



# **Bentley Systems: Advancing Infrastructure Engineering with AI**

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**Bentley**<sup>®</sup>

# An Industry in Transition

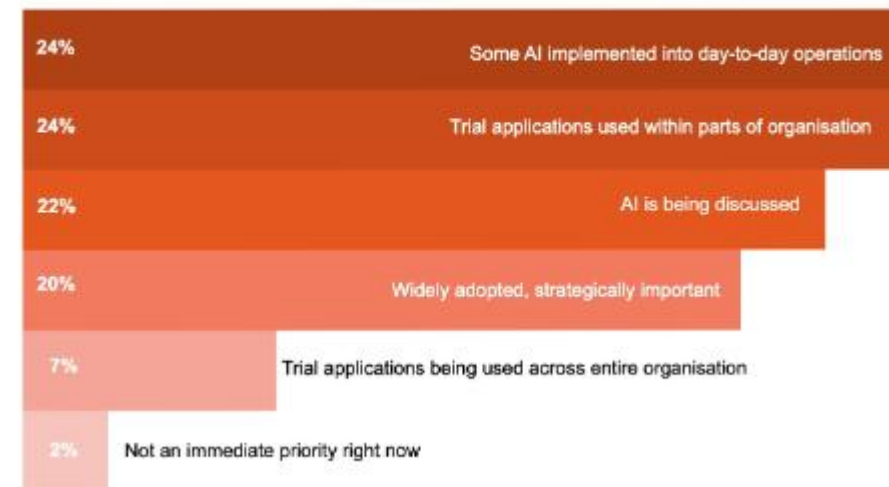
**Scaling Up:** ~50% of surveyed infrastructure professionals are already piloting or implementing AI. [bim-world.de](http://bim-world.de)

**Proven Adoption:** Nearly a third of recent *Going Digital Awards* submissions incorporated AI. [bim-world.de](http://bim-world.de)

**Top Priorities:** Boosting design productivity and automating tedious documentation. [bim-world.de](http://bim-world.de)



## Readiness and Maturity of Organisations in the Built Environment in Adopting and Using AI



[infrastructurepolicyadvancement.com](http://infrastructurepolicyadvancement.com)

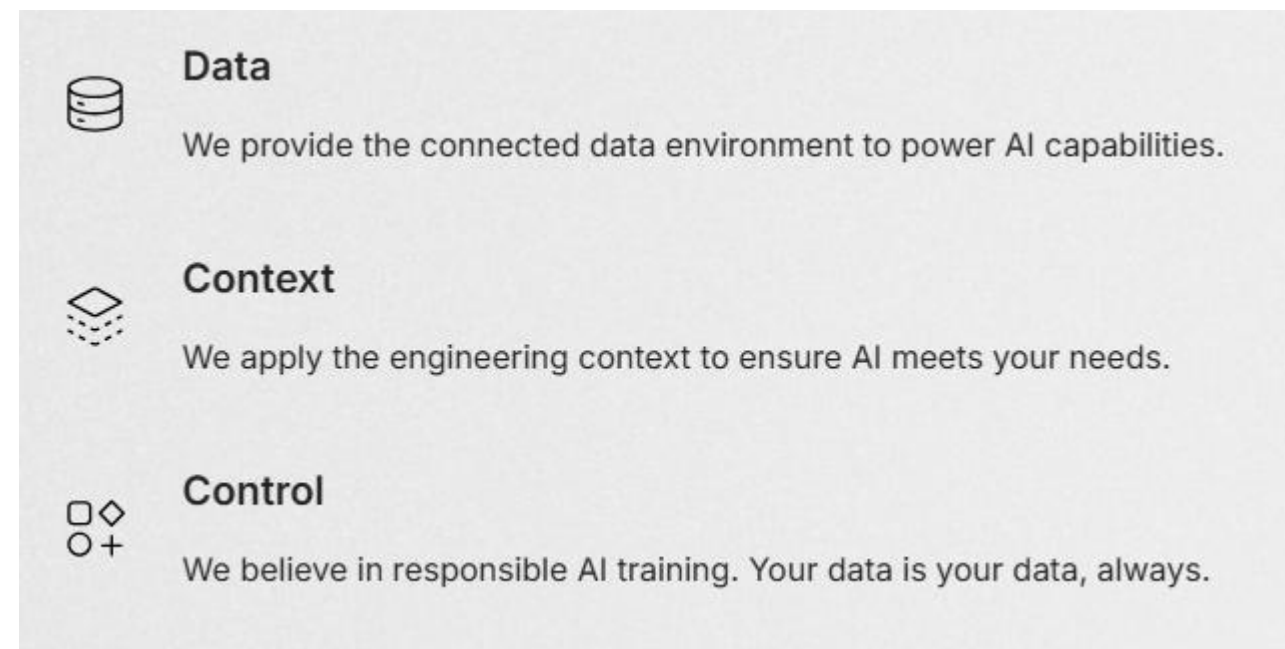
# Bentley Core Vision – Empower, Don't Replace




