

A woman wearing a white cap and a white t-shirt with 'iscente' written on it is looking at her smartphone. She is standing in a construction site with large piles of sand and concrete blocks. In the background, another person is working with a shovel. The entire image has a red color overlay.

Mobile Technologies for the SDGs

**How start-ups in emerging markets
are using mobile money to tackle
the SDGs**

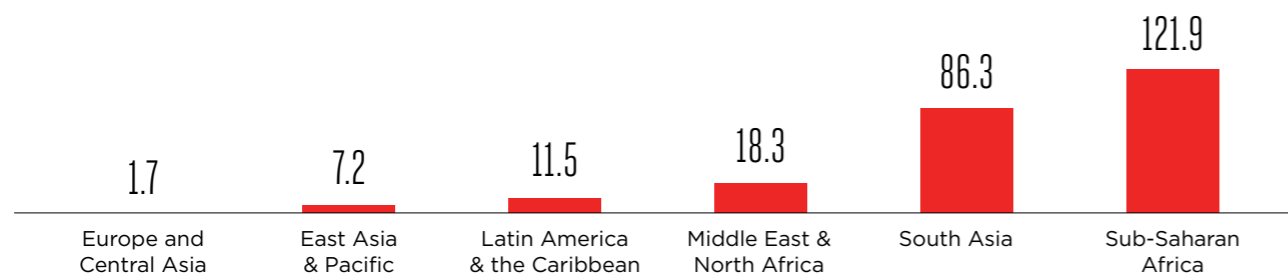
In the space of a decade, mobile money has evolved into a sustainable industry processing a billion dollars a day.¹⁴ With approximately 247 million active accounts worldwide, mobile money is the leading payment platform across most emerging markets.

The socio-economic impact of mobile money is felt most strongly in developing markets, where cash

is still dominant and credit card penetration is low. Three-quarters of low- and lower-middle-income countries have active mobile money services, accounting for the lion's share of the 90+ countries where mobile money is present. In emerging markets, mobile operator-led mobile money services have led the way in extending financial inclusion to those living at the base of the pyramid.

FIGURE 8

Mobile Money Active Accounts (90 days), 2017, in millions¹⁵



The main characteristics of mobile money — convenience, privacy and reach — make it particularly attractive to start-ups in emerging markets. For one, the pervasiveness of mobile money in several markets offers the opportunity to scale like no other digital channel. Furthermore, mobile money is often associated with major national brands of mobile operators, which conveys trust, a quality new start-ups often lack.

Increasingly, start-ups are opting for mobile money over cash, which must be manually collected, counted, verified, recorded, stored, secured and transported, making it inherently expensive and risky.

Insights from the 699 applications received from Africa and Asia Pacific for the third round of the Ecosystem Accelerator Innovation Fund in March and April 2018, show that at least 15 per cent (100 start-ups) of all applicants have already incorporated at least one mobile operator-led mobile money service in their solution.

Our findings also show that 35 per cent of all applicants (244 start-ups) across Africa and Asia Pacific revealed an interest in integrating mobile money solutions with their offerings.

Mobile money: Moving towards full financial inclusion

Access to basic mobile money services can be the first step towards using other financial services (such as insurance, credit, savings and international remittances) that are critical to the financial health of an individual. Start-ups and mobile money

providers are working together to deliver a more comprehensive suite of financial services to mobile money customers, with start-ups complementing mobile money providers' solutions to advance financial inclusion.

FIGURE 9

Some examples include:

	FINANCIAL SERVICES				
	Payment	Insurance	Credit/Loans	Remittances	Savings
Kamworks (Cambodia)	✓		✓		
Farmerline (Ghana)	✓		✓		
MaTontine (Senegal)	✓	✓	✓		
KlickEx Pacific (Pacific)	✓			✓	
ClinicPesa (Uganda)	✓				✓

Kamworks (Cambodia) received a seed grant from the Mobile for Development Utilities Innovation Fund in November 2013.¹⁶ Kamworks offers a range of solar energy products, such as solar pumping, custom-designed solar home systems and 'pay-as-you-go' (PAYG) solar home systems. It also offers off-grid customers pre-paid solar home systems through a 24-month loan term or a perpetual rental, payable through WING, a third-party mobile money operator.

Farmerline (Ghana) provides information services, weather forecasts, and savings and credit services to farmers, payable through mobile money.

MaTontine (Senegal) received a grant from the GSMA Ecosystem Accelerator Innovation Fund in February 2018¹⁷ to provide a mobile-based automated platform for local 'tontines', or rotating savings and credit associations (ROSCA). By digitising the tontines, the start-up allows users to gradually build their credit score to access other financial services, such as insurance and microloans. Most of the payments made to and from the platform are mobile money-based.

