SNCF partners with Akila to Launch AI-Powered Digital Twin Platform

Pioneering the Future of Transportation Infrastructure - Starting with Monaco's Monte-Carlo Station

Paris, June 11 2025

SNCF Gares&Connexions, France's national railway operator, has joined forces with Akila, a leader in digital twin and AI platforms to deploy a groundbreaking real-time AI and simulation platform at Monte-Carlo train station in Monaco. This project is a major milestone for smart transportation infrastructure and smart cities, and was achieved by implementing the Akila digital twin platform while integrating NVIDIA Omniverse libraries and the newly announced NVIDIA Omniverse Blueprint for Smart City AI to deliver an application of NVIDIA 3-computer Physical AI architecture.

Akila's deployment at SNCF Monte-Carlo train station merges three powerful computing layers: simulation with digital twins, AI training, and deployment of AI agents — into a unified system that delivers real-time intelligence and automation to the built environment. By accelerating Akila's digital twin platform with NVIDIA Omniverse technologies and NVIDIA Omniverse Blueprint for Smart City AI, SNCF is revolutionizing how critical infrastructure is monitored, managed, and integrated with powerful AI agent-driven urban transformation.

SNCF partners with Akila - June 11, 2025

"This is not just a digital upgrade—it's a leap into the future of infrastructure. With Akila and NVIDIA, we're unlocking real-time understanding of our stations to boost efficiency, lower emissions, and ultimately serve the public better. This is a major milestone for SNCF group"

Fabrice Morenon
Managing Director, SNCF Gares&Connexions

## A Digital Twin Revolution in Rail and Transport Hub

Akila's platform ingests and consolidates diverse data sources—such as crowd movement, solar heating, airflow, and IoT sensors—to simulate building operations at high fidelity. Through NVIDIA Omniverse technologies, SNCF Gares&Connexions can visualize and interact with 3D digital twins enabling:

- Emergency simulation to improve safety

- Energy optimization that has already delivered a 20% reduction in energy usage

- Faster responses to operational issues, with a 50% cut in intervention times

- Preventive maintenance to achieve 50% downtime reduction and 100% on-time completion during deployment

- €30,000 in annual energy savings per site

- Enhanced training for autonomous systems

- New use cases in safety, security, and crowd control

This platform also provides a secure, sovereign digital environment thanks to Akila and NVIDIA's accelerated computing both on-premise and in the cloud, ensuring compliance with SNCF Gares & Connexions' data governance and cybersecurity standards.

Transforming Real Estate Operations in Real Time

Akila's real-time AI and simulation platform is helping SNCF Gares&Connexions shift from static building management to dynamic, predictive infrastructure operations. SNCF's service providers, like French computer vision specialist XXII, are now fully integrated into the Akila platform—offering advanced monitoring and data insight in a user-friendly interface.
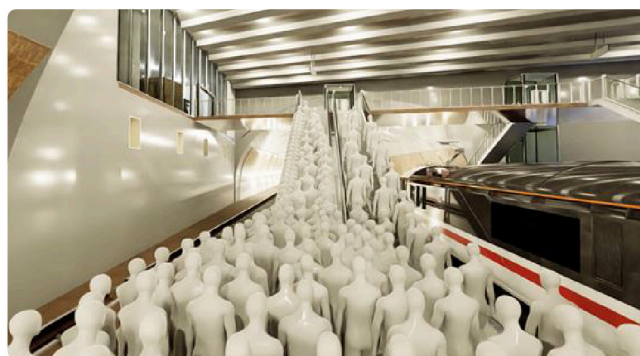
Real-Time AI, From Edge to Cloud

This integrated platform lays a foundation closely aligned with the NVIDIA Omniverse Blueprint for Smart City AI, a reference framework for building, testing, and optimizing AI agents in SimReady digital twins:

Train AI models

Currently, Akila uses SNCF's historical and real-time data to train its AI Assistant agent. It plans to augment its training data with synthetic data generated from NVIDIA Cosmos.

Simulate

Build a SimReady digital twin of specific locations and facilities with the Omniverse blueprint. Remote operators and partners can visualize and interact with infrastructure across locations in a digital twin. Powered by high-speed GPU, this computing enables deep simulations, operational forecasting, and predictive analytics.

Deploy AI Agents

With real-time sensor fusion and computer vision technology from NVIDIA Metropolis, AI agents can generate and act on insights derived from cross-system analytics while maintaining a safe and healthy environment for occupants. This includes understanding station energy, thermal loads, crowd movement, airflow, and IoT sensors.

> *"The experience and insights gained through this project are already proving invaluable. We are now working with cities and asset owners to scale this platform across global portfolios — enabling a real-time digital nervous system for the built environment."*

Philippe Obry
Vice President of Akila
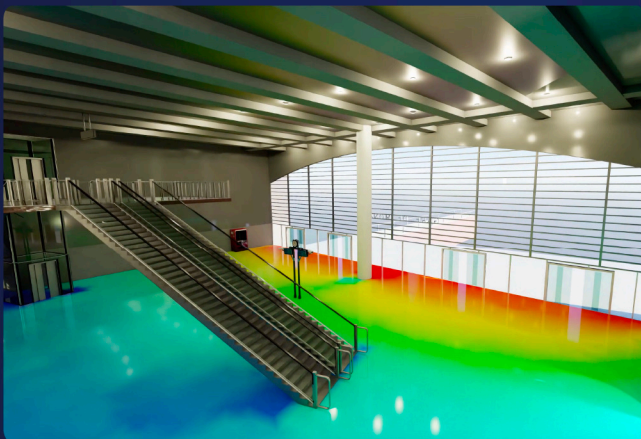
From Monaco to the World

This initiative is more than a local success — it is a model for how cities and transport networks can embrace physical AI to build resilience, sustainability, and efficiency.

Akila and its partners are already adapting this model to airports, ports, and logistics hubs across Europe, the United States, and the Middle East — where the appetite for smart infrastructure is growing rapidly.