The Impact of Measuring Driver and Vehicle Behaviour
Introduction

Any business that invests in a GPS tracking device has the ability to instantly track the location of their vehicles, but this is no longer just what vehicle tracking is about. Progression in technology can now tie driver behaviour directly to company benchmarks, including safety, fuel usage and vehicle maintenance costs.

A business that embraces the right software has the ability to identify its biggest priorities, whether that be revenue, customer satisfaction or legal compliance.

The installation of tracking software allows management to deliver data that motivates daily business decisions.
What Is Vehicle and Driver Behaviour Data?

Vehicle and driver behaviour data help businesses record daily vehicle activity without physically having to take a look under the bonnet. This data gives users a powerful look at the health of their business through custom vehicle statistics about a fleet’s activity. This type of data goes beyond track-and-trace information - it steers a company’s focus towards items (such as the total time spent at a job site) which may have been before overlooked.

In-depth data leads to more informed business decisions that can impact a company’s financial success. The versatility of fleet data helps track and monitor fuel waste, miles travelled, idle time and driving habits across an entire fleet.

GPS tracking software provides a full view of fleet performance data, including the lowest and highest ranking vehicles for each metric: giving users information on productivity, diagnostics and maintenance needs.

Overall, actionable vehicle data can benefit even the smallest of fleets and gives a management peace of mind.

Benefits Of Tracking Fleet Data

• 11% increase in customer satisfaction
• 11% increase in service delivery/revenue
• 7% higher productivity (jobs completed daily)

• 9% decrease in idle time
• 8% decrease in speeding incidents
• 6% decrease in accidents

*Source = Aberdeen Group

What Does Vehicle and Driver Behaviour Data Measure?

- Total Miles Driven
  The cumulative miles a driver has accrued for a specific time period.

- Fuel Use
  The amount of fuel utilised by a driver, which can be affected by harsh driving, idle time and unnecessary stops.

- Idle Time
  The total time a vehicle’s engine is running when the vehicle is not in motion.

- Maintenance
  Data summarising engine statistics and fault codes in addition to routing information and service mileage.

- Start Time & End Time
  The time a driver clocks in and clocks out each day.

- Time On Lunch Break
  The time, length and number of breaks that a driver takes on the road.

- Driver Stops
  The number of stops a driver takes while on the clock, including on route to a job site.

- Time Spent At Job Site
  The total time a driver spends delivering and completing a task at a job.

“With Driver Behaviour data, fleet managers can be a backseat driver without stepping foot into a company vehicle” – Scott Hutchins, Vice President of Sales in the UK
The Numbers

- In 2013, 1,713 people were killed in reported road traffic accidents in Great Britain.
- On motorways more than half (52%) of fatal accidents on motorways involve HGVs, despite HGVs only making up 10% of the traffic.
- On A-roads HGVs are involved in 1 in 5 fatal crashes on A roads, a ratio that has worsened over the last 5 years.
- On minor roads a HGV vehicles is five times as likely to be involved in a fatal accident as other traffic.

*source - http://www.bettertransport.org.uk/

What Does Driver Behaviour Measure?

- Speeding
- Harsh Braking
- Harsh Acceleration
- Engine Idling
- RPM (Revs Per Minute)
- Driver Fuel Efficacy
- Distance Travelled

Using Vehicle Analytics To Drive Results

Good driving habits can save a company from disaster. A quick mistake on the road can negatively affect a company through accident, injury and liability costs that can lead to a loss of business.

<table>
<thead>
<tr>
<th>Accident Severity</th>
<th>Lost Output £</th>
<th>Medical and Other Direct £</th>
<th>Human £</th>
<th>Total £</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatal</td>
<td>738,860</td>
<td>14,240</td>
<td>870,780</td>
<td>1,323,880</td>
</tr>
<tr>
<td>Serious</td>
<td>17,880</td>
<td>14,610</td>
<td>121,620</td>
<td>154,110</td>
</tr>
<tr>
<td>Slight</td>
<td>2,130</td>
<td>3,120</td>
<td>10,130</td>
<td>15,380</td>
</tr>
</tbody>
</table>

Statistics given by the Association of British Drivers show the average costs of road accidents to British businesses.

The best way to combat dangerous driving habits is to implement consistent driver coaching. When telematics is used in conjunction with other emerging technologies, such as in-vehicle cameras, its potential to improve drivers’ behaviour becomes even greater.

The rationale is simple, yet highly effective – use data to train your drivers to be the best on the road and also use it to back them up when incidents happen. We call this approach our ‘360 Degree’ fleet safety solution, designed to improve road safety, reduce insurance costs and enhance duty of care.

