

Driving for Better Business - Case Study

Our Business overview

Balfour Beatty is a leading engineering and infrastructure group that operates across the UK, US and Far East. Balfour Beatty is divided into 4 main businesses:

- UK Construction
- US Construction
- Investments
- Utilities & Rail

We finance, develop, build and maintain innovative and efficient infrastructure that underpins daily life, supports communities and enables economic growth. Balfour Beatty has worked on a breadth of projects including road and rail; airports, seaports, tunnels and bridges; health and education facilities; heat, light, power and water; places to live and places to work. With more than 100 years of experience, our expertise and innovation has led the way in developing highly complex infrastructure projects.

Balfour Beatty's fleet profile is made up of around 3,500 cars, 750 Large Goods Vehicles, and 2,000 Light Commercial Vehicles.



Our workforce is circa 14,000 direct employees, excluding joint ventures, of which 9,500 are designated as driving on company business, 1,650 of those using their own vehicles (grey fleet), with a further 2,500 non-direct drivers, JV partners and nominated partners/spouses. This means that Balfour Beatty is managing the road risk of around 12,000 drivers.

Leadership in fleet safety

"Within Balfour Beatty, we are passionate about safety and our Zero Harm ethos. Indeed, Zero Harm is one of the four pillars of our Build to Last Balfour Beatty principles. With over 6000 vehicles in our company fleet in the UK, safe driving is fundamental to the way we operate and we pride ourselves in leading the industry in a whole range of innovative vehicle and behavioural programmes. We are active members of the FORS scheme and constantly modernise our fleet of vehicles in order to provide the most efficient and sustainable fleet for our drivers. We also have an award winning risk-based Permit to Drive behavioural programme and

at the end of last year I was very proud to receive the commercial fleet of the year award on behalf of the business, recognising the efforts that Balfour Beatty go to in order to maximise driver safety.”

Andy Ormerod, Managing Director at Plant & Fleet Services, Balfour Beatty

“There is nothing more important to our business than keeping our people and members of the public safe. We are continually striving to ensure that our vehicles and the training programmes we provide achieve the highest possible standards and we are delighted that it is recognised across the industry that we are leaders and influencers.”

Eric Renfrew, Fleet Director at Plant & Fleet Services, Balfour Beatty

Our Beginnings

From our beginnings in 1909 we have grown to become an international business operating in emerging and mature economies alike. We are one of the few companies with the skills to deliver complex projects of huge scale and take advantage of the growth in long-term infrastructure markets.

Our impact is in iconic structures, bold engineering feats, behind-the-scenes innovation and joined-up thinking, financing and partnerships that make up the world's great infrastructure projects today.

The combined breadth of our capabilities and depth of our technical expertise makes us a true international leader in infrastructure. The dedication of our people and the shared values that unite us give our many stakeholders the confidence to trust us and do business with us. We have a collective commitment to operate sustainably and safely wherever we operate.

Safety has always been at the heart of everything that Balfour Beatty do and key to our growth. In 2008 the Balfour Beatty Zero Harm vision was launched.

Our Zero Harm vision:

At Balfour Beatty we believe that our long-term success is dependent upon the ability to keep our workforce, business partners, suppliers, subcontractors, members of the public and the environment safe. Nothing we do is so important, that it cannot be done safely.

Only by setting the highest standards for ourselves, will we be able to retain the trust of our customers and the people using our infrastructure.

For us, Zero Harm means:

No injury, ill health or incident caused by our work activities.

Our commitment to Zero Harm is that we will continue to:

- Position people, environment and sustainability at the heart of what we do
- Act responsibly to protect and enhance the physical and social environment in which we operate

- Work with and support our customers with the provision of innovative and effective infrastructure
- Treat health like safety
- Challenge the norm and promote industry-wide action to eliminate and reduce risks to the safety of everyone
- Tackle occupational ill health and protect our environment, by working with others
- Continue to have a recognised, influential voice in the industry and be the contractor of choice, with Zero Harm at the core of everything we do.

Elimination of risk is at the forefront of what we do. From winning business through to developing, planning, design, construction and onward into operations and maintenance. It features prominently in the business we pursue, who we work with, how we work, how we measure performance and how we encourage the personal advancement of our employees. This had a profound impact on our driving activities in particular because in 2009 we lost an employee to a driving related road-risk fatality.

