

**HIGHLIGHTS**  
**NOVEMBER 2016**

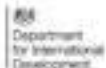
# GLOBAL TOILET BUSINESS INNOVATION & INVESTMENT SUMMIT

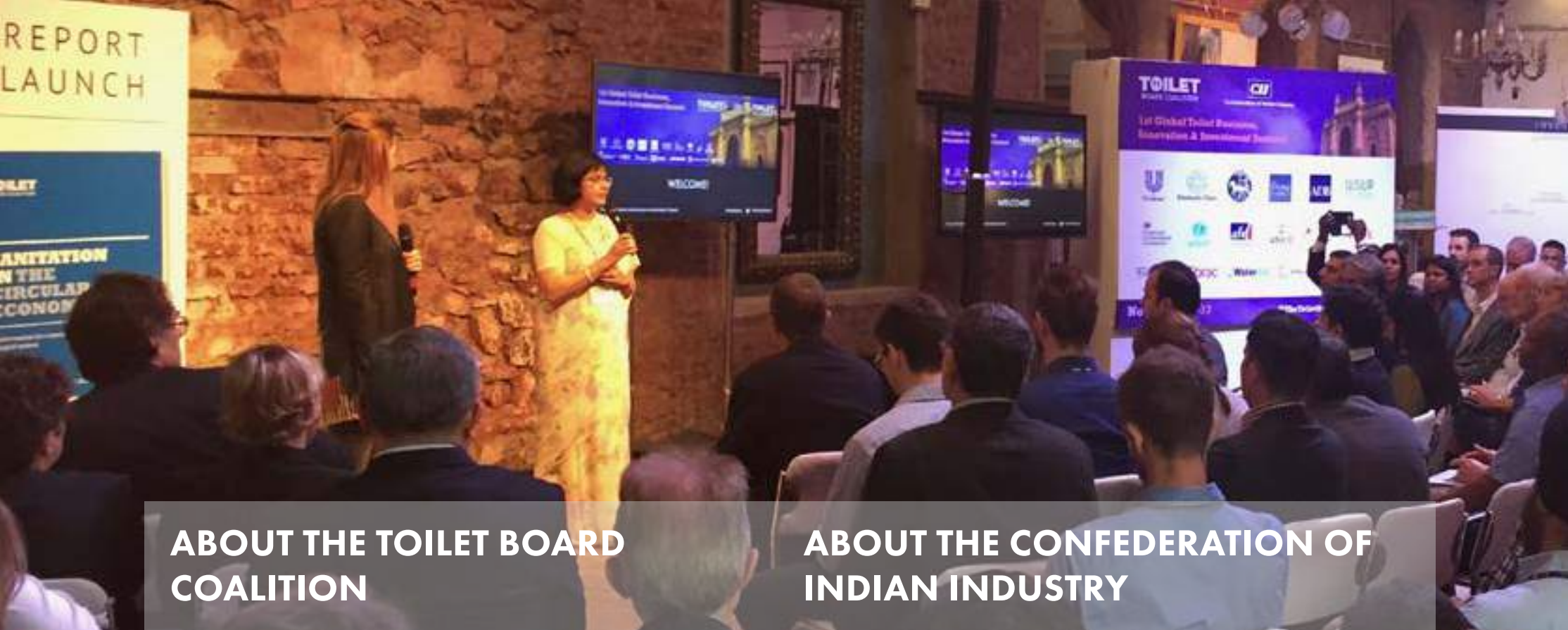
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**TOILET**  
BOARD COALITION



Confederation of Indian Industry





# OUR VISION FOR THE BUSINESS OF SANITATION

*In 2016 the Toilet Board Coalition and the Confederation of Indian Industry were asking the question - what defines the business sector of sanitation focused on low-income markets globally? Who are the key players and how is the sector evolving in key markets such as India and globally?*

To better understand the business of sanitation for all - and ultimately how to support the acceleration of pioneering businesses, business model innovation and investor interest - we had the vision to convene the global sector as it stands today with key business and investment enablers and to seek inspiration from other sectors with success in similar markets.

We called it the 1st Toilet Business, Innovation & Investment Summit, held in Mumbai, India 15-17 November 2016, hosting over 250 business and investment leaders demonstrating striking momentum for a new and exciting business sector leaping into the future.

Our objectives were the following:

- For businesses operating in sanitation focused product and service businesses (i.e. toilets, waste management, toilet resources) in low income markets to meet each other, assess the current state of the art of different business models and explore partnerships for growth
- For large and multinational businesses with a business interest in accelerating sanitation through the market to meet existing SME businesses, and to understand opportunities for large-business-small-business collaboration for mutual business benefit
- For sanitation businesses to meet and learn from businesses from other sectors also delivering basic needs products and services to similar consumer segments (such as PAYG-solar; cookstoves; water; mobile)

- To invite the impact investment community to a “sneak peek” into a new and growing sanitation business sector and to understand key criteria to be met by sanitation businesses to attract all stages of capital to accelerate growth
- To discuss how to better support the sector with key business enablers

In the 3 days of the Toilet Business Summit we are very proud to say that we experienced incredible energy and momentum. The Toilet Board Coalition, the Confederation of Indian Industry and our partners are committed to supporting and accelerating this sector to assist in the achievement of the global goal to deliver universal access to sanitation by 2030. Our Summit culminated in the Global Citizen India Festival on World Toilet Day 2016 where the TBC highlighted private sector commitments of 15 million USD serving over 130 million people by 2020. As a start!

More successful sanitation businesses = more toilets, less waste, more resources = universal access to smart, sustainable and resilient sanitation for all.

We thank all participants for helping us to launch this business platform for sanitation.

**CHERYL HICKS**  
Executive Director  
Toilet Board Coalition

**SHEFALI CHATURVEDI**  
CEO - CII Foundation & Senior Director  
Confederation of Indian Industry

## ABOUT THE TOILET BOARD COALITION

[www.toiletboard.org](http://www.toiletboard.org)

The Toilet Board Coalition (TBC) is a business-led platform for private sector engagement, investment, and the co-creation of business solutions for future sanitation systems. Founded by Unilever, Kimberly-Clark, Firmenich and LIXIL Corporation and working together with international development banks, pioneering NGOs and key thought leaders in the sanitation sector, we are catalysing a robust business ecosystem to deliver aspirational sanitation to all, at speed, at scale, and at a level of profit which ensures sustainability across the value chain. The TBC provides bespoke support to a range of promising sanitation businesses in low income markets that have the potential to deliver smart, sustainable and resilient sanitation for all through our Toilet Accelerator programme.

## ABOUT THE CONFEDERATION OF INDIAN INDUSTRY

[www.cii.in](http://www.cii.in) & [www.ciifoundation.in](http://www.ciifoundation.in)

CII as the apex industry body in India which works towards inclusive development sees a natural ally in the TBC. CII, like the TBC, strongly believes that development of business for sanitation is critical for achieving sanitation for all, especially for building on the Swachh Bharat movement.

CII has stayed committed to the Mission and through the CII Foundation, a number of interventions have been undertaken to galvanise industry support, undertake projects and pilots towards construction of toilets, induce behavior change and cleanliness drives pan India.



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# EXECUTIVE SUMMARY

## 3 BIG IDEAS FOR TOILET BUSINESS, INNOVATION & INVESTMENT OPPORTUNITIES

1. SWEET SPOT IN LARGE BUSINESS-SMALL BUSINESS COLLABORATIONS
2. DIGITAL & CIRCULAR REVOLUTIONS EXTEND TO TOILETS AND THE LOW-INCOME CONSUMER
3. INVESTORS & ENABLERS HELP NAVIGATE THE VALLEY OF DEATH

This Summit brought together the universe of global sanitation businesses, operating in low income markets, as a sector for the first time. This included the small enterprise innovators of sanitation products and services as well as large companies with a business interest in sanitation from a risk or opportunity perspective. Added to this a cross-section of important stakeholders from the broader ecosystem of sanitation systems including investors, business enabling and support organisations, municipal governments and cities, governments and NGOs. And a selection of relevant development related sectors successfully operating in similar markets to draw inspiration from. The differentiating factor was the focus on the business of sanitation and a bias for actions and transactions.

Amongst the buzz of networking, ideation and partnership brokering we found 3 big ideas emerging from the Summit impulses, interventions and informal chats:

### Sweet spot in large business-small business collaborations

We could be on the verge of a new business relationship imperative. From B2B to B2C to "MNC-&-SME". Clear synergies emerged from the needs and offers expressed by businesses large and small. What small businesses need to professionalise and grow, large businesses can offer. And vice versa, small businesses hold important keys to the future growth and relevance of large businesses in new markets. These were identified in two categories: best in class business operations; and new markets for innovation. This Summit helped to un-lock deeper understanding of the potential for closer collaborations between small and large companies to achieve respective business interests.

