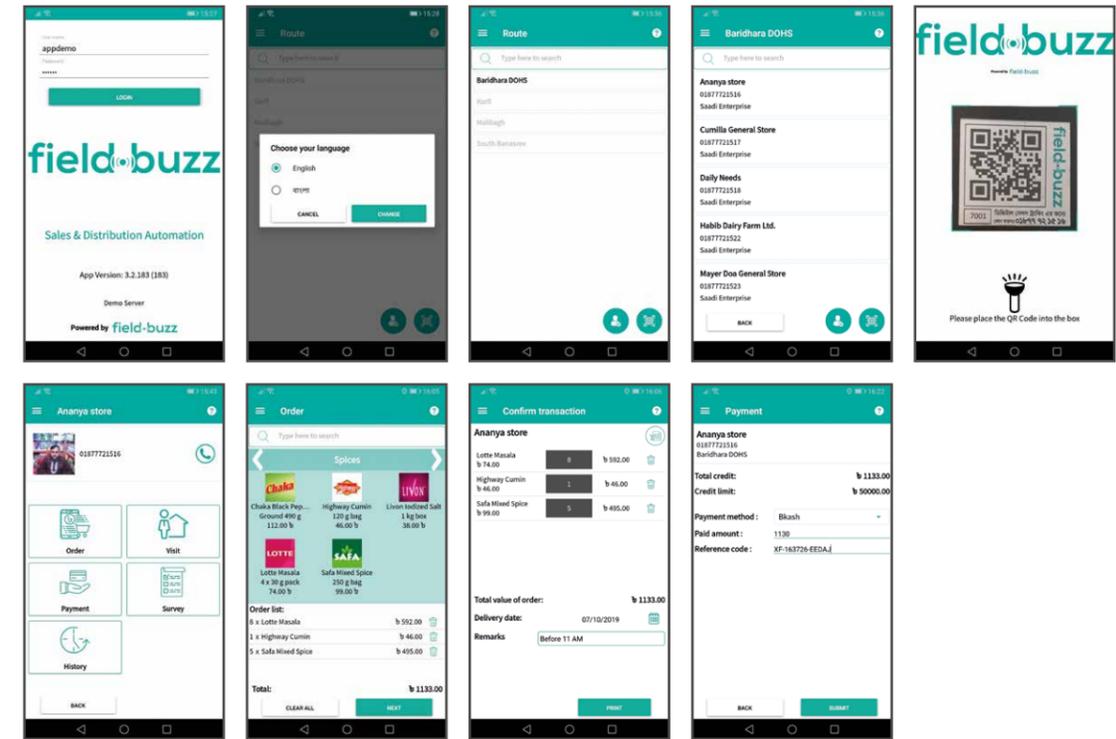


Upon arrival at each shop, the field agent scans the QR code to open the shop's profile in the Field Buzz app.¹⁰

After the pending delivery order is uploaded to the app and the order is filled, the sales agent delivers the products to the shops and marks the order "Completed" on the app.

FIELD BUZZ FIELD AGENT USING THE APP

FIELD BUZZ FIELD AGENT USING THE APP



The distribution manager can register and login to Mission Control once the company administrator sets up the manager's profile on the Mission Control web interface.

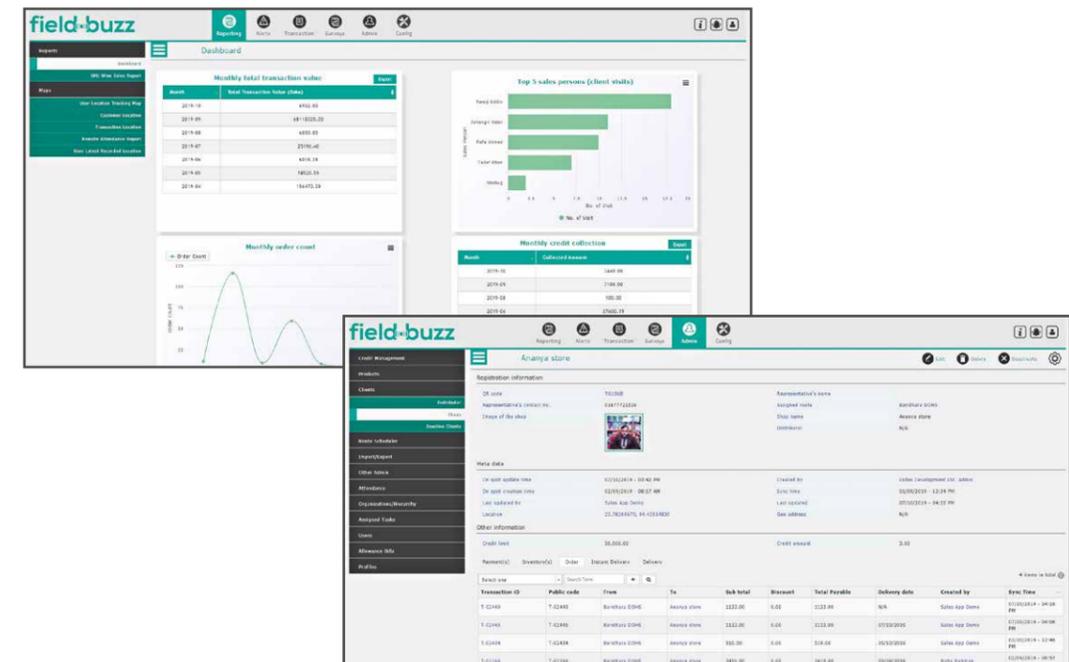


All registered shop profiles, as well as historical and real-time transactions, appear in the Mission Control database.

- A The manager can update the pricing, products, users, shops and routes available on the platform.
- B The manager can click on the dashboard showing relevant sales and organisational data and charts.
- C The manager can zoom in on embedded maps to see individual shop and transaction locations, and can filter transactions by a certain date range or other relevant criteria, such as routes or sales agents activities.

FIELD BUZZ DISTRIBUTION MANAGERS USING THE WEB INTERFACE

FIELD BUZZ DISTRIBUTION MANAGERS USING THE WEB INTERFACE



8. This could be the IT administrator, CEO, or other staff, depending on the company.
 9. Users in Bangladesh have the choice between Bangla and English. French, Spanish, Burmese, Arabic, Dari (Persian), Swahili, Luganda and Amharic interfaces are also available.
 10. If the QR code is missing, the sales agent can browse through the list of shops on that route and click on the relevant shop, or search for the shop by name or telephone number.
 11. The sales agent can add +1 item to the order list, but holding down on the icon allows them to manually enter a larger number (e.g. "20" instead of clicking it 20 times).
 12. Payments are often made in cash, but increasingly payments are being made with mobile money.

Working with mobile operators

In August 2019, Field Buzz was selected as a launch partner of the Grameenphone Cloud Store, a software-as-a-service (SaaS) marketplace for business customers run by Grameenphone. The Cloud Store enables large and small businesses to rapidly adopt cloud-based, mobile-first digital solutions at a lower cost and with greater flexibility than traditional enterprise software. Field Buzz's

smartphone-based software provides much-needed solutions for a range of Grameenphone business customers with field-based activities. Through the partnership, Grameenphone sales agents sell and invoice Field Buzz licences to Cloud Store business customers. Field Buzz engineers configure and roll out the solution to these customers and provide ongoing hosting and technical support services.

