



Presented at the FIG Working Week 2023,  
28 May - 1 June 2023 in Orlando, Florida, USA

# FIG WORKING WEEK 2023

28 May - 1 June 2023 Orlando Florida USA

Protecting  
Our World,  
Conquering  
New Frontiers

# Technical Considerations for Implementing 3D Cadastral

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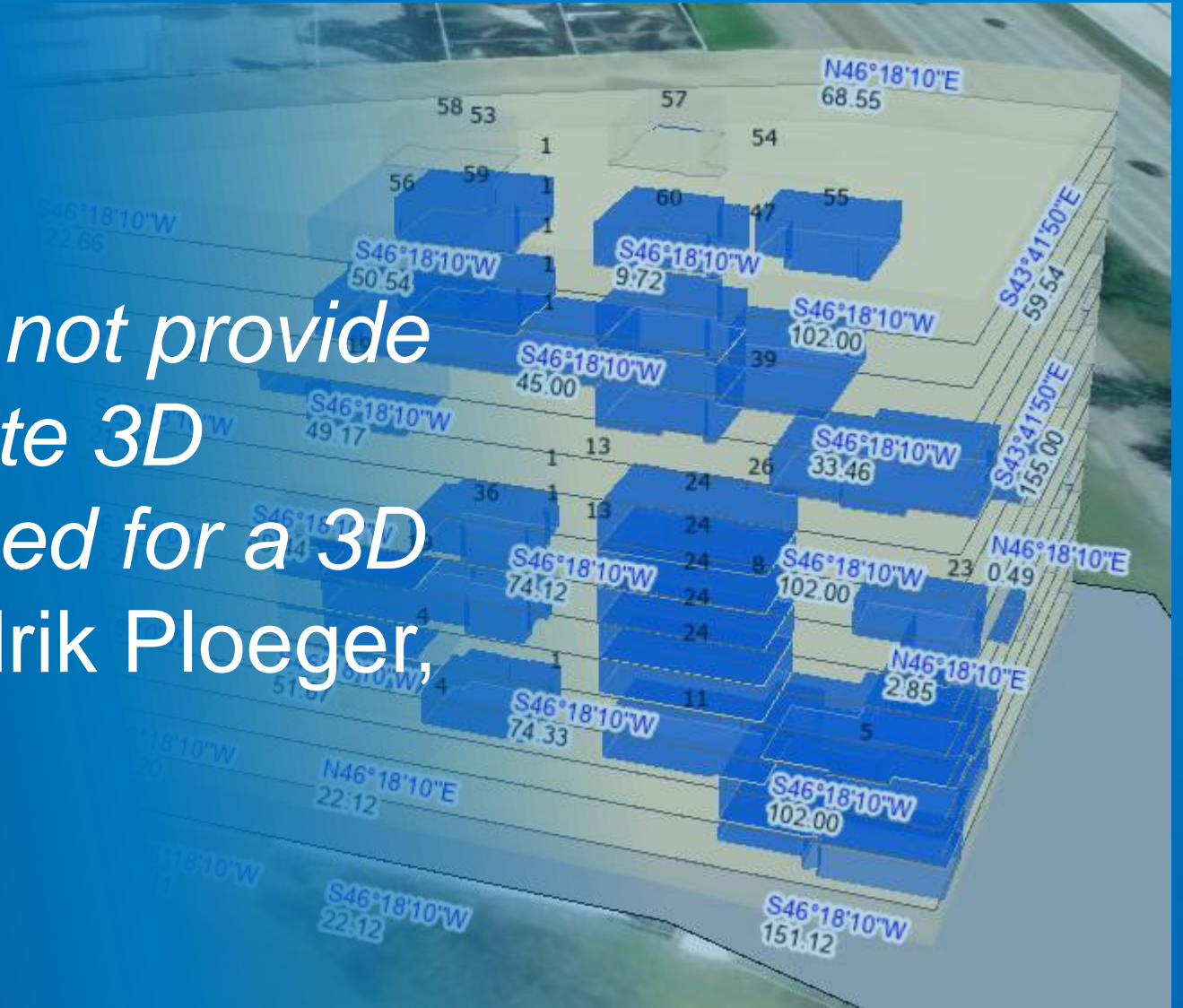