### Digital & circular revolutions extend to toilets and the low-income consumer

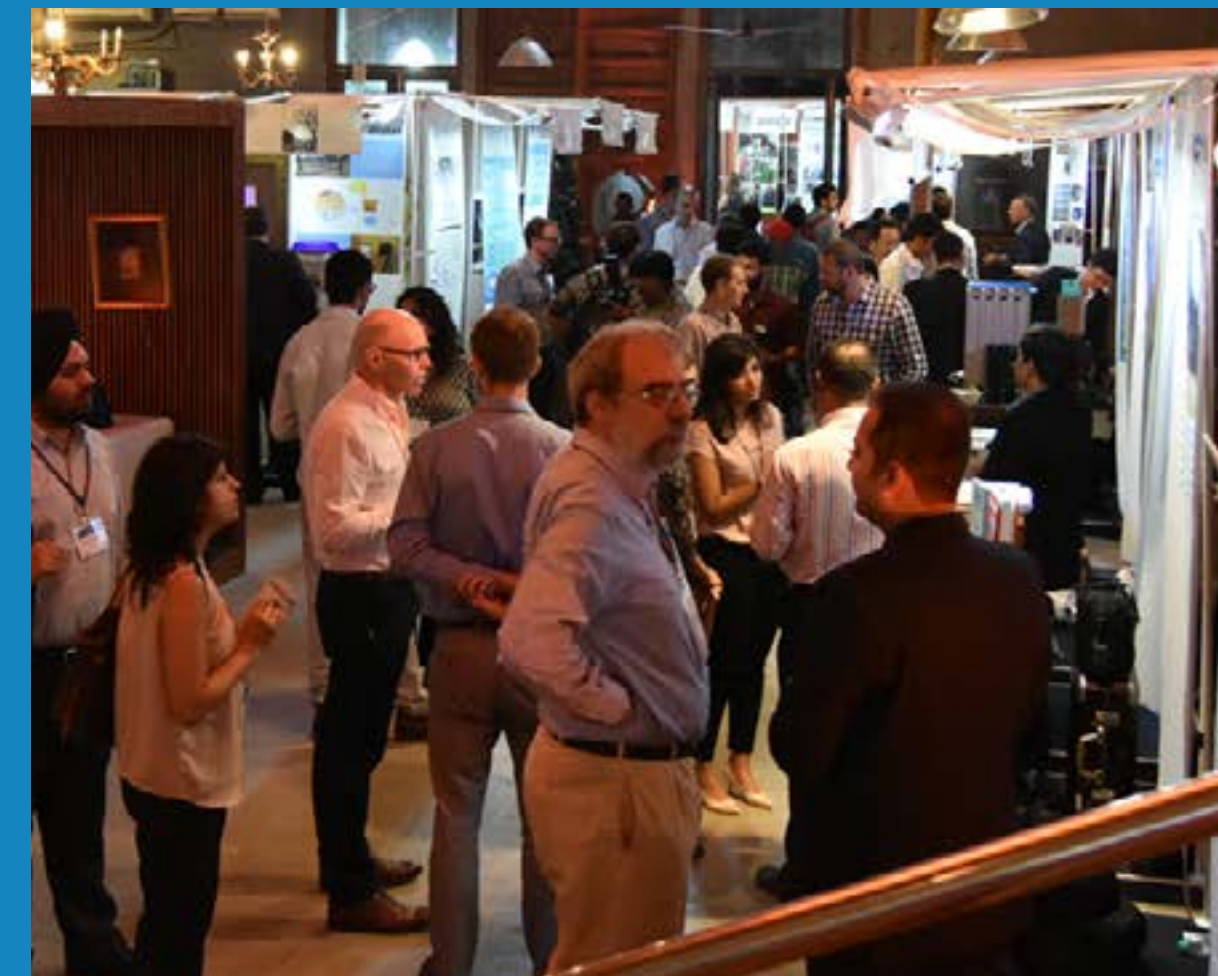
New technologies have been changing lives and businesses for decades. This global mega-trend

had not been visible in the sanitation sector... until now! Technology giants like IBM and GE, digital titans such as Google, Salesforce and Autodesk, fast moving consumer goods companies like Kimberly-Clark and Firmenich, and digital enabling start-ups shared ideas on a future of digital applications for sanitation. Many participants remarked that this "blew them away" and generated much excitement for development into the near future. The value in our waste, or the circular economy, is a newer concept but generally accepted as an essential cost or resource-saving (and revenue generating) practice in most large businesses. The potential for "toilet resources" to become valuable raw materials for supply chains large and small, or household applications, was evidenced by several small companies already demonstrating markets for energy, agricultural products and proteins - local circular economies - operational today. This is a key turning point for sanitation systems to become self-sustaining.

Both trends became even more relevant when looking through the eyes of the low-income consumer. Digital applications can drive demand, usage and behaviour change while demand for toilet resources could address the customer's concerns about waste management. Insights from other sectors also selling products or services to similar consumer segments (such as Pay-as-you-go solar, cookstoves, and water) shone a light on the opportunity to bundle products and services for the same customer.

### Investors and enablers help to navigate through the valley of death

Going into the Summit there was much uncertainty in terms of investor interest in the sanitation sector - and on the other hand, where capital is available. Coming out of the Summit we can say that not only was investment interest confirmed but there were also offers from investors to work collaboratively with the sector to co-innovate new investment mechanisms. The strongest theme however was on sharing learning and insights on how we can ensure that sanitation businesses move successfully through the 'valley of death.'



It was agreed that it is in the interest of everyone. Business enablers will play an important role in building this capacity. Many existing support programmes were identified for sanitation businesses to tap into.

THE ENERGY  
IN THE ROOM



*Bina Trivedi*  
IL&FS INVESTMENT



*Analia Mendez*  
UNILEVER



*Andrew Foote*  
SANIVATION



*Sarah Smith*  
INSTITUTE FOR THE  
FUTURE



*Mark de Blois*  
UPANDE



*Leeat Weinstock*  
GRAND CHALLENGES CANADA



*Swapnil Chaturvedi*  
SAMAGRA



*Iain Purves*  
LOOWATT



*Sourav Ray*  
HAVAS ADVERTISING



*Aarti Wig*  
YUNUS SOCIAL BUSINESS



*Perry Rivera*  
MANILA WATER



*Manoj Kumar*  
NAANDI FOUNDATION



*Tony Henshaw*  
ADITYA BIRLA



*Yi Wei*  
IDE



*John Feighery*  
MWATER



*Priya Balijepalli*  
AUTODESK



*Lee Kironget*  
UNICEF



*Prabhat Pani*  
TATA TRUSTS



*Jim McHale*  
LIXIL CORPORATION



*Charlie Beevor*  
UNILEVER



*Mark Lewis*  
THE BIOCYCLE



*Peter George*  
COOKSTOVES ALLIANCE



*Pete Dulcamara*  
KIMBERLY-CLARK



*Michael Nique*  
GSMA



*Navneet Garg*  
CAYA CONSTRUCTS



*Rajeev Kher*  
SARAPLAST (3S)



*Mayank Midha*  
GARV



*Pritam Pebam*  
GOOGLE

SHOUT  
OUTS  
FOR THE  
BUSINESS  
OF  
SANITATION

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY



# HIGHLIGHTS FROM THE DIALOGUE

EXECUTIVE SUMMARY

“None of us are as smart as all of us. In today’s highly connected world, it is more critical than ever that we create strong relationships between business, academia, government, and society to solve our most complex problems such as the global sanitation crisis. We are seeking new ways for large multinational corporations to work with local entrepreneurs and small to medium sized businesses with a set of common goals to achieve mutual success.”  
**Pete Dulcamara**  
KIMBERLY-CLARK CORPORATION

“Using humour has worked very well to raise the profile of sanitation amongst governments in the past two decades. The next thing we need to do is to turn toilets into a fashion, because people choose to do things through emotions. Sanitation needs to be sexy. For that we can use the momentum generated by businesses gathered through this Summit and the Toilet Board Coalition.”  
**Jack Sim**  
WORLD TOILET ORGANISATION

“One of the biggest drivers of success for partnerships is being very clear on what you want to get out of the partnership, and understanding the motivations of your partners. For the people from the Unilever side who are involved in mentorship, it is very rewarding to make a difference with sometimes the smallest techniques, or just by asking the smallest question. I have immense respect for the work that these entrepreneurs are doing. What you are trying to do every-day is very very tough. Having a mentor to talk to is a valuable outlet.”  
**Charlie Beevor**  
UNILEVER

“There are two strong messages of this Summit, apart from others, sanitation coming out of the shadows of water and sanitation being looked at as a strong business proposition.”  
**Sanjay Banka**  
BANKA BIOLOO & SANITATION AND WATER FOR ALL

“You cannot solve the problem of sanitation with one company, you need an ecosystem where each organisation brings to the table what they are good at. This is where the TBC comes into play by gathering organisations and people who can create that ecosystem.”  
**Satish Rao**  
FIRMENICH

“The diversity of the crowd at the Toilet Business Summit was very refreshing. It is really encouraging to see entrepreneurs who are on the ground doing things, investors understanding a new sector and government players, business players all interacting together. Seeing people doing real things in real time was incredible!”  
**Patrick Mullen**  
SORENSEN IMPACT INVESTMENT CENTER

“Selling carbon credits could be a valuable source of funding for circular economy forms of waste treatment. There is an opportunity for SMEs to partner with larger entities for certification and process efficiencies.”  
**Erica Lloyd**  
SOIL

“Sanergy is excited to join the 2017 Toilet Accelerator cohort. The TBC offers a unique opportunity by bringing together some big stakeholders including multinationals and utilities to work with players like us, who are ready to scale and seeking partners who can accelerate that scale. The Toilet Board Coalition can have a massive and lasting impact.”  
**David Auerbach**  
SANERGY

“Lixil has formed a business unit of engineers, R&D experts and senior experts to accelerate how Lixil can contribute to sanitation sector. Coming together is how we will get to the next game change.”  
**Jin Montesano**  
LIXIL CORPORATION

“Social impact entrepreneurs may be hesitant to look at commercial returns, but as an investment institution we are not looking at doing good, the purpose has to be about making money, the outcome can be doing good.”  
**Noshir Colah**  
AAVISHKAAR

“The Circular Economy is completely adaptable to low income countries. In fact, additional benefits exist for low income economies to leap-frog the high cost of the transition to circular economies that high income countries face due to legacy waste management systems.”  
**Anina Henggeler**  
ELLEN MACARTHUR FOUNDATION