“ In July 2019, Field Buzz was one of Grameenphone Cloud Store's launching partners. Field Buzz's modular and configurable smartphone-based software provides much-needed solutions for a wide range of Grameenphone business customers with field-based activities, making Field Buzz an ideal partner for Grameenphone. Field Buzz is designed in a flexible way and caters to a broad range of companies as it addresses the need of both large and small enterprises. From the beginning, Field Buzz successfully captured potential customers from the FMCG sectors. We are glad to see its development of smart solutions for digitalization in Bangladesh and pleased to have them as a partner of Grameenphone Cloud Store.

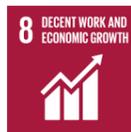
Mohammad Zakaria Haider, Product Manager,
Cloud Store, Grameenphone



Changing lives



By enabling more transparent, efficient and productive distribution chains, Field Buzz software ensures that underserved households in low-income communities can access essential goods and services at more competitive prices. This, in turn, increases productivity, competitiveness and growth in the retail sector.



The spread of smartphone-based software into last-mile settings helps to bridge the digital divide. With more than 4,000 field agents, 420,000 micro-merchants and smallholder farmers, and 4.9 million transactions in Bangladesh since the launch of the software in 2015, Field Buzz is unlocking many new opportunities for low-income individuals and micro-enterprises who were previously marginalised in economic value chains.



At least three million people in Bangladesh are employed in traditional and inclusive distribution channels. Field Buzz software helps provide better income opportunities for individuals, small and medium-sized enterprises (SMEs) and microenterprises serving the 150,000 last-mile shops registered in the Field Buzz database.

“ Through the Field Buzz app I now have real-time sales reports on my mobile, so I can easily find out where the problems are and react really quickly to find resolutions. Also I use the data to make strategic decisions. For example, on weekly targets for my sales officers or on changing the routes that they should travel every day. Previously with paper records, it was really hard to know why sales went down.



Sanjay Das Gupta, Area Sales Supervisor for an FMCG distributor

All of my sales tasks can be done really quickly on the Field Buzz app. I have to scan the QR code to identify the shop, then I count the stock in the shop, replace any expired products and make a new sale. Before the Field Buzz app, I recorded all my sales tasks on paper, which took a lot longer.



Mohammad Emran Hasan Emon, Sales Officer for an FMCG distributor

With the Field Buzz app, any sales officer from the company who visits me knows immediately what products I should order again, because they can see my past orders in the app. It's now easy for them to extend offers and credit terms because the app shows my good performance. Even though the credit is only for a couple of days, it really helps me and I can order more from the sales officer as a result.



Aminul Islam, microretailer in Bogra, Bangladesh



Working with the GSMA Ecosystem Accelerator

Field Buzz received a grant from the GSMA Ecosystem Accelerator Innovation Fund in February 2018 to develop a more standardised version of their last-mile distribution mobile solution for SMEs with dispersed sales and delivery agents in rural areas of Bangladesh.

With the support of the GSMA Ecosystem Accelerator programme, Field Buzz has developed an app to provide strategic, up-to-date data on products for

sales agents and distributors to help them manage stock accurately and efficiently. Field Buzz shifted their business model from a project-based solution (usually large one-off payments from a handful of customers) to a SaaS solution (recurring revenue from larger customer base), which can be distributed via online marketplaces like Grameenphone's B2B marketplace, Grameenphone Cloud Store. Field Buzz reached an additional 40,682 users during the grant period.

CASE STUDY **Eneza Education**

Educating school children through SMS and mobile technology



FOUNDING YEAR
2018

GEOGRAPHY
Côte d'Ivoire

FOUNDING TEAM
Christelle Hien-Kouam | Country Manager
Charles Elioth Anon | Deputy Country Manager

TWEET PITCH
Eneza Education runs a subscription-based service providing SMS-based educational content (including lessons and assessments) for primary and secondary school students on any mobile phone.

WEBSITE
<http://enezaeducation.com/ivory-coast/>



With 49.5 per cent of the population aged 15 to 49 unable to read and write, Africa has the highest illiteracy rate in the world.¹³ In Côte d'Ivoire, the illiteracy rate is 43.8 per cent, and according to UNICEF, the graduation rate is 63 per cent in primary school and 41 per cent in high school. Despite education reforms, such as a 2015 law that made school attendance compulsory for all children aged six to 16, and a significant increase in education spending (18.7 per cent of total government expenditure in 2017),¹⁴ the quality of education in the country remains low, especially in rural areas.

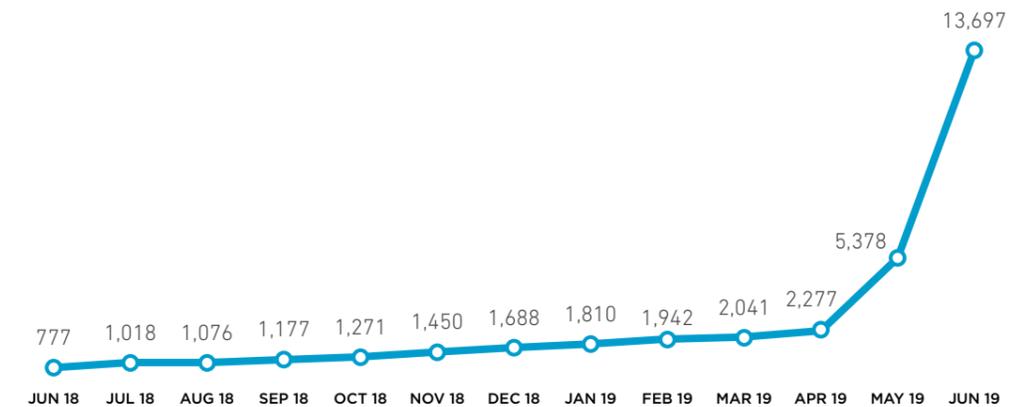
Studies show low average national exam scores. The percentage of students with sufficient competencies in Mathematics is 26.9 per cent and 48 per cent for French,¹⁶ indicating a learning lag in literacy and numeracy in the education system. Some of the key contributors to low literacy rates are low-quality education, lack of sufficient textbooks, extremely high pupil-to-teacher ratio, low teacher supervision and

teaching methods that do not take children's specific needs into account.

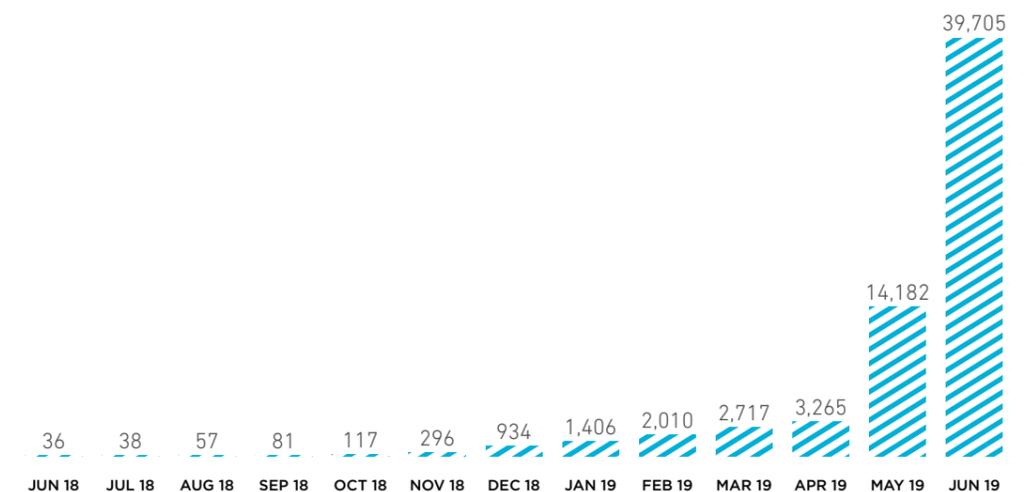
Yet, according to GSMA Intelligence data, there are over 32.5 million mobile connections in Côte d'Ivoire. With a population of over 25.4 million, this translates into a 128 per cent mobile phone SIM penetration rate.¹⁷ Drawing on operational lessons from Kenya and Ghana, Eneza Education launched a subscription service for educational content (e.g. French, English, History and Physics) in Côte d'Ivoire aimed at children in primary and secondary school.¹⁸ In January 2019, Eneza launched the iEduk platform, a comprehensive virtual tutor that provides universal access to affordable and quality learning. Developed in-house by local teachers and aligned with the national curriculum, students can access lessons and quizzes on any mobile phone via SMS or USSD with a daily, weekly or monthly subscription. As of June 2019, there were over 13,700 learners on the platform.

