

# TP6D: Next Steps in Thinking Spatially

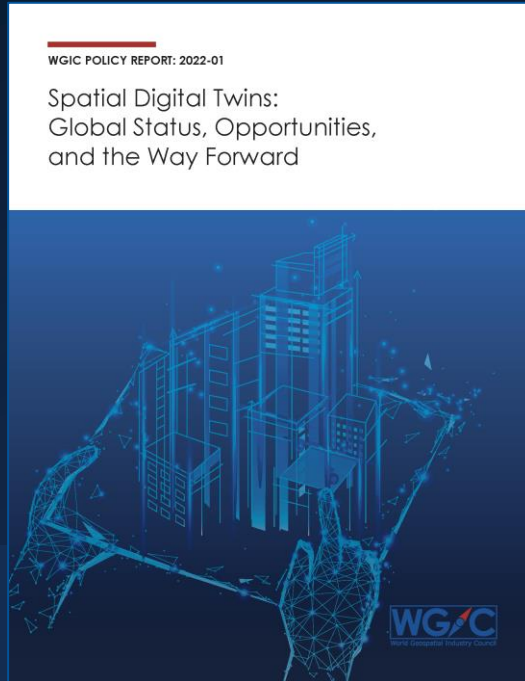


# Panel

## Speakers:

1. Thalia BALDWIN, UK Geospatial Commission, United Kingdom
2. Kean Huat SOON, Singapore Land Authority, Singapore
3. Barbara RYAN, WGIC, The Netherlands

# Next Steps in Thinking Spatially



Barbara Ryan  
Executive Director  
WGIC





World Geospatial Industry Council

A global not-for-profit trade association of private sector companies working in the geospatial ecosystem.



