

Innovations in Commercial Finance for the Water and Sanitation Sector

The Potential of Investment Platforms for Mobilizing Financing for Development at Scale

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WATER

**Innovations in
Commercial Finance
for the Water and
Sanitation Sector**

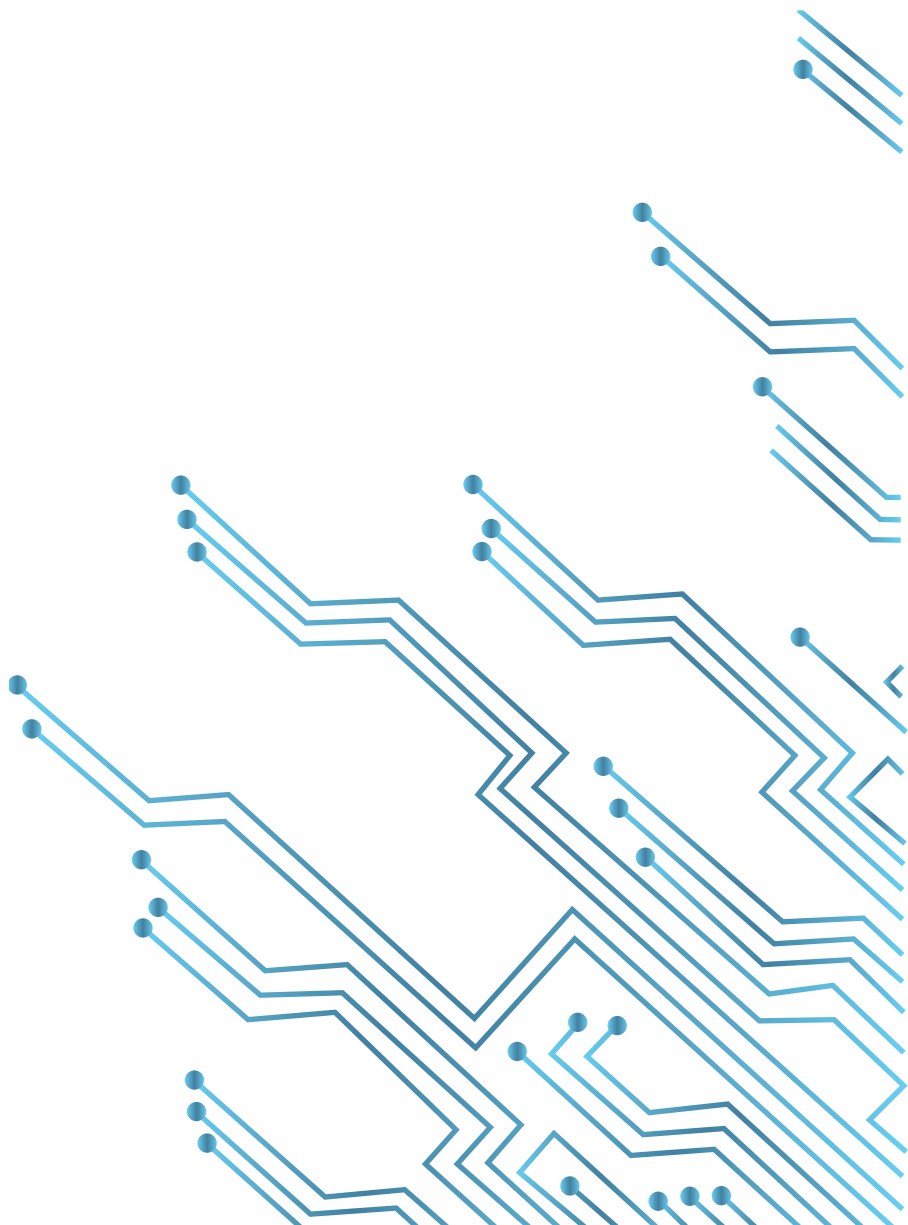
The Potential of Investment Platforms for Mobilizing
Financing for Development at Scale

Executive Summary

Massive amounts of investment are needed to meet the United Nations Sustainable Development Goals for water supply and sanitation. However, several challenges have limited the ability to mobilize commercial finance for the sector, including a complex political economy, high transaction costs and an unclear regulatory environment.

Investment platforms are an online tool for bringing together investors and investees more efficiently. While they began as a way to simplify the trading of publicly held stocks, a wave of innovative fintech investment platforms are increasing investment in numerous sectors.

Translating this innovation to the water and sanitation sector could help address the challenges that have limited private investment in the sector. An effective investment platform for water and sanitation would need to provide transparency, traceability, auditability, analytics and standardization, and could be extended to support emerging fintech innovations, including blockchain and crowdfunding. Governments and donors can support the development of investment platforms for water and sanitation by encouraging pilot initiatives and creating a supportive regulatory environment.

