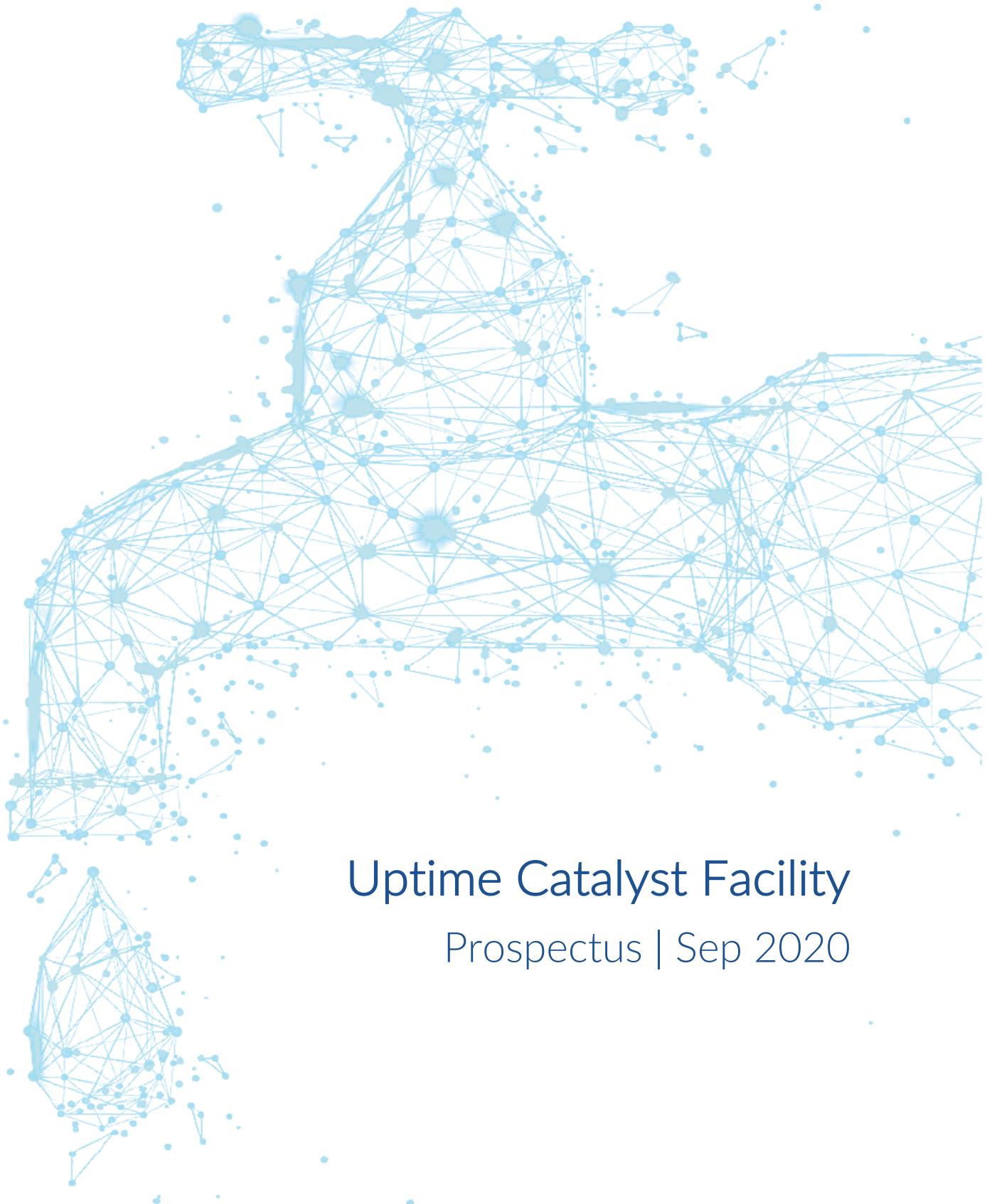
UPTIME



Uptime Catalyst Facility

Prospectus | Sep 2020

Contents

Charter 3

The purpose of this document 4

Introducing the UCF 5

Performance metrics 6

UCF structure and governance 7

Results-based payments 7

Performance verification 9

Use of funds 10

Risks 11

Timeline: 2020-2021 12

Appendix A – Contract values 13

Appendix B – Monitoring indicators 13

Appendix C – Service providers 15

UPTIME CATALYST FACILITY

- Uptime is a global consortium of mission-driven organisations that delivers drinking water services to around 1.5 million rural dwellers in Africa, Asia and Latin America. It was formed because we believe that by 2030, **universal access to safe and affordable drinking water has to transition from its current reliance on donor payments**. Catalytic funding is necessary to enable changes that will ensure the provision of efficient, reliable and responsive rural water services for the long term.

- We know that there is no quick fix to transforming the rural water sector. But based on our collective experience, we share the conviction that sustainable and scalable financing of rural water services is achievable by **aligning payments to service providers with contractually specified, verifiable performance outcomes**.

- We pooled our data to help design **a transparent, outcomes-based model for funding rural water services** at scale; using performance contracts and verifiable indicators. An independent payment approach has also been developed for contracted service providers, with payments contingent on outcomes. The Uptime Catalyst Facility (UCF) will demonstrate the potential of this approach at scale by establishing a multi-country grant funding process for rural water services.

- Unlike conventional social impact bonds or pay-for-success programmes, the UCF will be designed to operate over multiple jurisdictions and is not dependent on a government payor. **Nor does it require investors to take on the risk of providing service providers with upfront working capital.** Instead, service providers bear the financial and operating risk of delivering against their contractual performance outcomes. Service providers are paid in arrears, and on the basis of their performance being independently verified.

