



GEO CONNECT ASIA 2021



With the aim of fostering a vibrant geospatial ecosystem in Singapore and beyond, GeoWorks participated as a supporting partner at Geo Connect Asia 2021, the first large-scale hybrid event of this year, held on 24 and 25 March 2021 at Sands Expo & Convention Centre in Singapore. The two-day in-person and virtual conference with over 1,000 in attendance was officially launched by Minister for Foreign Affairs and Minister-in-charge of the Smart Nation Initiative Dr Vivian Balakrishnan.

At his opening address, Dr Vivian Balakrishnan said that the public and private sectors must collaborate to create geospatial tech solutions. During his speech, Dr Balakrishnan mentioned GeoWorks, which aims to foster a vibrant geospatial ecosystem in Singapore and beyond – bringing together geospatial businesses such as MNCs, scale-ups and government agencies to promote business growth, drive innovation and build a diverse, well-connected geospatial community.

Dr Balakrishnan also cited OneMap, which was developed by the Singapore Land Authority, to facilitate geospatial data-sharing across the public and private sectors. He also said that with the launch of OneMap3D Beta last year, he believed it would drive greater co-creation of innovative solutions using 3D geospatial data.

GEOPARTNERS AND GEOTECHS IN THE LIMELIGHT AT GEO CONNECT ASIA 2021



Representatives from GeoWorks GeoTechs – Philip Park from FATOS, Ronnie van Munster from TNO and Tyler Moon from Lineable – spoke at the Tech Talks segment at Geo Connect Asia 2021.



Other GeoTechs who spoke during the two-day conference were Volocopter's Hon Lung Chu who was part of a panel discussion on smart transportation and Synspective's Dr Motoyuki Arai who gave a talk on SAR satellite and big data technologies in risk management.



Representatives from Trimble, Bentley and Grab – all GeoWorks GeoPartners – were also involved in sharing their industry knowledge with participants.

GEOWORKS COMMUNITY **UPDATES**



HUAWEI LAUNCHES FIRST APAC DIGIX LAB IN SINGAPORE

Huawei, a GeoWorks GeoPartner, has launched a S\$53 million regional centre – DIGIX Lab – in Changi Business Park, Singapore. The lab, the first in the Asia Pacific region, is aimed at empowering the region's mobile app developers and partners.

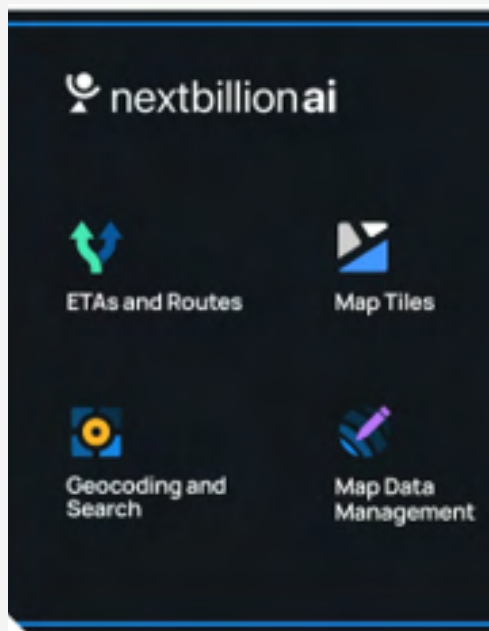
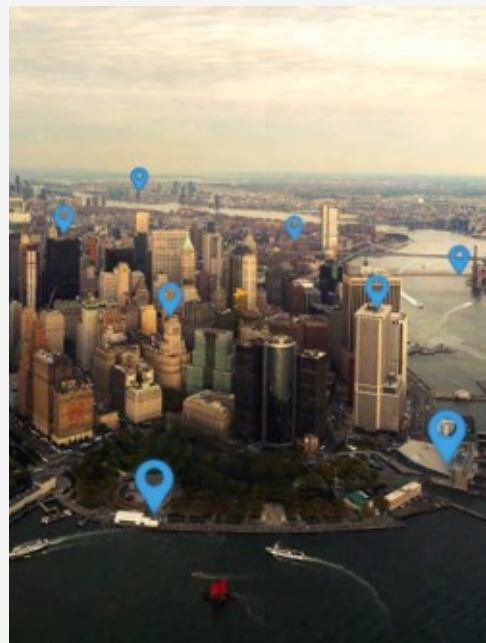
"The new DIGIX Lab in Singapore serves as an all-encompassing innovation hub that provides developers in the region with the tools they need to succeed. With Singapore as a flourishing hub in Asia Pacific, Huawei will continue to strengthen our collaboration with local partners and institutions to cultivate and nurture a resilient, evolving pool of tech talents. As we celebrate our 20th anniversary in Singapore, Huawei strives to build a robust mobile ecosystem to bring apps of the future to life," said Nicholas Ma, CEO of Huawei International.

