

# Ge<sub>Q</sub>Works

# GEOWORKS NEWSLETTER

October 2021



Organised by GeoWorks, the Singapore Geospatial Festival 2021 brought the international geospatial community together for co-located activities promoting the use of GPS/location-based and mapping innovation.

"This year's #SgGeoFest will see a comprehensive line-up to build geospatial interest across new segments to reach special interest groups and even young students. It will be a chance to meet geospatial partners from around the world, to learn about their latest innovations, from creating Digital Twins for sustainable city planning, to using Augmented Reality for natural disaster response efforts".

Colin Low, Chief Executive of the Singapore Land Authority (SLA)
 at the launch of the Singapore Geospatial Festival on the 7th September

# OM3D LAUNCH AND MOU



Edwin Tong, Minister for Culture, Community and Youth and Second Minister for Law (left) and Colin Low, Chief Executive of Singapore Land Authority (right).

OneMap3D, a three-dimensional version of the national map of Singapore, was officially launched on 15 September 2021 by the Minister for Culture, Community and Youth and Second Minister for Law, Mr Edwin Tong.

"The development of OneMap3D marks an important milestone in Singapore's geospatial journey. It is built on our commitment to enhance our geospatial capabilities and to provide new geospatial solutions for businesses, government, and the public," said Mr Tong.

OneMap and OneMap3D were developed by SLA.

To further industry use and the development of geospatial technology through OneMap, SLA has signed three separate Memorandums of Understanding with Ninja Van, Kabam and PropNex. The MOUs will foster collaborative ties and knowledge sharing between SLA and the three key industry players to leverage on geospatial data to support smart services and solutions.













# LAUNCH: YOUNG GEOSPATIAL SCIENTIST BADGE



The Young Geospatial Scientist Badge was also launched during the session.

Aimed at developing geospatial knowledge among school children, the Young Geospatial Scientist Badge programme is a collaboration between SLA and Science Centre Singapore. It has been accessed by almost 2000 students since its launch in March 2021.

View the launch video here: https://youtu.be/es1QC06zu2E



# **GEOWORKS PANELS - 8 SEPT**



#### **Innovating Maps**

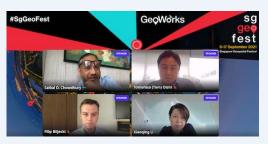
Philip Park (FATOS), Ajay Bulusu (NextBillion.ai), Scott Simmons (Open Geospatial Consortium) and Xander van der Heijden (UNL://) had an insightful discussion during this #SgGeoFest panel on current technology of maps, and how it will evolve for both mainstream public and enterprises.

The session was moderated by TZ Wong, Head of Industry Analyst Relations, Asia Pacific, HERE Technologies.

#### Read more:

https://www.geoworks.sg/settings/archives/october-2021/sggeofest-2021-panel-oninnovating-maps

View recording: https://youtu.be/AjlgvcqbC1Q



#### **Digital Twins: Demystifying Digital Twins of Cities**

Xiaoging Li (Mott Macdonald), Filip Biljecki (National University of Singapore) and Tomohisa Oishi (Panasonic Corporation) talked about digital twins, their use cases and how they can solve urban problems.

The session was moderated by Saibal D. Chowdhury, Co-Founder of Urbanetic.

#### View recording:

https://youtu.be/2iPy6F3\_U8Y



#### Catalysts for Earth Observation

Abhay Swarup Mittal (EOfactory), Yana Gevorgyan (Group Earth Secretariat), Clinton Observations Motoyuki Aroi about Analytics) and rai (Synspective) potential cataly talked the catalysts partnerships and collaboration that can ignite new business models in this panel.

The session was moderated by David Tan from Office of Space Technology & Industry (OSTIn), EDB.

#### Read more:

https://www.geoworks.sg/settings/archives/october-2021/sggeofest-2021-panel-on-catalysts-for-earth-observation

#### View recording:

https://youtu.be/14wrWNMbkec

# PANEL: UTILISING 3D DATA & 3D SINGAPORE SANDBOX USE CASES FOR AEC SECTOR - 10 SEPT



(Clockwise from top): Lewis Goh, Dr Uwe Jasnoch, Noah Arles and Wendy Khoo,

3D Singapore Sandbox partners Autodesk, Esri Singapore and Hexagon discussed 3D data use cases for the AEC sector, from 3D visualisation, shadow impact analysis and visibility study for buildings at #SgGeoFest. The speakers were Noah Arles of Autodesk, Lewis Goh of Esri Singapore and Dr Uwe Jasnoch from Hexagon.

The 3D Singapore Sandbox includes 3D geospatial data such as 3D building models from the Singapore Land Authority and the private sector.

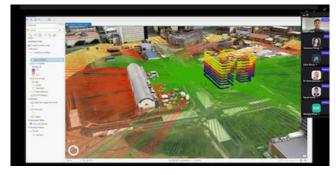
The session was moderated by Wendy Khoo from GeoWorks.