- The UCF incentivises the provision of a reliable service in existing and new water supply infrastructure. This will require investment in asset maintenance to ensure value for money and sustainability for water supply infrastructure. **This investment will improve the functionality rates of rural water infrastructure; resulting in a better return on the significant quantum of capital expended by donors** on handpumps and piped systems.

- **The UCF enables the immediate introduction of a standardised contract with specified outcomes, at scale**. Today, one million water users across four African countries are being served by the consortium. Over a pilot period, data will be systematically evaluated in order to refine the process and make it scalable to rural water service providers globally. Uptime's vision is to see one hundred million rural consumers served through performance contracts by 2030.

- **Funds are required to activate the UCF**. Your support will enable immediate improvements in the provision of rural water services; the field testing of performance contracts; the verification of performance data; improvements in the functionality of water infrastructure assets; and a systematic scale-up of the process. If you share our vision for the sector, please contact Duncan McNicholl (dmcnicholl@uptimewater.org) for more information.

FundiFIX · UDUMA Services en zone isolée Remote area services · water for good · water mission · Whave a fair future

Jacob Katuva, PhD	Thierry Barbotte	Jon Allen	Seth Womble, PE	Adam Harvey, PhD
Director	Managing Director	CEO	Executive Vice President of Programs	Managing Director

The purpose of this document

We propose to create an outcome-payment model to fund rural water maintenance services at scale. Funding would be conditionally disbursed to service providers based on consistent operational and financial performance metrics. The immediate goal is to disburse targeted and transparent funding to sustain rural services; the broader goals are to develop the information systems, investment cases, and institutional structures needed to scale a performance-based funding model globally.

The Uptime Catalyst Facility (UCF) is the vehicle through which funding would be aggregated and disbursed. The purpose of this prospectus is to set out the investment case to prospective funders, and to describe the structure and governance process of the UCF.

The UCF targets a first close of US$ 350,000 by 30th September 2020. Commitments for this amount have already been received. The target fund size for the initial phase is US$ 5,000,000 within the first 4 years. Based on our analysis of service providers' performance data, we target the provision of reliable water services for around 4 million person-years over this initial period. These services would be funded through a combination of user revenue and disbursements from the UCF.

Contingent on the performance of the UCF, our objective over the medium term is to establish multi-country funding systems with the capacity to scale. The ambition is to enable donors and governments to support performance-based provision of rural water supply and services to one hundred million people (Fig 1).

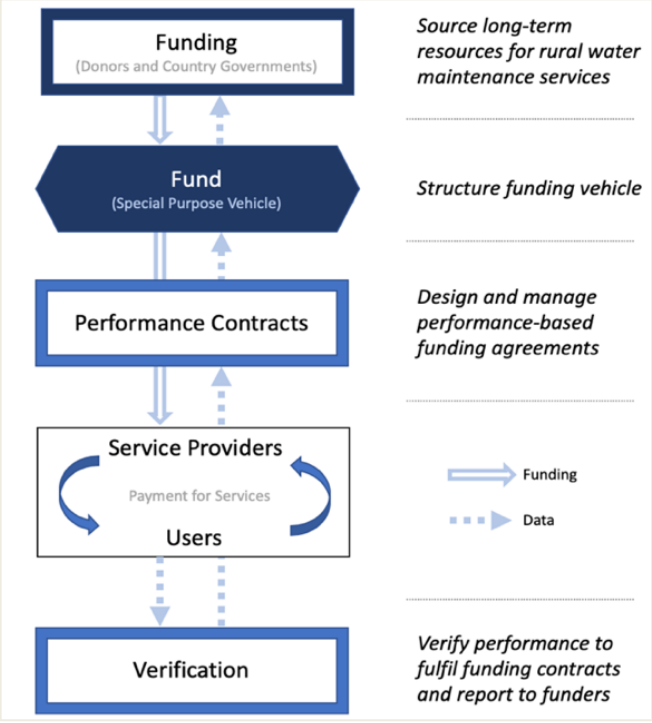


Figure 1 – Our long-term ambition

Introducing the UCF

The UCF is a non-repayable source of funding to bridge the shortfall between costs and revenues as service providers invest in developing sustainable service models for rural water provision.

Payments from the UCF to service providers are entirely results-based and depend on how each provider performs over the period under review. Performance contracts that are executed between the UCF (acting on behalf of its funders) and individual service providers, set out the explicit criteria for receiving performance-based payments.

The requirement for additional funding in this sector is well established (see our 2019 paper[1] for a summary), while our 2020 paper[2] sets out the contract design in detail. Here, we describe the UCF for the perspective of a potential funder, including its objectives, structure and governance.

The performance contracts that underpin the UCF are designed to incentivise behaviours from service providers that maintain high levels of infrastructure reliability, accessibility, service quality, and customer satisfaction. The contracting mechanism uses data-driven structures for performance measurement and a verification process that is optimised for efficiency, speed and scale. The objective is to accelerate progress towards sustainable service delivery models.

At launch, the UCF intends to contract with the five service providers who are signatories to the Charter. They currently serve around one million rural people in four African countries, using different technologies and operating across a range of institutional arrangements. These providers have agreed to provide information on their performance, and to support the UCF in measuring and verifying their performance. A core design principle is that the processes of measurement, verification and payment are all transparent and auditable.

The purpose of establishing the UCF is to test the viability of a scaled-up fund that could support the sustainable provision of water services to one hundred million rural people in Africa, Asia and Latin America, by 2030. We believe that long-term funding is available and can be unlocked by service providers that can verifiably and consistently deliver results that are consistent with the global delivery of SDG 6.1. The UCF tests this belief. It is the first funding mechanism of its kind to use result-based contracts across multiple rural water service providers.