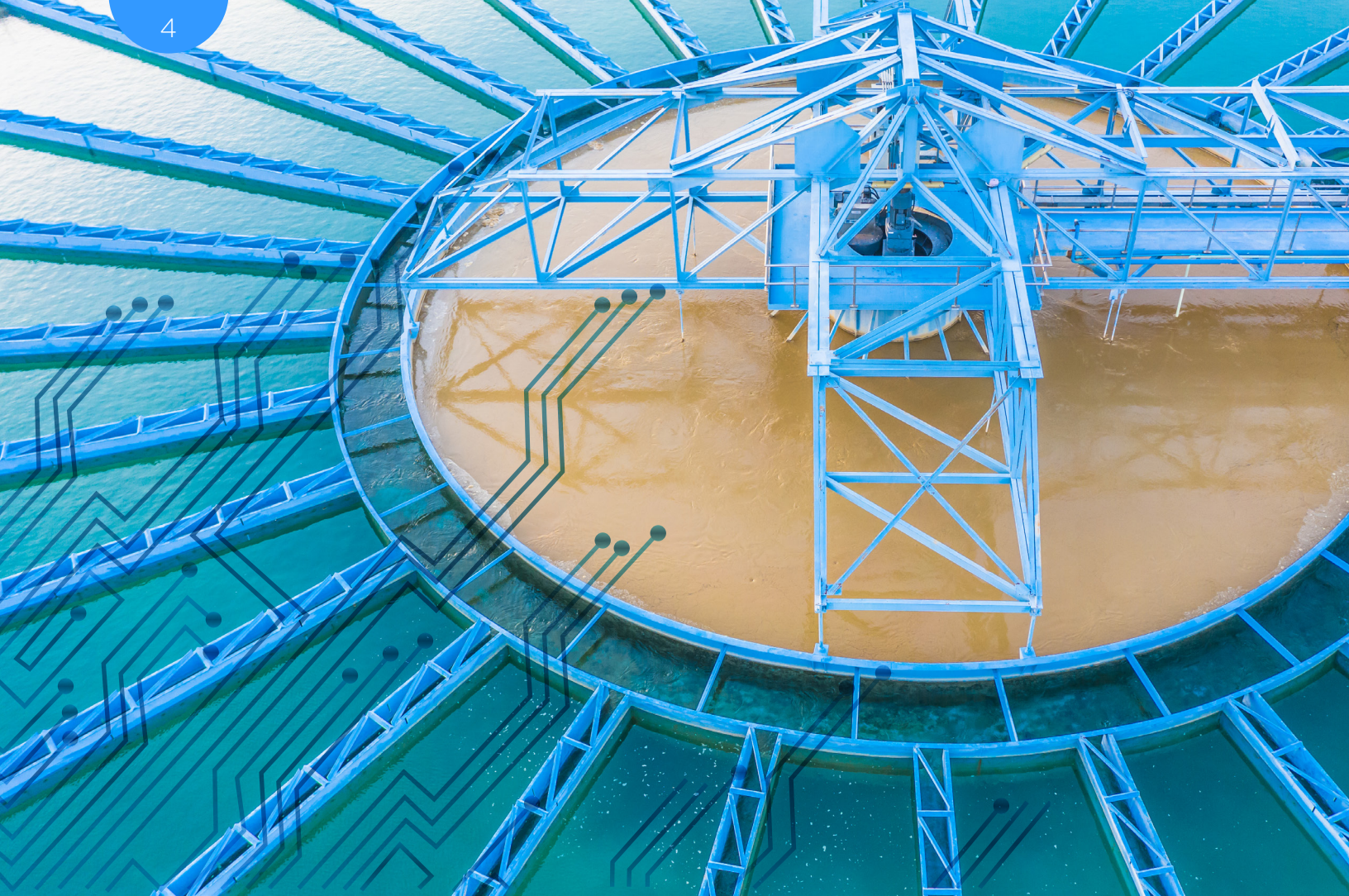


Introduction

The 21st century is marked by rapid urbanization and industrialization, with four times as many people living in cities compared with only a few decades ago. This unprecedented societal shift is compounded by climate change and associated extreme events.¹ Cities will need massive investment in new water supply and sanitation infrastructure to meet the needs of their rapidly growing populations, while also investing in the infrastructure and services needed to strengthen their resilience to climate change. At present, most countries are far below the level of investment needed to reach these goals, with potentially dire consequences. Bold, innovative solutions are critical to scaling up investment in the sector.