13. Alain Mingat, Francis Ndem and Adeline Seurat (2013), "Questions about the Measurement of Illiteracy", *The Case of Sub-Saharan Africa*, pp. 25-47.
14. UNESCO: <http://data.uis.unesco.org/>
15. Universalia, Results for Development and ITAD (August 2018), *Summative Evaluation of GPE's Country-level Support to Education, Batch 2, Country: Côte d'Ivoire*.
16. UNICEF (2019), *Goal Area 2, Every child learns: Global Annual Results Report 2018*.
17. GSMAI database: <https://www.gsmainelligence.com/markets/580/dashboard/>
18. Students are typically nine to 16 years old.

ENEZA EDUCATION
NUMBER OF STUDENTS IN CÔTE D'IVOIRE ON THE IEDUK PLATFORM

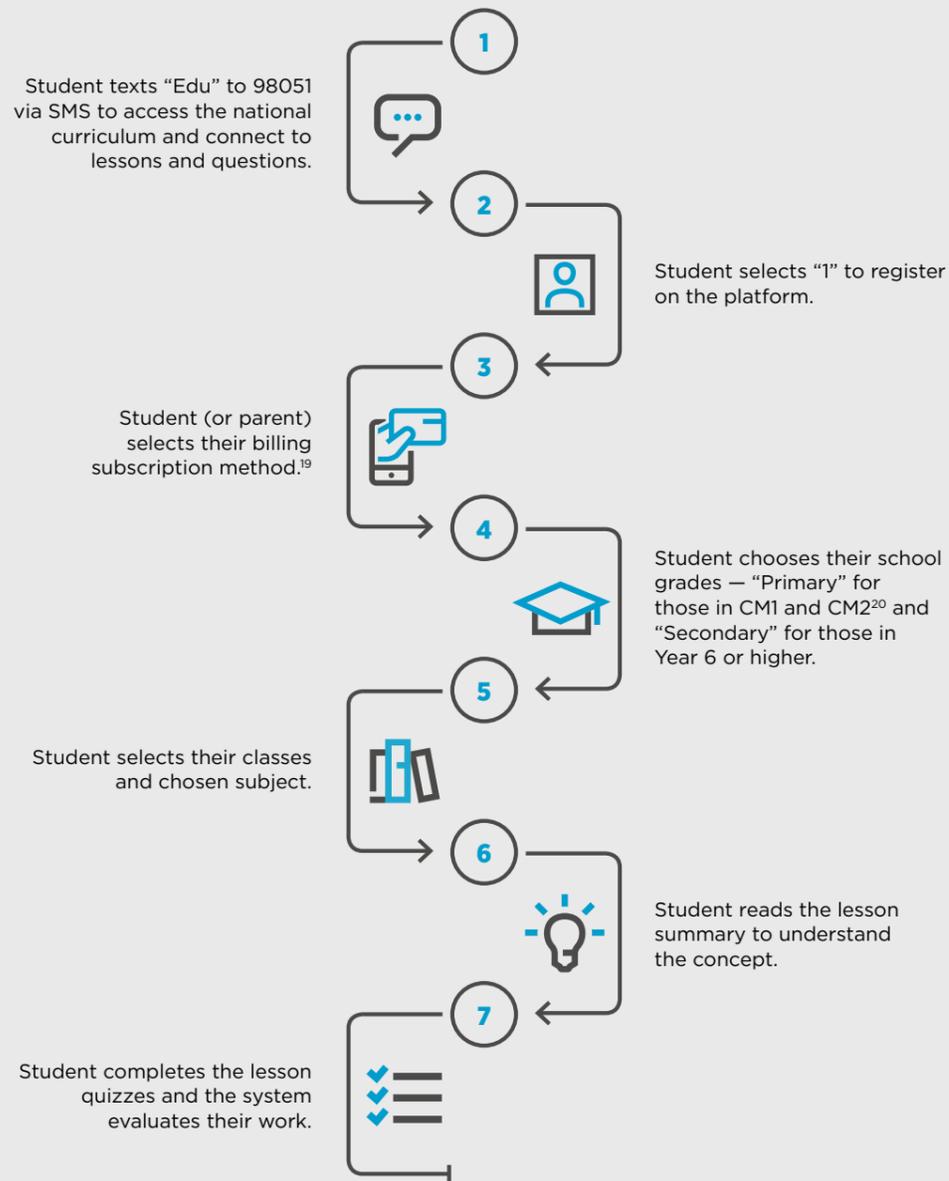


ENEZA EDUCATION
NUMBER OF QUIZZES TAKEN BY STUDENTS ON THE IEDUK PLATFORM

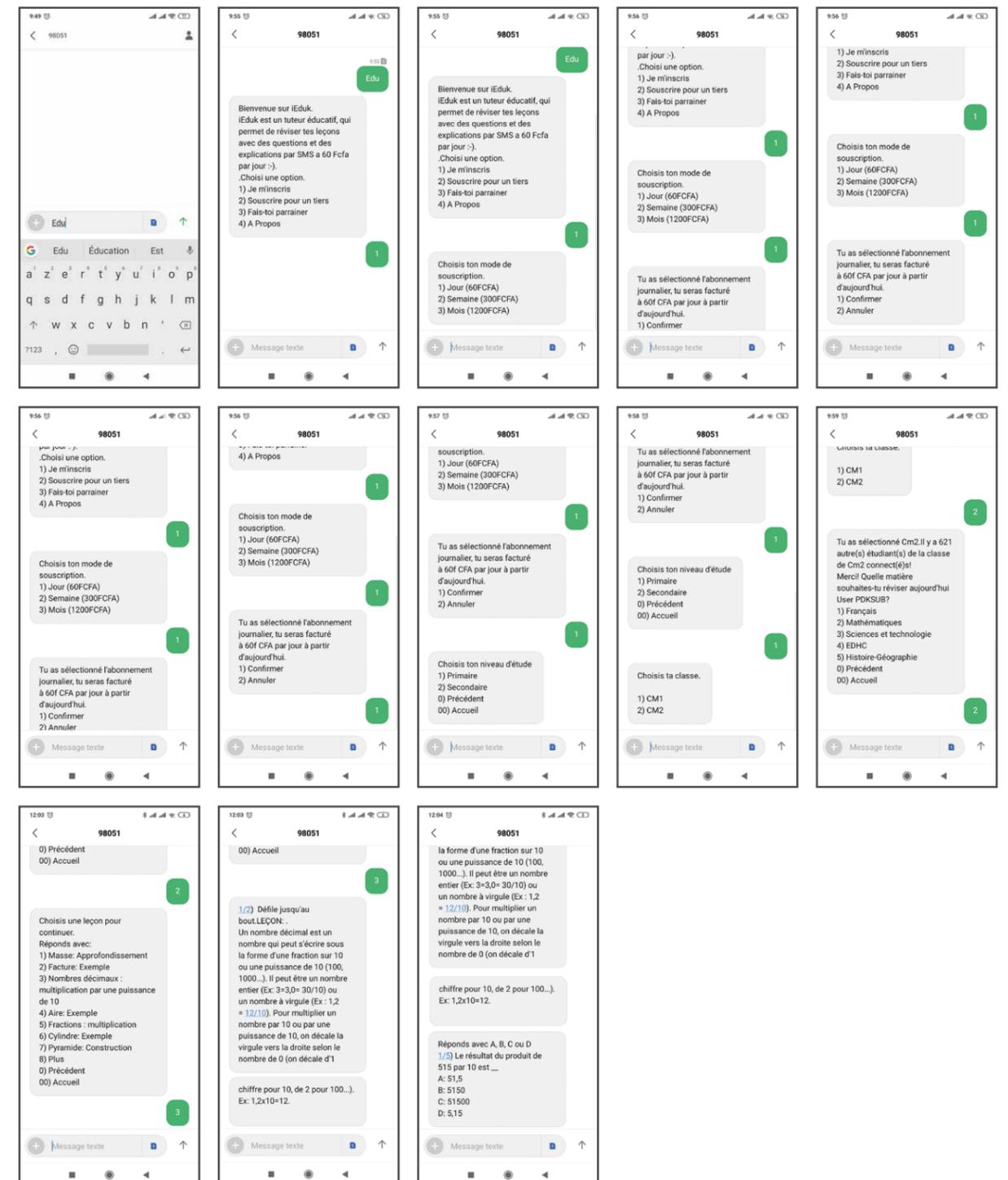


How the service works

iEduk is an online and mobile platform that allows students to access educational content via SMS or USSD. Student users can chat with teachers and ask them questions from 8am to 8pm every day. iEduk works as follows:



IEDUK



19. Students can choose from one of the following packages to be added to a mobile airtime bill (in West African CFA francs): 60/day (10 cents), 300/week (50 cents), 1,200/month (\$2) or 10,000/year (\$16.25).

20. CM1 = cours moyen 1 (school children typically aged eight to 10) and CM2 = cours moyen 2 (school children typically aged nine to 11).

Working with mobile operators

In June 2018, Eneza Education (iEduk) signed a contract with Orange Group and is now working with Orange Cote d'Ivoire. In a revenue-sharing agreement, Orange Cote d'Ivoire has opened its SMS and billing APIs to allow iEduk users to access and pay for content using prepaid mobile phone credit. Eneza is currently integrating with MTN Côte d'Ivoire payments for iEduk for MTN subscribers.

Eneza has also collaborated with Safaricom in Kenya and with MTN and AirtelTigo in Ghana.



Changing lives



Children living in rural areas can use iEduk to improve their literacy and school performance, which in turn helps to prevent child labour and poverty. In rural areas, most parents do not have the resources to buy school supplies for their children, which on average cost FCFA 60,000 (about \$100) per child. Since iEduk launched in January 2019, Eneza Education has partnered with Nestlé to provide 500 children with free access to iEduk content, on the condition that they attend school every day.



In Côte d'Ivoire, there are an average of 60 students per class, and secondary teachers are responsible for nearly 270 students. As of June 2019, over 13,700 users have accessed iEduk and completed over 40,000 quizzes. iEduk is accessible through SMS at a low fee (10 cents/day) deductible from a parent's or student's airtime. Both primary and secondary students can revise their lessons and take quizzes, and content is based on the local curriculum, provided by highly qualified teachers and experts and approved by the Ministry of Education.



