



Sub-Saharan Africa Stakeholder Perspectives

Developing design & biz model hypotheses

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Sanitation Technology Platform (STeP)

BILL & MELINDA
GATES foundation

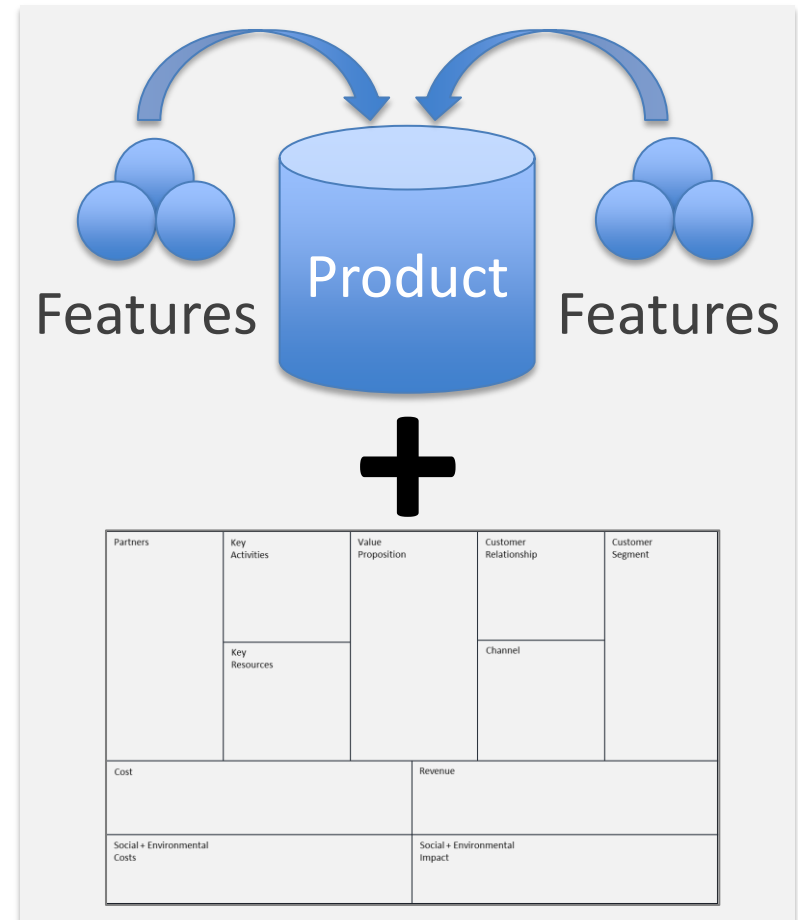
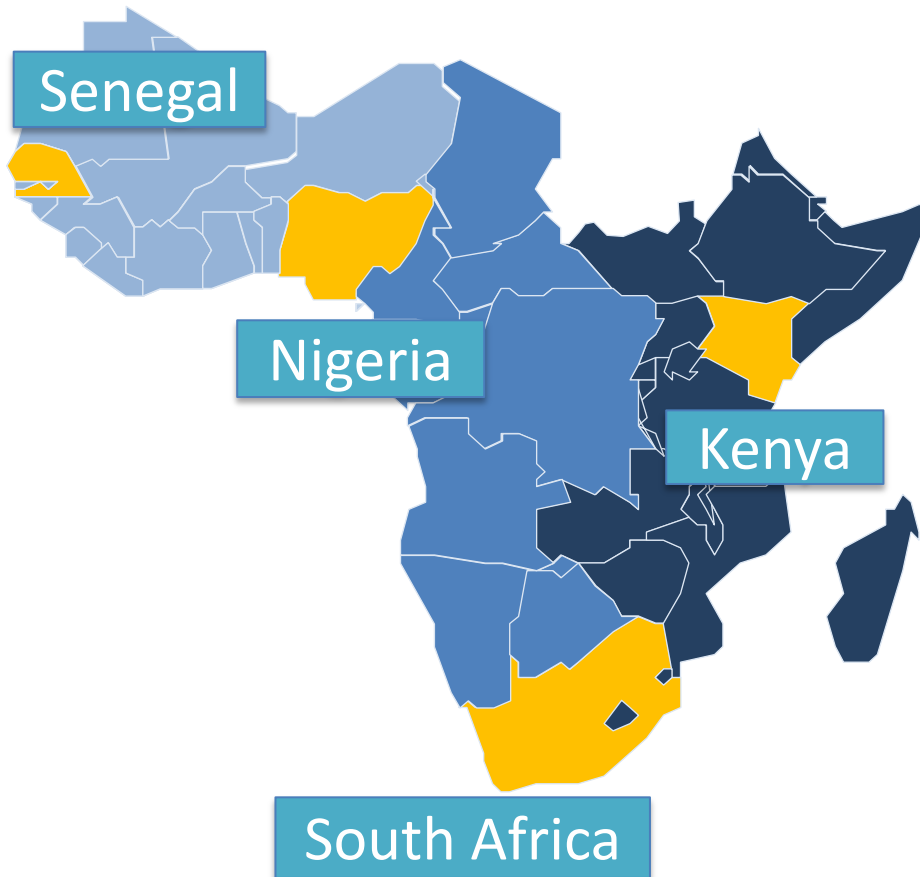
IRTI
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Research
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Study focused on hypothesis development