The incident highlighted that as good as we thought we were at managing safety within our business, driver related safety was perhaps as not as high profile as it should be. HSE teams believed it to be a Fleet responsibility, Fleet supposed HR manage this and HR assumed HSE were governing along with rest of their duties.

Ownership was needed, to ensure that road-related safety had a platform in our business and so that this tragic event could not be repeated. To support this, the business created a Driver Risk Management (DRM) team, to look at our systems, procedures, policies and manage all aspects of work-related road risk.

Next Steps

The DRM team, formed in 2009, put together key figures from our Fleet and Insurance teams to help shape the future of Work Related Road Risk (WRRR) within Balfour Beatty.

The first thing the team did was identify the issues:

- Who is driving our vehicles?
- Where are they being driven?
- How are they being driven?
- What is our incident rate?
- Why are incidents occurring?

Extensive research was then undertaken with the business to understand these questions and devise innovative solutions to lessen the risk to both the driver and the business.

Two key technologies emerged from this research:

- Driver Profiling
- Driver Behaviour Telematics



Driver Profiling – Permit to Drive

As a business, we already undertook sporadic licence checking - both visually and via pre-consented interaction with the DVLA. But we quickly concluded that this was inconsistent and a more robust approach was required.

So we partnered with an external supplier, ARI Fleet UK, and looked at not just licence checking but what else could be achieved. The result was the **Permit to Drive (PtD)** scheme.



Permit to drive process

The aim of the scheme was to incorporate all aspects of driver profiling into one program – not to stop our people from driving.

In brief the program requires everyone that drives a vehicle, be it car, commercial or their own vehicle on business, to be enrolled on the PtD scheme, in order to obtain a Balfour Beatty PtD card.



Permit to drive card

The process for obtaining a PtD card is that each delegate is invited to log on to a web-based portal to undertake a short online assessment, which will ask for details relating to accident history, driving qualifications and current driving habits. This is followed by several typical driving scenarios (e-learning) to assess attitude to risk.

Additionally, a completed licence mandate is submitted which allows us to periodically check their licence for validity and endorsements. Once all components are complete, a risk score is assigned to each driver. Providing the score does not exceed our pre-determined threshold of **45 points**, a permit to drive will be issued and access to company vehicles granted.

But the process does not stop there. By embedding criteria around who is eligible to drive for Balfour Beatty and which parameters demonstrate a risk or require mitigation, the system allows us to understand our driving community and manage, by exception, where we would

need to take further actions. We also decided from the outset not to be judge, jury, and executioner, instead we would present the details to the interested parties (managers and supervisors), so they can make an informed decision on the applicants driving future with the business – putting the control in to the hands of the key people within the business.

Giving the supervisor/manager/director opportunity to review the issues uncovered, allows them to choose the best course of action. Be it on-road coaching, classroom 1-2-1's or removal from driving privileges as a last resort.

The application is also dynamic and continuous. On a weekly basis, the DRM team would import into the program, data feeds such as road traffic incident data from our insurance team, 'how's my driving' complaints rang in by the public, licence endorsements gathered from periodic licence checking and perhaps most importantly - telematics performance data.

This constant feeding of data into the system ensures a dynamic picture of each driver's risk status within the business and allows us to quickly and proactively identify any drivers of concern and action accordingly. This helps us to capture the risk before an incident occurs.

Intelligent Telemetry

The second part of the solution was to embrace technology to manage performance, telematics, and specifically driver-behaviour telematics in this instance.

Balfour Beatty already had a number of 'trackers' fitted to high value assets at this point, but the primary purpose was security and time sheet / shift monitoring. Around this time a new type of telematics technology was beginning to emerge, one that went further than just being a track and trace device and actually measured how a vehicle was being driven. Early versions used g-force technology to ascertain if a vehicle was braking or accelerating aggressively, or whether the vehicle is being driven round corners too harshly. As well as speeding data – this can then be used to generate a normalised risk score for each vehicle. However, this was not enough for us because one of the key issues we identified was that, we didn't have a way to track who was driving our vehicle.



Masternaut Fobbing

So we also installed a portal in each of our vehicles and issued all Balfour Beatty commercial drivers with a unique key-fob, registered against their name, which allowed us for the first time to identify specifically who was driving and how they were performing. We were then able to feed this data weekly into the PtD profiling system which in turn generated alerts for any drivers of concern.

