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Building the Sanitation Market

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BILL & MELINDA GATES *foundation*

Sanitation Gap

- **No Toilet Vs. Basic Sanitation – what is the real sanitation gap ?**
- **Still high demand for on-site and decentralized sanitation – sewer based not affordable**

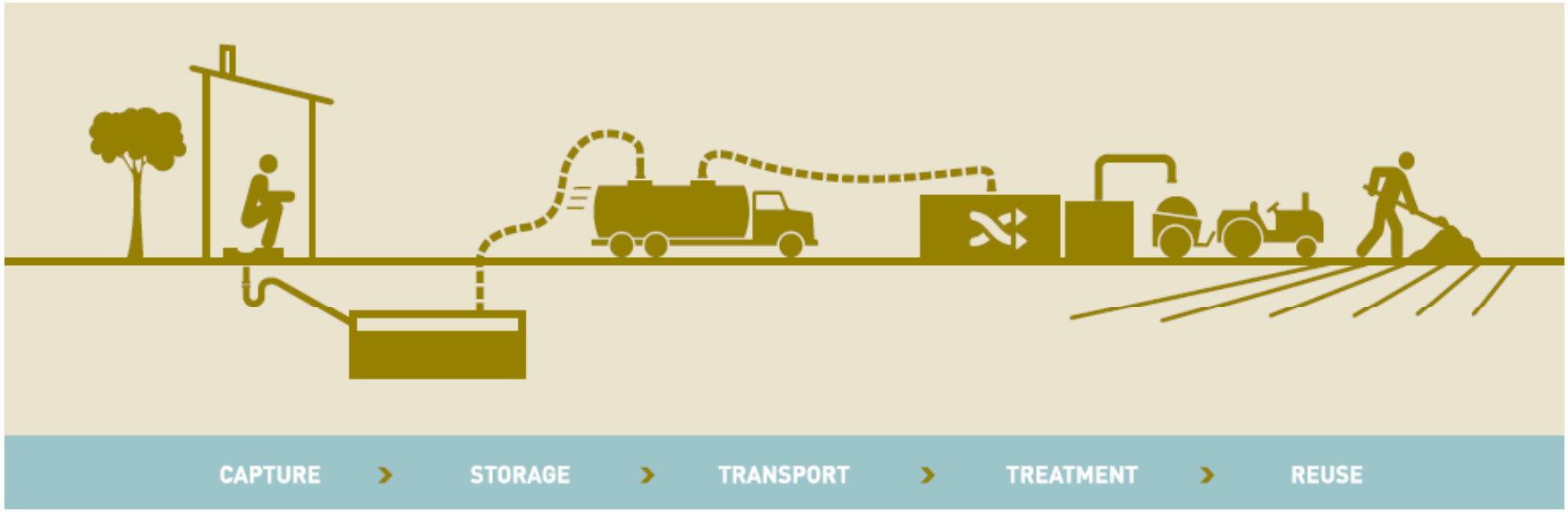
Roots of the lingering sanitation Crisis

- **Non viable market approach**
- **Expensive expert solutions and misleading concepts**
- **Limited innovation capacity**
  - **Limited R&D**
  - **Limited industrial solution**
  - **Closed community of experts discussions**

