



Hosted by:

**INFORMED  
INFRASTRUCTURE**  
The magazine for civil & structural engineers

Sponsored & Presented by:



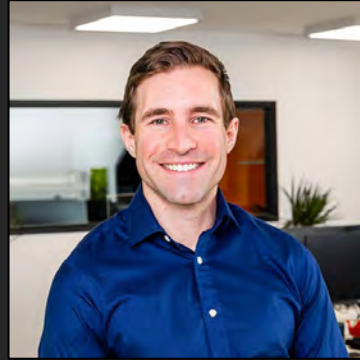
# Expanding the Reach of IoT-Based Asset Monitoring

*February 6, 2024*



Approved  
Continuing  
Education

# Introduction



**Kevin Quillien**  
co-founder and CTO  
Krucial

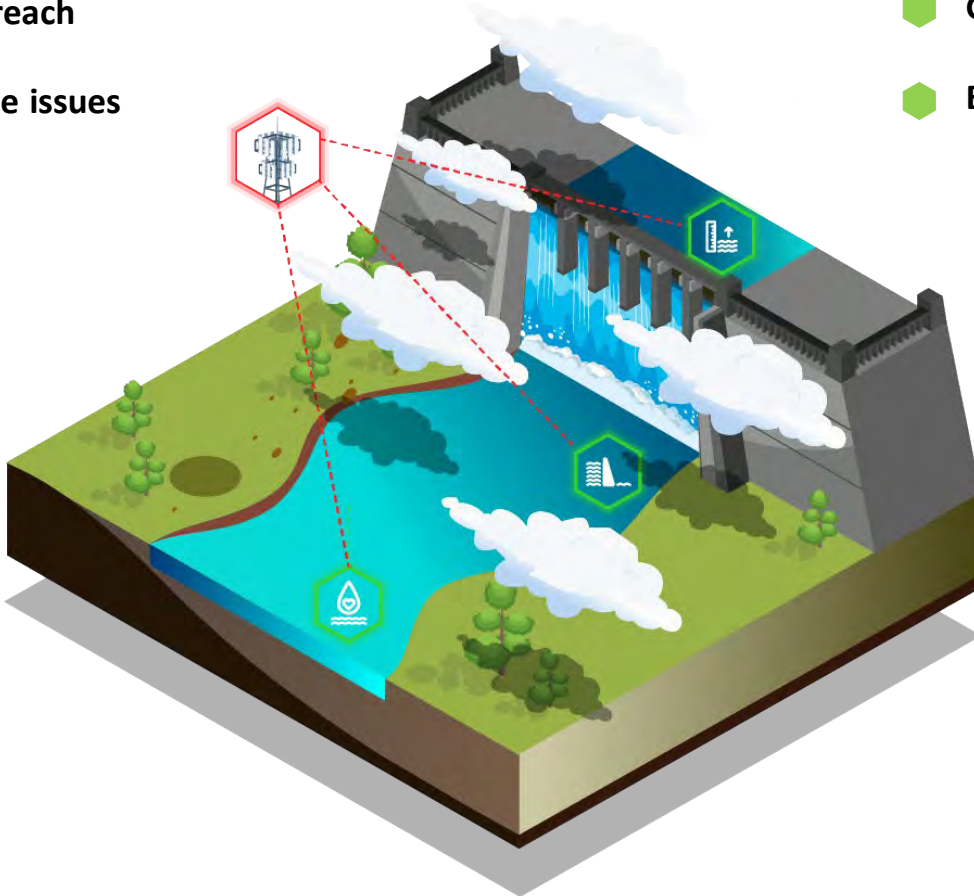


**Alan Jones**  
Senior Director of Business  
Development, Infrastructure IoT  