Aside from the lab, Huawei has announced that it will continue its work with partners to bring more local apps onboard its AppGallery which presently carries apps including Singapore's OneMap, TraceTogether and ComfortDelGro. SingPass, the Singapore Government's e-services app will be available this year.

FOURSCORE ACQUIRES GEOSPATIAL ANALYTICS AND VISUALISATION PLATFORM

Foursquare announced its acquisition of Unfolded a next generation platform for geospatial analytics. With the addition of Unfolded's capabilities to the Foursquare technology stack, enterprises and brands can soon come to Foursquare to not only access its industry leading location data, but work with that data in an integrated platform for merging, enriching, analysing, and visualising spatial data - in whatever environment they choose.

This acquisition propels Foursquare's evolution into the singular source companies turn to high quality, easy-to-use location data and the technology they need to make sense of it. Customers can seamlessly access and apply spatial features to a variety of first-party and third-party data sets to solve critical business challenges - from site selection and competitor conquering to transaction improving customer loyalty and much more.



M12 WELCOMES NEXTBILLION.AI INTO PORTFOLIO

Geospatial data platform, NextBillion.ai (GeoWorks GeoTech), has received funding from M12, a venture capital fund by Microsoft. In a blog published on its website, Abhi Kumar, a partner at M12, said that NextBillion.ai's data platform is "on a trajectory to replace traditional mapping and location data tooling with a reimagined and decentralised geospatial data platform".

"Congratulations to Gaurav, Ajay, Shaolin, and the entire team on this major milestone. NextBillion.ai is a transformative and disruptive player in the geospatial space, and we look forward to your continued growth," said Mr Kumar.

PAST EVENTS

23 MARCH [HEXAGON] CREATING YOUR OWN ANALYTICS DASHBOARD WITH M.APP ENTERPRISE WEBINAR

Hexagon Geospatial recently held an online workshop on 23 March, "Creating your own analytics dashboard with M.App Enterprise", on its use cases of dashboards. The dashboards, created with the M.App Enterprise system, allow users to communicate data and spatio-temporal analytics in 2D and 3D visualisations. They also incorporate workflows with maps and dashboards to give users an interactive experience.

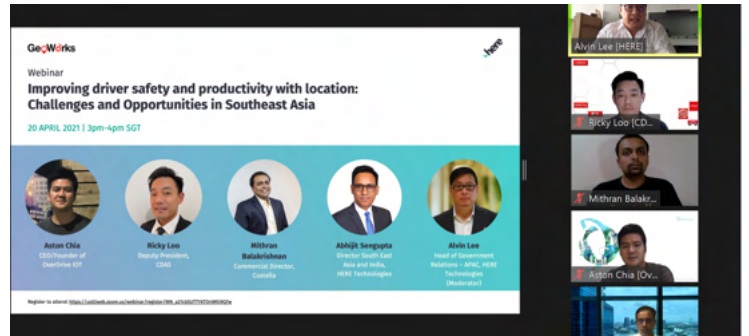


HERE Technologies, organised a webinar on 20 April on the use of location technology to improve productivity and safety of drivers. The discussion, “Improving Driver Safety and Productivity with Location”, held in partnership with GeoWorks, covered trends impacting the fleet industry, location data and how they can increase fleet safety, efficiency, and profitability and ways to help fleet owners retain safe and efficient drivers.

“It is also difficult to really understand the cause of accidents and assess driver performance accurately without access to rich contextual data such as weather, speed limits, traffic laws and zone restrictions with location data. With location data, now we can better understand driver behaviour and ensure driver productivity and safety in an on-demand last mile world,” said HERE Technologies’ Head of Government Relations – APAC, Alvin Lee.

