TIRE MANAGEMENT AND TPMS

EBOOK

uffizio

PURPOSE OF THIS EBOOK

This eBook is designed to **highlight the value of tire management and TPMS** in fleet operations by showcasing their role in improving safety, reducing costs, and increasing efficiency. It explains the unique benefits these solutions provide and why they are essential for modern fleet management.

It also aims to **educate system integrators** on seamlessly integrating tire management and TPMS into their offerings. Simplified explanations make the adoption process straightforward and accessible.

The eBook **demonstrates the flexibility** of these systems through real-life examples from industries like logistics, construction, and mining. These use cases show how tire management and TPMS adapt to different operational needs while delivering significant results.

To **build trust with data**, the eBook includes measurable data to validate the effectiveness of these systems. Case studies and results highlight how businesses have transformed their operations by adopting these technologies.

Lastly, the eBook **encouraging ease of integration** by offering practical insights on compatibility and implementation. This guidance helps system integrators provide better value to their clients while enhancing operational outcomes.

TABLE OF **CONTENTS**

INTRODUCTION

Tires are the second biggest expense after fuel in any fleet operation. With risks like wear and tear, punctures, and inefficient usage, managing tires becomes a critical task for fleet operators. Additionally, maintaining proper tire pressure is vital for safety, fuel efficiency, and reducing overall costs. Even minor variations in tire pressure can lead to accidents, excessive expenses, and unexpected vehicle downtime.

Our tire management and TPMS solution empowers fleet operators to take complete control of their tire-related operations. While the tire management system focuses on tracking performance, maintenance, and costs, the TPMS ensures real-time monitoring of tire pressure and temperature. Together, these systems help reduce costs, enhance safety, and boost operational efficiency.

This eBook explores how our integrated solution provides fleet operators with actionable data and instant insights. It highlights how businesses can maximize tire lifespan, prevent issues, and make data-driven decisions to improve overall fleet performance.

CHALLENGES IN TIRE MANAGEMENT AND TPMS

High tire maintenance costs

Tires are prone to wear and tear, requiring regular inspections and replacements, which can lead to unplanned expenses without proper management.

Undetected Tire Pressure Issues

Underinflated or overinflated tires go unnoticed, leading to uneven wear, reduced fuel efficiency, and potential safety risks.
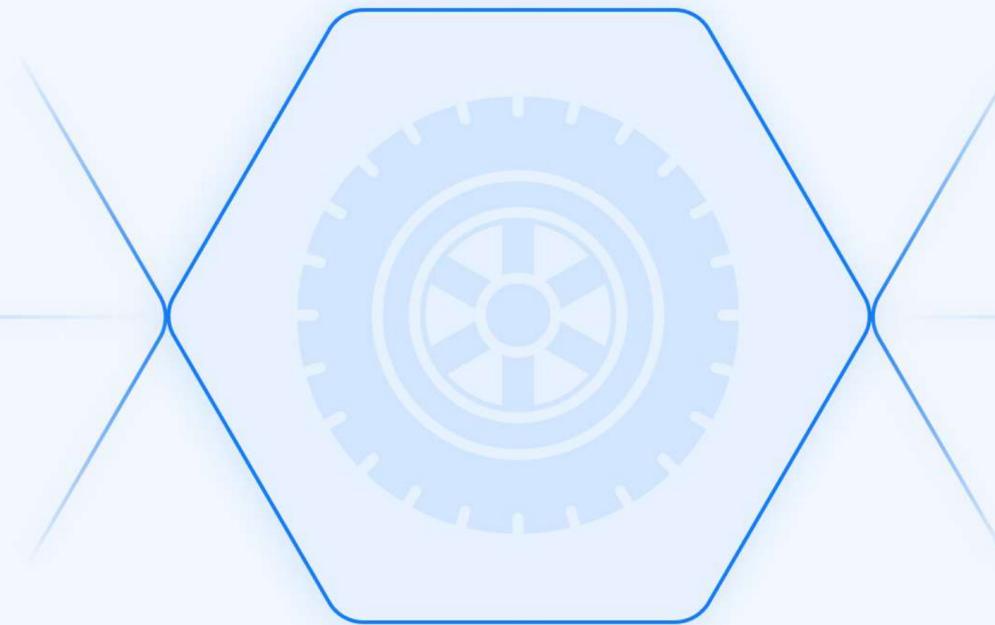
Manual inspection challenges

Manual processes are time-consuming, error-prone, and make it difficult to maintain accurate records for tire conditions.

Difficulty In Analyzing Tire Performance Trends

Without analytics, identifying patterns in tire performance and making data-driven decisions becomes a challenge.

TIRE MANAGEMENT AND TPMS FUNCTIONALITIES

This section explains how our tire management and TPMS features help fleet managers ensure safety and improve operational efficiency. It enables real-time tracking of tire pressure and temperature. It helps to prevent tire blowouts and avoid costly downtime. Managers can monitor tire wear, schedule timely replacements, and analyze performance trends to make informed decisions.

The dashboard and reports are intuitive and provide clear insights into tire conditions, usage patterns, and predicted mileage. With user-friendly controls and mobile accessibility, fleet managers can maintain optimal tire health and performance anytime. It ensures safer and more efficient fleet operations.

Dashboard   **Live tracking**   **Reports**   **Charts**   **Alerts**

TIRE STOCK MANAGEMENT

Managing tire inventory can be a challenge, especially when done manually. Tire stock management ensures fleet managers can maintain an accurate overview of inventory, enabling better planning and cost efficiency.

Tire Overview

Company	Branch	Tire Brand	Tire Model	Tire Serial No	Tire Condition	Size	Tire Status	Tire Predicted Distance
Aar Demo	Demo	Apollo	General	AJN123	New	20	In Stock	0.0
Company Demo	ComDemo1	Aeolus	General	465	New	123	On Wheel Activa	123.0
Howen Test	Howen Test	Apollo	General	65432	New	60	On Wheel 100208	5000.0
Telematics	Telematics	Bandag	General	123456	New	20	On Wheel ITriangle Obd	20.0
Trackgps	Trackgps	Apollo	General	3564879141	New	8001	In Stock	100000.0
Trackgps	Trackgps	Apollo	General	3564879140	New	8001	In Stock	100000.0
Trackgps	Trackgps	Apollo	General	3564879139	New	8001	In Stock	100000.0
Trackgps	Trackgps	Apollo	General	3564879138	New	8001	In Stock	100000.0
Trackgps	Trackgps	Apollo	General	3564879137	New	8001	In Stock	100000.0
Trackgps	Trackgps	Apollo	General	3564879136	New	8001	In Stock	100000.0
Trackgps	Trackgps	Apollo	General	3564879135	New	8001	In Stock	100000.0
Trackgps	Trackgps	Apollo	General	3564879134	New	8001	In Stock	100000.0
Trackgps	Trackgps	Apollo	General	3564879133	New	8001	In Stock	100000.0
Trackgps	Trackgps	Apollo	General	3564879132	New	8001	In Stock	100000.0
Trackgps	Trackgps	Apollo	General	3564879131	New	8001	In Stock	100000.0

Sidebar

- uffizio
- Dashboard
- Tracking
- Reports
- Chart
- Settings

KEY FEATURES

Easily upload tire stock details

Fleet managers can quickly upload tire stock information through an Excel sheet. This feature saves time and reduces errors compared to manual data entry.

Track tire stock and location

Get a clear view of the number of tires available and their exact location. This ensures that inventory levels are always under control, preventing overstocking or shortages.

Inspection history

Access the complete history of inspections and servicing for every tire. This helps managers keep track of tire conditions and plan timely maintenance.

BENEFITS OF TIRE STOCK MANAGEMENT

Add Tire

Company*:	ComDemo
Branch*:	Demo
Tire Brand*:	MRF
Tire Model :	General
Tire Serial No*:	23
RFID Tag :	5679854325625
Manufacture Date :	09-11-2024
Size*:	24 Inches
Tread Pattern :	--
Tread Depth*:	--
Tire Condition :	☑ Notification ☐ SMS ☐ Email

1 Better planning

With real-time visibility of stock levels, managers can plan replacements or purchases proactively.

2 Cost efficiency

Prevents unnecessary expenses by ensuring tires are used effectively and restocked only when needed.

3 Time-saving

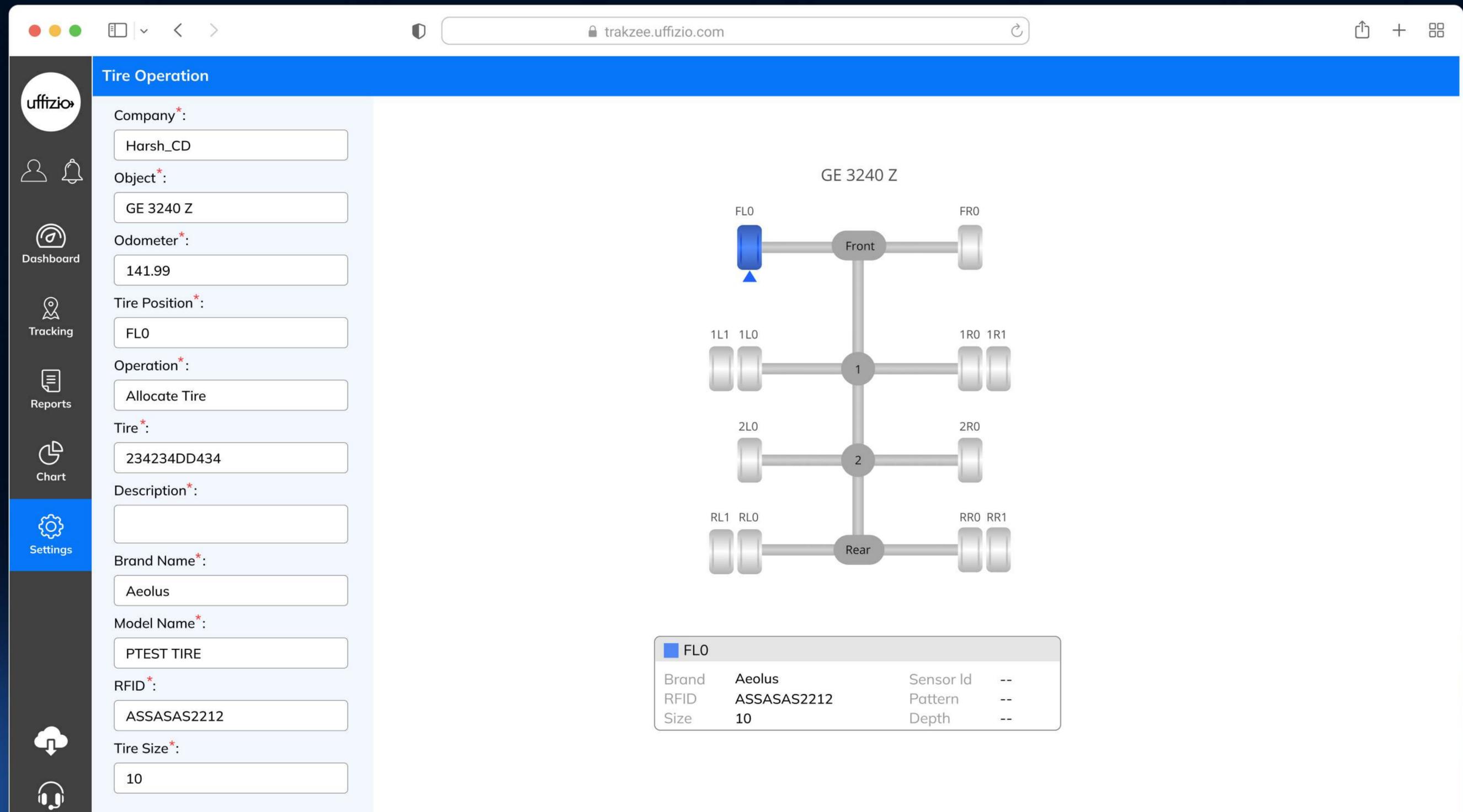Eliminates the need for manual record-keeping and reduces the time spent on inventory management.

4 Improved maintenance tracking

Keeps maintenance schedules on track, extending the lifespan of tires and ensuring safety.