In 2013, Balfour Beatty partnered with Masternaut, allowing us to further develop the capabilities of what a telematics device could deliver. Unlocking opportunities to gather data such as Idling, MPG, CO2 and link it with ancillary equipment such as on-board weighing and gritter boxes, enabling rich data to be available that not only yields benefits in terms of driver safety but also assists in managing sustainability targets, financial benefits and contractual reporting obligations.

Educate the people

This was a new approach to managing occupational road risk. Part of the strategy was to be transparent, as we had no hidden agenda and needed to let the business know this, especially the blue-collar work force, who would be the primary users of these technologies and the telematics system. So the DRM team embarked on a nationwide site/office/depot tour in an effort to capture all drivers in the business to educate on what had been deployed and how it would affect them. The aim of this was to provide reassurance to all affected parties that far from a curtailment of their activities, these technologies should allow us to help ensure they can go home to their families safely each evening.

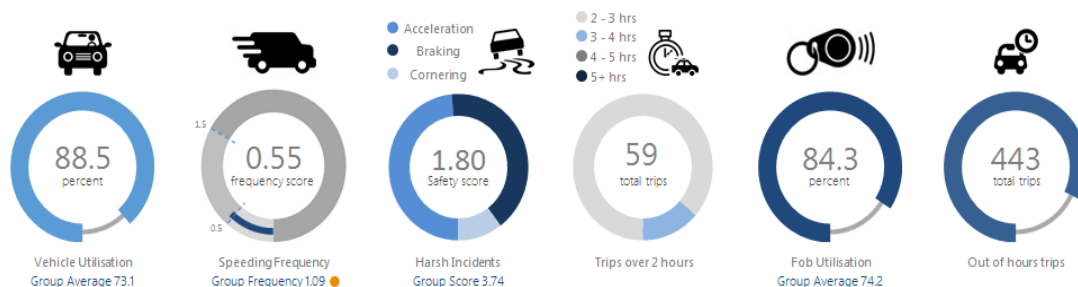


Driver Engagement

Total Solution

The installation of telematics across 100% of Balfour Beatty's commercial vehicle fleet, identification and enrolment of Permit to Drive, and engagement of the UK-wide workforce took a little over 9 months. Afterwards the DRM team returned to their office and reviewed what we had achieved to date.

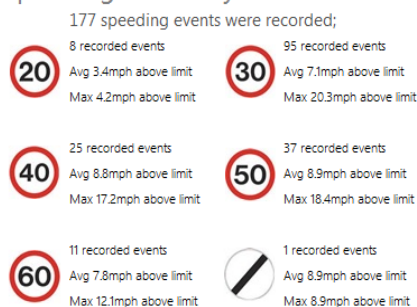
It became apparent very quickly that we were generating a huge amount of data and this data needed to be turned into information, which we could feed directly to key stakeholders in the business to affect a change.



MI Output Data

The weekly feeds into the PtD would generate alerts for high risk drivers, but weekly information could allow an even quicker change in behaviours, so we started to develop a management information suite (MI) - easy information that could be tailored to a manager and/or project or business unit to show the performance of their drivers. The MI would feed information in regards to underperformance, back in to the business which instilled competition between drivers, depots, operations and business units.

Speeding Summary



Fixed Penalty Notices³



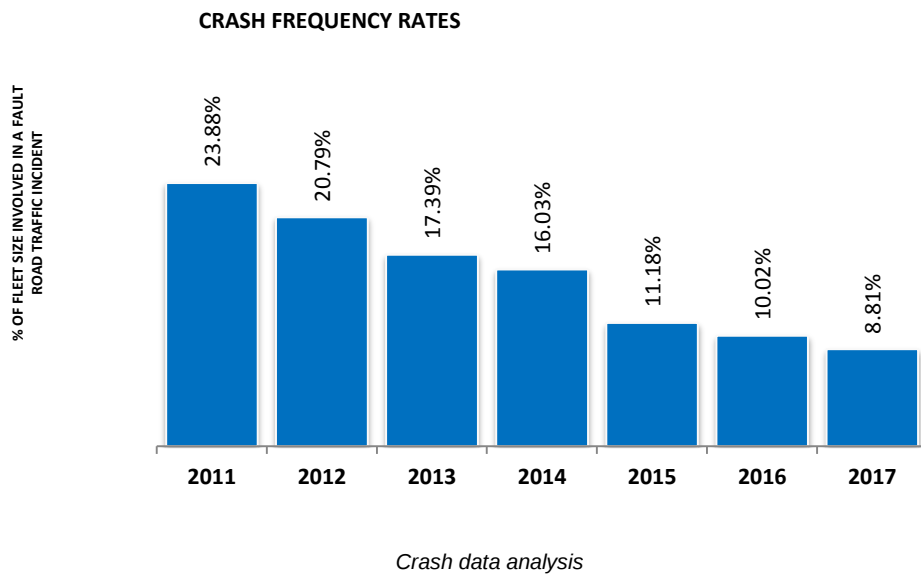
³ This information is a reflection of the potential costs and consequences had the event been identified by enforcement agencies. Following the new legislation enforced as of April 2018 harsher penalties of fines and points are now issued.

