GET-TOGETHER
6 October, 14:00 BST

YWPs Intergenerational Stories:
Entrepreneurship in WASH
IWA YWP STEERING COMMITTEE

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YOUNG WATER PROFESSIONALS
Steering Committee (2022-2024)
EVENT INFORMATION

- This event will be recorded and made available “on-demand” on the IWA website, with presentation slides, and other information.
- The speakers are responsible for securing copyright permissions for any work that they will present of which they are not the legal copyright holder.
- The opinions, hypothesis, conclusions or recommendations contained in the presentations and other materials are the sole responsibility of the speaker(s) and do not necessarily reflect IWA opinion.
EVENT INFORMATION

- ‘Chat’ box: please use this for general requests and for interactive activities.
- ‘Q&A’ box: please use this to send questions to the panelists. (We will answer these during the discussions)

*Please Note:* Attendees’ microphones are muted. We cannot respond to ‘Raise Hand’.
MODERATOR & PANELISTS

Jacob Amengor  
IWA YWP Steering Committee, Ghana

Abigail Wilson  
Infintech, Ghana

Thiago Bressani  
CR ETES, Brazil

Akakino Odon  
The Skills Network, United Kingdom

Barry Liner  
Water Environment Federation, United States
AGENDA

- Welcome, introduction, housekeeping rules
  *Isabela Espindola & Jacob Amengor*

- Poll 1
  *Jacob Amengor*

- Ending overflow of Water Storage Tanks and Bridging Water Gender Gap
  *Abigail Wilson*

- UNLEASH: A global innovation network
  *Barry Liner*

- How to approach fundraising as a young WASH entrepreneur
  *Dr Akanimo Odon*

- The roadmap of the Reference Center on Sustainable Sewage Treatment Plants
  *Thiago Bressani*

- Poll 2
  *Jacob Amengor*

- General discussion
  *Jacob Amengor*

- Final remarks and conclusion
  *Isabela Espindola & Jacob Amengor*
Poll 1

MODERATOR: JACOB AMENGOR
Ending overflow of Water Storage Tanks and Bridging Water Gender Gap

ABIGAIL WILSON, INFITECH LAB LTD
WHAT WE HAVE DONE SO FAR IN GHANA

- Researched 100 homes
- Researched 1 university hall, 10 Senior High Schools and 1 Teacher training college.
- Researched 2 communities.

- Averagely 3500L of water lost monthly
- Larger communities lost about 45000L
- Frequent breakdown of water pump systems due to dry running
- Erratic supply of water.

- Undergone 4 different product iterations
- We have a market fit product
- Product Certification by The Ghana Standards Authority

- 25 homes using Aquaset
AQUASET INNOVATION: IMPACT ON ECONOMIC AND PRODUCTIVITY TRANSFORMATION

- Prevented aquifer dry-out
- Ensured constant water availability
- Water conservation consciousness
- Ensured sustainable withdrawal from the aquifer.
- Prevented 3,000,000+ litres of water from being lost since 2019 with only 25 units on the market.
- Prevented dry running of water pump systems saving our users an average of US$ 45.00 on pump repairs annually.
GENDER AND WATER GAP

Water Facts

- Nearly 90 per cent of homes in rural areas of sub-Saharan Africa have no access to piped water.
- Collecting water for daily use weighs more heavily on women and girls.
- Fewer than 50 countries have laws or policies that specifically mention women's participation in rural sanitation or water resources management. (UN-Water 2021)
- 1 million deaths each year are associated with unclean births. Infections account for 26% of neonatal deaths and 11% of maternal mortality. (WHO/UNICEF 2019)

Impact of water challenges on girls and women in Ghana

- Long journeys by foot, often more than once a day
- Can leave women and girls vulnerable to attacks such as sexual abuse
- Often precludes women and girls from school or earning an income.
- At Korle-Bu Teaching Hospital, lack of water access in some of the departments that performs labs on women and some women have struggled or complained about it affecting their health check ups and desire to pursue health care follow up and assistance.

Infitech Lab Aquaset Device solution

- We agree and believe WASH must be seen through a gender lens. Policies and action plans must respond to the needs of women and girls by involving them in the planning, decision-making and governance of services.
- This is why in designing our water management device we actively involved women and girls in the communities, high schools, and public spaces such as hospitals.

According to the UN-WATER:

“By failing women and girls, we risk the 2030 Agenda. Access to water and sanitation are human rights. Where females are unable to enjoy those rights, their health is profoundly affected, curtailing their educational and economic opportunities, and denying them their full role in society.”
INFITECH LAB BIGGEST CHALLENGES AS ENTREPRENEURS AND HOW WE ARE MANAGING IT

➢ Capital intensive for a small start up addressing these barriers

➢ Strategically Leveraging on collaborations and partnerships with WASH organizations and investors to help bridge the financial gap
WHY WATER SAVING AND IMPROVING ECONOMIC TRANSFORMATION AND PRODUCTIVITY IS IMPORTANT TO US

Objectives
1. To transform water management systems in Africa using technology;
2. Create and raise awareness on water barriers and its impact on economic transformation and gender disparities;
3. Constant water availability in water stressed and water scarce areas;

▪ Here at Infitech lab, we do believe Improvements to WASH at home, school, work and in public spaces support gender equity. Women and girls must play a central role in designing and implementing solutions, so that services respond to their specific needs.