TIRE OPERATIONS

Managing tire-related activities is essential to maintaining safety and extending tire life. Tire operations management ensures accurate records for every operation, enabling seamless maintenance.

KEY FEATURES

Monitor tire-related activities

Track operations like puncture repairs, rotations, regrooving, and remolding to ensure all tasks are logged.

Real-time updates on activities

Stay informed with instant updates about ongoing or completed tasks, ensuring nothing is overlooked.

Automated tracking with RFID tags

Use RFID tags to simplify operation tracking, reducing manual errors and ensuring precision.

Historical records for performance

Access past temperature readings during playback to analyze trends and identify recurring issues.

BENEFITS OF TIRE OPERATIONS MANAGEMENT

1   **Accurate records**

Provides clear and accessible data for every tire operation, reducing guesswork.

2   **Improved safety**

Timely maintenance and repairs minimize risks of accidents.

3   **Optimized performance**

Enhances tire efficiency and reliability through consistent tracking and maintenance.

TIRE INSPECTION

Regular inspections are vital for ensuring fleet safety and extending tire life. Tire inspection tools simplify the process, helping drivers and managers identify and resolve issues before they escalate.

16

KEY FEATURES

Mobile inspection tools

Allow managers to perform inspections using a mobile app, ensuring convenience and accuracy.

Early detection of potential issues

Identify problems like uneven wear, cracks, or punctures before they lead to tire failures.

Immediate issue reporting

Record findings during inspections and report problems instantly for faster resolution.

Maintain inspection history

Keep a detailed log of past inspections to ensure timely servicing and replacements.

BENEFITS OF TIRE INSPECTION

Tire Inspection Details form screenshot

1 **Enhanced safety**

Regular inspections reduce the risk of accidents caused by tire blowouts or other issues.

2 **Improved compliance**

Ensures adherence to vehicle inspection regulations and safety standards.

3 **Extended tire life**

Routine inspections and maintenance maximize tire usage and efficiency.

TIRE PRESSURE MONITORING

Maintaining the correct tire pressure is essential for fleet safety, fuel efficiency, and tire longevity. Tire pressure monitoring ensures tires are always at optimal levels for smooth operations

KEY FEATURES

Real-time pressure tracking

Monitor tire pressure continuously to ensure safe and efficient operations.
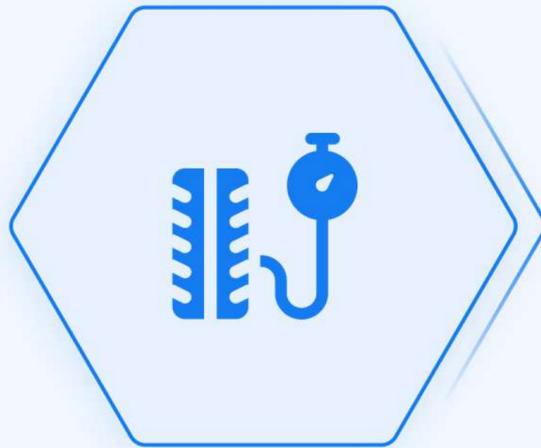
Supports optimal fuel efficiency

Properly inflated tires enhance vehicle performance and reduce fuel consumption.

Minimize wear and tear

Maintaining correct tire pressure reduces uneven wear and extends tire lifespan.

Simplifies maintenance planning

Consistent pressure tracking helps streamline maintenance schedules.

BENEFITS OF TIRE PRESSURE MONITORING
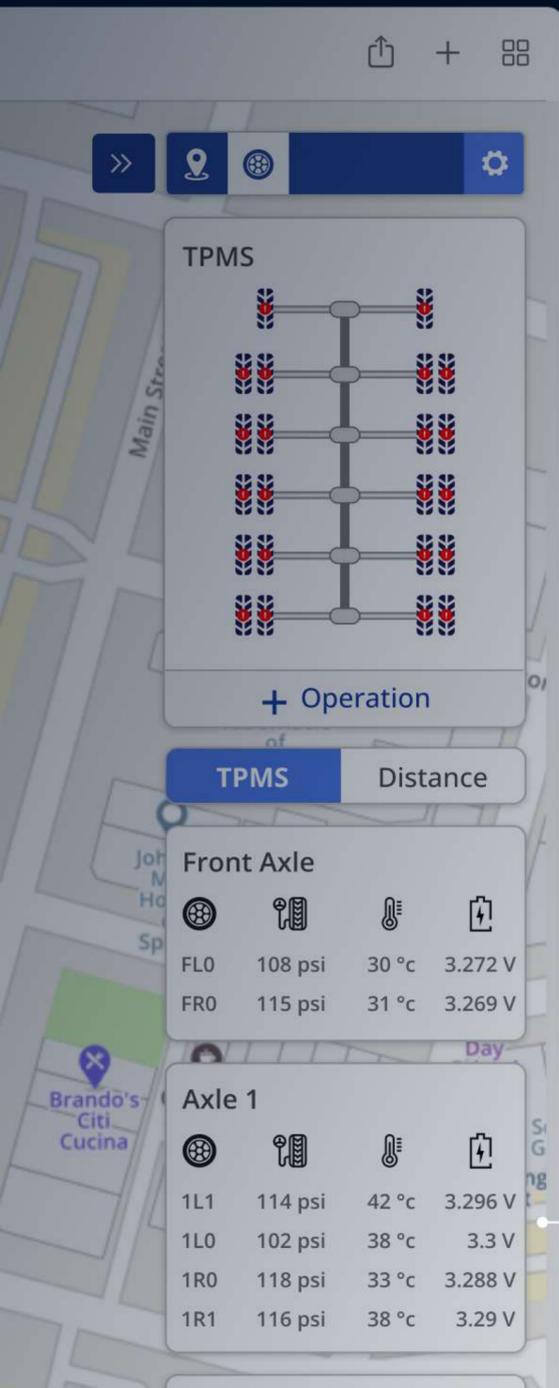
1 — Improved safety
Proper tire pressure minimizes risks of blowouts and other pressure-related failures.

2 — Better fuel economy
Ensures vehicles perform efficiently, saving on fuel costs.

3 — Enhanced tire performance
Maintains tire health, reducing operational costs associated with replacements.

4 — Operational efficiency
Allows for smooth fleet operations with well-maintained tires.

TIRE TEMPERATURE MONITORING

Tire temperature is a critical factor in ensuring safety and performance. Monitoring tire temperature helps prevent overheating and protects tires from damage caused by excessive heat.

24

KEY FEATURES

Real-time temperature tracking

Continuously monitor tire temperature during operations to identify any overheating issues.
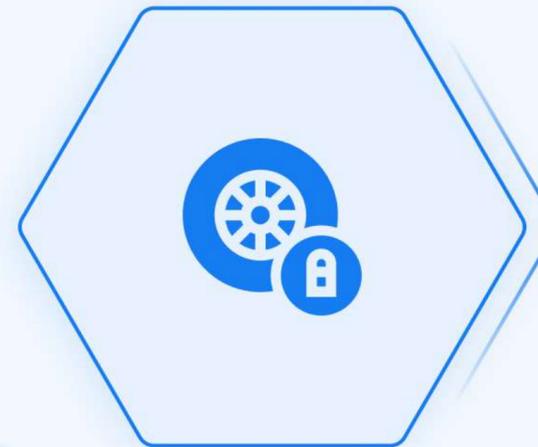
Protect tire integrity

Manage temperature levels to prevent rubber degradation and reduce the risk of failures.

Identify heat buildup early

Detect temperature variations caused by road conditions, vehicle speed, or load to take timely action.

Support long-term performance

Maintain stable temperatures to maximize tire lifespan and reliability.

BENEFITS OF TIRE TEMPERATURE MONITORING

1 **Enhanced safety**

Prevents accidents caused by overheating and tire blowouts.

2 **Improved tire durability**

Avoids heat-related wear, preserving tire quality over time.

3 **Operational reliability**

Ensures vehicles operate safely, even under demanding conditions.

TPMS

+ Operation

| TPMS | Distance |

Front Axle

FL0	108 psi	30 °c	3.272 V
FR0	115 psi	31 °c	3.269 V

Axle 1

1L1	114 psi	42 °c	3.296 V
1L0	102 psi	38 °c	3.3 V
1R0	118 psi	33 °c	3.288 V
1R1	116 psi	38 °c	3.29 V

Axle 1

1L1	114 psi	42 °c	3.296 V
1L0	102 psi	38 °c	3.3 V
1R0	118 psi	33 °c	3.288 V
1R1	116 psi	38 °c	3.29 V

26

INSTANT ALERTS AND ANALYTICAL TRENDS

Stay proactive with real-time alerts and data-driven insights. Instant notifications and trend analysis help fleet managers maintain tire performance and avoid disruptions.

Caution!

Rear right tire pressure exceeds safe limit. Current Pressure: 45 PSI

trakzee

Just Now

Warning!

High temperature in rear left tire.

Reduce Speed And Stop.
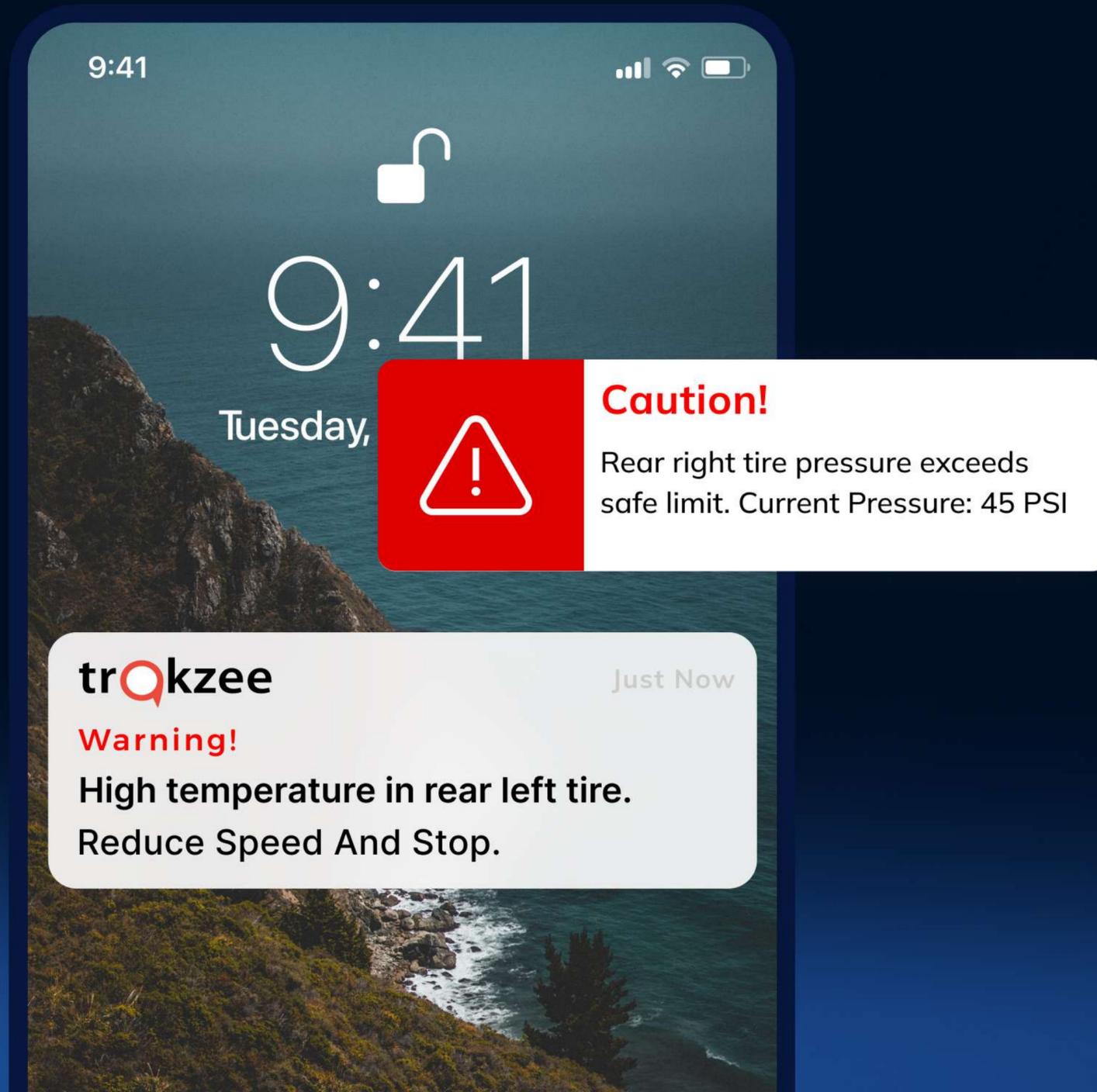
KEY FEATURES

Real-time notifications

Receive instant updates about critical tire issues, enabling immediate action to prevent failures.

