



# Innovate 4 Water Kisumu

6-7 February 2019

Adopting innovative community-led approaches for WASH

A marketplace forum for sustainable solutions  
and innovations for Urban Water and Sanitation

## **BACKGROUND**

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Water is vital to life itself, and critical to sustainable economic growth and human development. Water resources touch every aspect of the human condition including food security, health, environment, infrastructure, national security, energy, and education. Ensuring access to water and sanitation for all is one of the United Nations' 17 Sustainable Development Goals, Goal 6. Achieving Goal 6 is quite critical if we are to meet all the other SDGs.

Providing;

1. Clean, safe water for drinking and cooking and 'improved' sanitation are essential to health.
2. Efficient water use and greater storage capacity will enable among other activities; greater agricultural production and make zero hunger possible.
3. Ensuring that there is adoption of sustainable wastewater treatment and pollution technologies and solutions to protect life on land and in water.
4. A sustainable water supply that ensures there is continuous production of affordable, clean energy, industrial development, decent work, and economic growth, and the elimination of poverty.
5. Ensuring water is available to all is necessary to achieve equality based on gender and other factors, and to prevent conflict and preserve peace

The UN 2030 Agenda rightly places the private sector to drive sustainable development for the good of the people, the economy and the planet.

Private sector can make huge contributions and investments into developing innovative technologies and business models to tackle the sustainable development challenges while also increasing competitiveness, creating jobs and promoting sustainable, inclusive economic growth in the country.

There are endless opportunities for business to engage in responsible water stewardship. For the private sector, engaging in sustainable water stewardship is both vital to continuing business operations and integral to responsible business conduct. Every business depends on and impacts water resources.

## **2<sup>ND</sup>- INNOVATE 4 WATER (I4W) FORUM IN NAIROBI**

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As a sequel to the inaugural forum, that created an opportunity for participants to present their solutions to the challenges posed by access to water and sanitation facing both investors and entrepreneurs in the water and sanitation sector in Kenya. This forum brought together various stakeholders and provided a platform for them to:

- Gain an understanding of the policies, programmes, and interventions that the government has in place aimed at fostering positive action in sustainable water management;
- Showcase various innovations in the Eastern African Region market and the value they create within the water and sanitation sector;
- Facilitate an exchange between the sources and seekers of capital by offering organizations the opportunity to present, in time-limited segments, their mission, their value proposition, and other relevant information;
- Give presentations on the available sources of financing, and requirements;
- Showcase their areas of intervention, for those not directly involved in seeking capital and financing;
- Create partnerships geared towards sustainable water and sanitation management.

In all, there were 130+ participants; 50 challenges shared during 72 pitches/presentations; and 3 panel discussion sessions over the course of the forum.

## **THE INAUGURAL INNOVATE FOR WATER(I4W) - KISUMU FORUM**

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The proposed I4W Kisumu is a ‘home grown’ initiative that seeks to build on lessons learned from the I4WNairobi forum to provide a sustainable approach to addressing the need for innovation in the water and sanitation sector not only in Kenya but the region as well through private sector engagement.

Technology and innovation have been prescribed as the strategy to deliver this aspiration as an enabler to efficient water use, which thereby reduces the strain on the utility companies in the country. Use of sustainable technologies and solutions is also recommended as a very good approach into which communities, urban centres, and governments can deal with the issues related to sanitation this include, collection, transportation. There is also a need to develop and integrate innovative technologies which can address non-revenue water in small towns and peri urban centres. These include technical and commercial and water quality and adaptive management through real time data collection and management.

By nurturing ‘home grown’ solutions developed by local and regional innovators, the Innovate for water - Kisumu Forum seeks to provide a platform which showcases cutting edge innovations by private sector and seek to address challenges that hinder uptake of the same.