Bentley

# Overcoming connectivity challenges

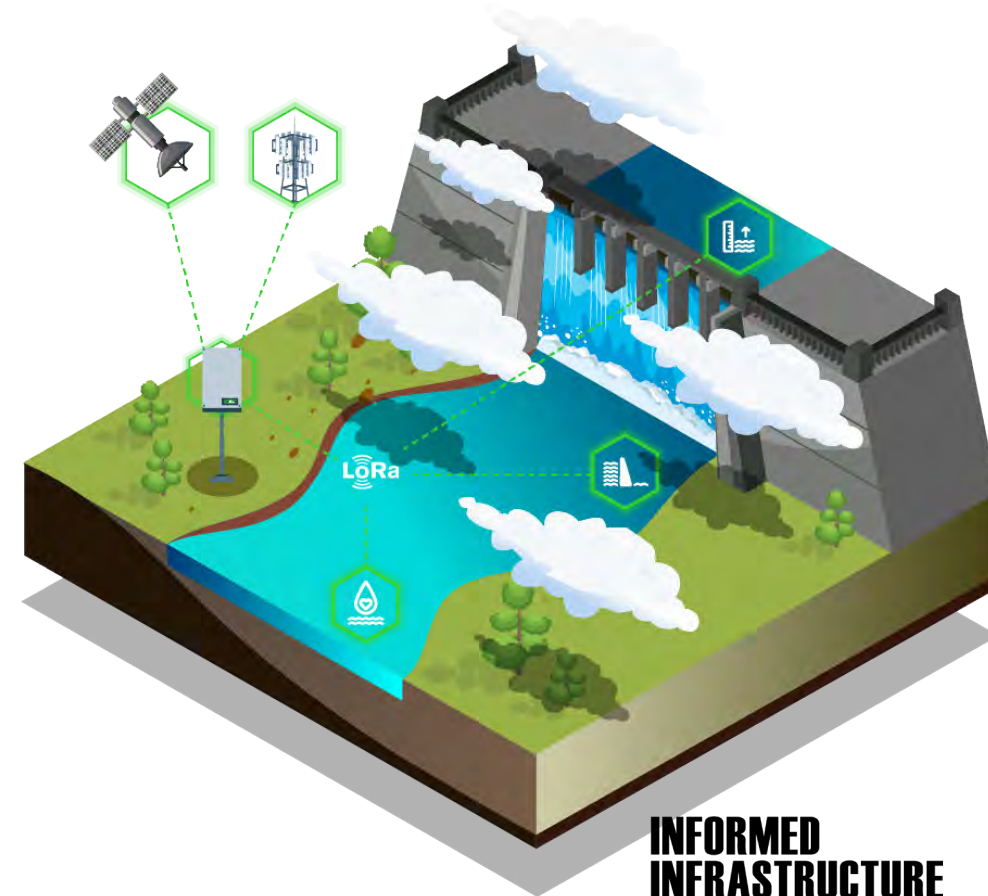
## TRADITIONAL CONNECTIVITY

- ◆ Limited reach
- ◆ Resilience issues



## HYBRID INFRASTRUCTURE

- ◆ Global reach
- ◆ Enhanced resilience



# Advancements in hybrid connectivity



ACCESSIBLE  
CAPABILITY



ENHANCED  
COVERAGE



IMPROVED DATA  
AVAILABILITY

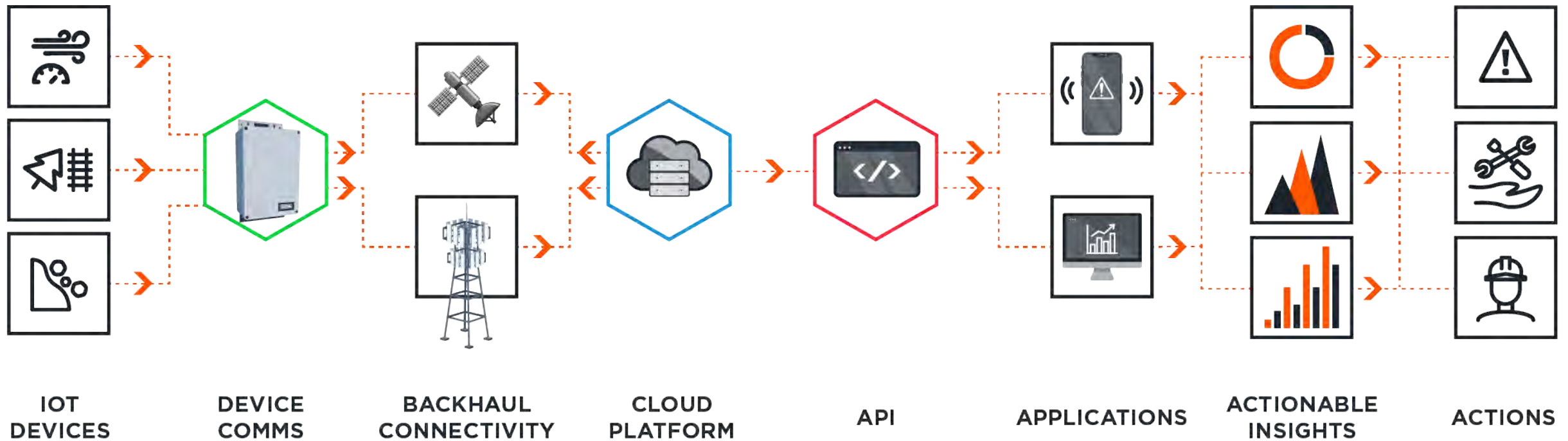


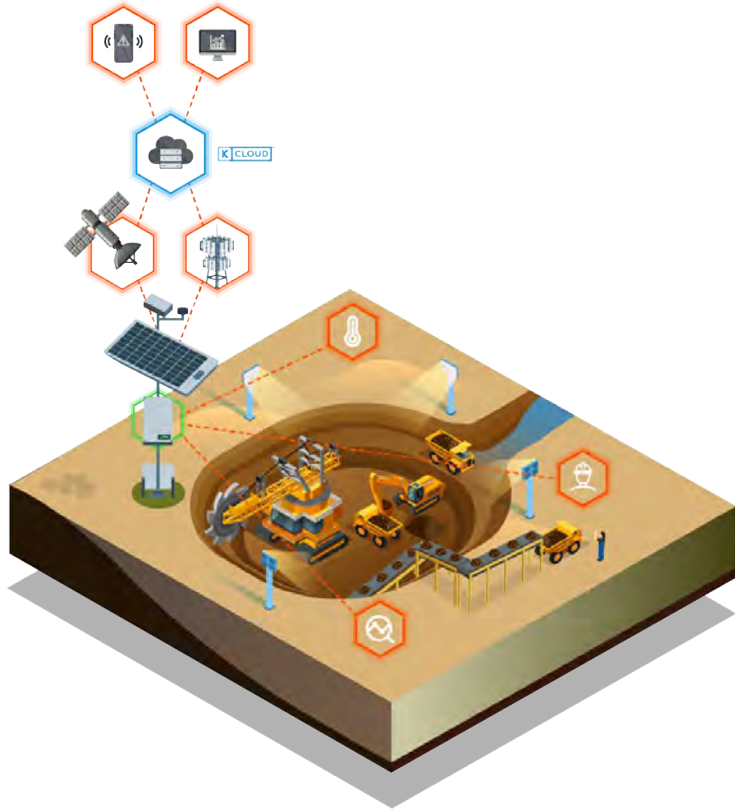
INCREASED  
PERFORMANCE



