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Event Briefing:

Accelerating Water, Sanitation and Hygiene Innovations to Scale Impact

A UNICEF Sustainable WASH Innovation Hub event gathered global experts to galvanize game-changing impact for children through water and sanitation innovation

18 — 19 MARCH 2025

Forward

“If you want to walk fast, walk alone. If you want to walk far, walk together.”

This is one of my favourite proverbs, and perfectly encapsulates the vision of the UNICEF Sustainable WASH Innovation Hub’s flagship event, ‘Accelerating Water, Sanitation and Hygiene Innovations to Scale Impact’ held at UN City, Copenhagen, in March 2025.

From ready-to-use therapeutic food to long-life insecticide-treated bed nets, the world has shown that it knows how to scale innovation. But those global solutions needed huge demand, global resources and took time. To scale rapidly – as we did, for example, with COVID-19 vaccines – still greater drive is needed. A global water and sanitation crisis, climate change and international funding constraints mean we need to cultivate that same monumental energy now, a process that starts with the powerful partnerships, connections and common language created between WASH innovators and experts across private, public and development sectors.

The wide-ranging conversations between technical, financial and business experts were exciting to hear and be a part of, because collaboration is essential to accelerate the scaling of innovation. Key themes included the promise of innovative finance, artificial intelligence, nature-based solutions and small and medium enterprises.

Discussions showed a real desire to be more effective, more efficient and smarter at scaling innovation. This means increased public, private and development sector collaboration; more capacity building, better tools and clearer guidance; a focus on sustainable financing mechanisms; and the creation of an enabling environment which embeds innovation into everything we do in the WASH sector.

The event was a perfect platform for the UNICEF Sustainable WASH Innovation Hub and the wider sector to articulate a clear vision for how rapid scaling can work and prove it through exciting innovative approaches with huge potential to change children’s lives.

I offer a heartfelt thank you to everyone who attended and contributed energy, questions and ideas, both in person and online; to the volunteers who gave up their time to enable the event; to the UNICEF WASH network and Office of Innovation; to the UNICEF Sustainable WASH Innovation Hub team, who have worked tirelessly over the past few months to bring this to fruition; and to the Government of Denmark for their steadfast support.

David Duncan,

Senior Adviser, Innovation,
UNICEF Sustainable WASH Innovation Hub



FIVE KEY EVENT LEARNINGS

To support the accelerated scale of WASH innovations, event delegates focused on a need for:

- More capacity building, tools and resources around WASH innovation
- Collaboration on WASH innovation across the private, public and development sectors
- The leveraging of innovative and sustainable finance as a major catalyst for WASH innovation
- A conducive environment for WASH small and medium enterprises (SMEs)
- The embedding of innovation in systems, policy, regulation and institutions

Overview

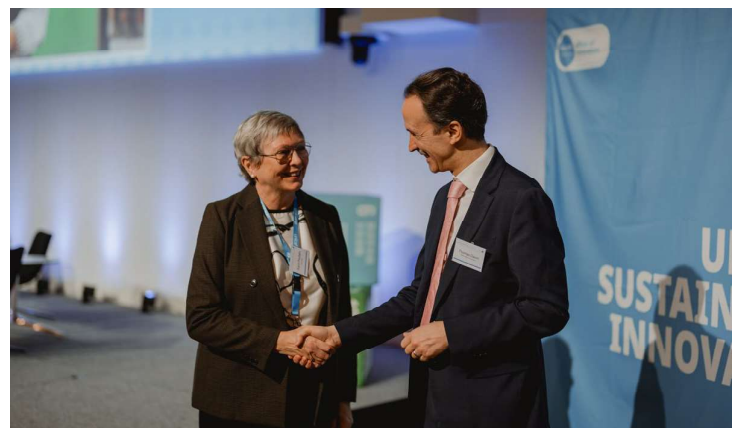
A global community of innovators and experts convened 18-19 March 2025 for an international summit focused on harnessing the power of innovation to catalyse access to water and sanitation for children and their families.

The event, hosted by the UNICEF Sustainable WASH Innovation Hub and supported by the Government of Denmark, brought together over 300 delegates including government, business, public sector, non-governmental organizations, multilateral institutions and youth leaders to discuss some of the key challenges and opportunities faced by accelerated scaling of WASH innovation.

