See. Understand…Virtualize ….Plan

Axilion harness the power of AI to help cities take control of their mobility challenges. Our cutting-edge X WAY suite of AI Cloud Services ,available through Microsoft Azure, generate real-time traffic insights and optimized traffic plans, enhancing urban livelihood.

Axilion's technology uses groundbreaking AI Mobile Edge cameras that capture a road-traffic network and turn this collected date into valuable insights. Cities are then able to use these insights to prevent road traffic injuries, eliminate peak-time traffic congestion, enhance operational efficiency, and optimize traffic signals time plans.

Mobility the X WAY

Understand. Digitize. Solve.

Axilion's AI-based Cloud Services enable city mobility to be understood as never before. Live video feeds detect and track pedestrians, cyclists, scooters, cars, buses, trucks, and road hazards utilizing bespoke AI Mobile Edge cameras that scan roads. To ensure absolute security and GDPR compliance, video footage is streamed through the Azure IoT hub. The Edge compute and encryption technology of Azure Edge anonymize all faces and vehicle license plates.

X WAY PULSE empowers cities to become smarter through AI Mobile Edge cameras that capture their entire road-network. Video footage is seamlessly analyzed through the Edge to the Cloud with advanced AI models that identify traffic problems and their root causes.

The AI Mobile Edge cameras are conveniently mounted inside a vehicle and boost a wide lens to negate any issues surrounding weather conditions or the need for specialized equipment. With this technology, the user is able to view the city from a road user's perspective from any direction, rather than just a single interaction. The cameras built-in wireless technology with GPS and geofencing provide rich, continuous, and insightful data sets to the city. Additionally, the Azure IoT management services facilitate convenient management of all devices

Here are additional examples of Traffic Insights:
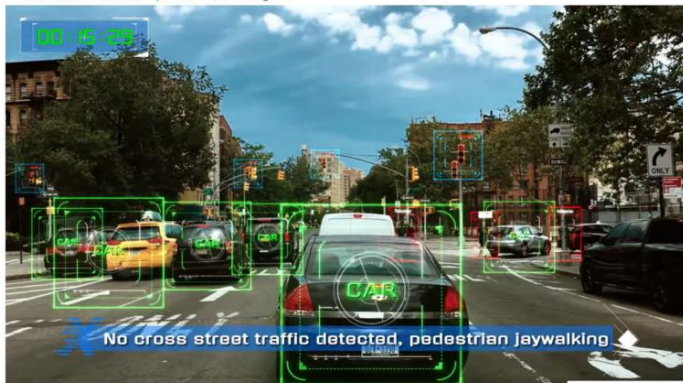
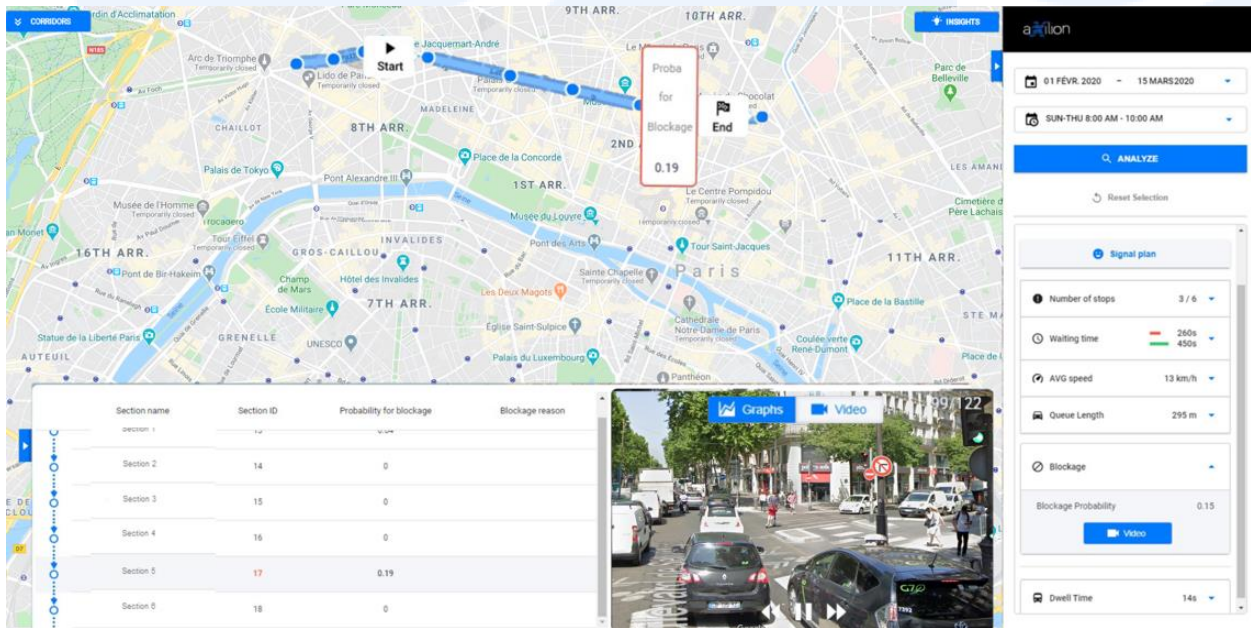The Monitoring SaaS module also identifies traffic hazards/obstacles:

No cross street traffic detected, pedestrian jaywalking

Traffic hazard detected

Understand. Digitize. Solve.

