DataDriven LOGISTICS

The Hidden Fuel Cost in Logistics

The 8% Fuel Problem: Why Fleets Are Quietly Overspending on Every Journey

Executive Summary

Fuel is one of the largest controllable costs in logistics, yet for many fleets, it remains one of the least controlled.

Analysis of operational fleet data across 1,060 vehicles and over 25 million miles of journeys, collected over a 12-month period, shows that fuel inefficiency is not driven by a single issue. It is created across the entire transport chain.

While fuel prices fluctuate due to external factors, the amount of fuel used within an operation is heavily influenced by internal decisions. Routes, driver behaviour, delivery execution and depot efficiency all contribute to how much fuel is consumed.

The challenge is that fuel inefficiency is rarely caused by one problem. It is systemic:

- Inefficient route planning
- Poor route adherence
- Inconsistent driver behaviour
- Limited real-time visibility
- Delays at depots and delivery points

Individually, these inefficiencies appear minor. Across a fleet, they create a persistent and avoidable cost.

Data shows that fleets are operating at an average of 7.87% higher mileage than planned, purely due to operational inefficiencies.

Data Driven Logistics addresses this through Sphere, a connected logistics platform that brings together routing, tracking, delivery, yard management and reporting into a single operational view.

Fuel efficiency is not just about reducing cost. It is about improving control.

25M+
miles analysed

7.87% **average excess mileage**

Over 1.8 million **unnecessary miles driven**

Most fuel loss is operational, not external

Fuel Pressure Is Increasing and So Is the Risk

Fuel costs have always been a major factor in logistics, but recent conditions have increased their impact.

Operators are facing:

- Ongoing fuel price volatility
- Tight and often fixed-margin contracts
- Increased delivery demand
- Greater pressure on operational performance

This dataset highlights a critical point:

The biggest variations in fuel spend are not driven by fuel price. They are driven by operational inefficiency.

Fuel price changes are immediate. The ability to respond is not.

This creates a growing divide between:

- Fleets that can see and manage inefficiency
- Fleets that absorb it without visibility

Sphere is designed to close this gap by turning operational data into real-time insight.

External (Uncontrollable)	Internal (Controllable)
Fuel prices	Routes
Supply chain disruption	Driver behaviour
Market demand	Delivery execution
	Depot efficiency

The Fuel Leak: Where Efficiency Is Lost

Fuel loss does not happen in one place. It happens across the journey.

Across the dataset:

- Planned mileage: 23,391,509 miles
- Actual mileage: 25,233,188 miles
- Excess mileage: 1,841,678 miles

This represents a 7.87% increase in fuel consumption with no added value.

Planning: Inefficiency Starts Before the Journey

Fuel inefficiency often begins at the planning stage.

Our data shows:

- 268,821 journeys went off route
- Each journey averaged an additional 6.85 miles

Even small inefficiencies at this stage increase total mileage.

Within Sphere, DriveSafe calculates routes based on fuel efficiency, optimising both MPG and journey time. It also supports vehicle-specific routing and provides planned vs actual reporting.

This ensures that efficiency is built into the journey from the start and monitored throughout.

Driving: Behaviour Drives Consumption

Fuel consumption is directly affected by how a vehicle is driven.

Across fleets:

- Significant variation exists between drivers
- Idle time and inefficient driving behaviours directly impact fuel use

Even small inefficiencies at this stage increase total mileage.

Within Sphere, DriveSafe calculates routes based on fuel efficiency, optimising both MPG and journey time. It also supports vehicle-specific routing and provides planned vs actual reporting.

This ensures that efficiency is built into the journey from the start and monitored throughout.

Idle time reduced from
2.73% to 1.63%

A reduction of over
40% in idle-related inefficiency

Tracking allows fleets to measure and manage these behaviours directly

Visibility: You Can't Fix What You Can't See

Many fleets collect data but lack a clear view of what is happening in real time.

Without joined-up visibility:

- Route deviations go unnoticed
- Delays are identified too late
- Inefficiencies are accepted as normal

Sphere brings together tracking, delivery and operational data into a single interface, allowing operators to monitor performance as it happens.

This reduces reliance on manual updates and improves response time.

Execution: When Plan and Reality Drift Apart

Even well-planned operations can lose efficiency during execution.

Across the dataset:

- Vehicles consistently exceeded planned mileage
- Unplanned miles became embedded in daily operations

Each journey added:

- +6.85 miles on average
- £3.91 additional fuel cost per journey

Sphere connects delivery execution with planning, allowing operators to compare actual vs planned performance and adjust in real time.

This reduces drift and prevents inefficiency from compounding across the day.

Yard and Depot : The Hidden Idle Cost

A significant portion of fuel waste occurs when vehicles are not moving.