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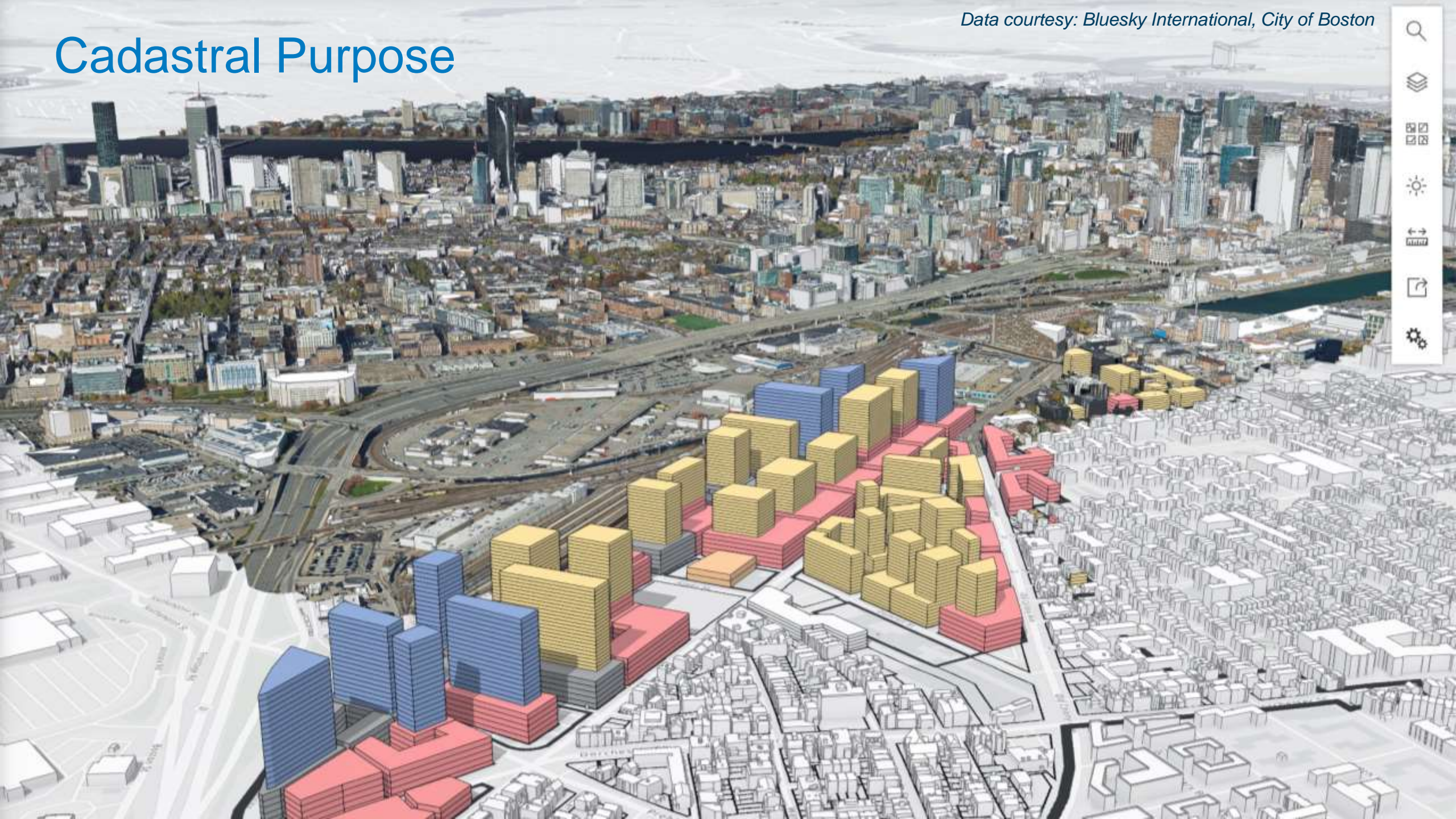


## The Legal Framework

*“If a legal system does not provide the instruments to create 3D property, there is no need for a 3D cadastre at all.”* – Hendrik Ploeger, 2011



# Cadastral Purpose



# Digital Twins

a platform for collaboration *across domains*

through virtual representations of the real world  
*including physical objects, processes,  
relationships & real-time behaviors*



# Data Assessment



# Reality Capture

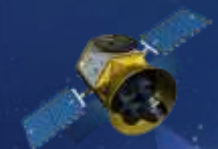
A catalyst for digital twin adoption

overcoming the *3D barrier* through automation  
intuitive to *non-experts*  
*connecting people across domains*