View recording: https://youtu.be/MbktxBvVo24

"The 3D Sandbox is more than just 3D. We are really helping and all the different presentations indicates this. We really bring more clarity and reality into the

- Dr Uwe Jasnoch from Hexagon

"First of all, we definitely appreciate the amount of data and the quality of data that SLA has shared with us that can be seen in the demo of how we can visualise that and to create the realistic perspective of things. Kudos to SLA to really build up that kind of quality of data" Lewis Goh, Esri Singapore







# GEOMARKETPLACE I, II AND III - 7 AND 14 SEPT

Geospatial companies from around the world shared their innovations and solutions during three GeoMarketplace sessions at the Singapore Geospatial Festival 2021 #SgGeoFest on the 7th and 14th September.

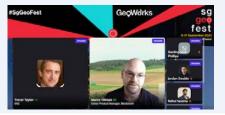
At GeoMarketplace I on 7th September, GeoWorks' GeoTechs - ENT-Vision, Lineable, UNL:// and Urbanetic - talked about solutions for the supply chain and maritime ship supplies industry, geolocation infrastructures, Internet of Places and city data as a service.

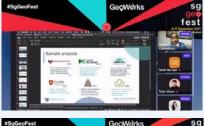
On 14th September at GeoMarketplace II, GeoWorks' GeoTechs (GeoSpock, Kumi Analytics and Synspective), Bifrost and Spire Global discussed big data, solutions for green finance initiatives, land displacement monitoring, satellite imagery and space services.

The final session, GeoMarketplace III, also on 14th September, featured startups from the Open Geospatial Consortium that are disrupting, growing and evolving location. These were AIDASH, SimBlocks.io, Latitudo40, Blackshark, SENSORUP, Xtract.ai, Ribose and Mist.eo.

#### View recordings of the first two sessions here:

GeoMarketplace I: https://youtu.be/99MySsoKngM GeoMarketplace II: https://youtu.be/Ytkhc5nh0yc









# CITYDATA & TNO PANELS



from CITYDATA.ai, TNO, the National University of Singapore (NUS) and the Lee Kuan Yew School of Public Policy (LKYSS) spoke at two TNO-CITYDAYA panels at #SgGeoFest.

In part one of the TNO-CITYDATA panel on the 8th September, Apu Kumar from CITYDATA.ai, Yuan Chao from NUS and Jeroen Borst from TNO shared insights on "Using Geospatial Data to Ignite Innovations in Human Interactions, Climate Resilience, Urban Planning and Design". "Our goal is to use deep A.I. geospatial data machine learning and all the techniques that can be used to build safer, smarter and more resilient cities," said Mr Kumar from CITYDATA.ai during his presentation. Dr Yuan Chao spoke about the impact of climate change and the effect of urbanisation on ambient air temperature in Singapore. Mr Borst talked about digital city twins.

In part two of the panel on the 10th September, Mr Kumar and Mr Borst shared the stage with Lucas Shen from LKYSS in a presentation on "How Geospatial Research and Data can Help Detect Mobility Patterns and Social Segregation". The session was a result of collaboration after Mr Shen found out about CITYDATA.ai at last year's Singapore Geospatial Festival. Mr Shen said that he had not considered the use of geospatial data until he found out about CITYDATA.ai and this has opened new possibilities and pathways of working. We look forward to more such collaborations.

#### View recordings of the sessions here:

8 September: https://youtu.be/RQGkhz Iduo 10 September: https://youtu.be/1i7qv\_UhuPk&ab

# GEOWOMEN – 14 SEPT





Geospatial is a unique field as it's interdisciplinary and cross-cutting from the get-go, involving many areas of science and technology. It also provides unlimited career opportunities because it literally impacts every domain and helps us use our knowledge across domains. In a GeoWorks' GeoWomen panel, women leaders shared insights on career opportunities in the geospatial sector, provided career advice and on how they entered the field.

Speakers at the session were Dr Nadine Alameh (CEO, Open Geospatial Consortium), Jennifer Choi (Head of Product Partnerships, GEO, Grab), Aditi Kohli (Managing Director, Asia Pacific, Foursquare), Dr Laxmi N. Goparaju (Regional Ambassador – Asia, Women in Geospatial+) and Shiori Kimura (Customer Solutions Engineer, Synspective). The session was moderated by Vanessa Ching from GeoWorks.

View recording here: https://youtu.be/-MCgJdWflVU

# OPEN GEOSPATIAL CONSORTIUM - 13 TO 17 SEPT



The Open Geospatial Consortium (OGC) 120th Member Meeting was co-hosted by SLA at #SgGeoFest this year, marking the start of a three-year collaboration for the meeting. The OGC boasts an international community of experts focused on open standards and innovation through interoperable geospatial technologies.