▪ We believe Africa Water Vision 2025 is achievable with Aquaset using our technology, we can sustainably withdraw water from aquifers, prevent aquifer dry outs, prevent water loss and create awareness on water conservation.

▪ We want to create a legacy in Africa. Be part of Africa’s history as creator of solution that addressed a dire challenged faced by Africans.
UNLEASH: A global innovation network - Perspectives from a global partner

BARRY LINER, WATER ENVIRONMENT FEDERATION
GLOBAL COMMUNITY FOR THE GLOBAL GOALS

Some SDG 6 Related partners:

www.unleash.org
UNLEASH PROGRAMS

UNLEASH INNOVATION LAB
We convene a diverse group of 1,000 talents across geographical and socio-economic backgrounds, for a week-long innovation process in a new destination each year.

UNLEASH COMMUNITY
We unite a global community of youth, experts, facilitators and partners in one common platform, enabling peer support, growth opportunities and networking.

UNLEASH STORYTELLING
We enable talented creatives to develop communication strategies about global challenges and ways to drive action in fresh, compelling ways.

UNLEASH HACKS
We run local hacks to engage UNLEASH alumni, relevant stakeholders, and local communities in solving pressing challenges across the globe.

UNLEASH Plus
We accelerate the implementation of solutions to the SDGs through our program providing skills, networks, and resources, and enable them to plan for scaled impact. It includes tailored partnerships and funding opportunities.

UNLEASH CIRCLE
We catalyse financial investments through the UNLEASH Circle, a collective of funders, who regularly assess and fund the best solutions emerging from the platform.
UNLEASH INNOVATION METHODOLOGY

The five phases of the innovation process

- **Problem framing**
  Develop a well-defined problem statement based on user/customer wants and actionable insights.

- **Ideation & idea selection**
  Come up with a multitude of ideas that address your problem framing. Down select ideas and choose one to focus on.

- **Prototyping & sketching**
  Create a tangible prototype of your idea, so that a potential user/customer can experience your proposed solution.

- **Testing & refining**
  Get user/customer feedback on your prototype. Make changes to your solution. Evaluate if you need to go back to an earlier phase.

- **Implementing**
  Produce, disseminate, distribute, sell, or market your solution to actual users and customers.
Activity Cards

Problem Framing Cards

Ideation Cards

Prototyping Cards
TIMELINE

- **2017**: Denmark Lab
- **2018**: Singapore Lab
- **2019**: Shenzhen Lab and UNLEASH +
- **2020-2021**: Virtual Hacks and UNLEASH +
- **2022**: Greenland Lab, India Lab, Virtual UNLEASH + Hacks
UNLEASH PLUS GRADUATES

www.ainwater.com

✓ Biggest pork producer in Chile
✓ Veolia Chile, biggest industrial operator
✓ Concha y Toro is the biggest Winery in Chile

✓ www.iotank.io
✓ Also alumni of

www.iotank.io
Thank You!

Barry Liner, Ph.D., PE, BCEE
Chief Technical Officer
Water Environment Federation
bliner@wef.org

WWW.UNLEASH.ORG

inspiring change
How to approach fundraising as a young WASH entrepreneur

DR. AKAKIMO ODON, THE SKILLS NETWORK
The roadmap of the Reference Center on Sustainable Sewage Treatment Plants

THIAGO BRESSANI, CR ETES
FROM ACADEMIA TO ENTREPRENEURSHIP

BORN AS A START UP IN 2022
AFTER 4 YEARS OF INCUBATION
WITHIN THE UNIVERSITY

FROM 2017 TO 2022
CLOSING THE INTERGENERATIONAL GAP

PROFILE:

• YOUNG TEAM OF MASTERS AND PHDS
• MENTORING BY A SENIOR PROFESSIONAL
• CLOSING THE INTERGENERATIONAL GAP WITHIN THE TEAM ITSELF
DURING INCUBATION PERIOD

COMPILATION OF TECHNICAL NOTES - DAE JOURNAL AND ABES PARTNERSHIPS

ANAEROBIC REACTORS FOR SEWAGE TREATMENT: DESIGN, CONSTRUCTION, AND OPERATION - IWA PUBLISHING
DURING INCUBATION PERIOD

PRINCIPAL FUNCTIONALITIES
- Robustness
- Portable
- Efficient and reliable
- Interchangeable
- Computerized and simple
- Technical assistance national
- Rechargeable battery

PRINCIPAL FUNCTIONALITIES
- Equipment with exchangeable ashpan of the drum, totally hermetic, and deactivates and exchanges.
- Equipment with a storage module that permits the active or passive remotion of the drum.
- Equipment with exchangeable drums, of foolproof design that prevent the accidental opening of the drum.
- Equipment with a blue and a red light 20 m high.

