Transforming sanitation

Commercialization partnership opportunities

December 2017
Contents

Opportunity summary
Unmet need and macro trends
Reinvented Toilet value proposition
Reinvented Toilet market opportunity
Time is now: How to get started
Opportunity summary
Why focus on the Reinvented Toilet?

Meaningful and accessible business opportunity

Tremendous potential to alleviate human suffering

Opportunity to reinvigorate purpose, attract new customers and motivate employees
Reinvented Toilet represents a potential $6B+ global annual revenue opportunity

Technology currently in pilots and ready for commercialization

Ecosystem of partners and enablers exist to plug into

Extensive market intelligence conducted to inform business model

STeP and Foundation continue to advocate and market shape to enable opportunity

Source: BCG analysis

2030 projections
RT 2030 potential market size is meaningful compared to other global health products and consumer durables

1. Note Euromonitor definition of category is for domestic cooling appliances that do not include freezers, but can come with a small ice box. Category of “fridge freezers” is 2 or 3 door appliances with separate units for refrigeration and freezing and is valued at $68.7B in 2016.

Note: All values USD, using 2016 fixed exchange rates.
Sources: Euromonitor Passport Database (2016), Technavio Global Smart Bathroom Market report (2016), EvaluatePharma, BCG analysis
Improving sanitation has tremendous potential to alleviate human suffering

2.5B
People globally lack access to basic sanitation

80%
Of illnesses in developing countries linked to poor water and sanitation conditions

$260B
Cost globally due to lack of sanitation
Reinvented Toilet offers opportunity for societal impact, resulting in real financial returns

- Reinvigorate company purpose
- Motivate employees; create edge to attract and retain talent
- Strengthen the brand and support premium pricing

Companies that integrate social and environmental impact as a driver of strategy, see results in value creation

- Avg. valuation premium of top vs. median social impact performers\(^1\) +11%
- Avg. gross margin premium of top vs. median social impact performers\(^2\) +5.5 pp

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1. For consumer companies  2. For consumer companies conserving water  
Source: Total Societal Impact BGC analysis 2017
Unmet need and macro trends
Only 3% increase in access to safely managed solutions over the last 5 years

Faster progress required to achieve the SDG goal of safely managed sanitation by 2030

1. Transported and treated offsite
Source: JMP 2017 Report
Macro trends making RT value proposition even more compelling

Growing population with urbanization
Population growth led by developing countries frequently outpacing sanitation infrastructure growth

66% of global population projected to be urban in 2050 creating need for low cost, high access sanitation solution

Aging infrastructure
Even in developed markets, current sewer and centralized wastewater treatment systems can be capacity strained

Infrastructure repairs costly and disruptive

Water scarcity and stress
Half of the global population could be facing water shortages by 2030

Demand could outstrip supply by 40%

Policy changes
Government programs and initiatives focused on sanitation, esp. in developing markets

"Eco-friendly" policies to support sustainable development

Growing population in need of sanitation solution: Many parts of developing world will continue to lack access to sewers, will need alternative solution

2030 sewer access projections

Note: countries in gray do not have data reported
Source: JMP 2017 Report; BCG analysis
Aging infrastructure:
Insufficient wastewater treatment capacity and miles of leaky pipes due to dated infrastructure

Example: Pittsburgh, PA

Old combined sewer system poses risks
- During wet weather, billions of gallons of stormwater runoff and sewage flow directly into rivers

Aging pipes in desperate need of repairs
- Constructed from early 1800's to mid-1900s
- Over 3,500 pipe breaks since 2014
- Concerns about lead in drinking water

$3B
Estimated cost of needed capital improvements

+50%
Rate hike for customers by 2020

With EPA support, Pittsburgh launched “Green First” plan in 2016 to use green infrastructure (e.g. wetlands, bioswales) as part of solution

Sources: PWSA Blue Ribbon Panel, Executive Summary, Nov. 2017 (https://pwsablueribbon.org); Pittsburgh Post Gazette “PWSA bills to jump nearly 50 percent over three years” Nov. 2017; CBS Pittsburgh “PWSA Audit Uncovers ‘Lack Of Leadership’ & ‘Years Of Mismanagement’” Nov. 2017; EPA “Helping Pittsburgh and Other Cities Expand Green Infrastructure”
**Water stress**: will further increase need for sanitation technology that does not rely on water inputs

**Policy changes:** Governments across the globe have initiated campaigns to improve sanitation; some promote green infrastructure as well.