Water supply and sanitation services are typically dependent on large-scale, capital-intensive infrastructure provided within a complex political economy. Globally, over the next decade, US\$ 114 billion per year in capital expenditures will be needed to achieve the United Nations Sustainable Development Goals (SDGs) for drinking water and sanitation. In Latin America and the Caribbean, countries will need to invest approximately 0.23 % of their total gross domestic product (GDP) annually.² Many countries will require significant infrastructure investments to meet these goals—the necessary capital expenditures are roughly three times higher than existing levels of investment. Worryingly, less than 15 percent of countries recently surveyed by the United Nations report that they have sufficient resources available to meet national targets.³

Development assistance is unlikely to fill this gap. Since 2006, total foreign aid contributions for water and sanitation have stayed flat at around US\$ 4.5 billion per year.⁴ Latin America and the Caribbean account for only nine percent of aid contributions. Greater use of commercial finance will be critical to achieving the SDGs for water and sanitation. With an existing base of non-concessional lending to the water and sanitation sector that far exceeds most other regions, Latin America and the Caribbean are well-positioned for the transition to commercial finance. Capital markets offer a virtually unlimited pool of potential resources to build the water and sanitation infrastructure the world needs – the global bond market, for example, is currently worth over US\$ 100 trillion. One-third of all developing country bonds were issued in Latin America.⁵



While some municipalities and utilities in Latin America and the Caribbean are not yet ready to borrow on fully commercial terms, investments with a shorter payback period — such as energy efficiency improvements or efforts to reduce non-revenue water — are more likely to be commercially viable. More capital-intensive projects, such as treatment plants or new distribution networks, are likely to require a blended finance approach in many cases. By combining transfers, subsidies and concessional financing with commercial debt, blended finance provides a way of transitioning to full commercial viability.

Since at least the 1990s, infrastructure has been considered an asset class, alongside the traditional asset classes of debt, equities and cash. Financing for roads, railways, ports and other large infrastructure projects can now be structured to meet the risk-return profiles of a broad array of investors.⁶ However, commercial and institutional investors have generally avoided the water and sanitation sector due to complexity and high transaction costs. In 2019, private investment in the transport and energy sectors in developing countries was twenty times higher than investment in water and sanitation.⁷

Investment platforms are one potential innovation for expanding the pool of private capital available for investment in water. Facilitated by the rise of fintech, investment platforms serve as a marketplace, linking investors with investable assets. In addition to traditional platforms for buying and selling listed securities or currencies, an explosion in new platforms has supported investment in a range of alternative assets, from classic automobiles to rooftop solar projects.

Fintech is beginning to impact the water and sanitation sector, and a similar investment platform, focused on innovating commercial finance in the sector, could encourage the development of water infrastructure as a viable asset class.⁸

What are Investment Platforms?

In management theory, a platform is a tool for creating two-sided markets. These are markets where two sets of agents interact indirectly, and the nature and activity of each agent impacts the other.⁹ Many of the most successful companies founded in the last two decades have used platform business models. Ride-sharing companies, like Uber and Lyft, provide a platform linking riders with drivers. Without their platform, these transactions would be impossible at scale, and a critical mass of riders induces more drivers to participate, and vice-versa. Payment platforms such as Visa and PayPal are also two-sided markets, linking customers and merchants.

Traditionally, investors have been paired with investment opportunities through their own networks, with brokers facilitating unlisted securities purchases, or through broker-dealers on a regulated exchange. All these options entail extensive transaction costs or the use of a third party to facilitate the transaction. More recently, the availability of faster internet access supported the development of the first wave of investment platforms — companies like Fidelity, E*Trade and TD Ameritrade allow individual investors to buy and sell stocks on regulated exchanges such as the New York Stock Exchange (NYSE) and NASDAQ much more quickly and cheaply than going through a traditional brokerage. While investors previously paid fees upwards of US\$ 40 per transaction, fees have steadily been declining, and discount platform Charles Schwab announced zero-commission trades on their platform in 2019.¹⁰

More recently, a second wave of mobile investment platforms such as Robinhood and Stash have further leveraged fintech to provide additional options for equity investors. Additionally, a range of specialized investment platforms have recently emerged to support the vast and diverse field of alternative assets. These investments exist outside of the traditional asset categories and can provide sophisticated investors with more options for yield and diversification. Often illiquid and unregulated, alternative assets are seeing increasing interest due to the use of investment platforms. Cryptocurrencies, such as Bitcoin and Ethereum, were extremely difficult to use and trade prior to the rise of Coinbase, which now has more than 30 million users worldwide.¹¹ Investment platform Yieldstreet allows individual investors to invest in shares of art portfolios and real estate and marine projects. Rally supports investment in collectible automobiles, while crowdfunding sites like Wefunder and Indiegogo allow large groups of individual investors to make small investments in emerging startups. Finally, new platforms for renewable energy project finance, including T-Rex and SolRiver Capital, are mobilizing large amounts of capital for solar energy.

This whitepaper explores the barriers to investment in water and sanitation, and how they could be addressed in part through a sector-focused investment platform. The paper then discusses potential design and benefits of a water investment platform, in addition to introducing several emerging technologies and financial innovations that could further extend the impact of such a platform. Finally, the paper provides a way forward for donors and governments interested in exploring this tool further.