Community Toilet and pits

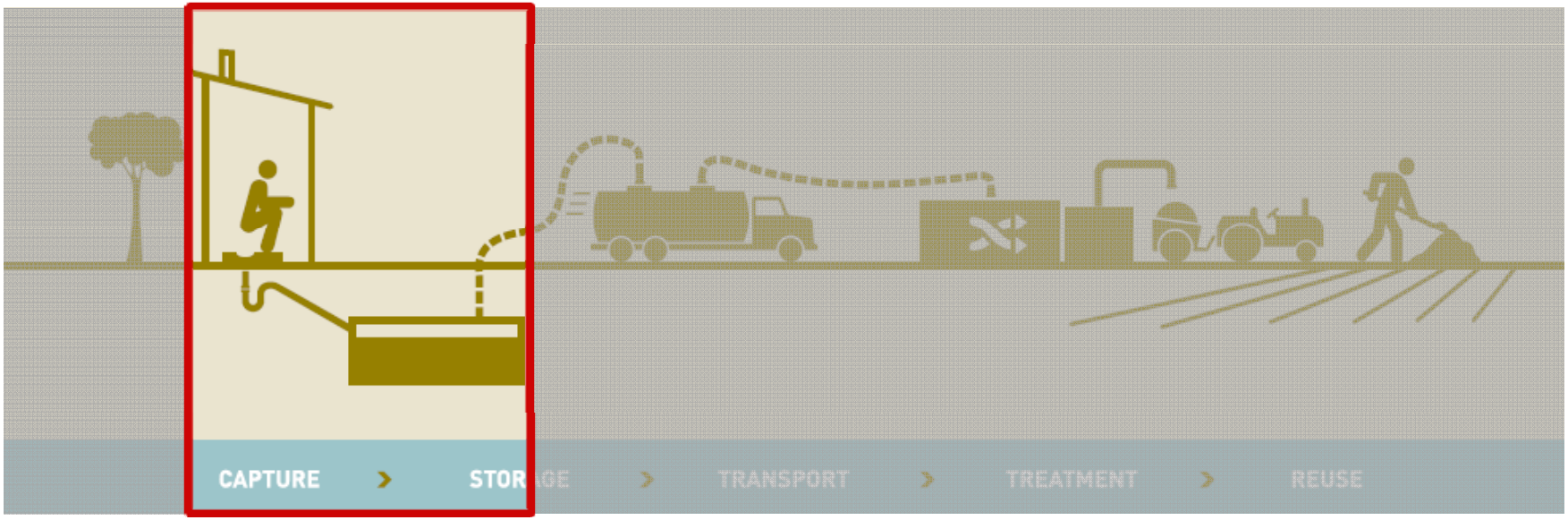
The Sanitation Value Chain

Access to sustainable sanitation is achieved by products and services delivered along the entire value chain at scale. Technologies and services meet users' preferences and national requirements.



Moving sanitation products and services to scale

Reinvent the Toilet Program



Moving sanitation products and services to scale

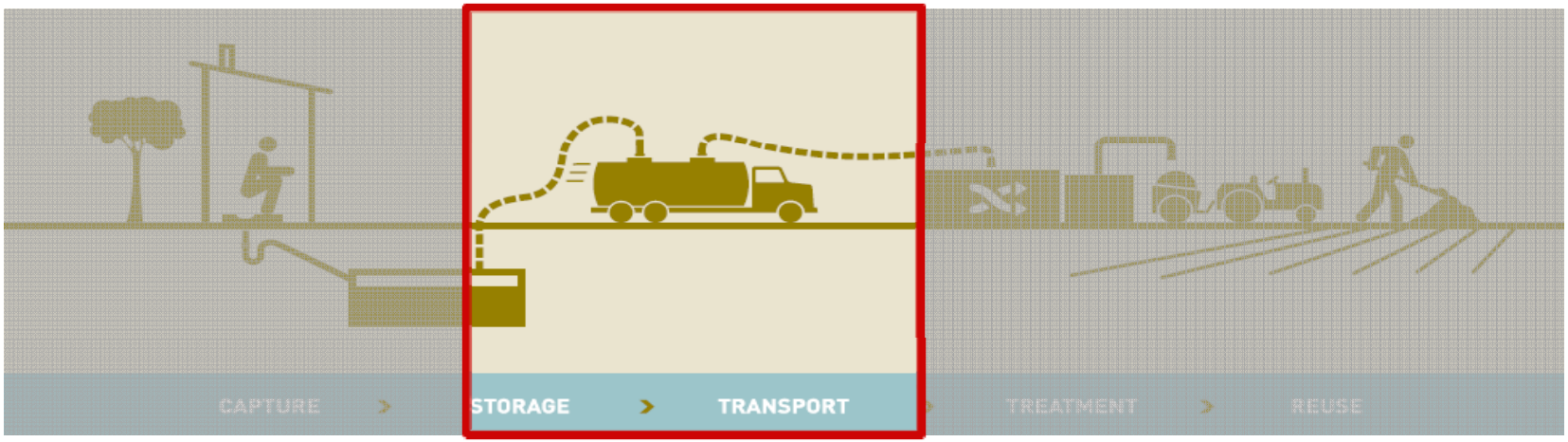
Reinvent the Toilet: a waterless, hygienic toilet

Overall Specifications:

- Affordable: less than $0.05/person/day now, moving towards $0.01/person/day (end goal).
- Safe: remove all pathogens from the environment.
- Appealing: sustained use > 5 years.
- User-centered: users create demand.
- Sustainable: service providers (public or private) can recoup complete lifecycle costs (make a business work).

