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Sanitation Business Innovation

Guest Lecture, 30. October 2025
Sanitary Engineering for Development



Hi, I'm Michael!

Until 2005: Studies in Geography, Business Administration & Sustainable Development at the University of Basel

2005-2006: Founding and establishment of the NGO Ecosan Services Foundation in India

Since 2006: Consultant for seecon international gmbh

Since 2010: Founder and Co-Director of Cewas



Michael Kropac
Co-Director
Cewas



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**Supporting
Social
WASH
Businesses**

as a Swiss NPO
since 2010

420+

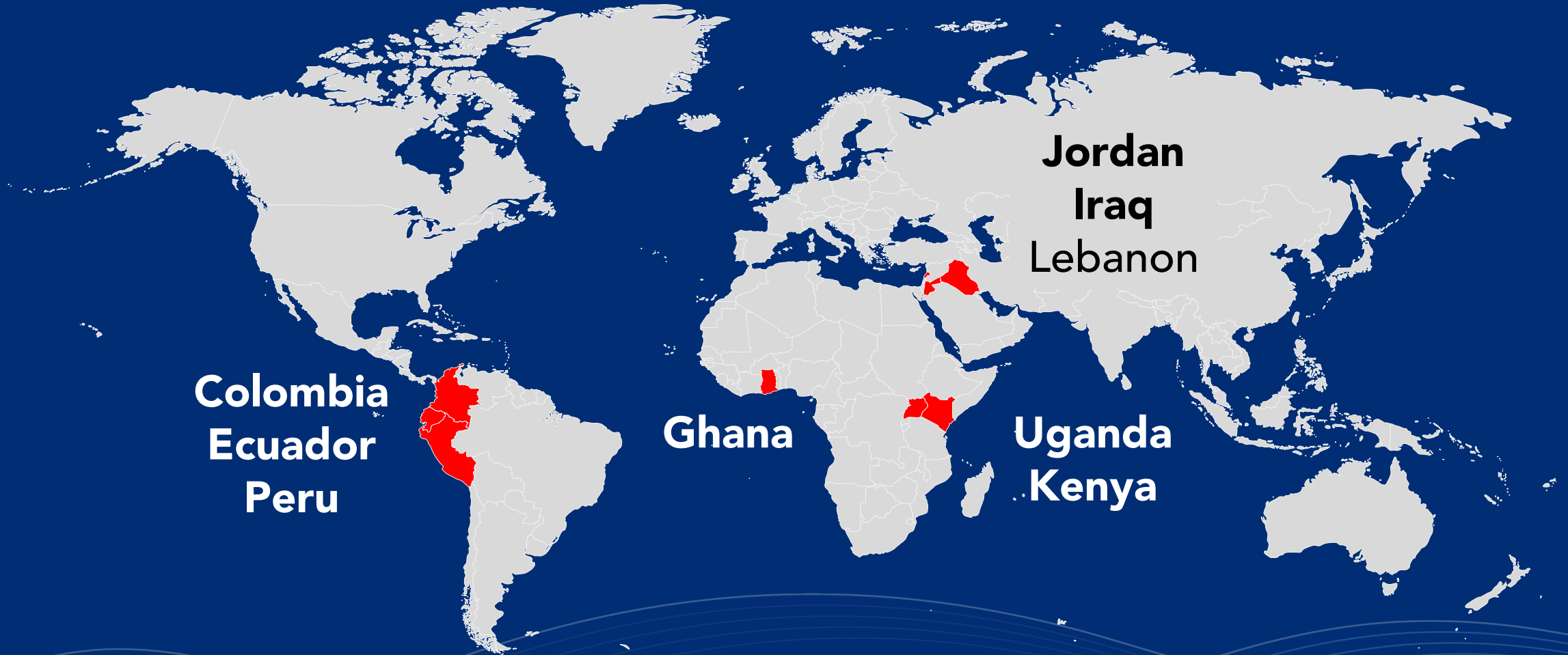
WASH
Entrepreneurs
supported in
Africa, Latin
America and
the Middle East

6.5 mio

people
benefiting from
new or
improved
WASH services

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Our Focus Countries Across 3 Continents