X WAY TWIN utilizes unique AI technology that models real-world conditions and creates a digital twin of the city. This digital twin enables new signal plans to be tested and optimized before being deployed.

Azure-based AI provides a new way to see the city. AI technology capable of identifying the exact road conditions empowers traffic engineers to understand the city and its traffic on any day, at any time. Through Axilion's easy to use dashboard, cities can access up-to-date information regarding congestion, delay time, queue lengths, average speed in segments, hazards, construction areas, bus waiting times, carbon emissions, and more.

 Axilion's advanced algorithms analyze the data streamed from the cameras, which constantly calibrate the digital twin. In addition, any unusual patterns, such as roadblocks or crowding, are detected when they occur. X WAY TWIN learns the city's traffic patterns at different times of the day or week and continuously updates and maps the different patterns.

Understand. Digitize. Solve.

X WAY NEURAL utilizes Deep Reinforcement Learning AI technology that continuously improves city-wide mobility, resulting in optimized signal time plans that better serve all road users and streamline traffic.

X WAY NEURAL's superior AI technology visualizes the city on a network-wide level and uses the power of the digital twin to access the impact on city traffic. Axilion's technology empowers cities to better control and optimize traffic signals depending on traffic conditions, city priorities, or response scenarios.

X WAY NEURAL uses AI not only to visualize the city and highlight issues but allows the city to take mobility to a new level. The technology recommends a new way to control traffic signals, city speeds, toll locations, and process millions of variables that ultimately help them strike a better balance between traffic, transit, and pedestrians as well as reaching their carbon emission goals, and improve their citizens' safety.
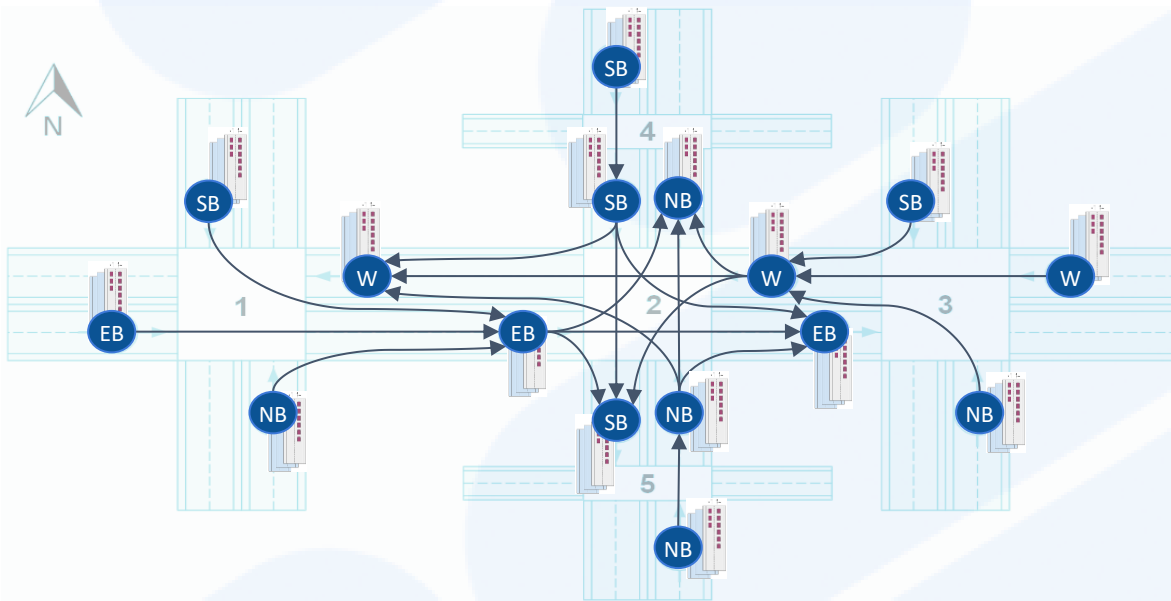
Axilion X WAY has already helped cities to bring their visions to life; our success stories include:

140,000 tons of yearly CO2 reduced .
Public transport ridership up 400%,and frequency increased by 66%.
Pedestrian safety increased with reduced casualties at signalized intersections.