The INNOVATE FOR WATER - KISUMU Forum will have five key **OBJECTIVES**:

- ✓ Showcase the various innovations in the Eastern African Region market and the value they create within the water and sanitation sector.
- ✓ Facilitate an exchange between the sources and seekers of capital by inviting organizations the opportunity to present, in time-limited segments, their mission, their value proposition, and other relevant information
- ✓ Create awareness in companies and private operators, through a half-day workshop, on the most effective ways to articulate their corporate vision in a way that is standardized and easy for sources of finance to quickly assess through typical due diligence processes
- ✓ Inform the various of finance on the types of projects that are likely to be seeking finance and encourage the streamlining of their due diligence to enable seekers of finance to put their applications in front of a larger audience
- ✓ Demonstrate the role of the private sector in achieving water security providing a new thinking and new ways for stakeholders to work together toward water security, bringing many of them out of their comfort zones in the process.

## **EXPECTED OUTCOMES**

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- ✓ Facilitate connections for deal-making
- ✓ Give visibility to organizations (UN, NGO's, Corporations) presenting their needs and/or current projects (impact funds, coalitions, innovative public/private models, new financial vehicles) to potential service providers (social entrepreneurs, water and technology experts, etc.) partners and investors
- ✓ Form sustainable partnerships in adapting suitable innovations in combating threat posed by climate change in the water and sanitation sector
- ✓ Leverage the interest of entrepreneurs who innovate, including with disruptive technologies and social business models, thus contributing to SDG 6
- ✓ Promote climate smart WASH technologies including Water Recycling and Reuse

The day will be dynamic, with time allocated to facilitate connections between project owners, potential partners, and investors.

## **INTENDED AUDIENCE:**

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The event is relevant for:

- National and county government representatives from across sub-Saharan Africa
- Government policy makers active in the water and sanitation sector
- SMEs and multinational companies with interests in the water and sanitation sector
- Sources of finance, including development finance institutions, commercial banks, institutional investors, and impact investors
- Water institutions (foundations, coalitions, NGOs)
- International organizations, national and local governments
- Universities / incubators / research institutions

## **EVENT DETAILS**

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**When:** 06<sup>th</sup> and 7<sup>th</sup> February 2019 (optional day the 8<sup>th</sup>)

**Venue:** University of Nairobi Kisumu campus, Kenya

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## INNOVATIVE TECHNOLOGY IN THE WATER AND SANITATION INDUSTRY

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### Global Trends

Global water Utility Market was 415 billion euro in 2014, and it is growing 5–10% annually. Water technology was approximately 20–25% of it. Almost 90% of the turnover is created in Asia (1/3), North America (1/3) and Western Europe (1/3). There are approximately 500 stock listed companies globally.

In Finland whole water and sanitation sector had turnover of approximately 5 billion euro in 2014. About one-third 1.1 to 1.5 billion euro comes from water utility plants (both municipal and private) and two thirds from companies. Private water and sanitation sector have approximately 300 companies employing 6,000–10,000 persons. These numbers exclude public sector water utility companies with the Finnish water utility market value estimated at 1.2% of the global market.

It is estimated that the overall global water and sanitation treatment equipment market is valued at \$35 billion in 2014 and is expected to grow at a CAGR of 7.4% till 2020. The major trend driving the Water and sanitation treatment technologies market is rapid increase in populations both in developing countries as well as major urban centers. This market is expected to increase to about \$ 6 trillion by the year 2025. This means that opportunities are rife for innovative businesses.

With aging infrastructure, the demand for innovative technology for rehabilitation and management of the water and sanitation trunk infrastructure is growing faster than the market for the development of new networks, driving investments in trenchless technologies, pipe services, and smart systems.

For example, smart metering drives the need for adopting technology in water monitoring and controlling processes. The global smart water market is estimated to reach USD 22 billion by 2020. Smart water technologies are instrumental in controlling non-revenue-water(NWR) in cities, a perennial challenge facing the water and sanitation sector.

