THE SANITATION ECONOMY OPPORTUNITY FOR SOUTH AFRICA

SUSTAINABLE SOLUTIONS FOR WATER SECURITY & SANITATION

A Business Perspective
SINCE 2015

Catalysing and supporting private sector engagement, innovation and business solutions to deliver smart, sustainable & resilient sanitation for all.
IN 2019 TBC MEMBERS & PROJECT PARTNERS
VISION FOR BUSINESS ENGAGEMENT IN SANITATION
RISK MANAGEMENT: SANITATION & RESOURCE SECURITY
BUSINESS OPPORTUNITY: NEW RESOURCES, NEW DATA & INFO, NEW MARKETS
THE SANITATION ECONOMY IN INDIA

MARKET ESTIMATE:
The SANITATION ECONOMY is a US $32 BILLION per year market in India today and set to double to an estimated US $62 BILLION by 2021.
THE TOILET ECONOMY
TOILET PRODUCTS AND SERVICES

MARKET ESTIMATE:
The total market for construction of individual & community toilets, deployment of portable toilets, maintenance, repair & cleaning is estimated to be worth $14 BILLION in 2017 and could more than double to $31 BILLION by 2021.*
THE CIRCULAR SANITATION ECONOMY
PRODUCTS DERIVED FROM TOILET RESOURCES

MARKET ESTIMATE:
Products derived from Toilet Resources, and organic / biological waste such as water, fuel, electricity, proteins, and organic fertilisers or compost offer tremendous scope for growth. Considering both the supply side and demand side scenarios in India, the overall market for these products is estimated to be $14 BILLION in 2017 and is expected to grow to $25 BILLION by 2021.*
GLOBAL MARKET

CIRCULAR SANITATION ECONOMY
A MARKETPLACE OF BUSINESS SOLUTIONS

SELLERS

BUYERS

WATER
ENERGY PRODUCTS

PROTEIN RICH MATERIALS

AGRICULTURE PRODUCTS

Materials For INNOVATIVE PRODUCTS

Agriculture Products

Animal Feed Markets
Pet Food Manufacturers
FMCG
Pharmaceuticals
Fish Farms

MNC
Pharmaceuticals
Consumer Goods/Plastics

Manufacturing Plants
Energy Networks
Communities
Individuals
Government
Local Businesses

Communities
Individuals
Governments
Manufacturing Plants

Innovative Products

Materials For INNOVATIVE PRODUCTS

PROTEIN RICH MATERIALS

ENERGY PRODUCTS

H₂
WATER

Materials For INNOVATIVE PRODUCTS

Innovative Products

TOILET BOARD COALITION
THE SMART SANITATION ECONOMY
DIGITAL TECHNOLOGY APPLICATIONS FOR SANITATION

MARKET ESTIMATE:
The Smart Sanitation market could get started with an estimated value of $4 BILLION in 2017 and could grow to an estimated $6 BILLION by 2021 considering available data comparisons to some digital healthcare and smart cities applications.*

Health prevention data through the capture of data from sanitation systems is not yet being monitored today, but could be worth $3 BILLION in 2021 as part of the healthcare Internet of Things (IoT) market.
UNLOCKING VALUE THROUGH ENTREPRENEURSHIP

Big Business partnering with innovators and entrepreneurs to build the Sanitation Economy
Bespoke Mentorship & Business to Business

Accelerating
- supporting sanitation business needs for scale & accessing business experts

Co-innovating
- partnerships between large & small businesses with mutual business interest to create new value

Bundling
- cross sector partnerships for access & distribution between businesses targeting the same customers in the BoP
Our Portfolio

[Logos of various companies and initiatives related to sanitation and water]

- ATEC
- The Biocycle
- Biomass Controls
- Saashri
- Safisana
- Samagra
- Sanergy
- GARY Toilets
- LiveClean
- Sanivation
- SJP
- SVADHA
- Tiger Toilet
- Shobar Jonno Pani
- Toilet Integration
A Growing Pipeline across the Sanitation Economy
From Tech-driven to Customer-driven

From Impact 1st to Finance 1st
BUILDING THE EVIDENCE BASE
As the Toilet Board Coalition’s work has progressed, more and more evidence has emerged that the Sanitation Economy can transform sanitation and at the same time create business opportunity. This goes beyond CSR projects, and beyond businesses directly providing sanitation products and services, valuable as those are. We’re seeing sanitation open up as a new consumer space, a part of consumers’ lives where they spend time, and have needs and preferences for a wide range of products and services, and where we can gather data to develop much better consumer understanding. The sweet spot is to meet a fundamental human need for sanitation, especially for the poorest people, to do that in a way

India’s healthcare system has seen significant progress in recent years. A strong economy, expanding medical options and longer lifespans are contributing to greater demand for high-quality healthcare services. But to fulfil this demand, the major stakeholders in India’s healthcare system must address shortcomings in areas such as infrastructure, insurance coverage and availability of skilled medical professionals. New ecosystems are beginning to redefine the way healthcare is organised and delivered in India where participants can collaborate in new ways to promote better outcomes and improve the patient experience.
HOW DOES SANITATION GET SMART

