

# NEWSLETTER

## NEWS AND EVENTS

### 10 & 31 JAN IMDA DIGITAL TECH SHARING DAY

On 10 and 31 January, IMDA’s monthly Digital Tech Sharing Day was held at the Institute of Lifelong Learning and GeoWorks centre respectively to introduce government agencies to emerging new technologies from promising ICM product companies based in Singapore.

In collaboration with IMDA, GeoWorks was proud to have two of our GeoTechs – **Graffiquo** and **Ent-Vision** present their innovative solutions to the agencies.



IMDA’s monthly Digital Tech Sharing Day held at GeoWorks

### 17 JAN GEOSPATIAL ‘BIG-DATA’ CONTRIBUTIONS TO URBAN ANALYTICS AND URBAN INFORMATION INFRASTRUCTURE



On 17 January, Professor Joseph Ferreira from the Massachusetts Institute of Technology (MIT) gave the talk “Geospatial ‘Big-Data’ Contributions to Urban Analytics and Urban Information Infrastructure” at GeoWorks centre, explaining the evolution of Big Data and Urban Science over the years and describing the challenges and opportunities associated with these concepts.

### 3 FEB UK SPACE DELEGATION TO GEOWORKS

On 3 February, GeoWorks hosted the first coordinated UK Space delegation consisting of over 20 British space technologies companies and research organisations. The event was supported by the UK Space Agency, RAL Space and the Science & Innovation team of the British High Commission. GeoTechs **Synspective** and **Kumi Analytics** were also part of the afternoon sharing, where they presented valuable insights on how their technology could be beneficial to the space sector.



Public and industry leaders alike were invited to the second OneMap3D Developer Workshop, which was held on 6 February at The GeoHall where participants were invited to co-develop OneMap3D with SLA.

### Why OneMap 3D?

The current OneMap has been serving users in Singapore since 2010. A transition to a 3D map will enable users to enjoy a more immersive and lifelike experience. OneMap3D aims to transform how businesses & citizens use maps. Businesses and property agents can use OneMap3D for a better visualisation of properties: from the view outside windows to positions of shadows cast. Citizens can use OneMap3D to orient themselves with landmarks to scale, and navigate through walkways and void deck spaces.

To find out more about OneMap3D, do visit our website: [www.geoworks.sg](http://www.geoworks.sg)



6 FEB

## ONEMAP 3D DEVELOPER PROGRAMME



Keith Cheong, CCO of MOGUL.sg, sharing about its work with OneMap and its possibilities with OneMap 3D



Showcasing features of OneMap3D

### Download OneMap now!



iOS App Store

Google Play Store

7 FEB

## DATA DOMAIN FORUM

In June 2018, the **Government Data Strategy (GDS)** was introduced to address issues with the current Government Data Architecture (GDA). To share more about how users can use the data, GeoWorks, in collaboration with **Department of Statistics (DOS)**, welcomed more than 100 participants from over 47 agencies to the first Joint Trusted Centre Data Domain Forum.



Read more about the new GDA and strategy here: [www.csc.gov.sg/articles/bring-data-in-the-heart-of-digital-government](http://www.csc.gov.sg/articles/bring-data-in-the-heart-of-digital-government)



17 FEB

## THE BREAKFAST CLUB

The first Breakfast Club was held on 17 February at GeoCafe in the GeoWorks Centre with our Chief Executive Officer, Mr Tan Boon Khai. Through this space to bond, share about work and express possible ideas, synergies between GeoTechs can be created.



28 FEB

# MINDFULNESS WORKSHOP

## DID YOU KNOW?

Meditation can sometimes be more effective than sleep. Studies show that meditation acutely improves psychomotor vigilance, and decreases the need for sleep. Mindfulness meditation also helps to fight insomnia, thereby improving sleep.



On 28 February, our very own GeoTech, **Clinton from Kumi Analytics**, led a mindfulness workshop for the GeoTechs and GeoWorks team.

Sharing about the science and benefits of practicing mindfulness, Clinton also brought the participants through their own mindfulness exercise.



5 MAR

# TRANSITION IN TRAFFIC & TRANSPORT

22 MAR

# 3D SINGAPORE SANDBOX

Simulate your worlds with the 3D Singapore Sandbox



On 5 March, our GeoTech **TNO** from Netherlands demonstrated its Urban Strategy platform for Urban Digital Twinning. During the session, many challenge statements in the urban mobility ecosystem were addressed and discussed from both the Netherlands and Singaporean perspectives.

The **3D Singapore Sandbox**, Singapore's First Geospatially-Focused 3D Application Development Platform @ GeoWorks centre was officially launched on the 22 March 2020.

The first-of-its-kind collaborative environment for industry partners and developers, the **3D Singapore Sandbox** aims to encourage the use of 3D geospatial data to develop and test new applications and services that can benefit both the public and private sectors.

