



# Urban Mobility Simulation Solution for Smart Cities

## DIGITAL TWINS FOR MULTIMODAL TRANSPORTATION PLANNING

Cities are facing challenges due to rapid population growth, ongoing urbanization, and unprecedented infrastructure demands. Bentley's Urban Mobility Simulation Solution leverages modeling, simulation, and analysis tools to provide insights into the design process so cities can simplify and improve life for citizens whether they are riding public transport, cycling, or walking. Infrastructure professionals can reduce the time and effort needed to simulate and model all traffic, whether vehicle or pedestrian, streamlining the design process for infrastructure projects.

## CONNECT AND MANAGE DATA

- ♦ **Design:** City staff can provide input to engineers responsible for optimizing infrastructure for mobility, providing access to accurate information faster, increasing the efficiency and effectiveness of the design process.
- ♦ **Construction:** With this solution, city staff can consider the impact of construction projects on pedestrian and vehicular traffic to minimize impact to daily life.
- ♦ **Operations:** City officials can leverage these tools to predict and respond to the impact of upcoming and real-time events, ensuring optimal efficiency of traffic.

## INCREASE EFFICIENCY, SAFETY AND RESILIENCY

Digital twins make it easy to understand the impact of transportation infrastructure and services in cities, and supports the planning process for safer, more resilient cities across the lifecycle:

- ♦ **Model:** Build a model based on key inputs such as population data, demand data and network data.
- ♦ **Forecast:** Predict and simulate the impact of demographic, infrastructure, and transport policy changes to plan ahead.
- ♦ **Analyze:** Set up and run user-defined analyses and generate rich outputs based on a variety of metrics, including accessibility, efficiency and equity.

## CAPABILITIES THAT MAKE YOUR CITY SAFER

### Transportation Planning, Modeling, and Analysis

- ♦ Multimodal, integrated transport planning, modeling, and analysis software that opens paths to better mobility.

### Pedestrian Modelling and Simulation

- ♦ Model and simulate the movement of people to optimize pedestrian infrastructure.

## KEY BENEFITS

- ♦ Optimized workflows and minimized disruptions to citizen life
- ♦ Efficient transportation planning, modelling and analysis
- ♦ Enhanced pedestrian infrastructure
- ♦ Reduced timeline and costs of traffic operations projects
- ♦ Improved communication and collaboration among teams