Barriers to Investing in Water and Sanitation

The barriers to private investment in infrastructure in general are even more pronounced in water and sanitation.¹² Despite the fact that water and sanitation are critical to human life, governments in many countries struggle to mobilize sufficient resources to provide continuous, high-quality services to all citizens. This is due to several factors, including:

- **High Capital Requirements and Low Tariffs-** Infrastructure requires large upfront investments, often tens to hundreds of millions of dollars, to finance assets with multi-decade lifespans. These investments may not generate any cash flows for several years. Once operational, they may not provide the revenue needed to fully cover the cost of building and operating the asset. This is due to the low willingness to pay for water supply and sanitation and the difficult politics of raising tariffs. While the broader impact on society may be much higher due to public health improvements and other social benefits, this impact is often difficult to monetize. Water infrastructure is particularly capital intensive, with US\$ 5-9 worth of assets needed to generate US\$ 1 worth of annual revenues.¹³
- **Challenging Governance and Regulatory Environment-** Responsibility for managing water resources is often heavily fragmented. Regulatory and management responsibilities are split among multiple agencies, limiting the scope for sector-wide performance improvements and discouraging private investment. Additionally, in some countries in Latin America and the Caribbean, current regulatory frameworks strongly discourage private participation in water supply and sanitation.
- **Complexity and Poor Project Design-** Infrastructure investment, particularly project finance deals, tends to involve multiple counterparties simultaneously negotiating complex legal arrangements. There are limited opportunities to achieve economies of scale in infrastructure investments, as each investment tends to be heavily customized. This is even more pronounced in the water and sanitation sector, which includes a broad range of infrastructure categories and technologies. Local aspects of water management also contribute to the complexity of the sector: management of water reflects culture, history, religion, geography, geology, soil characteristics, economy, and climatic patterns, along with hydrologic realities (rainfall patterns, rivers, lakes, groundwater, and weather events).¹⁴ Because of this complexity, project planning is often not prioritized, resulting in poorly designed assets that fail to achieve the desired impact.
- **Lack of Transparency-** Related to the complexity of infrastructure investments, opacity and lack of adequate data make benchmarking investment performance difficult. This limits the willingness of investors to participate and increases citizens' distrust of private infrastructure investments.

Investment Platforms for Infrastructure

Building on the experience of other alternative asset classes, infrastructure developers are taking advantage of investment platforms to simplify project finance. Requiring close coordination among numerous stakeholders, including government agencies, investors, banks, developers and others, project finance is typically a lengthy, complicated process with high transaction costs. Each deal is often highly customized, reducing the ability to achieve economies of scale.

Recently, the renewable energy sector has seen significant innovation in how projects are financed. Emerging investment platforms are enabling closer coordination among stakeholders and encouraging greater standardization, dramatically simplifying the cost of project finance.

T-Rex, for example, provides an online software platform for solar energy projects. The platform allows developers, lenders, owners and other stakeholders access to the same set of operational and financial data, in addition to providing advanced analytics. The platform also digitizes the entire workflow for a renewable energy project finance deal, which is typically labor-intensive and mostly paper-based. By standardizing both the workflow and design for renewable energy projects, this platform reduces the barriers for investors and encourages more capital inflow to the sector.¹⁶ Fintech startups blueyellow and Novasec are providing similar services.

SolRiver Capital is a similar platform for solar projects, but it also brings its own financing alongside operating partners and other investors, as does real estate investment fund Silverpeak Renewable Investment Partners. Governments and social entrepreneurs have also supported the development of open-source tools. Open Solar is a modeling and sales software program for rooftop solar projects, available freely as open-source code, and the Open Solar Contracts initiative by the International Renewable Energy Agency crowdsourced a set of contracts for small- and medium-sized grid-connected solar investments.¹⁷

What is Project Finance?

Project finance is a specialized financial instrument used in the financing of long-term infrastructure, industrial projects, and public services. In a project finance structure, a special purpose vehicle (SPV) is created by the sponsors to own the assets of the project. Lenders evaluate the potential future cash flows from the asset, such as a road or port, rather than the financial viability of the sponsors. In case of default, lenders have the right to seize the SPV assets, but usually have no rights to any of the sponsors' assets outside the SPV.

Project finance is often used when governments want to avoid taking on debt and project sponsors want to limit risk. While there are many upsides to project finance, it is typically more complex and has higher financing costs.¹⁵