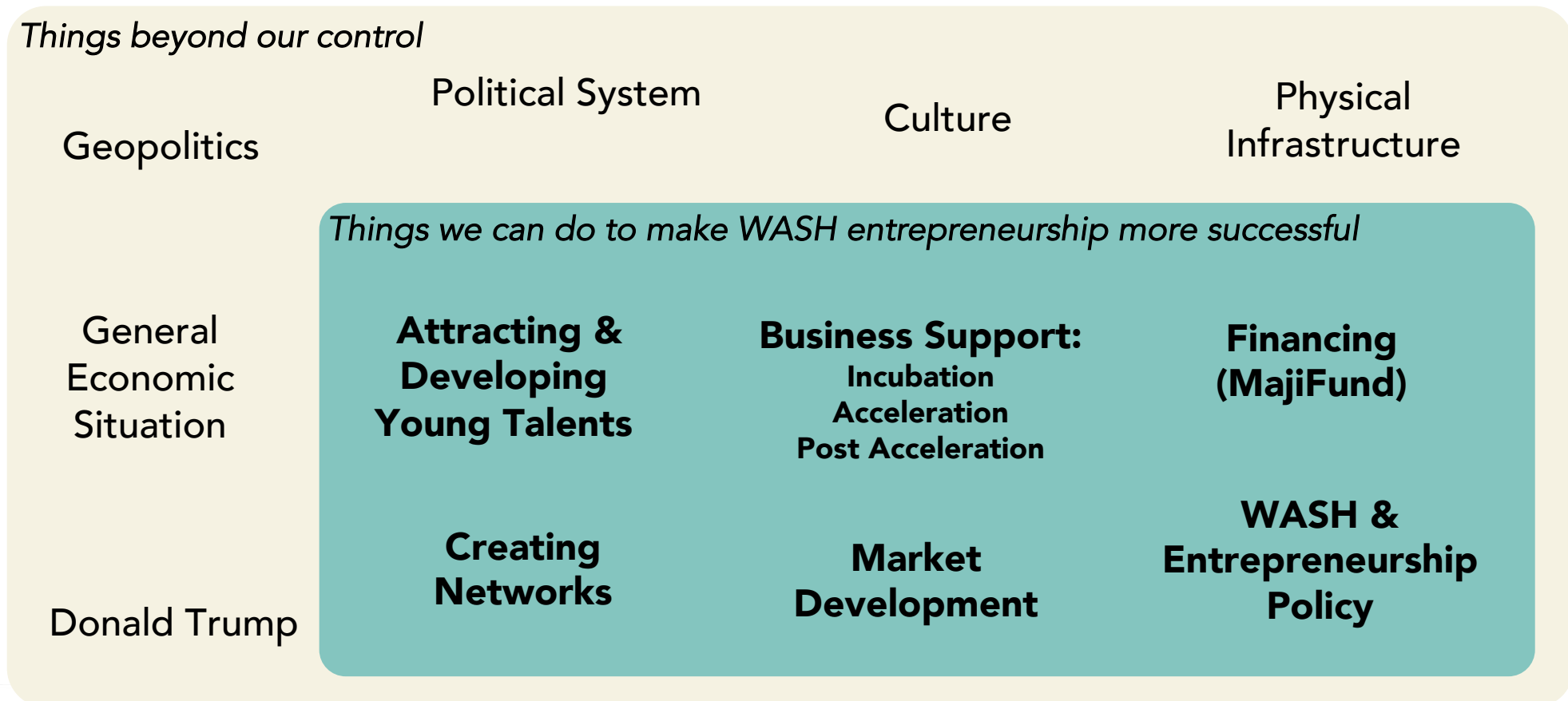


**We believe the key to solving the water crisis
is *not more aid, but better business.***

**That's why we create the *conditions* so
entrepreneurial solutions can contribute to
solving Water issues and create measurable
impact.**

Our Systemic Entrepreneurial Ecosystem Intervention Model

In our work, we focus on those system conditions that we can influence. Depending on the specificities of a national ecosystem, we combine different interventions as part of a systemic ecosystem development approach:



Example: Joash, Founder of Irrisol in Uganda

- 2022: Joined Rural Water Accelerator with a mediocre business model and terrible pitch.
- 2023: Qualified for \$ 10K catalytic grant. Connected & pitched at 1st Majipreneurs Summit
- 2024: Developed convincing \$ 300K investment ask for MajiFund
- 2025: Streamlined business in Business in a Box Programme & pitched for a \$ 2 Mio. ticket at Majipreneurs Summit
- Today: Serves 310'000 people with water, collaborates with many other Maji Enterprises (Uduma, Sunda, WASHFin, UWP, etc.)





