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**Electronic version**

URL: <http://journals.openedition.org/factsreports/6451>

ISSN: 1867-8521

Publisher

Institut Veolia

Printed version

Date of publication: 23 December 2020

Number of pages: 104-107

ISSN: 1867-139X

Electronic reference

Erin McCusker, "Why accelerating partnerships in the Sanitation Economy really matters", *Field Actions Science Reports* [Online], Special Issue 22 | 2020, Online since 23 December 2020, connection on 07 February 2021. URL: <http://journals.openedition.org/factsreports/6451>

WHY ACCELERATING PARTNERSHIPS IN THE SANITATION ECONOMY REALLY MATTERS

Erin McCusker

Chairwoman of the Toilet Board Coalition and Global head of SATO (Lixil)



Global Sanitation Economy Summit, 2019 - ©Toilet Board Coalition

Chairwoman of the Toilet Board Coalition, Erin McCusker serves as the Head of SATO, a part of Lixil, which aims at providing innovative and affordable solutions to the over 2 billion people across the world without access to basic sanitation. Previously, she worked as a strategy consultant and senior project leader in top-tier consulting firms and international foundations – notably the Bill and Melinda Gates Foundation – with a range of in-depth experience across global health and development topics. She holds an MBA and BS in bioengineering.

Initiated in 2014, the Toilet Board Coalition (TBC) has the ambition to address the global sanitation crisis by accelerating the Sanitation Economy – a market valued up to \$12 trillion a year. Business-led, the Toilet Board Coalition believes in market-based solutions, commercially and financially sustainable, to provide universal access to sanitation (SDG No. 6) and reach low-income consumers in emerging markets. To this end, the Coalition brings together large corporations, international development agencies, international organizations, entrepreneurs and NGOs. Through its 12-month accelerator program, the Coalition creates partnerships between sanipreneurs and big corporations to address the numerous barriers preventing innovations to scale. As “Every business’s business”, the Sanitation Economy could unlock promising and profitable opportunities in all sectors, including agriculture and preventive health, even more so in the aftermath of the global COVID-19 pandemic.

The Toilet Board Coalition defines itself as a “business-led public-private coalition for sanitation”. What is the ambition behind this alliance of multiple stakeholders?

Erin McCusker: Initiated in 2014 by Unilever, Firmenich, Kimberly-Clark and LIXIL, the Toilet Board Coalition has the ambition to address the global sanitation crisis by accelerating the Sanitation Economy. The Toilet Board Coalition works at promoting the sanitation economy as a powerful framework to provide universal access to sanitation, in line with Sustainable Development Goal No. 6. Whereas sanitation access is usually considered as a public cost, we believe that delivering sanitation products and services can unlock numerous business opportunities and create value for all stakeholders. It is worth recalling that the Business & Sustainable Development Commission’s Better Business Better World report cites “water and sanitation infrastructure in cities” among the 60 biggest market opportunities related to delivering SDGs – and estimates it could be worth at least \$12 trillion a year, while generating 380 million new jobs by 2030 in developing countries. The Toilet Board Coalition estimates the Sanitation Economy to be a \$97 billion market opportunity in India by 2021 and scaling-up to \$148 billion by 2030. In the African continent, the Sanitation Economy also represents a huge market opportunity, and a powerful lever to address the continent’s broader development challenges. Indeed, the work of the Toilet Board Coalition has found that, on average per 1 million people served, countries can gain \$70 million in increased productivity through the provision of safe sanitation. In addition, on average, every \$1 invested sees a return on investment of \$5 in positive externalities – including healthcare services and increased attendance at schools.

More precisely, the sanitation economy links three marketplaces for business and social benefit: the toilet economy, the circular sanitation economy and the smart sanitation economy. How is the value being generated? How is it captured? What are the most innovative and sustainable business models to solve sanitation challenges? Those are the kind of questions we are looking at.

The Toilet Board Coalition puts great emphasis on the private sector. That being said, the sanitation economy cannot thrive if it does not engage with all stakeholders – big companies, smaller entrepreneurs, governments, NGOs, etc. – as no one can solve sanitation challenges alone. For instance, entrepreneurs and businesses cannot operate efficiently and deliver sanitation services and products if the regulatory framework and public standards are unsuitable. In order to reach local communities, partnering with community-based organizations and NGOs also proves

Whereas sanitation access is usually considered as a public cost, we believe that delivering sanitation products and services can unlock numerous business opportunities

to be a major asset, and a prerequisite to build trust and a strong social license to operate. The Toilet Board Coalition is designed to catalyze the energies of all stakeholders involved in the field of sanitation to help address this issue. The coalition brings together large corporations (Unilever, Kimberly-Clark, Firmenich, Tata Trusts, etc.), international development agencies (USAID, ADB, etc.), international organizations (World Bank, Unicef), entrepreneurs (Tiger Toilet, Sanivation, Sanergy, etc.) and NGOs (water.org, PSI, WaterAid).