“1981-1990 was when we started thinking about sanitation for poor people. We thought governments were the responsible body. We have now learned the hard way that what people want is a local entrepreneur to deliver the product and service for them. So we have identified the customers and entrepreneurial businesses, who are here in this room. The Toilet Board Coalition is trying to help entrepreneurs to link in systematically with the rest of the sanitation world to connect more efficiently to the customers who are ready to purchase.”  
**Jon Lane**  
INDEPENDENT DIRECTOR TBC  
FORMER HEAD OF WATERAID AND WSSCC

“Having sensors placed in toilets means you know how many users have used a flushing system and hygiene practices of the community to be able to design a behaviour change and communications plan.”  
**Mayank Midha**  
GARV

“There is a need in the sector to better understand the global landscape of regional and national laws around sanitation and bio material use. This will help us to work together with governments and businesses to ensure supportive standards and legislation.”  
**Bradley Heslop**  
ROOTS

“Information - the toilet has something you can get information from and then act on it. We want to provide that information with the services we have and enabling the people in remote areas to create their own infrastructure without needing to wait for someone to come and do it for them.”  
**Pritam Pebam**  
GOOGLE

“We need to play a role in strengthening the government machinery. In 25 districts we have Swachh fellows from TATA providing monitoring and capacity building for social entrepreneurs. We think that’s the most effective way to support governments.”  
**Prabhat Pani**  
WATER MISSION, TATA TRUSTS

“Many cities in India have come up with innovative models to address the sanitation crisis, including public, private partnerships (PPPs). Start-ups have a large role to play in that process.”  
**Saurab Jain**  
SWACHH BHARAT MISSION  
MINISTRY OF URBAN DEVELOPMENT, INDIA

“Our challenge is going from monetising the toilet resources to monetising the engagement model: how to create life-improving products for so many people. For that, Samagra changes the meaning of the toilet space itself.”  
**Swapnil Chaturvedi**  
SAMAGRA

EXECUTIVE SUMMARY

# THE GOOD NEWS STORY

## SANITATION SECTOR BUSINESS MODEL EVOLUTION

The Toilet Business Summit brought together over 250 sanitation entrepreneurs, multinationals, investment managers and business enablers from all parts of Asia, Africa, the Americas and Europe. In the Toilet Innovators Marketplace, 54 small to medium sized businesses showcased their business models, products and services.

In breakout rooms, workshop spaces and across the venue businesses discussed common challenges and current needs and offers in the interest of building a robust sanitation business ecosystem. The focus was on enabling “actions & transactions” between businesses, and support from across the sector, to evolve and grow.

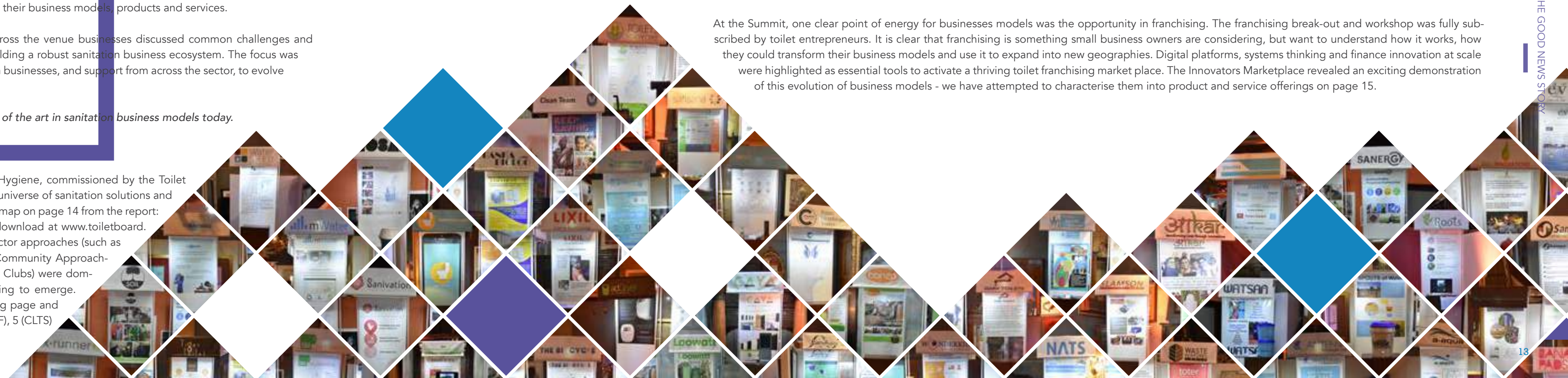
*The evolution of the sector and current state of the art in sanitation business models today.*

In 2012 Unilever and the London School of Hygiene, commissioned by the Toilet Board Coalition, mapped the existing global universe of sanitation solutions and business models for low-income markets (see map on page 14 from the report: *Mapping Sanitation Solutions*, available for download at [www.toiletboard.org/knowledgecentre](http://www.toiletboard.org/knowledgecentre)). At that time public sector approaches (such as Community-Led Total Sanitation, UNICEF's Community Approaches to Total Sanitation and Community Health Clubs) were dominant with only a few business models starting to emerge. This is evidenced on the map on the following page and the markets with the numbers 3 (CATS UNICEF), 5 (CLTS) and 6 (Community Health Clubs).

In 2014, Hystra, for the Toilet Board Coalition, characterised sanitation business models emerging in low income markets in 4 categories: Rural & Urban, Household & Collective (download report, *Designing the Next Generation of Sanitation Businesses* at [www.toiletboard.org/knowledgecentre](http://www.toiletboard.org/knowledgecentre)).

In 2016, the Toilet Board Coalition worked with 30 pioneering sanitation businesses to understand the current state of the art in sanitation businesses models operating in low-income markets and to identify where we could best provide support for growth. We found an evolution of sanitation business models from their beginnings as impact first (social businesses started to address societal challenges) and technology first (businesses started with a technological innovation for a new toilet design or waste management solution) to more consumer driven, finance first commercial businesses (source: *Business Model Analysis* by Aqua for All/AfricaFunded for Toilet Board Coalition July 2016).

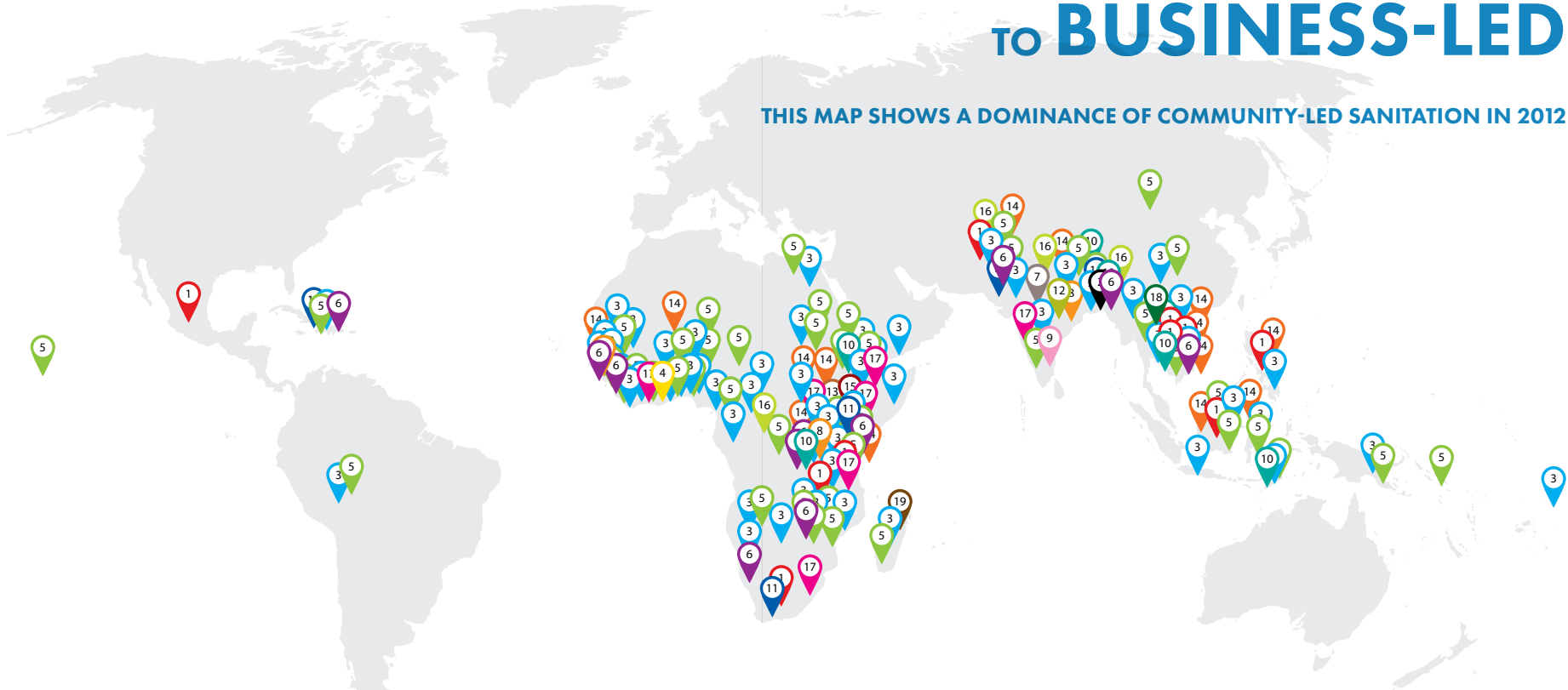
At the Summit, one clear point of energy for businesses models was the opportunity in franchising. The franchising break-out and workshop was fully subscribed by toilet entrepreneurs. It is clear that franchising is something small business owners are considering, but want to understand how it works, how they could transform their business models and use it to expand into new geographies. Digital platforms, systems thinking and finance innovation at scale were highlighted as essential tools to activate a thriving toilet franchising market place. The Innovators Marketplace revealed an exciting demonstration of this evolution of business models - we have attempted to characterise them into product and service offerings on page 15.