Moving sanitation products and services to scale

Omni-Ingestor program

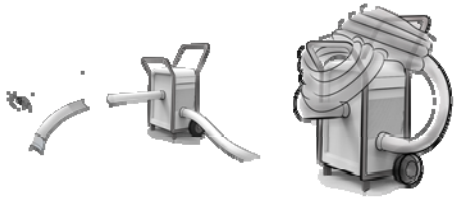


- Completely remove pit contents (sludge & trash)
- Separate trash and sand from sludge and treat water for local reuse
- Be robust such that the OI doesn't break down
- Inexpensive to operate; Inexpensive to purchase; superior business model compared to Vacuum trucks and manual emptiers

Moving sanitation products and services to scale

Omni-Ingestor

Extraction



Mobile Processing

dewater/desand/detrash/clean Faecal Sludge

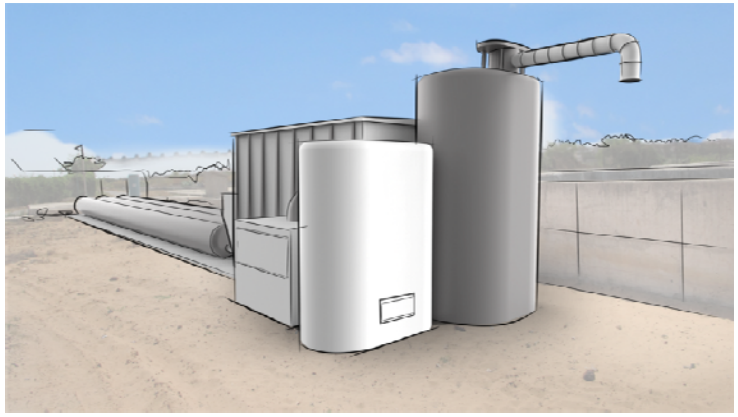
Emptying Pits

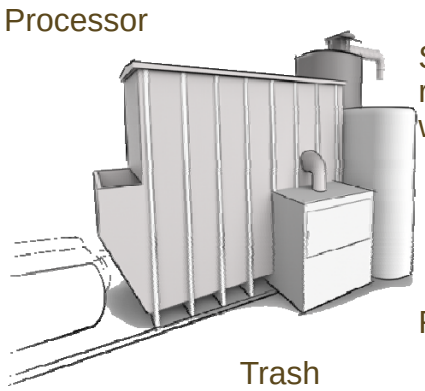
- Faster, safer emptying = more money to the Pit Emptier
- Localized scheduled emptying = reduction of cost
- Pumping out to a ‘transfer station’ = greater access

Moving sanitation products and services to scale

Extraction to ….