“Through our partnership with UNICEF, we are investing in innovative approaches that build resilience and ensure long-term access to clean water and sanitation. This event showcases the potential of these solutions to transform lives and create a more sustainable future for children around the world.”

Karin Poulsen,

Director of Green Diplomacy and Climate at the Danish Ministry of Foreign Affairs



Karin Poulsen, Director, Green Diplomacy and Climate, Ministry of Foreign Affairs Denmark with Thomas Davin, Director, UNICEF Office of Innovation.



From left to right: Larry Madowo, CNN International Correspondent and host, Mads Helleberg Dorff - Director, DI Vand, Isha Basyal, Deputy Chief Operating Officer for Global Water and Sanitation Center at AIT, Thailand, Tommy Ka Kit Ngai – Head of WASH, WaterAid, UK and Yasmin Farah S. Abdulkadir, Youth Advocate, Ministry of Environment and Climate, Somalia.

KEY THEMES

High on the agenda were discussions on innovative financing, artificial intelligence, nature-based solutions and the enabling of powerful private, public and development partnerships – with an emphasis on supporting SMEs – all powerful catalysts for scaling WASH innovation.

Key themes emerging from an energized delegation of business, finance, development, youth and academic leaders included the need to ramp up sustainable blended financing, meaningful youth engagement and opportunities for increased connection, collaboration and learning across the sector.

The event, which comprised rich panel discussions and interactive sessions, could not have come at a more crucial time.

Today, one in four people lack access to safely managed drinking water and nearly half of the world's population lacks access to safely managed hygiene and sanitation.

With only five years remaining to achieve the Sustainable Development Goals (SDGs), meeting the targets of clean water and sanitation for all will be impossible without a focus on innovation. Amid conflict, climate change and international aid funding cuts, participants discussed how to effectively embed, expand or deepen WASH innovations successfully.

ACCELERATING THE SCALE OF WASH INNOVATION

Opportunities identified for the accelerated scaling of WASH innovation can be described in five main categories:

- **Multi-stakeholder collaboration:** WASH innovators can be siloed geographically, sectorally and organizationally leading to reduced collaboration. Replicating an innovation in new contexts requires mobilizing innovators across the private, public and development sectors with mechanisms for coordination, collaboration and a shared language.
- **Capacity and knowledge sharing:** innovators may not have all the necessary skills or know-how required to harness innovation and find routes to scale. More capacity building, tools and resources need to be developed for shared learning around WASH innovation, with an emphasis on meaningfully engaging young people on solutions.
- **Bridging investment gaps:** investors struggle to find a pipeline of projects to invest in and WASH innovators struggle to raise funds. Innovative and sustainable finance, including leveraging official development

assistance (ODA) is a major catalyst for mobilizing resources, including private capital.

- **SME market access:** SMEs struggle to be profitable, build supply chains and ensure innovative products and services reach customers. To unlock their potential, WASH SMEs need a conducive ecosystem including access to finance, favourable policy and regulation, and capacity building.
- **Systems change:** policy, regulation and government commitment can promote innovation. WASH innovation is not only about the adoption of new technology, but the creation of an enabling environment including embedding innovation in systems, policy, regulation and institutions.

KEY OUTCOMES

Participants valued the unique opportunity to share learnings, adapt lessons to their specific contexts and build new professional relationships. Key outcomes of the event included:

- **Enhanced knowledge exchange:** increased sharing of technical expertise and practical experience across countries and regions.
- **Strengthened networking:** improved networking across the private, public and development sectors to mobilize potential resources and technical support.
- **Fostered partnerships:** strengthened potential for multi-sectoral collaborations to drive scalable, innovative and inclusive solutions.
- **Cross-sectoral understanding:** broadened understanding among delegates from humanitarian and development sectors through discussions of diverse viewpoints, enabling cross-fertilization of ideas.

Recordings of the event can be found on the [UNICEF Innovation website](#).



“A great event to attend. Big enough to cover lots of topics and contexts, but small enough to be manageable and allow a real sense of community in stimulating innovation. Well done, and a big thanks to Denmark for global leadership and its commitment to innovation.”