[1] https://www.uptimewater.org/s/Performance-based-funding-for-reliable-rural-water-services.pdf

[2] https://www.uptimewater.org/s/Results-Based-Contracts-for-Rural-Water-Services.pdf

Performance metrics

The Uptime Framework of three performance metrics is the foundation for results-based contracts that underpin the UCF (Fig 2). These metrics are designed to objectively and comparatively assess and reward service performance by considering scale, multiple uses of water, and perceived user value. In combination, these metrics (reliable waterpoints, water volume and local revenue) provide a proxy for the population reached and progress towards universally available services.

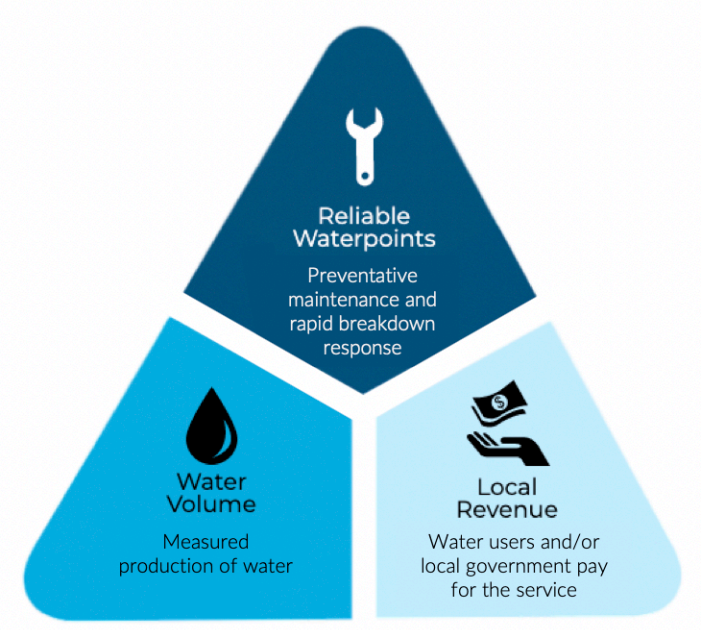


Figure 2 – Uptime Framework: reliable waterpoints, water volume, and local revenue

Although the present ability to report on these metrics for each waterpoint may differ depending on the service provider and infrastructure type, these metrics collectively provide the information basis to promote and reward professionalisation in the sector and attract new forms of funding over time. Performance against these metrics therefore needs to be evaluated against the criteria of transparency, replicability and scalability.

Three principles underpin the approach to evaluating performance metrics. First, the basis of calculating, measuring and verifying performance has to be transparent and robust if the UCF (and funding mechanisms that may follow) is to be credible. Second, where universal contracts are used, the methods by which performance is measured and verified has to be replicable between one service provider and another (and comparable over time). Third, the objective is to unlock long-term funding from a range of public and private sources. This requires achieving results at scale, and consistently. The UCF uses the Uptime Framework as the basis for contract design that delivers against these criteria.

UCF structure and governance

On reaching first close, the UCF will apply to be registered as a charitable incorporated organisation with the Charities Commission in the United Kingdom. The UCF will be governed by a constitution, with a register of Members and Trustees. It will produce management accounts and an annual return which will be submitted to the Commission, as required by law. Upon incorporation, a business bank account will be opened for the UCF. Inflows from Funders will be credited to this account, and disbursements to service providers based on their performance contracts will be debited.

All service providers who contract with the UCF will be registered as Members. The Trustees are in turn responsible for appointing the Executive Officers of the UCF. Officers are responsible for operational decision-making and are independent from Trustees. However, ultimate accountability for the operations of the UCF, including contract execution, performance measurement, verification, disbursement, financial management and reporting, rest with its Trustees. The UCF constitution renders the independence of Trustees explicit and inviolable. Trustees are expected to consult with Members on the appointment of Executive Officers, and where possible, all Trustees should be in agreement regarding who is appointed as an Officer. Where unanimity is not possible, appointments will be made on the basis of a majority vote.

A list of proposed Trustees will be prepared by Members. This list will be curated to ensure a balance of independence, expertise, diversity and inclusiveness. Trustees serve a fixed twelve-month term of appointment. If they wish to be considered for reappointment at the end of their term, this requires the support of a simple majority of both Members and Funders. The UCF is independent of the Uptime consortium, and no Member of the UCF can simultaneously serve as a Trustee or Executive Officer of the UCF. Officers are directly accountable to Trustees and will prepare management accounts and reports for presentation to Trustees at a meeting every quarter.

Operating costs incurred by the UCF will be met through discretionary funds that have already been raised by the Uptime consortium ('core funding') for the purpose of developing this mechanism. At the end of the first year, the accounts prepared by the UCF will include reporting on these expenditures. The Trustees will use these accounts as the basis to authorise expenditure for the following year, which will be charged to the UCF ('service funding'). That process will be repeated at the end of the second year, and for subsequent years over the life of the UCF.

Consolidated accounts will be published online, consistent with best practice and the requirements of relevant authorities including the UK Charities Commission.

Results-based payments

Results-based payments are calculated using on the following basis:

- Waterpoints – USD 50/quarter for each waterpoint with a quarterly uptime >96%
- Volume – USD 1/m^3 with a historical volume estimate for currently unmetered handpumps
- Local revenue – 100%: locally generated revenue is matched on a 1:1 ratio

- Maximum funding margin – 15% above total quarterly cost

Payment values are calculated against the performance of each service provider 'operational unit' on a quarterly basis. Results-based payments are calculated after results are reported, requiring service providers to bear implementation risk. A results-based payment determined by number of waterpoints with >96% uptime, water volume used, and local revenue is added to local revenue to determine total income. If total income exceeds the maximum funding threshold, the total results-based payment is reduced accordingly.

