#SgGeoWeek

Singapore Geospatial Week+ 2020
7—18 September

Go Geospatial

GEOWORKS NEWSLETTER
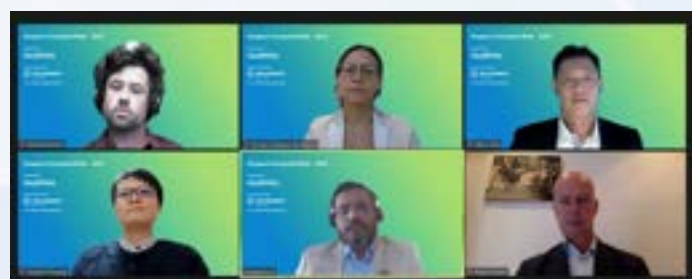
GeoWorks
Singapore Land Authority

ABOUT
SINGAPORE GEOSPATIAL WEEK+ 2020

In this special edition of the GeoWorks Newsletter, we will be featuring highlights of Singapore Geospatial Week +2020!

Spanning across two weeks from 7-18 September 2020, the second Singapore Geospatial Week was held virtually with over 60 back-to-back webinars. Bringing the geospatial community (public and private sectors as well as the community at-large) together, this annual flagship event aims to promote geospatial technologies, engage geospatial communities and create capacity for geospatial growth within the ASEAN region.

There was a whole array of webinars curated for everyone: key events such as the Singapore Geospatial Week+ 2020 launch and OneMap3D beta launch, industry talks spanning 4 industry tracks (Build & Infrastructure, Real Estate & Retail, Mobility & Logistics, Urban & Environment), open houses featuring COVID-19 talks and developer workshops, and even regional-themed webinars (including Regional Geospatial Youth Forum). So, sit back and grab a cup of coffee while we take you on our 2 weeks of geospatial journey!

Let's Go Geospatial!

WEBINAR
HIGHLIGHTS

SINGAPORE GEOSPATIAL WEEK+ 2020 LAUNCH

Singapore Geospatial Week+ 2020 (#SgGeoWeek) has brought the geospatial community together virtually through a bigger line-up of geospatial-related events and activities. Themed "Go Geospatial", this second edition has successfully concluded beyond a week with over 60 webinars.

The launch was officiated by Deputy Secretary for Smart Nation and Digital Government, Mr Tan Kok Yam and Singapore Land Authority's Acting Chief Executive Mr Simon Ong, followed by a panel discussion "The Future of Geospatial".

Mr Tan Kok Yam, Deputy Secretary for Smart Nation and Digital Government

"Geospatial technology has provided, and will continue to provide, innovations and solutions to cities and countries/regions, that help us contain the ongoing public health crisis, and help us manage the economic and social fallout. This is why Singapore Geospatial Week+ 2020 is an important event, for the geospatial community to share knowledge and exchange experiences, at this time when we urgently need to join hands and minds to solve big common problems"

Mr Simon Ong, Acting Chief Executive, Singapore Land Authority

"Geospatial information has become an integral component in driving solutions for businesses, the community and individuals. The current Covid-19 pandemic has led to location-based data being leveraged on for crowd management applications in line with safe distancing measures, thus enabling the public to make informed decisions to protect themselves. This year, Singapore Geospatial Week+ 2020 held on a virtual platform, will connect industry movers and enthusiasts across borders to enable knowledge sharing across the globe."

WEBINAR
HIGHLIGHTS

"The Future of Geospatial" Panel Discussion

Distinguished Speakers:
- Dr. Nadine Alameh, Chief Executive Officer, Open Geospatial Consortium
- Prof.Dr Hasanuddin Zainal Abidin, Institute of Technology Bandung and Chairman, Geospatial Information Agency Indonesia (2016-2020)
- Mr Leslie Wong, Managing Director, Esri South Asia

Moderator:
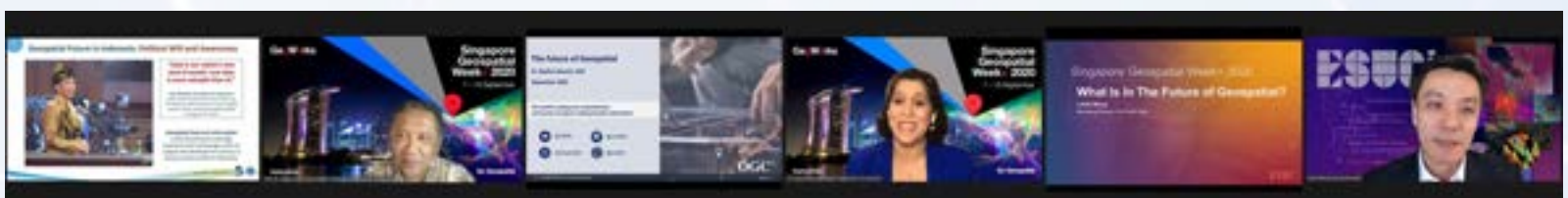- Mr Ng Siau Yong, Director (Geospatial & Data Division) & Chief Data Officer, Singapore Land Authority