BAIXO CUSTO
ROBUSTO
PORTÁTIL
EFICIENTE E CONFIÁVEL
INTERFACE AMIGÁVEL
PROGRAMAÇÃO RÁPIDA E SIMPLES
ASSISTÊNCIA TÉCNICA NACIONAL
BATERIA RECARGÁVEL

PECAS PRÉ-FABRICADAS COM INTEGRACAO MACHONIZADA
VITRIZAÇÃO/MATERIAIS ABLATIVOS, MEMBRAÇAS E CONDUÇÕES
LEVANTAM E SARCOS DE TRANSPORTE E INSTALAÇÃO
ESTRUTURA DE UMA AÇO E REDUÇÃO SIMPLIFICADA DA ESCURA

BAIXO CUSTO
ROBUSTO
PORTÁTIL
EFICIENTE E CONFIÁVEL
INTERFACE AMIGÁVEL

A depreciação da manutenção de benze em reservorios (USAE) é fundamental para a sustentabilidade do meio ambiente. A fabricação de combustíveis e, consequentemente, da própria diretriz, tem sido um dos destinos mais frequentes. Fábrica via parceria em sistemas de etanol e biogás para determinação (em tempo real) da concentração de gases em reservorios (USAE) foi considerada como a principal base e para atender as principais demandas dos operadores de ETSU.

PRINCIPAL FUNCTIONALITIES
- Robust equipment and an interface digital, which permits to monitor and control the different parameters of the engine at the same time.
- Interfaces allow the operator to control the engine using an app (compatible with iPhone and Android), as well as the interface local (PC, notebook and computador perssoal).
- It is not necessary to have a power grid, and it is ideal for remote areas where there is no electricity.
- It is ideal for the operation of mini-organisms and small organisms, which can be considered a solution for small areas with limited infrastructure.

Inspiring change
SOFTWARE FOR ESTIMATING BIOGAS PRODUCTION AND ENERGY IN ANAEROBIC PLANTS

CARBON AND ENERGY BALANCE TOOL IN ANAEROBIC PLANTS
DURING INCUBATION PERIOD

RESOLUTION N°498/2020 (CONAMA)
CRITERIA AND PROCEDURES FOR PRODUCTION AND APPLICATION OF BIOSOLIDS IN SOILS

NORMATIVE DELIBERATION N° 65/2020 (CERH-MG)
GUIDELINES FOR THE DIRECT REUSE OF NON-POTABLE WATER FROM TREATMENT PLANTS
OUR ‘TROPICAL’ VISION
TAKE HOME MESSAGES

• BUILD INTERGENERATIONAL TRUST

• KNOW YOUR LOCAL NEEDS (ESPECIALLY FOR DEVELOPING COUNTRIES)

• DEMONSTRATION IS KEY (‘INCUBATION’) 

• CROSS-COLLABORATION AND BUILDING BRIDGES
THANK YOU!

THIAGO.BRESSANI@CRETES.COM.BR
Poll 2

MODERATOR: JACOB AMENGOR
JOIN OUR NETWORK OF WATER PROFESSIONALS!

IWA brings professionals from across disciplines together to accelerate the science, innovation and practice that can make a difference in addressing water challenges.

Use IWAYWP22 for **20% discount off** new membership.

Join our network today: www.iwa-connect.org
Transforming the water and sanitation workforce: Diversity and Inclusion practices

Register at: http://www.iwa-network.org/iwa-learn/
IWA Digital Water Summit

BILBAO SPAIN

29 Nov - 02 Dec 2022

The Latest in Digital Developments

www.digitalwatersummit.org
YWPS OPPORTUNITIES

Intergenerational Dialogue And Capacity Development Workshop For Young Water Professionals (YWPS) And Entrepreneurs (YWES) (Africa 1.0)

Register now!
SCAN THE QR CODE
Global Freshwater Challenge

About the Challenge

Open for submissions until 8 November 2022 23:59 CEST.

To drive the freshwater conservation and management agenda, leading global conglomerate HCL has partnered with UpLink to accelerate the innovation agenda for water. This five-year Aquapreneur Innovation Initiative seeks solutions that conserve and restore freshwater ecosystems which make them healthier and more resilient.

Up to 10 Top Innovators will each be eligible to receive 175k CHF and access the World Economic Forum’s programming and public/private sector network.

Focus Areas
1. **Ecosystem Resilience**: strengthen resilience to climate and weather-related shocks.
2. **Water Quality Restoration**: monitor, treat, restore or protect water quality.
3. **Improved Decision-Making**: fill knowledge gaps and accelerate data collection for improved decision-making

Criteria
- **Stage**: Impact oriented pilot, growth, or scale-up phase start up companies
- **Business Model**: For-profit with sustainable and/or hybrid funding
- **Scale**: Demonstrated potential to scale

For more information, contact Anna Huber (anna.huber@weforum.org).
Learn more at
http://www.iwa-network.org/iwa-learn/