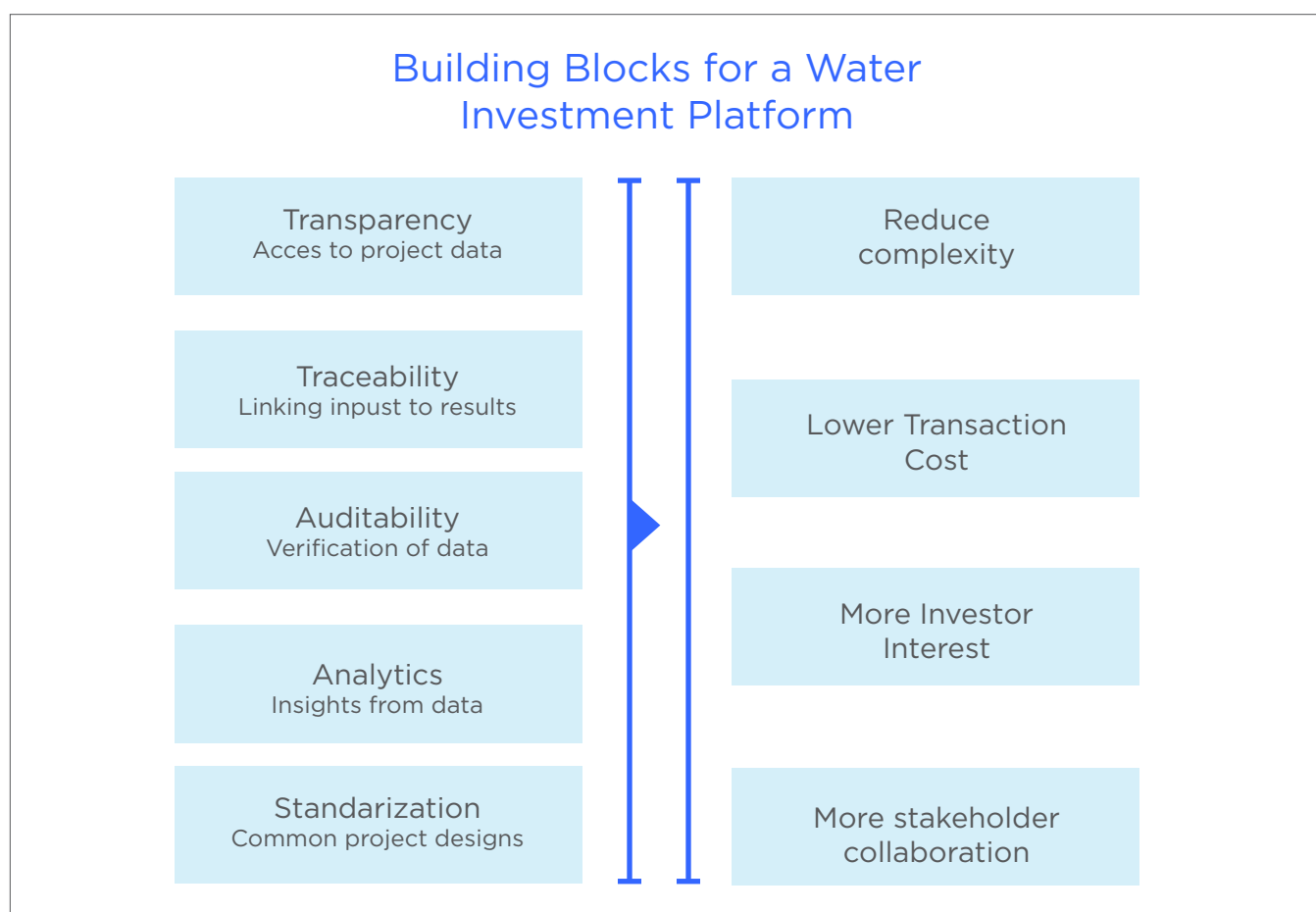
Designing a Water Investment Platform

As illustrated by the rapid pace of innovation in renewable energy finance, investment platforms link investors and projects more efficiently, and could be one part of a broader policy response to the critical challenge of underinvestment in water. To address high capital requirements, an investment platform could be used to spread the cost and risk of the project across investors, tailoring the financing of the project to meet their needs and raising capital more efficiently. By expanding the opportunity to invest in renewable energy to a much broader pool of smaller accredited investors, renewable energy investment platforms have demonstrated the viability of this approach. In addition, by linking an investment platform with impact metrics such as number of connections or improvements in water quality, it is possible to allocate some of the social and environmental returns from the project to investors. A common set of impact metrics may also help in streamlining the regulatory environment.

Complexity in water infrastructure investment could also be addressed in part through a water investment platform. In renewable energy, infrastructure investment platforms are reducing transaction costs by helping stakeholders share a common set of data and analytics and streamlining workflows. Renewable energy platforms have facilitated investment in projects as small as rooftop solar installations to projects as large as utility-scale, costing hundreds of millions of dollars. Platforms and investors have coalesced around a manageable set of standard models, addressing the complexity challenge. Investment platforms for water could support similar standardization around easily packageable investments, such as energy efficiency upgrades.



Finally, by storing a transparent, shared set of regularly updated financial and operational data on a water investment platform, investors can evaluate potential investments more effectively. Over time, a strong track record of data on financial and operational performance will lower the barriers for investment in water and sanitation. At the same time, making this data easily accessible to other stakeholders may help build greater trust. The experiences of investment platforms in other infrastructure sectors are highly relevant for water and sanitation, although any investment platform would need to be adapted for the specifics of the sector, particularly the greater heterogeneity of projects as well as political and regulatory issues. Overall, to be effective, a water and sanitation investment platform would need to provide transparency, traceability, analytics, auditability and standardization. Combined, these features would support reduced complexity, lower transaction costs, increased investor interest in the sector and more stakeholder collaboration.