"OGC is very pleased to collaborate with SLA on advancing geospatial technology and best practices in the Asia-Pacific region and beyond. We will join hands in establishing a number of industry events in the coming years to benefit the professional geospatial community in this region, starting with this year's Singapore Geospatial Festival"

- Scott Simmons, Chief Standards Officer of Open Geospatial Consortium

# REGIONAL GEOSPATIAL YOUTH FORUM (RGYF) & ASEAN GEOSPATIAL CHALLENGE 2022 - 16 SEPT

The Regional Geospatial Youth Forum (RGYF) was held in conjunction with the Singapore Geospatial Festival 2021 #SgGeoFest with the aim of building interest, awareness and a community on the geospatial profession among youths in Singapore and ASEAN. It also brings youth together to learn from one another and share their geospatial experiences.



#### GeoInspire I

Speakers Jinal Foflia (Grab), Kristine Juvel Zayco (Leica Geosystems), Wang Songyu (Urban Redevelopment Authority) and Jamie Simpson (University of Sydney) shared their career journeys and personal experiences in applying geospatial in the real world. Moderated by Asst Prof Perrine Hamel from Nanyang Technological University. View recording: https://youtu.be/CihG9\_YLBQQ



#### GeoEducation I

Prof Chalermchon Satirapod (Chulalongkorn University), Dr Wang Yi-Chen (National University of Singapore), Suelynn Choy (RMIT University) and Saibal D. Chowdhury (Urbanetic) discussed geospatial education in ASEAN institutions and about career opportunities. Moderated by Josef Tan from the Ministry of Education.

View recording: https://youtu.be/FrnumEw6f M



#### GeoInspire II

Winners from AGC 22 shared their experiences participating at the challenge.

## View recording:

https://youtu.be/iylaK-ZI2qs



#### **GeoEducation II**

Li Hengshan (Singapore Land Authority), Lee Kim Haw (Singapore Land Authority) and Dr Kam Tin Seong (Singapore Management University) talked about the use of QGIS, Python and R for GeoAnalytics.

View recording:

https://youtu.be/w9hG7r7gnio



# ASEAN Ge&spatial Challenge



#### Geolphovation

Bell Beh (Buzz ARVR Pte. Ltd), Lim Yohnny (Landmark Integrated Pte Ltd), Abhijit Sarkar (National Parks Board) and Abdullah Maruf (Synspective Inc.) discussed innovative geospatial solutions to tackle different types of challenges in the real world. Moderated by Jiin Joo Ong from Garuda Robotics. View recording:

https://youtu.be/vnrmBgwvLRw



As part of the Singapore Land Authority's 20th Anniversary celebrations, a series of talks on Singapore's spatial and aviation history, maps, heritage addresses and OneMap were held on 17th September during #SgGeoFest.



The uses of ephemera
Dr Lai Chee Kien
View recording: https://youtu.be/iPEahRA73nQ



Thomson's maps of Singapore
Mok Ly Yng, Mapping and GIS Consultant
View recording: https://youtu.be/oz6j7I7T\_a4



Virtual tour: The development of the Old Kallang Airport

Jerome Lim, Heritage Researcher View recording: https://youtu.be/NS6usJkv1pA



Remembering Singapore landscape of yesteryears: Through the lens of heritage addresses

Ng Ching Huei, Senior Manager, Heritage Research, National Heritage Board View recording: https://youtu.be/5fD2yy20ovs



#### Mapping your town with OneMap Wee Kit Bian, CEO – Company Enabling Officer, BLK.SG Pte Ltd

View recording: https://youtu.be/ptENwuYX-fs

# INTERNATIONAL COMMUNITY TALKS - 14 & 15 SEPT

A series of webinars by speakers from Finland, Indonesia, Japan, Hong Kong SAR and the United Kingdom were held during the Singapore Geospatial Festival 2021 #SgGeoFest.

## **FINLAND**

14 Sept

The Finnish Sustainable Solutions for Built Environment

## View recording:

https://youtu.be/GmfXSggw Rw



## **INDONESIA**

15 Sept

Geospatial Element in the Industrial World in Indonesia

# View recording:

https://youtu.be/mDwBxQA69wU



# **JAPAN**

14 Sept

Trends and Prospects of Innovation for Disaster Prevention in Regional Japan

# View recording:

https://youtu.be/k\_BY1IRZrBs



#### **HONG KONG SAR**

15 Sept

**Development of Common Spatial Data Infrastructure (CSDI) in Hong Kong SAR** 

# View recording:

https://youtu.be/6ZdFmjA7-VY



## **UNITED KINGDOM**

15 Sept

**Knowledge Exchange: The UK Geospatial Strategy** 

# View recording:

https://youtu.be/zTNx5z09enM



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