Changing costs and revenues reflect the seasonal nature of water services in many rural contexts and the business risks of providing high-quality services with variable and often unpredictable demand within and between years. In this case, results-based funding would provide security against fluctuations in costs and revenues that might jeopardise services at critical times. Revenues might fall during crises – precisely when services are needed most. Equally, user payments may decrease if service providers cannot quickly respond to breakdowns. Service providers face an imperative to continue incurring service costs or otherwise risk undermining the sustainability of the model and user acceptability. Applying this model retroactively to the 2019 performance of service providers in the Uptime consortium (Fig 3), we consider how contract design affects operational units across different types of infrastructure and developmental stages:

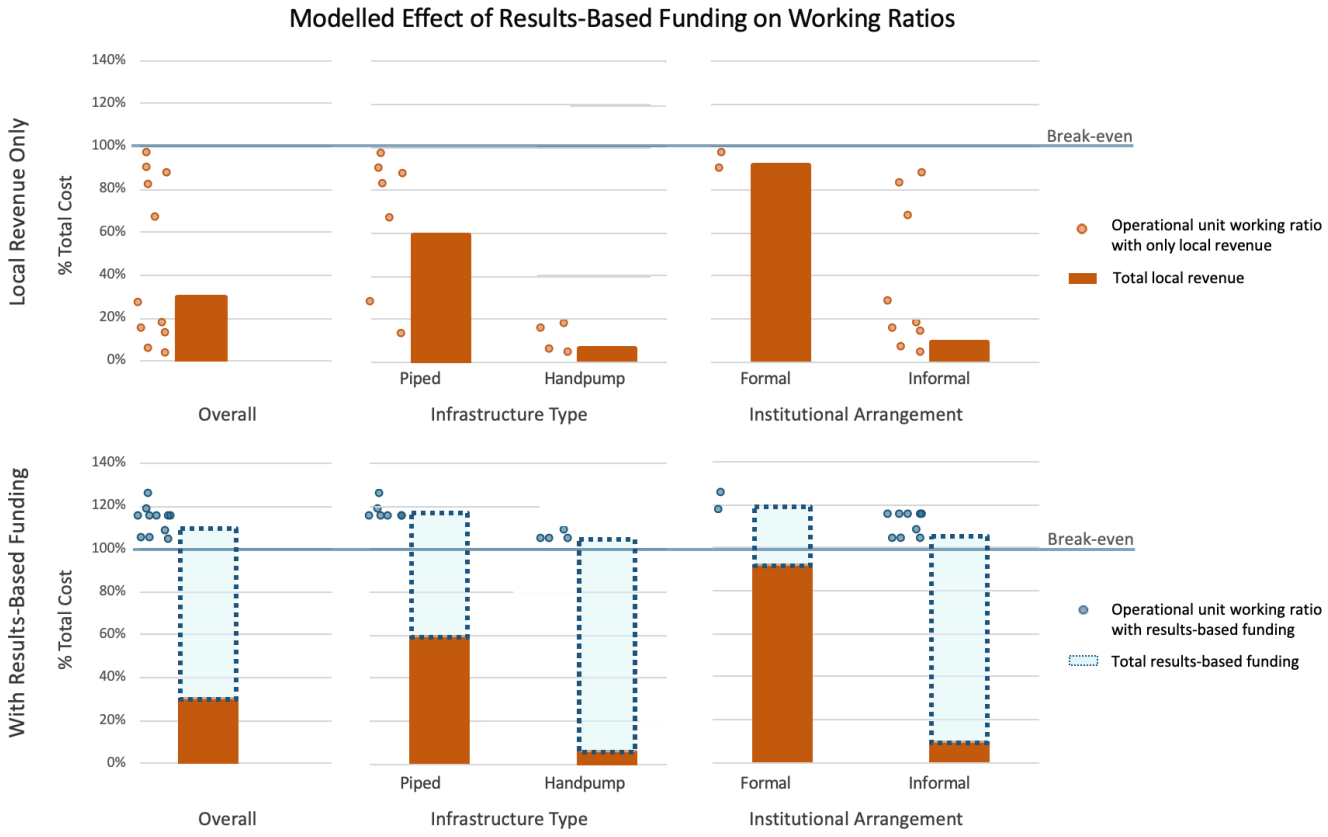


Figure 3 – Effect of modelled results-based funding by operational unit

Performance verification

Results-based contracts will be underpinned by verification systems to confirm figures reported by service providers. Advances in technology are expanding the feasibility of monitoring rural services at scale, although selection of appropriate methods will require optimising data quality and cost. This process will be developed iteratively.

Applying the Uptime Framework to all results-based contracts would scope the requirements of verification systems to a small number of objectively measurable metrics. For water infrastructure, verification systems will be deployed to gather data on waterpoint locations, uptime and volume produced. On infrastructure where data on volumetric use are timestamped, the monitoring of uptime and volume can be combined.

Technology is making volumetric monitoring increasingly feasible. Although cost and data quality need to be balanced and compared to traditional observation methods like spot checks, expanding availability of both in-situ and remote sensors is creating new opportunities for data collection. Measuring volumetric use of waterpoints is currently much more common with piped networks than handpumps, but this could change if measurement were increasingly linked to funding. Regardless of the specific technology applied, implementation of results-based contracts will require verification systems that can consistently monitor use and uptime of all infrastructure types at sufficient scale.

Over the course of funding rural services, a range of verification approaches, methodologies and technologies will be tested for different infrastructure types and under a variety of institutional arrangements. The experimental nature of this approach means that verification protocols will likely evolve as best practices emerge. However, the structure of the UCF, including the supervisory role that Trustees will play, will ensure that processes are transparent and learnings appropriately documented.