Achieving **transparency** requires a real-time (or near-real-time) view of investments and their performance. This would include both financial and operational data. An operations dashboard could include some or all of the domains of utility management frameworks such as Aquarating to monitor investment health, infrastructure performance, project operations, or public-private partnership progress. Detailed information on each of the parties in the project would also be required.

Traceability means that there is a clear demonstration of the link between financing and operational performance and project results. An effective water and sanitation investment platform should have the ability to define and measure key performance indicators for projects and efficiently collect and aggregate the data needed to report on these indicators. Ultimately, a transformational water and sanitation investment platform could also track the broader social returns of a project, such as its impact on human development, environmental improvement and overall wealth.

Alongside transparency of data in the investment platform, **auditability** is also a key function. Trust in the data requires some form of independent verification, particularly if the platform is hosted by a single organization. A system of automated diagnostics for data quality, as well as stringent internal controls around data editability, can help provide the trust needed for the investment platform to work effectively. The platform would also need to be designed in such a way that independent third-party auditors could easily review and report on transactions in the platform.

Robust **analytics** provide stakeholders with important insights into what the project has achieved and where it is going. By providing a standard set of reports on historical financial and operational data, in addition to forecasts and sensitivity analysis modules, the investment platform would help lower transaction costs through a shared understanding of the project. The analytical capability of the platform could be further strengthened with remote sensing and internet of things (IoT) sensors to provide additional data. Additionally, with a critical mass of projects on the platform, machine learning algorithms could be used to improve the accuracy of forecasts.

Finally, **standardization** of water and sanitation infrastructure investments will be an important input into an effective investment platform. Drawing on the experience of the renewable energy sector, identifying the subset of projects that are more readily “packageable” and transferable across country contexts allows the costs of developing a single investment platform to be spread across multiple investments.

To achieve these five features, a water investment platform would need a user-friendly interface for supporting transactions associated with a water and sanitation infrastructure project. Every transaction that occurs between parties would be recorded and time-stamped. Raw data and analytics would be accessible by all parties in the transaction, with forecasts and sensitivity analysis for key metrics, including financial performance, operational performance and water quality.

How Stakeholders Benefit from a Water Investment Platform

Citizens

- Improved water and sanitation services
- Better economy and improved health outcomes due to water and sanitation services
- Transparency in how taxes are used

Investors

- Lower source of capital
- Stability and lower risk

Developers

- Ready source of capital
- Stable cash flows
- Reduced risk

Regulators

- Easier oversight

Platform data would be shared with different stakeholders through a customized, web-based dashboard using common real-time information. Strong permission structures would be needed to protect proprietary data, with enough flexibility to provide a clear and current view of investments with historical performance, forecasts and any course corrections needed. Investors, developers and others would also need information on repayment approaches and advance forecasts on any escrows, in addition to information on insurance, warranties and associated premiums for all aspects of a project. Finally, a set of automated alerts and triggers would provide investors, developers and others with information when specific triggers or milestones had been met.

Ultimately, a common investment platform supporting a portfolio of standardized projects will help in reducing complexity. This contributes to lower transaction costs, increasing investor interest in the sector. Finally, through transparency and auditability, all stakeholders are able to access a common set of trusted project metrics, enhancing coordination.

Extending the Investment Platform

While simply replicating the application of investment platforms in other infrastructure sectors can open tremendous opportunities in water and sanitation, emerging technologies and financial instruments provide new ways of extending the impact of a water investment platform. The use of blockchain could further strengthen the trust and transparency of an investment platform and could also support the use of smart contracts to automate performance incentives and monitoring tools. IoT sensors embedded in infrastructure or surrounding water bodies could be used alongside remote sensing to develop richer datasets, tracking not just operational performance but also broader impacts on public health and the environment. With this level of measurement, performance-based financing becomes much more viable – investors can be compensated based in part on how well the project performs, reducing implementation risk for governments and developers. This also enables municipal finance tools like tax increment financing, which earmarks a portion of future tax revenues based on a project's impact on the surrounding community. Going even further, a water investment platform could even potentially support crowdfunding of infrastructure, fully democratizing investment and allowing local community members to support efforts to improve their quality of life.

Blockchain – Water's complex political economy is often driven by a lack of trust. Various groups of water users compete over a common shared resource, and each has an incentive to overconsume. Due to this lack of trust, an effective investment platform for water and sanitation may be less likely to succeed if managed by a single centralized authority. Blockchain ledgers could help provide a higher level of transparency and traceability. Every transaction and registration in a blockchain network is permanently recorded in an immutable database, and the current state of the ledger is shared by all parties. In a centralized platform there is a need to trust the single administrator, and in registries that are not immutable, information can be modified or deleted.