An emerging function requiring redress is the management of water and wastewater infrastructure, whose demand is approximately valued at USD 90 billion in 2014. It is expected that between 2010 and 2025, a total of USD 6 trillion will be invested in water and wastewater infrastructure. A key area of addressing provision of water and sanitation in the country, the market for rehabilitation is growing faster than the market for new networks due to ageing infrastructure. Wireless technologies, pipe services, and smart systems will be key drivers in investments.

## INNOVATIONS FOR URBAN SANITATION

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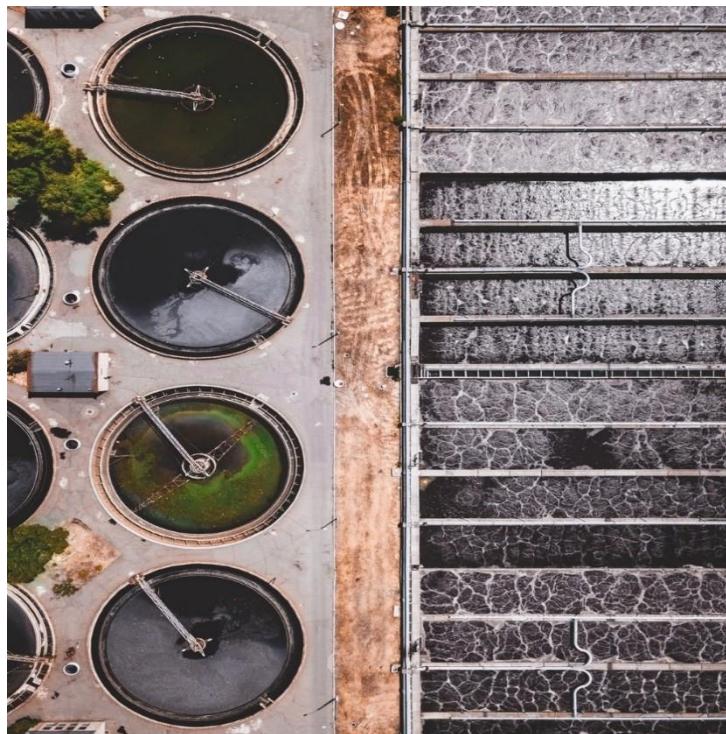
Over half of the world's population now live in urban centres, and a large proportion of them live without proper sanitation. Urban sanitation remains a significant challenge for most low- and middle-income countries. While access to sanitation in these countries has increased in relative terms, in absolute terms, the number of people using unimproved sanitation has increased.

Currently, most urban centres are having numerous challenges on the whole sanitation service chain from containment through to disposal. The challenge for urban sanitation under the SDGs is therefore not only to achieve universal access to toilets but also that all excreta is safely managed along the whole sanitation service chain.

The Kenya Environmental Sanitation and Hygiene Policy (KESHP) 2016–2030, launched in May 2016, provides the broad guidelines for both state and non-state actors to work towards ensuring universal access to sanitation by 2030. The policy aims to make Kenya open defecation free (ODF) by 2030; achieve and sustain 100% access to improved sanitation in rural and urban areas by 2030; and to increase public investment in sanitation and hygiene from 0.2% to at least 0.5% of GDP by 2020 and to 0.9% of GDP by 2030.

With respect to urban sanitation, the KESHP commits to increase access to improved urban sanitation facilities and to ensure effective waste disposal and management systems. This would be achieved by promoting low-cost technologies in peri-urban and slum areas. The policy explicitly refers to multiple technologies, ranging from low-cost onsite options to conventional sewerage. The policy emphasizes the need for sustainable systems for collection and safe disposal of solid waste from residential and commercial areas (including institutions and public places in urban areas); for resource recovery and recycling; and for the development of urban master-plans for treatment of municipal and industrial wastewater.

The policy also seeks to enhance private sector participation and ensure that market-based solutions are inclusive of the poor and marginalized. It encourages private sector



participation, while recognizing that special mechanisms may have to be put in place to extend services to the poorest. The policy mentions “market-compatible financing options including new types of cash transfer and social subsidies to enable households in the lower wealth quintiles to purchase through the market, while maintaining incentives for others who can afford to purchase on their own.” The policy, therefore, does not rule out subsidies but states that they should be aligned with market-based solutions.