In **USA**, state & local policies encourage green practices, e.g. new San Francisco ordinance requires onsite non-potable water reuse for new buildings >250K sq ft.

In **2015**, **Nigeria** launched campaign *Making Nigeria OD Free by 2025*, but progress is slow.

**EU**’s consistent efforts to increase sewer coverage for all member states has been backed by $40B investment over 20 years with substantial success.

**China**’s Toilet Revolution is rapidly improving toilets in tourism sites and rural residences; China is on track to move from 48% sewer in 2015 to 80% by 2030.

**South Africa** released updated National Sanitation Policy in 2016 reaffirming government commitment to providing access to basic sanitation services to all.

**India**’s ambitious Swachh Bharat Mission seeks to end OD by 2019 and build >10M toilets; thus far (4 years) Government of India has allocated $1B USD.

Source: Expert interviews; desktop research; BCG analysis.
Sanitation should not be seen as a political tool, but should only be connected to patriotism and commitment to public health.

*Narendra Modi, PM of India*

We’ll team up with ministers of education to put sanitation facilities in every school.

*Jim Yong Kim, President of World Bank*

This [sanitation] work must be a concrete part of advancing our country’s revitalization strategy, and we must make great efforts to fill these shortcomings that affect the quality of life of the masses.

*Xi Jinping, President of China*
Reinvented Toilet value proposition
Current sanitation solutions have significant limitations that jeopardize health, safety and in many cases perpetuate open defecation practices

- **Hanging toilets**
  - Foul odors
  - Poor user experience

- **Pit latrines**

- **Septic tanks**
  - Frequent maintenance
  - Difficult to retrofit

- **Sewerage**
  - Expensive to install, maintain

**User**
- Safety hazards
- Environmental contamination

**Municipality**
- Risk of leakage
- Poor waste disposal

- Requires infrastructure
- Requires water
- Treatment not assured
Poor Fecal Sludge Management (FSM) is akin to institutional open defecation.

Sludge direct to the environment when no service chain

- **CONTAINMENT**
  - **20%** WC to sewer
  - **79%** On-site facility
  - **1%** Open defecation

- **EMPTYING**
  - Safely emptied
  - Un Safely emptied
  - Left to overflow or abandoned

- **TRANSPORT**
  - Leakage
  - Illegally dumped

- **TREATMENT**
  - Effectively treated
  - Not effectively treated

- **REUSE/DISPOSAL**
  - 2% of fecal sludge safely disposed
  - 98% of fecal sludge unsafely disposed

Source: WSP analysis, using BMGF funded research

Gates - W SH RT CP Narrative with presenter notes - Updated 28Feb2018 - vFINAL.pptx
Reinvented toilet collapses FSM value chain into a single unit – providing containment and treatment

Reinvented Toilet

Containment
- Water closet

Emptying
- Sewer network pumping stations

Transport
- Vacuum truck
- Transfer
- Treatment plant

Treatment
- Treatment plant

Reuse/Disposal
- REUSE/DISPOSAL

Sewerage

Fecal Sludge Management for on-site systems

Latrine or septic tank

Primary emptying
The Reinvented Toilet program is designed to address each of today’s limitations.

**Eliminate pathogens**
- Eliminate safety concerns via handling
- Reduce disease burden
- Improve environmental safety

**Operate off grid**
- Eliminate need for external inputs such as water and energy
- Make portable and easy to install

**Convey low life-cycle costs**
- Reduce need for pit emptying
- Ensure a sustainable business model, including maintenance via service providers

**Present modular, attractive interface**
- Reduce / eliminate construction costs
- Provide clean and dignified product
- Eliminate odors and waste
Two versions of Reinvented Toilet for different scales: single and multi unit

Single unit (SURT)
A single toilet and attached processing unit that fully treats solid waste and wastewater

*Capacity:* ~1-2 households

*Example use cases:* household, small commercial building

Multi unit (MURT)
Central processing unit that connects to multiple toilets to treat waste and recycle wastewater for flushing

*Capacity:* Varies, up to ~500 users

*Example use cases:* apartment building, public toilet block
Our core RT processing technologies

- Electrochemical
- Wet oxidation
- Dry combustion
- Biological
BMGF is also investing in enhancing the FSM value chain with the Omni-Ingestor and Omni-Processor technologies.
Reinvented Toilet market opportunity
The 2030 global annual revenue potential for RT can vary based on different assumptions on pricing and volume. 