New technologies enabling the collection of new data, feeding new insights, and creating Sanitation Intelligence

SANITATION INTELLIGENCE

The Smart Sanitation City produces new intelligence for individuals, businesses and city authorities

1. **Citizen Intelligence**
   - Total number & usage
   - Real-time alerts
   - Other services available (e.g., Wi-Fi)

2. **Business Intelligence**
   - Cost savings & usage patterns
   - Cost savings & usage patterns
   - Cost savings & usage patterns

3. **Smart Public & Community Toilets**
   - Smart Public & Community Toilets

4. **Smart Wastewater Treatment & Management**
   - Smart Wastewater Treatment & Management

5. **Smart Preventative Healthcare**
   - Smart Preventative Healthcare
**CASE STUDY: Hathikuli Plantation, Assam, India**

Social, environmental and economic factors studied to produce recommendations for tendering and investment in a demonstrator Circular Sanitation installation

Tata Global Beverages and Amalgamated Plantation, in association with the TBC and ETP, have completed a feasibility study in July 2018 to understand the benefits of implementing a Circular Sanitation Economy system in a tea plantation. This study addressed the social, environmental and economic components of implementing new sanitation infrastructure and technology that would collect Toilet Resources and convert them into new valuable resources for the plantation.

Located in North India in the state of Assam, Hathikuli is an organic tea plantation operated by 4330 workers. The estate provides residential houses for its permanent workers and their families, each provided with a toilet shelter and pit latrine. The plantation management are committed to improving the sustainability of the plantation and quality of life for its workers.

The study methodology is detailed later in this report, as a step by step toolbox. This was created to collect and analyse the information needed to implement a Circular Sanitation Economy approach. This assessed the feasibility and potential for resource recovery, and evaluated a range of toilet, collection, and treatment options. The toolbox is adaptable to quantifying the broad benefits to agriculture described previously. However this initial study was focused on the specific needs of Hathikuli.
NEW TOOLS
TOILET RESOURCE CALCULATOR

1. Assess the possible amount of Toilet Resources produced: Toilet Resource Calculator

2. Compare and select re-use product(s): Quantification of Resource Streams

3. Determine the type of toilet and Toilet Resource transportation needed for selected re-use product(s): Feasibility Choice Matrix

4. Include social and environmental factors: Feasibility Choice Matrix

5. Final synthesis: Comparison Chart
SPACE FOR SANITATION
ANNOUNCING the SANITATION ECONOMY SUMMIT in Pune November 19th to 21st 2019

A one-of-a-kind experience of inspiration and a touch of the unexpected aimed at showcasing sanitation systems of the future - that are smart, sustainable and accessible to all

INNOVATION MARKETPLACE / Expo of Sanitation Economy business solutions and sharing best practice

SMART SANITATION CITY / Visits Pune Smart Sanitation City sites

SANITATION ECONOMY LEADERS / Daily keynotes from international and local Sanitation Economy leaders

WORKSHOPS / Workshops will focus on scaling and replicating Sanitation Economy systems

PUNE LIVE / Evening entertainment and networking

An exclusive convening of Sanitation Economy businesses, investors and policy leaders coming together in Pune India to showcase working Sanitation Economy systems ready for scale and applicable globally. Request an invitation and join us to share best practice, build new partnerships for scale and un-lock the multi-billion dollar Sanitation Economy improving billions of lives.

YOU’RE INVITED!
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A Business Perspective
CALL TO ACTION: A 5 POINT ACTION PLAN
Launching a National effort to build the Sanitation Economy in South Africa 2020-2025

Inspired by the success factors of the SBM program, of the 'Waste to Resource' paradigm and of Citywide Inclusive Sanitation, we propose stimulating a global effort to help scale up the Sanitation Economy in countries around the world by, among other things:

01. Disrupting the status quo - and creating demand for Sanitation Economy solutions;
02. Rethinking approaches to the provision of urban sanitation services, encouraging private sector companies and their public sector counterparts to raise the bar on providing safely managed sanitation at scale;
03. Considering wastewater and faecal sludge as a valued resource to be recovered and reused;
04. Identifying quick wins in the scaling of business solutions in the sector.
05. Unleashing the influencers who can help in the financing of sustainable and resilient sanitation systems,
BUILDING THE SANITATION ECONOMY IN SOUTH AFRICA

01 Disrupting the Status Quo: Creating Demand for the Sanitation Economy in SA

02 Rethinking sanitation approaches: Toilet as a Delivery System of Value

03 Circular Economy & Smart Digital approaches to Sanitation - New Resources & Data

04 Identifying Quick Wins - Business solutions to scale

05 Unleashing the influencers: Financing the Sanitation Economy