

# Loowatt

2012 Pilot Project in Madagascar  
Early Results

# Outline

What we do

Our pilot project

Work conducted

Key findings

Implications for scaling

Implications for other groups

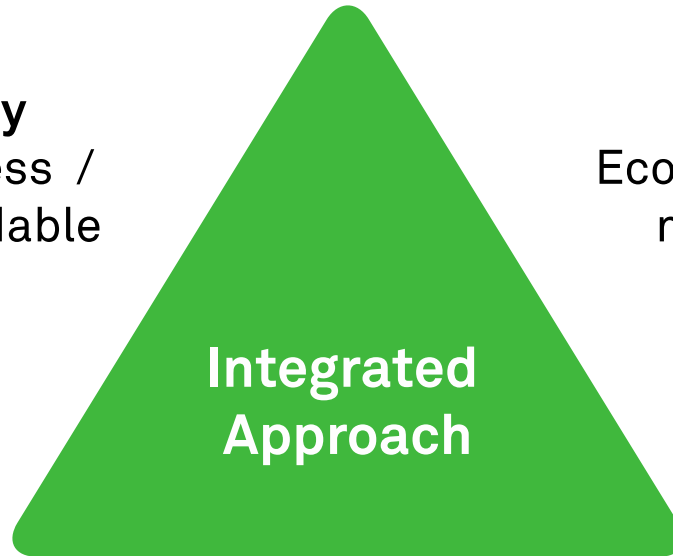
Acknowledgements

Questions

# What Loowatt Do

**Toilet Technology**  
Waterless / odourless /  
aspirational / affordable

**Modeling**  
Economic / cultural /  
market research



**Value Generation**  
Smart FSM choices / FSM research /  
Maximising commodity value

Also.... marketing / branding / communications

**Loowatt**

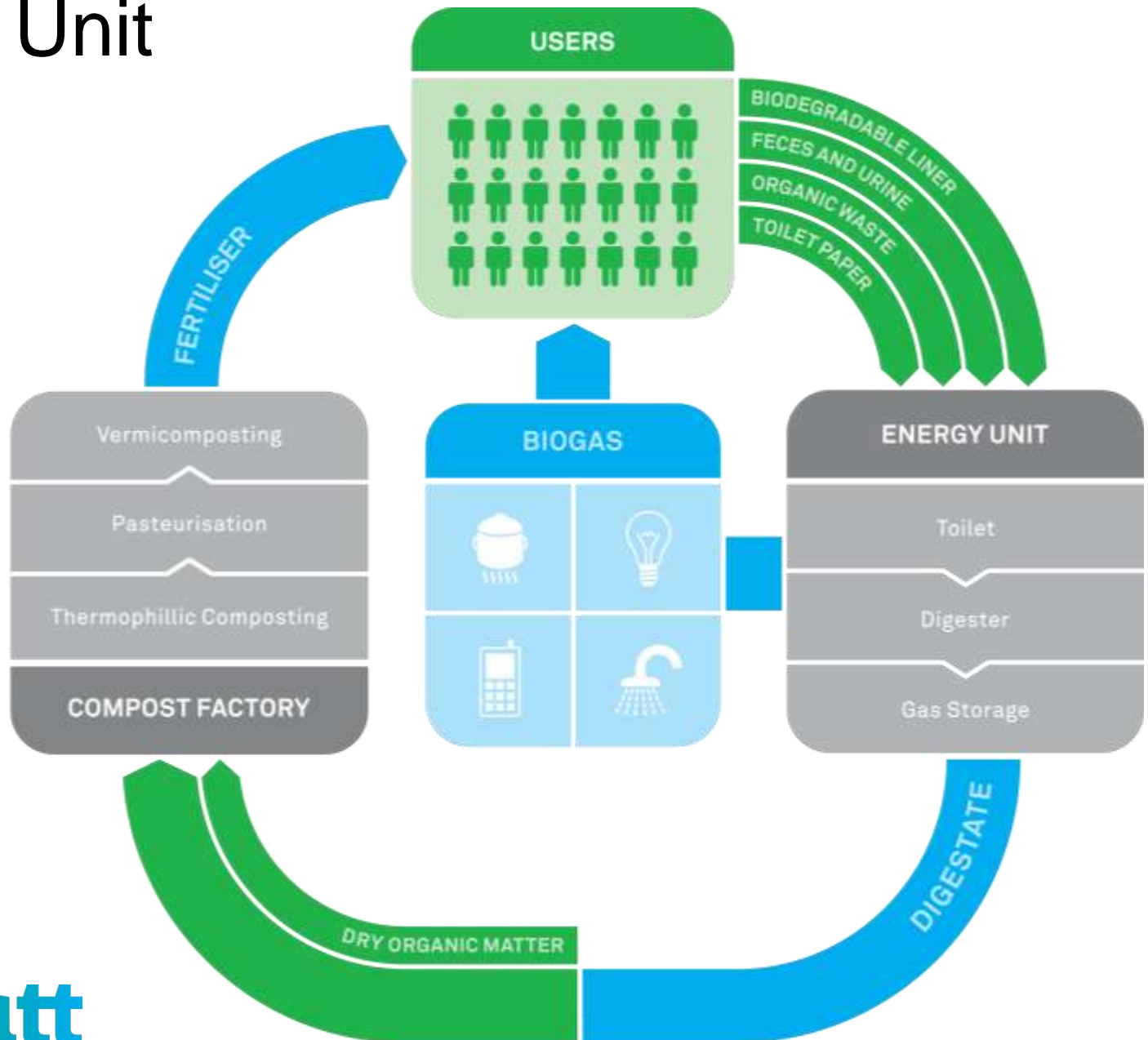
# Madagascar Pilot Project Objectives

- Understand local culture, preferences, and need
- Feedback on the Loowatt toilet, system, and human waste derived commodity products
- Validate and modify financial model
- Measure the value potential commodities