John Butterworth,

Director, Global Programme, IRC WASH

WAYS FORWARD

Participants seized the opportunity to collaborate, learn and forge new connections to accelerate the scaling of WASH innovations. The event underscored a significant gap: the need for large global organizations to take the lead in coordinating collective efforts to define clear pathways to scale. There was a strong, shared recognition of this need as crucial for accelerating the pace of change. While the event was a valuable step, it is understood that this is a long-term process. To address the identified gaps and barriers, UNICEF is actively working with various stakeholders to:

- develop a white paper outlining ways forward for accelerating the scale of WASH innovations.
- create tools for cross-sectoral knowledge sharing and capacity building to strengthen the evidence base for guiding action on scaling innovation.

Event highlights

Thomas Davin, Global Director, UNICEF Office of Innovation, opened the event by spotlighting the role of innovation in catalyzing impact for children in an era of climate change, conflict and humanitarian cuts.

“Innovation holds the key to realizing the UN’s Sustainable Development Goals of clean water and sanitation for all,” he said. “Yet no single organization can accelerate innovation at the scale needed. The collective energy of this event is vital in rapidly transforming access to clean water and sanitation for some of the world’s most vulnerable children.”

The event’s keynote speaker, Karin Poulsen, Director of Green Diplomacy and Climate at the Danish Ministry of Foreign Affairs, highlighted the need for bold action, innovation, long term financing and strong partnerships in the face of an intensifying water crisis.

PANEL DISCUSSIONS

Two panels of global thought leaders and innovators, moderated by CNN Journalist Larry Madowo, identified challenges and the pathways to accelerate the scaling of innovative WASH solutions.

On the first morning four sector specialists provided unique insights into the specifics of the challenges outlined in *‘Scaling WASH innovation and driving meaningful change’*.

Mads Helleberg Dorff, Head of DI Vand called for more collaboration between the business and public sector. “We need a common language. UNICEF plays an important role in bringing partners together.” He pointed out that by working together, the public and private sectors have a critical role to play in accelerating innovation through investments in new and innovative technologies, business cases, financial instruments, and best practices. Most importantly, “Money talks” he said. “Water is a fundamental human right. How do we make sure it is priced accordingly?”

Isha Basyal, AIT’s Deputy Chief Operating Officer for the Global Water and Sanitation Center used examples from South Asia to show that scaling innovative sanitation service delivery models does not solely depend on using the right technology. Aspects like finance, the political economy, government policies and customer behaviours (such as paying for services) must also be addressed to ensure scaled interventions deliver sustainable results. “Governments are important, but governments change. We need institutions to be capacitated in WASH” she said. “There are significant improvements in WASH over the past few decades. There’s a lot of hope. We all have a responsibility to make this world a more equitable place - and to make that happen faster, we need innovation.”

Yasmin Farah S. Abdulkadir, a youth advocate within the Ministry of Environment and Climate, Somalia positioned youth engagement on innovation not only as a moral necessity, but also as a major opportunity. “Young people make up 70% of the population in Somalia. They aren’t just statistics. They are future leaders of tomorrow.” To make an

impact, she pointed out that young people need mentorship, funding, guidance and education in order to co-create, particularly in insecure, climate-affected and conflict zones. “Young people have the ideas, what they need is an enabling environment for scaling WASH innovations.”

Tommy Ka Kit Ngai, Head of WASH at WaterAid UK gave an example where WaterAid partnered with Nepal’s Ministry of Health on a childhood immunization programme, innovatively combining hygiene promotion with immunizations to boost both handwashing and vaccination rates. The design of the pilot actively considered scalability in the initial design. He described how the role of the WASH professionals then becomes less about being a fixer of problems and more about being a co-facilitator to support the designing, testing and scaling of solutions. “WaterAid understands that innovations are essential... to do good hygiene programme... Uncoordinated work... is a barrier to scaling up of hygiene innovation.”



Panelists illustrated that taking innovation to scale is hard: constraints include the complexity and quickly changing nature of the WASH system, risk appetite of those providing the funds, the reality of messy, political economic and social operating contexts, siloed working, or fear of criticism for unsuccessful attempts.