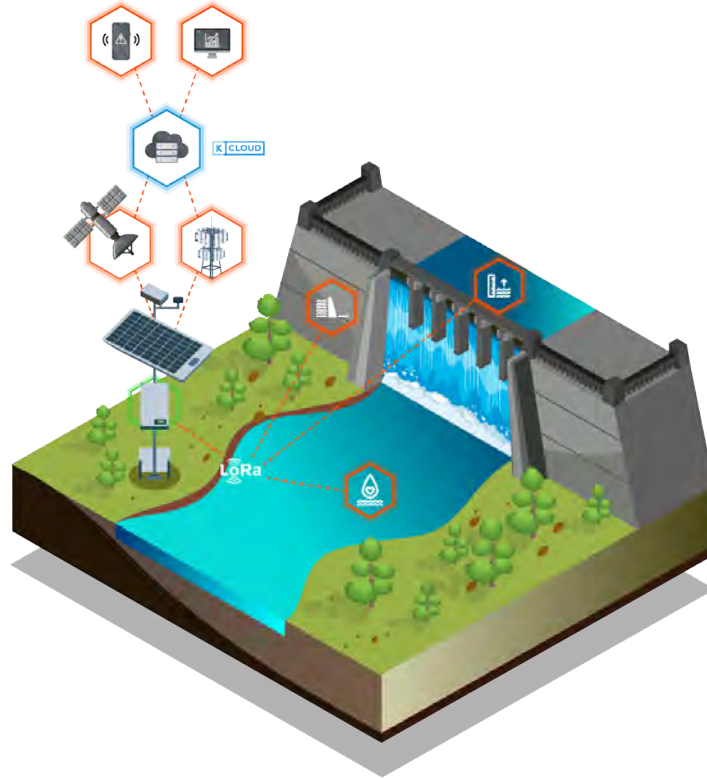
ENHANCED  
SECURITY

# Powerful insight for critical assets

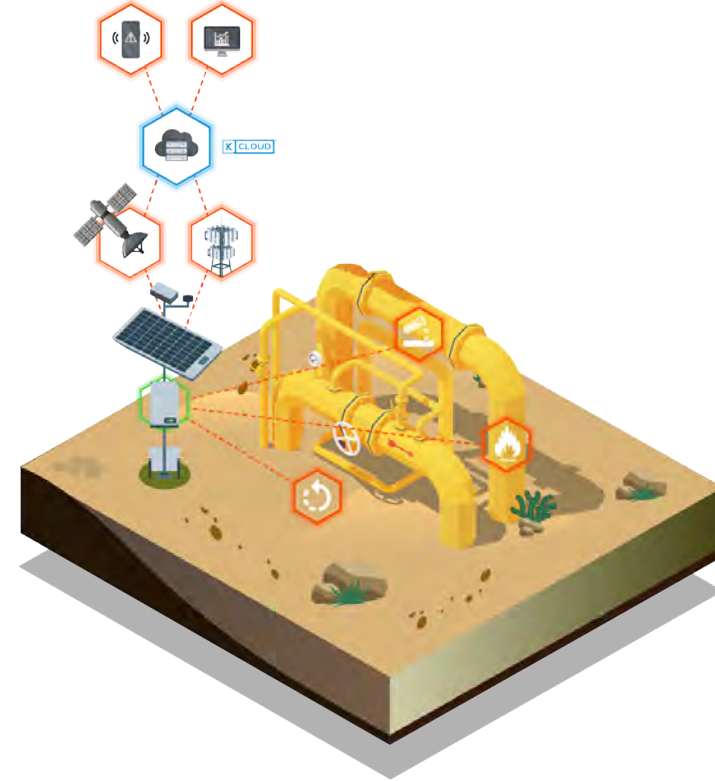




MINING



CRITICAL  
INFRASTRUCTURE

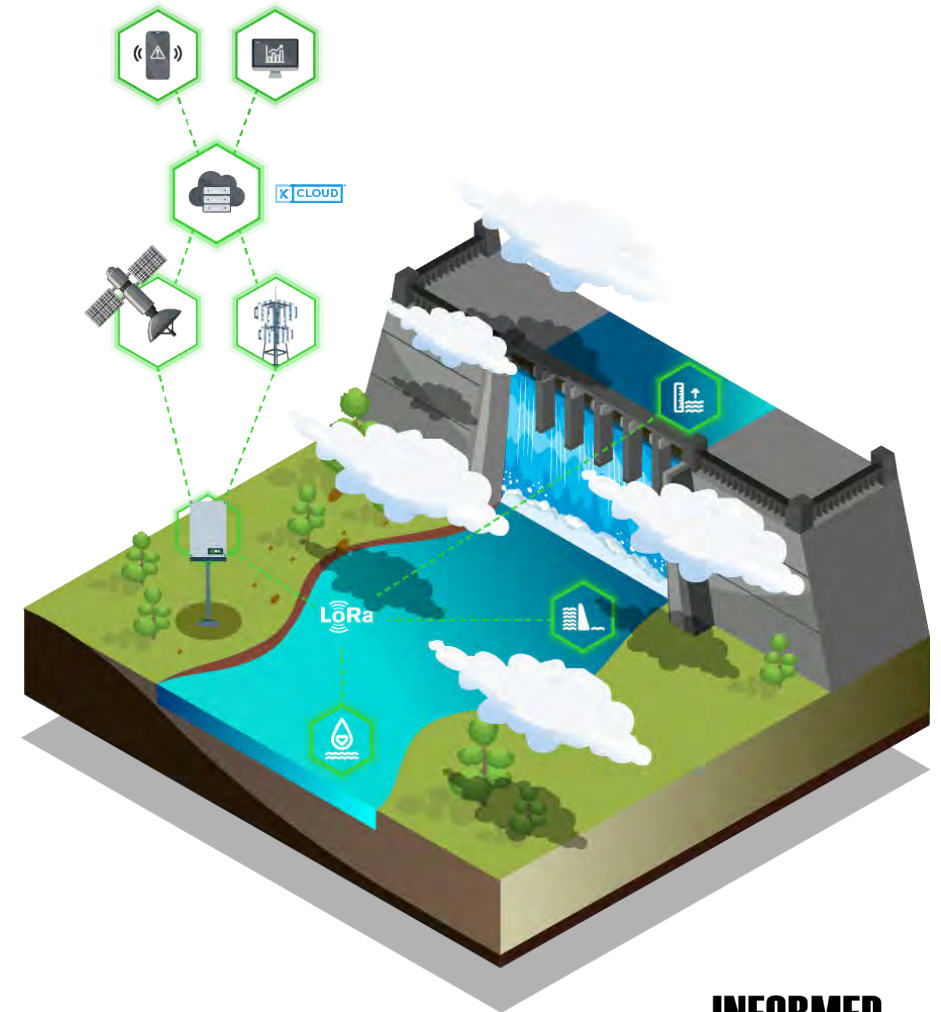


ENERGY



# Revolutionizing remote monitoring

- Standardization of multi-asset twinning
- Single platform for monitoring diverse infrastructures and assets
- Integrating data streams into a cohesive system
- Better value for customers and users



