The Nano Membrane Toilet

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A household scale off-grid toilet which produces clean water and ash

Dewatering membranes

Screw to remove solids from holding chamber

Gasifier to combust water and generate power

Waterless flush

Clean water reservoir

Phase I: Proof of concept, August 2012-March 2014

Phase II: Prototype development, September 2014 to January 2016

Phase III: Field testing, February 2016 →

Ongoing work

Monitoring flux of water and VOCs through off-the-shelf membranes

Examining membrane fouling under the microscope

Component integration rig

Testing the gasifier with synthetic and real faeces

Project partners

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