"What is the future of geospatial?" - that was the question tackled by the panel speakers at the launch of Singapore Geospatial Week+ 2020 and plenary session organised by Singapore Land Authority's GeoWorks. The panel was moderated by Mr. Ng Siau Yong, Director, Geospatial & Data and Chief Data Officer of Singapore Land Authority, with distinguished speakers from OGC, ITB and Esri.

Emergent trends clusters
Dr. Nadine Alameh, Chief Executive Officer of the Open Geospatial Consortium (OGC), an authority for standards for geospatial information shared that OGC's mandate is to make geospatial location and information FAIR:

F- findable
A- accessible
I- interoperable
R- reusable

Geospatial cuts across many technology areas: spatial data on the web, AI & machine learning, connected autonomous vehicles, Edge computing, new space exploration, GeoEthics, geospatial data science, urban digital twin, immersive geo: AI XR, open API management, and model interoperability, amongst others.

WEBINAR
HIGHLIGHTS

"The Future of Geospatial is now...this is our moment. There is an unparalleled ability for geospatial to function as an organising principle and as an enabler for contextualising diverse data. Data integration sits at the heart of decision-making, analysis and prediction," said Dr. Alameh.

Significant drivers for development and potential roadblocks
According to Professor Dr. Hasanuddin Zainal Abidin, Institute of Technology Bandung Chairman, Geospatial Information Agency Indonesia (2016-2020), geospatial data and information is becoming increasingly important and useful to support the development process in various sectors of life in Indonesia. "Technology aside, the most important consideration for the future of geospatial is developing the next generation of geospatial thinkers. Capacity building is key and crucial in geospatial industry development."

The topics of privacy and GeoEthics were discussed by the speakers. Mr. Wong stated that the biggest blocker can be mindsets and that although we deploy a wide array of technology and tools to solve problems, it still takes will for people to come and work together and that when it comes to data interoperability: "Collaborations happen in the speed of trust."

In addition, Dr. Alameh shared that there may be industry standards however there is a need for urgency to act and hence COVID-19 and disasters may be unexpected circumstances but sometimes good do come out of these situations. She added in her conclusion that we need to be more anticipatory of such incidents in the near future.

WEBINAR
HIGHLIGHTS

ONEMAP3D BETA LAUNCH

The Beta version of OneMap3D, Singapore Land Authority (SLA)'s open source 3D city map portal, is now available for trial to businesses, developers and members of the public.

Mr Yeoh Oon Jin, Chairman, Singapore Land Authority

"With global attention and the trend of digitalisation, we are anticipating steady growth in the geospatial market. This is evident in the effort and resources invested by both the United Nations and the World Bank to strengthen geospatial expertise and adoption around the world. Riding early on the growth through GeoWorks, we envision Singapore to become the GeoHub of the region, with a well-connected industry network, supported by robust geospatial data to drive innovation."

Mr Simon Ong, Acting Chief Executive, Singapore Land Authority

"3D city map provides an immersive view of a user's surroundings and serves as a dynamic visualisation platform. We hope the Beta version of OneMap3D will catalyse more co-creations of innovative solutions using 3D geospatial data. OneMap3D is continuously enhanced and we want to collaborate with businesses, developers and community users to improve the Beta version."

Check out our Co-Developer & Partner Showcase too!

Mark Yong
CEO & Co-founder
Garuda Robotics

Enabling Live-Saving Urban Drones - Accurate and up to date 3D urban map data is critical for flight planning & air-space management

"OneMap3D Beta has accelerated our development and deployment of life saving drones in urban Singapore. As a GeoWorks GeoTech, we have been working on drone solutions with the OneMap platform. The availability of 3D data will provide more possibilities and opportunities as we progress to the next phase of innovation with new and optimised solutions for the industry."