I use iEduk to revise and prepare for classroom lessons. iEduk ensures that I am prepared for class and ready to reply to questions from my teacher. During the teachers' strike, I used iEduk to take classes at home to continue studying - so that my education was not interrupted.



Kouame, iEduk user

Thanks to the iEduk service, Esther is able to do extra learning through Eneza's education platform, which has not only helped me financially, but it has also helped him a lot in class.

Dominique, father of Esther, an iEduk user



Working with the GSMA Ecosystem Accelerator

After launching its service in September 2018, Eneza Education received a grant from the GSMA Ecosystem Accelerator Innovation Fund in November 2018 to build out its solution in Côte d'Ivoire. The purpose of the grant was to improve the quality of the platform by testing and developing two new products: iEduk and IVR Literacy. By the end of the grant in March

2020, Eneza had increased the number of users on the platform to 27,545. The start-up has successfully integrated literary education with IVR and improved the service through distance learning via SMS. In addition to funding, the GSMA will continue supporting Eneza Education to deepen its relationship with local mobile operators in Francophone Africa.



CASE STUDY **Qlue**

Enabling Indonesians to report neighbourhood conditions to city authorities and businesses



FOUNDING YEAR
2016

GEOGRAPHY
Indonesia

FOUNDING TEAM
Raditya Maulana Rusdi | Co-founder and CEO
Andre Hutagalung | Co-founder and CTO

TWEET PITCH
Qlue is a civic engagement mobile solution that allows users to report or share neighbourhood conditions with city authorities and businesses.

WEBSITE
www.qlue.co.id



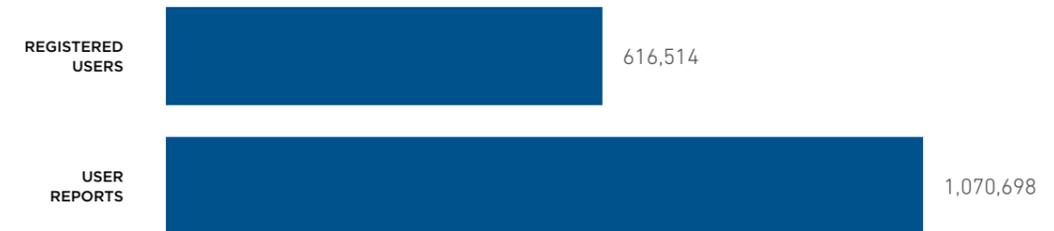
Indonesia's bustling capital of Jakarta is home to 10 million people. When the suburbs of the city are included (often referred to as Jabodetabek), Jakarta's population swells to 30 million people, making it the largest urban area in the world after Tokyo.²¹ The sheer scale of the metropolis and rapid rate of urbanisation have made the maintenance of roads and public infrastructure a complicated task, and the city government faces a variety of challenges providing a safe and orderly environment for residents.

In 2016, Qlue launched a mobile-enabled platform offering two-way communication between city residents and local governments. The mobile app enables citizens to communicate with city authorities and share major problems near their homes and businesses, such as natural disasters, damaged roads, floods and road accidents, among others.

The requests and complaints are compiled in actionable reports for city authorities to manage. The Qlue mobile app includes a city dashboard that enables city officials and service providers to track and resolve requests and complaints. These reports are also available to the media and the public, making communication between city residents and local government more transparent. In addition to reporting and sharing civic issues in their neighbourhood with government or businesses, residents can also access real-time information on traffic and public transportation.

