

The logo for the Bill & Melinda Gates Foundation, featuring the text "BILL & MELINDA GATES foundation" in a serif font, with "GATES foundation" in a smaller, italicized font.The logo for M&C Saatchi World Services, featuring the text "M&C SAATCHI" in a large, bold, sans-serif font, with "WORLD SERVICES" in a smaller, bold, sans-serif font below it.

Why India's smart cities need smart toilets

Indian Prime Minister Narendra Modi once pledged to put “toilets before temples”.

It's a strong example of India's commitment to improving the quality of life for its citizens.

In the same vein, India's government has pledged create 100 smart cities - an infrastructure drive with a proposed budget just shy of \$30 billion to harness technology to improve the quality of life across urban India.

As a leading emerging market, India could prove to be the blueprint for future smart cities across the globe, a market that US consulting firm Frost and Sullivan estimates will be worth \$1.5 trillion by 2020.

Ongoing urbanisation has led to healthy growth, with the IMF forecasting in October this year that India would see a growth rate of 7.3 percent for 2018, and 7.4 percent for 2019.

The Bill & Melinda Gates foundation is investing in innovative pilots projects to help India explore new ways of meeting its sanitation goals. This includes a system designed by Tide Technocrats, an organisation that is working as part of the Clean India Mission.

They've designed a system for transporting and processing waste to ensure it is free of harmful pathogens that cause severe illnesses that can affect people across India's busy cities, keeping them out of work and education.

Emerging tech from a commercial partner called Biomass Control uses sensors to provide real-time performance data. Jeff Hallowell, from Biomass Control, believes it could even drive social change and female empowerment by offering the possibility of professional careers.

“The biggest social impact that sanitation has is for women and girls. It's really positive for equality, we really see big changes in communities when that's available.”