Ajith Menon
CEO & Managing Director
BIMAGE

Creating Virtual 3D Neighbourhood using OneMap3D to enhance Safety, Planning, Design, Improvement and Sustainability of the Neighbourhoodalong with Public Engagement

"We hope that our partnership marks the path towards enhancing and extending the OneMap3D Beta data to support Virtual Design & Construction requirements needed for the built environment industry. This will not only increase productivity, but will also open up new business opportunities in asset planning and facility management."

Gerald Sim
Co-founder
MOGUL.sg

Application of OneMap3D for real estate to show 3D Immersive Tour of Neighbourhood and 3D Indoor Models

"Covid-19 has changed the situation for many in the real estate industry. The launch of OneMap3D Beta is timely as this allows visitors who come to our virtual exhibition to appreciate an immersive display of the environment of each property. OneMap3D Beta, coupled with virtual walkthroughs of property development projects at the Singapore 1st Virtual Property Expo this October will offer visitors the complete modern solution for home buyers."

WEBINAR HIGHLIGHTS
INDUSTRY PANELS

INDUSTRY PANEL:
THE NEW ECONOMY FOR MOBILITY & LOGISTICS

On 9 September, the Mobility and Logistics Industry panel was helmed by key speakers from the transport industry. It was an insightful discussion as they shared about the various challenges in last-mile delivery and what were the key ingredients that address the last-mile strategy.

On the topic of autonomous vehicle technology and its impact of the transportation landscape, Karthikeyan Shanmuganandam, Head of New Business and Enterprise of Ericsson, stressed the need for all information to be connected onto the cloud, for it to be sent back to the autonomous vehicle. However as this upload would make for a huge network crunch, hence existing telecommunication companies must be ready to support this surge before autonomous vehicles can take present stage.

INDUSTRY PANEL:
UNLOCKING COUNTLESS POTENTIAL WITH GEOSPATIAL TECHNOLOGIES IN REAL ESTATE & RETAIL

On 14 September, the Real Estate &Retail Industry panel was held by various speakers from Capitaland, Huawei, PTGEM as well as Sino Group to discuss how geospatial technology can unlock countless potential in real estate and retail.

On the impact of the real-estate business due to the COVID-19 pandemic, Andrew Yong, Associate Director (Innovation) of Sino Group highlighted how important it was to focus on wellness data and work with other developers in the industry to share solutions and innovations to create a safer, cleaner environment. Aylwin Tan, Chief Customer Solutions Officer of Capitaland agreed that data sharing was important and also shared that Capitaland was also working with the government to open a platform for industries to collaborate and work with each other.

WEBINAR HIGHLIGHTS
INDUSTRY PANELS

14 SEPT

INDUSTRY PANEL:
BUILDING SUSTAINABLE GEOSMART CITIES

On 14 September, the Urban & Environment panel was held with international speakers from Netherlands, Japan and Singapore. On the use of geospatial data for disaster situations, Dr. Arai Motoyuki, founder and CEO from Synspective shared how their SAR satellite solutions enables countries to take on the three key stages of disaster planning and mitigation (preparation, response and recovery) through the use of data to reproduce disaster simulations and quick deployment of their satellites to capture and analyse data quickly. Vincent Kessler from Planet also shared how the application of satellite imagery is key in agriculture and food security through the ability of satellite imagery to capture precise farming and verify crops sustainability.

16 SEPT

INDUSTRY PANEL:
GEOSPATIAL INNOVATION IN THE BUILD ENVIRONMENT

On 16 September, the Build & Infrastructure panel was organised with speakers from SLA, Trimble, Leica and Chulalongkorn University in Thailand.

On how COVID-19 has impacted the built sector, John Whitehead from Trimble shared that while the Architecture, Engineering, Construction (AEC) sector has been facing big adjustments due to technology, this was accelerated by COVID-19 due to higher expectations from project owners around productivity.

However, one of the silver linings of COVID-19 was the enhanced use of geospatial technology in tracking the movement of people around the world, which Professor Chalermchon Satirapod from Chulalongkorn University said would have a positive impact in the younger generation, who are already used to location-based apps, to get them more interested in exploring geospatial as a profession. As change is the new normal, the panel agreed that being up to speed with new technologies and staying proactive is essential in navigating our way through this new age.