# EVOLUTION FROM COMMUNITY-LED TO BUSINESS-LED

THIS MAP SHOWS A DOMINANCE OF COMMUNITY-LED SANITATION IN 2012



- 1 BORDA**  
Asia: Afghanistan, Cambodia, India, Indonesia, Laos, Nepal, Philippines, Vietnam.  
Africa: Lesotho, South Africa, Tanzania, Zambia  
Latin America: Mexico
- 2 BRAC**  
Asia: Bangladesh
- 3 CATS (UNICEF)**  
Africa: Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Congo Brazzaville, Côte d'Ivoire, Democratic Republic of Congo, Djibouti, Egypt, Eritrea, Ethiopia, Gambia, Ghana, Guinea Bissau, Guinea Conakry, Kenya, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Namibia, Niger, Nigeria, Senegal, Sierra Leone, South Sudan, Sudan, Tanzania, Togo, Uganda, Zambia, Zimbabwe.  
Australasia: Kiribati, Papua New Guinea, Timor Leste, Solomon Islands.  
Asia: Afghanistan, Bangladesh, Cambodia, China, India, Indonesia, Lao, Myanmar, Nepal, Pakistan, Philippines, Vietnam, Yemen.  
Latin/Central America: Bolivia, Haiti.
- 4 CLEAN TEAM +WSUP**  
Africa: Ghana
- 5 CLTS**  
Asia: Afghanistan, Bangladesh, Cambodia, China, India, Indonesia, Kiribati, Lao PDR, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Papua New Guinea, Solomon Islands, Timor Leste.  
Middle East: Yemen.  
Africa: Angola, Burkina Faso, Benin, Cameroon, Chad, Côte d'Ivoire, DRC, Djibouti, Egypt, Eritrea, Ethiopia, Gambia, Ghana, Guinea Bissau, Kenya, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Nigeria, Sierra Leone, Sudan, South Sudan, Tanzania, Togo, Uganda, Zambia, Zimbabwe.  
Latin/ Central America: Bolivia, Haiti.
- 6 COMMUNITY HEALTH CLUBS**  
Africa: Zimbabwe, Namibia, East Africa: Uganda, Rwanda, Sierra Leone, Guinea Bissau  
Asia: Bangladesh, Vietnam  
Caribbean: Dominican Republic
- 7 E-KUTIR**  
Asia: India
- 8 GRAM VIKAS**  
Asia: India (Odisha)  
Africa: pilot in Tanzania and Gambia
- 9 GRAMALAYA**  
Asia: India (Tamil Nadu)
- 10 IDE-SANMARK**  
Asia: Cambodia, East timor, Laos, Bangladesh, Nepal  
Africa: Zambia and Ethiopia (pilots)
- 11 PEEPOO**  
Africa: Kenya  
South Africa, and Bangladesh (Pilot tests).  
Emergency Camp: Pakistan, Kenya, Haiti and New Zealand.
- 12 3SI**  
Asia: India (Bihar)
- 13 SANERGY**  
Africa: Kenya
- 14 SCALING UP RURAL SANITATION**  
Africa: Ethiopia, Kenya, Niger, Senegal, Tanzania, Uganda  
Asia: Cambodia, India, Indonesia, Lao, Pakistan, PDR, Philippines, Vietnam
- 15 SELLING SANITATION**  
Africa: Kenya
- 16 SULABH INTERNATIONAL**  
Asia: India, Afghanistan and Buthan
- 17 WASH UNITED**  
Africa: South Africa, Kenya, Uganda, Lesotho, Ethiopia, Tanzania, and Ghana  
Asia: India
- 18 WATER SHED**  
Asia: Cambodia
- 19 WSUP-Wateraid**  
Africa: Madagascar

Mapping Sanitation Solutions, available for download at  
[www.toiletboard.org/knowledgecentre](http://www.toiletboard.org/knowledgecentre)

# THE GROWTH IN BUSINESS-LED SANITATION IN 2016

## SHELTER & PORTABLE TOILETS

- Banza Sanitation (Kenya)
- Caya Constructs (India)
- Earth Auger (US)
- GARV (India)
- Loowatt (UK & Madagascar)
- Mosan Mobile Sanitation (Global)
- Sanitation Africa Limited
- Sanitation Solutions Group (Uganda)
- 3S Saraplast (India)
- SVADHA (India)
- WaterShed (Cambodia)
- Watsan Envirotech (India)

## TOILET RESOURCE PRODUCTS / WASTE MANAGEMENT

- The BioCycle - Protein meal, biogas, biochar (South Africa)
- Loowatt - Biogas, Liquid fertiliser (Madagascar)
- Jekora - Compost (Ghana)
- Mosan Mobile Sanitation (Global)
- Pivot - Biochar (Rwanda)
- Safi Sana - Biogas, Seedlings (Ghana)
- Sanivation - Biochar (Kenya)
- Sanergy - Organic fertiliser, protein meal (Kenya)
- Slamson - Biochar (Ghana)
- Sulabh International - Biogas (India & Afghanistan)
- Bio-fertilizer (India)
- Waste2Energy - Biogas (Uganda)

## BIO TOILETS & Eco San

- Aerosan (Haiti, Nepal)
- BioFillcom (Ghana)
- Banka BioLoo (India)
- Caya Constructs (India)
- Earth Auger (US, Ecuador, South Africa, Mongolia, Senegal, Benin, Ghana, Vietnam, India, Cambodia, Kenya, Costa Rica)
- Ecoloo (Africa)
- Ekam Eco Solutions Private Limited (India)
- Jekora - Compost (Ghana)
- Tiger Toilets (India & S.Africa)
- Toilets for People (Senegal, Mexico, Nicaragua, Peru and Haiti)
- Vaspar EcoSolutions (India)

## ENABLERS

- Eau et Vie (Philippines, Bangladesh, Ivory Coast)
- Wessex Social Ventures / Roots: (UK / Africa)
- Indian Sanitation Coalition
- Aspen Institute of Development Entrepreneurs (ANDE)
- Yunus Social Business
- Aqua4All/AfricaFunded
- Laguna Water
- Gramalaya Urban and Rural Development Initiatives and Network

# THE MOVERS & SHAKERS

## CONTAINER TOILETS & SERVICING

- CleanTeam (Ghana)
- Loowatt (UK & Madagascar)
- LIXIL Portable Toilet System (Japan)
- Mosan Mobile Sanitation (Global)
- Sanergy (Kenya)
- Sanivation (Kenya)
- SOIL (Haiti)
- X-Runner (Peru)
- 3S Saraplast (India)

## PUBLIC / COMMUNITY TOILETS & SERVICING

- Earth Auger (US)
- GARV (India)
- Jekora (Ghana)
- Naiss (Mozambique)
- Samagra (India)
- Sanitation Impact Solutions (India)
- Sanergy (Kenya)
- Sulabh International (India & Afghanistan)



# MAKING CONNECTIONS

PARTICIPANTS WERE ASKED TO DEFINE WHAT THEY NEED FROM OTHER ACTORS IN THE ECOSYSTEM, AND TO SHARE WHAT THEY CAN OFFER AS WELL.

## TOILET BUSINESS INNOVATORS NEEDS

- access to finance: CAPEX, working capital, hardware & bridge funding
- capacity building on business model scalability and replicability, marketing & logistics
- product and quality standards - for large buyers
- large volume sales agreements vs. many local arrangements
- better linkages to reliable and sustainable waste treatment
- better linkages to municipalities / utilities

## "TOILET RESOURCES" (FORMERLY WASTE MANAGEMENT) INNOVATORS NEEDS

- collective assistance in building a market for toilet resources
- assistance with government relations - assurance of safe, valuable resources
- product and quality standards - for large buyers & to guide regulation
- independent auditors / independent testing of product quality assurance
- ecosystem / marketplace for shared testing
- R&D partnerships and joint-funding proposals
- customer involvement in design process of products - to meet customer needs (i.e. energy / fuel requirements)
- health impact / improvements monitoring & evaluation
- consumer insights / behavioural insights to optimise product quality and collection

## OFFERS

- test beds for business opportunities of other companies (i.e. larger businesses testing in new markets - consumer insights)
- high traffic advertising space, toilets as billboards
- bundling of other products for low-income consumers
- licensing / franchising of new technologies / business models
- consumer / market knowledge
- access to communities

## OFFERS

- data on organic waste across different communities
- licensing / franchising of new technologies / business models
- value added products from the circular economy
- energy (charcoal, biogas)
- soil conditioner
- animal feed

## DIGITAL INNOVATORS NEEDS

- creating consumer demand
- design thinking, design for smart cities
- innovation guidance on how to leverage mobile channels (mobile money, M2M, mobile applications) & implement mobile / digital solutions for sanitation
- test beds - sanitation business or utilities willing to test new digital technologies
- business model innovation guidance to incorporate digital / mobile - i.e. data

## EMERGING MARKET UTILITIES / MUNICIPALITIES NEEDS

- circular economy concept needs to include space for public sector players who need to amend regulations and policies to permit the introduction of new products and processes
- enabling legislation needs to be in place to create a degree of certainty in the market if it is to secure investments to launch and then expand businesses
- the financial viability of these new products needs to be understood vis a vis what degree of subsidy will be needed
- ideal sanitation solution for poor families does not yet exist - ideal means a sanitation solution that is affordable, safe to use and a pleasant experience
- some process will need to be in place to allocate contract areas and service level standards where there are competing service providers
- ensuring the safety of products produced by the new circular economy
- social marketing - making toilets sexy

## OFFERS

- GSMA knowledge sharing and potential financial support to test mobile technologies for sanitation businesses
- Larsen & Toubro on smart cities
- Gensler on design thinking
- Laguna Water on test beds

## CORPORATE & STAKEHOLDER ENABLERS NEEDS

- government engagement with businesses with solutions to evolve joint vision & understanding
- systems approach to investment in the full sanitation value chain & ecosystem (vs. fragments)
- using CSR approaches as a stepping stone to market-based approaches



# THE TOILET ACCELERATOR

In 2016 the Toilet Board Coalition launched the Toilet Accelerator. It is an annual programme dedicated to supporting and accelerating sanitation sector businesses operating in low-income markets - addressing the global sanitation crisis with business solutions. Large and small businesses work together intensively towards specific business interests.