Internet of Things (IoT) Breathes  
Life into Digital Twins

Infrastructure IoT



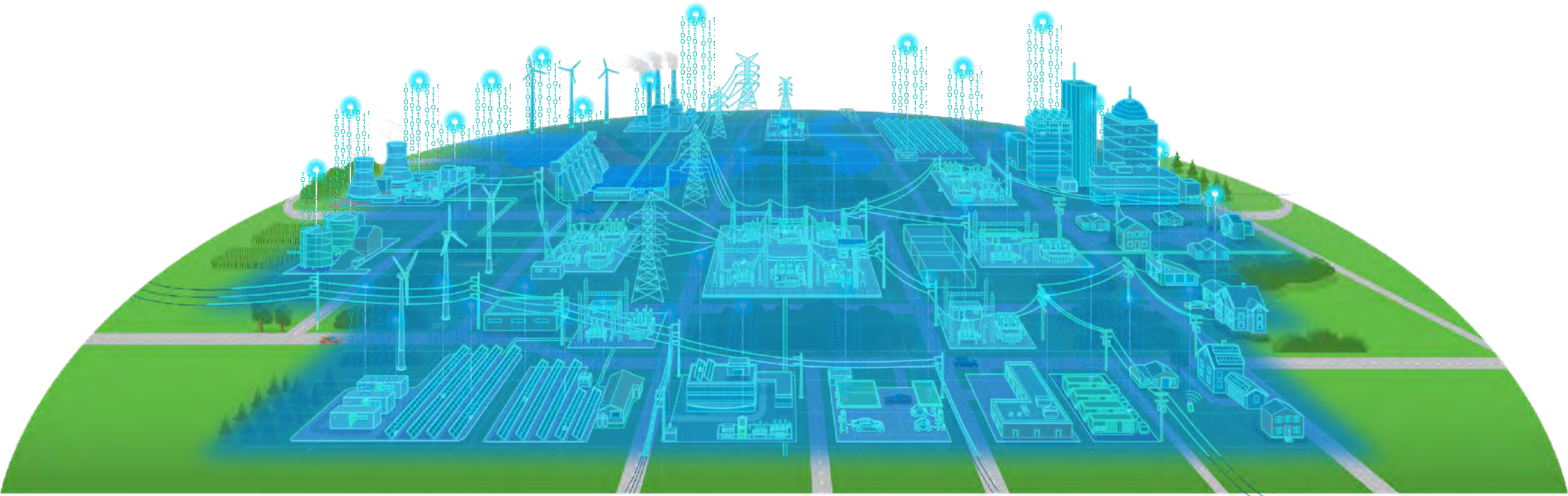




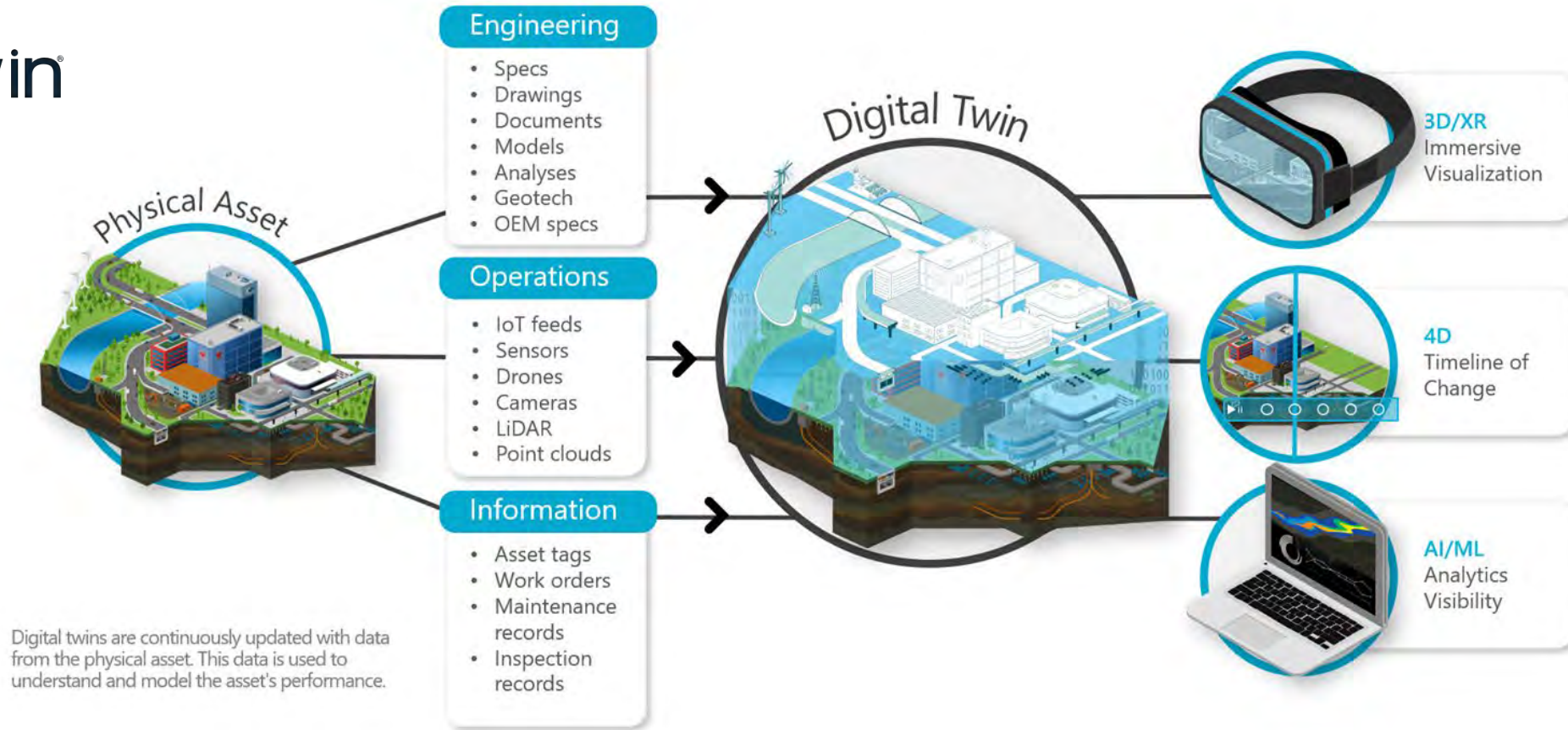
Approved  
Continuing  
Education

# The Digital Twin

The Digital Twin connects the physical and virtual world. Digital twins are reshaping the built world in terms of how infrastructure is designed, constructed, and operated. Emerging solutions expand these capabilities by creating evergreen versions. These living digital twins connect decision makers to live monitoring data and insights critical to safe and efficient operations.