Data visualization

View tire performance through intuitive charts and graphs for better decision-making.

Proactive maintenance planning

Use trend analysis to plan ahead and address potential issues before they escalate.

Analyze historical trends

Access historical data on tire conditions to identify recurring issues and patterns.

BENEFITS OF TIRE TEMPERATURE MONITORING

Warning!

Overload detected on rear tires.
Reduce load to avoid tire damage.
Rear axle weight exceeds 1,200 kg.

CLOSE

Wa

Rapid deflation detected in rear left tire.
Kindly take a break to avoid tire damage.
Temperature: 80°C (Safe limit: 65°C).

CLOSE

Warning!

Rapid deflation detected in rear left tire.
Pressure dropped from 30 PSI to 15 PSI
within 2 minutes.

CLOSE
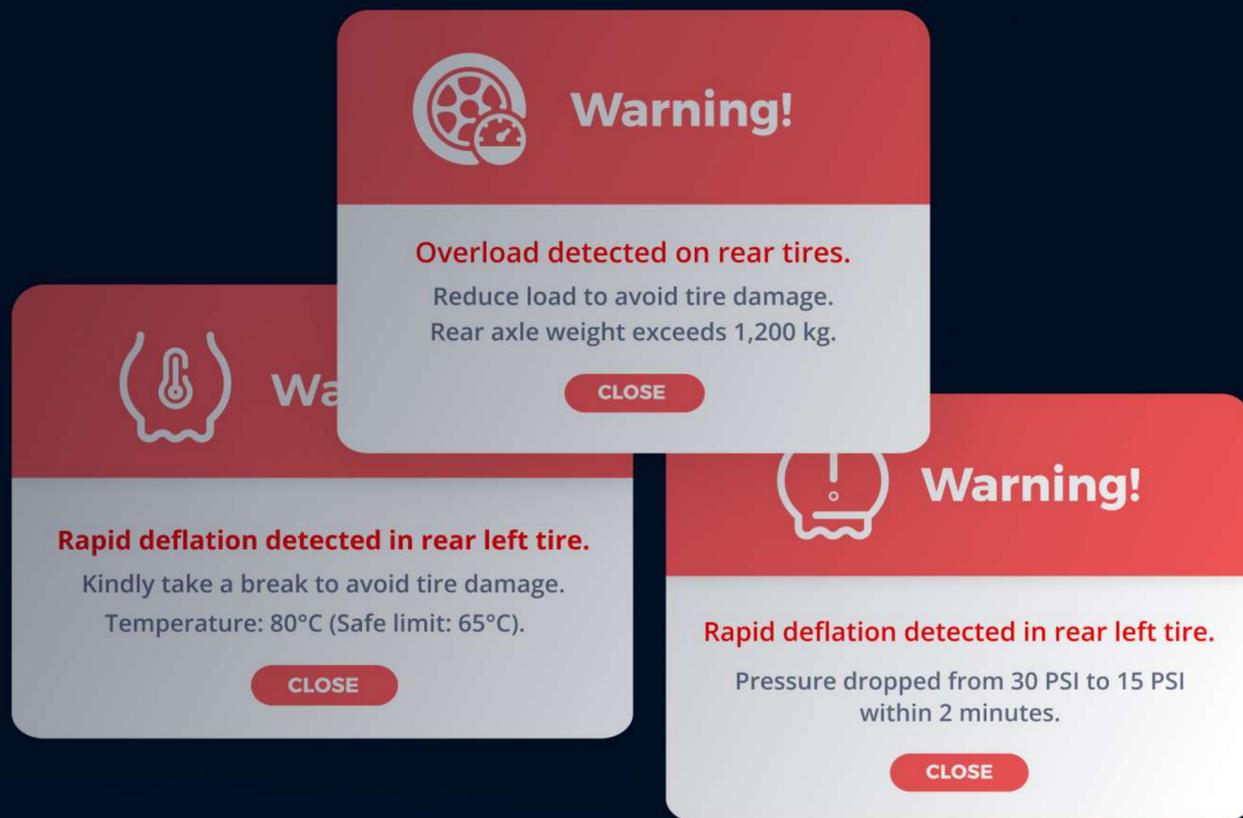
1

Improved safety
Timely alerts ensure problems are resolved quickly, reducing risks during operations.

2

Optimized maintenance
Historical trends help schedule maintenance effectively, minimizing downtime.

3

Informed decision-making
Data insights allow managers to make smarter choices for fleet efficiency.

4

Enhanced operational reliability
Proactive issue resolution ensures uninterrupted fleet performance.

DETAILED REPORTS

Reports are essential for ensuring the efficiency and safety of tire management and TPMS (Tire Pressure Monitoring Systems). They provide valuable insights into tire performance, wear, and pressure trends, empowering fleet managers to make informed, data-driven decisions.

With Uffizio's tire management and TPMS systems, generating precise, easy-to-understand reports becomes effortless. These reports enable fleet operators to monitor tire health, schedule timely maintenance, and optimize overall fleet performance. By transforming raw data into actionable insights, they ensure safety, reduce downtime, and extend tire life effectively.
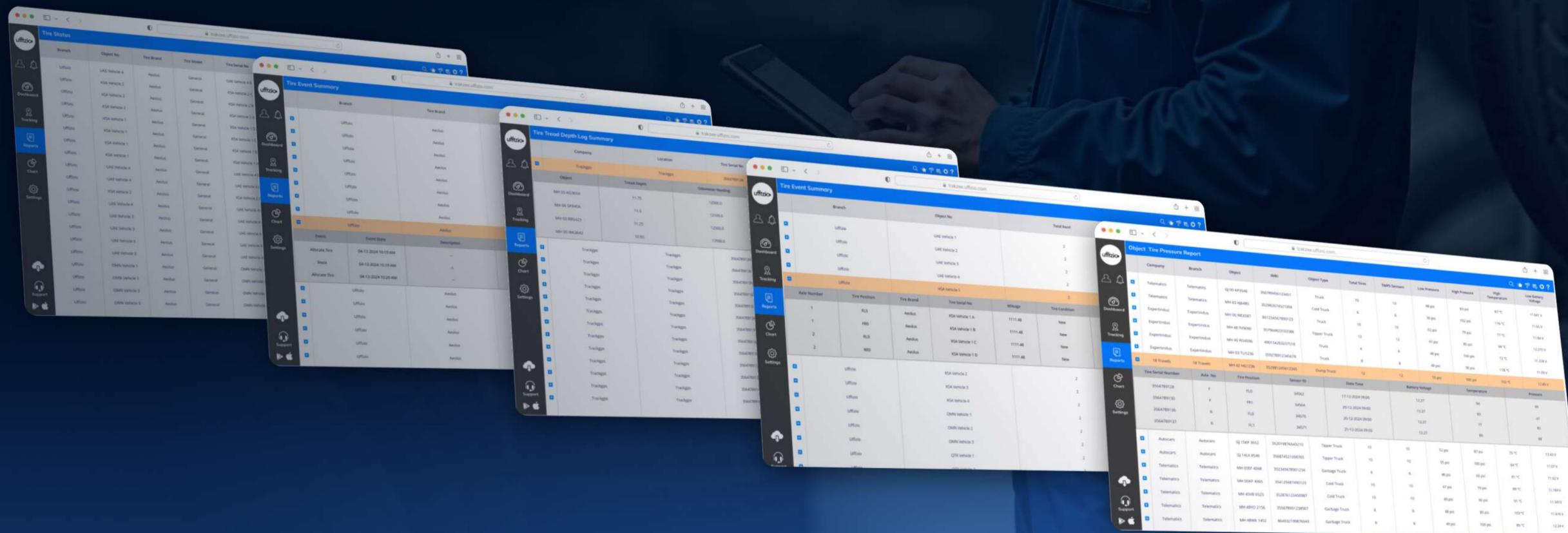
TIRE STATUS REPORT

The tire status report provides a detailed overview of every tire in the fleet, tracking its condition, position, and performance. It helps fleet managers maintain tire health and ensure operational efficiency.

Tire Status

Branch	Object No	Tire Brand	Tire Model	Tire Serial No	Size	Tire Position	Fit Data	Distance Covered	Distance / MM
Uffizio	UAE Vehicle 4	Aeolus	General	UAE Vehicle 4 B	16	FR0	04-12-2024	271.0	271.0
Uffizio	KSA Vehicle 2	Aeolus	General	KSA Vehicle 2 C	16	RL0	04-12-2024	453.0	453.0
Uffizio	KSA Vehicle 2	Aeolus	General	KSA Vehicle 2 B	16	FR0	04-12-2024	453.0	453.0
Uffizio	KSA Vehicle 2	Aeolus	General	KSA Vehicle 2 A	16	FL0	04-12-2024	453.0	453.0
Uffizio	KSA Vehicle 1	Aeolus	General	KSA Vehicle 1 D	16	RR0	04-12-2024	556.0	556.0
Uffizio	KSA Vehicle 1	Aeolus	General	KSA Vehicle 1 C	16	RL0	04-12-2024	556.0	556.0
Uffizio	KSA Vehicle 1	Aeolus	General	KSA Vehicle 1 B	16	FR0	04-12-2024	556.0	556.0
Uffizio	KSA Vehicle 1	Aeolus	General	KSA Vehicle 1 A	16	FL0	04-12-2024	556.0	556.0
Uffizio	UAE Vehicle 4	Aeolus	General	UAE Vehicle 4 D	16	RR0	04-12-2024	271.0	271.0
Uffizio	UAE Vehicle 4	Aeolus	General	UAE Vehicle 4 C	16	RL0	04-12-2024	271.0	271.0
Uffizio	KSA Vehicle 2	Aeolus	General	KSA Vehicle 2 D	16	RR0	04-12-2024	453.0	453.0
Uffizio	UAE Vehicle 4	Aeolus	General	UAE Vehicle 4 A	16	FL0	04-12-2024	271.0	271.0
Uffizio	UAE Vehicle 3	Aeolus	General	UAE Vehicle 4 D	16	RR0	04-12-2024	645.0	645.0
Uffizio	UAE Vehicle 3	Aeolus	General	UAE Vehicle 4 C	16	RL0	04-12-2024	645.0	645.0
Uffizio	UAE Vehicle 3	Aeolus	General	UAE Vehicle 4 B	16	FR0	04-12-2024	645.0	645.0
Uffizio	UAE Vehicle 3	Aeolus	General	UAE Vehicle 4 A	16	FL0	04-12-2024	645.0	645.0

KEY INSIGHTS

1 **Tire details at a glance**

View information such as tire brand, model, serial number, size, and current position to keep accurate records.

2 **Inspection and usage tracking**

Access the last inspection date, distance covered, and tread depth to monitor tire wear and condition.

3 **Performance monitoring**

Analyze metrics such as current tread loss, projected mileage, and tire lifespan to plan replacements.

4 **Real-time condition updates**

Keep updated on tire conditions to ensure timely maintenance and replacements.

BENEFIT

Enables detailed tracking of tire condition, ensuring safety, timely replacements, and optimized performance across the fleet.

TIRE EVENT SUMMARY REPORT

The tire event summary report provides a consolidated view of all tire-related activities across the fleet. It helps managers track events and ensure timely resolutions.