Use of funds

The UCF is designed to incentivise service provider (Member) behaviour. It is not intended to be prescriptive in how Members use any payments they receive. Most Members continue to maintain or develop external funding relationships and use payments from the UCF as a supplemental income source. To the extent that this accelerates progress in delivering sustainable rural water services, this is welcome, subject to satisfactory performance being maintained.

Members are however required to be transparent about their sources of income. Quarterly disclosure requirements will contractually mandate that Members distinguish between user revenues and other income (excluding the UCF).

The UCF has been structured to enable the implementation of funding for rural services at scale. As service providers increase in scale, improve their efficiency and broaden their revenue basis while ensuring reliability and access, their ability to secure long-term sustainable funding is expected to improve. A measure of the programme's success is the extent to which it enables service providers to secure additional long-term sustainable funding from governments and other sources; based on performance contracts.

Trustees can, at their discretion, request further information on the use of UCF payments by Members. If the majority of Trustees are of the opinion that payments are not being used to further the objective of long-term sustainable funding, the UCF may temporarily or permanently curtail future payments, consistent with the provisions of the contract. This provision exists to help ensure that the UCF is as effective as it can be in delivering against the expectations of contributors to the fund.

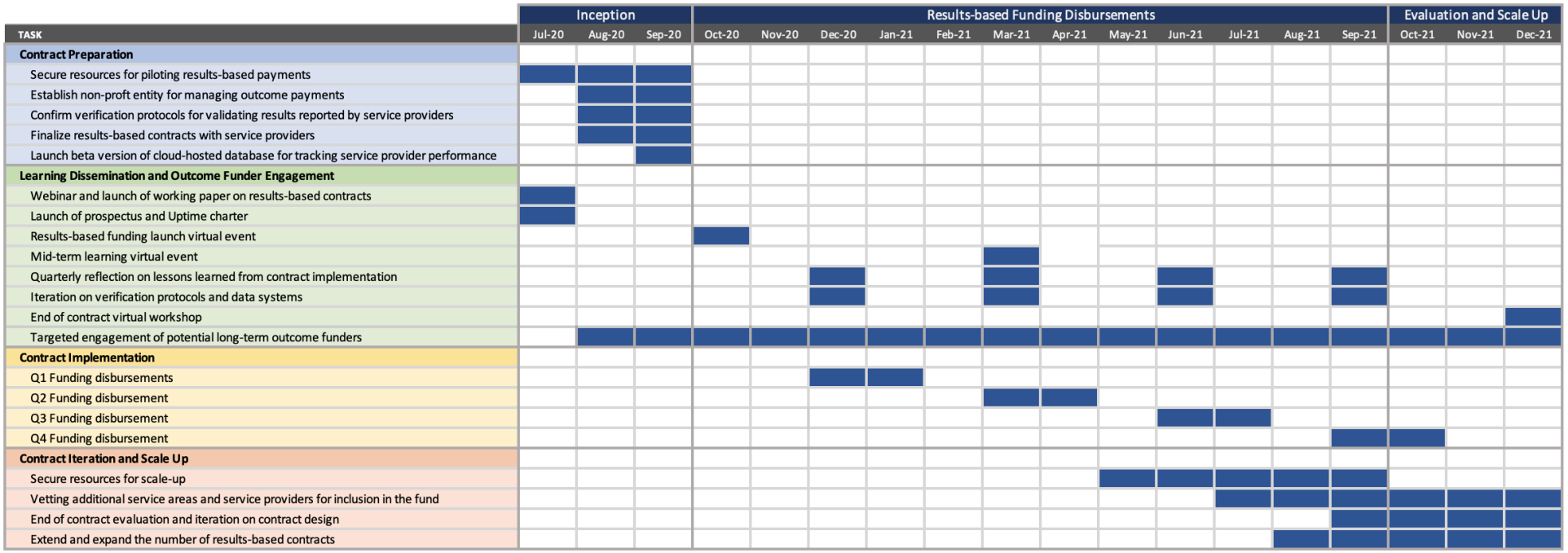
As an additional protection for contributors to the UCF, results-based payments are made in arrears, with the service provider bearing the operational and financial risk of their activities.

Risks

The UCF is piloting a range of approaches to test how they can subsequently be deployed at scale. We anticipate, given the nature of the undertaking, various challenges in design and implementation. Here, we identify some of the risks that we intend to evaluate over the course of operations. We expect others to emerge and will maintain a documentary record.

Risk	Description	Mitigation
Risk of Gaming	Service providers may discover opportunities to maximize results-based payments that do not correspond to genuine improvements in the scale, reliability, or financial efficiency of rural services.	As members of the Uptime consortium, the service providers engaged at the outset are invested in the successful development of a new funding modality. Contractual provisions overlay the mutual trust that is the foundation for open and honest dialogue on the strengths and weaknesses of contract designs. Results-based contracts would not be extended to new service providers until opportunities for gaming are fully understood and mitigated.
Risk of moral hazard	Guaranteed funding might encourage service providers to take risks – such as overextending services – that they otherwise might not.	Limiting the initial phase to a limited number of service areas for a finite period will ensure that, at this stage, service providers do not rely exclusively on the results-based contracts to sustain operations. Service providers will have to be prepared for the possibility that they may have to continue accessing alternative funding sources.
Risk of rational but unintended consequences	Unforeseen effects are by definition difficult to predict and underscore the need for an initial testing phase with a limited number of service providers	Learning through consistent engagement with service providers during the initial phase will aim to uncover these potential negative effects and identify mitigations. Risks, mitigations and responsibilities will be added to the risk register on a rolling basis.
Risk of force majeure	External forces beyond control of service providers (e.g. COVID-19) could undermine the ability to deliver and monitor service results.	Results-based contracts will need to include provision for Force Majeure events. Service providers should not be penalised for events beyond their control, especially when developing services in rural and sometimes volatile contexts.

