

VARANASI CALLS FOR GLOBAL INNOVATORS TO ENHANCE CROWD FLOW MANAGEMENT AS PART OF \$9M SUSTAINABLE CITIES CHALLENGE

- The city of Varanasi invites pioneering innovators from around the world to develop crowd management solutions for its ancient spiritual center of Kashi, as part of the Sustainable Cities Challenge.
- Varanasi is one of only three host cities chosen, and selected innovators will have access to a share of \$3m funding.
- The initiative aims to demonstrate and test user-centered solutions that can improve safety and accessibility in Varanasi's old city of Kashi for pilgrims, tourists and vulnerable groups.
- Companies offering solutions that integrate elements of artificial intelligence, urban design, data analytics, behavioral and crowd science, and more are invited to apply by September 5, 2024.
- Varanasi's Innovating Crowd Flow Challenge has been designed by the city of Varanasi alongside Toyota Mobility Foundation, supported by Challenge Works and World Resources Institute.

Varanasi, India (27 June 2024) - As part of the [Toyota Mobility Foundation's \\$9m Sustainable Cities Challenge](#), Varanasi has launched a global call for innovators to find data-driven solutions to make the city safer for the millions of people who visit every year for pilgrimage. The [Varanasi Challenge](#) is looking for solutions that will allow the city to better manage the growing influx of annual visitors, while making the city more accessible for tourists and local residents, particularly older people and people with disabilities.

Located on the banks of the Ganges River in northern India, Varanasi is widely known as the "spiritual capital" of the nation. The old city of Kashi within Varanasi is one of India's most important pilgrimage sites, with millions of people visiting every year for religious and cultural reasons. The inflow of tourists, however, when coupled with the city's narrow, winding lanes and dense urban fabric, raises potential questions around safety and overcrowding. Previous reports have suggested that Varanasi attracted around [70 million visitors](#), which reiterates the need to enhance the city's safety and accessibility, especially as most tourists are middle-aged and elderly people.

As part of the Sustainable Cities Challenge, Varanasi is inviting innovators from around the world to develop innovative crowd management solutions that make it easier to accommodate its visitors and make the city safer and more accessible for both residents and visitors alike.

Leveraging technology, data analytics, urban design, behavioral psychology, and crowd science, can provide insights into crowd dynamics and flow, enabling better crowd management and reduced congestion.

In addition to a share of \$3 million of implementation grant funding, participants in the challenge will gain exclusive insights into the workings of this historic city and a real-world understanding of user-centered design.

Shri. Akshat Verma IAS, Municipal Commissioner, Varanasi Municipal Corporation, said:

“We are very excited to be involved in the Sustainable Cities Challenge. Millions of people visit Varanasi every year for religious, spiritual and touristic activities alike. Our leadership is committed to make Kashi safer and more accessible for all. We look forward to working with emerging innovators from around the world and hope that this challenge will help us identify technologies and the solutions that will benefit citizens, pilgrims and tourists of Varanasi. Kashi, one of the oldest surviving cities in the world, has various opportunities for it to be at the forefront of innovation in participatory and holistic development.”

Pras Ganesh, Executive Program Director, Toyota Mobility Foundation, said:

“We are truly looking forward to working with Varanasi on their City Challenge and seeing how innovators from around the world can deliver mobility solutions in this historic and holy city. As Toyota Mobility Foundation, we work under the three principles of innovation, partnership and leaving a sustainable legacy, and believe that this project has the potential to develop innovative but human centric crowd management solutions that can also be applied to other cities facing similar issues.”

Kathy Nothstine, Director of Cities and Societies at Challenge Works, said:

“As an important site of pilgrimage, the population of Varanasi grows exponentially throughout the year as people come to visit. This presents challenges for the city. The Sustainable Cities Challenge is a global call for innovative solutions and means that visionaries from across the world can work to develop solutions to these challenges.”

Pawan Mulukutla, Executive Director of Integrated Transport, Clean Air & Hydrogen, Sustainable Cities and Transport, WRI India said:

“In 2022, Varanasi's floating population was estimated to be 35 times of its local population. By strategic interventions and effective crowd management measures, the thriving heritage city of Varanasi can become a torchbearer of sustainable mobility for other tourist destinations globally. The Sustainable Cities Challenge fosters technology-driven innovative solutions aimed at transforming the public spaces and streets of the city. The Challenge seeks innovative mobility

solutions that can be tested, adapted and scaled to suit local contexts, while advancing low-carbon mobility across geographies.”