On the second morning four more panelists tackled the theme, *‘WASH Innovation – visions for the future, goals and pathways to achieve them.’*

Francis de los Reyes III, Professor of Civil, Construction, and Environmental Engineering, North Carolina State

University, noted that WASH systems are deeply political, socio-cultural, and context specific which is why transfer of innovation from one place to another is not straightforward. He called for adopting a systems approach to scaling innovation, acknowledging WASH’s links to other systems, including solid waste and food production. “In sanitation, context matters... so that one technical solution in one context won’t be transferable to another,” he said. “It’s a chicken and egg – you have to show there is a way to do it and then regulation to drive innovation... and show that a whole range of solutions are possible.

Victor Ochen, Executive Director of the African Youth Initiative Network described how young people, with their energy and drive, are great innovators. In his comments, he sought to centre youth voices, participation, and agency to drive WASH solutions as well improve the livelihoods and resilience of the young people, especially within conflict and post-conflict settings. “We need to talk about sanitation from a livelihoods point of view. You can’t talk about sanitation with hungry tummies.”

Dr. Wotabe Kokou Marin, Secretary General, Ministry of Health, Togo described how a revolving sanitation fund is supporting Togo’s drive for ending open defecation by 2030 and highlighted how this type of innovation must be embedded in government systems for it to be implemented sustainably at scale. “In Togo we have political will at the highest level to increase access to sanitation... we seek to scale up this innovation to all 117 municipalities in the country... and thank UNICEF for the support to implement the sanitation fund.”



Tina Kollerup Hansen, Senior Vice President of Danish Sustainable Infrastructure Finance (DSIF – part of Investment Fund for Development, IFU), described ways to push forward innovation in public infrastructure projects by empowering domestic or regional financial institutions to appraise and finance commercially proven solutions. “Development aid should be a two-way street.

Transactional development should benefit both the funder and the recipient.”

Panellists reached a consensus on the need for context-specific and locally- (including youth)-led visions for the future, goals and pathways. Accelerators for scaling of new technologies, products and services include multi-stakeholder collaboration, capacity-building and knowledge sharing, bridging investment gaps, government and policy support, SME market access. Other cross cutting approaches include systems thinking, climate resilience and inclusion, particularly in conflict settings.

BREAKOUT SESSION HIGHLIGHTS

The event featured a series of cross-sectoral breakout sessions facilitated by UNICEF and external partners designed to foster collaborative discussions on accelerating the scale of innovative WASH solutions. These are the key insights and outcomes from each session.



INNOVATIVE APPROACHES TO BLENDED FINANCE IN WASH

Facilitator: Juan Luis Coderque Galligo, International Committee of the Red Cross, Humanitarian Innovative Finance Hub (HIFHUB)

Key insights Today, humanitarian crises have become more frequent, prolonged and complex with an impact at a larger scale than ever before. Traditional funding mechanisms (grants, loans, and equity) are no longer fit for purpose. Unrestricted, long-term funding is needed if agencies are to move beyond the emergency response and transition towards development programming, and work to prevent future crises. Blended finance has emerged as an important tool to reduce project risks and increase private sector financing, including in humanitarian settings where investors risk appetite limits their willingness to invest without some buffer from additional grant financing. A range of case studies were presented that blend and sequence humanitarian grants and capacity with public and private resources to amplify humanitarian impact and creates new WASH markets for local, regional and international operators.

Key outcomes These case studies helped demonstrate the business case to support the increased volumes of finance towards humanitarian WASH sector, leading to solutions being replicated and scaled up. Key elements of successful blended finance were identified as convening, technical assistance, enabling and implementing. Innovative finance is a collaborative space, but it also requires a collective ambition in terms of strong partnerships, shared language, comprehensive risk management, and well-defined roles for all involved parties. Innovations must be supported after initial benefits demonstrated: financial support to bridge ‘missing middle’ investment between pilot, transitioning for scale and longer-term investment.

“Innovative finance is not about the innovation in the mechanisms of the models. The innovation is in the contexts, in the partners, in the outcomes and integrating all of that through partnerships across sectors... And my point here is this is that this requires a significant cultural change for many actors.”

