

Loowatt

Addressing Faecal Sludge and Solid Waste Management in Urban Environments.

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Flush With Happiness

**Waterless flush toilets and sanitation solutions
for everyone, everywhere**



Waterless Flush: A Practical Marvel

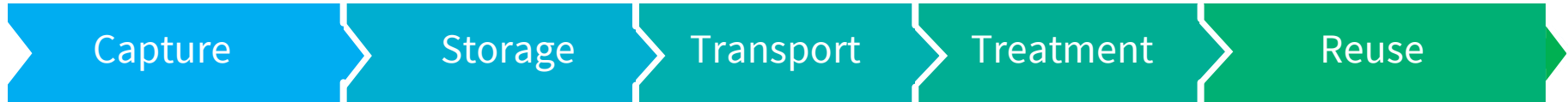


Loowatt's Waterless flush locks in odour and disease without water or chemicals. A clean bowl for every use.

Waste is **packaged and contained** so that servicing is safe, simple and quick.

Waste is treated in **closed-loop systems** and transformed into value.

Whole Value Chain Solution



Whole Value Chain Solution



Toilets, Refills and Containers



Whole Value Chain Solution



Toilets, Refills and Containers



Safely handle and utilise existing logistic solutions



Whole Value Chain Solution



Toilets, Refills and Containers



Waste pre-processing equipment



AD Treatment Facility



Safely handle and utilise existing logistic solutions



Flushed but Not Forgotten

Loowatt toilets support complete fecal sludge management. In 2017, Loowatt toilets delivered human waste to treatment facilities in the UK, Ireland, Madagascar and the Philippines.

In Antananarivo, Madagascar Loowatt operates a household sanitation service and a 25m³ anaerobic digester including power generation and pasteurization, delivering 40kWh/day.

Where we work

UK & Ireland

- Festivals and events
- Thames Water partnership investigating decentralised sanitation options

Madagascar

- Household container based sanitation service
- Anaerobic digester treatment facility

Philippines

- Hardware pilot (including pre-treatment) working with Laguna Water

Malawi

- Pilot in humanitarian response

Faecal sludge is rarely just faecal sludge

Toiletries, anal cleansing material, menstrual hygiene products, mobile phones etc...

What's the weirdest thing anyone's, erm, left in a toilet?

'Last year someone came back because they thought that they'd left their mobile phone in the toilet. We rang it and one of the waste containers started ringing. We drew straws to decide who had to fish it out...'

Loowatt Article in Time Out, 2018

FSM & SWM

Faecal sludge dumped in solid waste skips.



Solid waste removal key to adequate treatment, but not easy.

Non-sewered solutions:



Screening critical

- **Water utilities screen to 6mm**

Our relationship with SWM

Pre-treatment waste processing

- Separates and shreds (all) waste
- Film and screenings compressed

Polymer Film lifecycle

- Cradle to grave solutions
 - Composting
 - Reuse
 - Recovery
- Ongoing research as technologies advance (UK and abroad)

Co-digestion

- Food waste included in Anaerobic Digester
- Collect local market waste
- Complex regulation in UK and hence unpractised by water utilities

Opportunities: household collection service

How can we leverage our face-to-face relationships, and IT tracking systems to support separation at source, to reduce waste sent to landfill?

- Food waste, recyclable plastics, paper, glass, metal, WEEE
- Difficult to reuse items



Food waste valuable “clean” waste stream

PET ready for recycling

What’s left after all value is extracted (years later)

Opportunities

Synergies between safe disposal of our used film with; medical waste, used diapers and menstrual hygiene products.

- **Similar materials all contaminated with biofluids**
- **With solutions come opportunities to add to the market**



Opportunities



Developing a new Processing Machine

Very interested in knowing:

- Problems you've encountered with SW?
- What solutions are missing?