**The Challenge:** A global gap in engineering capacity. There simply aren't enough engineers to do the required work globally.

**Our Vision:** AI is built to *empower* infrastructure engineers, not replace them .

## **Our Approach: AI you can trust**

Infrastructure is too big to fail, so you need AI you can trust. We are delivering infrastructure-ready AI across design, construction, and operations.



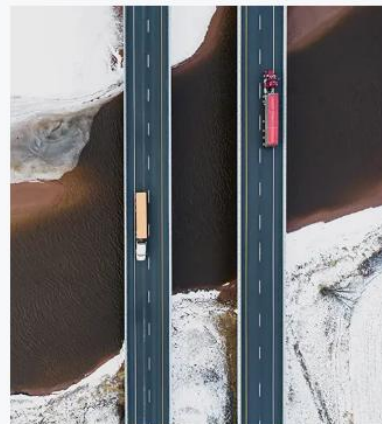
-  **Data**  
We provide the connected data environment to power AI capabilities.
-  **Context**  
We apply the engineering context to ensure AI meets your needs.
-  **Control**  
We believe in responsible AI training. Your data is your data, always.

# Infrastructure AI by Bentley

**Our purpose:** empower the people who design, build, and operate infrastructure that is essential to modern life—**safely, sustainably, and efficiently.**

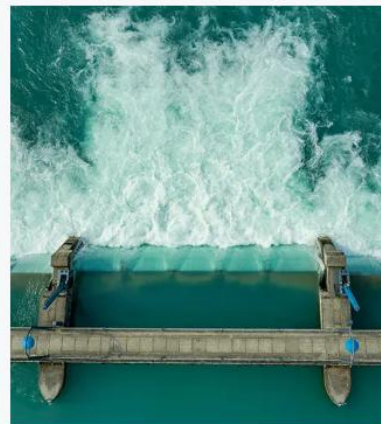
## What we deliver:

- **Infrastructure engineering software** for planning, design, and analysis
- **Construction delivery solutions** to coordinate work and reduce rework
- **Digital twins (iTwin / Infrastructure Cloud)** to connect design + reality + operations
- **Asset performance & reliability** tools to help operators predict issues and prioritize maintenance



### Transportation

Accelerate project delivery and improve asset performance with software that is open, data-driven, and purpose-built for transportation infrastructure.



### Water

Confidently plan, design, build, and operate more sustainable and resilient water systems that are prepared for climate adaptation.



### Energy

Enable the transition to a low-carbon future by unlocking powerful collaboration in energy production and electric utilities.



### Cities

Connect the physical and virtual worlds to better plan, design, build and operate urban infrastructure projects with AI-powered digital twins.