MI Output Data

We started to see a real difference in performance, in terms of safety scores and speeding events. This also had subsequent knock-on effects on road traffic incidents (RTIs) and a reduction therein.

The Effect

Change doesn't happen overnight. A culture of safe-driving in the business had been created; the vehicles were generating performance data and the performance data was feeding seamlessly into the driver's profiles.



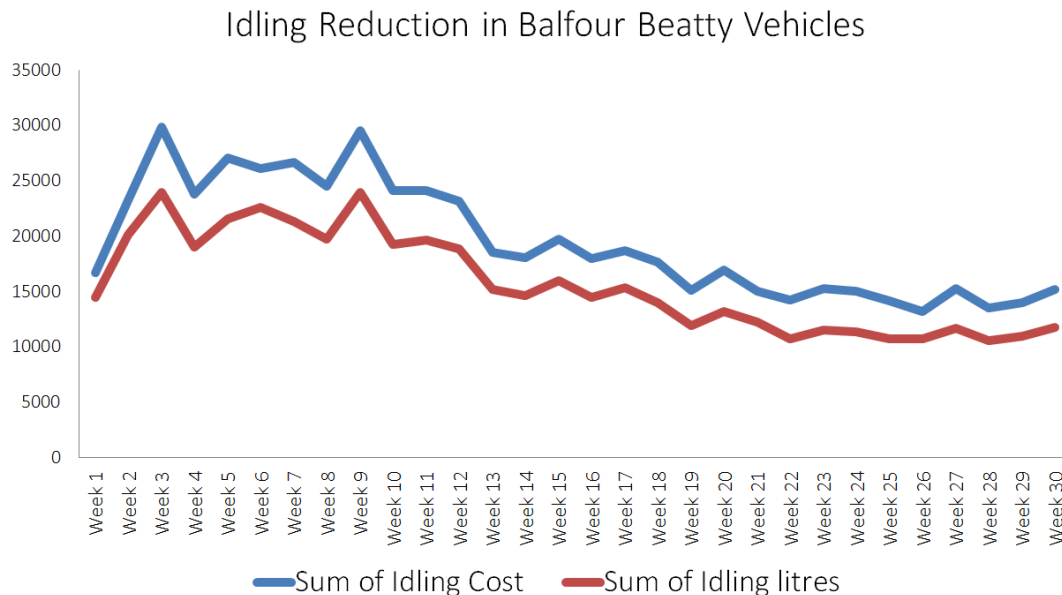
Initially this had no effect of RTI numbers (crash data), but through a top-down and bottom-up approach – engagement both the seniors in the business and the drivers alike, RTI numbers started to fall, and not only the frequency of incidents but also the cost of claims. Not only were we having fewer events, they were also less severe.

Driver performance is embedded in our business, forming part of our employee annual performance reviews.

As a result of the wide range of safety related initiatives we have in place within Balfour Beatty, we have seen significant financial benefits:

125	£105k	£118k	£350k	£570k
Fewer incidents per year	Fewer insurance claims per year	Fewer damage and misuse charges per year	Indirect cost reductions from associated absences.	Worth of annual benefits

In addition to this, the work we have done to monitor and reduce vehicle idling with telematics data has reduced the cost to the business from a peak of over £29K to a low of £13K, a 55% reduction over a 25 week period.