**SVADHA**

**SVADHA (India):**  
www.svadha.com

*“If you go to a village today, there is a consumer who wants a toilet, but there are many questions. Where do I get the materials? How do I install it? Is there financial support? Svadha answers all these questions. End to end sanitation value chain, supply chain efficiencies. We have 300 “Sanipreneurs” working with us. They are our partners, we train them and provide access to microfinance, materials, production services, etc. In the Accelerator programme this year we worked with 5 teams from across Kimberly-Clark Corporation. During this time we doubled the number of units sold and significantly increased our visibility.”*  
**Garima Sahai, CEO**  
SVADHA

*“Engagement with Svadha has been very rewarding for our employees, giving them an opportunity to use their expertise in sales, marketing, and supply chain to help a smaller business thrive. In exchange, we get an increase in employee engagement and gain new insights in local markets that we may not have obtained otherwise. The keys to success are rooted in the leadership commitment on both sides along with clarity and specificity from the mentee company on where they need help most.”*  
**Pete Dulcamara, VP**  
KIMBERLY-CLARK (LEAD MENTOR)



**CLEAN TEAM (Ghana):**  
www.cleanteamtoilets.com

*“We are a toilet service business. Our product is a container based toilet with a chemical fill. We service and clean the toilets for our customers. We have many learnings about being in this kind of business. With high growth comes many challenges: customer service could not keep up with the business, high exponential cost of the business. In our next phase we are transforming the business operations for scale.”*  
**Peter Townsley, CEO**  
CLEAN TEAM GHANA

*“One of the biggest drivers of success and learnings from this partnership is being very clear on what you want to get out of the partnership, and understanding the motivations of your partners; understanding where you can support and how. We worked with Clean Team on consumer insights; understanding which are the primary drivers for this product.”*  
**Charlie Beevor, VP**  
UNILEVER (LEAD MENTOR)



**LAGUNA WATER (Philippines):**  
www.lagunawater.com.ph

*“We have developed a business model to provide a sanitation solution for the base of the pyramid. This year we achieved 3 milestones: 1) refining, the model to be sustainable, and replicable 2) The Toilet Accelerator process helped in identifying the risks associated with the project 3) Through the TBC we got access to capital needed to leverage all of these risks. By next year we hope to commercialise the service. Scale opportunity: 8% of the population of the country.”*  
**Melvin Tan, Managing Director**  
LAGUNA WATER

*“It is a blessing to work with young people full of energy. Through this programme, in a structured manner, we could build the business model to deliver. Partnerships with LIXIL, Unilever, Kimberly-Clark and Firmenich are extremely valuable.”*  
**Perry Rivera, COO**  
MANILA WATER (LEAD MENTOR)



**LIXIL Portable Toilet Solution (PTS) (Japan):**  
www.lixil.com

*“Our portable toilet solution has no chemicals and no additives and comes with an acceptance station with a ‘no touch’ cleaning system. We are now planning for the sanitation systems of the future. We are facing ageing societies in Japan and cannot walk to the toilet. The solutions we are creating for low-income markets are also good for developed markets. During the programme we received invaluable information and intelligence from the mentors and partners of the TBC.”*  
**Imai Shigeo, R&D**  
LIXIL

*“The world wants a new toilet. This one has the makings to be truly aspirational, and something that people want. I was extremely happy to support its development and to work with the inspiring team.”*  
**Neil Macleod, Independent Director**  
TBC AND FORMER HEAD OF WATER AND SANITATION OF THE ETHEKWINI MUNICIPALITY, DURBAN S. AFRICA (LEAD MENTOR)



## 2016 COHORT

IN 2016 THE TOILET ACCELERATOR WORKED WITH 4 EXCITING SANITATION BUSINESSES. AT THE SUMMIT THE COHORT SHARED THEIR ACHIEVEMENTS AND GRADUATED FROM THE PROGRAMME.



## TOILET ACCELERATOR 2017

AT THE SUMMIT, THE NEW COHORT FOR THE 2017 TOILET ACCELERATOR WAS ANNOUNCED. THE TBC IS PROUD TO WELCOME 5 INSPIRING BUSINESSES TO THE PROGRAMME:

*"We are creating new markets for toilet resources. The task now is to verify benefits at scale. This accelerator programme will help us achieve our goals a lot quicker."*

**Marc Lewis, CEO**  
THE BIOCYCLE

*"At Sanivation we take the carbon from toilet resources and turn it into fuel, biochar. We are looking at meeting an entire community's needs for onsite sanitation and we're hoping the TBC can help us broker relationships so we can help sell fuel to larger companies."*

**Andrew Foote, CEO**  
SANIVATION

*"We collect the valuable resource and convert it to an organic, nutrient-rich fertiliser. We are at the exciting point where we sell the fertiliser we produce and we want to scale rapidly. We want to work with bigger farms and with the network the TBC brings. We could then service hundreds of thousands of people."*

**David Auerbach, Co-Founder**  
SANERGY



*"Our challenge is going from monetising the toilet resources to monetising the engagement model: how to create life-improving products for so many people. For that, Samagra changes the meaning of the toilet space itself. It is a centre of commerce."*

**Swapnil Chaturvedi, CEO**  
SAMAGRA

*"At Safi Sana we can already cover the operational expenses of our waste treatment and up-cycling processes through the sale of compost and power. In the future we would like to see closer partnerships with large companies to increase efficiencies and innovate further the waste treatment models to be self-sustaining and resilient. We want to work on the input side and the output side."*

**Aart van den Beukel, CEO**  
SAFI SANA



# THE GAME CHANGERS

- TRENDY BUSINESS - THE DIGITAL FUTURE OF SANITATION BUSINESS
- SUSTAINABLE BUSINESS - SANITATION IN THE CIRCULAR ECONOMY
- EVERYONE'S BUSINESS - WHAT THE LOW-INCOME CONSUMER WANTS

The Summit aimed to flush out business opportunity spaces in toilets, toilet resources and more. Three main themes were explored in terms of current and future business opportunity spaces: Sanitation in the Circular Economy; the Digitisation of Sanitation for all; and harnessing bundling opportunities for the low-income consumer.

The Toilet Board Coalition launched two reports during the Summit:  
Find links to the reports here: <http://www.toiletboard.org/knowledge-centre>

*"Malodour is a key issue for sanitation. People will not use a toilet that smells bad even if it's clean. At Firmenich we have leveraged our fundamental science in cellular biology to understand how humans perceive malodors. We developed affordable fragrance prototypes that combined, with cleaning products, will potentially improve toilet adoption and hygiene and consequently reduce open defecation, explains Marco Pacchiani of FIRMENICH, speaking at the Summit.*

## NEW MARKETS OF SANITATION BUSINESS OPPORTUNITY



## SUSTAINABLE BUSINESS: SANITATION IN THE CIRCULAR ECONOMY

WE HAVE REFRAMED HUMAN WASTE AS TOILET RESOURCES AS A STRONG SIGNAL OF A NEW INTENT TO REALISE THEIR TRUE VALUE

WE HAVE SELECTED A COHORT OF COMPANIES, AND A WIDER INTEREST GROUP TO ESTABLISH THE CIRCULAR ECONOMY FOR SANITATION

The Toilet Board Coalition's work on the Circular Economy has been set up to champion a different approach – making sanitation a business proposition, and ultimately a self-sustaining system. If sanitation is profitable, it is investable. If it creates profits and jobs, local people will play a part in providing an essential service for their own community.

“Sewage is a particularly silly material to regard as waste. It can yield soil enhancers and fertilisers, which increase crop yields. It contains water which can be treated to a usable standard. It allows energy recovery. And there are innovative products which can be derived from sewage – plastics, pharmaceuticals, and pet food for a start. And it can be safe, if managed properly.”

**Sandy Rodger, Circular Economy Expert**  
TOILET BOARD COALITION

“From the start, the Toilet Board asked us to stop using the phrase “human waste” and instead call it “toilet resources” in order to acknowledge poop as a valuable fertiliser, protein, and energy source. Changing your language can change what kind of future you get and bring more people on board with your vision.”

**Sarah Smith**  
INSTITUTE FOR THE FUTURE

Areas of common interest that emerged from our discussions on Sanitation in the Circular Economy at the Summit:

- Connecting to local government and utilities as service providers
- Technical standards and quality assurance mechanisms
- Community and consumer engagement locally
- Proving the economics
- Addressing malodour throughout the value chain
- Digitisation - evolving the toilet resources of health data and information
- Circular Economy models for equipment and facilities

“ In nature, one species waste is another species food. The aim of the circular economy is to do the same for industry. We see an opportunity to use output from toilet resources as inputs to our system as fertilizer to grow our fibers, as water for our processes, and energy for our operations.”

**Pete Dulcamara**  
KIMBERLY-CLARK CORPORATION

“ Additional benefits exist for low-income economies as they avoid the high cost of the transition to the Circular Economy that high income countries face.”

