

PAVEMENT
MANAGEMENT SYSTEM

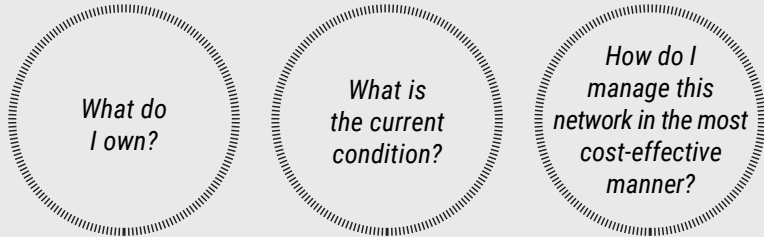
*DATA-DRIVEN, COST-
EFFECTIVE STRATEGIES.*

RoadMatrix™

Stantec.io



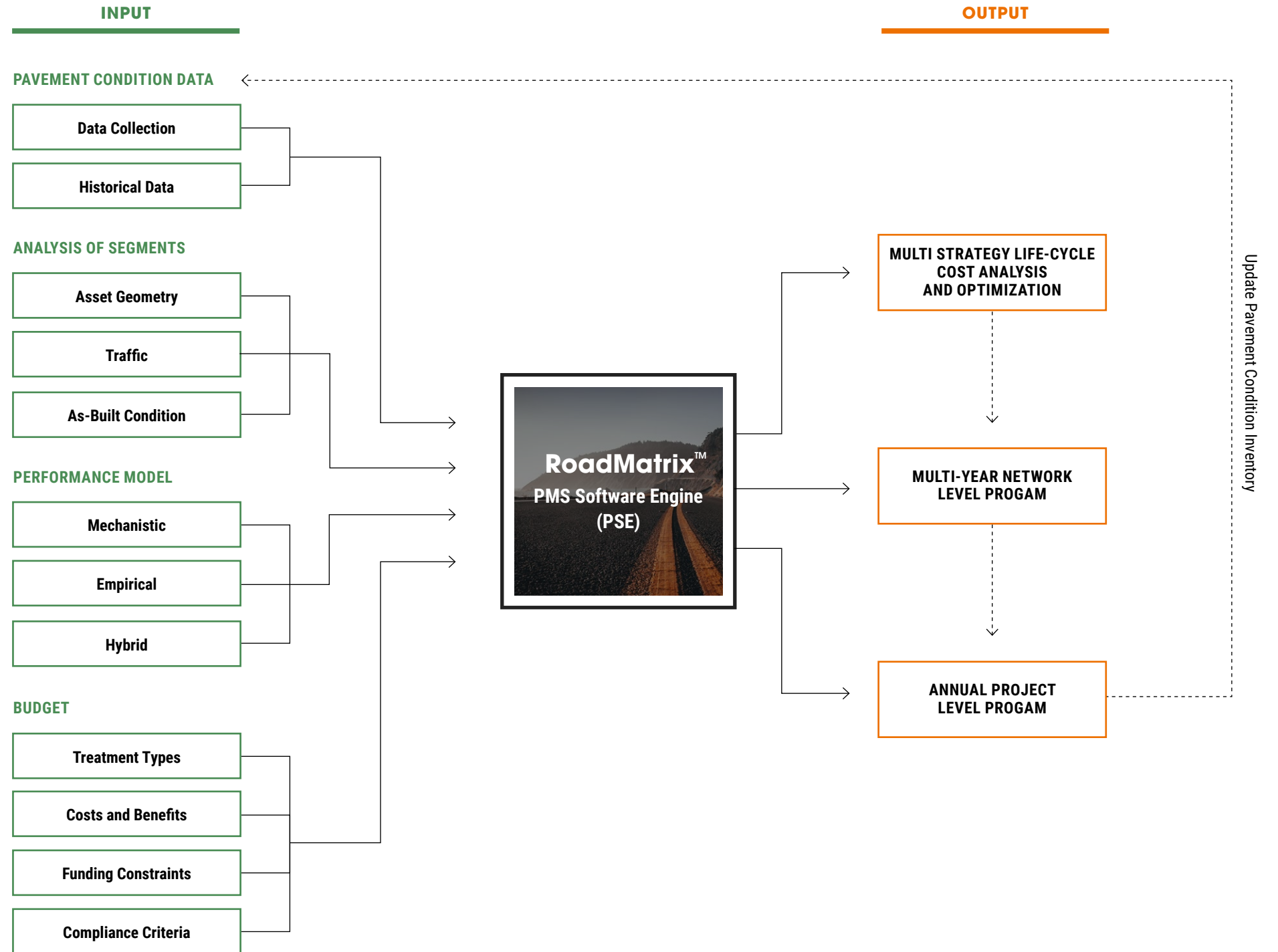
ROADMATRIX™ IS A COMPREHENSIVE TOOL USED TO CREATE OPTIMIZED ASSET MANAGEMENT PLANS BASED ON YOUR ABILITY TO ANSWER THREE FUNDAMENTAL ASSET MANAGEMENT QUESTIONS:



RoadMatrix™ utilizes well-structured decision-making processes that incorporate life-cycle costs into a systematic approach to maintaining pavement networks, quickly and efficiently assisting decision-makers in identifying sustainable, cost-effective strategies.

Pavement asset owners can start the analysis with a basic amount of data and include more data over time to refine the asset management plan. Over time, the system can grow and evolve with your organization.

