# Brief overview of conditions for water, sanitation and hygiene grants by the Bill & Melinda Gates Foundation

| | REINVENT THE TOILET CHALLENGE<br>ROUND 1 and 2 | GRAND CHALLENGES EXPLORATIONS<br>Create the next generation of sanitation technologies | |
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| | | ROUND 6 | ROUND 7 |
| **START/END DATES** | **Round 1:** April 2011 - September 2012<br>**Round 2:** September 2012 - December 2013 | April 2011 - April 2012 | November 2011 - October 2013 |
| **GOAL** | **Create a toilet that:**<br>• removes pathogens from human waste and recovers valuable resources such as energy, clean water, and nutrients.<br>• operates "off the grid" without connections to water, sewer, or electrical lines.<br>• costs less than 5 cents per user per day: the anticipated capital and operational cost for the final products (commercial units) is expected to be less than $0.05/user/day, both for the family and neighborhood solutions[1]. | **Create sanitation technologies that:**<br>• support sanitation services in contexts **without** centralized, waterborne sanitation<br>• are non-conventional technologies that are affordable, durable, convenient, aesthetic, effective<br>• add income or reduce costs in sanitation service delivery chain through nutrient recovery, electricity generation or industrial usage | **Create sanitation technologies that**:<br>• make sanitation services safe and sustainable for the poor in a non-networked sanitation fashion<br>• improve human waste containment and management technologies |

[1] This specification was included in the call for Round 3 of the RTTC but was less clearly specified in Rounds 1 & 2.

Compiled by Naomi Radke (seecon international GmbH), 17 May 2013
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| | • promotes sustainable and financially profitable sanitation services and businesses that operate in poor, urban settings.<br>• is a truly aspirational next-generation product that everyone will want to use — in wealthy as well as developing nations. | | |
| **REQUIREMENTS** | | **Proposals must be:**<br>• Different from approaches currently under investigation or employed<br>• Designed for resource-limited settings<br>• Provide an underlying rationale, a testable hypothesis, and an associated plan for how the idea would be tested or validated in phase 1 to meet the attributes outlined below:<br>  ○ Low life-cycle cost<br>  ○ Long-lived and easy to use/maintain<br>  ○ Safety / backup mechanism in the case of system failure<br>  ○ Minimal water, energy, space requirements<br>  ○ Aesthetically appealing | **Proposals must be:**<br>• Designed for low income urban settings, formal peri-urban settings, or dense rural settings in **Sub-Saharan Africa and Asia** where demand for fecal sludge emptying and treatment are high<br>• Be **new** ideas or **important improvements** to existing solutions<br>• Provide an underlying rationale, a testable hypothesis, and an associated plan for how the idea would be tested or validated |
| **AREAS CONSIDERED** | | • Sanitation capture and containment technologies: improvements or alternatives to pit latrines<br>• Solutions to menstrual management and safe disposal of child feces<br>• Extraction and transportation | • Hygienic manual or mechanical emptying equipment for urban areas<br>• Sludge processing for community energy generation in urban areas |

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| | | innovations for hauling fecal sludge to transfer or disposal points<br>• Advancements in decentralized treatment technology for use at community, apartment block, town, and/or city scales<br>• Innovations in re-use of waste for agricultural, energy or industrial purposes at community and/or city level<br>• Other sanitation innovations | • Appropriate sanitation solutions for flooded zones (e.g. communities that face seasonal flooding, high groundwater tables, riparian or tidal communities, floating communities, etc.)<br>• Easy cleaning, attractive and affordable pan / squatting platform, suitable for connection to an offset pit |
| **AREAS NOT CONSIDERED** | | **Solutions that:**<br>• Rely on centralized sewerage systems<br>• Rely on chemicals or other products that cause environmental sustainability issues<br>• Are incompatible with development country context | **Solutions that:**<br>• Behaviour change programming (e.g., implementation of community led total sanitation or related approaches)<br>• Boutique technologies that cannot be scaled, or technologies with capital or operating requirements that are inappropriate for serving the urban poor in developing countries |
| **GRANT AMOUNT** | No amount specified | 100,000 $ initially, opportunity of follow-on grant of up to 1 Mio $ | 100,000 $ initially, opportunity of follow-on grant of up to 1 Mio $ |
| **FURTHER INFORMATION** | http://docs.gatesfoundation.org/watersanitationhygiene/Documents/Forms/AllItems.aspx | *http://www.grandchallenges.org/Explorations/Topics/WaterSanitation/Pages/Round6.aspx* | *http://www.grandchallenges.org/Explorations/Topics/WaterSanitation/Pages/Round7.aspx* |

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