1. As defined by World Bank
Source: BCG analysis

Increasing price (4 different price points based on country income¹)

Increasing RT uptake across segments

2030 global annual revenue potential for RT

<table>
<thead>
<tr>
<th>Price</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>More liberal</td>
<td>$2.7B</td>
</tr>
<tr>
<td>More aggressive</td>
<td>$8.0B</td>
</tr>
<tr>
<td>More conservative</td>
<td>$2.1B</td>
</tr>
<tr>
<td>More aggressive</td>
<td>$6.1B</td>
</tr>
</tbody>
</table>

Scenario outlined in these materials
Opportunity to triple core market by increasing RT volume based on three key market conditions

2030 annual revenue potential ($B)

Baseline
Higher market share
RT expands the market
RT as sewer alternative
Upside

1. Assumes RT will capture a higher % of the addressable market (relative to traditional and eco-friendly options)
2. Assumes introduction of RT technology will expand the number of people starting to use a toilet or changing/ replacing toilets
3. RT can be an alternative driven by policy changes, gov'ts convinced of RT, and eco-friendly purchase driven by water scarcity, aging sewers & limited capacity systems

Source: BCG analysis
Reinvented Toilet represents a potential $6.1B global annual revenue opportunity

Source: BCG analysis

2030 projections
Potential global annual sales opportunity for RT is 2.6M SURTs and 0.5M MURTs

2030 projections

Note: k – represents in 000’s, Source: BCG analysis
## Different market segments for RT have different buyers and goals

<table>
<thead>
<tr>
<th>Segment</th>
<th>New construction</th>
<th>Unimproved</th>
<th>Latrine</th>
<th>Septic</th>
<th>Sewer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>Developer</td>
<td>Homeowner, NGOs, Government</td>
<td>Homeowner</td>
<td>Homeowner/developers</td>
<td>Homeowner/developers</td>
</tr>
<tr>
<td></td>
<td>• Business case and cost conscious</td>
<td>• Accessibility, affordability and financing options critical</td>
<td>• Seeking low cost, low maintenance solution</td>
<td>• &quot;Green&quot; tech</td>
<td>• Seeking solution to decentralized WWT¹</td>
</tr>
<tr>
<td></td>
<td>• Maintenance considerations impact brand reputation and lifecycle cost analysis</td>
<td>N/A</td>
<td>Developer/municipality</td>
<td>N/A</td>
<td>Government</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Seeking solution to aging infrastructure and water scarcity</td>
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<td></td>
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<td></td>
<td>• Demo project</td>
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<td>Commercial</td>
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1. Wastewater treatment
Introduction of an RT will provide a unique platform to grow in dynamic emerging markets

- ~4.3B people in fast-growth markets with high RT need

Source: JMP 2017 report, World Bank
Mature and emerging economies present varied shape of RT opportunity across the globe

- Mature economies building to an inflection
  - +1.7 B

- Emerging economies with high RT need and set for improvement NOW
  - +3.2 B

- Emerging economies with high RT need but requires effort to unlock
  - +0.5 B

Source: BCG analysis
RT has developed and developing country revenue potential, with different economic and sanitation scenarios

<table>
<thead>
<tr>
<th>Examples</th>
<th>Mature economies building to an inflection</th>
<th>High RT need and set for improvement now</th>
<th>High RT need but requires effort to unlock</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td><img src="image" alt="Flag" /></td>
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<td>India</td>
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<td>China</td>
<td><img src="image" alt="Flag" /></td>
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<tr>
<td>South Africa</td>
<td><img src="image" alt="Flag" /></td>
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<tr>
<td>Kenya</td>
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<td>Nigeria</td>
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</table>

