

## City Architecture for Tomorrow Challenge Awards Winners Numina and KERB US\$500K for Implementation in Kuala Lumpur

- City Architecture for Tomorrow Challenge (CATCH) launched in February 2020 with a global call for dynamic and data-driven solutions to address mobility and city planning challenges in Kuala Lumpur
- Six finalists developed Minimum Viable Products (MVP) of their innovative solutions including demand responsive transit, smart cameras, synthetic data modeling solution, data fusion platform, and parking solution towards improving mobility and city planning
- Numina (US) and KERB (Australia) selected as joint winners and will receive US\$250,000 each as a grant award for their solution trial and implementation of their solutions in Kuala Lumpur



**Kuala Lumpur, Malaysia** (1 July 2021) – Two teams announced as the joint winners for the City Architecture for Tomorrow Challenge (CATCH). Toyota Mobility Foundation (TMF) launched CATCH in February 2020 with a global call for dynamic, intelligent and data-driven solutions to address mobility and city planning challenges in Kuala Lumpur.

Through the journey of the CATCH program, six finalists developed and delivered Minimum Viable Products (MVP) successfully for Kuala Lumpur, despite the continuing impact of COVID-19. With support from strategic and data partners through the finalist stage, including mentorship from industry experts during the incubation workshop, finalists obtained meaningful local insights and feedback for finalizing their solution development. Finalists were also able to install physical devices in Kuala Lumpur, develop data analytics platforms and dashboards, and conduct feasibility testing to showcase the data utilization and leverage innovative technologies to improve the access to mobility in Kuala Lumpur. These MVPs were presented at the final assessment to our esteemed panel of eight judges from various fields of expertise.

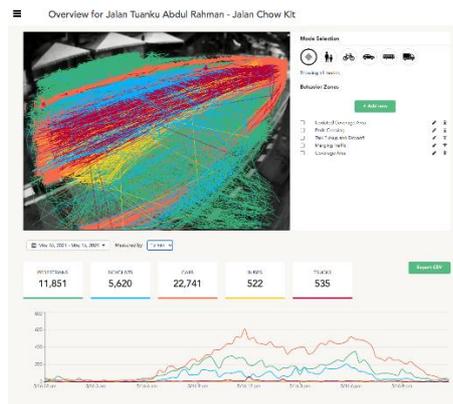
After careful consideration and deliberations with the judges, TMF identified Numina from the US and KERB from Australia as the best suited solutions, which matched the five assessment criteria of creativity, desirability, feasibility, sustainability and technicality. In addition to enhancing the quality of life for citizens in the city of Kuala Lumpur, these winning solutions also align with Toyota's *Mobility for All* initiative. Numina and KERB will receive a grant of US\$250,000 each, as financial support for their solution trial and implementation in Kuala Lumpur with the continuing collaboration from strategic and data partners.

**Winners' Solutions and Comments**

Numina from New York, US has been serving planners and cities since 2014 for the purpose of empowering cities with data, to become more responsive and more equitable. Numina uses computer vision and Privacy by Design technology to measure how people and objects move in streets and public spaces and delivers real-time insights from streets to make cities more responsive to human movement and needs. During the challenge, Numina has deployed their sensors in traffic hotspots in Kuala Lumpur, allowing them to monitor and analyze people and object movement. The data can be delivered via self-serve web dashboard with a dynamic, queryable, privacy-first dataset of multimodal activity to Kuala Lumpur stakeholders, for making data-driven decisions in terms of city planning and infrastructure improvement during the Winner Implementation Stage.



*Numina Sensor*



*Pedestrian Patterns and Dashboard*

**Tara Pham, CEO and Founder of Numina** commented: “We are honored that the CATCH partners believe in the impact that Numina can have, by supporting pedestrian safety and turning Kuala Lumpur’s streets into a sandbox for mobility innovation.”

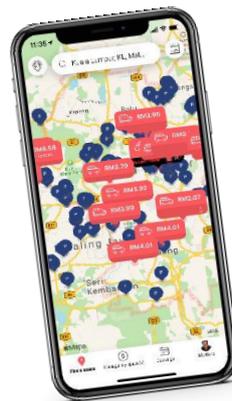


*Numina Team*

KERB is an Australian company, headquartered in Brisbane, Queensland, founded in 2016 with operations in several countries. KERB is a global parking application, which unlocks parking in the cities through their unique technology driven by their “KERB box”. It develops a platform that automates car parking and enables renting public/ private spaces to customers who need parking space. KERB also has local operations and is increasing its presence in Kuala Lumpur. During the challenge, KERB has deployed its technology to unlock parking spaces that are empty during office hours – thereby increasing the number of parking options available, with zero infrastructure by providing one-touch booking and payment, “hands-free” car park access, and real-time of parking behavior data. Through the Winner implementation stage, KERB will increase parking supply around public transport hubs, expand networks, and strengthen the mobility system in improving accessibility in Kuala Lumpur.



*KERB Box*



*KERB Application*



**Rob Brown, CEO and Co-Founder of KERB** commented: “At Kerb, we passionately believe that the “mobility for all” solution developed with fresh and innovative approach for the city of Kuala Lumpur as part of Toyota Mobility Foundation’s ‘City Architecture for Tomorrow’ would serve as a model for any developed or developing city”



*Kerb Team*

### **Conceptualizing Data-Driven Innovations to Reality**

The winning teams will continuously work on implementation of the solution in Kuala Lumpur. TMF, together with strategic partners including **Kuala Lumpur City Hall (DBKL)**, the **Malaysia Digital Economy Corporation (MDEC)** will support the winners until the end of implementation stage.

**Datuk Seri Haji Mahadi bin Che Ngah, Mayor of Kuala Lumpur** commented: “Kuala Lumpur City Hall is fully supportive of CATCH as it is in line with our goals to make Kuala Lumpur an efficient and environmentally-friendly mobility city focusing on effective and varied mobility and transportation choices.”

**Aiza Azreen Ahmad, Chief Digital Business Officer of Malaysia Digital Economy Corporation (MDEC)** commented: “CATCH is testament of the effectiveness of data-driven solutions to empower Malaysia’s digital economy and drive innovations toward efficient, innovative and sustainable cities. This public-private initiative enables our data ecosystem to grow towards being 4IR-ready and globally competitive digital nation, in line with the goals of the Malaysia Digital Economy Blueprint and Malaysia 5.0.”

**Pras Ganesh, Director of Programs of TMF** commented: “The problem statement was challenging, focusing on data driven city planning and mobility improvements of Kuala Lumpur. Though all the Finalists are excellent, both the winning entries are worthy victors of CATCH. In line with Toyota Mobility Foundation’s Guiding Principles, they both offer high tech practical solutions that can deliver immediate benefits to Kuala Lumpur citizens and city planners. Furthermore, they also exhibit potential for future proofing mobility in any large city, and we are excited at the possibilities of our engagement going forward.”

Through CATCH, TMF hopes to utilize the insights gained through this challenge to solve mobility issues in other regions and countries in the future.

To find out more visit [www.tmf-catch.org/](http://www.tmf-catch.org/)

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### **About Toyota Mobility Foundation**

The **Toyota Mobility Foundation** was established in August 2014 to support the development of a more mobile society. The Foundation aims to support strong and equitable mobility systems. It utilizes Toyota’s expertise in technology, safety, and the environment, working in partnership with universities, government, non-profit organizations, research institutions and other organizations to address mobility issues around the world. Solutions till date have aimed at resolving urban transportation problems, expanding the utilization of multi-modal mobility, and developing solutions for future generations.

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