# Patron Members



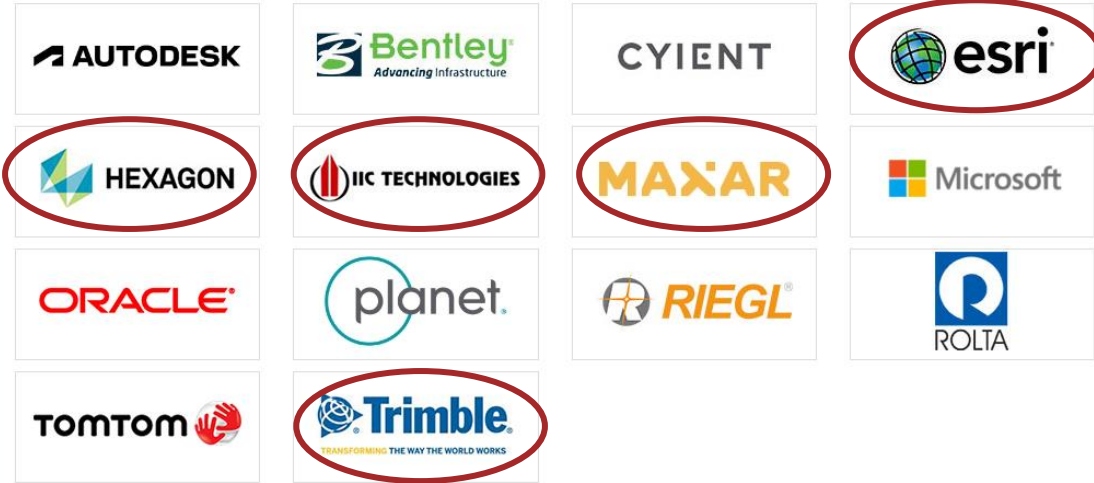
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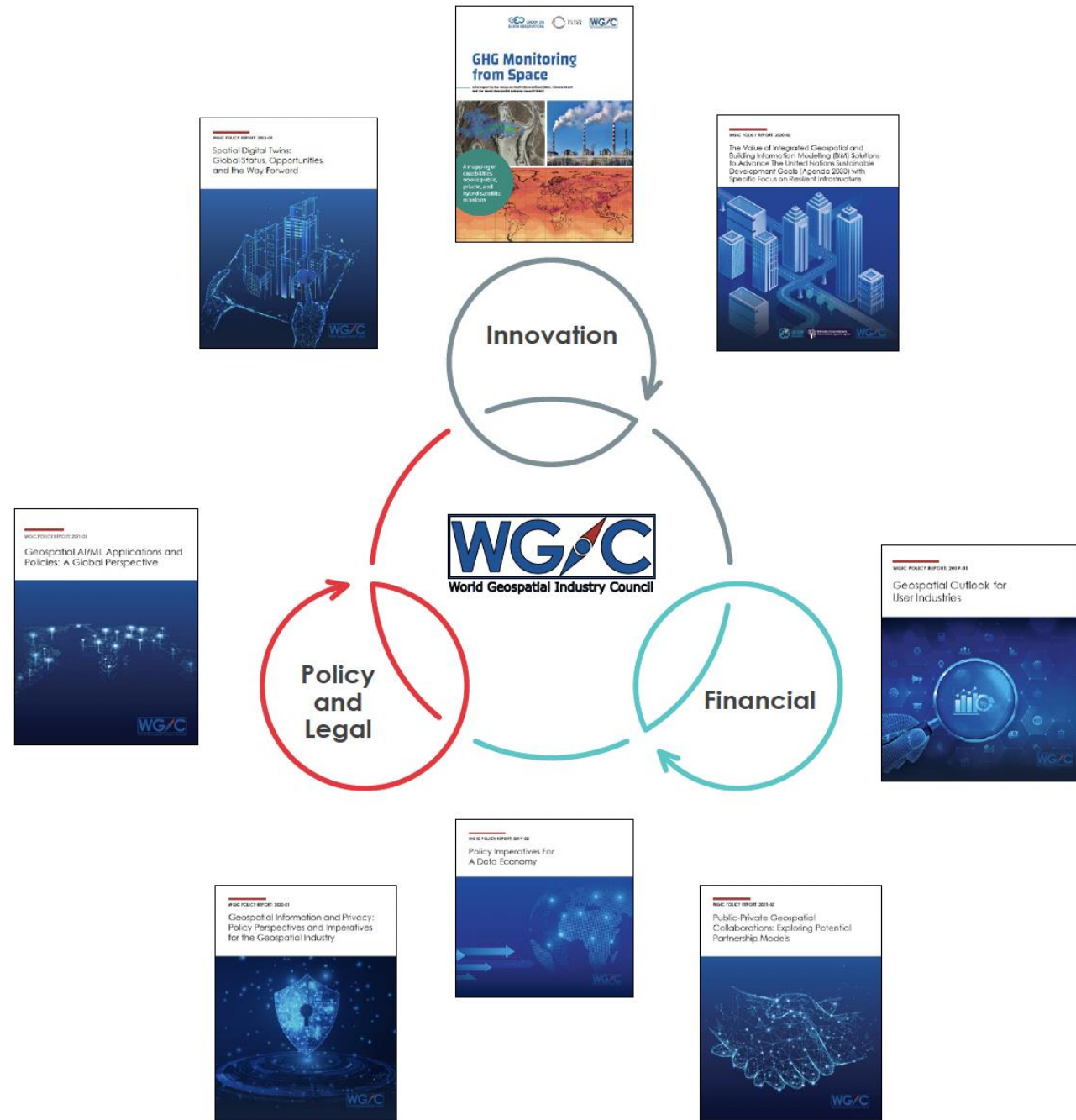
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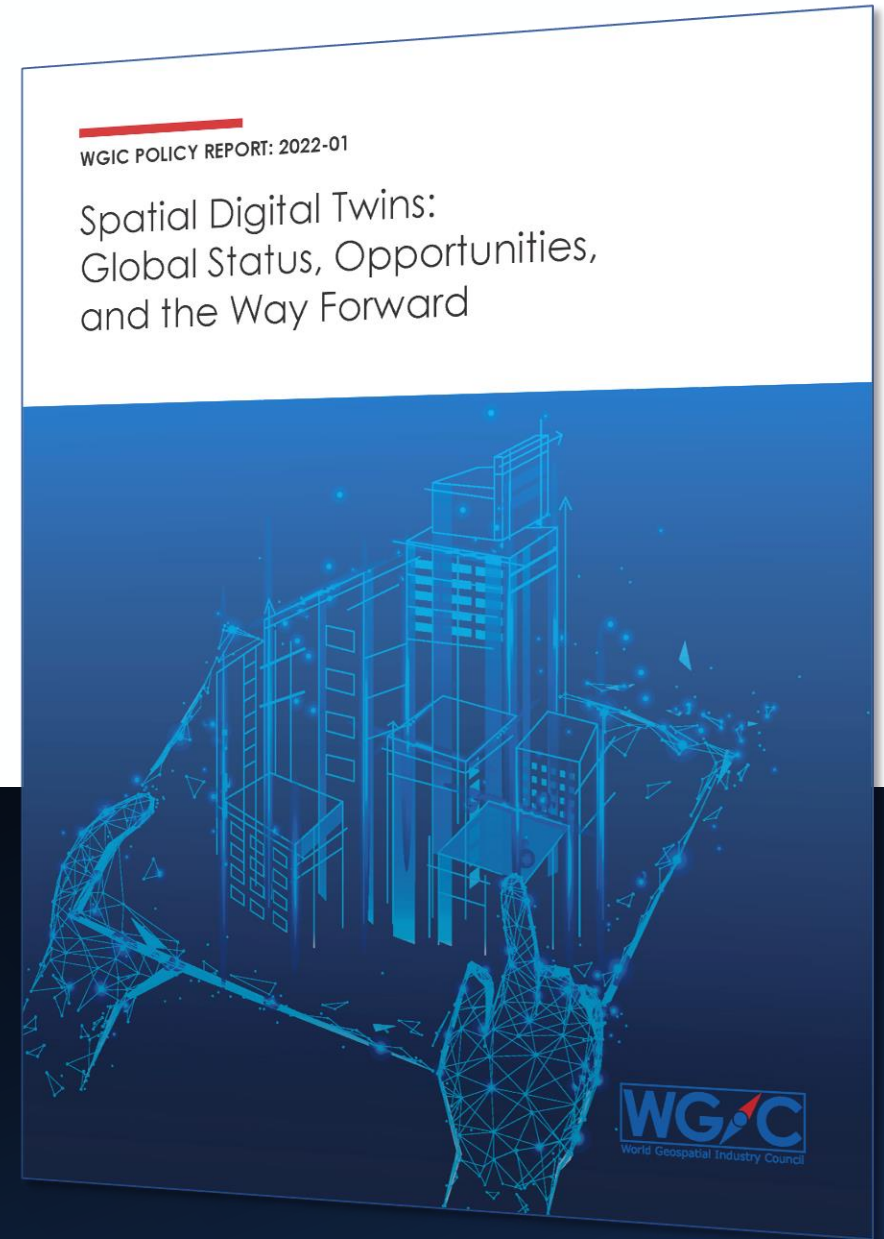