Tire Event Summary

	Branch	Tire Brand	Tire Serial No	Total Event	Last Event Date
+	Uffizio	Aeolus	UAE Vehicle 3 C	1	04-12-2024 10:14 AM
+	Uffizio	Aeolus	UAE Vehicle 3 B	1	04-12-2024 10:14 AM
+	Uffizio	Aeolus	UAE Vehicle 3 A	1	04-12-2024 10:14 AM
+	Uffizio	Aeolus	UAE Vehicle 2 D	1	04-12-2024 10:14 AM
+	Uffizio	Aeolus	UAE Vehicle 2 C	1	04-12-2024 10:13 AM
+	Uffizio	Aeolus	UAE Vehicle 2 B	1	04-12-2024 10:13 AM
+	Uffizio	Aeolus	UAE Vehicle 2 A	1	04-12-2024 10:13 AM
+	Uffizio	Aeolus	OMN Vehicle 1 B	1	04-12-2024 10:18 AM
−	Uffizio	Aeolus	OMN Vehicle 3 C	3	04-12-2024 10:20 AM

Event	Event Date	Description	Object No	Mileage	Event By
Allocate Tire	04-12-2024 10:19 AM	--	QTR Vehicle 3	0.0	gitex@2024
Stock	04-12-2024 10:19 AM	-1	QTR Vehicle 3	0.0	gitex@2024
Allocate Tire	04-12-2024 10:20 AM	--	OMN Vehicle 3	369.37	gitex@2024

	Branch	Tire Brand	Tire Serial No	Total Event	Last Event Date
+	Uffizio	Aeolus	OMN Vehicle 3 B	3	04-12-2024 10:20 AM
+	Uffizio	Aeolus	OMN Vehicle 3 A	Uffizio	04-12-2024 10:20 AM

35

KEY INSIGHTS

1 **Event tracking**

Logs all tire-related events, including punctures, rotations, regrooving, and replacements.

2 **Tire-specific data**

Provides detailed information like tire brand, serial number, and total events for each tire.

3 **Last event records**

Highlights the date and time of the most recent tire event, enabling timely follow-ups.

4 **Usage insights**

Allows managers to track event frequency for individual tires to identify patterns or recurring issues.

BENEFIT

Provides a clear overview of all tire activities, ensuring better tracking and resolution of events to maintain operational efficiency.

OBJECT TIRE REPORT

The object tire report provides an overview of all tires assigned to specific vehicles or assets. It helps fleet managers track tire allocation and usage across the fleet.

KEY INSIGHTS

1

Tire allocation details

Displays the number of tires assigned to each vehicle or object, ensuring proper inventory management.

2

Branch-specific data

Segregates tire information by branches, making it easier to manage large fleets.

3

Vehicle-specific records

Includes object numbers and related data to track which tires are currently in use for each asset.

4

Total tire count

Provides a clear count of total tires and axles for every object, enabling better planning.

BENEFIT

Offers a centralized view of tire allocation across the fleet, ensuring proper resource utilization and inventory control.

OBJECT TIRE PRESSURE REPORT

The object tire pressure report provides detailed insights into the tire pressure conditions for each vehicle or asset. It helps fleet managers maintain optimal tire pressure to ensure safety and efficiency.

Object Tire Pressure Report

	Company	Branch	Object	IMEI	Object Type	Total Tires	TMPS Sensors	Low Pressure	High Pressure	High Temperature	Low Battery Voltage
+	Telematics	Telematics	GJ 05 KP3546	356789456123451	Truck	10	10	48 psi	83 psi	87 °C	11.641 V
+	Telematics	Telematics	MH 03 HJ6485	352982674521004	Cold Truck	6	6	50 psi	102 psi	116 °C	11.65 V
+	Expertindus	Expertindus	MH 06 WE4587	861234567890123	Truck	10	10	62 psi	79 psi	77 °C	11.84 V
+	Expertindus	Expertindus	MH 48 TV9090	357964823102586	Tipper Truck	12	12	47 psi	85 psi	94 °C	12.275 V
+	Expertindus	Expertindus	MH 45 RO4596	490154203237518	Truck	4	4	48 psi	100 psi	72 °C	11.238 V
+	Expertindus	Expertindus	MH 03 TU1236	359278912345678	Truck	8	8	49 psi	90 psi	118 °C	11.09 V
−	18 Travels	18 Travels	MH 42 HG1236	352981245612345	Dump Truck	12	12	55 psi	100 psi	102 °C	12.45 V

Tire Serial Number	Axle No	Tire Position	Sensor ID	Date Time	Battery Voltage	Temperature	Pressure
3564789128	F	FL0	34562	17-12-2024 09:00	12.27	94	85
3564789130	F	FR1	34564	20-12-2024 09:00	12.27	83	47
3564789136	R	FL0	34570	20-12-2024 09:00	12.27	77	85
3564789137	R	FL1	34571	21-12-2024 09:00	12.27	89	88

	Company	Branch	Object	IMEI	Object Type	Total Tires	TMPS Sensors	Low Pressure	High Pressure	High Temperature	Low Battery Voltage
+	Autocars	Autocars	GJ 15KP 3652	352019876543210	Tipper Truck	10	10	52 psi	87 psi	75 °C	12.43 V
+	Autocars	Autocars	GJ 14LK 8546	356874521098765	Tipper Truck	10	10	55 psi	100 psi	84 °C	11.07 V
+	Telematics	Telematics	MH 03EF 4268	352345678901234	Garbage Truck	6	6	48 psi	65 psi	81 °C	11.62 V

KEY INSIGHTS

1   **Vehicle-specific pressure data**

Displays tire pressure conditions for each vehicle or asset, allowing for precise monitoring.

2   **TPMS integration**

Tracks pressure status using TPMS sensors, ensuring real-time accuracy in data collection.

3   **Pressure condition tracking**

Identifies low or high-pressure instances to detect irregularities and take timely action.

4   **Temperature monitoring linkage**

Monitors tire temperature alongside pressure to highlight potential risks.

BENEFIT

Enables precise monitoring of tire pressure and temperature for every vehicle, improving safety, operational efficiency, and tire longevity.

TIRE PRESSURE LOG SUMMARY

The tire pressure log summary consolidates detailed logs of tire pressure readings across the fleet, providing historical insights for better maintenance and performance optimization.

	Company	Location	Tire Serial No	Tire Position	Total Logs	Last Log Date
+	Trackgps	Trackgps	3564789124	FR0	1	19-12-2024 23:36
+	Trackgps	Trackgps	3564789125	1L1	1	15-12-2024 12:03
+	Trackgps	Trackgps	3564789126	1L0	4	17-12-2024 40:23

Object	Tire Pressure	Tire Pre Filling Pressure	Odometer Reading	Log Date	Log Added By	Log Added Date Time
MH 03 BK4562	98	77	9568	15-12-2024	trackgps@123.com	15-12-2024 11:16
MH 05 BK7896	102	98	11256	17-12-2024	trackgps@123.com	17-12-2024 08:10
MH 03 BK7546	98	95	10145	20-12-2024	trackgps@123.com	20-12-2024 12:05
MH 03 BK2463	100	98	10300	21-12-2024	trackgps@123.com	21-12-2024 16:10

	Company	Location	Tire Serial No	Tire Position	Total Logs	Last Log Date
+	Astelie	Astelie	3564789127	FL0	2	20-12-2024 46:36
+	Speed Track	Speed Track	3564789128	FL0	3	19-12-2024 31:26
+	Speed Track	Speed Track	3564789129	FL1	5	21-12-2024 27:38
+	Speed Track	Speed Track	3564789130	RL1	2	15-12-2024 15:36
+	Speed Track	Speed Track	3564789131	RL2	1	20-12-2024 32:42
+	Om Travel	Om Travel	3564789132	FL0	1	20-12-2024 23:24
+	Om Travel	Om Travel	3564789133	FL1	3	17-12-2024 45:02

KEY INSIGHTS

1 **Comprehensive pressure logs**

Maintains a record of all tire pressure readings for each tire, helping track trends over time.

2 **Tire-specific details**

Includes information such as tire serial number, position, and location for accurate tracking.

3 **Total logs overview**

Displays the total number of logs recorded for each tire, ensuring consistent monitoring.

4 **Last log date**

Highlights the most recent pressure check, allowing managers to identify tires that need immediate attention.

BENEFIT

Provides a historical view of tire pressure trends, enabling proactive maintenance and reducing the risk of pressure-related failures.

TIRE TREAD DEPTH LOG SUMMARY

The tire tread depth log summary provides a detailed record of tread depth measurements for each tire. It helps fleet managers track wear and schedule timely replacements to enhance safety and efficiency.

	Company	Location	Tire Serial No	Tire Position	Total Logs	Last Log Date
⊟	Trackgps	Trackgps	3564789128	1R1	4	19-12-2024 04:00

Object	Tread Depth	Odometer Reading	Log Date	Log Added By	Log Added Date Time
MH 05 KG3654	11.75	12000.0	15-12-2024 03:00	itriangle@obd.com	20-12-2024 14:25
MH 06 DF8456	11.5	12100.0	17-12-2024 05:00	itriangle@obd.com	20-12-2024 14:25
MH 03 RR5423	11.25	12500.0	19-12-2024 01:00	itriangle@obd.com	20-12-2024 14:25
MH 05 WK3642	10.95	13500.0	20-12-2024 04:00	itriangle@obd.com	20-12-2024 14:25

	Company	Location	Tire Serial No	Tire Position	Total Logs	Last Log Date
⊞	Trackgps	Trackgps	3564789129	FL0	1	19-12-2024 35:25
⊞	Trackgps	Trackgps	3564789130	FL0	2	19-12-2024 42:15
⊞	Trackgps	Trackgps	3564789131	FL1	2	19-12-2024 38:24
⊞	Trackgps	Trackgps	3564789132	RL1	3	20-12-2024 42:36
⊞	Trackgps	Trackgps	3564789133	RL2	1	20-12-2024 11:19
⊞	Trackgps	Trackgps	3564789134	FL0	3	20-12-2024 13:58
⊞	Trackgps	Trackgps	3564789135	FL1	1	19-12-2024 45:11
⊞	Trackgps	Trackgps	3564789136	1L0	2	21-12-2024 21:24
⊞	Trackgps	Trackgps	3564789137	1R0	1	21-12-2024 36:14

KEY INSIGHTS

1   **Detailed tread depth logs**

Maintains historical data on tread depth for all tires, helping track wear patterns over time.

2   **Tire-specific information**

Includes tire serial number, position, and location for accurate identification and monitoring.

3   **Total logs overview**

Displays the number of tread depth measurements recorded for each tire, ensuring consistent tracking.

4   **Last log date**

Highlights the date of the most recent tread depth measurement to identify tires needing immediate inspection.

BENEFIT

Enables proactive maintenance by tracking tire wear, ensuring safety and extending tire lifespan.

TIRE PREDICTED DISTANCE REPORT

The tire predicted distance report provides insights into the expected lifespan of each tire based on current usage and condition. This report helps fleet managers plan tire replacements effectively.

Tire Status

Company	Branch	Tire Serial No.	Tire Brand	Tire Model	Tire Postion	Fit Date	Object	Tire Predicted Distance	Remaining Distance	Tire Life Run	Tire Condition
Company Demo	ComDemo 1	456	Aeolus	General	FR0	27-03-2024	Activa	123.00	123.00	100.00%	New
Howen Test	Howen Test	65432	Apollo	General	FL0	23-03-2024	100208	5000.00	5000.00	100.00%	New
Telematics	Telematics	123456	Bandag	General	FL0	26-03-2024	ITriangle Obd	20.00	-3747.00	-18735.00%	New
Trackgps	Trackgps	3565789124	Apollo	General	FR0	23-03-2024	MH05HG6243	100000.00	100000.00	100.00%	New
Trackgps	Trackgps	3565789125	Apollo	General	RL1	23-03-2024	MH05HG6243	100000.00	100000.00	100.00%	New
Trackgps	Trackgps	3565789126	Apollo	General	RL0	23-03-2024	MH05HG6243	100000.00	100000.00	100.00%	New
Trackgps	Trackgps 1	3565789127	Apollo	General	RR0	23-03-2024	MH05HG6243	100000.00	100000.00	100.00%	New
Trackgps	Trackgps	3565789128	Apollo	General	RR1	23-03-2024	MH05HG6243	100000.00	100000.00	100.00%	New
Trackgps	Trackgps	3565789123	Apollo	General	FL0	23-03-2024	MH05HG6243	100000.00	100000.00	100.00%	New

Dashboard
Tracking
Reports
Chart
Settings

KEY INSIGHTS

1 **Predicted distance analysis**

Displays the total distance a tire is expected to run before needing replacement, based on its current condition.

