

REINVENTED TOILET EXPO OVERVIEW

The Bill & Melinda Gates Foundation's Reinvented Toilet Expo is a three-day summit for private and public-sector leaders who want to accelerate the adoption of innovative, pro-poor sanitation technologies, in developing regions around the world. These technologies are at the forefront of a growing movement to rapidly improve safe sanitation for the world's poorest, while creating new, profitable sanitation markets that sustain progress toward global water and sanitation goals outlined in the United Nation's Sustainable Development Goals (SDG 6).

The Expo will feature a technology showcase to unveil pilot-tested technologies—including the reinvented toilet, the omni-processor, and the omni-ingestor. Each are first-in-class products designed to kill pathogens that make people sick and transform human waste into valuable resources at a low cost to users—all without connections to water supply or sewer systems.

Expo participants, including pioneering commercial entities, government leaders, sanitation utilities, donors and investors, are invited to join an interactive series of presentations, panel discussions and peer-engagement opportunities, to explore the impact of new sanitation technologies for communities, and the global market opportunity for these new solutions. The Expo provides a forum for participants to develop and announce new investments and partnerships alongside the Gates Foundation, to support the advent of a transformative sanitation industry that benefits people and economies.



Guardian Art Center by Ole Scheeren © Buro-OS

The Expo will be held in Beijing, China, November 6-8, 2018 in partnership with the Chinese Government.

Your Participation

- Learn how to increase return on investment in sanitation service delivery by incorporating new technologies into city-wide and national-level sanitation models.
- Investigate emerging business models and country demonstrations of best-in-class technologies through peer-to-peer learning and workshops.
- Build new partnerships with leading technology, commercial, and government partners, that can facilitate opportunities for immediate technology piloting and localization of technologies.

Accelerating Progress on SDG 6, Global Health, and Economies

If sanitation solutions aren't safely managed – from collection to containment to transportation and treatment – human waste permeates the environment and makes people sick. This problem is especially acute in dense urban areas and informal settlements where lack of infrastructure, booming population growth and increasing water scarcity compound the effects of raw sewage on people. Sanitation is widely accepted as a chief contributor to waterborne diseases, which are the cause of up to 80 percent of diseases in developing countries.¹ Despite this indisputable connection, safe sanitation isn't improving quickly enough. Recently, the World Health Organization and UNICEF, reported that over the last five years, sanitation rated as "safe for people" increased by only three percent worldwide.²

¹ United Nations, "Water-Related Diseases Responsible For 80 Per Cent of All Illnesses, Deaths In Developing World", Says Secretary-General In Environment Day Message," 2003, <https://www.un.org/press/en/2003/sgsm8707.doc.htm>

² WHO/UNICEF Joint Monitoring Program for Water Supply, Sanitation and Hygiene, "2017 Update and SDG Baselines," June 2017.

Faster progress and truly innovative solutions are essential to transforming the state of sanitation globally. It's also a largely untapped economic opportunity. Potential gains, in the form of increased productivity, improved infrastructure, new jobs, and expanded entrepreneurial opportunities are enormous. Worldwide, it has been estimated that every dollar spent on sanitation could provide as much as \$5.50 in economic return.³ Market research shows that the annual market value for new, pro-poor sanitation technologies could be more than \$6 billion globally.

About the Reinvented Toilet

The flush toilet and central sewer systems are considered by many consumers and governments around the world to be the gold standard for safe sanitation. Yet decentralized sanitation systems incorporating technologies like the reinvented toilet promise both safer and more cost-effective alternatives. These approaches also reduce local dependencies on large infrastructure, like sewers and waste treatment plants, which require huge financial, water and energy resources to build, maintain and operate. The international standard on non-sewered sanitation defines decentralized sanitation and also sets the performance specs for such systems⁴.

Since 2011, the Gates Foundation's Reinvent the Toilet Challenge has worked with leading engineers and scientists to design low-cost toilets that do not require connections to the electrical grid, water supply, or sewers. These toilets work using internal treatment systems and can be set up in areas that are hard to reach with traditional infrastructure. They can deliver the same benefits as toilets connected to sewers, plus wholly new benefits, including the removal of human pathogens and odors, and the generation of useable water and electricity. Some reinvented toilet models provide sanitation for single homes, and others are designed for community sanitation settings serving multiple families.

In addition, the foundation has supported the development of off-grid human waste treatment technologies and pit latrine emptying solutions to pioneer new ways to treat waste more effectively and make existing sanitation systems safer for people and more affordable for private companies, public utilities, and municipalities.

About the Bill & Melinda Gates Foundation's Water Sanitation & Hygiene Program

The Gates Foundation's Water, Sanitation & Hygiene program focuses on investments and partnerships that can support the development, commercialization and adoption of innovative sanitation service and technology solutions that provide cost-effective, viable alternatives to conventional sewer systems. We collaborate with both public and private partners who can advance promising new toilet and waste treatment technologies, and service models, with potential to revolutionize sanitation for billions in the decades ahead.

Guided by the belief that every life has equal value, the Bill & Melinda Gates Foundation works to help all people lead healthy, productive lives. In developing countries, it focuses on improving people's health and giving them the chance to lift themselves out of hunger and extreme poverty. In the United States, it seeks to ensure that all people—especially those with the fewest resources—have access to the opportunities they need to succeed in school and life. Based in Seattle, Washington, the foundation is led by CEO Sue Desmond-Hellmann and Co-chair William H. Gates Sr., under the direction of Bill and Melinda Gates and Warren Buffett.

For more information, please contact: reinventedtoilet@gatesfoundation.org

³ WHO, "Global Costs and Benefits of Drinking-water Supply and Sanitation Interventions to Reach the MDG Target and Universal Coverage," 2012, http://www.who.int/water_sanitation_health/publications/2012/globalcosts.pdf

⁴ International Organization for Standardization, ISO/DIS 30500, 2018, <https://www.iso.org/standard/72523.html>