<table>
<thead>
<tr>
<th>Revenue potential</th>
<th>$ 1.7B+</th>
<th>$ 3.2B+</th>
<th>$ 0.5B+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic status</td>
<td>Stable economic growth, high GDP per capita (US=$55K; EU= $36K)</td>
<td>Emerging with economies with steep GDP growth (up to 8-10% CAGR)</td>
<td>Low - medium GDP per capita (e.g. Kenya $3K, $6K Nigeria)</td>
</tr>
<tr>
<td>Path to success</td>
<td>Position RT as future of sanitation with reduced water / septic alternative</td>
<td>Ramp-up and capture the ambition of sanitation revolution and improvements</td>
<td>Leverage local partners to establish value chain, plus gov't &amp; NGO support</td>
</tr>
<tr>
<td>Sanitation status</td>
<td>Heavily sewered with aging infrastructure; septic common in rural areas</td>
<td>India is mostly unimproved; China and RSA roughly half sewered</td>
<td>~70% of pop. in Kenya &amp; Nigeria lack access to at least basic sanitation</td>
</tr>
<tr>
<td>Sanitation ambition and goals</td>
<td>Investments in eco-friendly and sustainable solutions in Western EU and US, less common in Eastern EU</td>
<td>China Toilet Revolution &amp; India Swach Bharat targeting rapid advances; RSA gov. continuing ongoing efforts</td>
<td>Kenya aspires to sewer and Nigeria to be OD-free, but progress is slow</td>
</tr>
<tr>
<td>Ease of market entry</td>
<td>Medium: established value chains, but must address regulatory constraints</td>
<td>Medium: strong government support for sanitation; maturing value chains</td>
<td>Kenya: easier with partnership opp'ty; Nigeria: difficult business environment</td>
</tr>
<tr>
<td>Purchasing power</td>
<td>Medium to High: ($3500 USD per SURT); Eastern EU ($900 per SURT)</td>
<td>Medium ($450-$900 USD per SURT)</td>
<td>Low ($250-$450 USD per SURT)</td>
</tr>
</tbody>
</table>

1. PPP GDP: gross domestic product converted to international dollars using purchasing power parity rates

Source: World Bank; JMP 2017; BCG analysis
China: Sanitation rapidly improving, but pockets of opportunity exist for RT

Sewer expansion
- In 2015, almost half (48%) of population had sewer access
- On track to become 80% sewered by 2030

Early adopters
If RT enters quickly, could tap into:
- Toilet Revolution at tourism sites
- Rural non-residential buildings as early adopters

Mainstream
- Opportunity for RT to become as option for rural residents, with government backing
- Urban green buildings may adopt RT as water scarcity increases

Need to move quickly before sanitation investments complete; rapid market entry in China is supported by existing partner and infrastructure ecosystem, even in rural areas

Critical to engage with Government, at all levels; Beijing meeting in 2018 is key opportunity to raise awareness for RT

Source: JMP WASH data, BCG analysis, see country deep dive for more information

In 2030:
- Population: 1.3B
- % sewer: 80%
- % septic: 18%
- % latrines: 2%

$1.16B
2030 RT revenue potential
86K SURT
438K MURT
India: Modi pushing for sanitation improvement; new solutions needed to fully realize goals

Huge need and opportunity
- Total population 1.3B, with 4 mega cities
- India has one third of world's population living on <$2/day
- Only 10% have sewer access and 40% practice OD (~500M)

Heavy investment via Swachh Bharat
- In 2014, Prime Minister Modi set goal to end OD by 2019 and build >10M toilets
- Galvanized country-wide focus on sanitation, including private sector support

However, gaps remain
- Toilets are being erected quickly but funds do not cover full solution (e.g. FSM)
- Only 7% of waste water generated in India's cities is disposed of safely

In 2030:
- Population: 1.5B
  - % sewer: 14%
  - % septic: 34%
  - % latrine: 19%
  - % unimproved/shared: 33%

Decentralized solutions that include FSM can add significant value
Need to move quickly because landscape in India changing now

Source: JMP WASH data, BCG analysis, see country deep dive for more information
United States: Opportunity to enter in specialty markets, and fit into shifting wastewater policies

Specialty markets
Likely early adopters
- Green buildings
- Non-traditional homes (e.g. RV, boats, homes without flush toilet)
- Parks & remote sites
- Portable toilets

Mainstream
Potential long-term upside
- Septic users (mostly rural)
- Sewered cities facing aging infrastructure or water scarcity

Water costs are only going up... we'd be all over this.
-Leading real estate developer

"It's slow, not overnight... but our nation is changing... You didn't hear "decentralized" much a couple years ago; now it has a role." –Director of Water Resources, San Francisco

Niche markets support RT entry today, while setting groundwork for long-term unlocks. Appetite for RT in mainstream exists too, but requires paradigm shift and regulatory changes to fully realize.