# Pilot Location



# Energy Unit Model



# Constructing the Toilet



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# Constructing the Digester



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# The Facilities – Energy Unit



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# The Facilities – Compost Factory



# Surveying Culture and Economics

- Households

*Background data:*

- Socio-economic
- Sanitation status quo
- Energy and technology use

*Focused questions:*

- Response to human-waste-derived products
- Sanitation aspirations and desires

# Surveying Culture and Economics

- Community waste collectors:

  - Organic waste availability*

    - Salaries of collectors
    - Composition of collected waste
    - Ability and desire to sort waste
    - Time estimates for sorting

# Surveying Culture and Economics

- Farmers

  - Farm statistics*

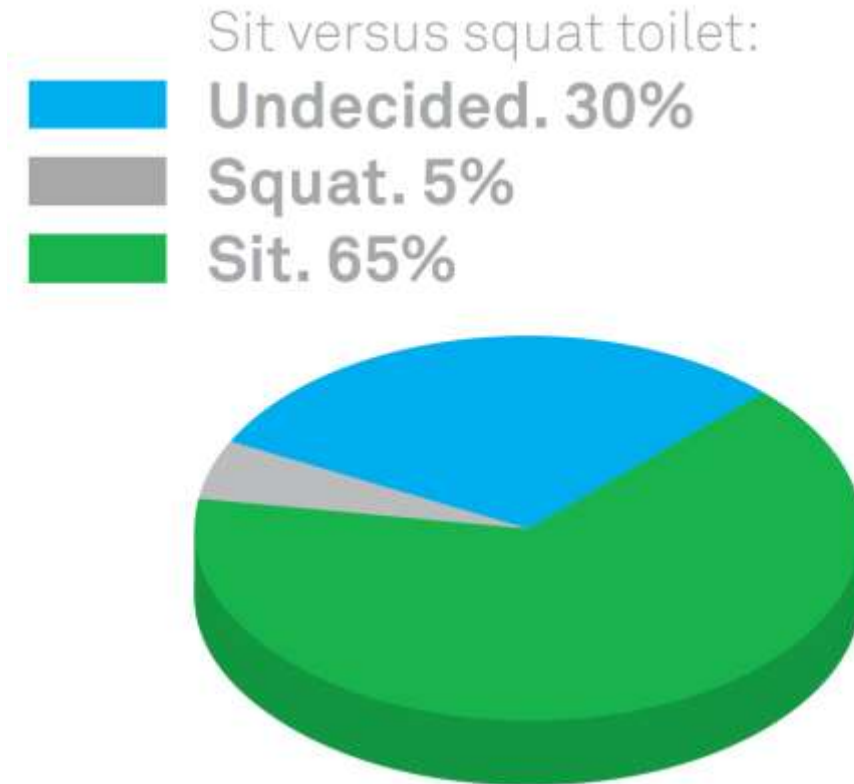
    - Size
    - Crop type
    - Location