Implications for the BMGF-funded Reinvented Toilet portfolio



Note: Biz model canvas adapted from Osterwalder & Pigneur, Business Model Generation (2010).



Method: Systematic “drinking from the fire hose”

>120 stakeholder interviews in 18 working days

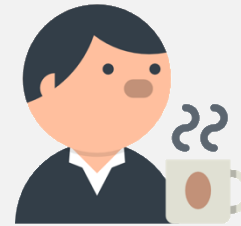
Who / Where to engage?

8 cities in 4 countries

>15 interview in each

8 stakeholder groups

How do we engage?



Ethnographic



Dialogue-based

What to focus on?

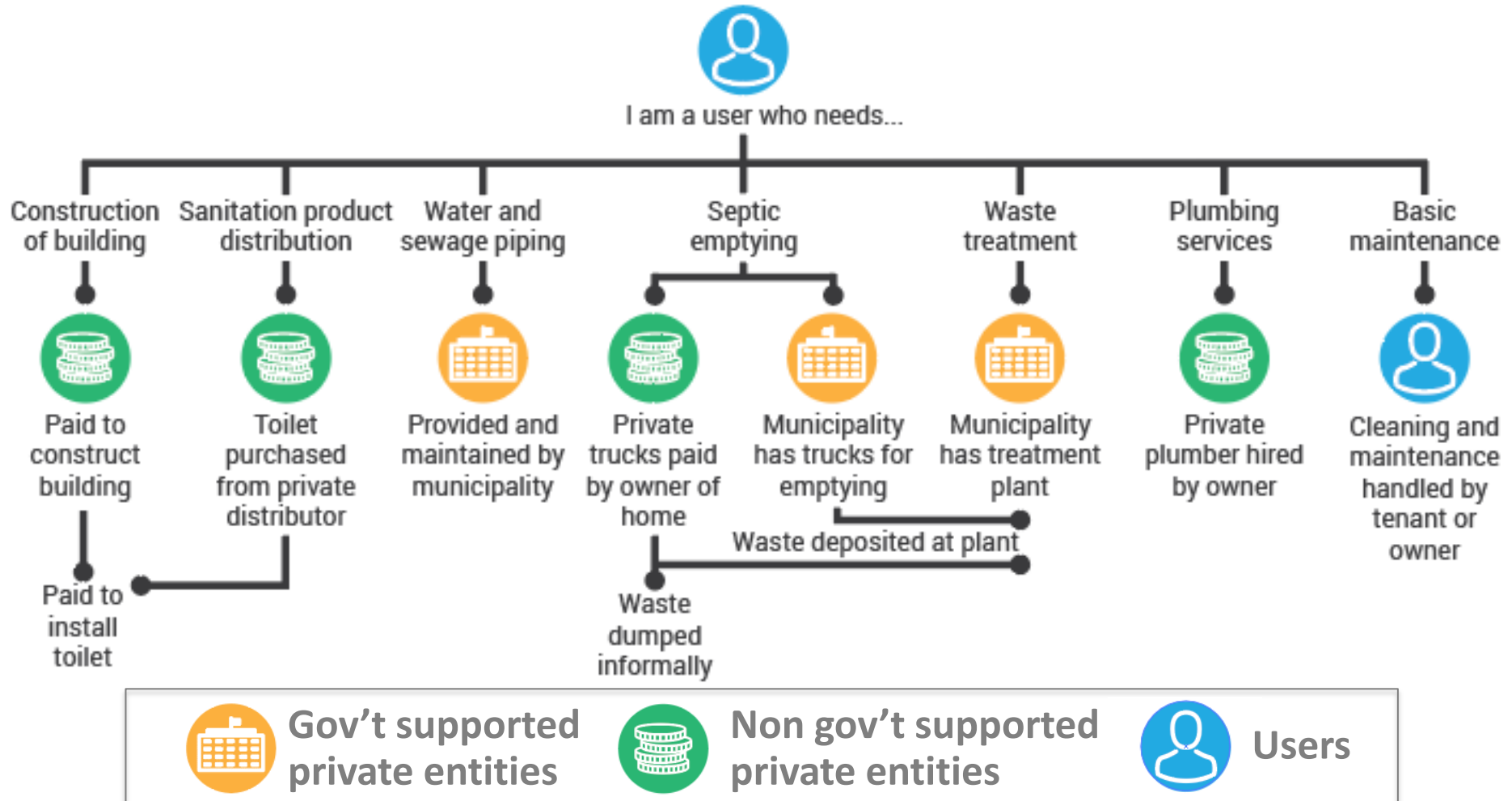
WHO are the decision makers and influencers?