Juan Luis Coderque Galligo

BLENDED FINANCE APPROACHES: ACCELERATING IMPLEMENTATION, REPLICATION AND SCALE

Facilitator: Alexander Rostami, UNICEF Sustainable WASH Innovation Hub

Key insights Participants discussed how scaling and investment pipelines can be improved for scaling successful pilots and supporting investable projects with blended funding and risk protection to help safeguard investments. It is not the product or a solution which is innovative but the approach. Case studies highlighted different types of solution, partnering across sectors, aligning different types of funding and financing. The example of revolving sanitation funds in Togo illustrated how the buy-in of government is critical to success to ensure greater collaboration and synergy with other local innovation stakeholders. Successful projects help boost investor confidence and improves readiness for further investment.

Key outcomes Developing blended finance solutions can bridge investment gaps by leveraging a mix of capital sources and addressing shortfalls. The time required for innovative finance must be reduced for instance by reducing

legal hurdles. Global resources, tools, and frameworks will help develop robust financial models and projects ready for investment. Cross-sector partnerships can boost operations and facilitate knowledge transfer, emphasizing sustainability and long-term infrastructure service.

“You don’t take pilots to scale. You do pilots to learn. You need to be able to make mistakes in pilots. Because once you take things to scale - you need to mitigate against risks.”

Alexander Rostami

AI FOR CLIMATE-RESILIENT WASH: FROM HYPE TO IMPACT- PRACTICAL APPLICATIONS FOR SCALE.

Facilitators: Olivier Mills, Baobab Tech / WASH AI & Katherine Hoffman Pham, UNICEF Office of Innovation

Key insights AI may have untapped potential to create catalytic opportunities in WASH. Straightforward AI uses are already emerging, with WASH experts using AI to improve workflows or for grant writing or brainstorming research as well as customizing AI technology development across different implementation environments. Increasingly, AI offers potential to support decision-making processes and improve WASH services’ climate resilience. The session focused on the challenge of applying AI in the WASH context, the challenge of rapid prototyping, iteration proof of concepts as well as the potential for scaling the use of AI solutions that are very specific to WASH.

Key outcomes Training can boost WASH staff understanding, especially regarding scaling and implementation as well as catalysing financing to take the most promising innovations to scale. Effectively managing risks in data governance, public trust, and ethics is crucial for harnessing AI’s potential and overcoming individual and institutional resistance. Activities must have a strong focus on responsible AI and on gender and inclusion. Offline and open-source tools are needed to increase wider accessibility.

“We’re... democratizing access to WASH knowledge through different chat bots, online web and WhatsApp tools.”

Oliver Mills

“We can use AI for targeting scarce resources more efficiently... in the Zaatari refugee camp in Jordan - you could build a predictive model to anticipate when a wastewater tank would need to be emptied and then route trucks efficiently... it’s just a really exciting time because there’s such a proliferation of experimentation... we need to set aside the time and space to learn from that and build better products.”

Katherine Hoffman

TRANSFORMING WASH SMES: UNLOCKING PRIVATE SECTOR POTENTIAL FOR THE LAST MILE.

Facilitator: Tim Foster, Institute for Sustainable Futures, UTS

Key insights The comparative advantages of SMEs can be leveraged to bring innovation to the last mile. This session covered harnessing the reach of SMEs to provide solutions that fit the local context. Improving last-mile service delivery can help customers access innovations from SMEs in addition to pricing options that better meet the needs of customers. A conducive ecosystem for SMEs includes clear mandates, policy and regulation, finance, strategic partnerships, skills and capacity as well as a collaborative approach with government and other stakeholders is needed to achieve long term impacts

Key outcomes Building innovation capability in SMEs will help support local economies and help businesses to benefit. SMEs need the capability to grow and scale their businesses more effectively, including as part of partnerships with government and the supply chains of larger and more established players. The needs of SMEs will vary from place to place, and over time. Support must be tailored to build capacity and skills, including government support (taxes, policies, subsidies, legal and regulatory impact on SME growth), appropriate funding (grant, loans and equity) as well as technical support (e.g. in market segmentation, business sales & delivery channels, service standards, streamline licensing processes and tariff setting and targeted training) and service quality improvement via professionalization.

“What we need are the enabling environments that allow businesses to grow. We need to facilitate those that allow a range of SMEs not only to survive, but to thrive and to grow.”