**Anina Henggeler**  
ELLEN MACARTHUR FOUNDATION  
(joined the Summit by live feed)

“ Additional toilets planned to be installed in India will potentially increase gas emissions by 7%. If toilet resources are used, this can actually create a reduction of emissions and therefore enable carbon positivity.”

**Michal Kulak**  
UNILEVER

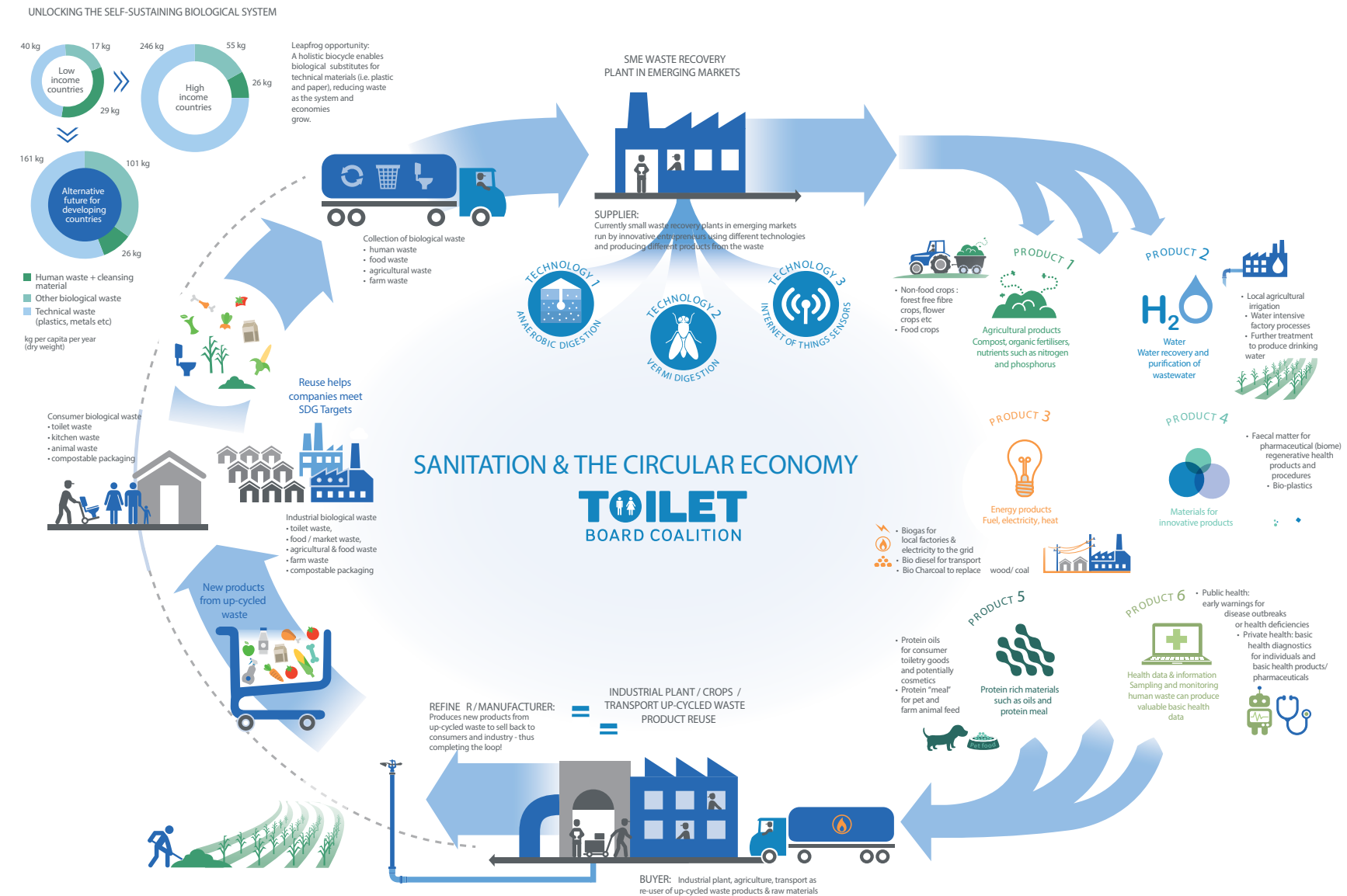
“ India is facing a fertiliser deficit - currently only 60% of nutrient needs are covered. If toilet resources can be collected, this has the potential to satisfy 18% of demand in nitrogen. There is therefore an enormous value in CE sanitation models.”

**Michal Kulak**  
UNILEVER

“ Blue Degree is an innovative system which allows us to recover and reuse the heat capacity contained in waste-water. By installing a heat exchanger on the sewage pipes, we use the heat/cooling capacity of the fluid circulating in these pipes. By using this technology, buildings can reduce up to 60% of their GHG emissions generated by heating and cooling needs. This is an example of the huge potential of resource revolution we are undertaking at Suez.”

**Alexia Michels**  
SUEZ

# TRANSFORMATION TO A COMMERCIALLY VALUABLE, SELF-SUSTAINING SYSTEM





# TRENDY BUSINESS:

## THE DIGITAL FUTURE OF SANITATION BUSINESS

“India’s Prime Minister has committed to building 100 Smart Cities. This will be a multi-billion dollar growth area with a potential of \$1 trillion estimated to be invested to achieve all 100 smart cities. A high density of public and community toilets could be valuable and integrate well into smart city solutions.”

James Caton  
LARSEN & TOUBRO

Digital will transform toilets. There is big data potential in health, digital incentives and logistics that is ripe for innovation. The Internet of Things (IoT) and toilet case studies provide an important signal that this is possible.

Sanitation is going to be different than where it is today. How fast the future comes, will depend on us. Corporate powerhouses like Google, Salesforce, Kimberly-Clark, Firmenich and Autodesk are working on technologies that, partnered with theses toilet innovations and local entrepreneurs, could transform our sector. Early adopters like Samagra, Garv and Sanergy are working with and preparing for greater implementations of technology within their services, both from mobile payments to CRM to logistics and transportation management systems.

DIGITALLY DELIVERED INCENTIVES ARE HIGHLY SCALABLE, POWERFUL BEHAVIOUR CHANGE ENGINES AND AN EXCELLENT SOURCE OF PROFITABLE REVENUES

SMART TOILET NETWORKS CAN PRODUCE BIG HEALTH & CONSUMER & LOGISTICS DATA & INSIGHTS

Samagra tested a digital coupon incentive programme successfully across 15 locations. They have government contracts to for 300 locations in 2017 that would serve 300,000 daily users. They will be leveraging the digital platform across the network.

Sanergy, Garv and Saraplast are three early toilet entrants into leveraging the IoT. Sanergy is working with Sweet Sense sensors to introduce just in time logistics into their decentralised toilet network in Kenya. Garv and Saraplast use it to manage remote clean teams as well as to monitor the location of their mobile toilet assets. Large players like Larsen & Toubro indicate that toilet networks could be a useful part of a smart city infrastructure plan, while IBM Watson sees toilet health data as a potential big win.

“Today, products from KCC are designed to collect bodily fluids (mucus, menses, urine, feces, etc.), contain them hygienically so they may be disposed of properly. We see an opportunity to create ‘smart products’ that can extract data to understand a person’s health and nutrition needs, or using infant feces as a source of microbiome for irritable bowel syndrome, or menses as a source for stem cells, as well as intelligent restrooms that help improve the cleanliness, supply, and performance of restrooms around the world.”

Pete Dulcamara  
KIMBERLY-CLARK CORPORATION

“Online platforms can give the power to consumers to say what it is that they want, rather than letting the suppliers make that decision.”

Francis Clauson  
SALESFORCE

“Having sensors placed in toilets so you know how many users have used a flushing system & hygiene practices of the community to be able to design a behaviour change and communications plan.”

Mayank Midha  
GARV

“Information we could have in the WASH sector is wasted. If we are using paper, spreadsheets, emails etc, data is wasted when it is a valuable resource. We need to figure out how to gather it and turn data into information. Our platform is free. Larger organisations like WaterAid fill in the platform in the way that they need and then they share it to the rest of the world. We need feedback on what tools would work for you, the service providers.”

John Feighery  
MWATER

“Information - the toilet has something you can get information from and act on it. We want to provide that information with the services we have and enabling the people in remote areas to create their own infrastructure without needing to wait for someone to come and do it for them.”

Pritam Pebam  
GOOGLE

“We build applications. Development issues have spatial components. WashMIS, applications for utility to map assets, understand infrastructure, get reliable data on half hour basis. Offering data where people need it.”

Mark de Blois  
UPANDE

“We serve over 900 facilities everyday. We plan to grow fast. We have to do frequent collection, but toilets are not always used in the same way (e.g. not used in schools on Sunday) so we partnered with GSMA to put sensors into our facilities to know when they have filled up. We seek to optimise our waste collection which is a huge cost driver. We are running a pilot now which we hope to expand if all goes well.”

David Auerbach  
SANERGY

“We use CRM, RFID and now e-commerce. We have portable toilets all over the city. Cleaning of the toilets is very important, Smell-o-meter technologies are in process. The customer needs to get a clean toilet everytime. GPS location, the customer gets a message to tell them if and when the toilet was cleaned. We have developed a pilot in Pune, old buses converted into female toilets, with shower rooms and e-commerce inside the buses, sanitary napkins etc. If you want to order something online, if the bus is on a street where shops have medical supplies, we have an app and it can be delivered on the bus. The bus is the medium for the e-commerce marketplace! ”

Rajeev Kher  
3S-SARAPLAST

“We have a sensing mechanism that sits in the toilets. Our service team have maps on their phones. All information goes to a web platform. Managers can distribute information and track assets. As part of the app the toilet resources in the containers are scanned.”

Iain Purves  
LOOWATT

“The world is always on. The consumer can say what it wants. Gather customer information in one place helps you control your business. Business optimisation.”