Source: JMP WASH data, BCG analysis, see country deep dive for more information

In 2030:
- Population: 359M
- % with sewer: 83%
- % with septic: 16%

2030 RT revenue potential
$660M
107K SURT
8K MURT
Europe: Opportunity to compete with septic, especially in rural areas

Different country archetypes identified
- EU countries vary substantially in their sanitation ecosystems (system types, customer needs, etc.)
- Northern, Western and Southern/Eastern archetypes with different market profiles

EU has strong policy action
- Massive investment in sewer extension and upgrade over past 20 years
- Obligatory for all EU states, with significant EU funding dispersed (20bn+)

Strongest opportunity in East/South Europe
- Significantly lower sewer coverage rates then Western/Northern EU
- Rural areas often primarily relying on septic systems or pit latrine (varies by member state)

In 2030:
- Population: 512M
- % with sewer: 80.5%
- % with septic: 17%
- % with latrine: 2.5%

$1.0B
2030 RT revenue potential
287K SURT
19K MURT

Strong drive toward extensive sewerage but opportunity to compete with septic, especially in rural areas in Eastern and Southern European countries, where sewer coverage will remain low

Source: JMP WASH data, BCG analysis, see country deep dives for more information
Partnerships with existing entrepreneurs may offer accelerated path to market entry in Kenya

Population expected to double from 2000 to 2030 (31M to 66M)
Only 30% of population has basic sanitation and just 3% sewered
Majority rural country (74%), but urbanizing quickly, leading to development spike in non-sewered satellite towns

Government seeks to expand sewer, but progress has been slow
Hence, non-profits and private players have stepped in to provide sanitation services (e.g. Sanergy, Sanivation, SafiSan, EcoCast)

Several innovative sanitation actors involved in Kenya

In 2030:
Population: 65M
• % sewer: 2%
• % septic: 2%
• % latrine: 25%
• % unimproved/shared: 71%

Source: JMP WASH data, BCG analysis, see country deep dive for more information
Nigeria: Strong potential for impact, but challenging business environment

Huge gap in sanitation services
- Mega city Lagos has no centralized sewer
- Only one third of pop. has at least basic sanitation, and % is declining as services cannot keep up with growing population

...Unlikely to be met soon
- Nigeria aspires to be OD free by 2025
- However, sanitation is duty of several ministries with poor coordination, so has historically had weak implementation

Go-to-market requires persistence
- Lower quality local manufacturing, high cost to importing, and corruption risk make market entry challenging

Nigeria offers sizable and meaningful opportunity, if willing and able to navigate unique market challenges

In 2030:
- Population: 271M
- % sewer: 7%
- % septic: 23%
- % latrine: 8%
- % unimproved/shared: 62%

Source: JMP WASH data, BCG analysis, see country deep dive for more information
South Africa: Unique opportunity for RT market that is likely municipality driven

Gov't plays large role in sanitation
- Citizens feel they have been promised sanitation services (via Constitution and party promises), thus municipalities would be main buyers
- Pop. is 47% sewered and 76% has at least basic sanitation

...But struggles to serve all segments
- Great challenge to provide services for large and growing informal settlements, esp. with tenure insecurity & vandalism
- Rural also high cost to serve via sewer

Additional opportunity from water scarcity
- Given population and economic growth, by 2030 South Africa will demand 17% more water than exists
- Droughts have been especially severe in Western Cape

Municipality-driven market, may offer opportunity to reach many users with consolidated pathways

In 2030:
- Population: 359M
  - % sewer: 55%
  - % septic: 3%
  - % latrine: 26%
  - % unimproved/shared: 17%

Source: JMP WASH data, BCG analysis, see country deep dive for more information
Time is now: How to get started
Critical to introduce RT in segments where & when improvements are in process

