

# unlocking the future of smart environments

better-informed decisions with the help of data integration and visualization

# 3D Digital Twins

3D Digital Twins are detailed three-dimensional models that represent real-world objects or environments, enabling real-time analysis, simulation, and decision-making. They incorporate data from various sources such as aerial surveys, laser scanning, GIS data, and building information models (BIM). These models allow stakeholders to visualize, analyze, and manage assets more effectively, reducing costs, enhancing efficiency, and supporting sustainable development.

## Our Expertise

At Datel, we leverage extensive experience in digital modelling and GIS solutions. Our portfolio includes projects such as the Estonian 3D Twin for e-Construction platform, helping government agencies and private clients harness the power of 3D modelling to improve urban planning, infrastructure management, and environmental decision-making.

## Real-World Application: 3D Twin for Estonian e-Construction platform.

3D Digital Twin for e-Construction platform comprises comprehensive 3D models of buildings across Estonia, built using data from the Estonian Land and Spatial Development Board. This digital tool significantly benefits sectors such as real estate, construction, and urban planning. It allows users, including private homeowners, to visualize how a building fits into the existing environment, assess shadow impacts, and consider design restrictions—all crucial for informed decision-making and environmental planning.



## Benefits of 3D Digital Twins:

- consolidates diverse data sources into a unified platform, improving accuracy and ease of access.
- facilitates seamless visualization of planned structures within existing environments, aiding architects and planners.
- planners can upload their Building Information model (BIM) to see how the planned object blends into the environment
- shows restrictions what should be considered when designing the buildings
- improves the quality of data in state registers

## Target groups:

city governments, urban planners, designers, architects

## Contact

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