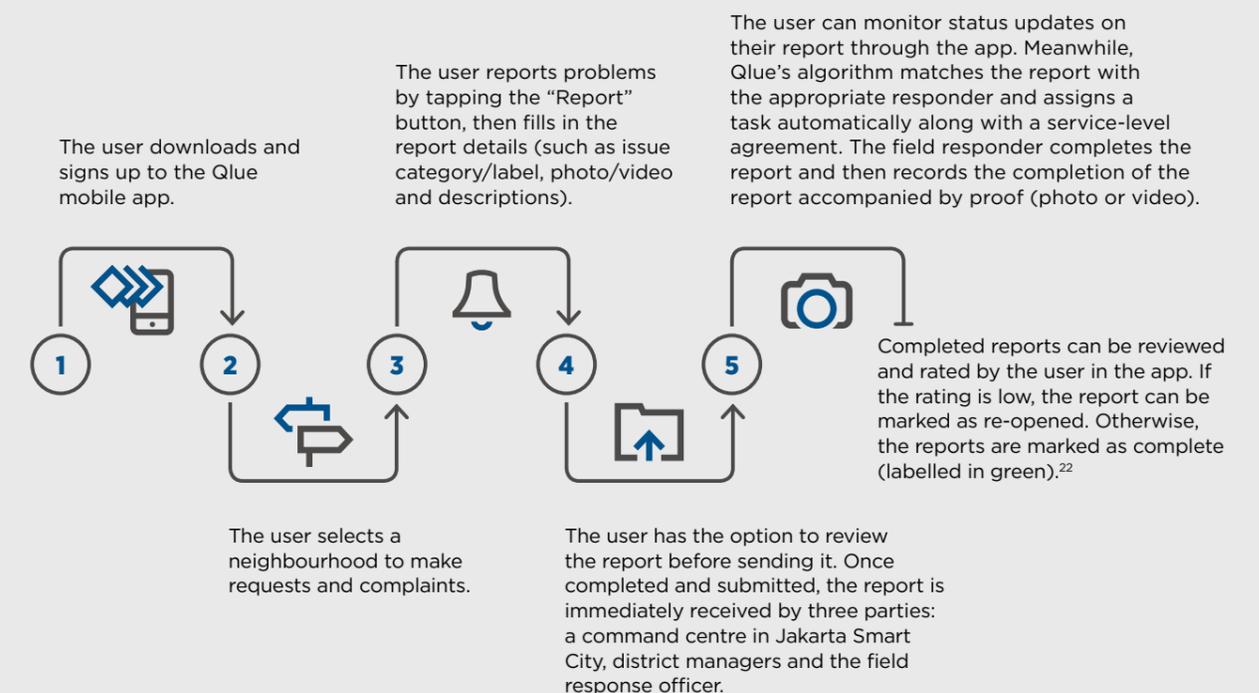
Currently, Qlue is active in 15 cities across Indonesia. Through Qlue's app, government officials receive real-time reports and can monitor situations in their cities more effectively. Qlue's analytics platform helps leaders make better and more informed data-driven decisions and policies

QLUE
REGISTERED USERS AND USER REPORTS
(CUMULATIVE FIGURE AS OF 2019)



How the service works

Qlue's civic engagement app allows citizens to report or share neighbourhood conditions with city officials and businesses. The app is available on [Google Play](#) and the App Store.

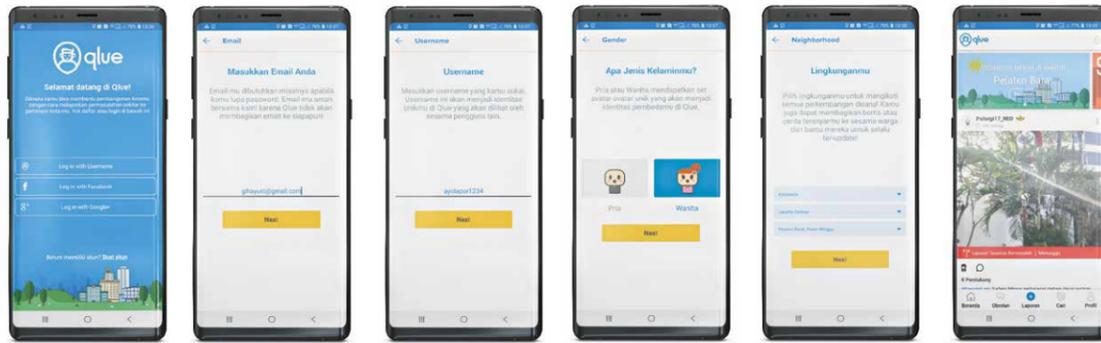


QLUE APP - CITIZEN USER

21. SmartCitiesWorld and Phillips (2018), *Smart cities: understanding the challenges and opportunities*.

22. All reports are integrated in the Jakarta Smart City dashboard, and this data can be used to create better policy by identifying problem areas in the city.

QLUE APP - CITIZEN USER



 Working with mobile operators

Qlue has a partnership with Telkomsel in the city of Jakarta where Qlue offers a bundled smart city solution to the mobile operator. Telkomsel offers devices, network coverage, and marketing support to support Qlue for offering a platform that citizens can use to record civic problems to the civic authority.

Since signing the GSMA grant, Qlue has expanded its operations and secure more partnerships with telecom operators such as Indosat Ooredoo. In February 2019, Qlue raised an undisclosed amount from MDI Ventures, the corporate venture capital arm of Telkom Indonesia.

“ Qlue established a strong relationship with not only numerous government parties, but also with private enterprises to help them scale up their business throughout Indonesia. As a leading smart city company, we think Qlue has been very helpful in serving large scale customers in respective sectors. Qlue has a number of strategic partnerships with Telkom Indonesia and other MDI's portfolios. They have established partnerships, for instance, with Telkomsel and Infomedia in serving government clients such as Polda and Local City government. This kind of synergy helps to generate better synergy impact and value for Telkom, particularly in governmental and industrial sectors.

Alvin Evander,
Head of Synergy and Accelerator, MDI Ventures



Changing lives



Through its mobile app, Qlue creates safer, cleaner and more inclusive living conditions. In 2016, the use of Qlue mapping technology reduced the number of flooded areas in Jakarta during monsoon season from 2,000 to 88.²³ Qlue also helped reduce sanitation

23. Google Cloud: Qlue: Boosting intelligence about activity in Indonesian cities.

problems by 18 per cent and cut the operating costs of Jakarta services by 35 per cent. Residents are now 27 per cent more satisfied with the performance of Jakarta officials than they were before Qlue's technology was deployed.



Qlue continues to help address urban issues, such as poor public service delivery, public distrust of government performance and poor living conditions. In Jakarta, for example, Qlue improved the delivery of government services by 47 per cent, and 61.4 per cent of residents feel that the Qlue app is effective in solving problems (according to Litbang Kompas, the largest Indonesian news network).

“ At first, I used Qlue to report road construction in front of my house which hadn't finished and had disrupted vehicle flow. My report was followed up and solved in just 5-working days after I made a report in the Qlue app. Qlue has proven to be a very effective app and tool compared to other channels, which often cannot be reached. Using Qlue, I can report and solve problems in Jakarta faster.



Arnita Setiawati, Jakarta, Qlue user since September 2019

I use Qlue because as a Jakarta citizen, I care about the various social and environmental problems in my city. Qlue has been an official channel for citizen reporting in DKI Jakarta since 2014. The Qlue app is very effective in saving time when reporting environment problems in the city, without having to put big effort.



Gasto Fernando, Jakarta, Qlue user since July 2016

Working with the GSMA Ecosystem Accelerator

In November 2018, Qlue received a grant from the GSMA Ecosystem Accelerator Innovation Fund to expand its civic engagement solution to three new cities in Indonesia. The grant is also being used to train government officials to engage with citizens through the Qlue app, which will help to ensure city governments are aligned with the objectives and expectations of the platform.