Invention vs. Innovation

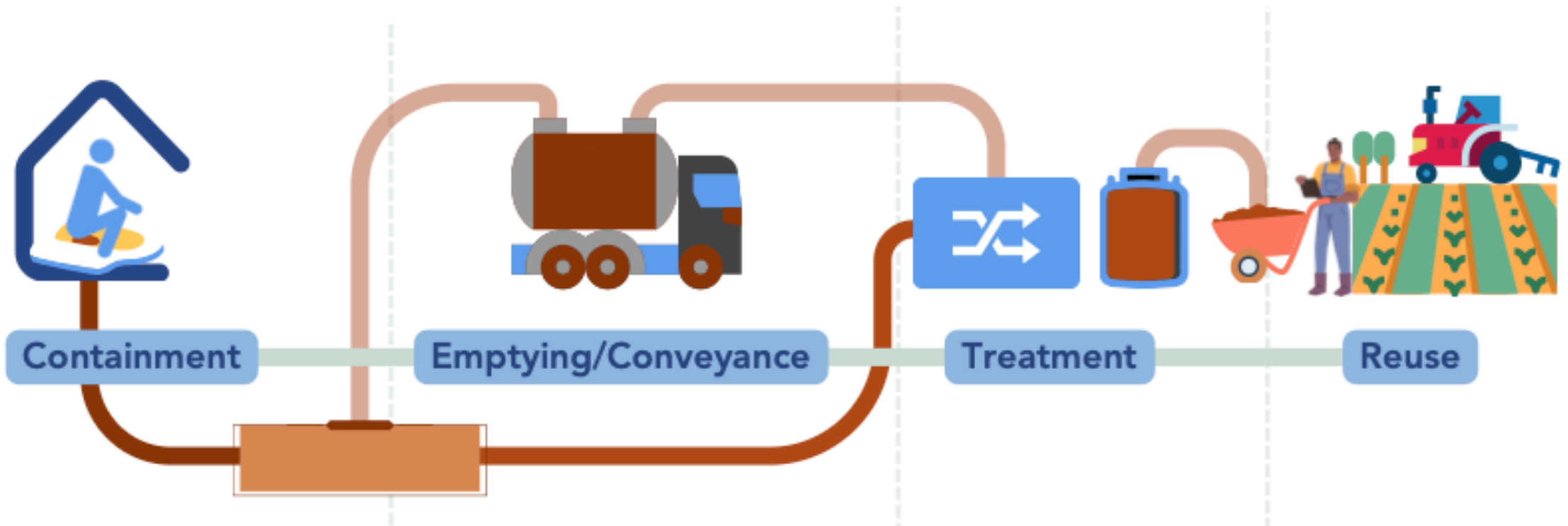
- INVENTION: A new idea or product
- INNOVATION: An invention that “works” and delivers value for customers in the market
- An Innovation doesn’t need to be a product. It can also be a service innovation or a business model innovation