### Mining

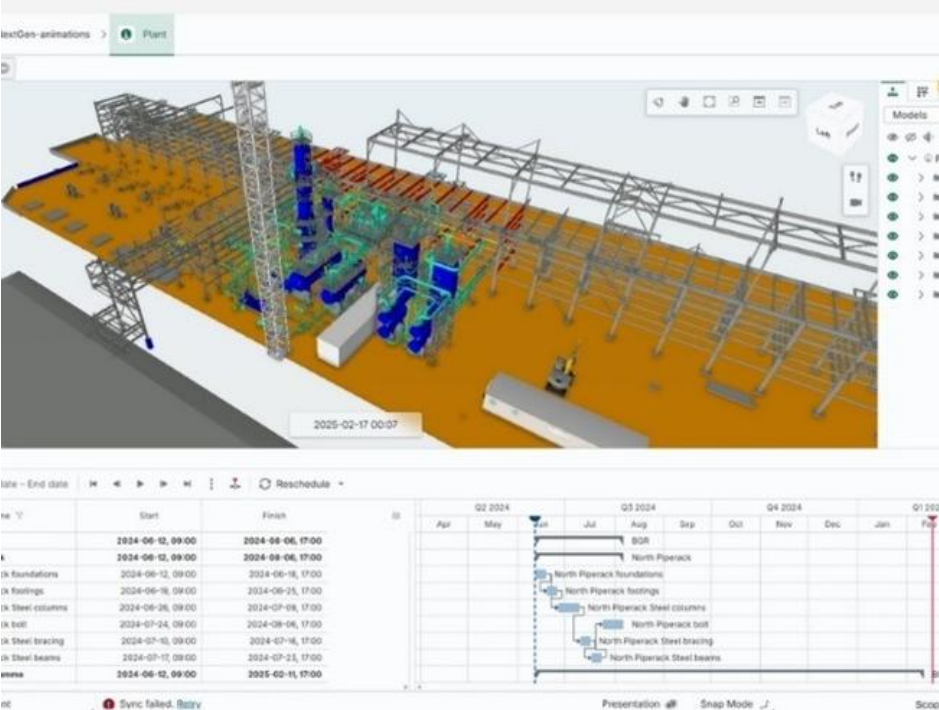
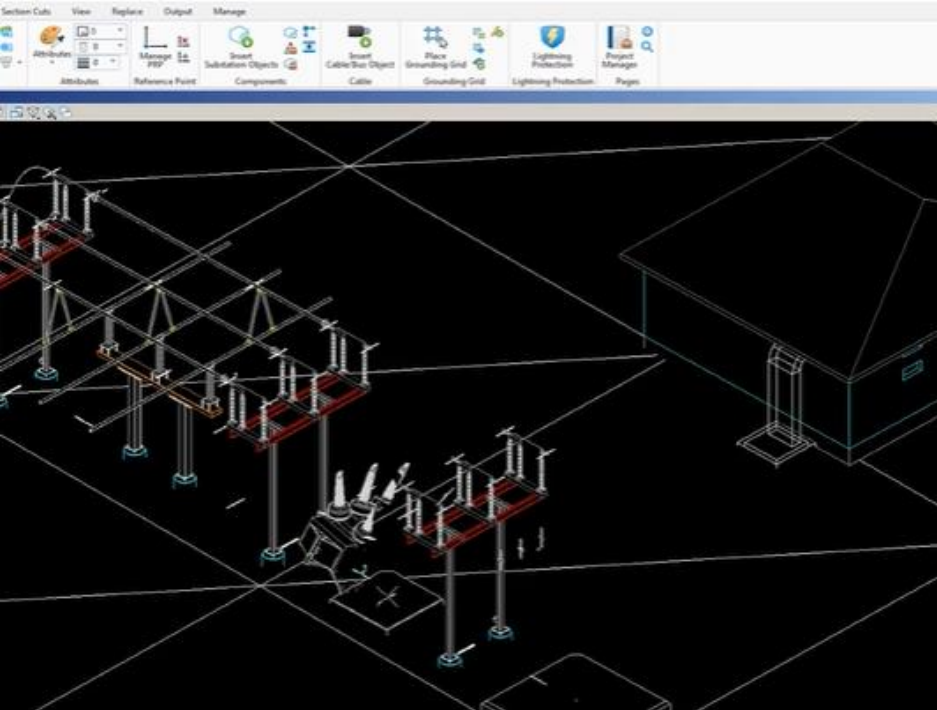
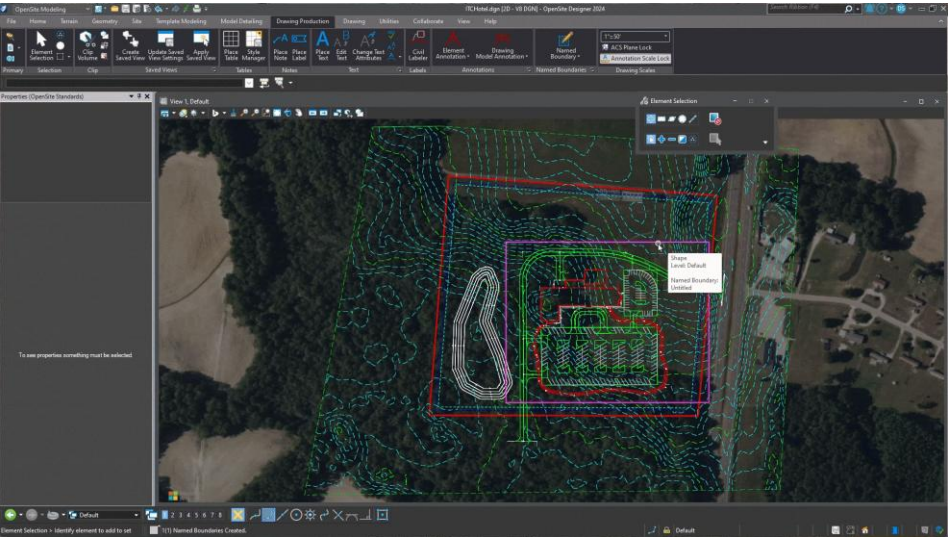
Unearth data-driven insights across the mining value chain to maximize mining effectiveness.