WEBINAR HIGHLIGHTS
REGIONAL PANELS

14 SEPT

IOTSG SERIES:
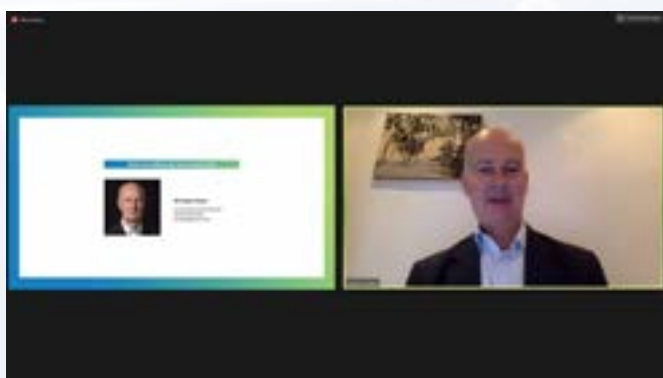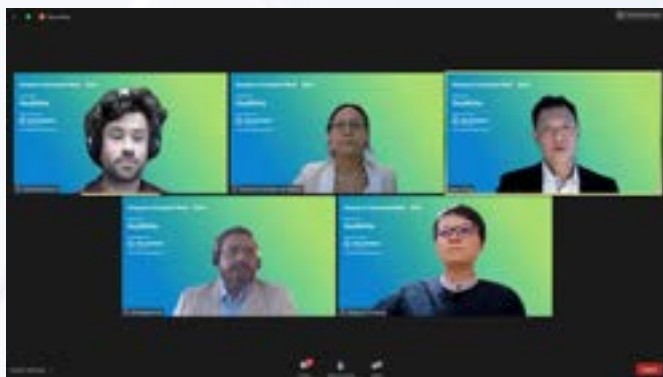### IOT APPLICATIONS FOR SMART CITIES

On 14 September, experts from the IoT field shared their expertise and projects on IoT applications for smart cities.

Sharing on various use cases, such as "Applying ISO/IEC systems approach for Smart Businesses in cities" and "Emerging technologies on Smart Cities", the speakers highlighted the need for international standards and how this can aid in the creation of smart businesses.

In closing, C K Vishwakarma, Founder and CEO of AllThingsConnected also shared how now that IoT and IoT devices are discoverable, the number of cybersecurity attacks have grown exponentially. Thus, while IoT has helped us achieve the Smart City of today, more needs to be done in security standards to achieve the Smart City of the future.

17 SEPT

GEO CONNECT PANEL:
GEOSPATIAL TECHNOLOGIES: A CATALYST FOR SUSTAINABLE INFRASTRUCTURE DEVELOPMENT

On 17 September, the Geo Connect Asia panel - "Geospatial technologies: a catalyst for sustainable infrastructure development" at SgGeoWeek touched upon digital twins and new processes for infrastructure projects and how the industry can adapt in a post-COVID environment.

Panellists shared that we may have plenty of digital enablers and innovative technologies out there. However, unless there is capacity building in the process, we may not achieve what we want to achieve as a goal of project sustainability.

A digital twin or infrastructure project solution may work well in one city but not anywhere else - one size does not fit all. We need to properly define what is a digital twin to that particular city, and what is the purpose. This will ensure if the smart city project fails or succeeds.

WEBINAR HIGHLIGHTS
AGENCY SHOWCASE

MARITIME PORT AUTHORITY OF SINGAPORE (MPA):
INTRODUCTION TO SINGAPORE'S NATIONAL MARINE SPATIAL DATA INFRASTRUCTURE - GEOSPACE-SEA

On 16 September, Sam Fong, Manager of Geospace-Sea from MPA shared about the national initiative driven by MPA in collaboration with 11 other government agencies and institutes of higher learning.

GeoSpace-Sea – Singapore's Marine Spatial Data Infrastructure is a single integrated data platform for users' seamless access to authoritative marine and coastal spatial data and information for various applications. The GeoSpace-Sea implementation components consists of data sources, National Central Marine and Coastal Repository and Open Web-based platform.

URBAN REDEVELOPMENT AUTHORITY (URA):
SHAPING SINGAPORE - PLANNING A LIVEABLE CITY WITH GEODESIGN

On 16 September, Eugene Lau, Deputy Director of Urban Design Technology from URA shared about the application of geospatial data and systems in urban designs. Planning for sustainability involves various plans such as Concept Plan, Master Plan and also Government Land Sales and Development Control.

As part of data driven planning and design, GIS data (both internal and external data) and 3D data are essential to work hand-in-hand. In order to have more complex simulation and analytics, URA would need to overlay different layers to achieve different outcomes.

