



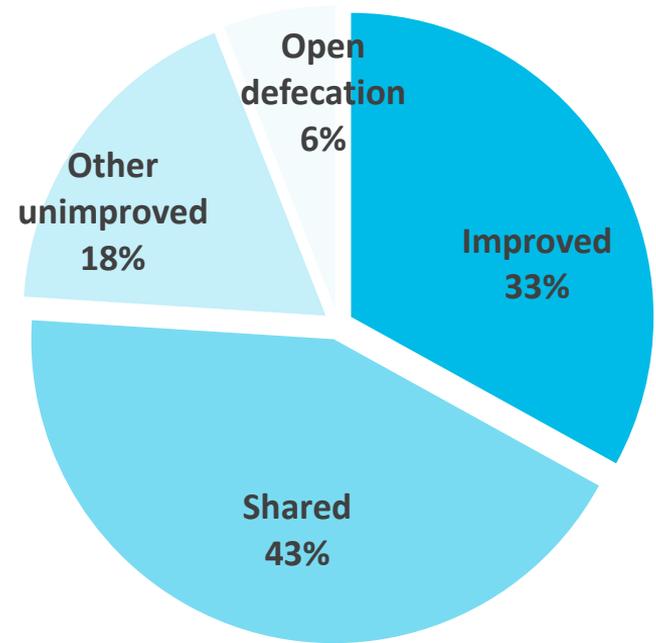
**Sanitation Service Deliverable Program / Catalyzing Sanitation Markets**  
**Soakaway Pits are Money Makers for Landlords**  
**in Abidjan, Côte d'Ivoire**

*Lassina Togola; PSI/SSD Sanitation Engineer, 20<sup>th</sup> February 2019*



# Background Context

- **40 people** in multi-family compound houses
- Many compounds have an existing **holding tank or septic tank connected** to one or two latrines
- Lack of services capable of de-sludging compacted fecal matter; showers connected directly to the tanks



Sanitation Coverage  
in Cote d'Ivoire (JMP/UNICEF)

# Background Context

- 35% of households with a septic tank
- 45% frequently experience overflow, thereby contaminating the environment
- Many landlords report having to empty their tanks **at least every 2 months** to avoid overflowing



# Main Content and Findings

## Reasons septic tank overflowing

1. Lack of soakaway pits
2. Septic tanks full of solids
3. Walls of existing soakaway pits clogged with grease (soaps, oil, etc.)

