



Twelfth Session of the United Nations
Committee of Experts on Global Geospatial Information Management

Digital Twins

“Good Practices and Recommendations to Governments and Industry”

Tuesday, 2 August 2022

4:30 pm - 5:55 pm

Venue: Conference Room 2 (CR-2, Conference Building)

United Nations Headquarters, New York

CONCEPT NOTE

Background:

A “Digital Twin” is a virtual representation of a physical asset that enables users to visualise it, check the asset’s status, perform analysis and generate insights in order to predict and optimise its performance. In comparison to static 3D models, Digital Twins are directly linked to multiple data sources and receive updates continuously.

Digital Twins are rapidly being embraced by the global geospatial information community as a means of enhancing and optimising the real-world by monitoring and simulating scenarios that mitigate risks and increase resilience and may also allow real-time information intervention¹. UN-GGIM’s Third Edition of the Future Trends in Geospatial Information Management examines the rapid adoption of Digital Twins by cities and other forms of governance, observing that “it is almost impossible for effective urban planning to take place without the availability of sensors, image capture and processing, and data analysis technology”.

Today, the technology ecosystem that empowers Digital Twins is maturing at a rapid pace, enabling the transition from ‘simple’ digital representations of city infrastructure to monitoring and simulate scenarios related to climate change and flooding events to more complex representations that model, simulate and predict the performance of assets, systems and processes. Many can benefit from the maturing Digital Twin ecosystem through minimising cost, improving productivity, lowering environmental impact, reducing operational risk and improving operational reliability in the real world.

Objective

The World Geospatial Industry Council (WGIC) was launched on the margins of the eighth session on UN-GGIM in August 2018 as an association of companies representing the geospatial industry ecosystem². A key aim of WGIC is to facilitate the exchange of knowledge within the geospatial industry and co-creation of larger business opportunities for the geospatial industry, through policy reports that investigate good practices and recommendations to governments and industry. The next Report in this series covers “Spatial Digital Twins” to examine the intersection of the geospatial industry, digital twins and their use. Thus, this Side Event aims to present the WGIC’s findings of a

¹ The Third Edition of the Report on Future Trends in Geospatial Information Management
https://ggim.un.org/meetings/GGIM-committee/10th-Session/documents/Future_Trends_Report_THIRD_EDITION_digital_accessible.pdf

² <https://wgicouncil.org/press-release/world-geospatial-industry-council-wgic-launch-unggim/>

“This is an open side event and all Session Attendees are invited”



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global analysis of spatial digital twins that includes case studies, best practices and recommendations to both governments and industry. Digital twins are moving from the factory to the streets, and yet are still susceptible to the hype and uncertainty³ for any emerging technology. Further, the side event aims to discuss the role that spatial digital twins can play in helping realise the Integrated Geospatial Information Framework (IGIF) regardless of spatial scale. Specific topics for discussion include:

- The opportunities for Spatial Digital Twins;
- Presentation of the WGIC's findings on Spatial Digital Twins;
- Current trends, use-cases and industry maturity;
- Role of Spatial Digital Twins at country-level for realising the IGIF.

Draft Agenda

16:30 – Introduction to Event

16:40 Moderator: Dr Zaffar Mohamed-Ghouse, Director, AAM

16:40 – Overview of WGIC Report

16:50 Ms Barbara Ryan, WGIC Executive Director

16:50 – Recommendations from Report and drill down to local use/transportation sector use of Spatial Digital Twins

17:00 Mr Arnout Desmet, Vice-President, Tom Tom

17:00 – Panel Discussion

17:45 Ms Paloma Merodio Gomez, Vice President, INEGI Mexico, Co-chair UN-GGIM;
Dr Eng Mohammad Alsayel, President, General Authority for Survey & Geospatial Information, Kingdom of Saudi Arabia, Chair UN-GGIM: Arab States;
Mr Kumar Navulur, Director, Maxar

17:45 – Closing remarks

17:55

Following the side event at 6 pm, the WGIC would like to invite the UN-GGIM to a Reception hosted by WGIC, OGC and the UN-GGIM: Private Sector Network (PSN) for all UN-GGIM participants at the twelfth session in the Visitors Lobby of the General Assembly.

³ As described in Gartner's Hype Cycle as the "trough of disillusionment"

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