Esther Shaylor,

Innovation Manager, UNICEF Sustainable WASH Innovation Hub

INNOVATIVE PRODUCTS TO SCALE

Facilitator: Fiorella Polo, UNICEF Product Innovation Centre - Supply Division

Key insights Innovation fails to scale in low-resource environments for various reasons including lack of demand driven approaches, weak supply chains, and funding timelines. Barriers to scaling innovation can be interrelated and complex. Important factors for enabling the commercial scaling of new products and technologies include developing demand-based products and technologies that address real world needs with business models and last-mile supply chains for getting products to a clearly defined target customer.

Key outcomes Sustainable funding is required beyond pilot phases to enable innovators to create products that can pass through the “valley of death” to the next stage of the pathway to scale. The roles of the buyer, the decision maker and the user need to be clear. Scale requires compromise, failing fast and prioritizing the scalable solutions. The innovation must be viewed within a service and ecosystem. Flexibility allows for quick adaptation and iteration based on user and buyer feedback. Building and linking networks of entrepreneurs, the private sector and academics is key to ensuring the innovation ecosystem functions.

“We look at solutions first instead of starting with the needs... there’s a lot of products out there, a lot of solutions but... there is a huge underestimation of what the resources that are needed to actually go to scale.”

Fiorella Polo

NATURE-BASED SOLUTIONS (NbS): WHAT’S NEEDED FOR SCALE

Facilitator: Alejandro Jiménez, Stockholm International Water Institute (SIWI), Swedish Environmental Research Institute (IVL)

Key insights NbS has been applied increase water security and safely managed sanitation whilst also supporting interrelated challenges of climate change, biodiversity and poverty reduction. This session featured global research and experiences illustrated by case studies from South Africa, India and Syria. The case studies emphasize the importance of bringing together multiple actor groups (with various values and priorities) and focusing on interconnected systems (WASH, food and urban systems) for multiple benefits across society. Progress in scaling of NbS is hindered by a lack of funding, resource rights issues, regulatory bias, unclear roles and fragmented institutions.

Key outcomes Faster NbS scaling can be achieved by showcasing its uses to promote greater uptake, and, especially its connection to innovative investment, local livelihoods and engaging local communities. Capacities also needed for scale to co-design and implement NbS in ways that are locally-led and consider diverse needs across time. Global knowledge exchange platforms can help adapt NbS applications to WASH in various contexts and enhance tracking of their benefits. The evidence base is building on what works for local people in local contexts to promote the increasing uptake of natural solutions.

“Nature based solutions are quite trendy... but we are not walking the talk really at the scale and at the pace... needed... governments are saying they want to implement nature-based solutions, but the regulatory instruments... are not following.”

Alejandro Jiménez

SCALING EXISTING SOLUTIONS: IDENTIFYING AND OVERCOMING BARRIERS. SYSTEMS THINKING TO BRING INNOVATIONS TO SCALE.

Facilitators: Betelhem Gebeyehu Hailegiorgis, John Butterworth, International Water and Sanitation Centre (IRC-WASH) organized by One for All Alliance.

Key insights Case studies for this session included the Indian “Drink from TAP” mission in Odisha state with a government-led initiative to provide 24x7 safe drinking water to urban households and the professionalization and solarisation of Malawi’s rural water supply. Both countries are adopting new technology and service delivery approaches alongside system level change in political support, administrative will, management models and community engagement. Each example identified the critical barriers in innovation and then catalyse action to drive technological, political, economic and social change.

Key outcomes Scaling innovation requires professionalising service delivery for instance by building skills and knowledge through partnerships and training as well as technological improvements and data analysis to enhance tariff systems and efficiency. At the WASH system level, innovation includes political commitment, strengthening policy frameworks and regulations and boosting community engagement. Taking a whole system approach and connecting across initiatives and sectors is especially important to address critical barriers beyond the WASH system.

A note of thanks

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“We’ve seen a change in the way citizens demand services... they’re not really satisfied with the limited water services they’re getting... this change brings us to why we are talking about innovation and scaling.”

Betelhem Gebeyehu Hailegiorgis



CONTACT US

The UNICEF Sustainable WASH Innovation Hub is a global home for accelerating the scaling of transformative and climate resilient WASH solutions for children and their families. It is working to ignite a WASH revolution – but scaling these innovations requires collaboration. We invite partners, investors, and innovators to join us in driving transformative change for children worldwide. Want to learn more?

Get in touch: washinnovation@unicef.org.