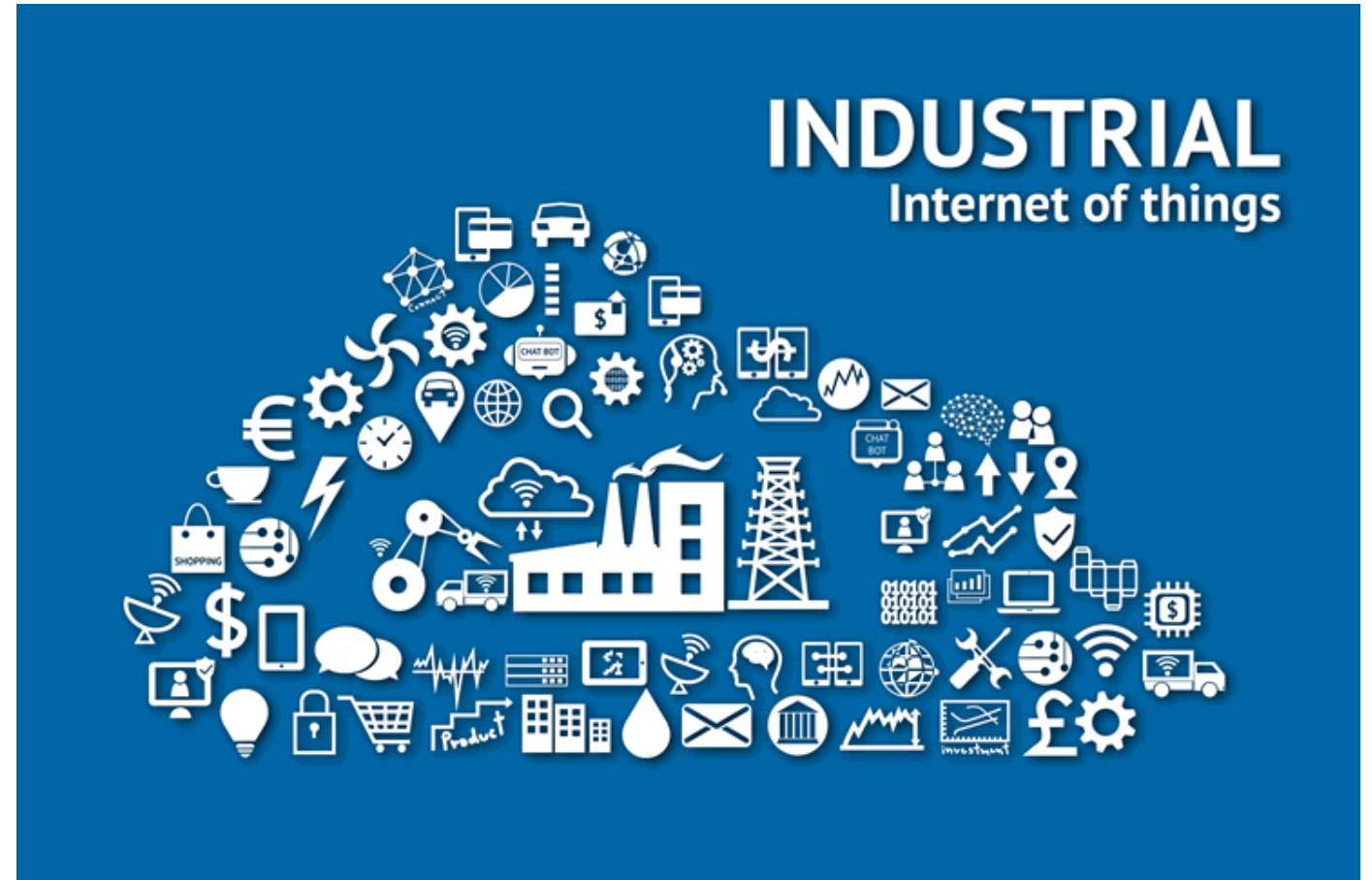
The iTwin Platform enables the incorporation of engineering data created by diverse design tools into a living digital twin and aligns it with reality data, and other associated data with no disruption to an end user's current tools or processes.

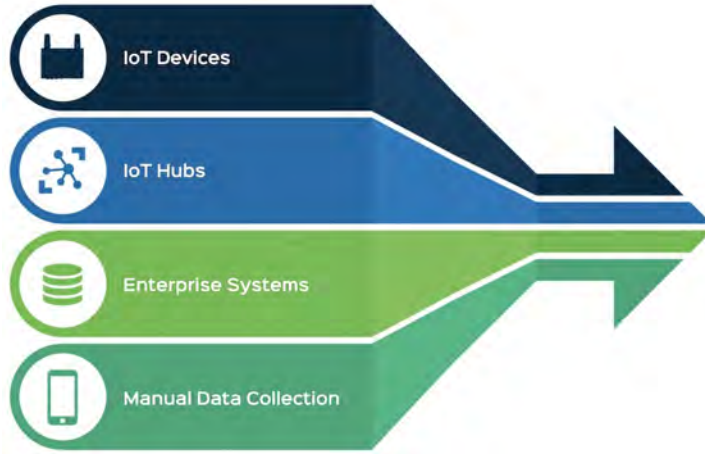


# Challenges of Complex Workflows

---

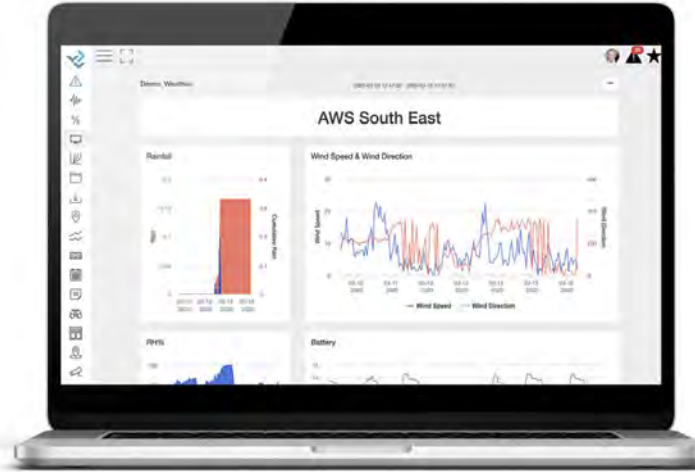
- Field to Office to Field IoT Workflows
- Ease of Integration (interoperable)
- Visualization and Delivery
- Updating Data Sets in Real Time
- Reach Larger Audience





## Sensor Data Acquisition

Connect to any sensor, read any data type, monitor, calibrate, and validate incoming raw data for immediate analysis.



## Visualization & Analysis

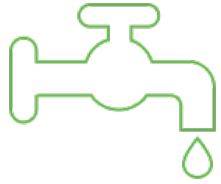
Browser-based tools and workflow-enhancing features provide valuable sensor data insight, helping you make sense of complex data.



## Collaboration, Reporting, Alarms

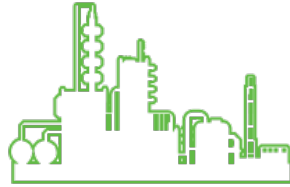
Collaborate seamlessly with organizational permission controls. Create and share custom reports and tailor alerts to user-defined parameters with flexible notification distribution.