Emerging blockchain-based applications inside and outside the water sector show promise. In the renewable energy sector, Energy Web is a suite of blockchain tools that allow utilities, developers and large customers to incorporate distributed energy sources into grid

networks. In Australia, the city of Fremantle is rolling out a “smart city” initiative that includes a partnership with Power Ledger to manage water and power assets, which will allow for peer-to-peer trading of electricity and water rights. Elsewhere in Australia, the Cooperative Research Centre for Developing Northern Australia is collaborating with blockchain firm Civic Ledger to develop a water trading platform with the goal of bringing more transparency and efficiency to a traditionally opaque market.

Smart Contracts - Enabled by blockchain, smart contracts are code that lives in the decentralized ledger. They can automatically execute an agreement based on a pre-determined trigger. They can be used to ensure the payment of funds on certain triggering events or impose financial penalties if conditions are not met. Smart contracts may reduce transaction costs by eliminating the need for third parties or a judiciary system. For example, when goods arrive at a warehouse, they could be automatically scanned and a smart contract would immediately trigger a payment. Alternately, a smart contract could be used to shut off access to an asset, such as an automobile, if payment is not received.¹⁸

On a blockchain-based water investment platform, smart contracts could be used to automatically trigger payments to investors based on certain objective conditions such as non-revenue water reduction or water quality improvements. While smart contracts have not been broadly applied in the water sector as of yet, US-based Antelope Water Management recently partnered with blockchain company Data Gumbo to provide smart contracts for managing the treatment of water used for hydraulic fracturing (fracking).

Advanced Analytics with IoT Sensors and Remote Sensing - Emerging technologies provide novel ways of extending the impact of a water investment platform, in addition to supporting the implementation of smart contracts. Internet of Things (IoT) uses low-cost, internet-linked sensors to apply data processing and analytics to the real world. As of 2020, there are over 50 billion IoT sensors across the world, generating over four trillion gigabytes of data annually.¹⁹ IoT sensors have a wide range of applications, from enabling smart homes, to improving the efficiency and traceability of global supply chains. Similarly revolutionary, remote sensing collects data by detecting energy reflected from Earth using sensors on satellites or aircraft. Remote sensing is used in many fields, and has been applied extensively in the water sector, particularly in water resource management.²⁰

In the water sector, the use of IoT sensors and remote sensing is growing rapidly. For example, chlorophyll-a, which is an indicator of nutrient enrichment that can lead to harmful algal blooms, can be inferred from satellite-derived light absorption. IoT sensors can be used to continuously measure parameters such as pH, temperature, conductivity, and nitrate levels. Land use changes around water bodies can be monitored from satellite imagery, aerial photographs and video from drone flights. Incorporating monitoring data into an investment platform would provide stakeholders with greater insights into project performance and highlight potential implementation risks.

What is Blockchain?

The technology powering Bitcoin and other cryptocurrencies, blockchain is an example of distributed ledger technology because it is used to record transactions across many decentralized computers simultaneously and immutably (without alteration). Transactions are time-stamped and can be verified and audited independently. The ability to record verifiable transactions without a central managing authority creates transparency and supports transactions between parties without the need for a trusted central authority.¹⁸

Blockchain transactions can be broadcasted by individuals, institutions, and enterprises such as municipalities and utilities, public and private investors, public crowdfunding, insurance companies and contractors, operators, developers and regulators into a single platform. Blockchains can be either permissioned or permissionless networks, depending on whether anyone can join freely or if participants must be authorized. Examples of permissionless blockchain networks include cryptocurrencies Bitcoin and Ethereum. To motivate participants to participate in the consensus algorithm to process and validate the transactions, crypto-based networks typically reward “miners” with cryptocurrency. These networks are not used in practice for almost any use case other than cryptocurrencies due to high transaction fees, the impossibility of determining the identities of other users, the lack of regulatory frameworks, and the lack of legal responsibilities.

By contrast, permissioned blockchain networks are typically managed by a single company or consortium of organizations. Permissioned networks can be private or public. New participants are only allowed onto the network with the permission of existing participants. This eliminates the need for proof of work or cryptocurrencies. Examples of permissioned private blockchains include logistics platforms developed by DHL and Maersk, Banqu for identity management, and Hyperledger fabric, an open-source permissioned blockchain framework developed by the Linux Foundation.¹⁷ Examples of permissioned public blockchains include Alastria (in Spain) and LACChain (for Latin America and the Caribbean). Permissioned private networks also present difficulties to scale, as governance, technical support, economic models, and/or legal responsibility are not clear in general. Additionally, these networks lack decentralization and transparency. On the other hand, permissioned public networks bring together the best characteristics of the permissionless networks (i.e. openness, transparency, and decentralization) and the best characteristics of the permissioned private networks (e.g. identification and zero transaction fees), adding to it governance and regulatory frameworks, and economic models. This is why permissioned public networks are the most promising alternative for scalable blockchain-based applications.