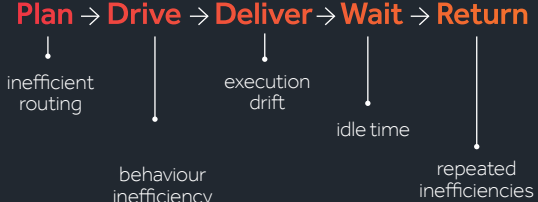
Common issues include:

- Queuing at depots
- Waiting for loading or unloading
- Poorly managed yard flow

These delays increase idle time and reduce overall efficiency.

Sphere extends beyond the road by including yard and booking systems, allowing operators to manage site activity, reduce congestion and minimise downtime.

The Fuel Leak Journey



What Fuel Waste Looks Like in Reality

Fuel inefficiency is rarely obvious.

Instead, it appears as:

- Higher fuel spend than expected
- Variations between drivers
- Inconsistent delivery performance
- Delays at depots

Across this dataset:

- 1.84 million unnecessary miles were driven
- 268,000+ journeys deviated from plan

This is not a one-off issue. It is a repeated operational pattern.

These are symptoms, not causes.

For example:

A vehicle deviates from its route

encounters traffic

↓

arrives late

↓

waits at a congested depot

↓

idles

↓

completes fewer deliveries

↓

repeats inefficiency on the next journey.

Without visibility, this chain is difficult to detect.

Sphere brings together:

- Journey data
- Driver behaviour
- Delivery performance
- Depot activity

This allows fleets to identify patterns and take action.

Signs of Hidden Fuel Waste

High idle time

Route deviation

Delays at the same locations

Driver performance variation

No clear explanation for fuel cost increases

The Cost of Small Inefficiencies

Fuel inefficiency does not usually appear as a large single loss.

It is made up of small, repeated issues:

- 6.85 extra miles per journey
- £3.91 additional cost per journey
- Delays
- Poor route adherence

This equates to **over £1 million in additional fuel cost.**

Sphere enables operators to quantify this by combining:

- Fuel data
- Mileage
- Route adherence
- Idle time

This allows inefficiency to be measured, not assumed.

Scaled Impact

1.84 million excess miles

£3.91 per journey

£1M+ in avoidable fuel cost

Why Most Fleets Don't Solve It

The issue is not a lack of data.
It is a lack of connection.

Most fleets operate with:

- Separate routing systems
- Tracking tools
- Delivery systems
- Yard processes

This creates fragmented visibility.

Common outcomes:

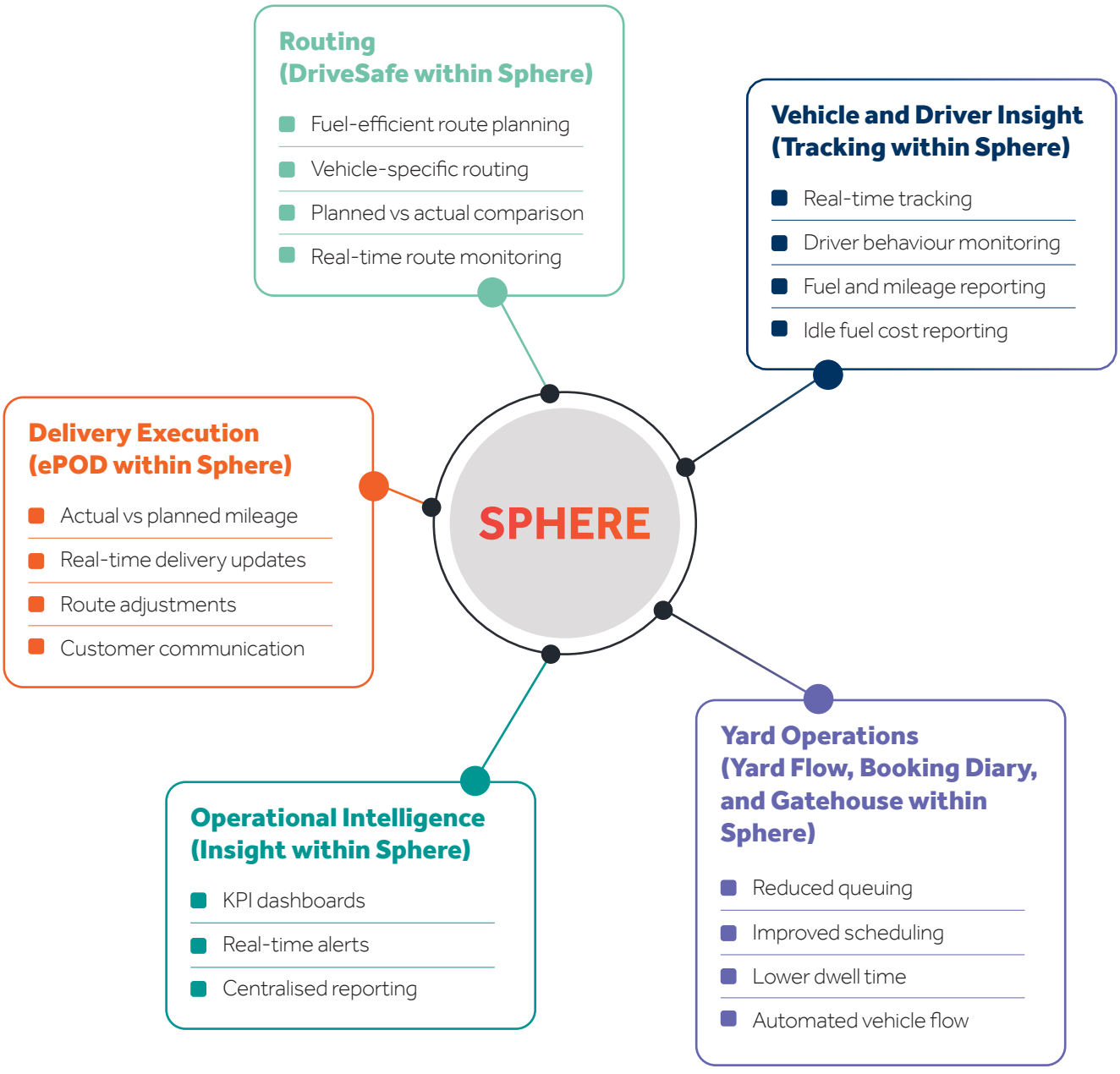
- Data exists but is not connected
- Issues are identified too late
- Decisions are based on incomplete information