KlickEx Pacific (Pacific) is a multi-currency platform that connects bank accounts, mobile wallets, agent networks and merchants. Through KlickEx, individuals can send money from New Zealand, Australia and the UK to Digicel Mobile Money wallets in Tonga, Samoa and Fiji.

ClinicPesa (Uganda) is a micro-savings platform that helps users who do not have access to traditional health insurance to set aside dedicated healthcare funds. Individuals can use the Airtel Uganda and MTN Uganda mobile money services to save money for healthcare while businesses can save on behalf of their employees.





¹⁴ GSMA, 2018, "2017 State of the Industry Report on Mobile Money", <https://www.gsma.com/mobilefordevelopment/sotir/>
¹⁵ GSMA Mobile Money Metrics, https://www.gsma.com/mobilemoneymetrics/#global?y=2017?v=registered_accounts?g=global





¹⁶ GSMA, 12 May 2016, "Lessons learned from our grantees: Kamworks", <https://www.gsma.com/mobilefordevelopment/programme/m4dutilities/lessons-learned-grantees-kamworks/>
¹⁷ GSMA, 26 February 2018, "Ecosystem Accelerator Innovation Fund Start-up Portfolio", <https://www.gsma.com/mobilefordevelopment/programme/ecosystem-accelerator/ecosystem-accelerator-innovation-fund-start-portfolio/>

Start-ups, mobile money and the Sustainable Development Goals (SDGs)

Mobile technology continues to make a significant contribution to meeting the UN Sustainable Development Goals (SDGs). Beyond increasing

financial inclusion, mobile money services enable start-ups to tackle several SDGs, either directly or indirectly. Here are a few examples:

START-UPS	SUMMARY	SDGs
ZigWay (Myanmar)	<p>A mobile platform that connects low-income families to formal lenders that provide flexible micro-loans (about \$5 to \$50) at industry-regulated prices.</p> <p>Use of mobile money: ZigWay is integrated with local mobile money service, Wave Money (owned by Telenor/Yoma Bank), allowing users to access loans and pay them back through Wave Money.</p>	
Lynk* (Kenya)	<p>A mobile and web platform that links households and businesses with verified domestic workers, artisans and blue-collar workers.</p> <p>Use of mobile money: Lynk uses Safaricom's mobile money solution, M-Pesa to pay domestic workers, artisans and blue-collar workers.</p>	
Twiga Foods* (Kenya)	<p>A mobile- and web-based B2B supply chain platform that connects smallholder farmers to small- and medium-sized fruit and vegetable vendors.</p> <p>Use of mobile money: Twiga Foods pays smallholder farmers with Safaricom's M-Pesa. Vendors also pay Twiga Foods for fruits and/or vegetables via M-Pesa (for more details, read our case study on Twiga Foods).</p>	
Jamii* (Tanzania)	<p>A mobile micro-health insurance solution for MSMEs and socio-economic groups in the informal sector. Jamii's case study can be found on pages 7-11 of this report.</p> <p>Use of mobile money: Jamii's users pay for insurance premiums using Vodacom Tanzania's mobile money platform M-Pesa.</p>	

START-UPS	SUMMARY	SDGs
SunCulture** (Kenya)	<p>SunCulture runs a solar-powered irrigation system for smallholder farmers. It uses a pay-as-you-go model to ensure it is affordable and able to extend access to water pumping solutions for underserved communities.</p> <p>Use of mobile money: SunCulture's users make payments through Safaricom's mobile money service M-Pesa.</p>	
Electric Vine Industries** (Indonesia)	<p>A microgrid developer that brings sustainable energy solutions to Indonesians without electricity using smart metering technology.</p> <p>Use of mobile money: Electric Vine Industries is integrating with TCASH, Telkomsel's mobile money service, to allow customers in rural communities to pay for electricity with mobile money.</p>	
Fori Mazdoori (Pakistan)	<p>A mobile-, web- and SMS-based service that helps connect skilled workers with potential employers.</p> <p>Use of mobile money: Skilled workers can register for Fori Mazdoori through Telenor Pakistan's EasyPaisa and Jazz's JazzCash (mobile money) agents. The registration fee is less than \$1 and can be paid via mobile money.</p>	
Offerhut (Sri Lanka)	<p>A USSD-based promotion platform for enterprises to advertise their offers and for consumers to query available offers in their geographic area (for more details, watch our case study video featuring the Offerhut service).</p> <p>Use of mobile money: Offerhut gives the SMEs selling on its platform the freedom to choose from different payment methods, including mobile money solution, eZ Cash.</p>	
Sudpay* (Senegal)	<p>TownPay is a solution developed by Sudpay to allow municipalities to automate, and later digitise, the collection of taxes from local merchants to reduce fraud and improve collection rates.</p> <p>Use of mobile money: Local merchants can use mobile money to pay their taxes through the TownPay solution.</p>	

* Start-ups funded by the GSMA Ecosystem Accelerator programme.