Francis Clauson  
SALESFORCE

# WHAT THE LOW-INCOME CONSUMER WANTS

CUSTOMER ACQUISITION IS EXPENSIVE. CROSS PROMOTION AND CHANNEL PARTNERSHIPS CAN DRAMATICALLY DROP THE COST OF ACQUISITION AND SIGNIFICANTLY ACCELERATE THE DELIVERY OF LIFE CHANGING ASPIRATIONAL OFFERINGS.

BUNDLING GOES BEYOND PRODUCT CROSS-PROMOTION. PHYSICAL AND DIGITAL REAL ESTATE IS A PLACE TO LOOK AT FOR BUNDLING.

DAVID AND GOLIATH BUNDLING OPPORTUNITIES - FOR EXAMPLE MULTI-NATIONALS LICENSING IP AS A SPACE FOR BUNDLING.

We sought to understand the collective intelligence around the low-income consumer that sanitation businesses serve. We invited businesses from across sectors, such as pay-as-you-go solar, cookstoves, water, digital, large and small businesses, who are selling to the low-income consumer to share their insights on what they want, and opportunities to bundle product and service offerings.

*"Toilets bundled into a micro-real estate and retail solution is a major growth opportunity and could be highly scalable."*

**Smita Gupta**  
GENSLER

*"To unlock bundled services, franchising and government contracting, there will need to be powerful sales tools used to build the funnel,*

*activate it and make it produce sales. Salesforce can help professionalize the sales process for the sanitation sector."*

**Francis Clauson**  
SALESFORCE

*"In a world of open innovation, intellectual assets flow in both directions to create value for its owners. At KCC, we are constantly looking at new ways to monetize our intellectual property through strategic use, licensing, spin-outs, and partnerships. Envision a world where entrepreneurs gain access to unused or underused IP that reside within multinational corporations and could unlock that value to build new businesses at an accelerated pace."*

**Pete Dulcamara**  
KIMBERLY-CLARK

"We tell stories. Consumers don't talk about spending more money but getting value. Whatever she spends on, nothing gets wasted."

**Sourav Ray**  
HAVAS

"How we can double the business? This enables us to have social impact: 1) helping one million people to change hand washing behaviour and 2) helping people get proper access to sanitation - without water, sanitation, hygiene we don't get progress."

**Analia Mendez**  
UNILEVER

"How to make a toilet more consumer centered from an innovator's point of view? We run an entrepreneurial impact programme: we work with designers within CCA and mitigation, we support

entrepreneurs within commercialisation tools, we extend the nurturing. We are here to create a platform for all the innovators to voice their stories."

**Priya Balijepalli**  
AUTODESK

"Sometimes innovative isn't necessarily mobile based, whiz bang, it can be listening to consumers, human centered design, sometimes consumers need simple solutions. We need to take a more systems level approach. Existing financial products can go a long way under a systems approach. Sometimes we need to go behind what it is they are telling us. It turns out to be far from what we understood: *"what do you mean by clean?"* for example. Human centered design can get to the core of what we should be delivering but we need to listen to consumers."

**Geoff Revell**  
WATERSHED ASIA

"We have been working in India for 40 years. We are confident that only staying in the water sector will reach nowhere, we need to reach out to housing developers. Let's think of how we can scale solutions which will serve the urban poor. 3 messages: 1) Sanitation needs to be installed

once for good. 2) What will not be maintained, should not be built. There are some basic skills we need. 3) Look city wide."

**Stefan Reuter**  
BORDA

"We provide awesome experience community toilets. Experience centres! if you pay for these toilets, you get 'Loo Rewards' and you can pay for your electricity bills, for instance. We change the meaning of the space. Everybody looks at them as a dirty space. But we create an engagement. People see them as banking centres, or service centres."

**Swapnil Chaturvedi**  
SAMAGRA

"We provide health care using tech. Health is working in a silo. every stake has its own dynamics. We try and see what water resources are coming in, what kind of messaging is going on. The tag team between health and sanitation - thinking of the toilet as a medical device has incredible potential."

**Sujay Santra**  
IKURE

"We have learned a lot from Ebola in West Africa: on providing free stuff in hospitals (chlorine). First we must talk to the end user before starting the design of products or their effectiveness will be limited."

**Lee Kironget**  
UNICEF

"Education and skills can be imported easily, sanitation is not so individualistic as one thinks. In rural india, the idea of community is dying, we will have a direct challenge in the future on this. Sanitation is about thinking of having an issue of the commons. But more and more people are telling us, we want toilets but we must consider that it is not possible to have individual toilets in homes in India."

**Manoj Kumar**  
NAANDI FOUNDATION

Samagra will have a total of 300+ locations in 2017 serving over 300,000 users. Garv will be building 50 new locations in 2017. Both will be collaborating with Gensler to think through the power of design to unlock bundled opportunities in retail.



# COUPLES THERAPY

"You cannot solve this problem with one company, you need an ecosystem where each organisation brings to the table what they are good at."

**Satish Rao**  
FIRMENICH INDIA

Everyone is in agreement, no one can do this alone. Throughout the Summit various keys to productive partnerships were highlighted. Our special session titled, "couples therapy" with MNCs, Municipalities & Innovators aimed to share learnings and successful practice experiences - discussion on defining roles in the relationship, facilitating agreements, and keeping your partner happy (or finding the right mediator). Touching on items such as policy & IP, tailoring your product, pricing & communication.

"One of the biggest drivers of success is being clear on what you want to get out of the partnership and what the others want to get out of it.

Is there anything in the partnership that goes against what you are trying to achieve? From a Unilever perspective we are clear with what we want to get out of collaboration: we have committed to provide improved access to 25 million people by 2020. Secondly, if we can create that, we create demand for our products and third, there is the value of bringing people from our company to other organisations, it stretches our perspectives and ways of thinking. Finally, having a form of agreement or contract that focuses on 2 or 3 big things where we agree to work together and resist the temptation to descend into the operational details from a distance is not useful."

**Charlie Beevor**  
UNILEVER

"We operate under a PPP mode, I would describe it like trying to prepare a pizza, you go through contortions with stakeholders and mix it with several ingredients before you get to taste it. We have not reached commercial phase but we hit the milestones of the TBC: 1) offered Laguna Water as a test bed for technologies 2)

## PARTNERING TO WIN

While we will take a lead role, we want to know what ecosystem would work. Recommendations: 1) there are key stakeholders to engage, 2) collaborate with key partners, 3) accountability for results."

**Perry Rivera**  
MANILA WATER

"Lessons learned? Accept that when you build a partnership you will have a common goal but you may have different interests - it is important to put that up front, because it's ok. How do we create a common language? We often talk about the same things but with different words. The way you use words when you partner can shift the design of your collaboration. The challenge is in the use of the word 'partnership.' The TBC is a business coalition, not a partnership. For me, the first requirement is to share resources on both sides. A collaboration is working together with clear goals, partnerships require partnership brokers."

**Bérangère Magarinos-Ruchat**  
FIRMENICH

"We have been working with water stakeholders since 1980 at the African Water Association and played a role of Water Operative Partnerships since 2006 (WOP). Partnerships between water utilities is having a mentor and a mentee. It is a win win relationship."

**Sylvain Usher**  
AFRICAN WATER ASSOCIATION

"There is no quick definition for Smart Cities because citizens have a voice and help to craft the vision. For some it's about traffic, others safety, e-governance - it ultimately depends on the priorities at the city level."

**James Caton**  
LARSEN & TOUBRO

"Leadership is critical, you must have champions working on both sides. And we need a shared agenda, joint research and advocacy and shared values."

**Jenny Karlsen**  
WSSCC

"First we need to make sure all parties really want it, have a long term perspective. Development issues in India are so big that no one partner can do it. A beneficiary comes forward to pay, ITC gives a soft loan through an NGO, we then pitch for them, it then creates a sanitation fund, the money starts coming back."

**Mukul Rastogi**  
ITC

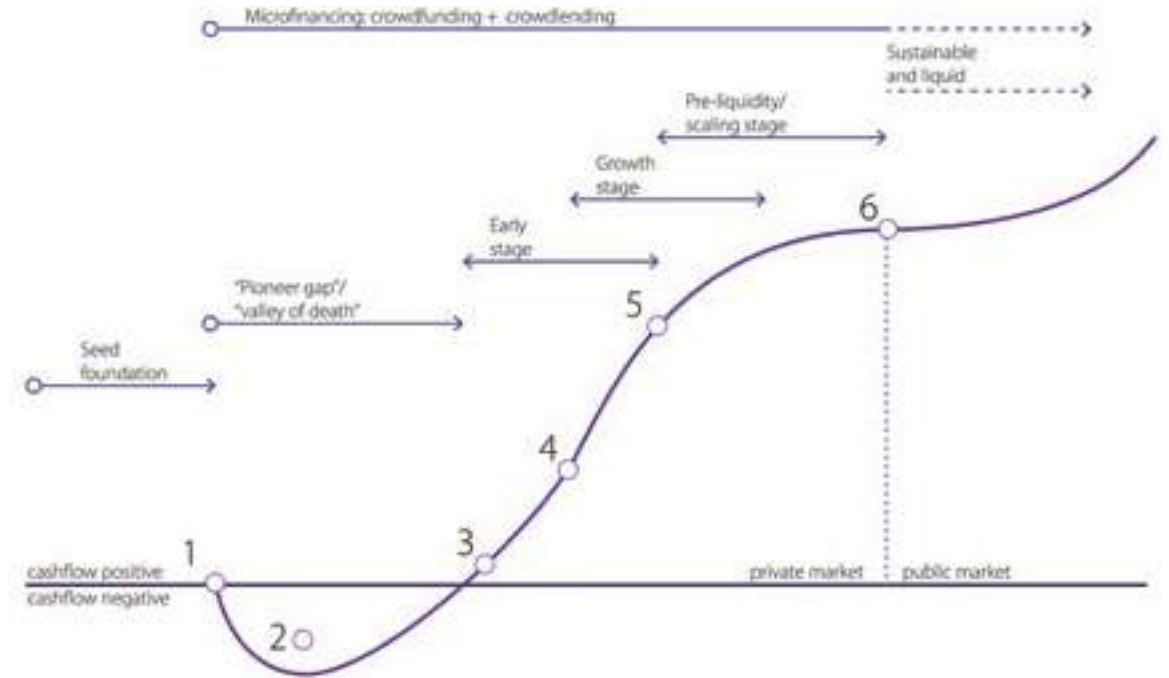
"At the Toilet Board, we believe that there is so much untapped value in the partnerships we are building between large and small businesses. This model works because it's about mutual benefit. Large companies can learn about new markets working with entrepreneurial young businesses and we can help to provide expertise that will help smaller businesses grow faster. I believe it is the future – not because it is just about doing good but also because the business opportunities for all those involved are massive."

