BOARD COALITION Sandy Rodger – Chief Operations Officer 3 October 2018

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To catalyse and support private sector engagement, innovation and business solutions to deliver **smart**, sustainable & resilient sanitation for all





THE SANITATION **ECONOMY**

Smart Sustainable Sanitation Business Solutions

TOILET **BIO TOILETS** Ų. ۵ COMMUNITY: CONTAINER TOILET TOILETS BLOCKS MAINTENANCE PERSONAL AND REPAIR HYGIENE PRODUCTS 9 TOILET FEMININE CLEANING PORTABLE PAN/TOILET CARE **ECONOMY** PRODUCTS. TOILETS FIXTURE

Improved

Product & Service

Offering

nnn

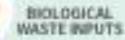
Consumer biological waste

- toolet waste. Edchen waste animal waste
- -compostable packaging

toriet waste. food (market maste, agricultural & food waste.

biological waste

- farmwaste.
- compostable packaging



TECHNOLOGIES

COLLECT & TRANSFORT

- Collection of biological maste. human maste.
- food waste: agnicultural waste

1

technologies to









Such as oils and protein meal Protein oils for consumer

tolletry goods and potentially connetics. Protein 'maal' for put and farm are mal feed

PRODUCTS

APPENDING F

PROBLUCTS

Furt, electropity, heat.

Biogas for local factories

& electricity to the grid Bio-disset for transport. Bio charcoal to replace

WOOD/COOK

H,O

WATER

Water recovery and purification

of wastewater

Local agricultural irrigation
 Water intensive factory

processes • Further treatment to

produce drinking mater

AGRICULTURAL

PROBUCTS

Compost, organic fertibuers,

nutrients such as nitrogen.

and phosphonas

· Non-food props, forest free

food crops

14

PROTEIN RICH

MATERIALS

fibre crops, flower crops, etc.



Fancal reatter for pharmaceutical (biome). regenerative health products and procedures. mo-plastics

PRODUCTS



Consumer insights data related to consumer. behaviour and product usage Customer

twationship maragement, marketing, advertising and product decisions



REALTH DWIN

Nutrition & health data informs public bealth. the bealthcare. community, and To average landowithm. bealth status, disease and pharmaceutical use



Wanifactorers, operators, unif service companies can access status information to inform the need for maintenance, repair. cleaning waste collection, etc.

SMART SANITATION SOFTWARE/DATA PRIOCESSING.

Sensor sends. molecular characterisation data to cloud. sassed cognitive composing platform where data is analysed. and organised

A AHADCTICS.

DISTRIBUTION.

Relevant data is

communicated

back to the user

through mobile.

applications and

Xervices

ECONOMY

TRANSMISSION

User Experience

& Product Apps Designed

for Information Capture

Sensors in household, business, community and public to hels capture molecular character batters of master and transmit data Through connected networks and devices



CIRCULAR SANITATION **ECONOMY**

Toilets & Products

Designed for Reuse

of Resources

& Quality Control PROCESSING. Resource recovery plants process and refuse the collected waste through various.



HOMES, BUSINESSES, FARMERS, MANUFACTURERS, CITIES

Upcycled products from Toilet Resources are sold back to businesses. cities and miteriduals to complete the

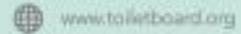
























































Beyond "CSR" and "Market-based Approaches" Beyond Water + Sanitation as a silo Sanitation is Every Business's Business





Business brings new solutions To SDG6

NEW BUSINESS MODELS











NEW RESOURCES

















NEW

TECHNOLOGIES

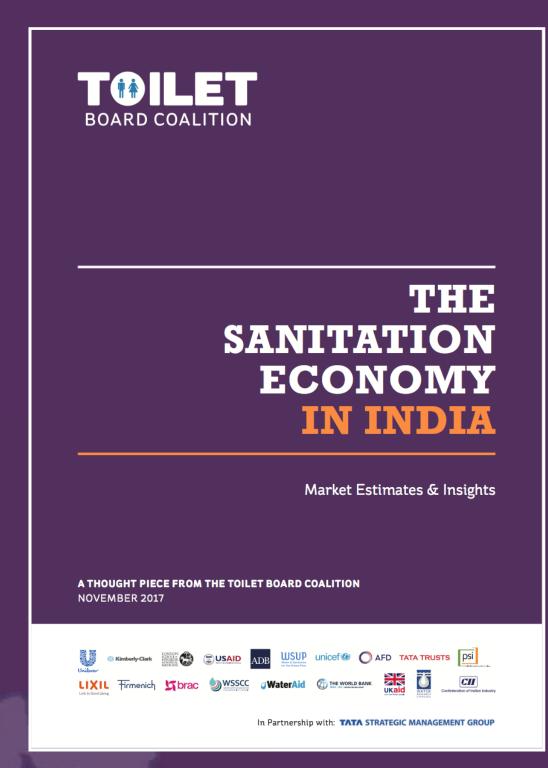




THE SANITATION ECONOMY IN INDIA

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

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 side1 and demand side scenarios in India2, 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





Sanitation seen as an investment?

A huge and growing underlying market

Market growth will at least match population growth!

Received wisdom is being challenged

- A "new grid" of materials, energy, water, and data flows is more affordable and scaleable than sewers or off-grid systems
- Other business can be bundled with sanitation
- All this can support profitable business models, so sanitation is not inevitably "a cost." The issue is <u>not</u> profitability, it is scaleup

Sanitation needs new and varied finance

 Commercial investment is possible and needed – equity, working capital, financial intermediaries

Progress and momentum in 2018

- Business alignment One Business Voice advocating policy ambitions to create the enabling environments to scale the Sanitation Economy
- Investors knocking Several new innovative investment mechanisms for the Sanitation Economy in development
- Real economy opportunities for scale via new tenders from large institutions & corporations based on demand for Sanitation Economy business solutions





www.toiletboard.org





