The Flush Toilet

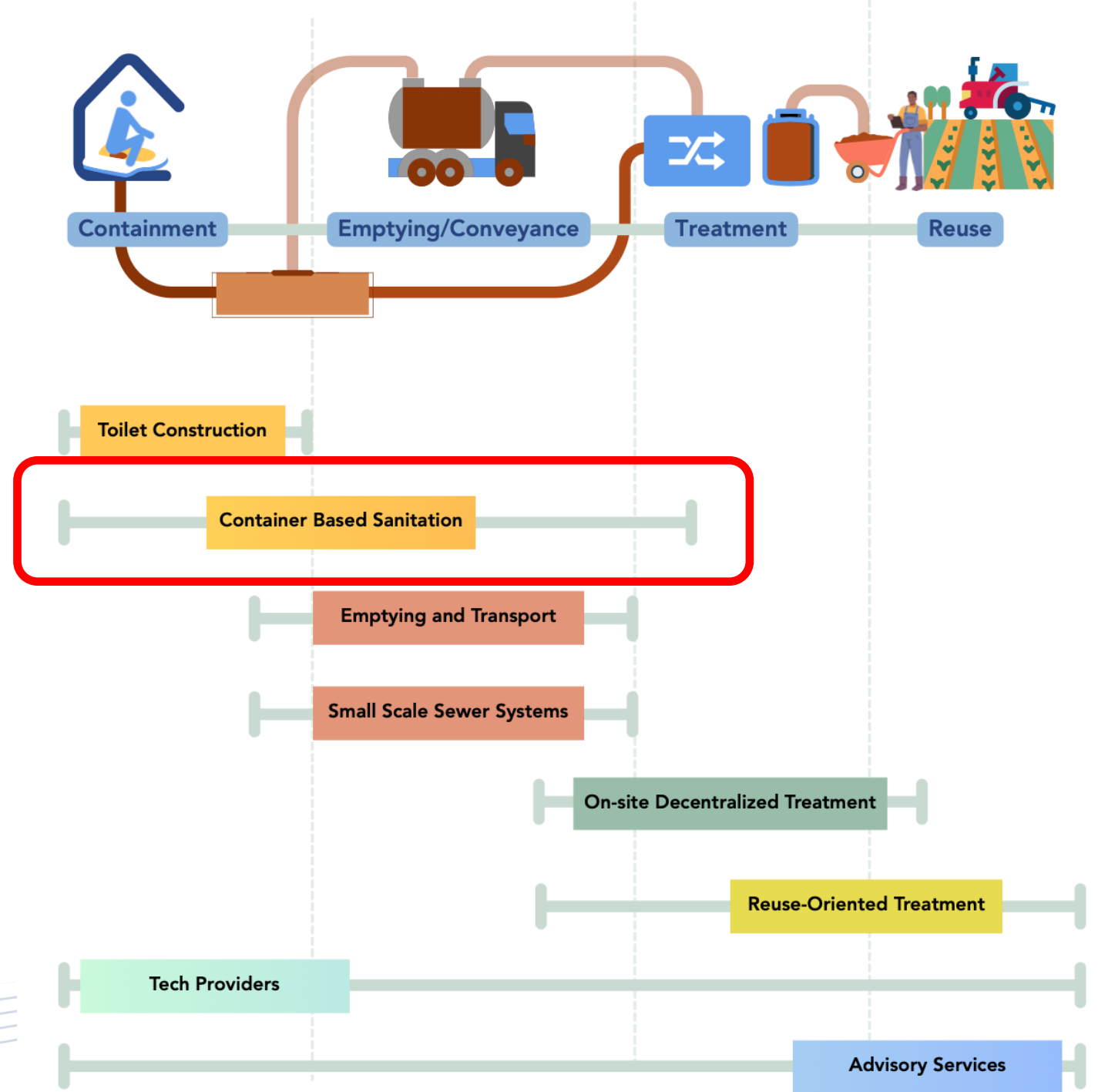


1. Is this an innovation?
2. What is the value it creates for the customer?
3. Is this a “good” technology?
4. When does it NOT generate value for the customer?

Sanitation business models in developing countries are complex, often spanning multiple stages of the sanitation value chain



Predominant Sanitation Business Models in Developing Countries



Example – Container Based Sanitation: Clean Team Ghana



Clean Team Toilet Ghana –
Separation of Faeces & Urine



Collection of faeces only (urine is
dumped in nearby drains)



