

# WOMEN'S EMPOWERMENT PRINCIPLES

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2020 UN Women Asia-Pacific WEPs Awards Regional Awardee Profile



## SilveryNanos Innovations LLP



**Divya Rathod**  
Founder

### SilveryNanos Innovations LLP

Country: India  
Employees: 1-10  
Industry: Biotechnology

Website  
<http://www.divyainnovation.in/>



### From Academics to Entrepreneurship

While studying for a Bachelor's in Microbiology at the age of 19, Divya Rathod contracted a urinary tract infection (UTI) after using a public toilet. Worldwide, more than 150 million people suffer from UTIs each year, and infection rates are especially high in low-income settings that lack sufficient public hygiene and sanitation measures. In India, public toilets are a major culprit in the spread of UTIs. Typically used by thousands of people each day, cleaning them after every use is nearly impossible and would also waste scarce water resources. While bacteria on toilet seats can spread infection, many women and girls also develop UTIs from intentionally avoiding public toilets by holding in their urine or not consuming liquid.

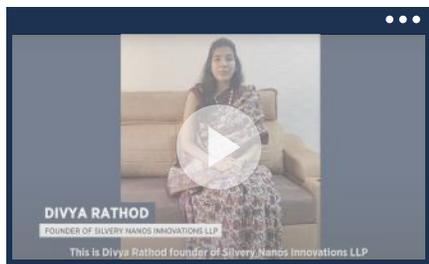
After being admitted to the hospital and required to take medication for an extended period of time, Divya was determined to find a solution for preventing UTIs. As a scientist, she initiated a project with one of her professors to develop a liquid film to create a protective seal on public toilets. Initially formed as a paint, Divya continued to refine the idea throughout her Bachelor's and Master's degree.

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***SilveryNanos Innovations LLP is an organisation built by women and for women.***

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*Watch the testimonial video to learn more!*

It was during her PhD studies in Biological Sciences in 2018 that she participated in the Chancellor's Challenge and won a cash prize of 5 lakh INR (nearly 7,000 USD). With these resources, Divya was able to apply new innovations in nanotechnology to her existing product and develop the ground-breaking spray Hapito.

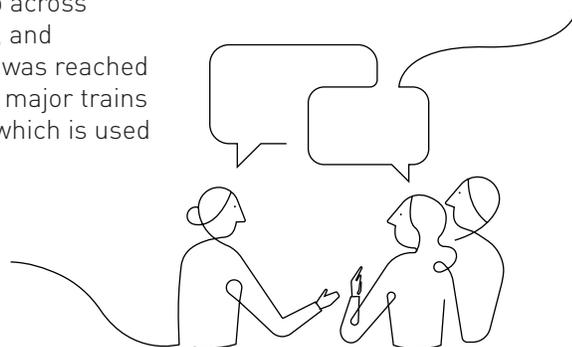
Hapito is a transparent solution that is sprayed on toilets and forms a thin transparent film on the seat that acts as an antibacterial, anti-algal, antifungal and antibiofilm surface. By preventing the growth of germs rather than killing them as other cleaners do, only one application is needed to keep public toilets odorless and free of bacteria for an entire month. Not only does this benefit women by eliminating the risk of infection from toilets, but it also supports the environment. A study conducted by the team compared water tank usage and found a 55% reduction in water used for cleaning the toilets on which Hapito had been applied.

## Initiating Partnerships to Raise Awareness and Create Impact

In 2019, Divya made the leap into entrepreneurship and founded SilveryNanos Innovations LLP. Seeking to create widespread impact with Hapito, Divya partnered with a national NGO and local political party to launch the NARI initiative on International Women's Day (March 8th) 2020. The NARI "SAAF Toilet Ki Sawari" (Women's "Safe Toilet Journey") campaign sought to undertake mass application of Hapito to public toilet facilities while also raising awareness of safe and hygienic practices within rural communities.

Many women and girls in local communities were aware of the frequency of UTIs, but sanitation systems were limited and the women lacked basic knowledge about how to keep themselves clean in public toilets. They were introduced to Hapito, learning how to apply it and how it can help them and their communities. Awareness raising sessions taught the basics of hygiene and also explained the risks of peeing while standing, squatting, using hands to hold oneself up while squatting, and avoiding urination for long periods of time. Equally gender and environmentally minded, NARI also collaborated with a local NGO to distribute approximately 10,000 biodegradable menstrual pads to women in rural areas.

The campaign also ran awareness raising sessions and supplied Hapito across Mumbai municipal corporations to Indian Railways, Indian Army offices, and village-level government bodies. A major achievement of the campaign was reached when the Indian Railways authority gave the order for use of Hapito in 3 major trains with over 200 toilets and in 17 stations across the Mumbai rail system, which is used by nearly 7.6 million people each day.



## Plans for Scaling and Expansion

Hapito is now being used by Indian Railways, municipal governments, educational institutions, and corporates. While Divya's innovations have already won her both national and international accolades, from UN agencies and government bodies alike, she wants to continue her mission to deliver the NARI Clean Toilet Journey to even more women. With a plan to continue partnering with local governments, Divya plans to run the NARI campaign in airports and other areas with a high density of public toilets across India. She is also working to bring Hapito and the NARI initiative to various parts of world where unhygiene toilets put women at risk of infection. Future NARI campaigns will also include distribution of biodegradable pads and menstrual cups. Moving forward, SilveryNanos is leveraging the power of nanotechnology to develop more products that can replace harmful chemicals and plastic pollutants and serve the company's ultimate vision of benefitting humanity while saving the environment.



## Women's Empowerment Principles



High-Level Corporate Leadership



Treat all Women and Men Fairly at Work without Discrimination



Employee Health, Well-Being and Safety



Education and Training for Career Advancement



Enterprise Development, Supply Chain and Marketing Practices



Community Initiatives and Advocacy



Measurement and Reporting

 [asiapacificwepsawards.org](http://asiapacificwepsawards.org)

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