2 **Distance traveled**

Tracks the actual distance covered by the tire to monitor its performance over time.

3 **Remaining distance estimation**

Highlights how much distance the tire can still cover, helping plan maintenance or replacements.

4 **Tire life assessment**

Provides insights into tire life percentage and condition, ensuring timely replacements.

BENEFIT

Provides a historical view of tire pressure trends, enabling proactive maintenance and reducing the risk of pressure-related failures.

INSIGHTFUL CHARTS

Charts provide a visual representation of tire performance and condition data. Uffizio's tire management and TPMS system includes dynamic charts that simplify complex information. These charts make it easy for fleet managers to identify tire wear trends, pressure fluctuations, and temperature irregularities at a glance.
By enabling quick problem detection without sifting through detailed reports, these charts save time and effort. Additionally, the clear and visual presentation of insights allows managers to share information effectively with stakeholders, ensuring better decision-making and improved fleet safety.
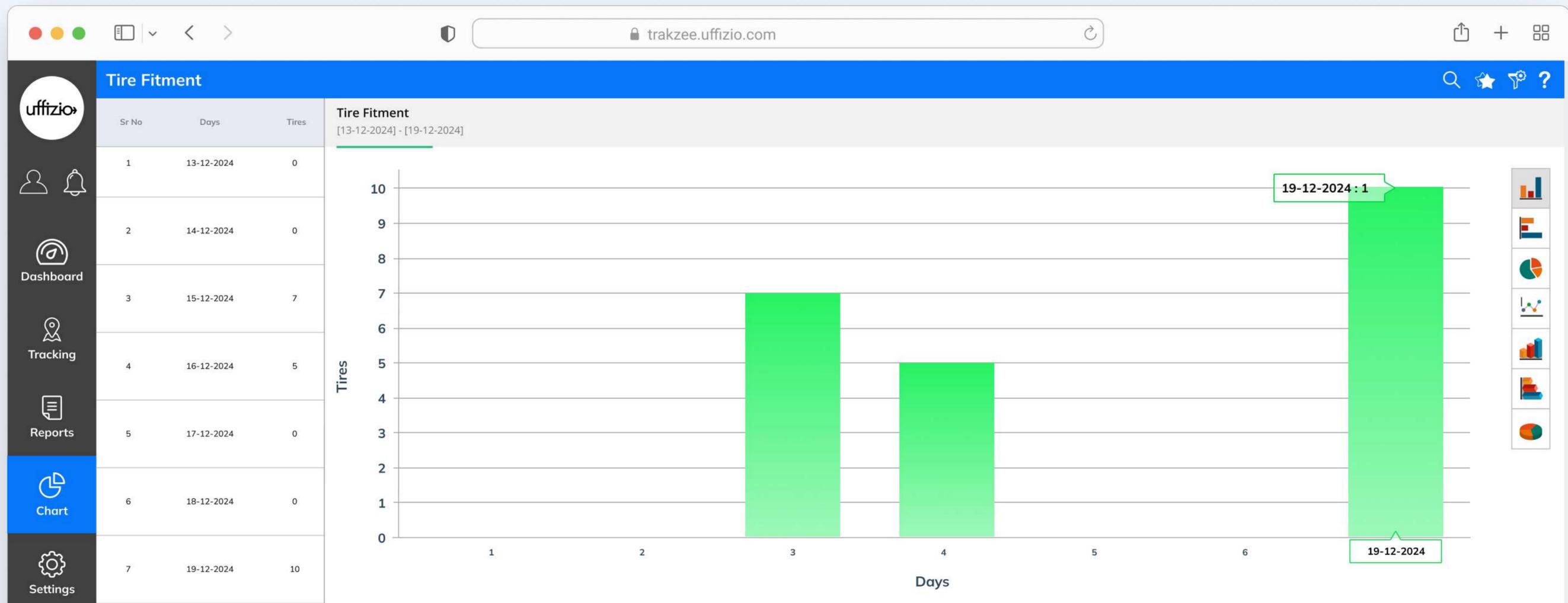
TIRE FITMENT CHART

→ **Purpose**

Tracks the number of tires fitted over a specific time period, providing visibility into tire installation patterns and activity levels.

→ **Benefit**

Offers insights into fitment trends, helping managers plan tire usage and replacements effectively. This minimizes operational delays caused by tire shortages or unplanned fitments.

→ **Usage**

Useful for understanding tire fitment frequency across the fleet, enabling better inventory planning and operational efficiency.

BRAND-WISE TIRE FITMENT CHART

→ **Purpose**

Displays tire fitment data categorized by brand, helping fleet managers analyze brand usage trends and preferences over time.

→ **Benefit**

Provides clear insights into tire brand performance and fitment frequency, enabling better decision-making when selecting reliable and cost-effective brands for the fleet.

→ **Usage**

Useful for evaluating brand-specific tire usage patterns and optimizing procurement strategies based on performance and fitment trends.


50
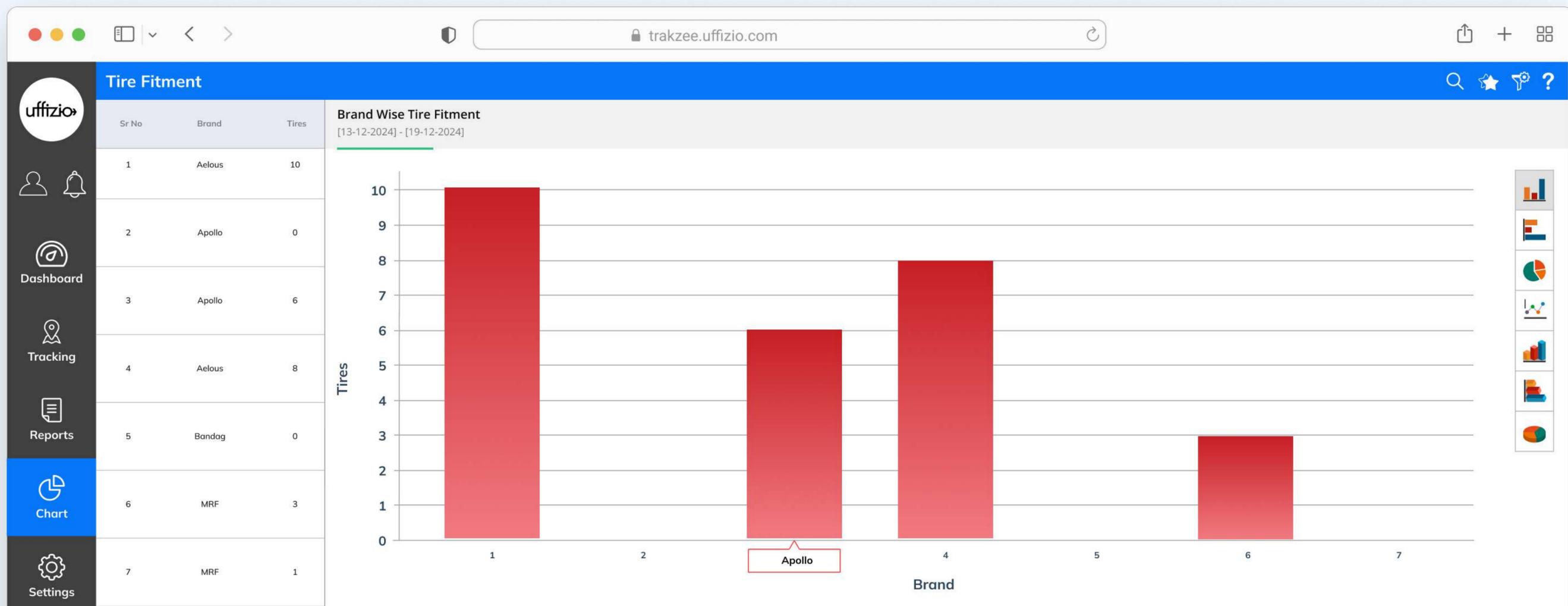
TIRE INSPECTION CHART

→ Purpose

Tracks the frequency and status of tire inspections over a specific time period, ensuring compliance with maintenance schedules and safety standards.

→ Benefit

Helps fleet managers identify gaps in tire inspections and ensure timely checks, reducing risks of accidents or tire failures.

→ Usage

Useful for monitoring inspection schedules, ensuring that tires are regularly checked and maintained for optimal performance and safety.

51
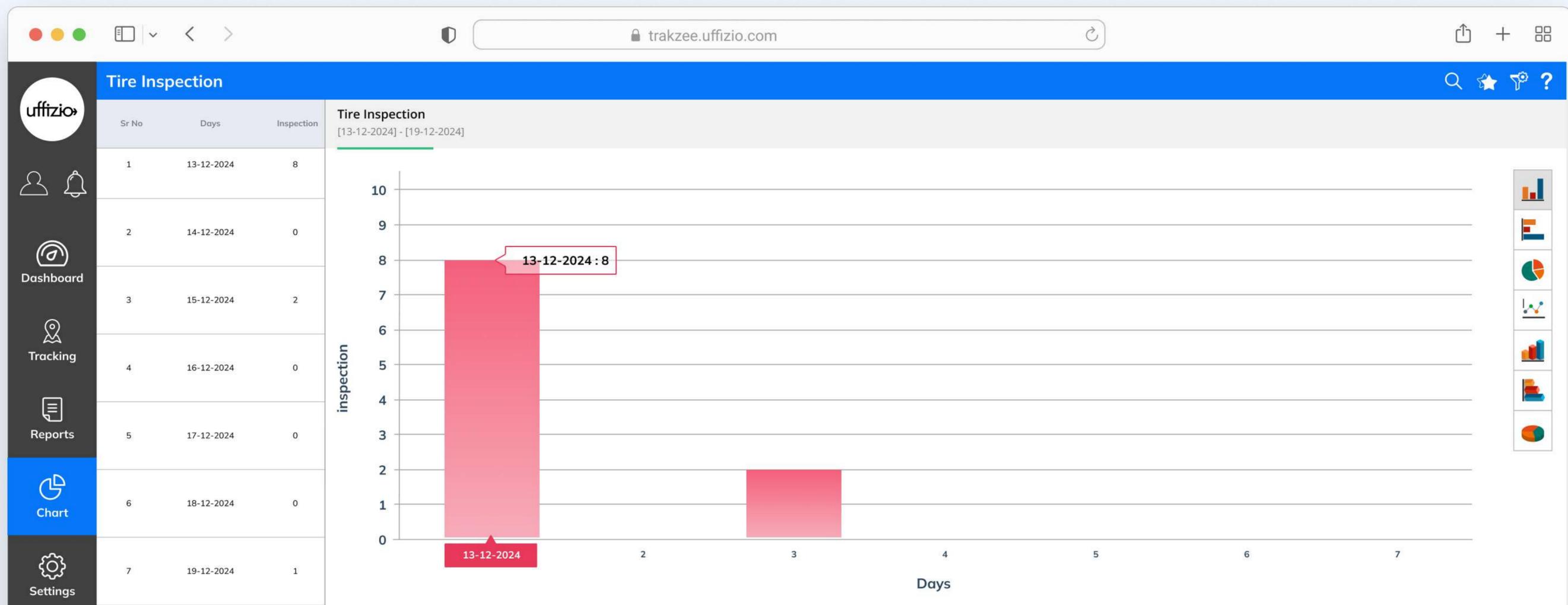
BRAND-WISE DISTANCE PER MM CHART

→ **Purpose**

Displays the distance covered by tires of each brand per millimeter of tread wear, helping fleet managers analyze tire efficiency and performance.

→ **Benefit**

Provides valuable insights into the durability and cost-effectiveness of different tire brands, enabling informed decision-making for future purchases.

→ **Usage**

Useful for comparing brand performance and optimizing tire selection based on mileage and tread wear efficiency.