By the end of the grant in February 2020, Qlue had reached an additional 67,100 users through its civic engagement app. In addition to funding, the GSMA continues to support Qlue by helping it deepen its relationship with Indonesian mobile operators.

CASE STUDY

Greenovator

Connecting smallholder farmers in Myanmar to agricultural information, inputs and markets



FOUNDING YEAR
2015

GEOGRAPHY
Myanmar

FOUNDING TEAM
Yin Yin Phyu | Co-Founder and Director of Operations
Thein Soe Min | Co-Founder and Director of Innovation

TWEET PITCH
Greenovator connects farmers to information, experts, markets and agricultural inputs.

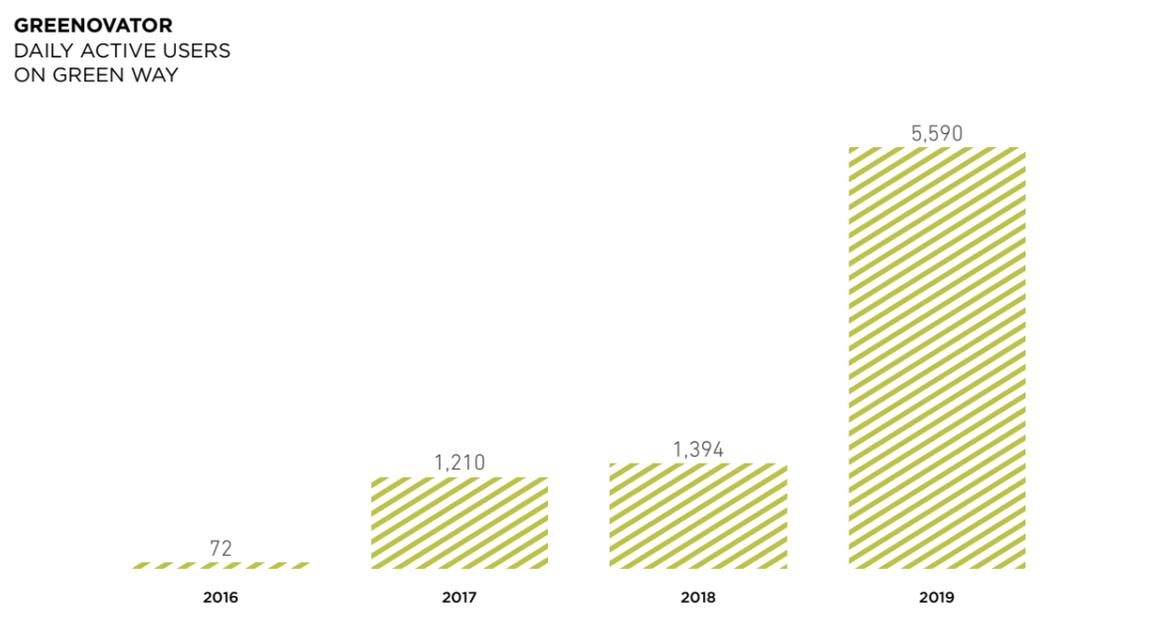
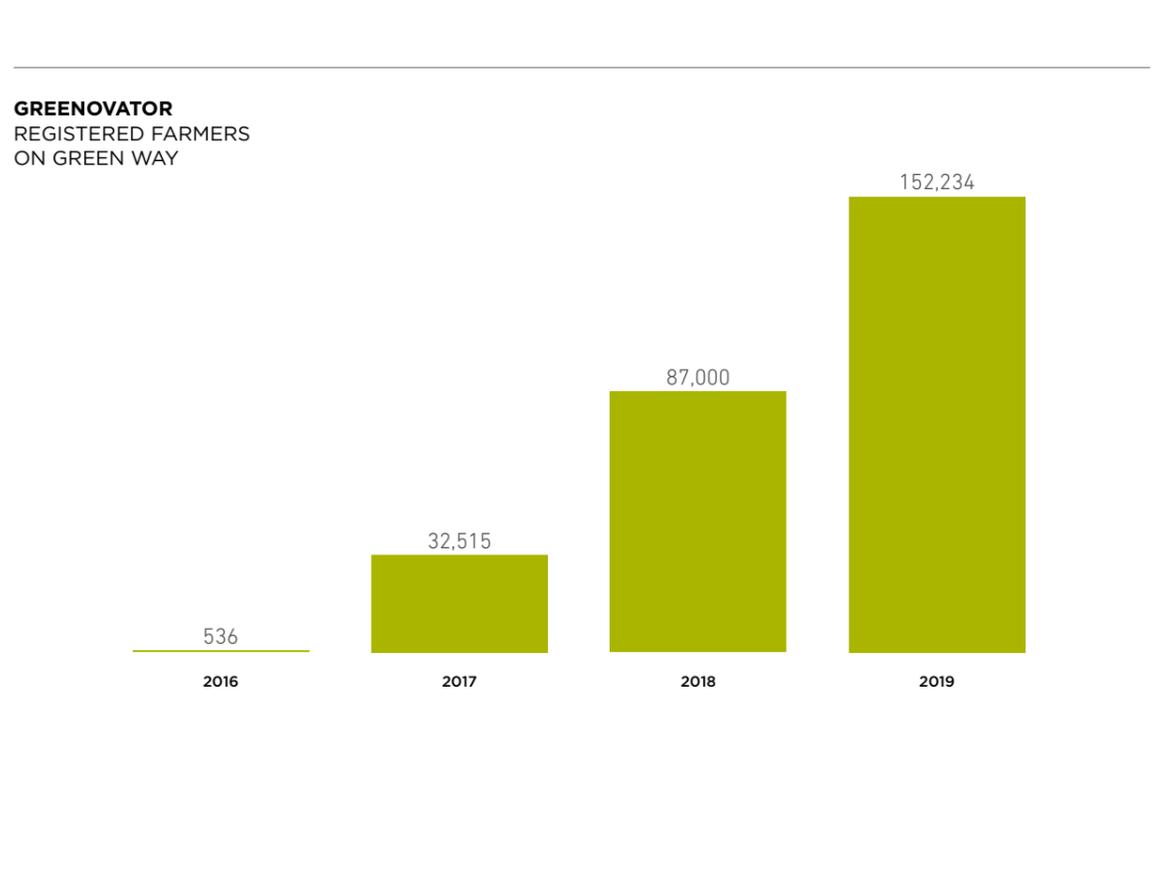
WEBSITE
www.mmgreenovator.com




The agriculture sector in Myanmar grapples with an array of challenges. Agriculture yields are low, and farmers are among the poorest in the country even though the sector employs 60 per cent of the active population and accounts for 20 per cent of the country's land.²⁴ By comparison, a farmer in Myanmar earns about \$1.80–\$2.50 per day in monsoon season compared to farmers who earn \$7.80 per day in the Philippines and \$10.00–\$16.50 per day in Thailand.²⁵ Part of the problem is an acute shortage of information on real-time market prices, agricultural and livestock best practices, produce buyers and input sellers. This information shortage prevents many farmers from rising above the poverty line.