Timeline: 2020-2021



Appendix A – Contract values

Unit	Unit Value	Rationale
Quarterly payment per waterpoint	USD 50/QTR	Analysis of 2018-2019 cost per waterpoint for the five service providers was approximately USD 400 for both piped and handpump waterpoints. Payment value is set to half of this, USD 200/YR, with the expectation that the other half would be covered through payments for local revenue and volume consumption.
Reliability threshold	>96%	Reliability is measured by uptime: the proportion of time functional out of the total possible. Reliability is measured for each waterpoint on a quarterly basis. A quarterly uptime per waterpoint >96% implies that broken infrastructure is fixed in approximately 3 days.
Volume	USD 1/m^3	Volumetric price informed by revenues reported in urban utilities[3].
Assumed volume for unmetered handpumps	50 m^3/QTR	Metered handpumps within the analytical scope suggest actual use may be closer to 100 m^3 per quarter. A conservative assumption provides incentive to meter actual handpump use.
Local revenue	100%	Results-based funding matches local revenue. This creates an incentive to maximize local revenue, including from local authorities who may be more inclined to commit resources if contributions are matched.
Maximum quarterly margin	15% above total costs	The maximum margin is the percentage above total costs earned from the combination of local revenue and results-based payments. Service provider experience suggests that margins beyond 15% attract scrutiny and pressure to reduce tariffs. The maximum margin could be increased if additional surplus is needed as a provision for infrastructure life-cycle replacement.

[3] World Bank (2011). *Africa's Water and Sanitation Infrastructure: Access, Affordability, and Alternatives*

Appendix B – Monitoring indicators

The Key Performance Indicators (KPIs) described in this prospectus are consistent with other funding agreements supporting the Uptime consortium.

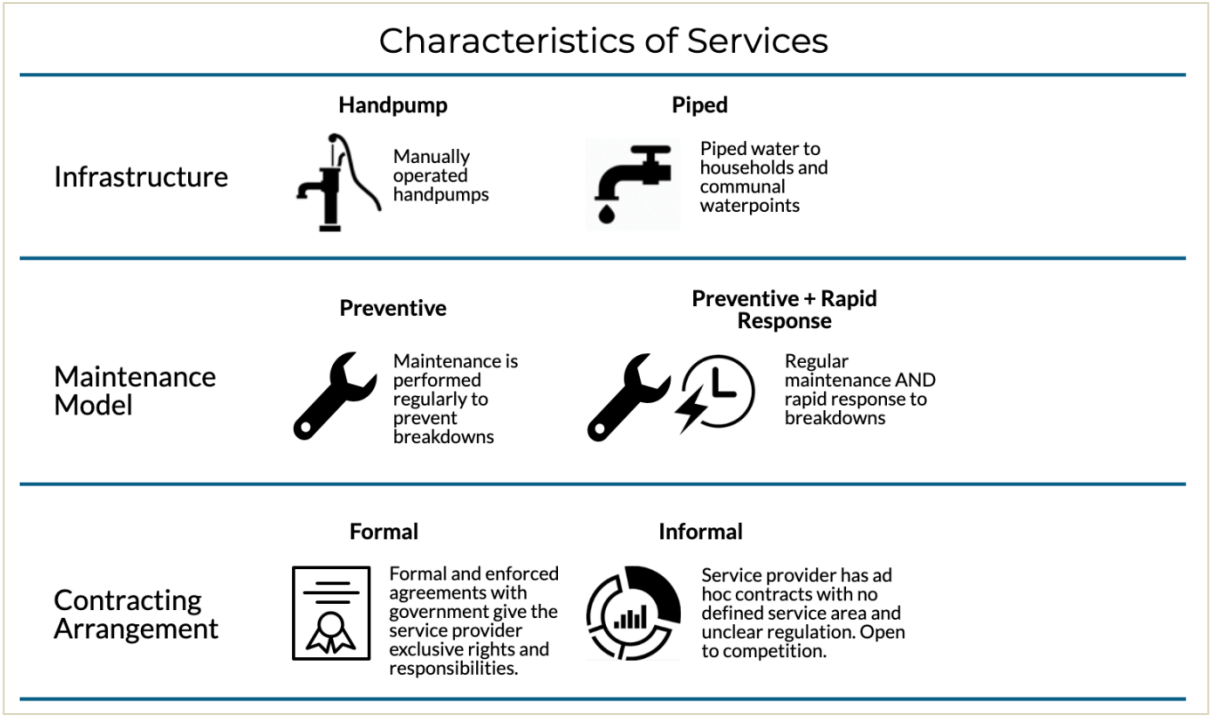
Category	Indicator	Description	Start (2020)	End (2024)
Dataset Scale and Completeness	Number of operational units reporting operational and financial data	Operational jurisdictions managed by service providers with directly attributable operational and financial performance data	15	50
	Number of waterpoints receiving services	Number of waterpoints being maintained by service providers	2800	25000
	Estimated population directly receiving services	Number of water users served by service providers	1.3 million	10 million
Service Performance	Average reliability (Uptime)	Proportion of time that infrastructure is functional out of the total time possible. Aiming for threshold of 94% or greater, especially as new service providers are included in the dataset	94%	94%
Development of Performance-Based Fund	Total amount of performance-based funding disbursed	Funding for services released under results-based funding agreements	$50,000	$4,000,000