# IGIF Strategic Pathways & WGIC Policy Research





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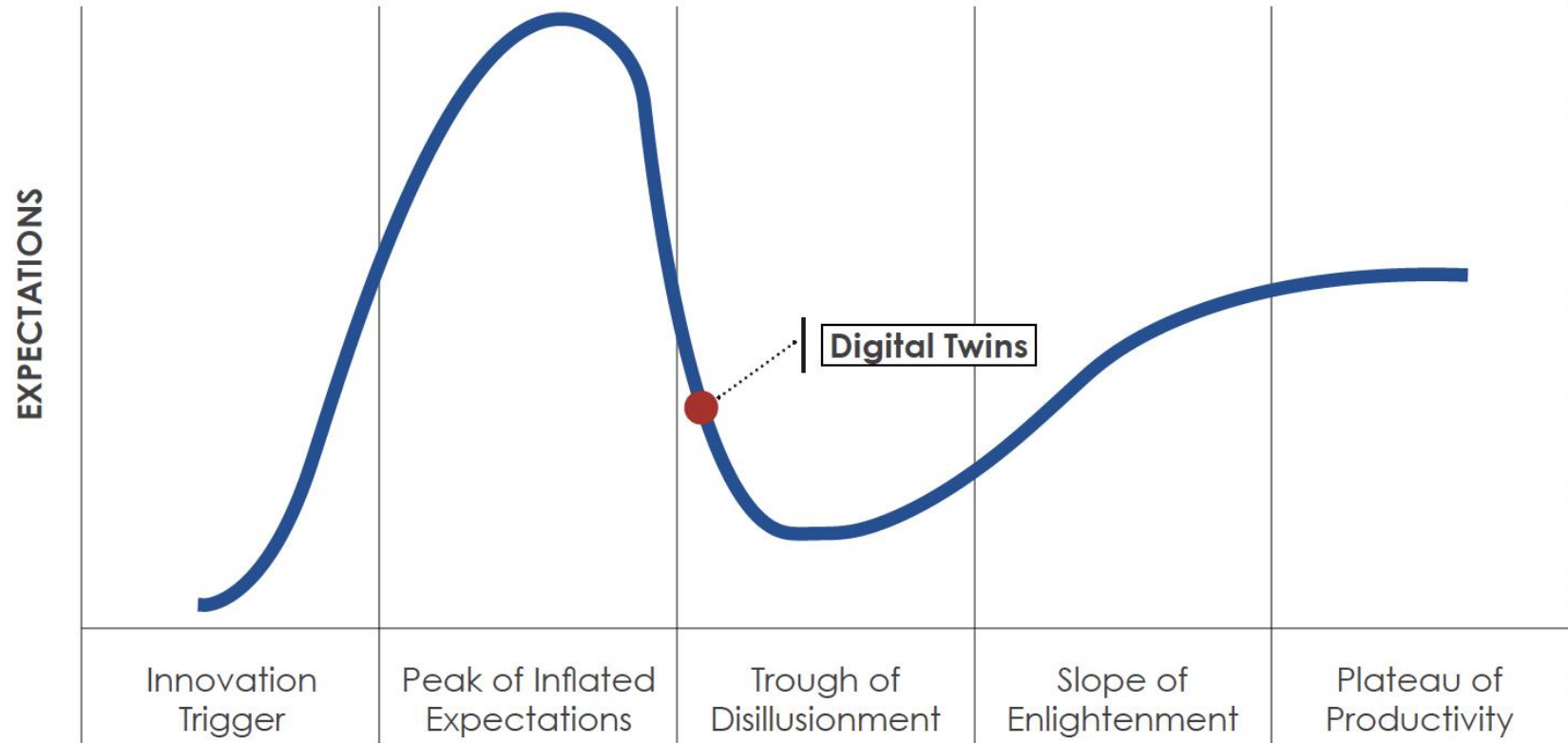
WGIC POLICY REPORT: 2022-01