### WATER RESOURCES



Dams & Reservoirs  
Hydroelectric  
Levees  
Aqueducts  
Coastal Protection

### MINING



Open Pit  
Tailings Dams  
Underground  
Closures

### TRANSPORTATION



Bridges  
Railways  
Roadways  
Tunnels  
Airports  
Ports  
GeoHazard Applications

### CONSTRUCTION



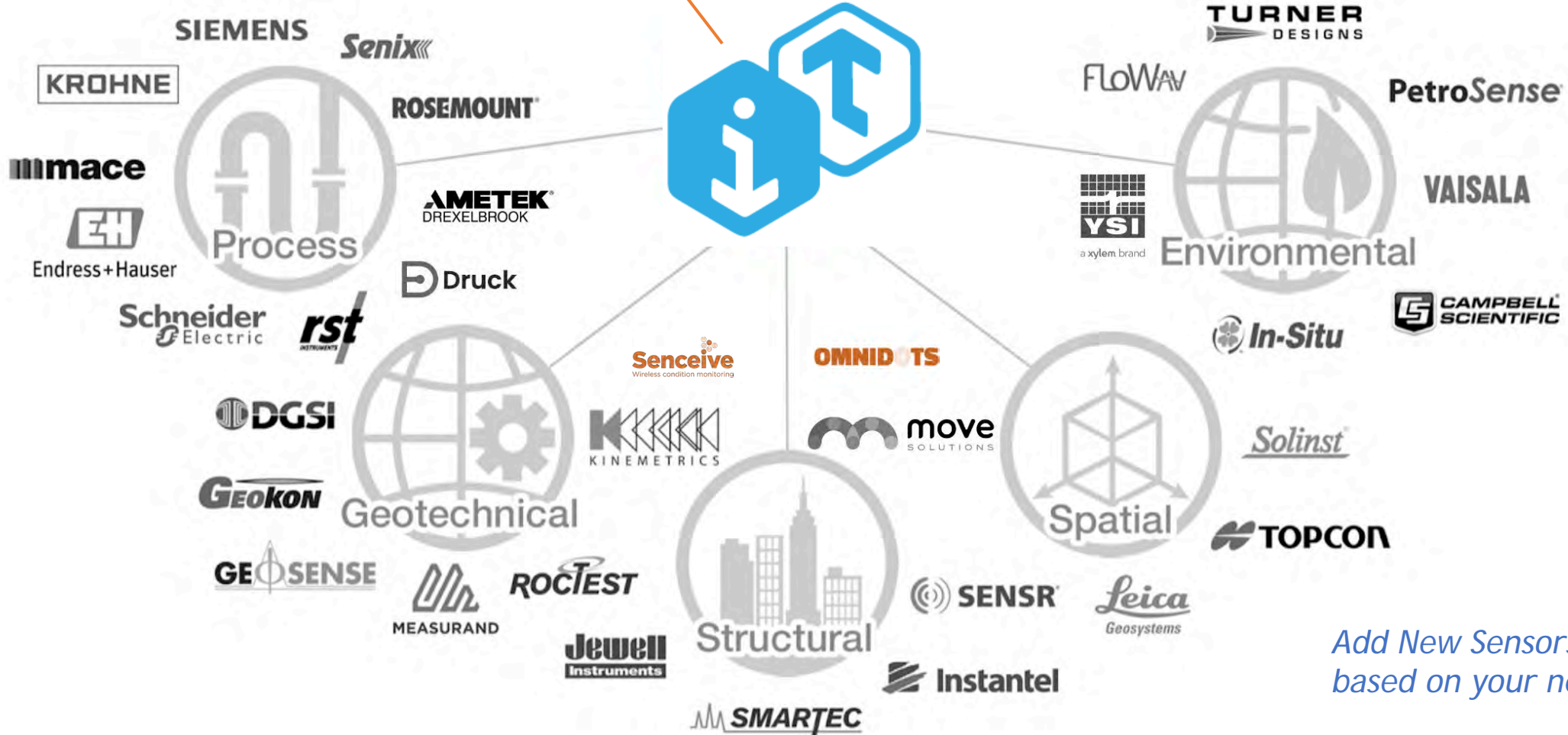
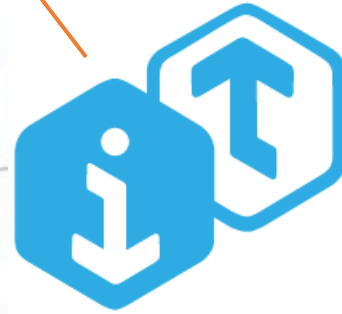
High-Rise  
Heavy Civil  
Shoring/Excavation  
Dewatering Ops