The brilliance of the combination is the seamless umbrella of preventive and protective technology, which we believe will be of increasing importance simply because it has the potential to make a real difference to driver behaviour in the future.

The drivers being monitored, by telematics and in-vehicle cameras, are likely to take greater care, which is why this type of technology integration is going to have an increasing importance when it comes to accident minimisation.

However, the single most important criterion for success, is how the information that’s gathered from the technology is subsequently used. The onus remains on fleet managers to monitor the data to identify those drivers with training requirements.

But thanks to accurate driver report and scorecards, it is possible to easily identify non-efficient drivers and tailor training to remedy problem areas. You can even be informed if one of your drivers exceeds a certain speed, allowing you to quickly issue a warning.
A Look at Driver And Vehicle Behaviour Software

Technology Case Study: Smart Telematics - High performance tuning for your drivers and your business.

Give your business the ultimate edge with real time vehicle telematics. While fleet tracking can deliver huge benefits and considerable ROI, Smart Telematics gives you the power to drive those savings much further.

With Smart Telematics you can monitor every aspect of every journey, giving you the power to boost your profit margins and cut your running costs.

The information you need to make valuable business decisions is sent straight to your desk including:

- Braking – harsh braking, number of brake applications, braking distance
- Speed – maximum speed, speeding, time spent in speed bands
- RPM – excessive RPM, max RPM, time in RPM bands
- Fuel consumption – per trip and average fuel economy
- CO2 emissions – total emissions based on the amount of fuel consumed
- PTO use*
- Engine hours
- Distance – odometer reading
- Oil pressure*
- Water temperature*
- Idle time, warm-up idle time

*Subject to availability on the vehicle CANbus

How Does Teletrac Navman Measure Driver and Vehicle Behaviour?

Teletrac Navman's extensive reporting allows fleet managers to drive their business forward with the power of data. These reports make operational decisions easier through insight on daily driver and vehicle statistics, from information about job performance to fuel use and everything in between.

Driver Scorecard Summary Report:

Instantly review the efficiency of your vehicles and the performance of all your drivers with the new driver scorecard report giving you the confidence to take action.
CO2 Emission Reporting

**Fuel Usage and CO2 Emissions Report For 11-17-2015**

<table>
<thead>
<tr>
<th>Vehicle</th>
<th>Distance</th>
<th>Drive Time</th>
<th>Fuel Consumption (gal)</th>
<th>Fuel Efficiency (miles/gal)</th>
<th>CO2 (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daniel-T3-QT350</td>
<td>0 mi</td>
<td>0 min</td>
<td>0.00</td>
<td>Petrol</td>
<td>23.00</td>
</tr>
<tr>
<td>EOng Portable</td>
<td>4.97 mi</td>
<td>28 min</td>
<td>0.22</td>
<td>Petrol</td>
<td>23.00</td>
</tr>
<tr>
<td>NavCANTOY</td>
<td>18.64 mi</td>
<td>1hr 03 min</td>
<td>0.00</td>
<td>Petrol</td>
<td>23.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>23.61 mi</strong></td>
<td><strong>1hr 31 min</strong></td>
<td><strong>0.22</strong></td>
<td><strong>Petrol</strong></td>
<td><strong>4.27</strong></td>
</tr>
</tbody>
</table>

Monitor CO2 emissions across your entire fleet and drill down to view the performance of a single vehicle. View trends and monitor performance against targets, see a tangible result from your eco efforts.

**Driver Report Card**

**Individual Driver Report Card For the Month Starting 01/01/2013**

<table>
<thead>
<tr>
<th>Score</th>
<th>Current</th>
<th>Previous</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>92.75</td>
<td>98.06</td>
</tr>
</tbody>
</table>

**Driver:** Tony

**Active Days:** 26

**Distance:** 3438.36 mi

**Ignition Duration:** 78:29:15

**Fuel Used:** 68.75 gal

**Fuel Economy:** 2 gal/100mi

**Driver Efficiency**

View a detailed summary of an individual driver’s performance, perfect for use in driver debriefs and training sessions.

For more information, visit [www.navmanwireless.co.uk](http://www.navmanwireless.co.uk) or call 0845 521 1133.
Use GPS vehicle telematics reporting to identify when individual drivers breach key ROI parameters. Measuring the frequency and extent of such events can have a major impact on your fuel efficiency.
Replay a Day

Get a visual map view of where your drivers break key ROI parameters, helping you identify why the parameter was broken.

Incident Reporting

View second-by-second information for the two minutes prior to an incident to find out exactly what happened.