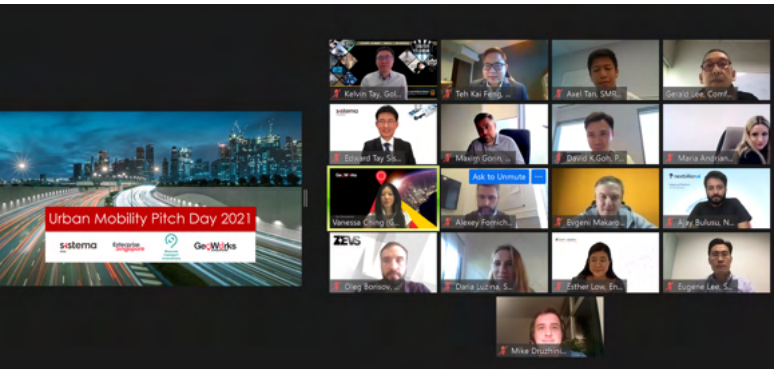
20 APRIL

[HERE] IMPROVING DRIVER SAFETY AND PRODUCTIVITY WITH LOCATION



27 APRIL

[SISTEMA ASIA] URBAN MOBILITY PITCH DAY 2021



GeoWorks, together with Enterprise Singapore, Sistema Asia and Moscow Transport Innovations, organised Urban Mobility Pitch Day 2021 on 27 April. The event showcased a curated pool of start-ups in the transport and logistics sector pitching to raise funds to transport industry experts from Russia and Singapore.

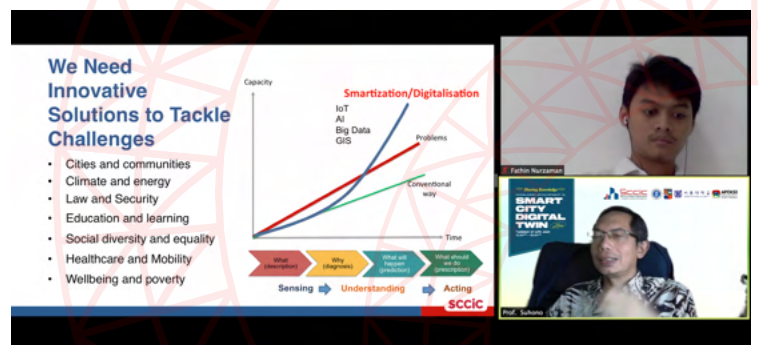
The start-up representatives (NextBillion.ai, Ping Delivery, BaseTrack, SWAT Mobility, Adcar, Veeroute, Ent-Vision, Zevs and Gemicro) presented their businesses during the session which empowers start-ups to form business partnerships with corporate venture capital units, corporations and venture capital firms.

As part of GeoWorks’ industry initiative to build the ASEAN GeoCommunity, GeoWorks, in collaboration with FITB ITB, organised a webinar, “Geospatial Industry for Smart City Development”, in Bahasa Indonesia for the first time on 29 April.

Speakers at the session – Prof. Dr.Ir. Suhono Harso Supangkat (Director of Smart City and Community Innovation Center ITB) and Mr. Asep Yusup Saptari (Head of Survey and Mapping Laboratory of Bandung Institute of Technology) discussed industry challenges and the role of 3D survey and mapping education in smart city development.

29 APRIL

[GEOWORKS WEBINAR SERIES (BAHASA INDONESIA)] GEOSPATIAL INDUSTRY FOR SMART CITY DEVELOPMENT



GeoWorks' GeoTech Ajay Bulusu, the co-founder of NextBillion.ai, shared fundraising tips at a recent webinar, "Understanding Venture Financing & Investment". During the session on 4 May, organised by Action Community for Entrepreneurship (ACE), in collaboration with GeoWorks, Mr Bulusu said that the fundraising process involves preparation, execution and closing. "Perfect fundraising", he said, takes time and that the "end-to-end process would take at least four months".