** Start-ups funded by the GSMA Mobile for Development (M4D) Utilities programme.

Unpacking the collaboration opportunities between mobile operator-led mobile money providers and start-ups

As we highlighted in *APIs: A bridge between mobile operators and start-ups in emerging markets*, mobile operators are increasingly opening their mobile money APIs to third parties, including start-ups. Meanwhile, mobile money providers are seeking to diversify their product portfolio to reach new customer segments. It is therefore no

surprise that 49 per cent of mobile money providers participating in the GSMA Mobile Money Global Adoption Survey identified enterprise solutions as one of their top three strategic priorities for 2018. Merchant payments were rated the highest product priority for 2018 by 60 per cent of respondents.¹⁸

Examples of mobile operator-led mobile money API initiatives:

- **Safaricom (Kenya):** The Kenyan mobile operator launched its open API platform, Daraja in August 2017 for businesses to integrate their services with M-Pesa. The portal hosts several M-Pesa-specific APIs, including business-to-business (B2B), business-to-consumer (B2C) and reversals, allowing a fast and simplified on-boarding process.
- **Dialog Axiata (Sri Lanka):** Through Ideamart, a multi-operator API platform led by Dialog Axiata, developers and non-developers have access to eZ Cash APIs. eZ Cash is a mobile money solution that enables customers to perform a wide array of financial transactions using Dialog, Etisalat and Hutchinson SIM cards. eZ Cash services are now available to over 16 million mobile subscribers.
- **Orange (Africa):** The mobile operator runs Orange Money Web Payment Services, a dedicated solution for online merchants. Subscribed merchants can integrate Orange Money directly on their website. The service allows end users (Orange Mobile customers) to pay for their services online.
- **Telenor Group (Myanmar):** In October 2017, Wave Money, a joint venture between Telenor, First Myanmar Investment (FMI) and YOMA Bank, introduced its open API platform, Wave Money Developer Portal, which enables cashless payments between merchants and customers. Merchants can integrate Pay with Wave Money by simply uploading the necessary documents.

While the opportunities for start-ups and mobile money providers are vast, the full potential is yet to be realised. One of the biggest barriers is that start-ups must undergo a separate technical integration with every mobile operator to accept payments from their customers. For instance, the current landscape for PAYG companies to connect with mobile money is

overly complex¹⁹, which prompted the GSMA Mobile Money and Mobile for Development Utilities teams (with support from MasterCard Foundation and DFID) to create an industry asset that enables PAYG service providers to connect to and receive instant notifications of payments from multiple mobile money operators through a single integration.²⁰

The Instant Payment Notification (IPN) Hub is an industry utility developed by the GSMA that provides a single point of integration between mobile money operators and service providers in the growing pay-as-you-go (PAYG) sector. The hub enables PAYG service providers to integrate easily with mobile operators. It also provides instant notifications of payments made, which is a critical requirement for PAYG service providers to serve customers in real time (for example, to turn on a light).

The IPN Hub is already live in Rwanda (connecting four entities: MTN Rwanda, Airtel-Tigo Rwanda, BBOX and Off Grid Electric) and Uganda (MTN). Beyond PAYG solar, the Hub can also be helpful for service providers in water, sanitation, transport, school fees and other sectors that use a PAYG model.

In June 2018, the IPN Hub made its one millionth unique payment transaction. Service providers and mobile operators interested in integrating with the IPN Hub should contact jlemasagarai@gsma.com

Looking ahead: Calling on mobile operator-led mobile money providers to serve as gateways to the digital economy

The most successful mobile operator-led mobile money services are integrated with a wide range of third parties. On average, services with the highest activity rates are integrated with seven banks, 95 billers and 31 organisations for bulk disbursements, as well as 6,500 merchants, well above the industry average.²¹

As the industry evolves, a growing number of mobile money services are shifting towards a platform business model for mobile money.

This, in turn, is driving mobile operator partnerships with start-ups. To attract the best partners, mobile operators can offer not only scaled payment services, but also data insights, easy integration, regulatory expertise and the operational excellence that has long been the hallmark of the mobile industry. The scope for deeper collaboration between mobile money services and the start-up community is therefore set to expand in the years to come.