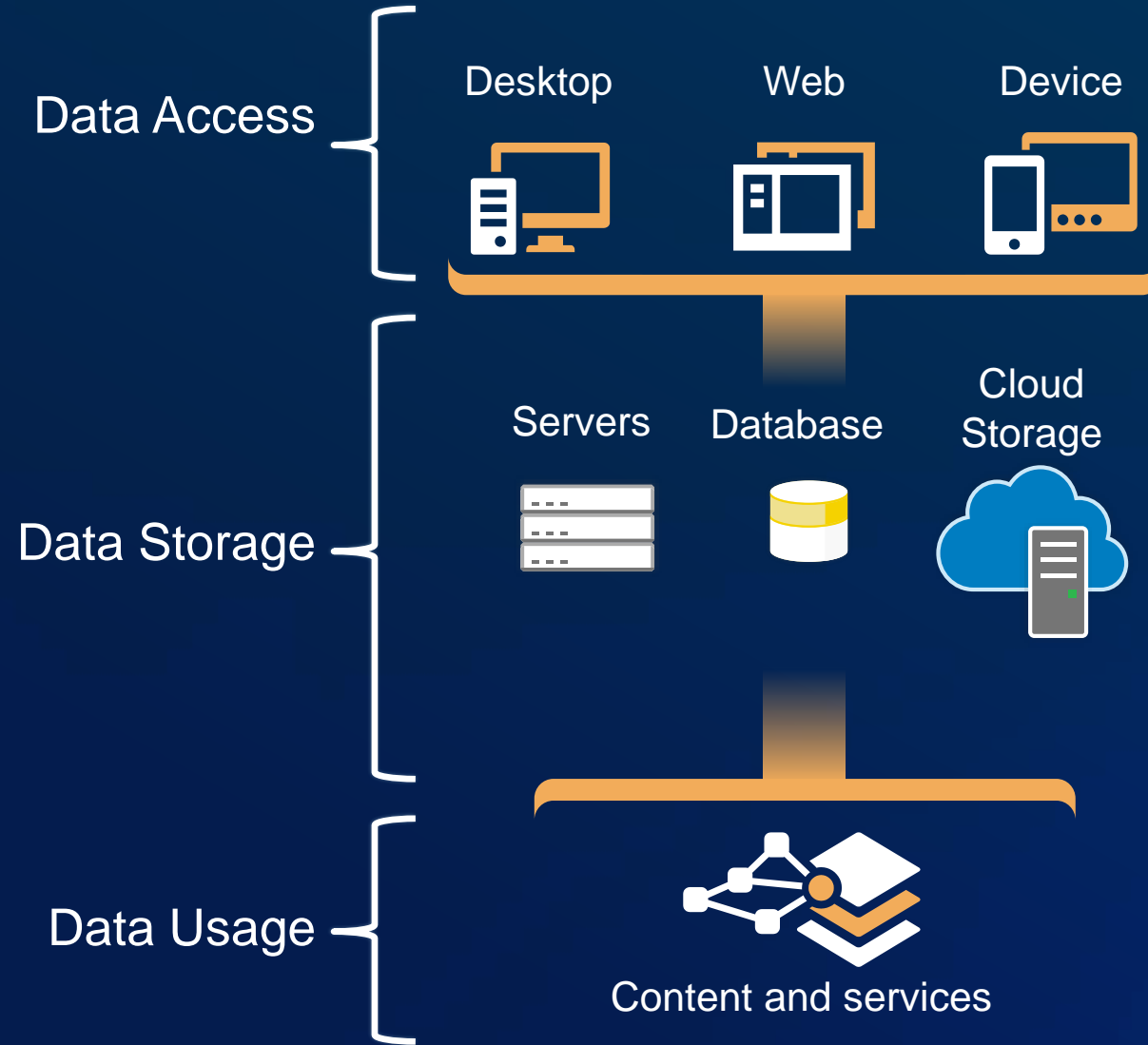


# Data Capture

Creating accurate digital representations of the world

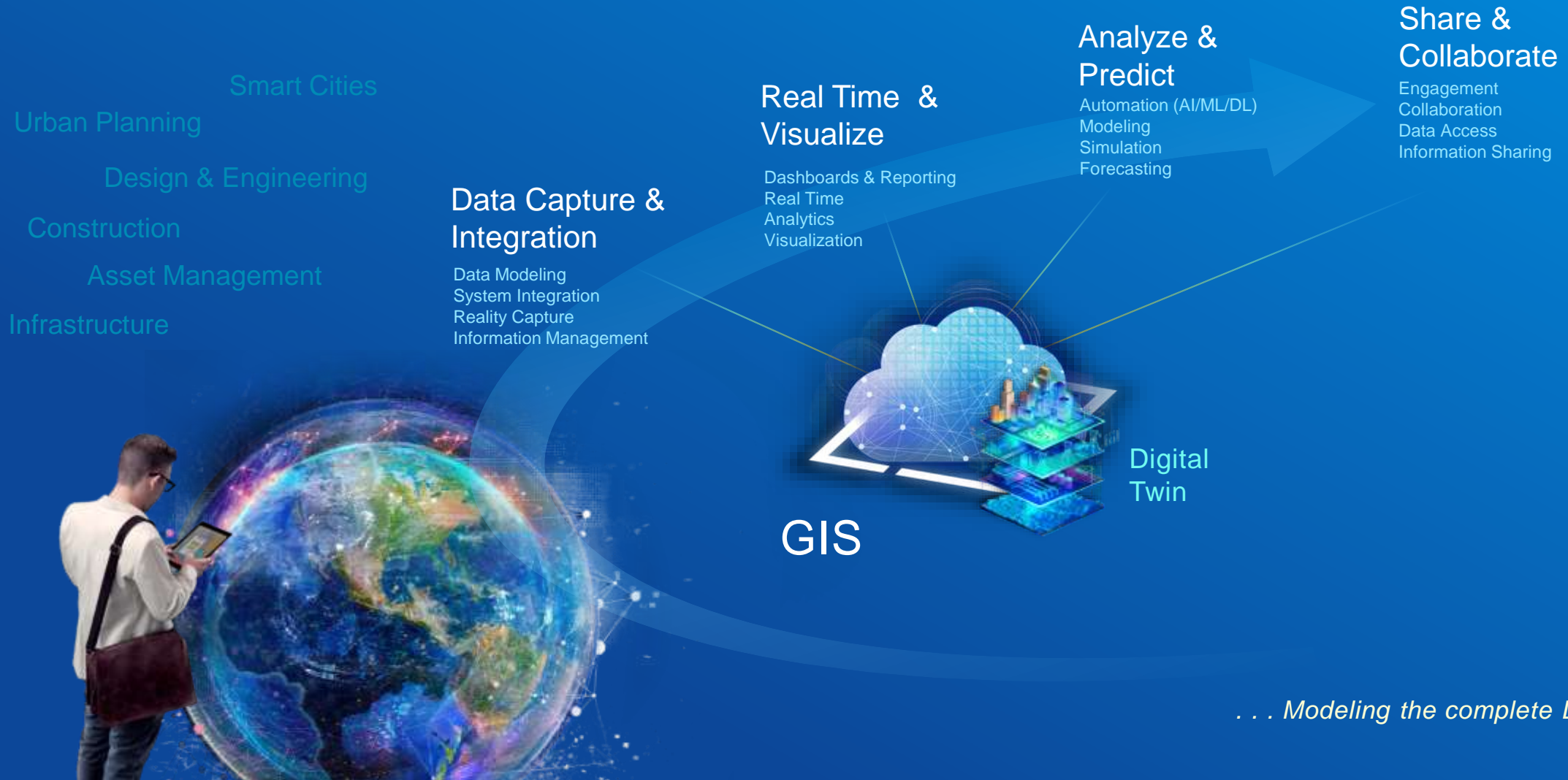


# Data Storage





# GIS Interconnects & Integrates



... Modeling the complete Lifecycle

# GIS Is a Content Sharing Platform

Supporting GIS Professionals and Organizations

Millions of Users . . .  
Tens of Millions of Shared . . .  
Maps, Datasets and Apps

Search & Discovery

Public & Private Sharing

Collaboration

Management &  
Administration

Security

Metadata

Open Data

*Massive . . .  
Rapidly Growing . . .  
. . . A Key Aspect of Geospatial Infrastructure*



# Intuitive Integration of 2D and 3D



*Interactive web applications build public trust*

## To end

- Understand the legal requirements
- Determine the purpose of your cadastre
- Use Fit-for-purpose data collection techniques
- Leverage the capabilities of GIS



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# Thank you!



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