  - Fertiliser usage and demand*

    - Preferences
    - Suggested prices
    - Response to Loowatt fertiliser

# Key Findings

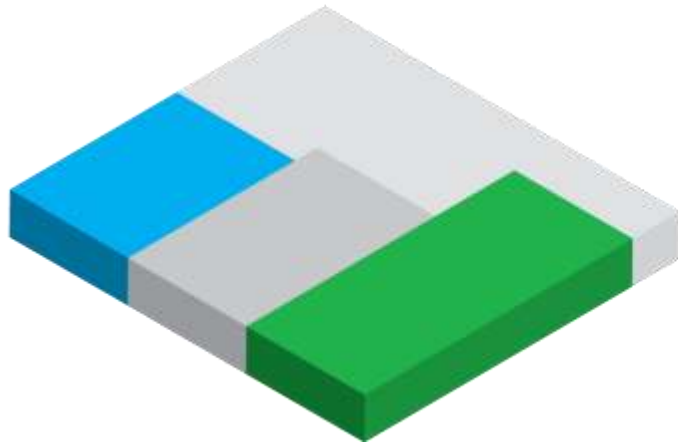
## Toilet Preference:



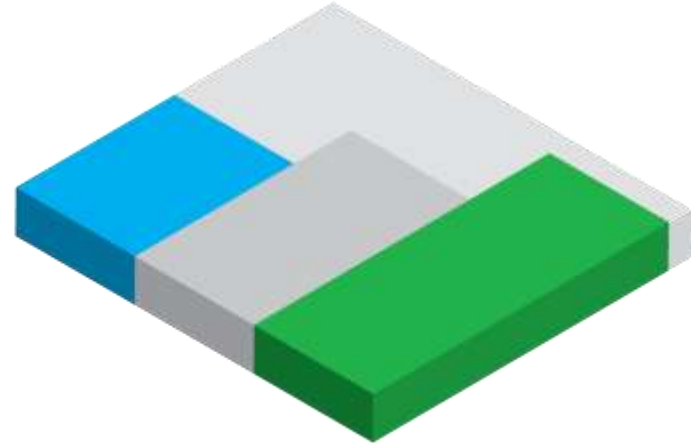
# Key Findings

Response to Human-waste-derived products:

## Biogas



## Fertilizer



# Key Findings

## Commodity product values:

- Toilet use (poo): US 4.4 cents
- Toilet use (pee): US 2.2 cents
- Mobile charges: US 9.1 cents
- Hot water (10 litres): US 5.5 cents
- Fertiliser: US 83 cents / kg



# Implications for Scaling

- Loowatt toilet aligned with cultural aspirations
- Response to HWD products very promising
- Price points and demand support economic case

With Thanks To...

BILL & MELINDA  
GATES *foundation*

**WSUP**  
Water & Sanitation  
for the Urban Poor

**innovationrca**



**Loowatt**