## INDUSTRIAL WATER

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The fastest growing sector of the global water market, with issues related to tighter water quality standards, regulations on wastewater discharge, and pressure on scarce water resources needing innovative solutions. Energy efficient water treatment processes are in demand, as firms explore clean technology, as a competitive strategy. There is significant demand for water innovation for oil and gas, mining, and agricultural industries.

Companies across the world are realizing that incorporating sustainable solutions into their business plans is not only socially responsible but could also have financial benefits. Industries, such as Coca cola, are applying technologies related to recycling of water and wastewater treatment to treat the water and make it reusable or attain a safe standard for disposal. By addressing environmental and social issues companies can achieve better growth and cost savings; improve their brand and reputation; strengthen stakeholder relations and boost their bottomlines.

### Examples of Global innovations in the water industry include :

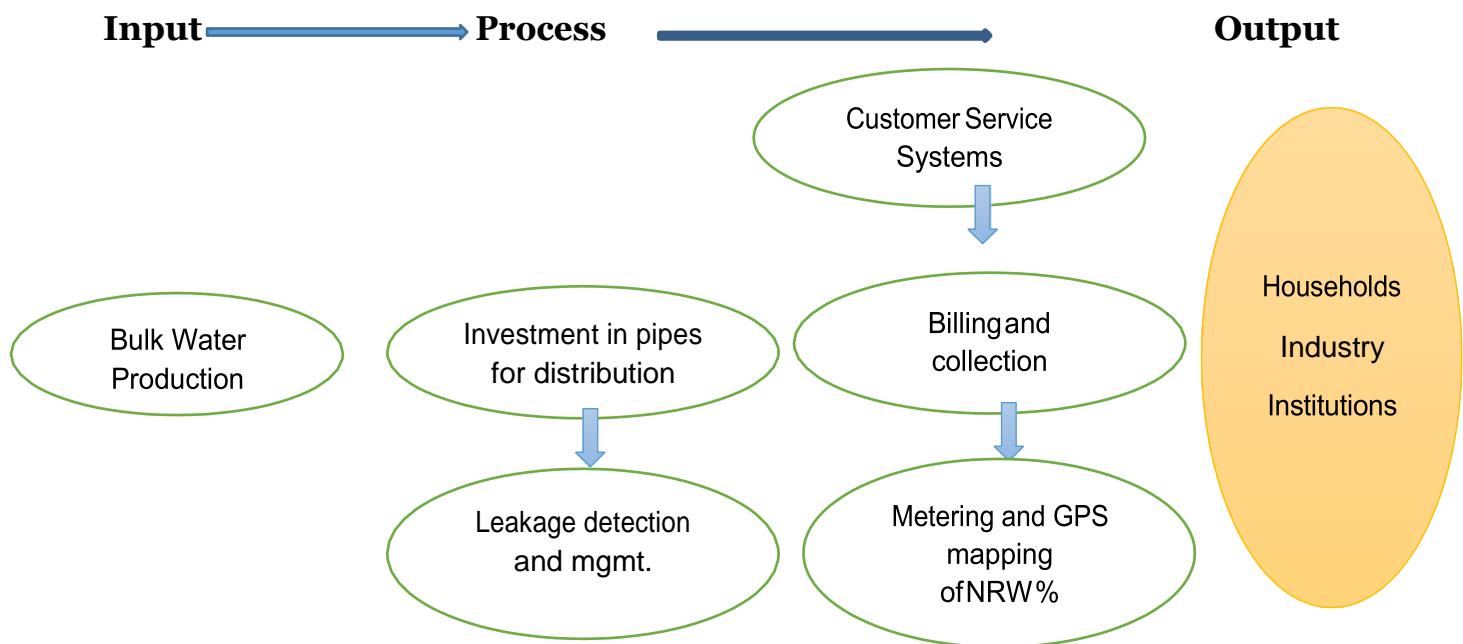
- **Agua Via** developed a nanotech membrane that enables desalination at a 66 percent energy reduction and 50 percent cost reduction, providing energy efficient purification and wastewater remediation.
- **BlackGold** Biofuels recovers energy from wastewater streams, creating lucrative renewable energy assets from pollution liabilities.
- **Transform Rootzone** provides a natural Bio-technology for treatment of sludge and wastewater. It involves manipulating and control nature to optimize treatment function. Transform have set up several projects for different industries, including oil-and petrochemical sector, mining, sewage, and sludge
- **FogBusters** treats petroleum, biofuel, and food processing wastewater “better, faster, cheaper, cleaner and greener” while capturing the FOG (fat, oil and grease) to make into biodiesel.
- **NLine Energy, Inc.** converts wasted energy found in water transmission and distribution systems into renewable energy.
- **Puralytics**, winner of this year’s CleanTech Open, uses photochemical processes work to break down or remove contaminants from water.