<table>
<thead>
<tr>
<th>Mature economies building to an inflection</th>
<th>High RT need and set for improvement now</th>
<th>High RT need but requires effort to unlock</th>
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<tbody>
<tr>
<td>Cities actively seeking upgrade to sewer or WWTPs offer open window for lower cost decentralized approaches including green technology</td>
<td>Countries actively pursuing sanitation program offer chance to take advantage of momentum, and financial and political support</td>
<td>Non-sewered regions generally have greater motivation for new solution; once sewered, value proposition is more about sustainability</td>
</tr>
</tbody>
</table>

New construction presents greater opportunity across markets than existing, due to immediate need to install some sanitation system
<table>
<thead>
<tr>
<th>India: Swachh Bharat Mission</th>
<th>China: Toilet Revolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;A clean India would be the best tribute to Mahatma Gandhi on his 150 birth anniversary in 2019.&quot;</td>
<td>&quot;The toilet issue is no small thing... This work must be part of advancing our country’s revitalization strategy.&quot;</td>
</tr>
<tr>
<td><strong>Goal</strong></td>
<td><strong>Goal</strong></td>
</tr>
<tr>
<td>• End OD by 2019</td>
<td>• 70% population with sewer by 2020</td>
</tr>
<tr>
<td>• Build &gt;10M toilets</td>
<td></td>
</tr>
<tr>
<td><strong>Progress</strong></td>
<td><strong>Progress</strong></td>
</tr>
<tr>
<td>• 1300 cities OD free</td>
<td>• Achieved goal of upgrading 25,000 public toilets and newly built 33,500 in tourism areas</td>
</tr>
<tr>
<td>• 3.1M latrines installed</td>
<td></td>
</tr>
</tbody>
</table>
How to get started: Leverage BMGF and STeP resources to set strategy, before launch and scale

Set strategy
Pick target geographies and segments, with focus first on early adopters to unlock broader market entry

Wide range of buyer types for RT (e.g. gov’t, developers, urban/rural homeowners); implies different distribution models and channels

Policy & advocacy
Identify and cultivate thought leaders and "RT champions" in relevant markets

Begin pathway to create favorable regulatory conditions for market entry

Pilot launch
Consider "early adopter" high visibility, need, and/or credibility segments open to iterating on product

Focus on small scale manufacturing and direct to sales distribution model

Scale and expand
Establish foundation for full value offering, including:
- Manufacturing
- Distribution
- Sales & marketing
- Financing
- After market support

Potential to leverage existing capabilities and networks within broader sanitation category

Leverage STeP and BMGF market intelligence and policy resources
Set strategy: Different early adopter paths aligned to vision across geo segmentations

Mature economies building to an inflection

Market vision: Become an alternative to sewer in the developed world

Early adopter strategy: Build momentum with early adopter segments such as pockets of remaining need (e.g. remote, current solutions failing) and eager innovators, to unlock mass opportunity

High RT need and set for improvement now

Market vision: Attain profitable mass market product distribution – in a compressed time frame

Early adopter strategy: Directly enter mass market with one product, with focus on countries actively pursuing sanitation programs, seeking support from early champions

High RT need, but requires effort to unlock

Market vision: Attain profitable mass market product distribution – over a longer time horizon

Early adopter strategy: Either leverage blue/green markets as "early adopters" or directly enter yellow markets, targeting opportunities where gov’t or aid org support is likely

Potential "quick win" for visibility: Emergency situations
Set strategy: Initial research suggests several priority early adopter segments to target for launch