For more information, go to: [www.geoworks.sg/3d-sandbox/](http://www.geoworks.sg/3d-sandbox/)

*Find out more about our new GeoTech TNO on page 7!*

# UPCOMING KEY EVENTS

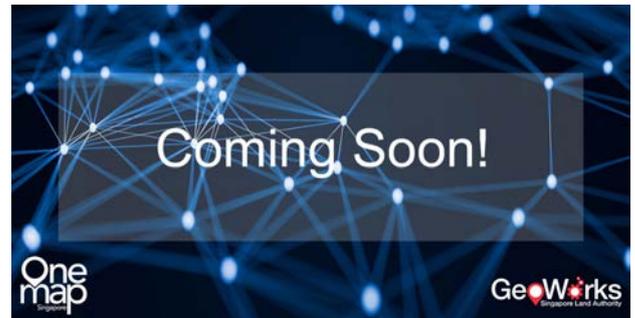
SEE WHAT'S BREWING!

COMING SOON!

Coming soon! We welcome your event ideas and participation in this week-long celebration of all things geospatial! We are currently curating the events for September.

Get in touch with us: [geoworks@sla.gov.sg](mailto:geoworks@sla.gov.sg)

## SINGAPORE GEOSPATIAL WEEK



### WHAT IS SINGAPORE GEOSPATIAL WEEK?

The week will bring the geospatial community (public and private sector as well as the community-at-large) together for co-located activities promoting the use of GPS/location-based and mapping innovation and technology. During the week, industry and community events are curated and co-located under the Singapore Geospatial Week calendar of events.

### RECAP OF SINGAPORE GEOSPATIAL WEEK 2019



*GeoWorks 1st Anniversary*



*Regional GeoSpatial Youth Forum*



*GeoWorks Open House*

9 TO 10 SEPT

*Suntec Convention Centre Singapore*

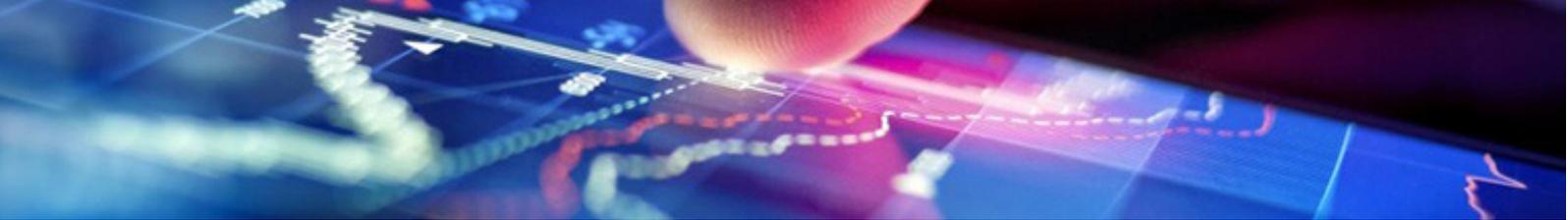
**MOVE Asia** brings together disruptors, their technology and their attitudes with stakeholders across all modes and disciplines to create dialogue that promotes insight and collaboration. It is more expansive and multi-disciplined than any other event on the planet.

It is the regional stage for start-ups engineering the future, connecting them to the world's most influential companies, investors and media.

For more information, go to <http://bit.ly/38IMFni>

## MOVE ASIA





# TRENDS OF THE INDUSTRY

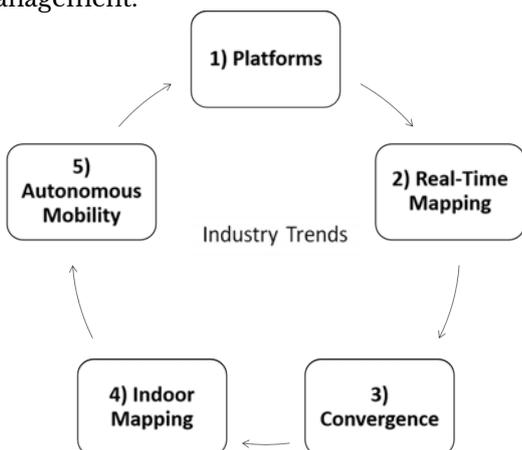
LOCATION . LOCATION . LOCATION

## THE GEOSPATIAL INDUSTRY

by GeoBuiz Summit 2019

With the onset of a digital revolution in which the dimension of “where” is becoming fundamental to all decision-making, geospatial information has emerged as an enabler of the entire digital space. The continuous growth in digital infrastructure and digital technology ecosystems of Artificial Intelligence, Internet of Things, Big Data, and Cloud is further accelerating geospatial industry’s reach and contribution.

Over the years, it has transformed itself from a mere mapping tool into a complete industrial process offering immense value in terms of enhancing productivity, cost effectiveness, transparency, safety and project management.