# Bentley Next-Generation AI Open Applications

**OpenSite+:** Generative AI for civil site design (delivers projects up to 10x faster).

**OpenUtilities Substation+:** Digital twin & AI-powered capabilities allowing multi-user collaboration while minimizing errors.

**SYNCHRO+:** Reimagined 4D construction modeling using AI and Cesium geospatial context for rapid sequence exploration.

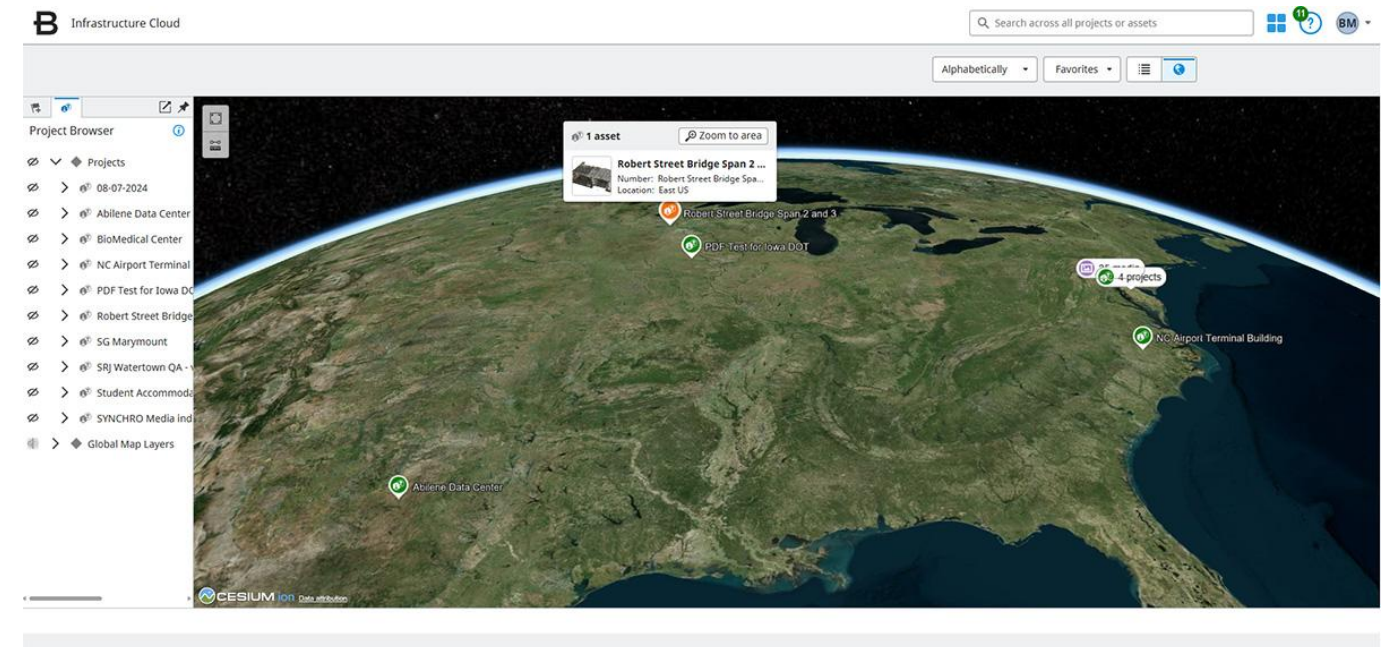
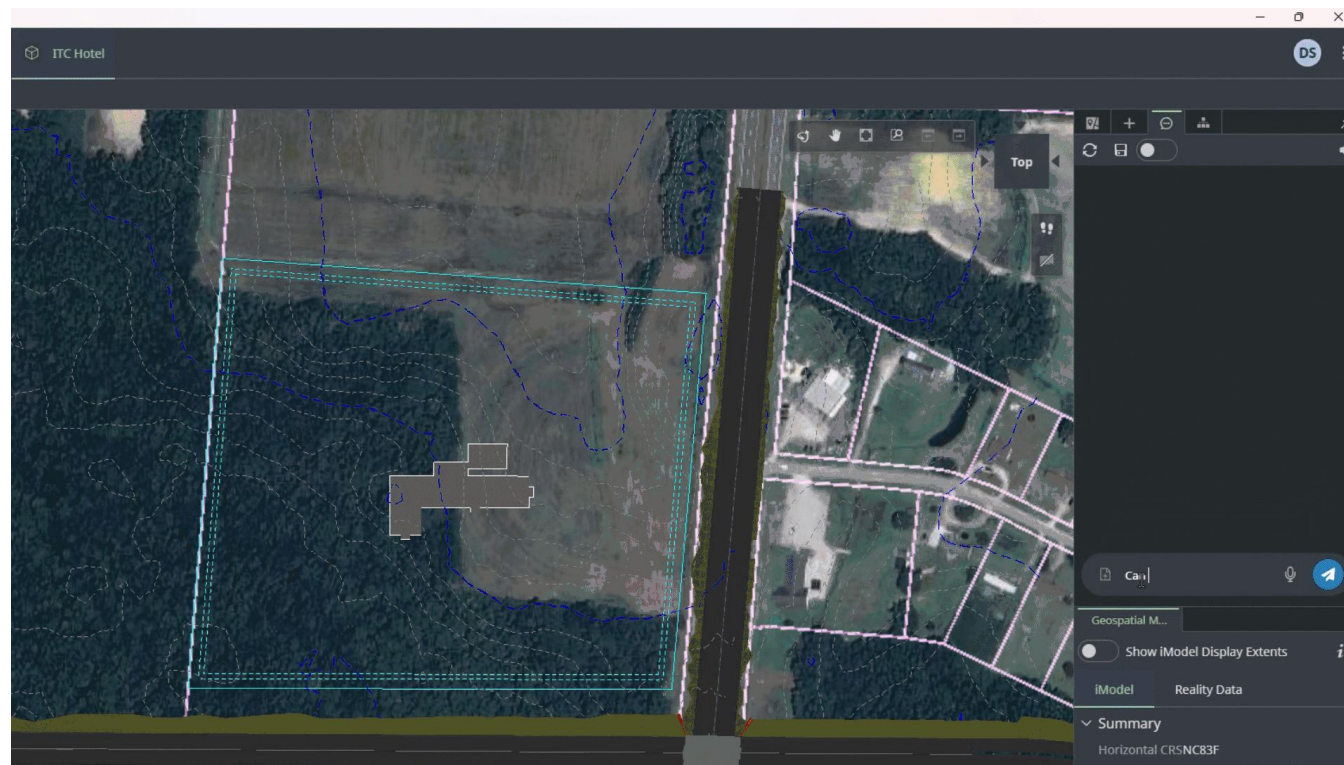


