Digital Utilities



Our purpose

Supporting urban resilience in low- and middle-income countries by enabling access to essential utility services through digital solutions.

The challenge we face

While there has been a historic rise in mobile connectivity in low- and middle-income countries, billions of people continue to lack access to utility services that are essential for life. With rapidly expanding informal settlements across Africa and Asia, where 90 per cent of global urban growth from now until 2050 will be concentrated, water shortages, unsanitary conditions, unreliable power provision, pollution and inadequate waste management could remain a defining reality for many.

3.5 billion

people globally are without access to reliable electricity services, as grid outages and lacking energy access continue to impact businesses and individuals. **More than 2.6 billion people lack access to clean cooking facilities,** relying instead on solid biomass, kerosene or coal as their primary cooking fuel.

The total amount of waste generated **will triple** in Africa and double in Asia by 2050. In both regions, more than half of the waste is currently openly dumped.

According to the World Bank, **urban population growth continues to outpace gains in access to at least basic sanitation services.**

Across Africa and Asia, World Bank and Asian Development Bank studies show that **the poorest 20 per cent of the urban population have to spend a significant proportion** of their household income to access motorised transport services.

Among the

785 million

people who lack access to at least basic water services, 90 per cent **live in three regions**: Sub-Saharan Africa, Eastern and South-Eastern Asia, and Central and South Asia.

The opportunity we have

The expansion of mobile connectivity has enabled the emergence of digital solutions that are making essential urban utility services more accessible, affordable, reliable, safe, and sustainable. These solutions are set to play a vital role in making cities more resilient to the challenges of population growth, climate change, and persistent inequality.

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How digital solutions are uniquely positioned to improve service delivery

Mobile technology bridges gaps in service delivery for sustainable, inclusive services:

	Unaffordable	Unconnected	Unreliable and unaccountable	Unplanned	Unsafe
Service Gaps					
Mobile Solutions	• Pay-as-you-go (PAYG) can make services affordable for low-income consumers; and • Mobile money can reduce the cost of operations and improve revenue collection.	• Geographic Information Systems (GIS) can generate granular data to geographically pinpoint service needs as well as coordinate service delivery across complex value chains.	• Smart monitoring and smart metering can improve operation efficiency; and • The Internet of Things (IoT) can automate management of service delivery and consumption.	• Big data derived from mobile phones, geospatial data sets, and other innovative data sources can complement traditional data to improve urban service provision.	• Sensors can be used to monitor compliance with minimum safety and quality standards; and • Support reliability of regulated services that are safer than alternatives.

What we do

The Digital Utilities programme enables digital solutions and partnerships between innovators, mobile operators and government providers of utility services. This supports urban resilience by making essential urban utility services more accessible, affordable, reliable, safe, and sustainable. To achieve these objectives, the programme engages in:

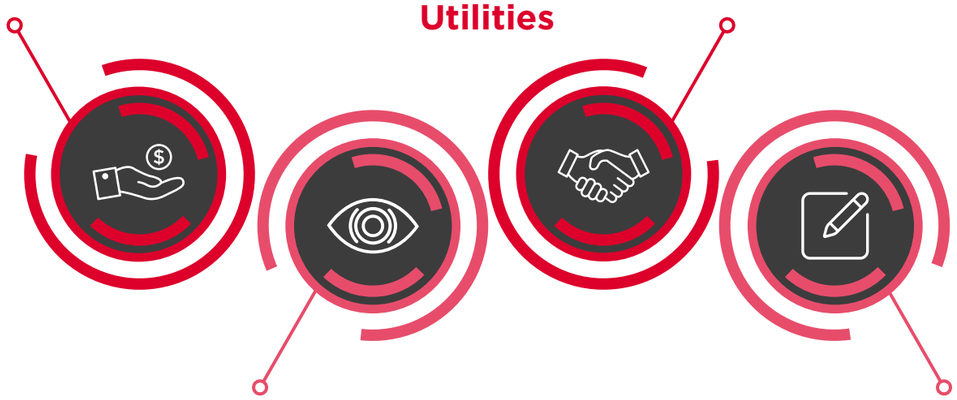
De-risking and catalysing innovative urban utility services

Provide grants to private sector innovators to test and demonstrate the role of digital urban service solutions.