4 MAY

[ACE] UNDERSTANDING VENTURE FINANCING & INVESTMENT

A Perfect Fundraising Process Takes Time

Preparation	Execution	Closing
Teams need ~1 month to prepare the core materials before their first investor meeting.	Teams need 2 - 6 weeks to execute a fundraising process from first meeting to signed term sheet.	Unless you are Semicon, closing time is ~1 month from a signed term sheet to money in the bank.

Participants: Ajay Bulusu (NextBillion.ai), Carmin Ng (ACE)

6 MAY

[ESRI SINGAPORE] SMART APPROACHES IN INFRASTRUCTURE PLANNING AND DESIGN



The relationship to the built environment, the stages in the urban built environment sector and the perception of Singapore as a massive concrete jungle. These were some of the topics covered at a recent webinar on 6 May, on smart approaches in infrastructure planning and design.

Leslie Wong from Esri South Asia, said that Singapore, being a "land constrained area", has had many "creative thinkers and planners create spaces, places and networks or infrastructure." "When we face constraints, somehow we're forced to be more innovative," he said.

The National Supercomputing Centre (NSCC) Singapore and GeoWorks co-organised a virtual webinar on "Reimagining the Future of Smart Cities with High Performance Computing" to share insights on Digital Twin and its application in city planning, approaches to route optimisation modelling and network analysis, and HPC computing applications and use cases.

9 JUN

[NSCC] DIGITAL TWIN, ROUTE OPTIMISATION FOR SMART CITIES

In his welcome remarks, Mr Lim Liyang, Deputy Director of the Geospatial and Data division at the Singapore Land Authority said the topic of the webinar was relevant to the issues faced in cities today. "Rapid urbanisation and digitalisation are mega trends impacting all of us changing the way we manage cities and perhaps really giving us less margins of error in how we plan and operate," he said.

Equipping the Singapore Research Platform (SRP) with a National Computational Fabric and a Global Connection

Legend:

- Up to 500Gbps/E
- Up to 100Gbps/E
- 10-40/100Gbps InfiniBand/SP

Map locations: JURONG, WOODLANDS, SELETAR, NOVENA, CHANGI, OUTRAM, ANSON.

OUR GLOBAL 100GBPS NETWORK

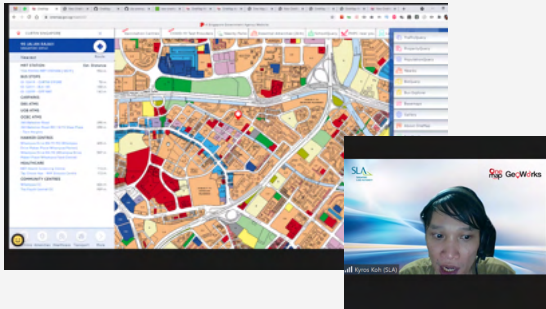
CONNECTING SINGAPORE, ASIA AND THE WORLD

NSCC Singapore logo and "In Partnership with" logo.



ONEMAP EVENT

ONEMAP API WORKSHOP



As part of the learning journey in the Supply Chain Challenge (SCC) ++, Singapore Logistics Association and Singapore Land Authority - GeoWorks have jointly organised a webinar on 25 Jun for the finalist teams to better understand and appreciate the usage of OneMap in the business case solutions.

The session explored various kinds of OneMap APIs including HTML examples, a live walkthrough demo of OneMap web/mobile as well as a demonstration of the Web application challenge.



MEET OUR NEW GEOAFFILIATE



Tell us about your company and its solutions.

Sistema Asia is an investment holding company engaged in making investments in India, Singapore, and South East Asia, runs Sales Jet Platform in Singapore and South East Asia to support the growth of the ecosystem and to complement its investment efforts in technology sector.

How has your experience with GeoWorks been?