WHAT characteristics of the physical context will impact design?

HOW will end-user perspectives impact adoption and business model?

Understand the user in the ecosystem context

Example of a high-level view of Kenya



Insights organized by potential use cases (I)

Residential: Single family and multi-unit buildings

Single-unit house



Multi-unit compound



Multi-unit apartment



Insights organized by potential use cases (II)

Non-residential: Public toilets and schools

Public toilets



Schools



Behavioral/mental context insights into personas

Understanding the perspective of the end-user

Home-life

She sells cooked potatoes at the market. Her husband is a casual day laborer who often cannot find work. She shares her unit with 8 people but has her own toilet which she is proud of.

Toilet & water usage

As long as she has a place to relieve herself, she is happy. Knows shared toilets often give children diseases. No access to water but will walk to a market and wait 2 hours to purchase it.



Sanitation challenges

The compound smells bad after their latrine is emptied as waste from the latrine is buried within the compound after being emptied with buckets. Drain often clogged with food, trash, and even glass.

Values

Worried for her children's health and believes they may get sick from wastewater contact. Grew up with a pit latrine in the slums and feels that because she did it, her children will be fine.













Insights can be compared across countries

What similarities and differences are notable?



Product design and business model implications

Hypotheses developed: Biz model implications

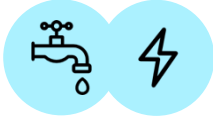




	User openness to new toilet technology	Benefit of new toilet technology for user	User dissatisfaction with current toilet	Example of use case themes to explore
Kenya				Balancing need w/ ability-to-pay
South Africa				Peri-urban vs. urban
Senegal				New residential
Nigeria				Balancing need w/ ability-to-pay

Perceived relative level from interviews

 Low
  Medium
  High



Hypotheses developed: Design implications

 <p>Water & Electricity</p>	<p>Value of toilet by-products highly dependent on availability and cost of those by-products in the specific local context.</p>
 <p>Toilet Type</p>	<p>Significant variation in whether sit vs. squat toilet types preferred; combination of cultural, age, and income connotation factors.</p>
 <p>Flush Type</p>	<p>Preferred flush mechanism also varied, similar to above.</p>
 <p>Common Issues</p>	<p>Issues with frequent blockage combined with the challenge of finding qualified plumbers common across countries.</p>
 <p>Environmental</p>	<p>Varying soil, water, and space conditions, even within a country, creates unique challenges.</p>

Foundation for hypothesis testing

Disentangling complex design/biz model questions



**Sub-Saharan Africa
Stakeholder Perspectives**

Developing business model hypotheses

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Sanitation Technology Platform (STeP)

Your organizations and partners logos

Customer
segment sizing

Partnership models

Market entry plan

Customer
willingness-to-pay

Branding and messaging

Pilot testing methodology



Key takeaways: Listen, Process, Adjust

Simple... but can be easy to forget

- Listen to users and stakeholders in the ecosystem with an open mind early and often – **don't wait till "ready"**
- Process the information to hypothesize implications to BOTH the product design and business model – **a successful concept requires both**
- Adjust the product and business model to fit the local context – **countries, even cities, within SSA may require different approaches**