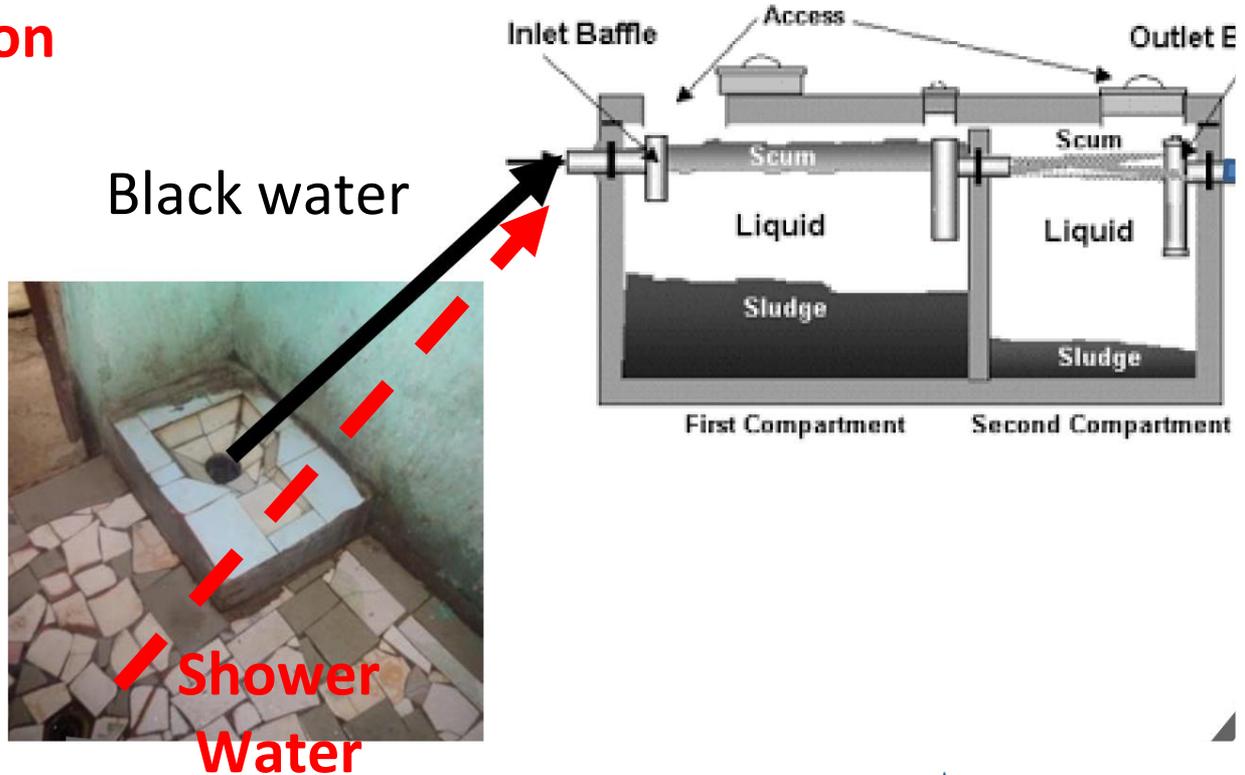


# Method and Approach

1. Prototyped solutions to compound sanitation problems
2. Selected soakaway pit solution, iterated to reduce cost and developed complementary service offering
3. Trained masons on correct installation of soak pit
4. Launched marketing and door-to-door sales
5. Linked tank emptying and soakaway pit installation services through call center