52
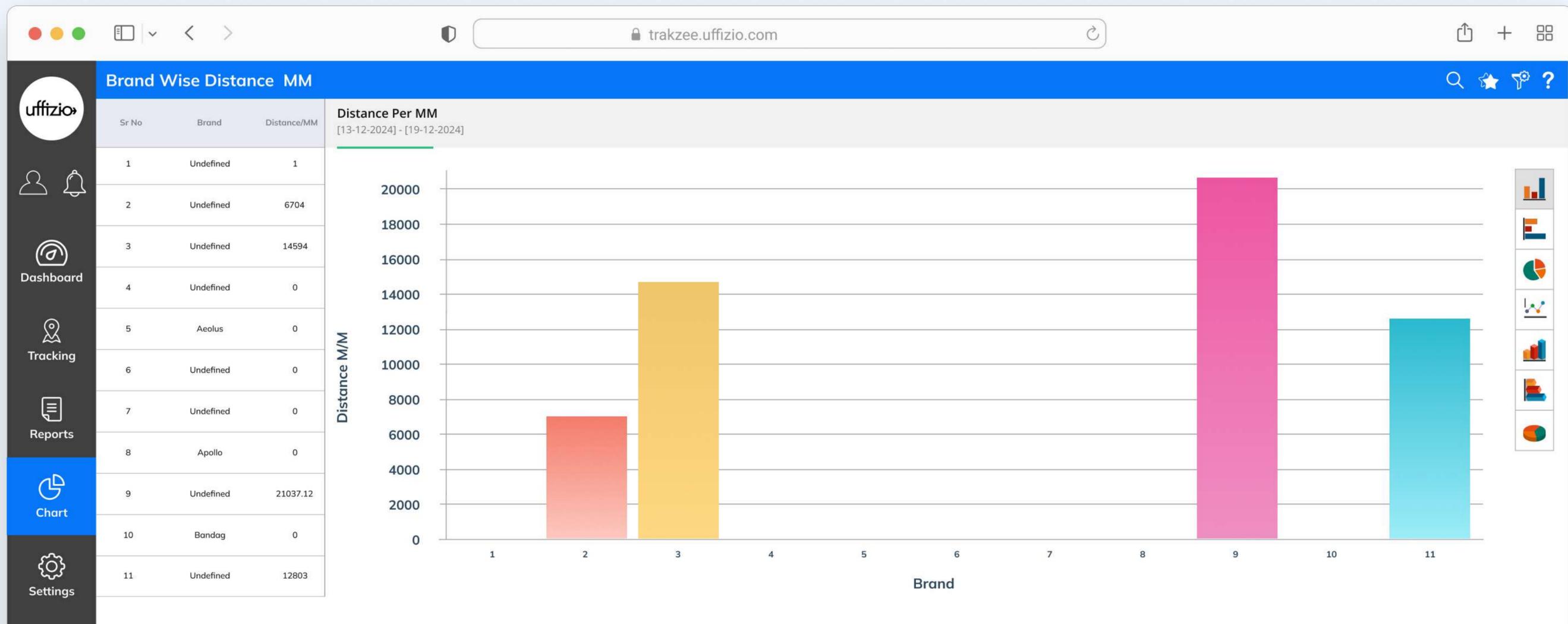
KEY REASONS TO INVEST

WHY SYSTEM INTEGRATORS SHOULD INVEST IN OUR TIRE MANAGEMENT AND TPMS SOLUTION

Delivering in-depth tire related analytics to your clients, helping them make informed decisions and reduce operational costs. These insights reinforce your value as an integrator, supporting your clients' strategic goals.

Strong after-sales support and training

Scalable solution

Accurate analytics

Customizable development options

Return on investment for clients

FROM COST CENTER TO PROFIT CENTER: THE ROI OF TIRE MANAGEMENT

Without Software	Cost Parameters per year	With Software
$ 180	Tire Management Cost	$ 120
$ 480	Downtime cost per truck	$ 60
$ 720	Tire replacement cost per truck	$ 540
$ 1380	Total cost per truck	$ 720
$ 13800	Total cost for 10 trucks	$ 7200

Cost Saving per truck per year with Tire Management Software $ 660

MANAGE YOUR FLEET WITH OUR MOBILE APP

Get instant access to live data, customizable reports, and actionable alerts. Manage your fleet professionally with ease through our mobile app.
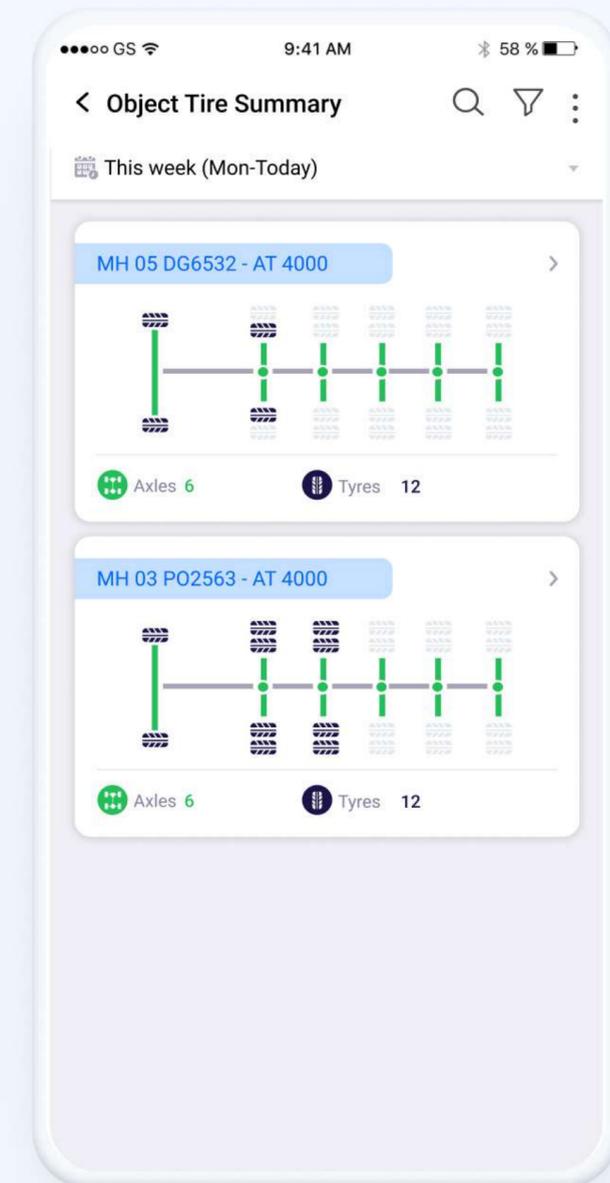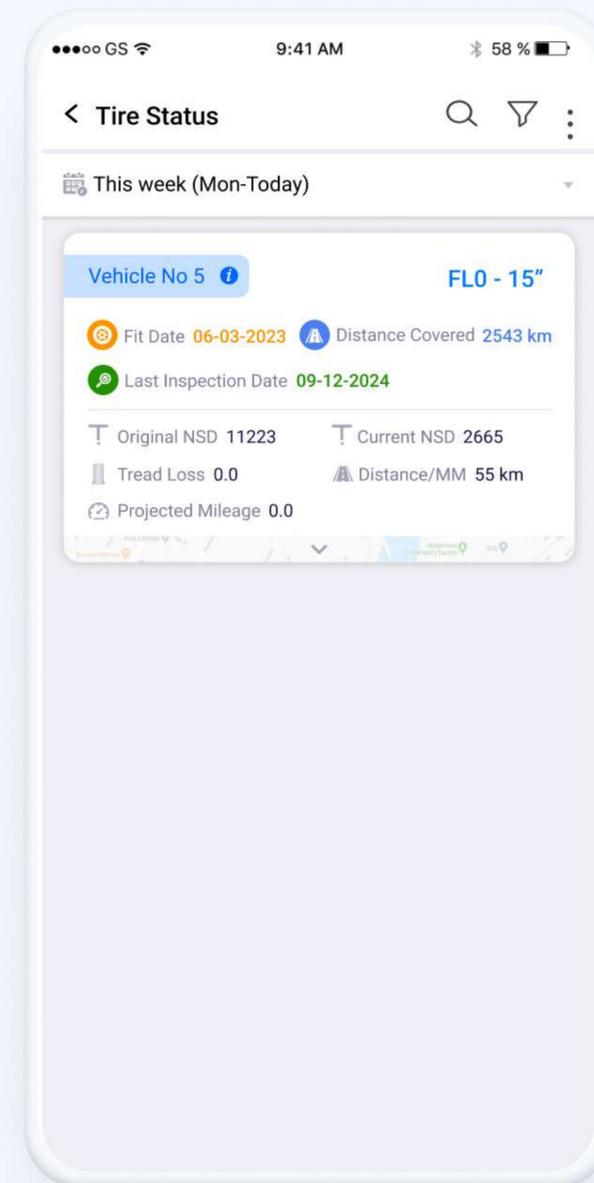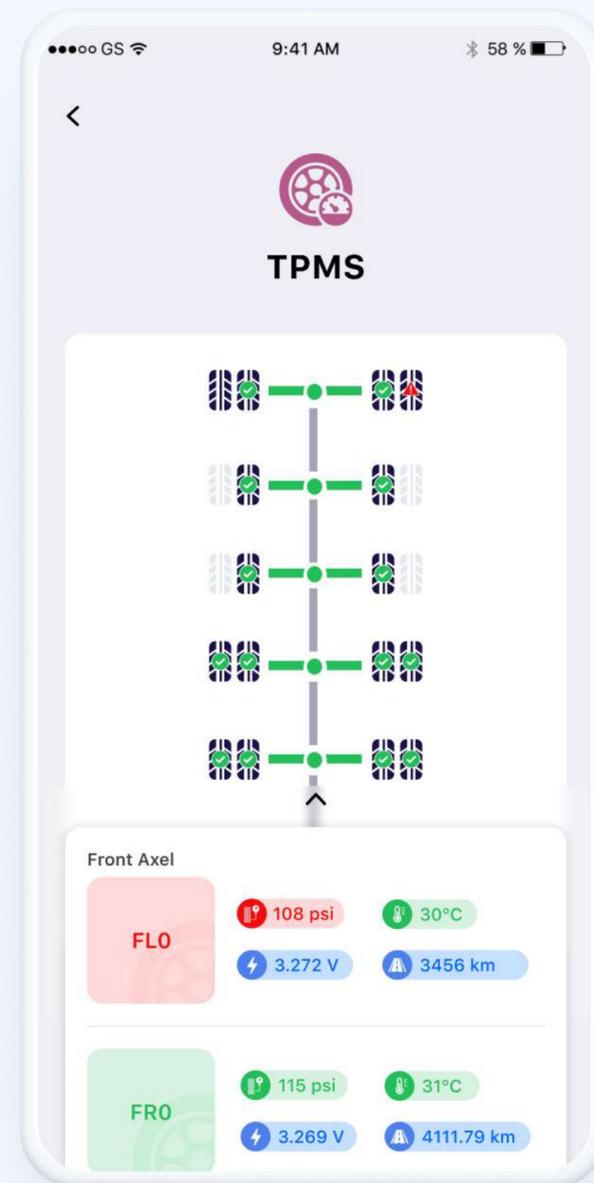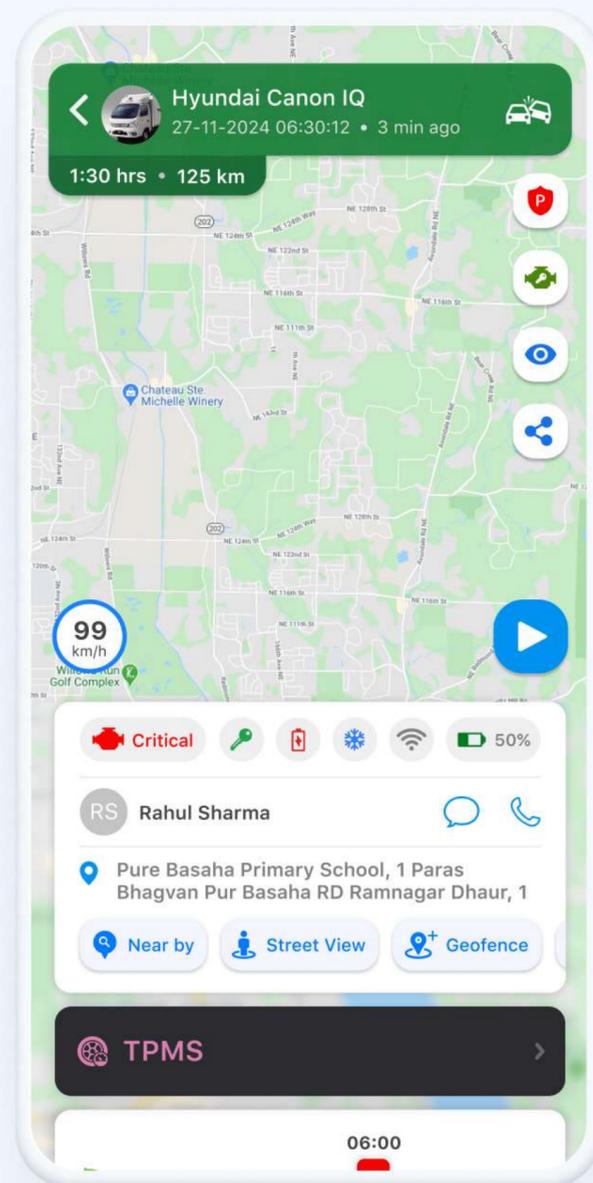
USE CASES ACROSS INDUSTRIES

Logistics & Transport

Construction Vehicles and Machinery

School Bus Transportation

Use Case

LOGISTICS & TRANSPORT

CHALLENGES

→ **Frequent tire blowouts**

Tire blowouts due to under-inflation or overheating can lead to accidents, causing delays and safety risks.