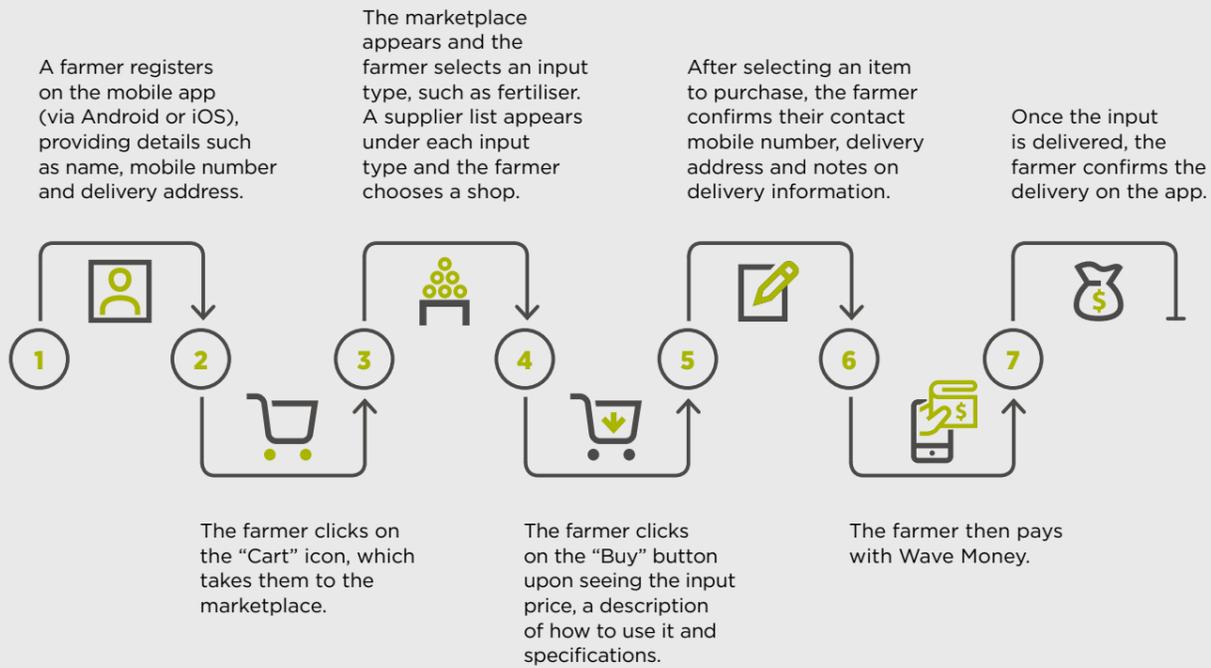
In 2015, Greenovator launched a mobile app and web interface solution called Green Way to address some of these challenges. Green Way reduces farmers' dependency on Myanmar's weak agricultural extension service.²⁶ The platform equips farmers with information to improve operations and increase yields. It provides farmers with up-to-date information on the weather and real-time market prices. Farmers on the platform can interact with one another and with agricultural experts. The platform also enables farmers to source inputs and sell produce efficiently, while offering input sellers ample data to project demand for inputs. As of September 2019, the agriculture start-up had onboarded 39,628 farmers, increasing the total user base to just over 152,234.

24. GSMA (2019), *Ecosystem Accelerator Innovation Fund Start-Up Portfolio*.
 25. Eurocham Myanmar (2018), *Agriculture Guide 2018*.
 26. "Extension" is a service or system that assists farmers with education and information to improve farming methods and techniques, increase productivity and production efficiency, increase incomes and standards of living and improve social status and educational standards.

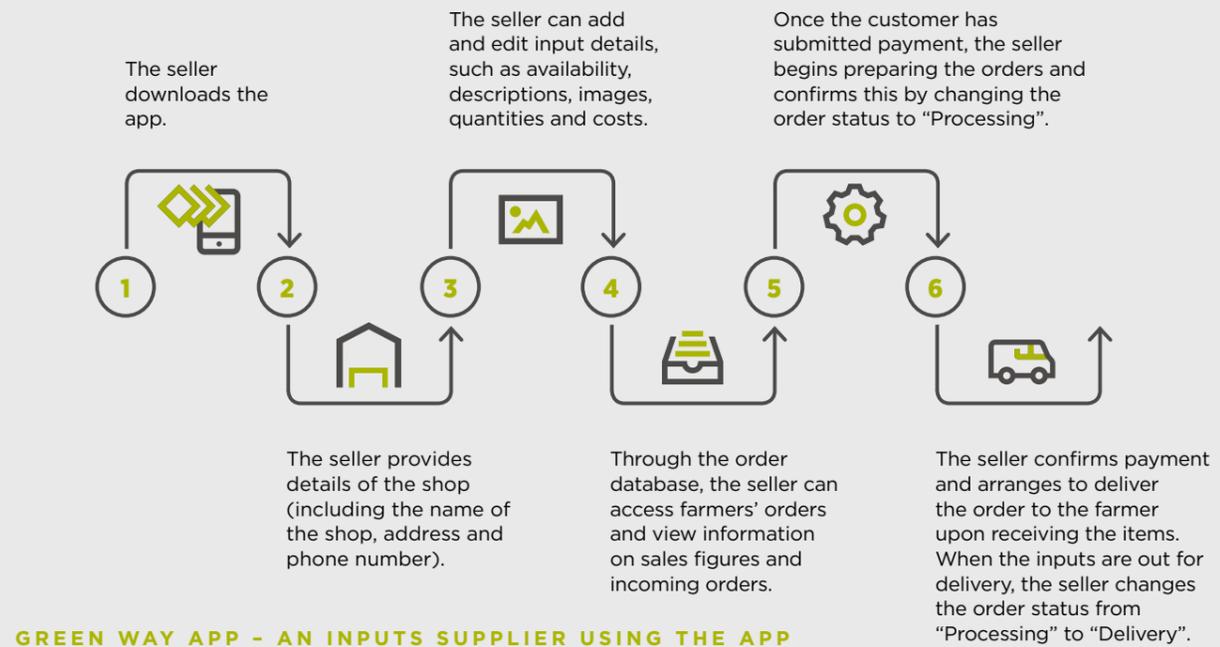


How the service works

The Green Way app has a marketplace function that connects farmers to input sellers and produce buyers. This is how farmers and input sellers interact through the app:

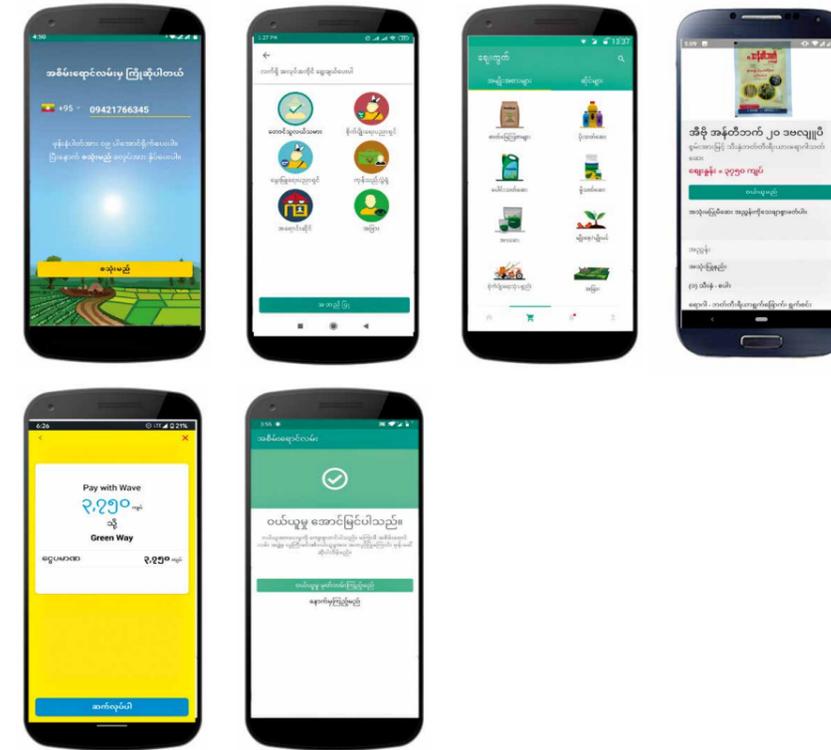


GREEN WAY APP - A FARMER USING THE APP TO BUY AGRICULTURAL INPUTS

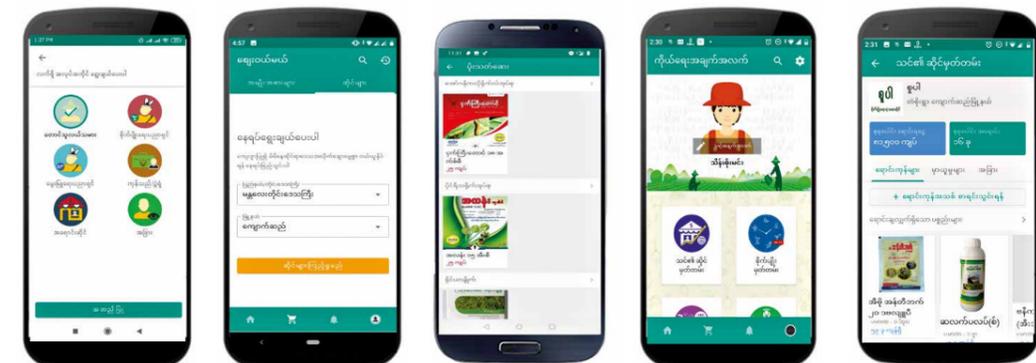


GREEN WAY APP - AN INPUTS SUPPLIER USING THE APP TO SELL AGRICULTURAL INPUTS

GREEN WAY APP - A FARMER USING THE APP TO BUY AGRICULTURAL INPUTS



GREEN WAY APP - AN INPUTS SUPPLIER USING THE APP TO SELL AGRICULTURAL INPUTS



Working with mobile operators

In early 2019, Greenovator signed a partnership with Wave Money, enabling Green Way farmers to make mobile money payments through the app. Wave Money is a joint venture between Telenor and Yoma Bank in Myanmar that aims to provide accessible, safe and convenient mobile financial services, either

through a nationwide agent network or via a Wave account on customers' phones. Since Wave Money is part of Telenor Group, Green Way farmers and sellers can rely on the established trust and brand equity of Telenor and Yoma Bank.

“As part of our commitment to increase financial inclusion and provide a fairer future for people in Myanmar, Wave Money is delighted to be partnering with Green Way to support efforts towards delivering a higher quality of life with cashless payment options for farmers in Myanmar. Through this partnership, we aim to enable a fast and secure mobile payment system to provide easy and accessible agricultural products at convenience to all farmers in Myanmar wherever they are - either through our mobile application, WavePay, or through our distribution network of over 49,000 agents in Myanmar.



Brad Jones, CEO, Wave Money

”

Changing lives



Crops cannot be guaranteed and markets are often fickle when a farmer is ready to sell. These uncertainties perpetuate poverty and stifle economic growth. Lack of knowledge and understanding of farming techniques also contributes to poverty as it reduces yields and productivity. The ability to access information on the Green Way app helps farmers increase yields, produce healthier and more valuable harvests and bypass exploitative middlemen.



Green Way provides farmers with information and qualified technical assistance. The data-driven app collects farming information, analyses the data and suggests the right crops to grow in the right season. Access to information and agricultural expertise helps farmers expand and improve their farms, yields and revenues, and contributes to higher agricultural production and food security.

“



The main benefit [of Green Way] for us is that it saves time because we do not need to go to the town to buy pesticides. We can also check pest and disease problems with the technicians directly from the questions and answers section so that we can prevent the wrong purchase of pesticides for our farm, which also results in the effective usage of and saving cost.

Ko Thant Zin Win, farmer, Myin Kyin Village, Shwe Bo Township



This platform is very convenient for us since our farming activities are unpredictable and we need to be ready always for pest and disease infestation, natural disasters and so on. By using this platform, we can order agricultural inputs that we need and use them timely and effectively.

Ko Naing Than Win, farmer, Yebawlay Village, Kyauk Se Township

”

Working with the GSMA Ecosystem Accelerator

Greenovator received a grant from the [GSMA Ecosystem Accelerator Innovation Fund](#) in November 2018 to develop a marketplace service that provides farmers with information on agricultural inputs and outputs. The service is also expected to help reduce costs and increase incomes for farmers in Myanmar. Greenovator has developed its Green Way app through the support of the Ecosystem Accelerator programme.

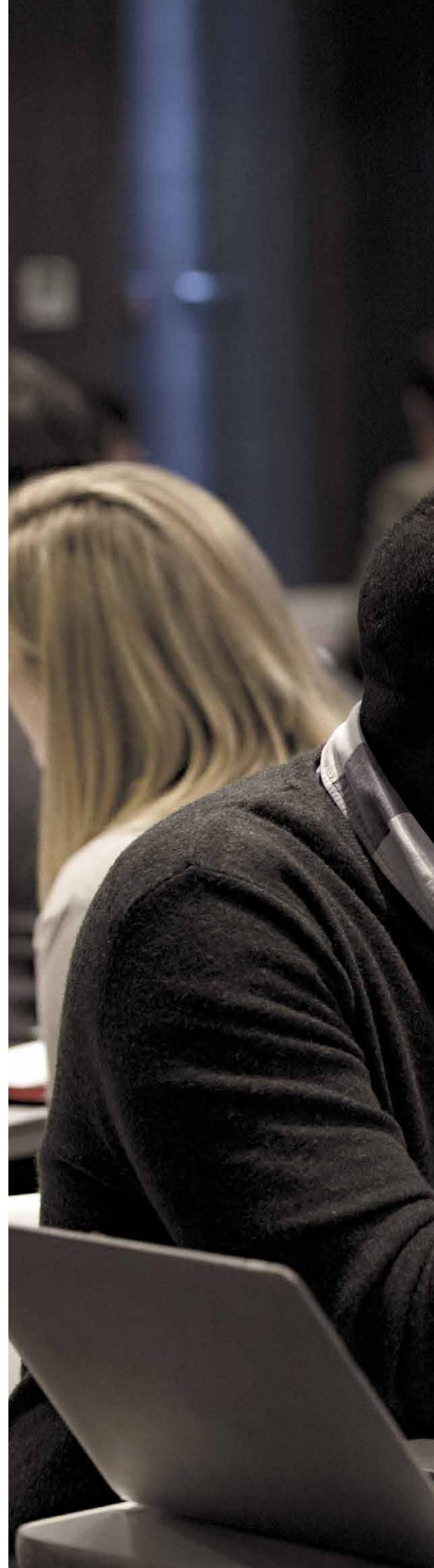
By the end of the grant in December 2019, Greenovator reached an additional 110,028 farmers through its mobile app. In addition to funding, the GSMA will continue to support Greenovator to deepen its relationship with local mobile operators in Myanmar.

Acknowledgements

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- Thein Soe Min, Co-Founder and Director of Operations, Greenovator (Myanmar)
- Yin Yin Phyu, Co-Founder and Director of Operations, Greenovator (Myanmar)





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