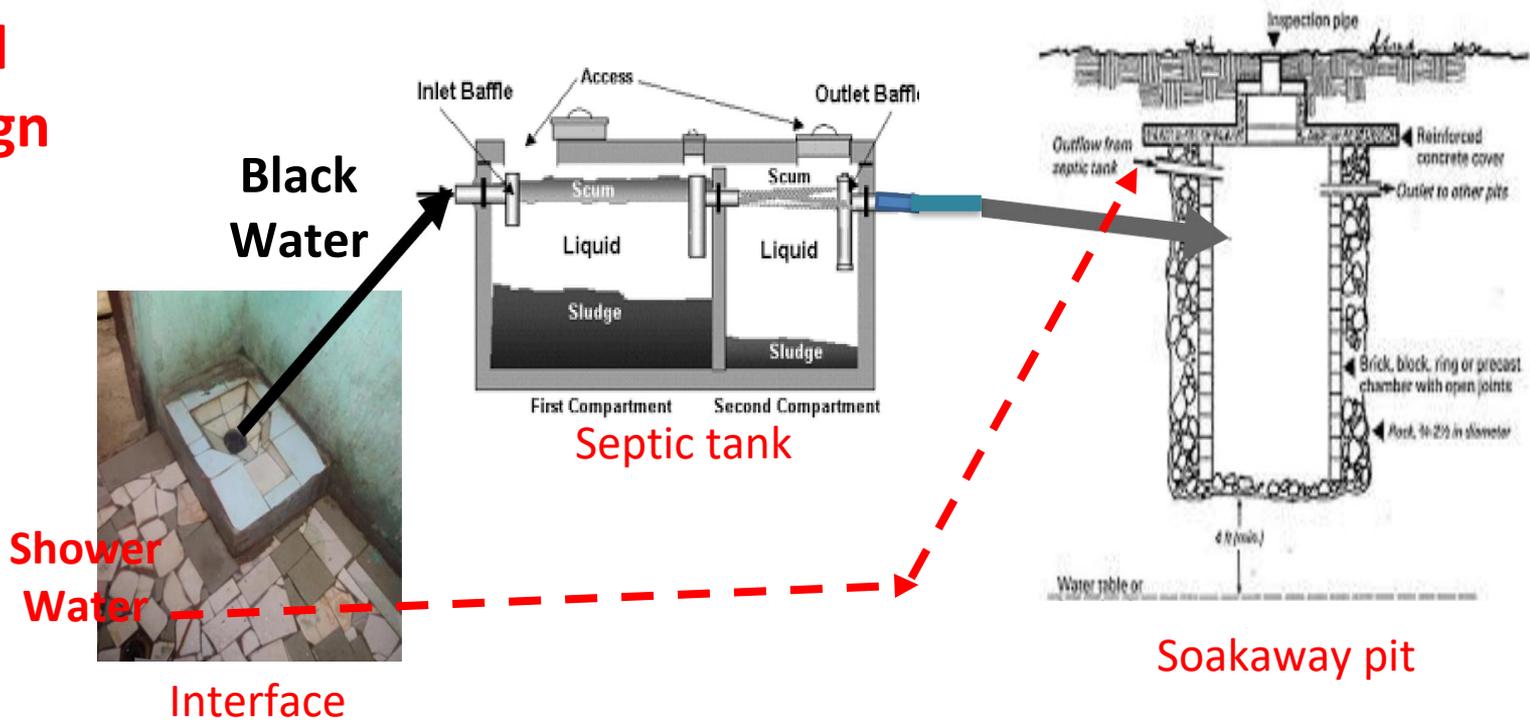
# Product Solutions

## Current situation

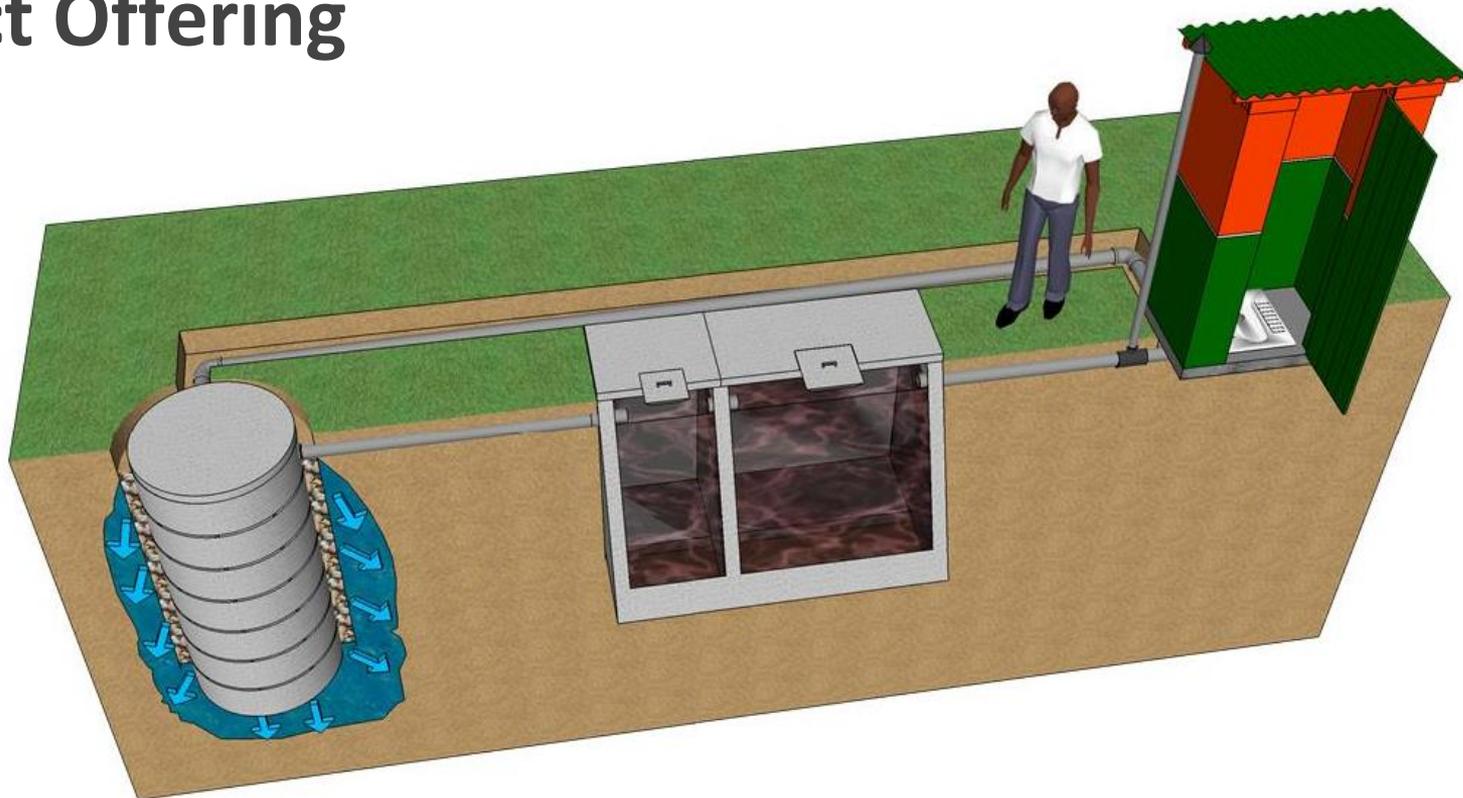


# Product iteration and selection

**Ideal design**



# Product Offering



# Complementary services



**1. Do the emptying of the septic tank**



**2. Install a soak pit**

**3. Direct shower pipe directly to the soak pit**



**3. Add additional toilets**

# Demand Creation

## Marketing and Sales Model : Decision Questions

STEP 1

**PROBLEM**

STEP 2

**COST OF THE PROBLEM**

STEP 3

**SOLUTION**

STEP 4

**VALUE OF THE SOLUTION**

# Simulation : Savings on emptying services

	Without soak pit	After construction of soak pit
Emptying Frequency	4 times / year	once/year
Number of truck trips to dumping station	3	3
Cost of a truck trip	26 USD	26 USD
Emptying cost per year	312 USD	78 USD
Expenses for 3 years	936 USD	234 USD
Expenses for 5 years	1,560 USD	390 USD

# Results

- By the end of December 2018, **216** soakaway pits were sold and installed in housing compounds at a cost of **\$330**.
- Landlords reported that they saved an average of **\$216** annually AFTER the first year, due to **reduced frequency of emptying tanks**.



Installation of soak away pit in a landlord compound

# Recommendations / Lessons Learned

- Before investing in additional toilets, landlords need a solution for their overflowing tanks – emptying and soak pit
- Opportunity to save money on emptying services is the most persuasive selling point, more so than health or cleanliness
- Compounds with more than 30 residents require more than one soakaway pits; realization of cost savings can take 3 years

# Recommendations / Lessons Learned

- Pressure from government authorities helps to convince absent landlords to construct a soak pit and empty tanks
- Loans can help landlords overcome their cash flow challenges so they can purchase sanitation solutions
- For landlords who cannot afford a full size soakaway pit, or who do not want a loan, a smaller pit can still offer important cost savings

# Thank You

*Any Questions?*



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