**Mauricio Troncoso**  
Vice President & Managing Director  
Western Europe at KIMBERLY-CLARK  
Chairman of the TOILET BOARD COALITION

### TIPS ON KEEPING YOUR PARTNER HAPPY:

- "Have accountability for results" - Perry Rivera, MANILA WATER
- "Make sure all partners really want it" - Mukul Rastogi, ITC
- "Common goals are needed but that does not necessarily imply common interests" - Bérangère Magarinos-Ruchat, FIRMENICH
- "Creation of an enabling environment for PPPs to happen" - Ammar Fawzi, GOAL

# INVESTING VALUE CHAIN



	1. Seed foundation	2. Pioneer gap	3. Early Stage	4. Growth Stage	5. Pre-liquidity	6. Exit capital
Typical need	<\$1mm US	\$1-5mm US	\$5-10mm US	\$10-20mm US	\$30mm+ US	\$50-100mm+ US
Common Uses	Ideation, Product Development	Go-to-market, Customer Acquisition	Team Expansion, R&D, Sales and Marketing	Sales Expansion, New Product Lines	Balance Sheet, Continued Revenue Growth	
Predominant players	Angel Investors, Family & Friends, Foundations	Seed funds, Foundations, Family Offices	Family Offices, Foundations, Venture Capital	Family Offices, Private Equity, Venture Capital	Commercial Banks, High Net Worth Individuals	

Enabling the business of sanitation for all will require significant investments over the next decade - it has been estimated at a \$1 trillion investment opportunity over the next 15 years. The pool of impact investment dollars is large and growing. How can pioneering sanitation businesses tap into available capital?

The impact investment community joined our Summit for a sneak peek into exciting new business models in the sanitation sector. Sanitations businesses wanted to know, what do investors look for?

*"Social impact entrepreneurs may be hesitant to look at commercial returns, but as an investment institution we are not looking at doing good, the purpose has to be about making money, the outcome can be doing good. For businesses that have been grant funded and are transitioning to commercial investment to succeed, a mindset change is needed."*

Noshir Colah  
AAVISHKAAR IMPACT INVESTORS

*"As impact investors we look for strong local team members, knowledge on the ground, not just technical expertise but business acumen, transparent and effective communication, due diligence, and the right priorities."*

Patrick Mullen  
SORENSEN GLOBAL IMPACT INVESTING CENTER

# NAVIGATING THE "VALLEY OF DEATH" WITH INVESTORS & ENABLERS

Each stage of the Sanitation Investing Value Chain requires different impact and financial investment criteria and metrics. Summit attendees graphed themselves along the chain and then had the opportunity to sit down with the investors of their choice, to learn more.

**KEY SUMMIT OUTCOME:**  
Launch of the Sanitation Impact Finance Initiative: an initiative between Sorenson Impact Center, Borda, TATA Trusts with support from the TBC was launched at the Summit. It is a taskforce with the single purpose to mobilise sanitation finance at scale. Three big potentials were identified: an International Finance Facility for Immunisation like instrument, micro-finance and innovative municipal finance.

**Sanitation businesses & the 'Valley of Death'**  
It was identified that most sanitation businesses today find themselves in the 'valley of death' in terms of their stage and pathways to scale. This term is used by investors to refer to the period of time from when a startup firm receives an initial capital contribution to when it begins generating revenues.

What makes this stage so difficult? After a firm receives its first round of financing, it incurs a lot of initial costs: offices, staff and general operating costs; meanwhile, the business is not yet earning significant income to cover those costs and therefore burns through capital. The ability of a business to effectively manage its cash flows will make or break the business.

Source: Investopedia - <http://www.investopedia.com/terms/d/death-valley-curve.asp>



*"Sanitation Impact Finance Instruments (SIFI) have the potential to mobilise capital at scale for private enterprises and public agencies. These range from early stage finance that can help entrepreneurs cross the valley of death to super scaled instruments that could unlock the potential of municipalities to work with private enterprises at scale."*

**Jeremy Keele**  
SORENSEN IMPACT INVESTING CENTER

*"We have used a fund of funds approach to activate 50% of the MFI actors in Bihar to engage in toilet loans. The average repayment rate is 98%."*

**John Sauer**  
PSI

*"Water.org launched WaterEquity to raise and deploy social impact investment capital to enterprises serving water supply and sanitation needs at the base of the economic pyramid. An influx of new social impact capital will not only expand access to sanitation among the BOP, but also enable enterprises to grow and become more attractive to commercial investors."*

**John Moyer**  
WATER.ORG

*"One of the first commercial investments in sanitation was Aavishkaar's early stage investment in Saraplast: "Saraplast is currently a 3 million revenue business. This is an example of a successful investment, but we believe that it is just the tip of the iceberg. With the government focus on sanitation, the business models have evolved and business is now rolling in."*

**Noshir Colah**  
AAVISHKAAR IMPACT INVESTORS

*"We need to play a role in strengthening the government machinery. In 25 districts we have Swachh fellows from TATA providing monitoring and capacity building for social entrepreneurs. We think that's the most effective way to support governments."*

**Prabhat Pani**  
WATER MISSION, TATA TRUSTS

*"We need long term financial commitment to achieve SDG 6. Wastewater is another story, it needs more funding. What can be learned from other sectors players? For example, what can we learn from the health sector?"*

**Stefan Reuter**  
BORDA

*"We believe strongly in impact investing. The right type of capital with the right type of entrepreneur. But there's a communications gap between investors and entrepreneurs. Due diligence is expensive. Sorenson helps to support this process by working closely with Universities for a cost effective model."*

**Patrick Mullen**  
SORENSEN IMPACT INVESTING CENTER

*"Grand Challenges Canada invests up to \$1M in patient capital in sanitation start-ups that are transitioning to scale. We consider these impact investments critical in addressing the pioneer gap many social enterprises still face when raising capital at the early stages of their company's growth. We're excited to be part of the Toilet Board Coalition."*

**Leeat Weinstock**  
GRAND CHALLENGES CANADA

*"Microfinance and other forms of customer financing are important to enable low income customers to pay for water and sanitation products and services over time."*

**John Moyer**  
WATER.ORG

*"In Asia, the do good factor is a huge growth opportunity. We have interacted with Aavishkaar to look at their portfolio. We would be happy to talk to Indian companies."*

**Bina Trivedi**  
IL&FS INVESTMENT MANAGEMENT

*"I was skeptical about the sector initially but I did get very excited about some very promising businesses that are here at the Summit."*

**Vincent Kouwenhoven**  
EVENTURES VENTURE CAPITAL

*"We have made a \$1.5 billion commitment focusing on usage of toilets and sustainability of the toilet usage. One of the major challenges has been that the customer (governments through their subsidy scheme) is not the user. This is not helping, we need the users to be the customers. Micro-finance has tremendous upside potential to unlock household construction of toilets."*

**Mathews Mullackal**  
WORLD BANK

*"We can collaborate with global and local investors on due diligence to mitigate the high costs - we can send them on the ground and work with African Universities."*

**Patrick Kiruki**  
BANZA TOILET







## LIVE FROM MUMBAI PARTNERSHIPS & COLLABORATIONS FORMED IN REAL TIME

The Summit aimed to facilitate increased partner and members' engagement on the development of innovative, business-oriented sanitation solutions, an improved understanding of the work of the TBC and the Toilet Accelerator, and a broadened view of the business opportunity and existing solutions to complex sanitation challenges.

Throughout the event moderators and facilitators drew attention to 'Needs & Offers' that were put on the table by participants. The final moment of the Summit was an open mic for participants to share the new collaborations, partnerships and deals that had been birthed over the past few days.

**More than 30 new collaborations were initiated at the Summit!**





The TBC was invited by Global Citizen to close out the week at their festival on World Toilet Day. In front of 80'000 people in central Mumbai, the commitments made by TBC Members via the Toilet Accelerator, into business solutions for SDG6 were highlighted.

Are you interested in getting more engaged with the Toilet Board Coalition? There are membership opportunities for multinationals looking to support business growth in developing markets, the selection process begins now for the 2018 Toilet Accelerator, and we're launching Fast Forward in Q1 of 2017 - please email [secretariat@toiletboard.org](mailto:secretariat@toiletboard.org) to express your interest.

**WE BELIEVE THAT ACHIEVING SUSTAINABLE DEVELOPMENT GOAL 6, UNIVERSAL ACCESS TO SANITATION OR "TOILETS FOR 2.4 BILLION" IS THE BUSINESS OPPORTUNITY OF THE DECADE!**



## WHAT'S NEXT?

## SUMMIT PARTICIPANTS





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BOARD COALITION

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