Sphere addresses this by bringing these elements together into a single system, providing a complete operational view.

Sphere: Connecting the Operation

Fuel efficiency improves when operations are connected.

Sphere is designed to bring together every part of the logistics operation into one system, allowing fleets to move from fragmented data to coordinated control.



One system. One view. Full control.

Sphere provides a single view of the operation, allowing inefficiencies to be identified and addressed across the entire journey.

Operational Impact: What Changes

When fleets move from disconnected systems to a connected approach using Sphere, the impact is operational.

Typical improvements include:

- Better route adherence
- Reduced idle time
- Improved driver performance
- Faster depot turnaround
- Greater visibility across the operation

Large-scale operations have already demonstrated:

- Tens of thousands of journeys managed through connected systems
- Improved operational consistency
- Reduced risk and improved compliance

These improvements contribute directly to reduced fuel waste and improved efficiency.

Proof in Practice

Example

Problem: Limited visibility

Solution: Integrated tracking and reporting

Outcome: Improved utilisation and reduced downtime

The Fuel Efficiency Maturity Model

Fleets typically move through four stages:

Level 1: Blind

No joined-up visibility
Reactive operations

Level 2: Visible

Basic tracking
Limited insight

Level 3: Controlled

Integrated systems
Performance monitoring

Level 4: Optimised

Data-driven decisions
Continuous improvement

Sphere supports progression through these stages by connecting operational data and enabling control.

Where Are You Today?

Do you track idle time?

Do you compare planned vs actual routes?

Can you see depot delays in real time?

What Good Looks Like

A fuel-efficient logistics operation has:

- Optimised routes
- Controlled driver behaviour
- Real-time visibility
- Consistent execution
- Efficient yard operations
- Data-driven decision making

This is not achieved through isolated systems.

It requires a connected operational approach, where Sphere provides visibility, coordination and control.

The Efficient Operation

Route control

Driver insight

Live visibility

Delivery alignment

Yard flow

Reporting

Conclusion

Fuel is one of the most significant costs in logistics, but it is also one of the most controllable.

The biggest opportunities for improvement come from:

- Identifying inefficiencies across the journey
- Connecting operational data
- Acting on real-time insight

Sphere enables this by bringing together routing, tracking, delivery and yard management into a single system.

This allows fleets to move from reacting to fuel costs to actively controlling them.

Methodology

This white paper is based on analysis of real-world operational fleet data.

Dataset overview:

- **Vehicles analysed**: ~1,060
- **Time period:** 12 months
- **Total planned mileage:** 23,391,509 miles
- **Total actual mileage:** 25,233,188 miles
- **Excess mileage identified:** 1,841,678 miles
- **Total journeys analysed:** 268,821+

Key findings:

- Average excess mileage per journey: **6.85 miles**
- Average additional cost per journey: **£3.91**
- Total additional fuel cost: **£1M+**
- Average inefficiency: **7.87% above planned mileage**

Data sources:

- GPS tracking and journey reporting
- Fuel and mileage reporting
- Idle time and engine activity
- Driver behaviour data
- Planned vs actual route analysis

Approach:

- Comparison of planned vs actual mileage
- Aggregated journey analysis
- Cost modelling based on MPG and fuel pricing
- Behaviour and idle trend analysis

All data has been anonymised and analysed to identify operational trends across fleets.

Data Driven LOGISTICS

To understand where your fleet may be losing efficiency:

Request a Sphere-powered fuel efficiency review

or

Speak to the Data Driven Logistics team

Email : **info@datadrivenlogistics.com**
Tel: **03458 733 200**