CAE DIGITAL TWIN & IMMERSIVE TECHNOLOGIES

ADVANCED AIR MOBILITY INFRASTRUCTURE & COMMUNITY INTEGRATION

Maximizing efficiency, cost effectiveness, and data-driven decision making for Advanced Air Mobility (AAM) Infrastructure projects through digital twins

Unlock cost-savings & mitigate risk

Develop preventative and reactive action plans by identifying and addressing potential risks early in the planning process. Digital twins can help decision makers avoid costly mistakes and delays, reducing the overall cost of the project.

Predictive modeling

Simplify complex operations by simulating the impact of AAM infrastructure on the surrounding area, including noise levels, traffic patterns, and environmental impacts.

Enhanced operational efficiency

Streamline, organize and effectively evaluate data through a comprehensive view in real-time collaboration to enhance project efficiency

Enhanced data-driven collaboration

Experience a shared, real-time view of an AAM infrastructure project, enabling cross-function decision makers to work closely and remotely with other stakeholders to identify and address issues as they arise.

Immersive visualization applications

Provides am immersive (VR/MR) 3D visual representation of an AAM infrastructure project, making it easier for decision makers and community members to understand the scope and impact of the project.

Answering the "what-ifs" with digital twins

Here are examples of how this technology can enable data-driven decision making:

- Simulate the impact on traffic between 7 AM - 8 AM if a Vertiport is located near Theodore Roosevelt Bridge.

- Show me the optimal vertiport location that minimizes noise and traffic in residential areas, while ensuring high-levels of demand based on existing multi-modal transport networks

+30% Efficiency	-10% Operating Expenses	-25% Cost Savings	+20% Productivity

*Based on existing cost-benefit analysis of Digital Twins use-cases with Infrastructure projects

WEATHER
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TRANSPORT
DEMOGRAPHICS
BUILT ENVIRONMENT
INFRASTRUCTURE
TERRAIN