# Spatial Digital Twins: Global Status, Opportunities, and the Way Forward





# Digital Twins - Gartner Hype Cycle



Source: Gartner (July 2022)

# WGIC's Future Vision for Spatial Digital Twins

## Future Vision

1. *Every Digital Twin across the globe is updated in real-time, with information flows from sensors/ inputs underpinned by spatial data*
2. *Information is shared across Digital Twins so that every Digital Twin can be aggregated or connected*
3. *Every stakeholder can broadly access this ecosystem, navigate to their area of interest, and access information at the right level of detail for their use.*

## Voxel Size (or Scale)

**Local Digital Twins** have a wealth of detail for Site- or Product-Specific decision-making



**National Digital Twins** aggregate data from local/ municipality/gov't datasets



**Regional/ Global Digital Twins** aggregate national data from all available data sources.



# Current State Assessment

Five key areas need to be established for Spatial Digital Twins to integrate into business-as-usual and everyday life.



**1. Standards, Definitions and Current Technologies align and communicate with each other,**



**2. There is capability/capacity to develop Digital Twins across all voxels,**



**3. Use cases solve organizational problems or demonstrate public benefit,**



**4. There is a level of cross-industry demand, and**



**5. End-client demand is driving development of Spatial Digital Twins.**

## Legend: CURRENT STATE

-  Not Established
-  Low Alignment
-  Some Alignment
-  Good Alignment
-  Ready

For Spatial Digital Twins to become integrated into business-as-usual and everyday life:

# Spatial Digital Twin Initiatives Identified



## Australia

- Digital Twin Victoria



## European Union

- Destination Earth (DestinE)