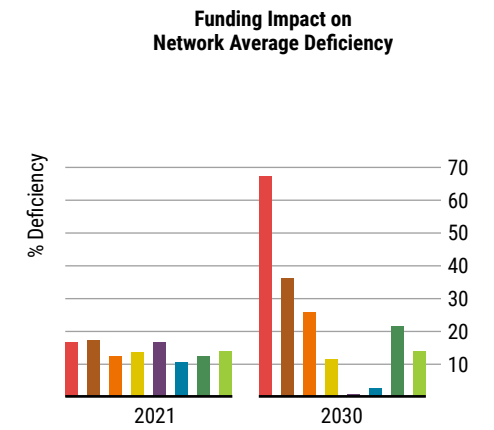
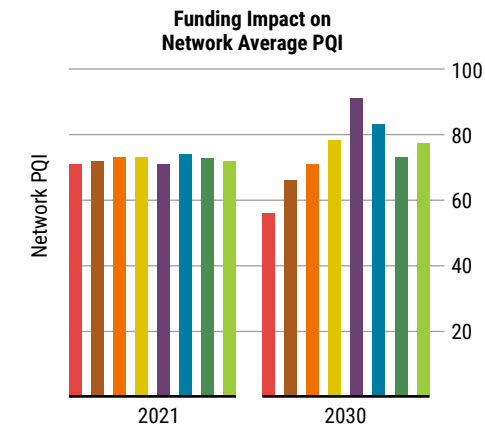
Asset management plan treatments are selected according to engineering principals to maximize the benefit at the minimum cost.



ROADMATRIX™ COMPONENTS



Analysis Scenario	10 Year Total Cost
Do Nothing Budget	0.0
\$1.3M per Year	\$13M
\$2.0M per Year	\$20M
\$3.0M per Year	\$30M
Do All Last Year	\$47M
Need Driven Budget	\$36M
Maintain 2020 PQI (73)	\$23M
Maintain 2020 Deficiency (13%)	\$28M



INVENTORY

A logically intuitive interface to provide instant access to the network information. View and update information by street, district, parish, functional classification, and more. Store roadway geometry, traffic information, structural composition, and other attributes.

INSPECTIONS

RoadMatrix™ supports multiple types of industry standard pavement performance data. Capture pavement surface distress, roughness (IRI), rutting, Ground Penetrating Radar (GPR) layer thicknesses, and Falling Weight Deflectometer (FWD) measurements.

WORK

Roadway assets are dynamic by their very nature. Users can update completed works programs, ensuring accurate condition, programming, and budgetary analysis. Users can also use work history to make more informed future treatment decisions.

CONDITION

Aggregate your pavement inspection and work history data to view the current condition of your network. Understand the condition of any road, functional classification, ward, or parish today, and use the deterioration models to predict where it will be over the next 5, 10, or 20 years.

BUDGET

Evaluate various funding scenarios based on data-driven decisions with budget or condition-based constraints, optimizing budgets to achieve desired results. Justify budget requests. Show how much money you need, why, and what impact it will have on your road network.

PROGRAM

Perform the right work at the right time. Turn analysis results into optimized, data-driven asset management plans with detailed performance curves customized to your goals and local environment. Maximize your benefits while minimizing cost.

IMAGES

Link geo-referenced right-of-way (ROW) images to RoadMatrix™ and access them via the mapping feature to create a virtual street view of the network. Complete virtual field trips, pre-engineering reviews, and more.

MAPPING

Visualize and analyze your network information in a geospatial – and color-coded – environment. Our seamless, two-way integration with an Esri™ ArcMap Geographic Information System (GIS) database also allows for creating work programs and analysis subsets.

SIDEWALKS

Simplify your sidewalk asset management and safety and accessibility efforts. Inventory and maintain your pedestrian sidewalks and ramps, capture performance – including ADA compliance – spend smarter, and mitigate against litigation.

ASSETS

RoadMatrix™ supports roadway and right-of-way assets such as signs and support, pavement markings, guardrails, curb, gutter and fire hydrants. Store information on type, location, MUTCD code, condition, and more, to ensure compliance with regulatory requirements.

REPORTING

Generate standard and custom reports for information needs across your organization, in tabular, chart, and graphical formats for effective communication. Communicate the effects of your investment decisions and the performance of your network against various measures.

INTEGRATION

Integrate maintenance management systems with RoadMatrix™ to enhance information sharing for operational and strategic planning. RoadMatrix™ has the capability to integrate with any asset management software currently on the market.



It is far less costly to keep a pavement asset in good condition through preventative maintenance and timely rehabilitation than it is to repair it once it has deteriorated to a point where a more intensive treatment is required.

2021 Corporate Knights Global 100

#5 **#1**

Ranked 5th most sustainable corporation in the world

Ranked the most sustainable corporation in North America

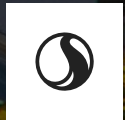


SUSTAINABILITY IS AT OUR CORE

Transportation asset owners are adopting a triple bottom line approach to asset management – balancing the environmental, social, and economic aspects of maintaining infrastructure assets. This approach enables agencies to function more holistically and to consider the impact of their practices.

In addition to having lower capital costs, pavement preventative maintenance and timely rehabilitation treatments are considered to be more sustainable practices. They require fewer raw materials and less construction effort, and the construction duration is typically shorter which results in less impact on roadway users.

Implementing Stantec's RoadMatrix™ PMS will not only help you to realize the magnitude of your pavement investment, but will preserve knowledge for succession, and ensure decisions will result in the best long-term outcome from your pavements, assuring a state of good repair and a sustainable future for the pavement assets, and the **community**.



Developed with **community** in mind