# Bentley Copilot

**Bentley Copilot:** A context-aware AI assistant utilizing natural language prompts.

**OpenRoads & OpenRail Designer:** AI agents to automate time-consuming tasks like drawing annotations.

**ProjectWise AI:** Contextual AI search to generate instant summaries without opening files.



# Real-World ROI & Measurable Impact

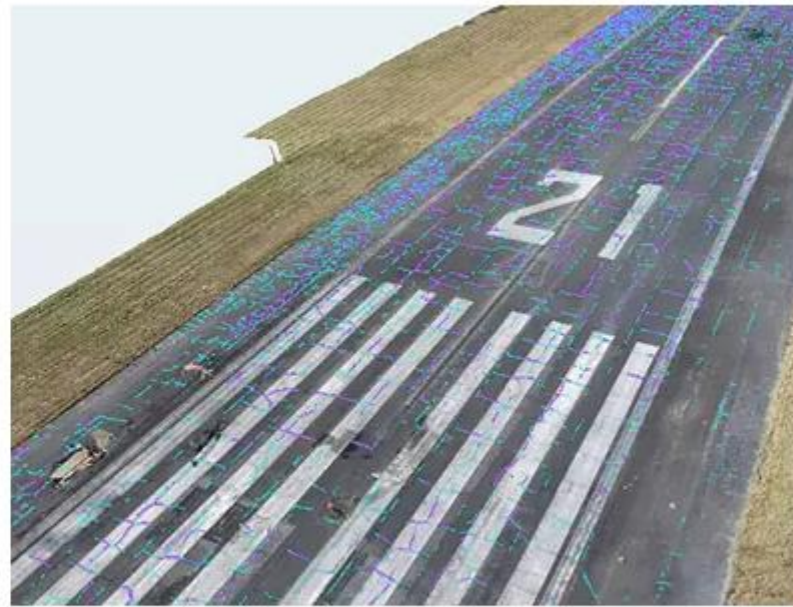
**blynco**: Achieving \$870K in savings through automated roadway analytics.

**iTwin Capture**: Cutting inspection times by up to 75%.

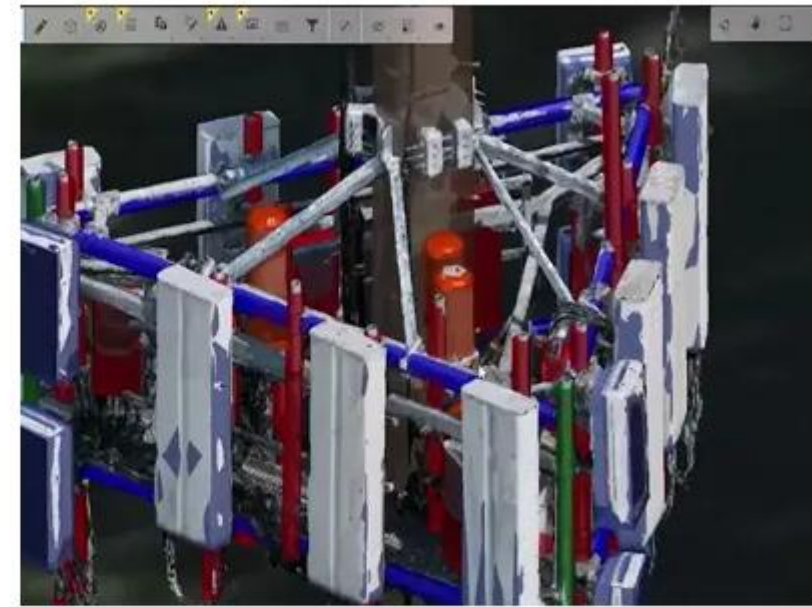
**OpenTower iQ**: Reducing structural analysis timelines from weeks to mere days.



Saving \$870K Through Automation



Cutting Inspection Time By 75%



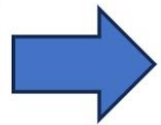
Reducing Analysis From Weeks To Days

# Reality Modeling & Asset Analytics

**Rapid 3D Context:** Accelerate the conversion of drone imagery, site photos, and LiDAR scans into highly accurate, navigable 3D reality meshes.