- **Water Resources Management Co.** helps water utilities realize the full benefits of their investments in advanced meter reading, system control and asset management.

These factors present the need for Kenya to embrace reliable and scalable tested technology, modern smart water solutions, information technology knowhow and innovative Products.

The adoption of clean technologies in water and sewerage treatment is in tandem with the global goal of reducing greenhouse emissions and provides long term sustainability in environment protection and reduction of costs. Adopting Innovative technologies in leak detection and immediate repair will enable Kenya meet the global industrial average for non-revenue water (NRW) of 20%.

### **Examples of Areas requiring Innovative Solutions and Financing**



### **Key priority areas for intervention :**

- Metering, customer identification and GIS database of all users
- Water and waste treatment by adopting clean technologies
- Technology related to engineering diagnostic analysis of existing infrastructure and design of system to meet needs of existing and new consumers for the next 5 years
- Financing water trunk infrastructure expansion and rehabilitation
- Environmentally friendly sewerage treatment systems.
- Increasing efficiencies through effective billing and revenue collection
- Leak detection and early repair

## SPONSORING OPTIONS

### Premier Sponsor: (Kes. 3,000,000)

- Distinguished word of thanks in opening the event
- High-level speaking opportunities for organization representative (15-20 min)
- Speaking opportunity at main plenary session along other high-level dignitaries
- Corporate branding with large logo on conference materials and main branding of conference as well as website and media ads
- Permission to install corporate branding at the main venue
- Extra-large Corporate profile of 1 page in conference booklet
- Guaranteed slot/interview in event-video
- Complementary exhibition booth
- Complementary participation of up to 15 guests

### Gold Sponsor: (Kes. 1,500,000/=)

- Word of thanks in opening a session
- High-level speaking opportunities for organization representative (5-10 min)
- Speaking opportunity as main speaker at a thematic session/ panel discussion/roundtable
- Corporate branding with small logo on conference materials and main branding of conference as well as website and media ads
- Permission to install corporate branding at main venue
- Large corporate profile of 1/2 page in conference booklet
- Guaranteed slot/interview in event-video
- Complementary exhibition booth
- Complementary participation of up to 8 guests

### Silver Sponsor: (Kes. 1,000,000/=)

- Speaking opportunity as speaker at a thematic session/ panel discussion/roundtable
- Corporate branding with small logo on conference materials and main branding of conference as well as website and media ads
- Permission to install corporate branding at main venue
- Specific corporate profile of 1/4 page in conference booklet
- Guaranteed slot/interview in event-video
- Complementary exhibition booth
- Complementary participation of up to 5 guests

## **CONFERENCE BAG INSERTS**

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Innovate 4 Water - Kisumu will have over 150 conference bags. Each participant will receive such a bag. This is a good opportunity to promote your organization, product or service. We offer the opportunity to include your promotional material in the **Innovate 4 Water - Kisumu** conference bags. You can add a single sheet flyer, a small booklet or a gadget.