Mr. Vikram Gulati, Country Head and Executive Vice President for Corporate Affairs and Governance, Toyota Kirloskar Motor, said:

“Towards the realization of our mission of generating “Mass happiness”, we at Toyota are constantly working towards creating Mobility for All by adopting sustainable, practical, and innovative solutions. The Varanasi Innovating Crowd Flow Challenge exemplifies this commitment that aspires to the creation of a city that is more accessible, safe, and inclusive in-line with the real local mobility needs. We are truly excited about this project, as it promises to scientifically and systematically streamline the unique mobility needs of the magnificent city of Varanasi.”

Varanasi is one of three cities to host challenges, alongside Detroit, USA and Venice, Italy. Over 150 cities from 46 countries around the world entered the challenge after the call to cities was first launched in June 2023.

Applications for the Varanasi Challenge are open from today until the 5th of September. Up to ten semi-finalists will be selected in November 2024 and receive a grant of \$50,000 each. Companies will have the opportunity to directly engage with city leaders, end users, and beneficiaries to customize their solutions and demonstrate them on-ground in the city.

In May 2025, up to five finalists will be granted \$130,000 each to test their solutions in a larger area of the city over an extended period to assess their impact and further customize their solutions. In March 2026, up to three winners will be selected to share final implementation funding of \$1.5 million to further scale their solutions in the city.

The deadline for entries to the Varanasi Challenge is Thursday 5 September 2024. To find out more, visit the [Sustainable Cities Challenge website](#).

Detroit, Michigan, USA

Launched May 29, 2024 - Once known as the ‘Motor City,’ Detroit is looking to become a ‘Mobility City,’ seeking innovators who can help the city deploy clean and cost-effective mobility solutions as part of its transition.

The challenge is focused on Eastern Market, the nation’s largest food production and distribution center, where a growing residential and commercial presence means that the city wants to explore solutions that tackle congestion and pollution caused by freight, to improve the health and wellbeing of the surrounding community.

Venice, Veneto, Italy

Launched June 11, 2024 - Venice is often pictured solely as a historic city, famous for its intricate network of canals. In reality, most of the population lives and works in the mainland suburbs such as Mestre, Maghera, and other motorized islands, which serve as a crucial transportation hub connecting Venice to the mainland and beyond.

With a mobility landscape that is truly multi-modal, including land and water transport, the city has invested significantly in sustainable mobility infrastructure and services. In the Venice City Challenge, the city seeks innovative solutions that shift behavior, encouraging an increased use and adoption of existing sustainable transport modes.

ENDS

Notes to editors:

All spokespeople are available for interview and further comment.

For more information or to book interviews with spokespeople, please contact press-tmf-scc@89up.org or sdatta@webershandwick.com.

Three City Challenges:

- TMF Sustainable Cities Challenge Detroit: Transforming Freight
- TMF Sustainable Cities Challenge Varanasi: Innovating Crowd Flow
- TMF Sustainable Cities Challenge Venice: Embracing Sustainable Mobility

About Toyota Mobility Foundation

The Toyota Mobility Foundation (TMF) was established in August 2014 by the Toyota Motor Corporation (Toyota) to support the development of a more mobile society in which everyone can move freely. The Foundation underscores Toyota's ongoing commitment to continuous improvement and respect for people. It utilizes Toyota's expertise and technologies to support strong mobility systems while eliminating disparities in mobility. TMF works in partnership with universities, governments, non-profits, research institutions and other organizations, creating programs that are aligned with the UN Sustainable Development Goals (SDGs) to address mobility issues around the world.

In the past, TMF has led a range of Challenges, including the global Mobility Unlimited Challenge, CATCH in Malaysia, InoveMob Challenge in Brazil and STAMP Challenge in India. You can find out more about TMF and how it is governed at toyotamobilityfoundation.org.

About Challenge Works

Challenge Works is a global leader in the design and delivery of open innovation challenges that incentivize diverse innovative thinkers to solve pressing problems and unlock change. The most promising solutions are rewarded with seed funding and expert support, and the innovation that is the best or quickest to solve the problem wins the grand prize. This approach levels the playing field for innovators from any background or experience to apply their ingenuity for societal impact. Founded by Nesta, the UK's innovation foundation for social good, they are a social enterprise that has delivered 87 challenges to date and distributed more than £124 million to winning innovators. Visit them at challengeworks.org.

About World Resources Institute

World Resources Institute (WRI) is a global research organization with offices in Brazil, China, Colombia, India, Indonesia, Mexico and the United States, and regional offices for Africa and Europe. WRI's 1,900 staff work with partners to develop practical solutions that improve people's lives and ensure nature can thrive. Learn more: WRI.org and on X (formerly Twitter) [@WorldResources](https://twitter.com/WorldResources).