<table>
<thead>
<tr>
<th>Geographic market</th>
<th>Segment</th>
<th>Overarching criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Blue:</strong> Mature economies building to an inflection</td>
<td>Military housing</td>
<td>Segments with current <strong>burning platform</strong> and <strong>clear procurement path</strong>, high <strong>visibility</strong>/potential to drive <strong>aspiration</strong> and ability to be a <strong>trendsetter</strong> and unlock both mature/developing markets</td>
</tr>
<tr>
<td></td>
<td>Green buildings (commercial &amp; mixed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>National and state parks</td>
<td></td>
</tr>
<tr>
<td><strong>Green:</strong> High RT need and set for improvement now</td>
<td>Tourism/religious sites</td>
<td>Segments with high willingness to <strong>take the plunge</strong>, current <strong>burning platform</strong> and <strong>clear procurement path</strong>, high <strong>visibility</strong>/potential to drive <strong>aspiration</strong> and ability to <strong>influence</strong> broader mass market</td>
</tr>
<tr>
<td></td>
<td>Eager municipalities</td>
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<td></td>
<td>Rural hospitals</td>
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<td></td>
<td>Trains</td>
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<td></td>
<td>Rural schools</td>
<td></td>
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<tr>
<td><strong>Yellow:</strong> High RT need, but requires effort to unlock</td>
<td>Refugees</td>
<td><strong>Beta test</strong> segments with clear <strong>potential for govt/aid org support</strong>, to capture learnings for rollout</td>
</tr>
</tbody>
</table>
**Policy and advocacy:** Beyond R&D, we will continue to help expand the industry

**Enabling environment**
Collaborate with local governments to enhance demand for sanitation
Support implementation of international product standards

**Marketplace readiness**
Foster a supportive regulatory environment
Leverage relationships with development banks to facilitate access to financing
**Pilot launch:** High visibility, high need, high credibility segments offer opportunity to build awareness and reputation of Reinvented Toilet

<table>
<thead>
<tr>
<th>Geo unlock</th>
<th>Segment unlock</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Military</td>
<td>Rural markets</td>
<td>Potential to generate key learnings about getting product to remote sites</td>
</tr>
<tr>
<td>Green buildings</td>
<td>Green consumers, New construction</td>
<td>Likely to generate trickle down to green consumers, Potential to more broadly influence other builders beyond currently green-focused ones</td>
</tr>
<tr>
<td>National Parks</td>
<td>Rural markets</td>
<td>Potential to generate key learnings about getting product to remote sites</td>
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<tr>
<td>Tourist/religious sites</td>
<td>Public sites</td>
<td>Likely to generate key learnings for serving high-traffic, public areas (e.g. deal with challenges of overuse, potential vandalism, etc.)</td>
</tr>
<tr>
<td>Eager municipalities</td>
<td>High mass market potential</td>
<td>Adoption by a municipality (for commercial areas, in high profile locations) will increase exposure and drive broader movement to adopt</td>
</tr>
<tr>
<td>Rural hospitals</td>
<td>High mass market potential</td>
<td>Product placement in hospitals likely to inspire confidence in RT, allowing for broader adoption; further, could provide learnings of rural procurement/product delivery</td>
</tr>
<tr>
<td>Rural schools</td>
<td>Broader rural market adoption</td>
<td>Learnings could be applied to schools in rural yellow areas, but also more broadly to rural areas (e.g. procurement relationships, tackling supply chain challenges)</td>
</tr>
<tr>
<td>Trains</td>
<td>Public sites</td>
<td>Demonstration of value prop could allow for broadening to trains in &quot;blue markets&quot; too</td>
</tr>
<tr>
<td>Refugees</td>
<td>Public sites</td>
<td>Likely to generate key learnings for serving high-traffic, public areas (e.g. deal with challenges of overuse, potential vandalism, etc.)</td>
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</tbody>
</table>
**Scale & expand**: Although RT is a new product, it enters an established sanitation ecosystem with potential partners along the value chain.

- **Manufacturing**
  - Toilet manufacturers
  - Eco-toilet manufacturers
  - Home appliance manufacturers
  - Sanitation solution providers
  - Water/septic tank manufacturers

- **Distribution**
  - Wholesale plumbing supply shops
  - Contractor / architect trade shows
  - Consumer hardware, durables or sanitation shops
  - Specialty retailers (e.g. marine sanitation shops)
  - Direct to government

- **Sales**
  - Expand customer base by offering financing via:
    - Pay-as-you-go or asset financing, esp. in developing countries with low access to capital
    - Government subsidies or as buyer
    - Partnerships with NGOs

- **Financing**
  - Critical to offer in higher-end segments and when buyer is not user (e.g. apartment complex)
  - For bottom-of-pyramid segments, ability to self-install, service and repair is key
  - Potential to increase revenue potential with after-market services
    - E.g. subscription based model

- **After market support**
  - Critical to invest time and energy to get right
Additional resources available via STeP Resource Center

Visit: stepsforsanitation.org