Appendix C – Service providers

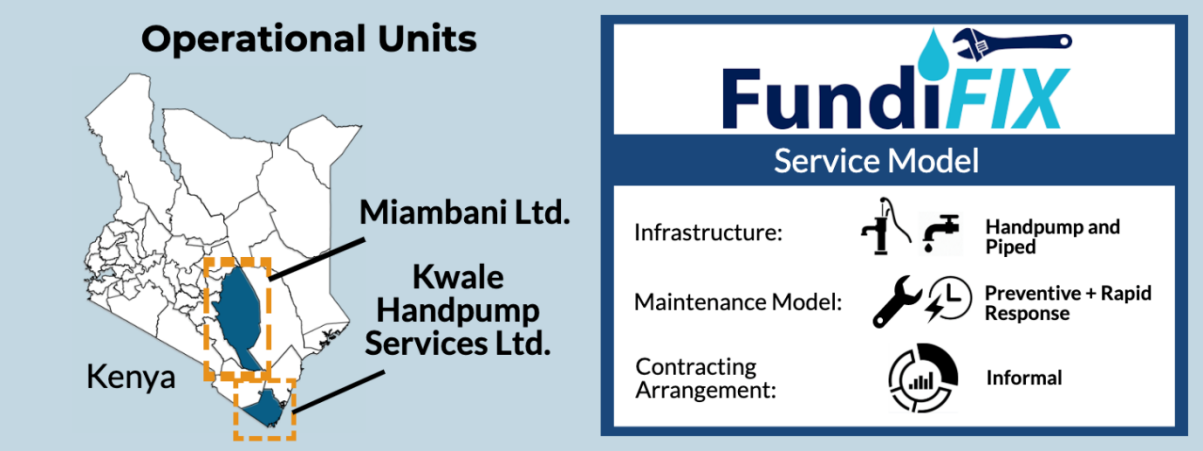
Service providers in the Uptime consortium all maintain rural water infrastructure, but their operational units consist of different types of infrastructure, maintenance models, management models, and service mandates.

We characterise their service models from three aspects:

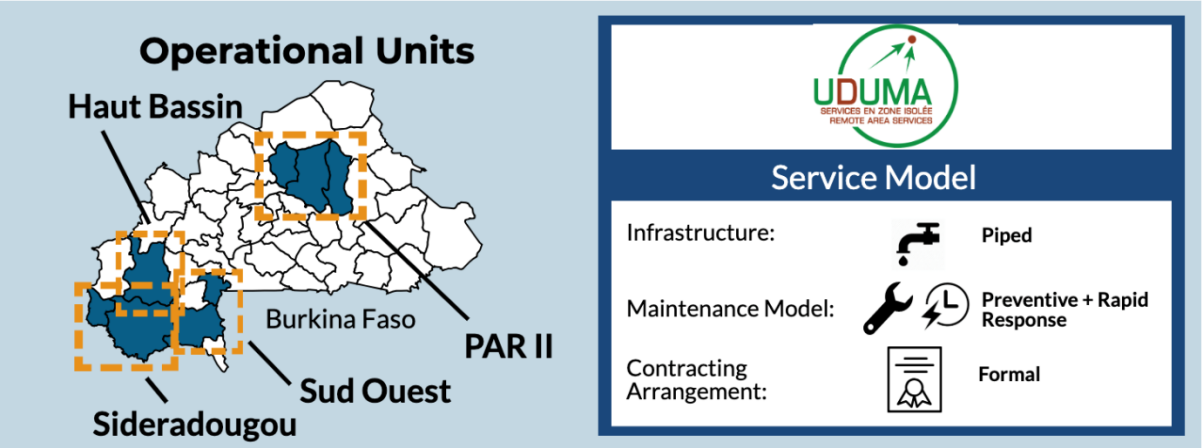
- Infrastructure – The types of technology being managed
- Maintenance model – The approach to providing services
- Contracting arrangement – The exclusivity and responsibilities in service delivery



Name:	FundiFix Ltd		
Established:	2014	Head Office:	Nairobi, Kenya
Legal Structure:	Private company with 100% Kenyan ownership and staff		
Parent:	FundiFix Ltd	Subsidiaries:	Miambani Ltd Kwale Handpump Services Ltd
Operational Areas:	Kitui County and Kwale County		
Overview:	FundiFix is a not for profit social enterprise and operates county-based franchises that offer preventive maintenance and repair service for existing rural water infrastructure serving communities, schools, and health facilities. The FundiFix model is guided by an insurance logic to pool financial and operational risks at scale. The model has four components: a) professional services, b) smart monitoring, c) financial sustainability and d) institutional coordination. Incubated in collaboration with the University of Oxford, it has led to the establishment of Water Services Maintenance Trust Funds providing performance-based payments supported through action research and financial support by Kenyan companies.		
Web:	www.fundifix.co.ke		