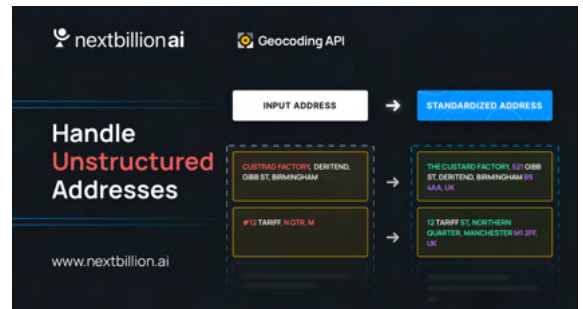
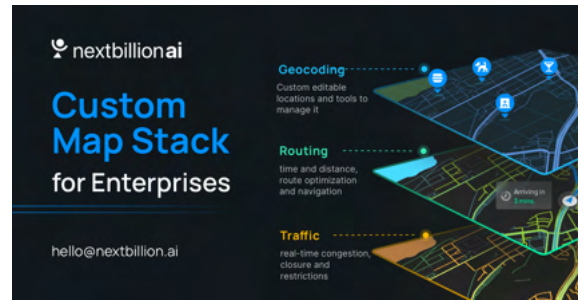
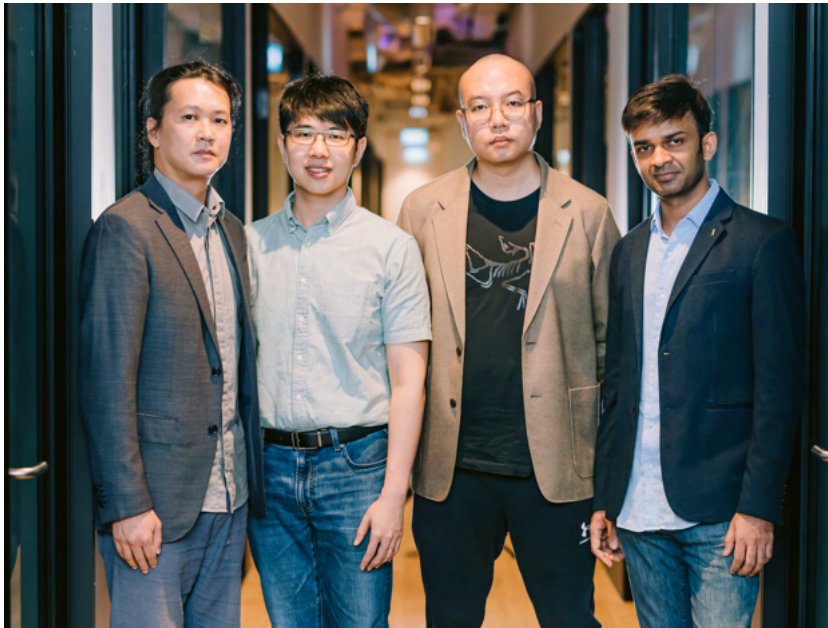
GeoWorks is an important partner for us as the team provides crucial expertise and network in geospatial technologies across various sectors of Singapore's economy. This collaboration helps us in the evaluation process of technology companies for participation in Sales Jet platform and our investment activities. We love the professionalism of the GeoWorks team.

Do you have any advice for aspiring entrepreneurs?

Our advice is very common: not to be afraid to take risks and fail. Without failure there won't be any innovation. What's good, is that nowadays entrepreneurs have access to supporting infrastructure and organisations, like startup incubators, accelerators and venture capital. GeoWorks and Sistema Asia are examples of such organisations and ecosystem players. Working with ecosystem builders can help entrepreneurs to de-risk and get help.



MEET OUR GEOTECH



Tell us about your company and its solutions.

NextBillion.ai is a unified spatial data platform that's revolutionising maps by decentralising mapping technology. We are the first to have truly simplified the complex technology and solved the underlying issues that enterprises face in the mapping space. Our unique ability to combine the ease of use, low cost, and customisability of open-source solutions with the high performance and quality of our proprietary solutions enable us to cater to enterprise needs in ways our competitors cannot.

NextBillion.ai's ML- and AI-driven platform offers solutions in three broad categories:

- Spatial Data Management - Map editing, custom data layers, auto QA, etc.
- APIs and SDKs - Navigation, accurate ETAs, unstructured addresses, etc.
- Geospatial Applications - Delivery optimisation, supply chain visibility, location-powered BI, etc.

These solutions address the location intelligence needs of a spectrum of industries, from ride-hailing and food delivery to long-haul trucking and emergency services.

What are some challenges enterprises face in using mapping solutions?

