

Bentley Systems needed detailed, accurate and continuously updated street-level data to build its digital twins

Bentley Systems is a world leader in infrastructure engineering software from planning to operations and maintenance.

Engineers spend an estimated 35% of their time searching for information. Bentley Systems puts all this information together in the form of 3D models known as digital twins. Digital twins allow architects, engineers, planners, governments and public agencies to access what they need in one place.

One the biggest challenges for all these professionals is collecting, managing and updating the vast amounts of data they need for infrastructure projects. The average department of transportation in the United States, for example, may be responsible for thousands of miles of data and assets. These can include roads, bridges, railway networks and utilities such as power lines, all of which are constantly changing.

Identifying all these assets and assessing their condition has historically been difficult, often involving road closures as employees physically visit the site. Information has been siloed by different departments, making it hard when people need to work together.

In the real world, conditions change all the time. Vegetation grows over power lines, roads crumble and harsh weather can cause cracks in infrastructure. If a structure collapses, the consequences can be a matter of life or death. Therefore, public agencies need information which is highly accurate and as up-to-date as possible.



See how Lidar data comes to life as a digital twin of our physical environment

"HERE removes the barriers that our customers have been grappling with for the last four to five years. It has taken away the hard part of the equation."

Dustin Parkman, Vice President, Mobility, Bentley Systems

Bentley®

About Bentley Systems Bentley Systems is the infrastructure engineering software company. We provide innovative software to advance the world's infrastructure - sustaining both the global economy and environment. Our industry-leading software solutions are used by professionals, and organizations of every size, for the design, construction, and operations of roads and bridges, rail and transit, water and wastewater, public works and utilities, buildings and campuses, mining, and industrial facilities.

Why HERE?



Innovation

Both companies have the same drive to break new ground.



Excellent support

HERE committed resources to accompany and support customers & partners with strong technical and industry expertise.



Quick & easy integration

Bentley can easily plug in HERE technology thanks to its open platform and location services.



Completeness

#1 location platform for completeness - including track & trace capabilities and ETA features.



Joint expertise

Customers can get all the location intelligence and processes they need with one solution.

HERE delivered thousands of km of up-to-date Lidar data



HERE captures the world's road networks and urban environments with its fleet of Lidar and 360° camera-equipped vehicles. HERE Lidar Data enables customers to identify and locate fixed assets with high geospatial accuracy, as well as measure, extract and report on those features.

Bentley Systems layers that information into digital twins for teams to visualize it and collaborate in one place.

Customers can access the digital twin through Bentley Systems' Orbit GT 3DM software or their own digital tools. They can add their own layers of data on top of that, or order bespoke datasets from HERE or other providers. Documents with geospatial data can be added to the digital twin – creating a single version of reality that can be used for colleagues around the world to work from in real time.

The HERE pathway to digital innovation

HERE enjoys engagements with leading companies in a full range of industries around the world. Insights into best practices and innovation from across industries is applied to specific customer engagements. With a powerful location platform that combines enterprise-grade location data, services and tooling, HERE looks for ways to help its customers innovate. Then, HERE offers the development support that allows for easy integration of HERE data with customer data to deliver applications that impact end-users in meaningful ways.

Bentley Systems' Orbit GT 3DM was delivered in this way.

"You need two things for digital twins: the data, and the software and technology that allows for effective consumption of that data. This is a perfect marriage of the two. It is a game-changer."

Dustin Parkman, Vice President, Mobility, Bentley Systems

Bentley Systems estimates that its customers will gain savings of 30% on maintenance, reduced road closures and improved safety

Orbit GT 3DM can also help reduce risk and litigation on construction projects as it makes liability clearer from the start.

Bentley Systems' software has changed the way engineers and architects, constructors and owner-operators can deliver infrastructure projects. Those assets can then be managed in a safer and more efficient way.

"When you have this very visual communication tool, it substantially reduces the risk in design and construction projects, because the outcome you want to achieve is so much clearer to the ecosystem of people who actually have to do the work."

Dustin Parkman, Vice President, Mobility, Bentley Systems

Since the pandemic, teams have realized it is possible to work remotely – and they can make huge savings when they do. "It could really change the way assets are managed, as well as designed and constructed," said Dustin Parkman, Vice President, Mobility at Bentley Systems.



The results



30% savings

asset management costs dramatically reduced



15-20% fewer road closures

Fewer site visits means much less disruption to the economy and society



Improved safety

Risk of accidents is minimized when crews can avoid dangerous visits to the site

Ready to plan and deliver infrastructure projects faster?



You probably have some questions first. How can location technology help me? What types of data and services does HERE provide? Are they easy to integrate?

Get in touch

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How Bentley Systems

use digital twins to get
infrastructure fixed faster



Webinar
 Smart Tools for Smart Cities:
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 Improve Quality of Life



On the blog

These cities' digital twins can give us double the insights

About HERE Technologies

HERE, a location data and technology platform, moves people, businesses and cities forward by harnessing the power of location. By leveraging our open platform, we empower our customers to achieve better outcomes – from helping a city manage its infrastructure or a business optimize its assets to guiding drivers to their destination safely. To learn more about HERE, including our new generation of cloud-based location platform services, visit **360.here.com** and **www.here.com**.

We're HERE















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