Going a step further, our goal is to demonstrate that the sanitation economy does not benefit only companies working in the toilet or hygiene business, but can impact and improve businesses in all sectors – mining, agriculture, health, forestry, etc. As we like to put it, the Sanitation Economy is every business’s business. Just as climate change affects any sector, the same goes for sanitation and hygiene. Looking at each sector through the Sanitation Economy lens is something we wish to expand in the next five years.

Concretely, how does the Toilet Board Coalition encourage innovation and partnerships in the Sanitation Economy?

E. M.: So far, the Toilet Board Coalition has built different mechanisms to create engagement around the Sanitation Economy.

The accelerator, launched in 2016, is our flagship program, with the most impact. Each year, we select up to 10 entrepreneurs (sometimes referred to as “sanipreneurs”) that are developing commercially viable businesses across the sanitation economies in emerging and frontier markets, including innovative sanitary-ware infrastructure, products and service providers; toilet resource collection, treatment and transformation (circular resource recovery, up-cycling to water, energy, nutrients) or digital applications for sanitation and preventive health care, and so on. In short, we look for more

than toilets alone and favor the most innovative ideas and business models that have a potential to scale – two key criteria of selection for us.

Our Accelerator program lasts 12 months. Selected entrepreneurs are paired with members of the TBC, and benefit from tailored mentoring sessions with business and technical experts from leading multinational companies. Among the 2019 accelerator cohort, we count Arrebol, an early stage waste management company based in Peru; H2O Sanitation, a Circular Sanitation Economy based in Durban, specializing in flushable off-grid sanitation in peri-urban and rural areas; and Pit Vidura in Rwanda, a sanitation



Global Sanitation Economy Summit, 2019 - ©Toilet Board Coalition

logistics company developing tools and technology to train, equip and employ historically marginalized waste workers to provide safe services.

This is a win-win approach, as private companies can learn more about realities on the ground and get a better sense of the needs and barriers faced by consumers in their daily lives. Entrepreneurs also have access to TBC's investor community and join the TBC Network, our global peer-to-peer network of sanitation business entrepreneurs. Most importantly, at the end of the mentoring program, commercial partnerships are concluded. Hence, several 2018 accelerator graduates entered commercial partnerships with Toilet Board Coalition members: Tiger Toilets, partnering with LIXIL Corporation; Ti Bus, partnering with Firmenich; GARV Toilets, partnering with Unilever; and Biomass Controls, partnering with USAID and Kimberly-Clark.

The social impact of the businesses supported by the Accelerator Programme are measured, based on their business performance in delivering the increased access, use and adherence to improved sanitation.

Recently, we also launched a new initiative with our partner Kimberly-Clark: the **Women in the Sanitation Economy Innovation Lab**. This lab is intended to cultivate and catalyze early-stage ideas and businesses within the Sanitation Economy that are either women-led and/or women's health focused. The "Innovation Labs" present a useful framework for the TBC to target specific gaps in the sanitation economy from a technological, business model, demographic or geographical perspective.

On the ground, we also work on scaling and testing our demonstration projects. In 2018, we completed a feasibility study in Assam (India), to assess and understand the benefits of implementing a Circular Sanitation Economy system in a tea plantation. We worked in association

with Tata Global Beverages and Ethical Tea Partnership to do so. We notably focused on elaborating new systems, technologies, and infrastructures to capture toilet resources. Currently undervalued, they can produce feedstock to create organic fertilizers and energy, leading to cost savings and environmental benefits. It is estimated that 15.6 million global tea workers and their families produce around 33 billion liters of Toilet Resources every year – resources which could be converted into biofuel, electricity or co-compost, with lasting economic, environmental and social impacts.

In Pune, one of India's 100 smart cities, we worked in collaboration with the municipal authorities to conceive the framework of a "smart sanitation city" and assess to what extent the smart sanitation economy could be integrated into their roadmap.

Testing our key studies and assessing the value of the sanitation economy for specific industries or geographic areas like South Africa¹ helps us "evangelize" and raise awareness on the sanitation economy.

As a business-led coalition, the Toilet Board Coalition seeks to develop market-based solutions in the field of sanitation. What are the advantages of such solutions?

E. M.: The Coalition aims at demonstrating that sanitation can be delivered profitably to underserved communities. Following its formation in 2014, the TBC carried out a landscaping exercise to identify promising sanitation business models. This study identified about 100 pioneering projects, implementing or testing market-based approaches to deliver sanitation to low-income consumers.² What makes these projects distinctive is that they serve the Base of the Pyramid (BoP) in a financially sustainable manner, by selling improved sanitation solutions at a price that the poor are willing and able to pay.