### ENERGY

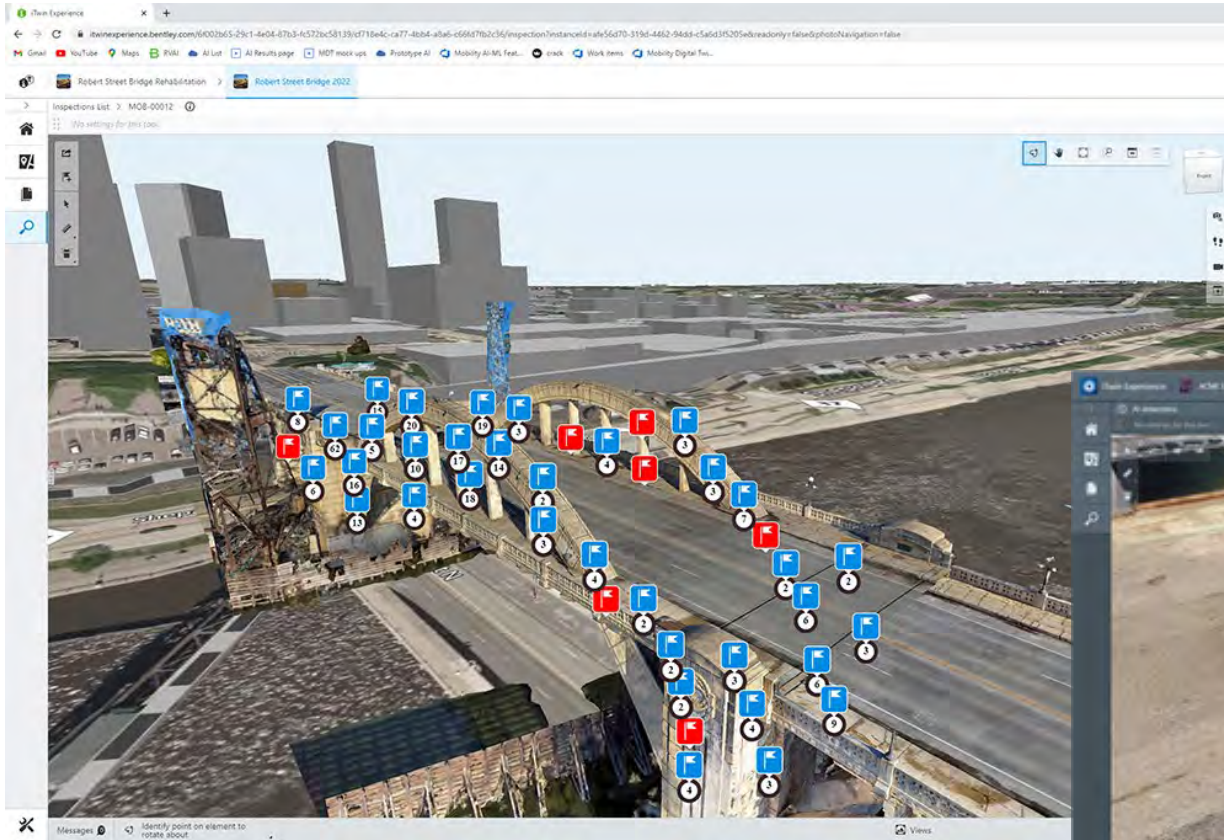


Electric Utilities  
Petrochemical  
Pipelines  
Hydroelectric

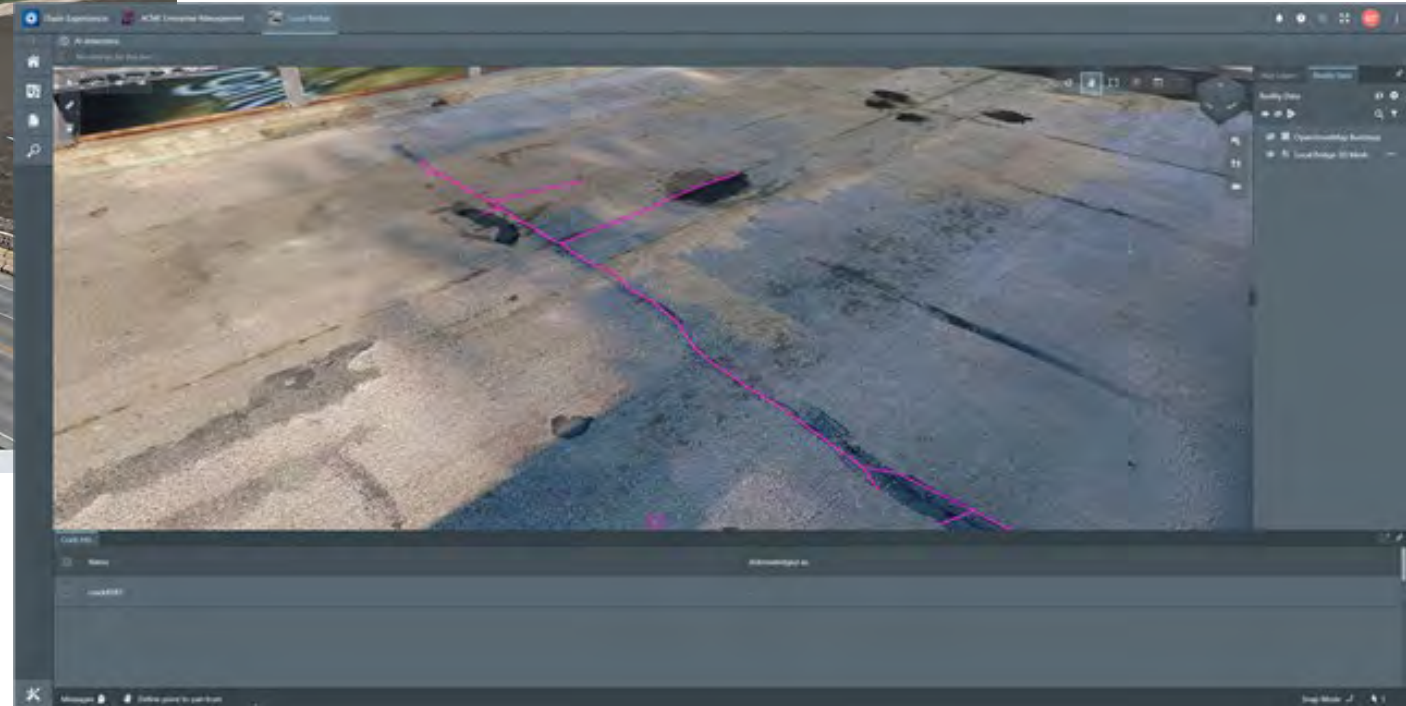


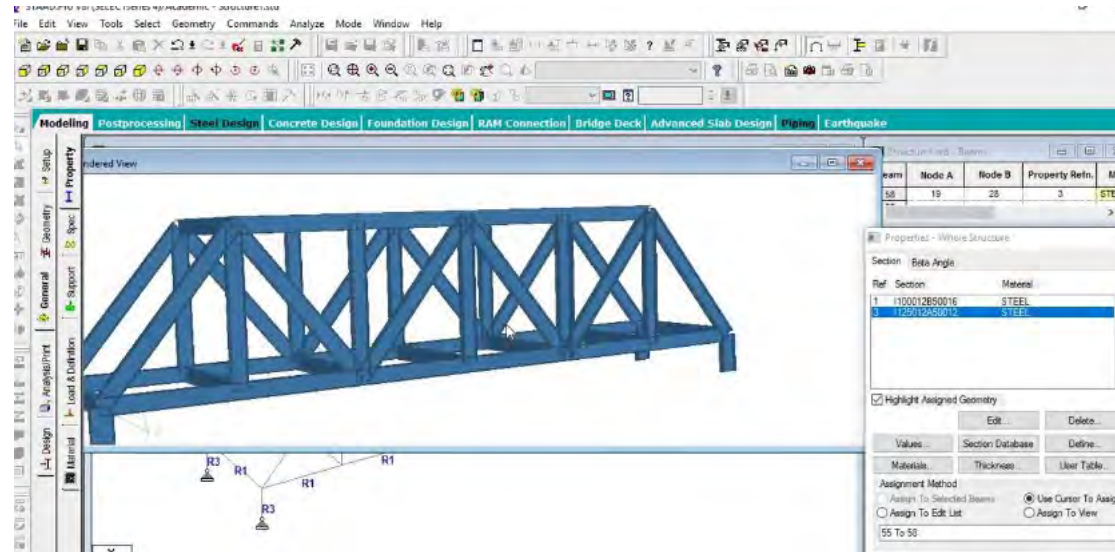
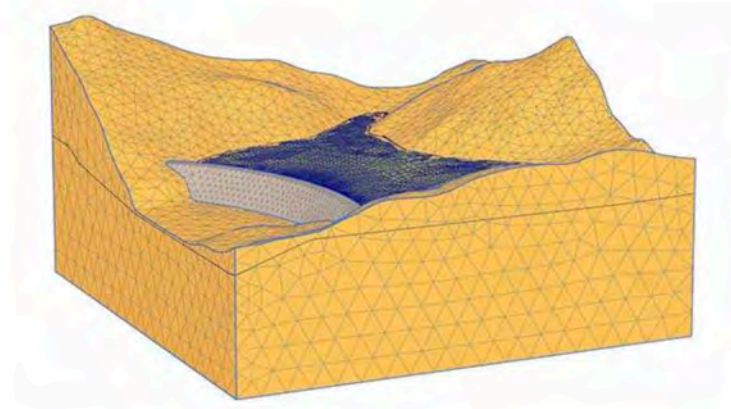
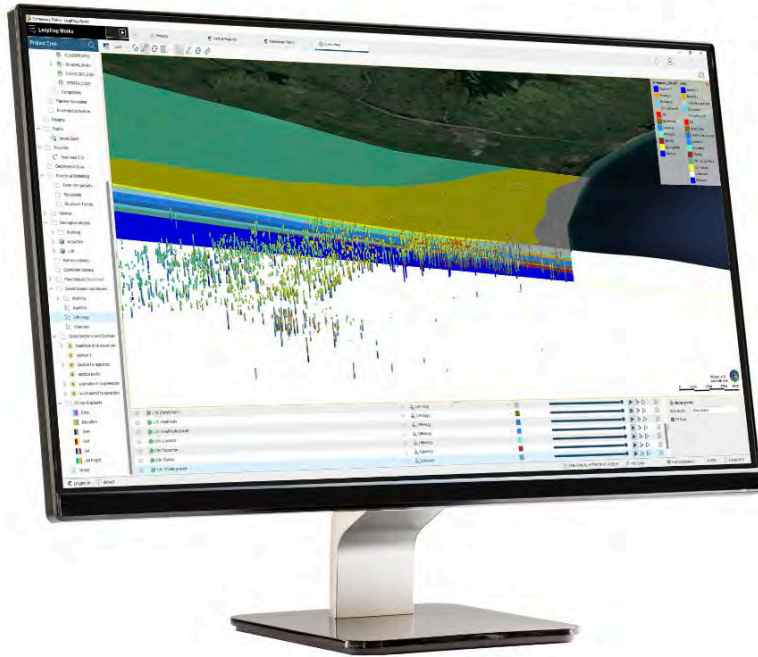


*Add New Sensors / Partners based on your needs*

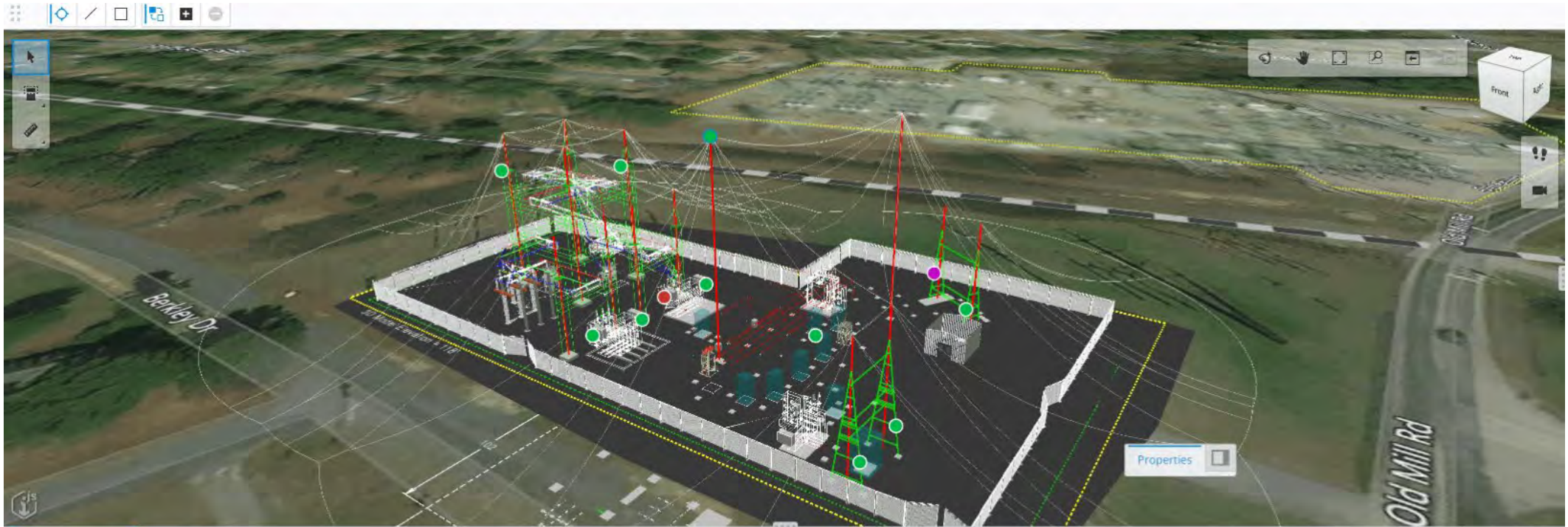


Crack and spall detection utilizing AI/ML











Approved  
Continuing  
Education

# Questions and Answers with:



**Kevin Quillien**  
co-founder and CTO  
Krucial



**Alan Jones**  
Senior Director of Business Development,  
Infrastructure IoT  
Bentley



**Todd Danielson**  
Editorial Director  
*Informed Infrastructure*



Approved  
Continuing  
Education

If you are viewing the  
webcast LIVE, you may  
now download the  
Certificate of  
Completion by clicking  
the AIA button at the  
bottom of the console

If you are viewing the  
ARCHIVE, you must take  
and pass the quiz below  
this video to obtain a  
Certificate of  
Completion



**Approved  
Continuing  
Education**



# **INFORMED INFRASTRUCTURE**

The magazine for civil & structural engineers

Check out  
[www.informedinfrastructure.com/v1education](http://www.informedinfrastructure.com/v1education)  
to view other accredited  
webcasts.

**Thank You for Attending**