## **EXHIBITION INFORMATION BOOTH**

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You also have the possibility to get exhibition booths.

The exhibition offer space for companies and young businesses to present themselves and their products, services, and innovations. Institutions, associations, investment agencies, universities, governments as well as programmes and initiatives, service providers can showcase their one-stop support-opportunities.

*Note: alternative agreements can be negotiated, and each sponsorship package can be customized.*

### **For More Information Contact**

Mariam Njoroge  
Mobile +254 (0) 723341220

Franck Barroso  
email [franck.barroso@waterpreneurs.net](mailto:franck.barroso@waterpreneurs.net)

## **ORGANIZING PARTNERS:**

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**Quercus Group** is a niche strategic and hands-on advisory firm specialized in sustainable development through project and partnerships development, strategic consulting and capacity building. Quercus Group works with clients and supports them in forming partnerships and developing business cases and collaborative platforms that help them realize their green growth and agribusiness potential. The company is one of the few consulting firms who not only provide analysis and advice but also act as partners in the practical implementation of projects and internationalization activities within cleantech, sustainable water solutions, agribusiness, and smart cities. Quercus Group has offices in Kenya, Denmark & India, and has worked with private companies, membership organizations, regional governments, public institutions, and knowledge institutions in more than 25 countries.

**Waterpreneurs** is a global “for-impact organisation”, supporting the scaling-up of impact investments financing the growth of WASH enterprises operating in developing countries, and respecting human rights. Waterpreneurs brings extensive knowledge of the water and sanitation entrepreneurial sector, impact investing and facilitation of marketplaces.

Waterpreneurs initiated the Innovate 4 Water series of marketplace forums, with a global plan to expand to more than 20 selected countries (over the next two years) that were identified as leading (or emerging) spots in the fields of water and sanitation, entrepreneurship and innovation, and impact finance. The roll-out of the series is currently being discussed with global partners, such as UNDP, USAID WASH-FIN, the African Development Bank, and the CEO Water Mandate. The inaugural forum took place in 2017, in Geneva (Switzerland), followed by similar events have been organised, in Nairobi, focusing on the eastern African context, in Zug (Switzerland) focusing on impact investing, and in Abuja (Nigeria) focusing on the Nigerian and western African context.

The success and impact of these marketplaces are characterised by a strong reinforcement of the local ecosystems around WASH entrepreneurship; new business partnerships between entrepreneurs, investors, utilities and enablers; the transfer of innovative water technologies and innovative business models; and cross sectorial collaboration. The design and delivery of the Innovate 4 Water series is unique and effective because the events are:

- action oriented: focused on concrete projects, deal opportunities and business discussions in the WASH sector with limited theory, lectures, or panel discussions
- highly curated: participants are organisations from different sectors and are carefully selected to bring value to one another. The quality of the event is ensured by briefing and mentoring pitchers and a short pitch format design, which helps participants to get a sense of who is doing what and identify potential collaborations or deals
- business-networking focused: long time slots are dedicated to investor-to-business networking, which is facilitated by the marketplace format design..

## PARTICIPATING ORGANIZATIONS (TENTATIVE)



**"Innovate 4 Water – Kisumu" Adopting innovative community-led approaches in WASH**

## TENTATIVE PROGRAMME

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	Day 1	Day 2	Day 3 - optional
Morning	Intro ceremony + Pitch by Enablers	Wrap up day 1 Pitch by Entrepreneurs	Field visit or Specific training for entrepreneurs
Lunch	Marketplace Networking lunch - Day1	Marketplace Networking lunch - Day2	Lunch
Afternoon	Pitch by Investors	Focused matchmaking + Wrap-up	Field visit or Specific training for entrepreneurs
Evening	Marketplace Networking cocktail - Day1	Marketplace Networking cocktail - Day2	