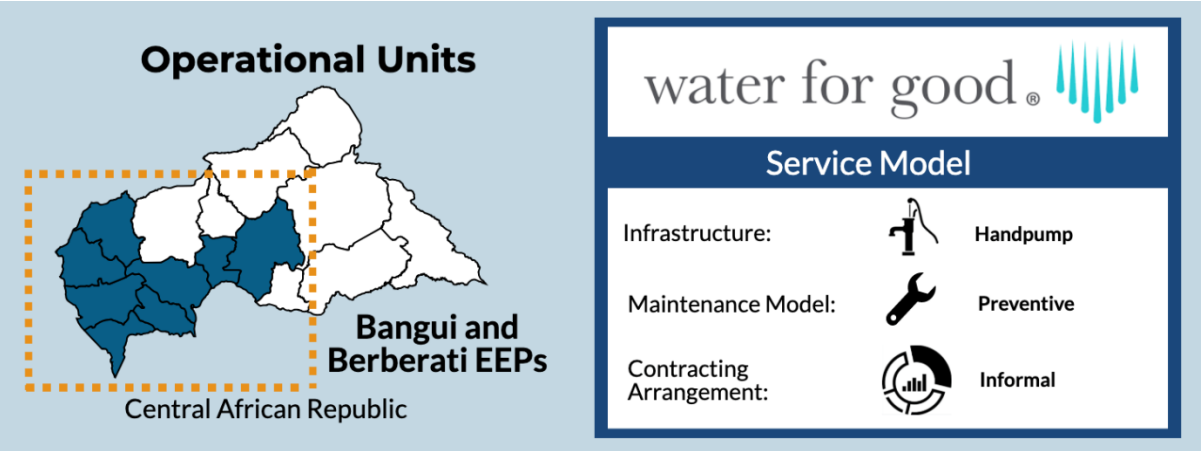


Name:	UDUMA		
Established:	2015	Head Office:	Ingré, France
Legal Structure:	Private Company, a simplified joint stock company		
Parent:	Odial Solutions	Sister Company:	Vergnet Hydro
Operational Areas:	Burkina Faso and Mali		
Overview:	UDUMA manages concession and affermage contracts for service delivery in exchange for user fees paid by volume. Technology, including flow meters and cashless payment systems are used to organise revenue collection, improve transparency and efficiency, and reduce operational costs in order to target a return on investment that can attract private funding for CapEx investment.		
Web:	www.uduma.net www.vergnet-hydro.com		

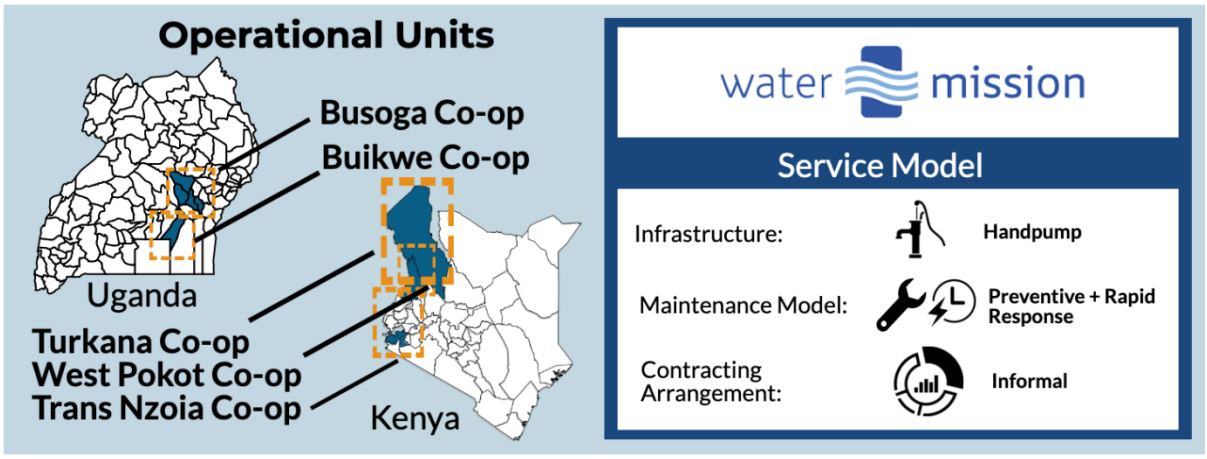


water for good®

Name:	Water for Good		
Established:	2003	Head Office:	Warsaw, Indiana USA
Legal Structure:	NGO with cost-recovery service programme		
Parent:	None	Subsidiaries:	None
Operational Areas:	Central African Republic		
Overview:	Water for Good employs local technicians to provide preventative circuit-rider maintenance services across a network of over 1700 unique rural water points (hand pumps) in CAR and collects payments from rural water users for the services. The technicians complete electronic reports on-site during each visit, verifying functionality, location, user payment, part usage, and other indicators. Water for Good also has borehole drilling capacity and has drilled and installed over 775 new water points in CAR.		
Web:	www.waterforgood.org		



Name:	Water Mission		
Established:	2001	Head Office:	North Charleston, USA
Legal Structure:	NGO with cost-recovery service programme		
Parent:	None	Subsidiaries:	None
Operational Areas:	Water Mission has supported projects and programs in over 55 countries. This analysis focuses on operational units called Rural Water Cooperatives in Kenya and Uganda.		
Overview:	Rural Water Cooperatives either directly manage solar powered piped water systems or provide technical and administrative support for communities to manage the systems. Revenue is generated through pre-paid tariffs, with cash handled manually or by prepaid water meters. Performance data are obtained via satellite-based remote monitoring systems. Financial analysis considers the fully-burdened cost of service delivery and support services, both direct and indirect.		
Web:	www.watermission.org		



Name:	Whave Solutions Ltd.		
Established:	2012	Head Office:	Kampala, Uganda
Legal Structure:	Private company		
Parent:	None	Subsidiaries:	None
Operational Areas:	Whave provides services in Uganda through four regional offices called 'Local Service Providers' (LSPs). Two of these offices are currently one cost centre / operational unit with single management, and one is not analysed in this study because it is in an early stage of preparation, with emphasis on infrastructure.		
Service Model Overview:	Whave is a Ugandan non-profit social enterprise working with local government and rural communities to provide water build-operate-transfer and maintenance services and to develop practical Public-Private Partnership regulation in rural water supply. Whave's technicians perform regular checks and respond immediately when worn parts threaten a breakdown. Communities pay a small annual service fee, and government provides regulation and support.		
Web:	www.whave.org