→ **Uneven tire wear**

Improper maintenance results in uneven wear, shortening tire lifespan and increasing replacement costs.

→ **Difficulty in tracking tire health**

Manually tracking tire pressure, temperature, and wear is time-consuming and prone to errors, impacting overall efficiency.

→ **Sudden pressure drops**

Rapid drops in tire pressure often go unnoticed, leading to unexpected downtime and safety hazards.

→ **High operational costs**

Frequent replacements and repairs caused by poor tire maintenance increase overall operational expenses.

SOLUTIONS

→ **Real-time pressure and temperature monitoring**

With integrated TPMS, monitor tire pressure and temperature in real time to prevent blowouts and overheating.

→ **Tire wear analytics**

Use data-driven insights to track tread depth and detect uneven wear, enabling timely maintenance and replacements.

→ **Automated alerts for tire health**

Receive instant alerts for low pressure, high temperature, or critical tire conditions, ensuring quick corrective action.

→ **Predictive maintenance scheduling**

Analyze usage patterns and predict tire health to plan maintenance and replacements proactively.

→ **Optimized tire usage reports**

Leverage detailed reports to monitor usage trends and reduce unnecessary replacements, minimizing operational costs.

⚠ Warning
High Tire Temperature - 85°C

RESULTS

1

Reduced tire blowouts by 50%

Real-time monitoring and proactive alerts reduced the risk of accidents caused by blowouts, ensuring fleet safety.

2

Increased tire lifespan by 40%

Proper tracking of wear and maintenance improved tire efficiency, reducing replacement frequency.

3

Lower operational costs by 35%

Efficient tire management minimized repair and replacement expenses, improving overall fleet profitability.

CONSTRUCTION/MINING VEHICLES AND MACHINERY

CHALLENGES

→ **Frequent tire damage due to rugged terrains**

This challenge is unique to the harsh environments in construction and mining and hasn't been repeated from other contexts like logistics or transport.

→ **High downtime due to unexpected failures**

While downtime was addressed in logistics, the context here is specific to the delays caused by rugged environments and machinery usage in mining/ construction.

→ **Difficulty in managing large tire inventory**

This is unique to industries with numerous vehicles spread across multiple locations.

→ **Overheating and overloading issues**

While overheating was mentioned previously, the addition of overloading makes this point industry-specific.

→ **Increased operational costs due to inefficient tire usage**

This challenge might feel general but is framed uniquely for construction and mining.

Tire Damage
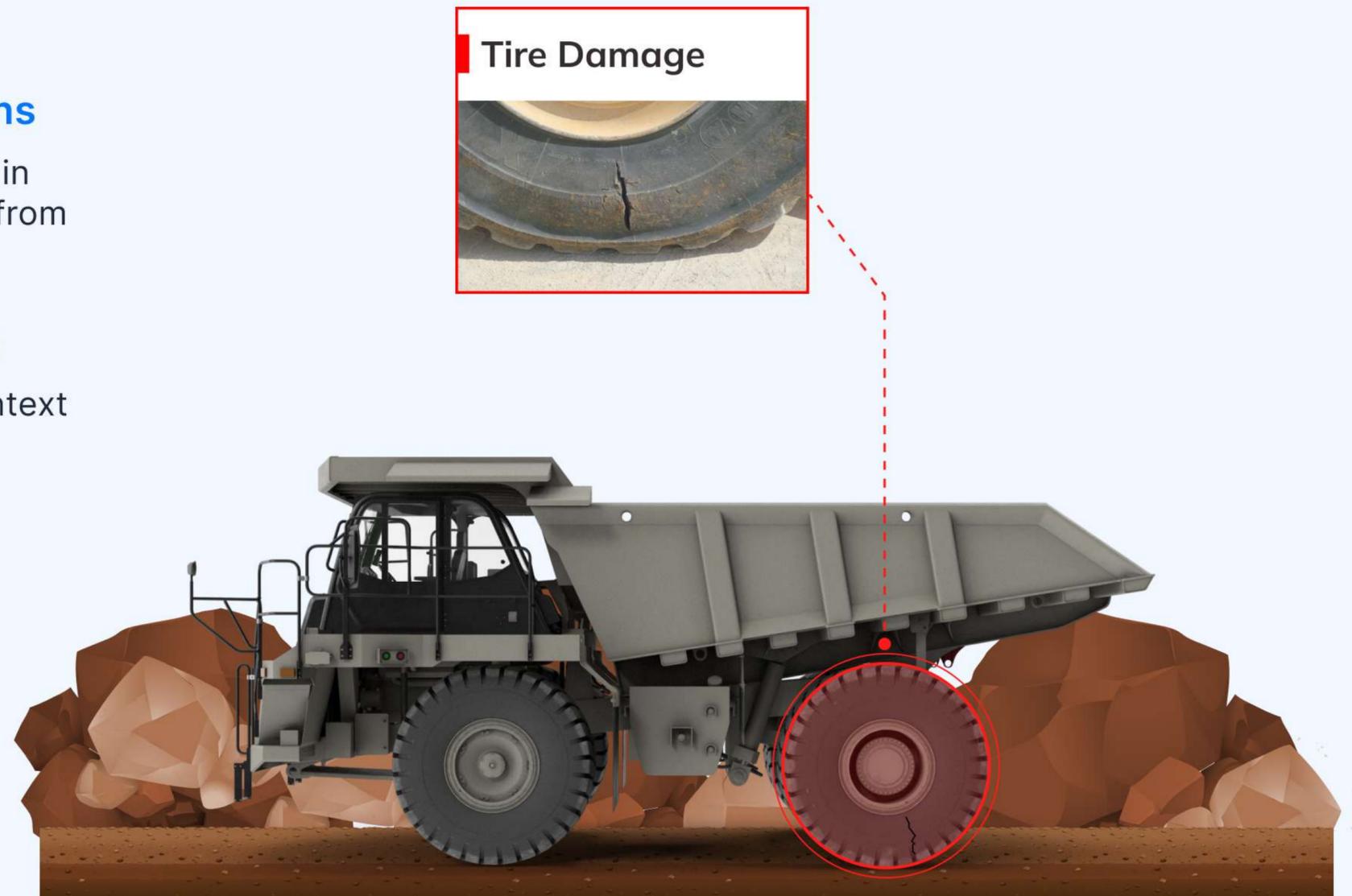
SOLUTIONS

→ **Real-time tire health monitoring**

This is general but essential for any industry. It does not overlap significantly with previous use cases due to the context provided.

→ **Predictive maintenance**

Predictive elements were covered before but are re-framed here specifically for rugged operations.
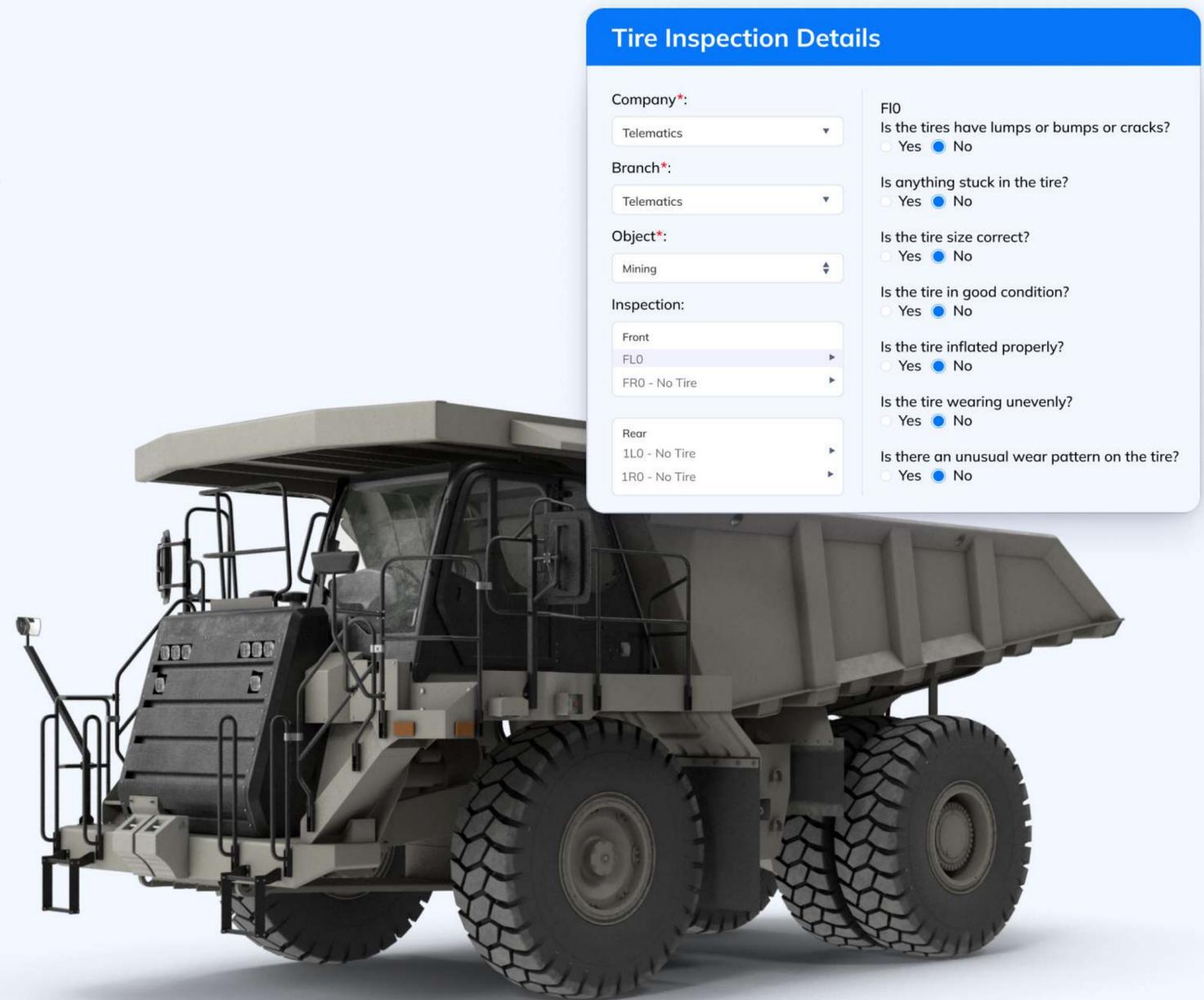
→ **Tire stock and usage reports**

Unique to inventory challenges for large fleets.

→ **Alerts for overloading and overheating**

Unique to the heavy machinery context.

→ **Tread depth and wear analytics**

While tread depth was mentioned previously, its relevance to rotation and lifespan in mining and construction is specific.