Partnership facilitation and convening of key ecosystem stakeholders

Drive replication and scale through convenings and leveraging our own networks (particularly mobile operators) as well as those of key partners that work to enable similar solutions.

Digital Utilities



Research and Insights

Generate rigorous evidence on innovative solutions to essential service provision by gathering insights from Innovation Fund grantees, conducting research with partner organisations with deep expertise in utility service provision.

Technical advice to mobile operators, municipalities, and utility service providers

Provide advice on the role of digital innovation for improved utility service provision and insights on how to achieve multi-stakeholder partnerships.

Key impact figures

Funding raised by our grantees in investment following our innovation fund contribution by sector

- **£ 295 million**
- **£ 9.6 million**
- **£ 4.4 million**

6.5 million + People reached

48 Mobile Operator Partnerships

53 Grants Awarded

Key programme milestones

2012-2014

Catalysing PAYG solar partnerships and exploring digital water solutions

- Launched the first round of the Digital Utilities Innovation Fund to provide £2.6 million to 13 organisations.
- Tested the use of digital tools for manual/automated service monitoring in the water sector.
- Catalysed some of the PAYG solar pioneers (M-KOPA, PEG, and Fenix - now ENGIE Energy Access).
- Developed the Instant Payment Notification (IPN) Hub, an industry tool to support utility providers with real-time notification of payments, with additional support from the Mastercard Foundation, and piloted it in Rwanda.
- Awarded first grant to a PAYG service provider in the water (CityTaps) and clean cooking sectors (Circle Gas).
- Launched expanded Digital Utilities Innovation Fund portfolio that also included sanitation with £3.4 million awarded to 21 organisations.

2015-2017

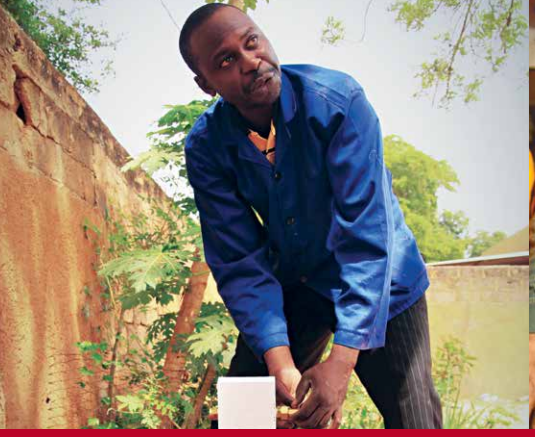
Scaling and replicating PAYG across new markets and business models

2017-2020

Trialing further variations on PAYG models and digital utility solutions across sectors to build toward scale

- Re-launched the Digital Utilities Innovation Fund to award £3.3 million to 19 organisations with additional funding from the USAID Scaling Off-Grid Energy (SOGE), Grand Challenge for Development.
- IPN hub processed notifications for over three million unique payments in five markets. In 2019 the IPN Hub was transitioned to Beyonic Inc.
- Provided additional support to startups working with water utilities, which allowed them to scale through regional expansion.
- PAYG solar and PAYG cooking grantees reach scale and achieve acquisitions.

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Working with us

We work with the mobile industry, private innovators, industry associations, the development community and governments to make essential utility services more accessible, reliable, sustainable, and affordable. To achieve our programme mission, we build mutually beneficial partnerships that can help us bring innovators, state-owned utility service providers, mobile operators and donors together with the aim of supporting urban resilience by making urban utility service provision more effective and inclusive.

The type of partner organisations we work with include:

1. Organisations which directly fund government, or provide technical assistance to improve service delivery.
2. 'Enabling Organisations' that facilitate public sector partnerships with innovators to improve urban services.
3. City associations/industry associations/civil society organisations/policy networks.

Here's how you can partner with us:

Joint capacity building for state-owned utility service providers/ municipalities to improve urban services with innovative solutions.

Joint-workshops with private sector companies, public sector stakeholders and mobile operators on overcoming barriers to partnerships for urban services.

Shared insights and thought leadership on innovative urban services.

Co-hosting events and webinars and engaging in joint-advocacy efforts to raise awareness about the potential of digital innovation in urban service delivery.

Are you also driving digital utility services in low- and middle-income countries?

Contact us: digitalutilities@gsma.com

Insights and resources for partners
gsma.com/duinsights

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