WEBINAR HIGHLIGHTS
AGENCY SHOWCASE

📍 **16 SEPT**

SINGAPORE LAND AUTHORITY (SLA) :
MOVING TOWARDS A MORE PRODUCTIVE ESTATE MANAGEMENT

SLA's webinar kicked off with SLA's Director of Survey and Geomatics, Dr. Victor Khoo who shared about SLA's national 3D mapping efforts via the capturing of data through a combination of methods: aerial imagery and laser scanning, mobile mapping and more, as well as the national 3D mapping milestones.

The second speaker, Tan Chun Hong from SLA's Land Asset Management Division shared about how SLA's internally-built Contractor and SmartLAMD apps with geolocation data, help SLA to manage the large number of contractors who are assigned work across the 1,400 state land, 190 state properties and 10 islands that SLA oversees and manages. SLA also shared about its SUAVE (Smart Unmanned Aerial Vehicle Enhanced) app which is used to manage inspection of of building defects via drones.
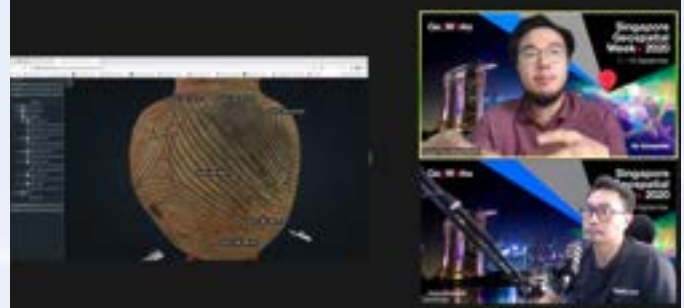
WEBINAR HIGHLIGHTS
GEOMARKETPLACE

FIRMATECH:
REMOTE BUILDING MANAGEMENT WITH EAGLE SCOPE™

Featuring GeoWorks' GeoTech FirmaTech, an AI-based analytics platform that aims at solving large-scale engineering problems in the infrastructure asset sector, Lucus Tsai, a software engineer shared how the current landscape for infrastructure inspection can be both labour intensive and dangerous.
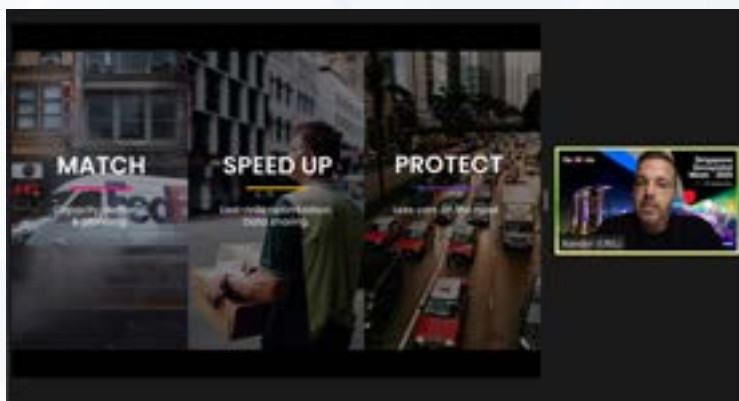
FirmaTech's Eagle Scope™ enables users to host, share and interact with 3D infrastructure models on a global scale. This allows remotely located teams to view and interact with infrastructure models with easy hosting and viewing capabilities.

While FirmaTech updates their data every two weeks, Lucus also shared how the company is striving to improve its technology through the pilot programme that they have begun in Germany where they are finding buildings to testbed their personalised machine learning algorithms.

UNL:
RETHINKING THE URBAN MODEL: AN OPERATING PLATFORM TO POWER SMART LOGISTICS

Moving on to the next GeoWorks' GeoTech UNL, a smart addressing platform for unmapped locations, Xander van der Heijden, CEO of UNL shared how while 60% of the world is expected to live in cities by 2030, 75% of the world does not have an address.

With global ecommerce and consumer expectations growing exponentially, this lack of proper addressing can result in rising traffic congestion, air and noise pollution. Sharing on how UNL uses geospatial data to enable smart addressing, "Technology allows us to rethink the urban model and bridge the gap between customer expectations and urban ecosystems." Xander spoke of UNL's goal of optimising last mile to promote economic and environmental sustainability.

SINGAPORE GEOSPATIAL WEEK+ 2020
FEATURED PARTNERS

YOUR FEEDBACK MATTERS

https://go.gov.sg/sgw2020feedback