* Miners are the nodes in a blockchain network that generate blocks. In permissionless networks that have proof of work as the consensus protocol, mining requires spending computational capacity. Those nodes that participate in the mining are rewarded with cryptocurrencies.

Green Bonds - First launched by the World Bank in 2009, green bonds are a new category of bond where all of the principal amount is earmarked specifically for environmental restoration efforts or investments to address climate change.²¹ Due to strong investor demand, the market has grown quickly, with nearly a quarter of a trillion dollars in new green bond issuances in 2019.²² In the water and sanitation sector, the Massachusetts Clean Water Trust has been a leader in the market for green bonds, issuing over US\$ 643 million in bonds to finance water and wastewater infrastructure.²³ The Climate Bonds Initiative has developed a set of standards and a certification process for verifying the potential climate impact of green bonds.²⁴ Aligning reporting and auditing processes on a water and sanitation investment platform with this standard could help in issuing more water-focused green bonds in this large and rapidly-growing area.

Impact Bonds - Social and environmental impact bonds are an innovative tool for mobilizing private investment, and a few bonds have already been launched on a pilot basis in areas relevant to the water and sanitation sector. In an impact bond, the return on the investment is partially determined by the results achieved by the project. So, for example, a rural sanitation social impact bond might be linked to the number of households with new latrines or to the number of open defecation-free villages.²⁵ With this instrument, governments are able to borrow for projects with high social impact while managing implementation risk. Investors' interests are more closely aligned in the outcomes of the project - the more successful the project, the higher their returns.

In water and sanitation, economic value is often created far beyond the amount of tariffs charged. A lake restoration initiative might result in higher waterfront property prices, improvements to tourism revenues or higher yields in fisheries. Impact bonds are a potential tool to capture a portion of this value, particularly in tandem with public finance tools such as tax increment financing (TIF) and betterment levies, which earmark future tax revenues for debt service on projects that increase the tax base.

Crowdfunding Infrastructure - While the concept is still in its infancy, using crowdfunding to finance infrastructure is an emerging area of exploration. Crowdfunding is an alternative financial strategy, first popularized by sites such as GoFundMe and Kickstarter, that uses the internet to raise small sums of money from a large group of people. Since the individual amount of money invested is low, investors may be more likely to invest in risky or more speculative projects. Despite the small sums of money, crowdfunding campaigns can be extremely effective in raising large amounts. Since its founding in 2009, Kickstarter has supported over five billion dollars in crowdfunding.²⁶

In infrastructure finance, recent regulatory changes in the United States are facilitating crowdfunding. Fintech startups Small Change and Infrashares allow retail investors to invest in infrastructure projects in their communities.²⁷ In the Netherlands, over 8,000 local residents contributed to crowdfunding a pedestrian bridge in the city of Rotterdam.²⁸ The water sector has a long tradition of cooperatives and similar associations working together to finance and maintain infrastructure and manage water rights. Incorporating crowdfunding into a water and sanitation investment platform could build on this tradition while improving efficiency.



WATER INVESTMENT

The Way Forward

Meeting the water and sanitation needs of an increasingly-urbanized Latin America will require massive amounts of investment. Mobilizing these resources will require political will and creative new approaches. Water sector-focused investment platforms are a potential solution to this challenge, and should be explored by governments and donors in the region. National, sub-national and municipal governments in Latin America and the Caribbean should:

- **Identify critical water infrastructure needs** - With limited resources available, it will be critical to prioritize investments, focusing on areas with the highest possible social, economic and environmental returns and investing public resources in a way that maximizes private investment.
- **Bring sectors together to address water and sanitation challenges** - Water is ultimately a cross-cutting issue, impacting every aspect of society. Responsibility for maintaining clean water and providing high-quality services to citizens is often spread across multiple agencies, dampening their incentives to perform. Understanding the network of stakeholders in the sector is critical to designing and financing effective solutions. An investment platform can be one tool for bringing them together.

Donors working in the water and sanitation sector in Latin America and the Caribbean should:

- **Support proof of concept tests of water investment platforms** - General investment platforms have been around for some time now. While they are spurring the creation of novel and sector-specific platforms, there has been limited activity in the water and sanitation sector. Given the potentially catalytic role of water investment platforms in mobilizing private finance, there is a strong case for grant funding and concessional capital to support pilot testing. Donors could provide support for standardizing water infrastructure investments to achieve economies of scale and make them more amenable to an investment platform approach.
- **Expand blended finance opportunities in water** - Most donors now offer blended finance products such as loan guarantees alongside their traditional portfolios of grants and concessional lending. However, it has often been challenging to support blended finance transactions in the water and sanitation sector. Investment platforms, particularly those that would combine aspects of performance-based financing, can make blended finance in water more viable. Donors should continue to expand their work in blended finance, particularly in water, and identify ways to engage with investment platforms.

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