### INDUSTRY TRENDS

1. **Platforms:** Most industry players are adopting the platform mode of service and solution delivery
2. **Real-time Mapping:** With a growing number of connected devices, real-time mapping is gaining prominence
3. **Convergence:** Emergence of LI is fueling for the convergence of GIS and Business Analytics
4. **Indoor Mapping:** Companies are investing aggressively in building indoor contents
5. **Autonomous Mobility:** The growing investment in autonomous vehicles is opening up new opportunities for the LI industry

Some of the current drivers such as "Big Data" and "Cloud Computing" may gradually transform into being fundamental enablers or pre-requisites in the near future, just as broadband connectivity is today.

These drivers influence:

- Speed of data acquisition and service delivery
- Expanding the user base
- Reducing the cost of acquisition
- Ever-growing list of formats for adoption (software, portal, app, platform, plug-ins, etc.)
- Fundamental requirement of location awareness for many new services



Technology Drivers for Location Analytics

Future Current	Blockchain	HD Maps, Artificial Virtual Reality	5G – Internet of Things, Artificial Intelligence, Autonomous Systems
	HD Maps, Artificial/Virtual Reality	Autonomous Systems, Artificial Intelligence, Internet of Things	Big Data Analytics, Cloud Computing
	Low Impact	Medium Impact	High Impact

*Q: Tell us about Firma Technologies and its solutions*

Firma Technologies aspires to be a global leader in AI-based analytics to solve highly complex and large-scale engineering problems in the infrastructure asset sector. We currently have 2 main solutions - 1 of which is a platform that allows users to host and share their 3D models, while the other is our AI service which we built to detect and assess defects on infrastructure assets using imagery datasets.

# MEET OUR GEOTECH, FIRMA TECHNOLOGIES

*Q: What is something about Firma Technologies that the general public might not know about?*

While we are currently centred around the infrastructure industry, we were previously involved in the healthcare space.

*Q: What are some challenges you have faced in your work?*

Most of projects in the industry are typically long term and logistically heavy; as a young company we have to navigate client expectations and coordinate with many partners to fulfil such contracts.



*Ben Wong  
Key Account Manager, Firma Technologies*

*Q: How has your experience with GeoWorks been?*

Although we have only been here for 3 months, we do enjoy being part of GeoWorks. The atmosphere here is great and we are grateful for the many opportunities given to us to either showcase our work or collaborate with the other GeoTechs in this space.

*Q: How does geospatial technology help you in your work?*

Detecting defects is just one part of the story; we need to use geospatial technologies to map these defects back to their specific locations accurately.

*Q: Do you have any advice for aspiring entrepreneurs?*

Always be ready to go where the wind blows.

*Q: Are there any challenges that come with working with geospatial technology?*

Definitely. Mapping defects can be challenging at times, particularly if you are trying to pinpoint a crack in a wall in a building as big as Vivocity. We need to juggle several technologies (geospatial and otherwise) at once to achieve this.

*Q: In your opinion, what skills are needed to work in the geospatial industry?*

Apart from being savvy in using softwares and related technologies, there's always room for some creativity.

# WELCOME TO OUR NEW GEOTECHS



## Key Unique Value Propositions

- Vehicle Automation & Electrification
- Intelligent Transport Systems (ITS)
- Logistics
- Urban Planning
- Mobility as a Service (MaaS)
- Liveable & Sustainable Cities
- Modelling & Simulation



## What You Need To Know About TNO & Ronnie van Munster

TNO's (Traffic & Transport) ambition is to boost the sustainable competitiveness of business and improve the well-being of society by increasing the safety, efficiency and sustainability of traffic and transport.



Fun-Fact about Ronnie:  
"To unwind myself, you can find me out on the ocean, scuba diving in close proximity to all kinds of sharks."

## What You Need To Know About IUGO & Yannie Zhou

IUGO is a data analytics company providing smart retail solutions and location-based services.



Fun-Fact about Yannie:  
"I like snowboarding and surfing, even though I ended up fracturing my arm which I needed metal plate inserts for several years ago."



## Key Unique Value Propositions

- Location-based service
- Big Data
- Machine Learning



## Key Unique Value Propositions

- Transport Analytics
- Dynamic Routing Technology
- Ride-hailing Technology



## What You Need To Know About RushOwl & Shin Ng

RushOwl Singapore is an InterCity Public Mobility company. Using our on-demand, dynamic routing technology, we digitalise traditional shuttle operations and become the transport aggregator for daily public passengers.



Fun-Fact about Shin:  
"Prior to starting RushOwl, I was a private bus driver!"

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# THANK YOU FOR YOUR SUPPORT!

Ben Wong, Firma Technologies  
Ronnie van Munster, TNO  
Yannie Zhou, IUGO  
Shin Ng, RushOwl

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