**AI-Powered Analytics:** Leverage computer vision for automated feature recognition, classification, and precise defect or crack detection (ideal for bridge and asset monitoring).

**Enhanced Quality Assurance:** Improve QA by directly comparing as-built reality models against original design intent.



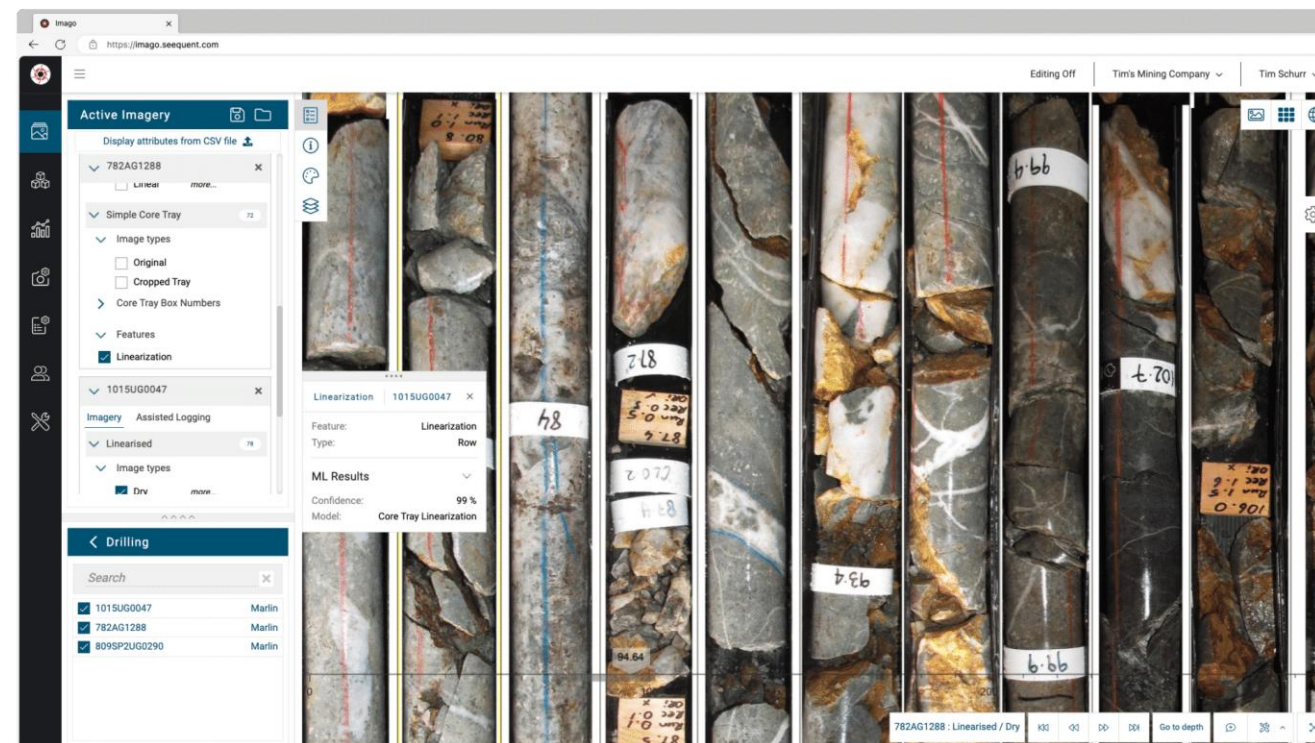
# Seequent: The Subsurface & Geo-Expert

**Industry Leadership:** The world's leading solution for complex subsurface and geotechnical modeling.

**The AI Edge:** Features automated borehole interpretation to process manual, messy geological data.

**Rapid 3D Modeling:** AI instantly "reads" drilling logs and connects the dots to generate highly accurate 3D subsurface models.

**Risk Mitigation:** Significantly reduces the physical and financial risks of building on unstable ground.



# Conclusion & Q&A

- Bentley AI solutions empowers engineers to solve the capacity gap.
- Bentley provides trustworthy, data-secure, and context-aware solutions.

*Questions?*

**Bentley**<sup>®</sup>