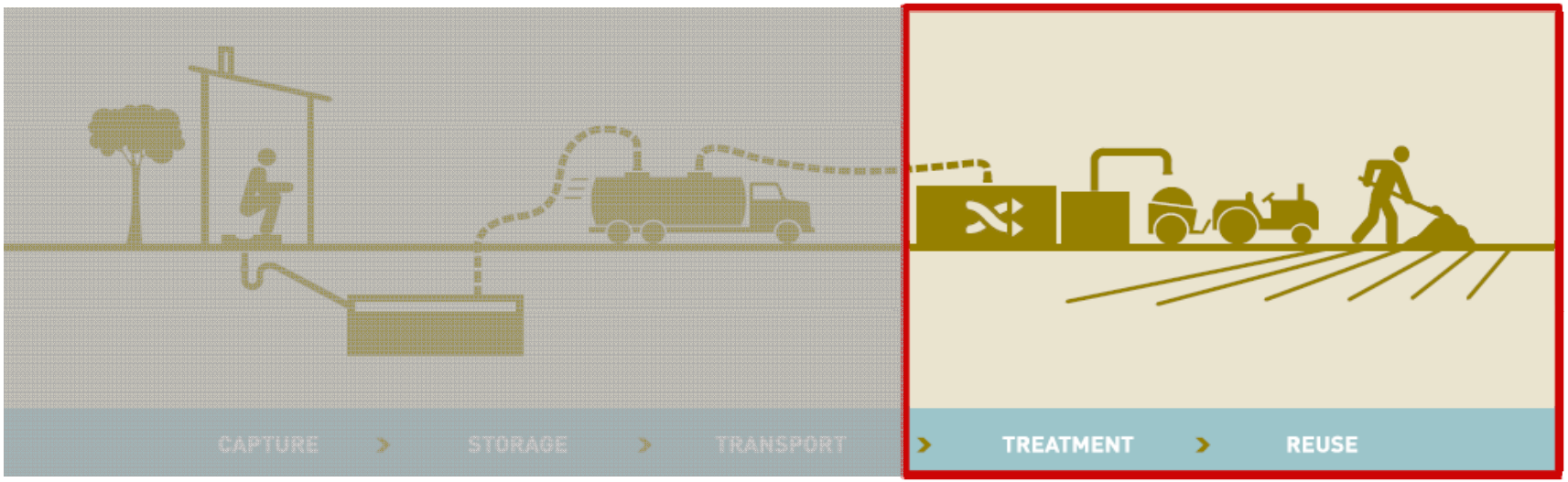
Fixed Pre-Processing Unit





Moving sanitation products and services to scale

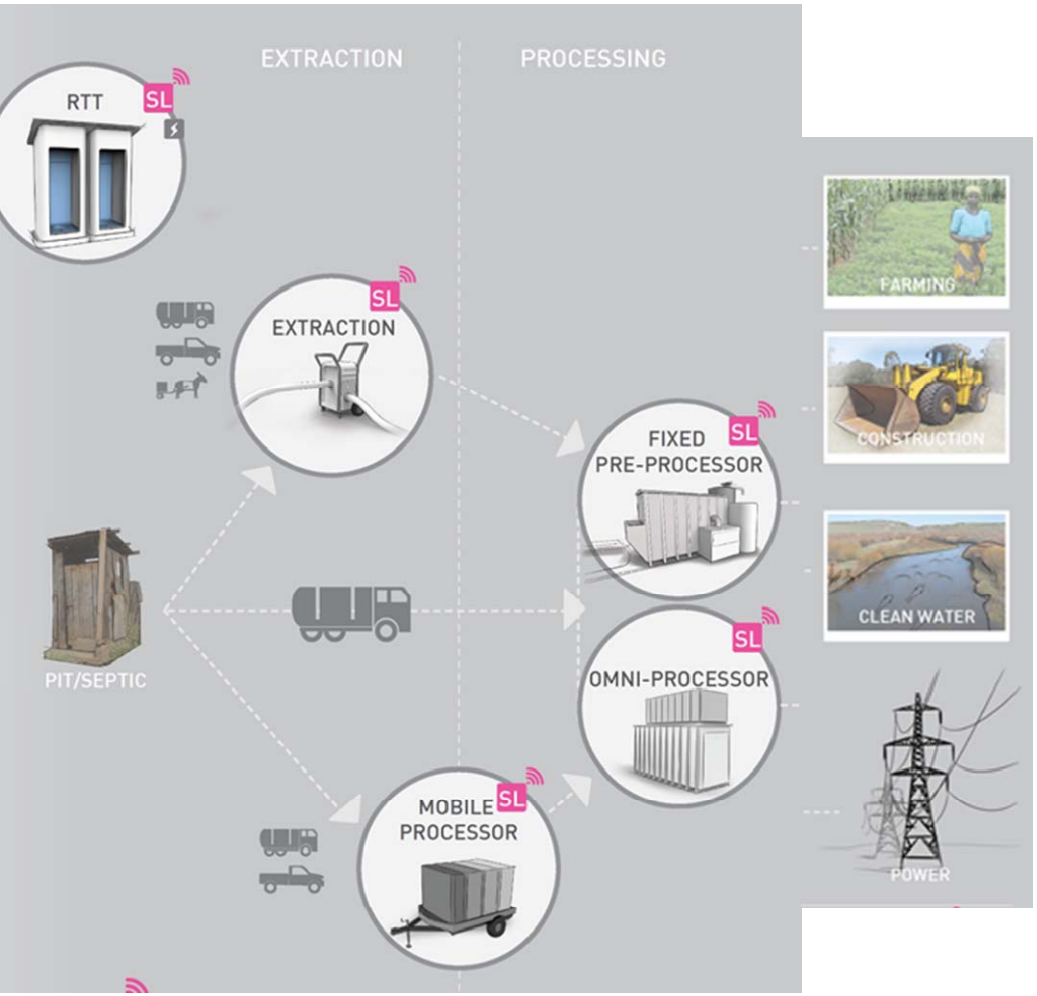
Omni-Processor Program



- Remove 100% pathogens from fecal sludge
- Community power/resource plant? - Recover energy (fuel, electricity, biochar, biogas, biodiesel), nutrient/fertilizer and clean water…
- Profitable business for investors and operators
- Reduced service fees for poor families living on latrines

Moving sanitation products and services to scale

Ready markets / platforms for uptake of innovation



Examples of investment

- **Sanitation pricing and model**
- **Structuring fecal sludge emptying market**
- **Up-scaling access to sanitation**
- **…**

We welcome your ideas too !

Thank You