Enterprises face a number of challenges with mapping solutions that hamper their ability to operate at optimal performance levels, including:

Relevance - Unlike NextBillion.ai, most mapping solutions on the market aren't deeply customisable to the specificities of various use cases. This places limitations on the applications for the technology and the intelligence that can be drawn from it. For instance, a food delivery company may be operating both 2- and 4-wheelers, but unless the routes are optimised for each vehicle type, revenue is being lost through inefficiency.

Hyper-local nuance - It's hard to capture the intricacies of regional map data at a large scale. There are a number of factors to take into account, from road closures and vehicle- or time-based road restrictions to apartment complex layouts and warehouse entry/exit locations. Such information would be crucial to enterprises. We're able to effectively capture hyper-local nuances because of our capacity to maintain and integrate fresh data from disparate sources.

Dependence - Other map solution providers don't allow their customers the control to modify and update map layers independently. This means that even if the customer is aware of a road closure or diversion, they cannot update this information to the platform themselves. Instead, they must contact the solution provider and wait for the update to be implemented at the backend. Clearly, this sort of dependence on the provider is far from ideal for the customer.

Cost - Most maps are designed for individual consumers and not large enterprises. Those that are targeted towards enterprises tend to be prohibitively expensive because of the proprietary ecosystem they operate in, as well as high API costs. NextBillion.ai's first-of-its-kind decentralised approach to the location intelligence ecosystem enables us to offer targeted, effective solutions at a fraction of traditional enterprise mapping costs.



UPCOMING EVENTS

A Hybrid Geospatial Festival

#SgGeoFest

sg
geo
fest

6-17 September 2021
Singapore Geospatial Festival

GeoWorks

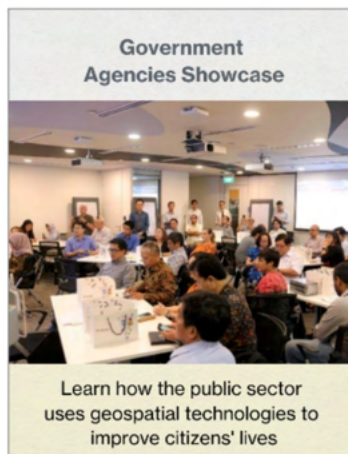
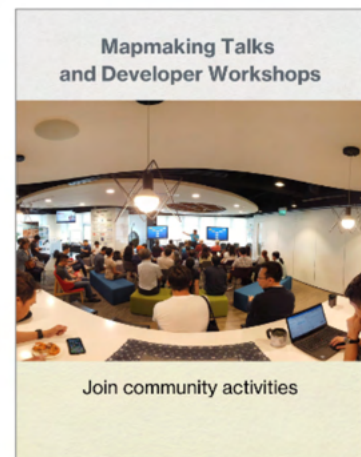
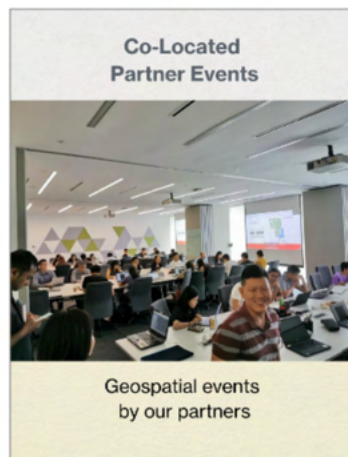
SINGAPORE GEOSPATIAL FESTIVAL 2021

Singapore Geospatial Festival 2021 #SgGeoFest (formerly known as Singapore Geospatial Week) is happening for the 3rd year from 6th-17th September 2021. It brings the international geospatial community (public and private sectors as well as the community-at-large) together for co-located activities promoting the use of GPS/location-based and mapping innovation.

Organised by GeoWorks, Singapore Land Authority's geospatial industry centre, this year's highlights include:

- GeoMarketplace
- Co-located Partner Events
- Mapmaking Talks and Developer Workshops
- OneMap and OneMap3D showcase
- Government agencies showcase

Visit <https://geoworks.sg> for more information.





THANK YOU FOR YOUR SUPPORT!

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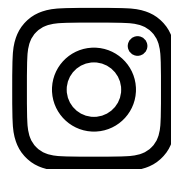
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ASEAN Geospatial
Network Group