Anaerobic co-digestion through
partner Safisana



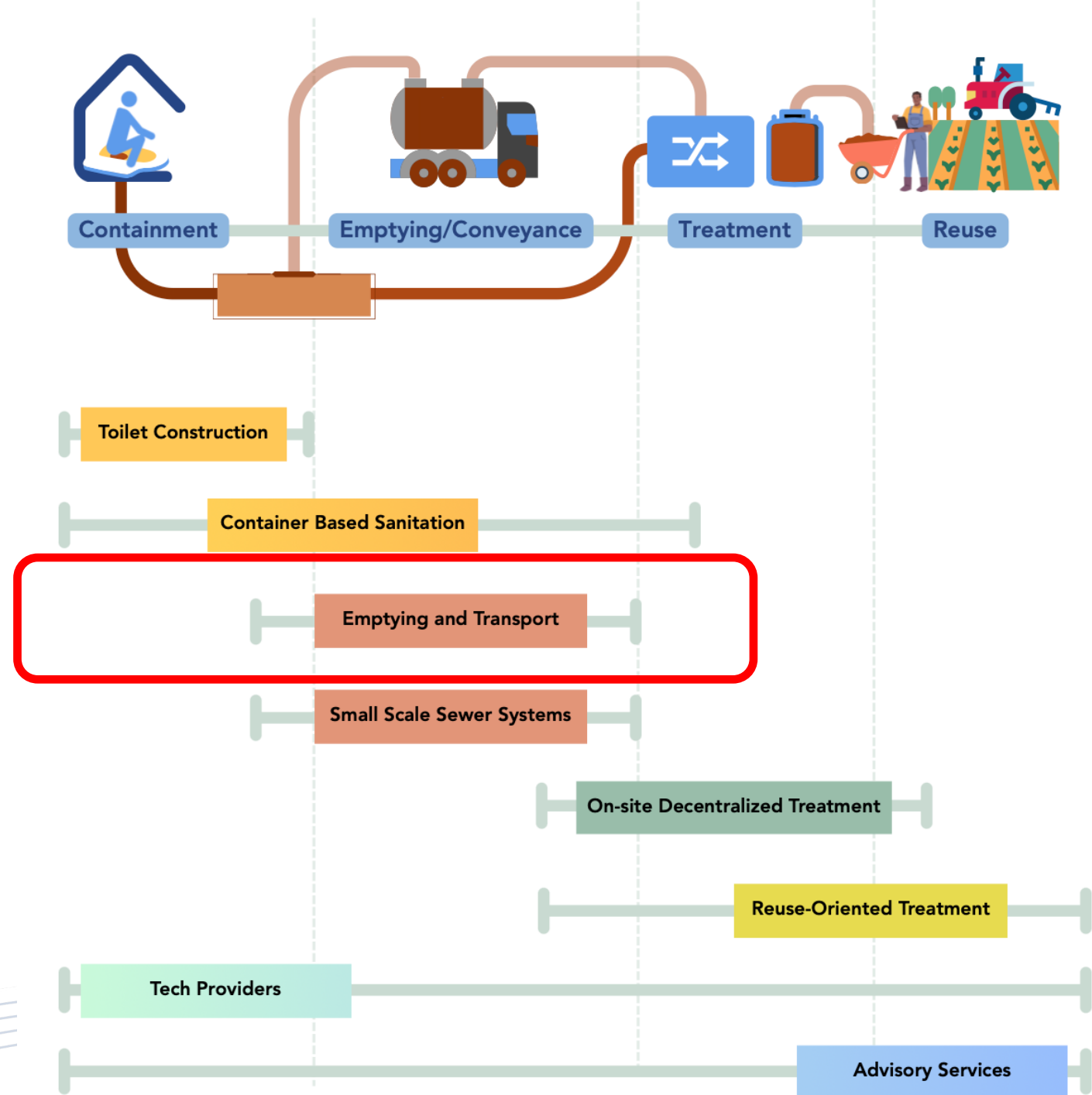


Example – Container Based Sanitation: Clean Team Ghana

1. What is the value it creates for the customer?
2. What is the customer segment?
3. Is this a competitive business model?

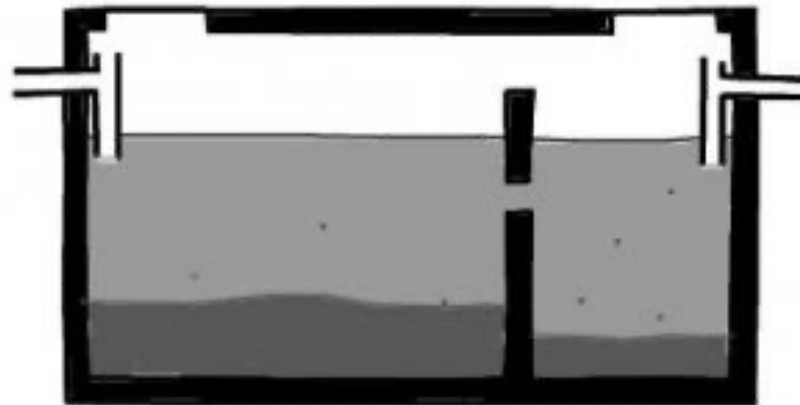


Predominant Sanitation Business Models in Developing Countries



Pit Toilets & Septic Tanks

- Most common sanitation system in less developed areas of African cities
- Need to be emptied regularly: Common sanitation business service!



Pit Toilets & Septic Tanks: How to empty?



Mechanised: Vacuum Trucks



Manual Emptying

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PuPu Pump as an Alternative



Group Work: Analyse the PuPu Pump as an Alternative

Research <https://pupu-pump.com/> (and other sources)

Develop a poster answering the following questions:

1. Who could be the target customers (buyers) of the PuPu Pump?
 2. What is the value it creates that customers will pay for?
 3. How would you suggest to set up a viable business model (Pump sales? Rent? Service? NGO?, Government?, etc.)
 4. Conclusion: Invention or Innovation?
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