

DATA ANALYSIS AND DATA VISUALIZATION FOR TRANSPORTATION INDUSTRY

"Harnessing Data to Optimize Routes, Resources, and Real-Time Decision Making"

Schedule

Date	Venue	Fees (Face-to-Face)
07 - 11 Dec 2026	London, UK	USD 3495 per delegate

► Available delivery methods: Face-to-Face & Online Training

Introduction

The transportation industry is evolving rapidly with the integration of smart technologies, IoT, and real-time analytics. To remain competitive, organizations must leverage data to improve route efficiency, reduce delays, minimize fuel consumption, and enhance customer satisfaction. Effective data analysis and visualization empower professionals to make timely, strategic, and operational decisions.

This 5-day intensive course provides transportation professionals with essential tools and techniques to analyze and visualize transport-related data. Participants will gain practical experience using Excel, Power BI, and dashboard tools to optimize logistics, assess KPIs, monitor performance, and communicate findings effectively.

Objectives

By the end of this course, participants will be able to:

- Understand key data sources in the transportation ecosystem
- Analyze transportation KPIs such as delivery time, load utilization, and fuel efficiency
- Use Excel and Power BI to build real-time dashboards and visual reports
- Identify inefficiencies and improve routing, scheduling, and fleet usage
- Communicate data insights effectively to technical and non-technical stakeholders

Why Attend

- To improve visibility and control over fleet and logistics operations
- To reduce operational costs and optimize route planning
- To drive performance through real-time metrics and data dashboards
- To improve customer service through data-informed decision-making
- To transform transportation data into actionable insights

Target Audience

This program is designed for:

- Transport planners, fleet and logistics managers
- Supply chain and operations analysts
- IT and systems professionals in the transportation sector
- Data professionals and BI specialists supporting transport functions
- Anyone involved in monitoring or improving transportation performance

Individual Benefits

Key competencies that will be developed include:

- Transport data modeling and cleaning
- Advanced Excel and Power BI dashboard development
- KPI analysis for fleet, cost, route, and delivery metrics
- Predictive modeling and scenario analysis
- Visual storytelling for operations and executive reporting

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Better-informed transportation planning and forecasting
- Improved route optimization and cost efficiency
- Enhanced stakeholder reporting and transparency
- Real-time decision-making through dynamic dashboards
- Stronger integration between operations, planning, and analytics teams

Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings - Transportation analytics frameworks, real-time monitoring, and mobility KPIs
- Case Studies - Fleet optimization, last-mile delivery, and public transit dashboards
- Workshops - Excel-based analysis, Power BI dashboard creation, and route optimization
- Peer Exchange - Group discussions on transport challenges and analytic applications
- Tools - Pre-built templates, KPI scorecards, route models, and data visualization libraries

Course Outline

Detailed 5-Day Course Outline

Training Hours: 7:30 AM – 3:30 PM **Daily Format:** 3–4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Introduction to Transport Data and KPI Analysis

- Module 1: Overview of Transportation Data Ecosystem (07:30 – 09:30) • Fleet, GPS, telematics, scheduling, and route data sources
- Module 2: Transportation KPIs and Metrics (09:45 – 11:15) • OTIF, cost per mile, idle time, fuel usage, delivery success
- Module 3: Workshop – Preparing and Cleaning Transport Datasets (11:30 – 01:00) • Handling duplicates, missing values, and standard formats
- Module 4: Creating Baseline Performance Dashboards (02:00 – 03:30) • Excel dashboards with pivot tables and slicers

Day 2: Visualizing Fleet and Route Performance

- Module 5: Route Analysis and Mapping (07:30 – 09:30) • Distance, duration, delay analysis, and geospatial plotting
- Module 6: Power BI Basics for Transport Data (09:45 – 11:15) • Importing data, setting relationships, building visuals
- Module 7: Workshop – Building a Power BI Route Performance Dashboard (11:30 – 01:00) • Integrating maps, route KPIs, and daily metrics
- Module 8: Visualizing Asset Utilization and Availability (02:00 – 03:30) • Gantt charts, heat maps, and availability scorecards

Day 3: Advanced Analysis for Optimization and Cost Control

- Module 9: Cost and Efficiency Analysis (07:30 – 09:30) • Fuel tracking, driver hours, trip profitability
- Module 10: Predictive Modeling and Scenario Planning (09:45 – 11:15) • Forecasting demand, peak-time planning, and rerouting simulations
- Module 11: Workshop – Creating What-If Models for Cost Scenarios (11:30 – 01:00) • Modeling alternate fuel prices and driver availability
- Module 12: Analyzing Delivery Windows and Time Slots (02:00 – 03:30) • Reducing congestion, missed deliveries, and service penalties

Day 4: Real-Time Monitoring and Incident Tracking

- Module 13: Real-Time Data Feeds and Alerts (07:30 – 09:30) • IoT device integration and telemetry
- Module 14: Live Dashboards and KPIs (09:45 – 11:15) • Real-time Power BI dashboards for fleet monitoring
- Module 15: Workshop – Creating a Live Dispatch Dashboard (11:30 – 01:00) • Monitoring active trips and delay alerts
- Module 16: Incident Analysis and Service Recovery Metrics (02:00 – 03:30) • Tracking breakdowns, delays, and exception handling

Day 5: Data Storytelling and Decision Support

- Module 17: Communicating with Data in Transport Operations (07:30 – 09:30) • Data presentation techniques for operations and leadership
- Module 18: Visual Storytelling for Strategic Planning (09:45 – 11:15) • Structuring transport reports and presentations
- Module 19: Workshop – Final Dashboard and Executive Presentation (11:30 – 01:00) • Presenting performance improvements and insights
- Module 20: Final Review and Certification (02:00 – 03:30) • Feedback, action planning, and peer reflection

Certification

Participants will receive a Certificate of Completion in Data Analysis and Data Visualization for Transportation Industry, recognizing their ability to use data tools to enhance transportation efficiency, decision-making, and strategic performance monitoring.

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