Market-based solutions, given that they are commercially and financially viable, help ensure longer-term sustainability for sanitation innovations. Favoring self-sustaining business models, even if they do not charge the consumer directly, allows the sanitation ecosystem to move away from charity aid and traditional philanthropic approaches, and to be independent of outside funding. Additionally, such solutions place the end-consumer at the center, as understanding consumer acceptance and usage is critical to designing the right solution. Contrary to pure development models, market-based solutions answer to a demand, and often prove to be more adapted to the effective needs of the populations.

Still, we must acknowledge that market-based solutions

¹ *The Sanitation Economy Opportunity for South Africa*, 2019.

² Graf, J., Kayser, O., and Brossard, S. (2014). *Designing the Next Generation of Sanitation Businesses*, Hystra for the Toilet Board Coalition, Agence Française de Développement, UK Department for International Development, Stone Family Foundation, Kimberly-Clark, Unilever

are encountering barriers to being scaled up in many places around the world. First, the economics of the sanitation economy are not easy to capture and understand, and vary a great deal depending on the context. Besides, consumers' willingness to pay is usually low, as it is commonly accepted that governments and public actors should take over sanitation costs. Consumer acceptance is also challenging to secure. In many emerging markets, talking openly about sanitation, menstrual hygiene products, sewages or open defecation still generates a lot of stigma. Advocating for decentralized solutions, notably regarding waste treatment, while sewers are considered as the gold standard, can also prove to be challenging. The ambition of the TBC is to help entrepreneurs and business find the best solutions to address these barriers. Large corporations like TBC members can play a crucial role in addressing them: hence the pivotal role of our mentorship program. For instance, consumer goods companies can leverage their marketing expertise to develop better sanitation marketing campaigns, while construction companies can help with manufacturing quality and affordable toilet units.

What are the most promising innovations that you see in the sanitation economy for the upcoming years on the African continent?

E. M.: In Africa, among the most promising innovations are the ones aiming at encouraging safer behaviors regarding open-defecation free (ODF) communities, while pushing for improved, affordable access to sanitation. For instance, the SATO brand of products, for which I work, launched in 2013 with one model, the SATO Pan, which was created to improve the user experience and safety of open-pit latrines in rural communities, and currently delivers improved sanitation to over 6 million users in over 15 countries.

More and more entrepreneurs are also focusing on waste treatment and aiming to turn waste into value – whether in the form of food pellets, fuel, energy, and so on. In Kenya, Sanergy built a network of cartridge-based sanitation units that collect waste safely and convert it into usable high-value end products, including organic fertilizer, insect-based animal feed, renewable energy, etc. In South Africa, Pennine Energy Innovation also launched the SavvyLoo, a portable desiccating toilet with an integrated mobile desiccation system that provides output to be used as compost. In Ghana, Safisana treats toilet and solid organic waste from slum communities and turns it into electricity and compost, before selling it to local farmers and local energy companies.

Finally, innovations embracing the “Smart Sanitation Economy” framework have a real potential in the future. This approach could be applied to all three marketplaces of the Sanitation Economy. In the Toilet Economy, this “smart shift” could be accelerated through the

introduction of smart toilets, e.g., smart public and community toilets optimized by environmental, usage and biosensors, providing valuable Sanitation Intelligence for city decision-makers, operators, businesses and users. In the Circular Sanitation Economy, a promising lever of change is encompassed by smart treatment of waste, for instance monetizing the re-use of resources, to enable efficient recovery and conversion to reuse products (such as energy compost and water). Ultimately, in the Smart Sanitation Economy itself, emerging technologies can now leverage the data produced by sanitation services to provide preventive health insights. For instance, real-time surveillance for infectious disease circulation via biosensors and sampling in public toilets can provide early warning of public health outbreaks. This data could hence drive cheaper, more effective health care.

Five years after the launch of the Toilet Board Coalition, do you see a shift in the way sanitation issues are considered?

E. M.: The last 18 months were, I believe, crucial for the Toilet Board Coalition. We progressively witnessed a big change in the way private and public actors look at sanitation challenges, notably during our Global Sanitation Economy Summit, held in November 2019. As noticed during the summit, education and awareness raising on the value of the Sanitation Economy framework are less necessary, and an increasing range of actors are ready to act. Five years after the launch of the TBC, the time has now come for us to strengthen and replicate what we have built so far. As I mentioned before, our hope and goal for the upcoming years is to see an increasing range of businesses, seemingly far removed from the Sanitation Economy, realize that they too can find value creation opportunities in this sector. The smart sanitation economy, for now under-developed compared to the toilet and circular economies, offers very exciting perspectives.

Obviously, the pandemic, by suddenly and blatantly reminding the world of the essential value of proper sanitation and hygiene, and that billions of people still lack access to that, is also fostering a drastic shift of the conversation, and is likely to accelerate the Sanitation Economy.