## Germany

- BKG Digital Twin Project



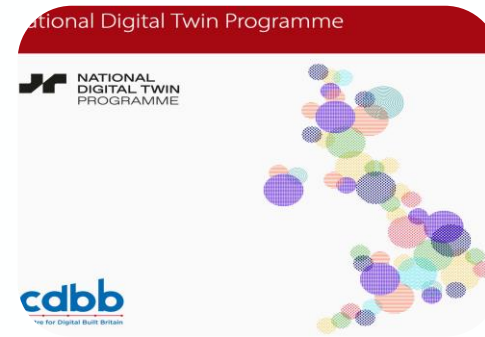
## New Zealand

- Wellington Digital Twin



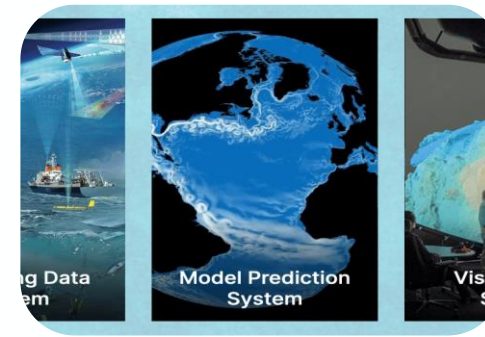
## Singapore

- Smart Nation Initiative



## United Kingdom

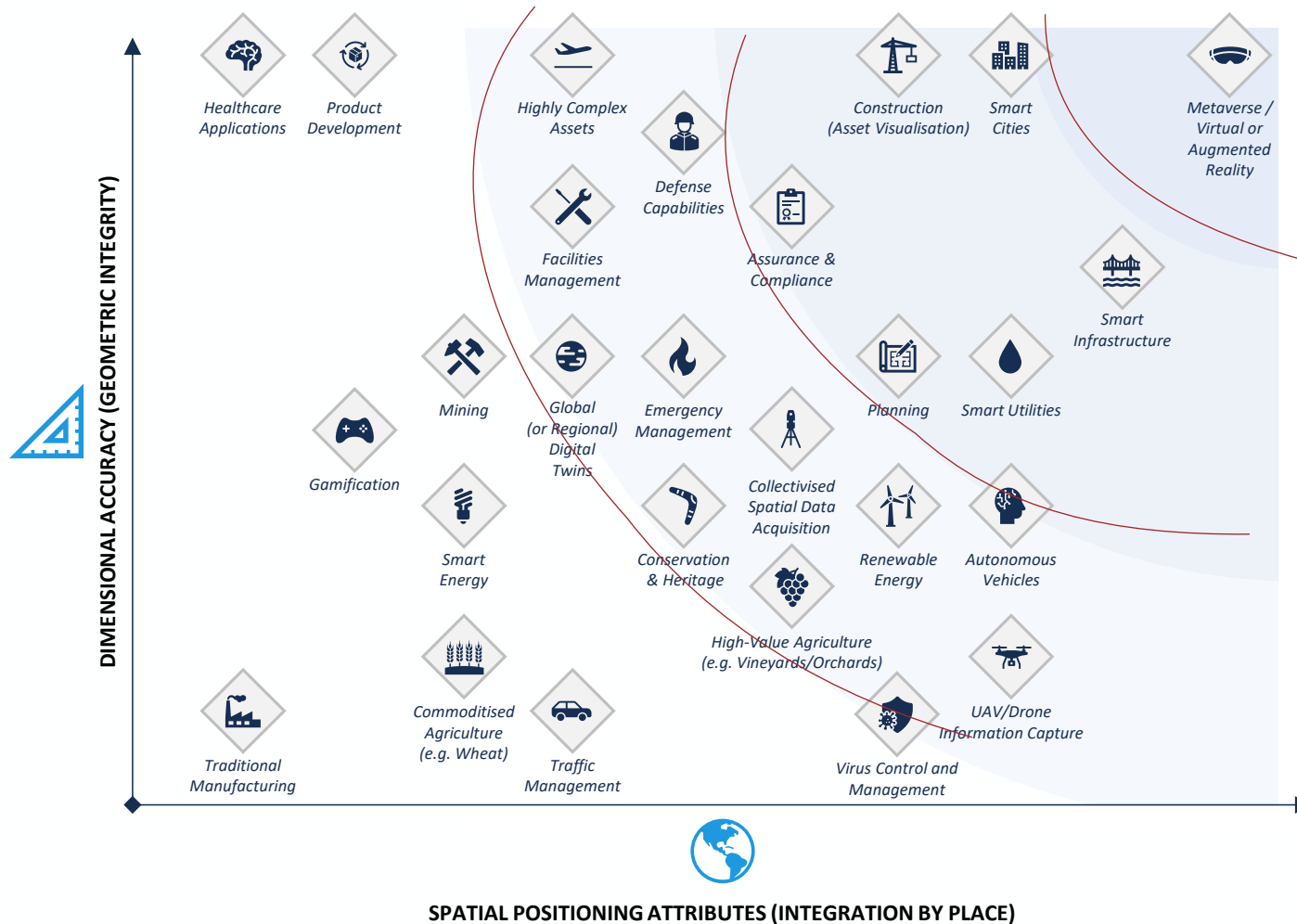
- National Digital Twin initiative



## United Nations

- Digital Twins of the Ocean (DITTO)

# Spatial Digital Twins – Use Case Assessment



WGIC identified Twenty-seven use-cases linked to various business or organizational needs.



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