Tire Inspection Details

Company*:
Telematics

Branch*:
Telematics

Object*:
Mining

Inspection:

Front
FL0
FR0 - No Tire

Rear
1L0 - No Tire
1R0 - No Tire

FI0
Is the tires have lumps or bumps or cracks?
Yes ● No

Is anything stuck in the tire?
Yes ● No

Is the tire size correct?
Yes ● No

Is the tire in good condition?
Yes ● No

Is the tire inflated properly?
Yes ● No

Is the tire wearing unevenly?
Yes ● No

Is there an unusual wear pattern on the tire?
Yes ● No

RESULTS

1 **Reduced tire damage by 40%**

A measurable and unique impact.

2 **Increased productivity by 30%**

Unique to minimizing delays in construction/mining operations.

3 **Lower operational costs by 25%**

Slightly general, but the percentage impact makes it unique for this industry.

SCHOOL BUS TRANSPORTATION

CHALLENGES

→ **Ensuring safety for daily commutes**

School buses transport vehicles often travel long distances, and tire failures can lead to accidents, jeopardizing passenger safety.

→ **Inadequate tire inspections**

Regular tire health checks are often overlooked due to tight schedules, leading to the risk of operating vehicles with worn-out tires.

→ **Unexpected breakdowns causing delays**

Tire-related breakdowns disrupt schedules. This causes late arrival of the students, which leads to chances of missing their classes.

→ **Difficulty in tracking tire usage and wear**

Fleet managers struggle to keep records of tire conditions, replacements, and rotations across multiple vehicles.

→ **High maintenance costs due to inefficient tire use**

Without proper monitoring, overinflated or underinflated tires reduce fuel efficiency and increase wear, raising operational costs.

2L0

72.4 psi

Low Pressure

68
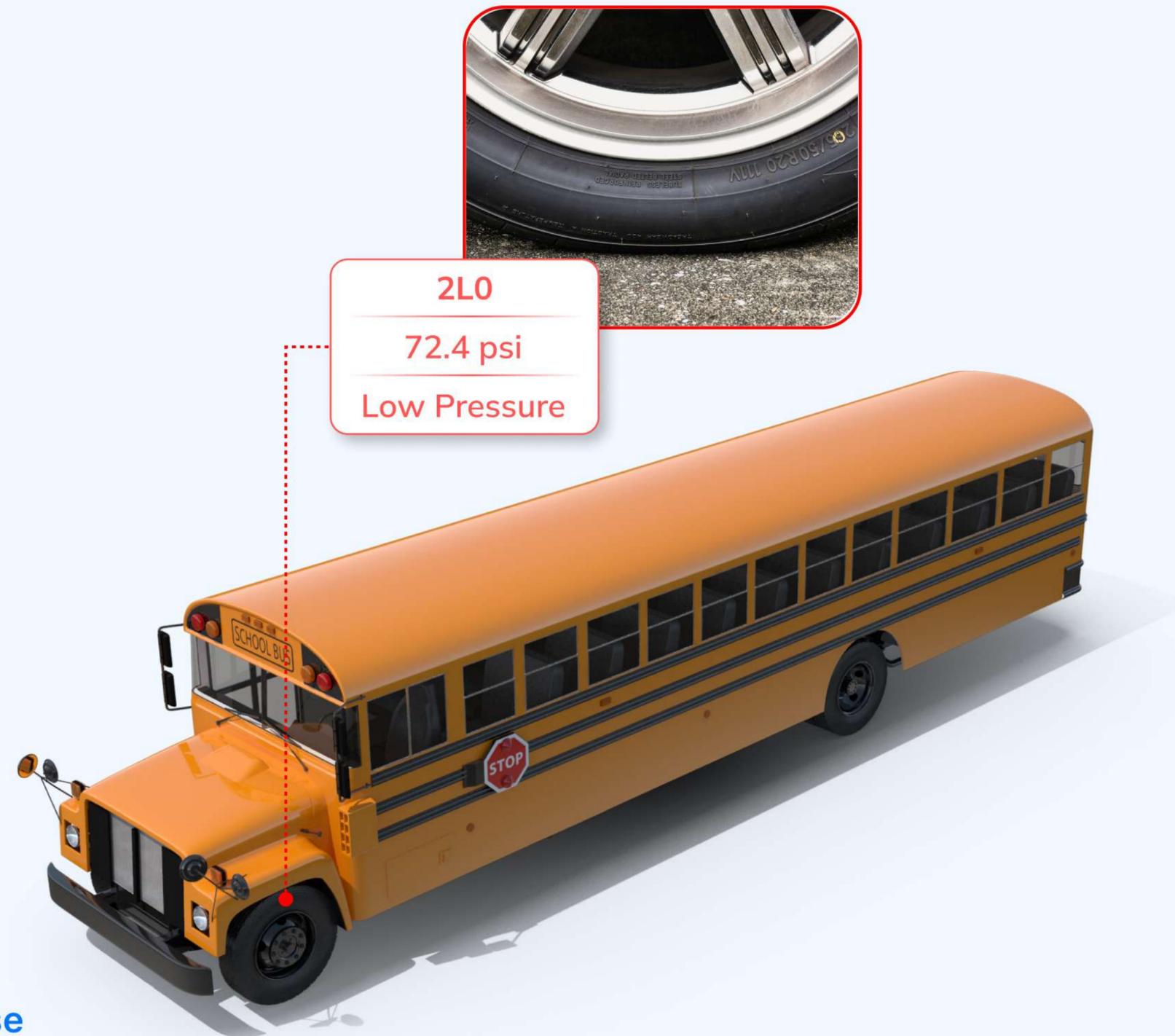
SOLUTIONS

→ **Real-time tire pressure and temperature monitoring**

Ensure optimal tire health by detecting and addressing underinflation, overinflation, or overheating before they lead to failures.

→ **Scheduled tire inspections and alerts**

Automate reminders for routine inspections and maintenance based on mileage or time, ensuring timely servicing.
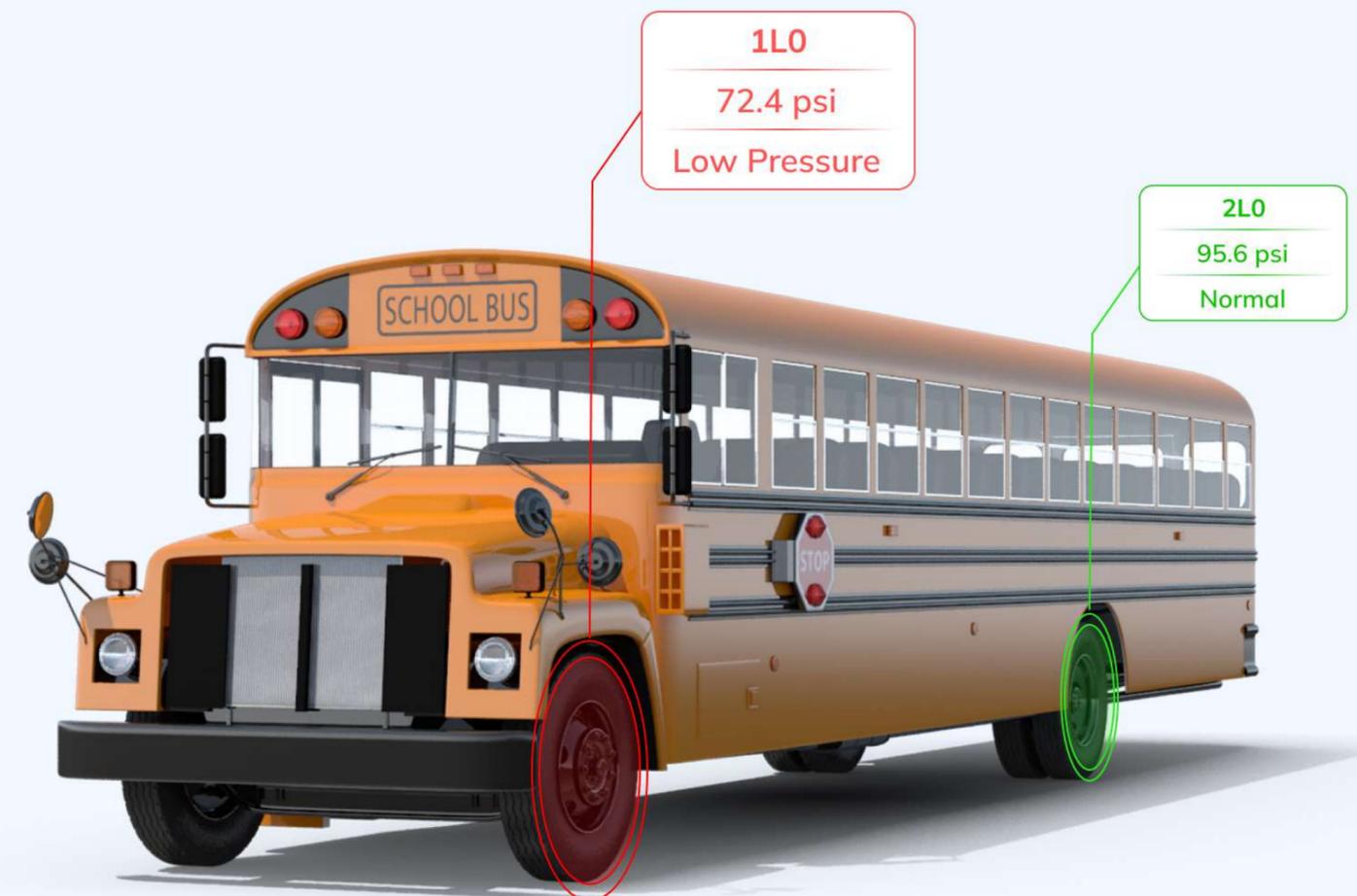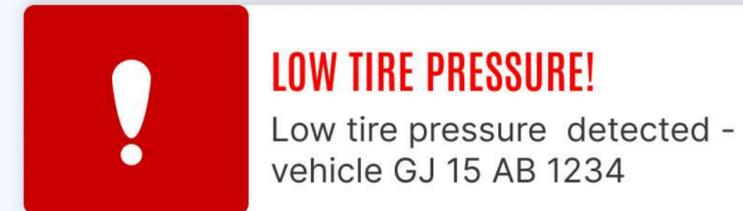
→ **Tire health analytics and lifespan predictions**

Use advanced analytics to predict when tires will need replacement, minimizing downtime and ensuring continuous operation.

→ **Reports on tire performance and usage patterns**

Provide detailed insights into tire performance, including wear and tear, enabling data-driven decisions on replacements and rotations.

→ **Overload prevention with alerts**

Ensure vehicles are not overloaded, reducing excessive tire wear and improving student safety.

LOW TIRE PRESSURE!
Low tire pressure detected - vehicle GJ 15 AB 1234

1L0
72.4 psi
Low Pressure

2L0
95.6 psi
Normal

SCHOOL BUS

RESULTS

1 **Enhanced passenger safety**

Real-time monitoring and predictive maintenance reduce tire-related accidents. This ensures a safe commute for students and employees.

2 **Minimized delays by 30%**

Proactive maintenance significantly reduces unexpected breakdowns, keeping schedules on track.

3 **Lower maintenance costs by 20%**

Efficient tire usage and timely replacements improve fuel efficiency and extend tire life. This reduces overall maintenance expenses.

KEY TAKEAWAYS FOR EFFECTIVE TIRE MANAGEMENT AND TPMS

Here's what you've learned about tire management and TPMS, and how they benefit your fleet:

- ✅ Efficient tire stock and condition management ensures fleet managers maintain accurate records of tire inventory, usage, and servicing needs for better planning.

- ✅ Real-time monitoring with TPMS helps maintain optimal tire pressure, improving vehicle safety and reducing wear and tear.

- ✅ Proactive insights and analytics allow early detection of issues like uneven wear, pressure imbalances, or potential tire failures, preventing costly downtime.

- ✅ Optimized maintenance schedules reduce unplanned repairs and extend tire life, resulting in more sustainable fleet operations.

- ✅ Cost-saving benefits through enhanced fuel efficiency and reduced tire replacement costs, driven by optimized tire usage and pressure management.

Notes

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