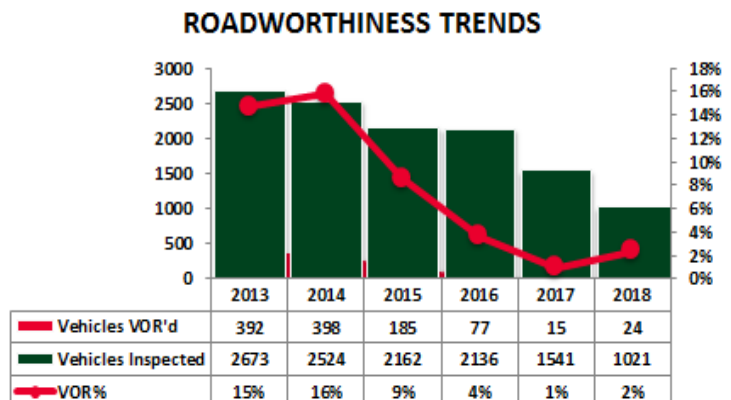
BB Idling analysis

This reduction demonstrates the power of getting the information to the audience that can influence the change in behaviours, and greater still that there are further reductions still available if we continue to drive the changes.

Other Activities

Managing our drivers is a large part of our strategy in managing road risk, but there is a bigger picture. Ensuring that we have the correct vehicles that are fit for purpose and that the drivers driving them are correctly and thoroughly briefed on our policies and procedures is essential. The assistance from the extended Transport Management team and their engagement with the workforce is critical to ensuring that drivers are regularly updated on any changes in legislation and policy, and importantly the driving community know who they can turn to if they have any questions or need assistance.

The Fleet Operator Recognition Scheme (FORS) is a voluntary accreditation scheme for fleet operators which aim to raise the level of quality within fleet operations, and to demonstrate which



BB Gate Checks analysis

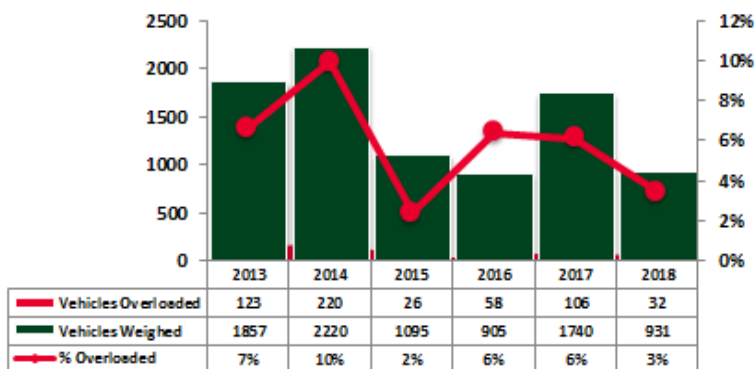
operators are achieving exemplary levels of best practice in safety, efficiency, and environmental protection.

Becoming a **FORS** member can bring peace of mind that our company is managing its WRRR – and demonstrates to our customers and supply chain our commitment to exceeding the industry standard. Balfour Beatty became a FORS accredited business in 2016/2017, gaining a bronze accreditation, underlining our commitment to maintaining standards for our vehicles and drivers.

We also employ a network of transport managers and regional fleet compliance engineers. They are tasked with ensuring our fleet is kept legal with gate stops, stand-down days and operational education, to help ensure the continued road worthiness of our fleet operations.

We also have the capability, via portable weight pads, to perform overloading checks at our depots. This helps to offer advice and best practice around safe loading and most importantly identifying potential issues before a potential incident can occur.

WEIGHT CHECK TRENDS



BB Portable Weigh-Pads analysis

Balfour Beatty was also the fourth company to be accredited under the Freight Transport Association (FTA) Van Excellence accreditation scheme. A scheme designed by some of the best van operators in the UK; facilitated and managed by FTA to recognise excellence and improve operational standards. At its heart is the Van Excellence Code, which is a Code of Practice outlining 'what good looks like' in van operations.

We are also aligned to the Construction Logistics and Community Safety (CLOCS) standard. **CLOCS** is an industry-led project sponsored by Transport for London (TfL) to reduce injuries and deaths due to work-related road risk. The CLOCS Standard was developed for construction logistics: Managing work related road risk.

The Standard outlines a common road safety framework for use by the construction logistics industry and aims to achieve far-reaching changes in the way the industry manages potential dangers to cyclists, pedestrians, motorcyclists and other vulnerable road users.

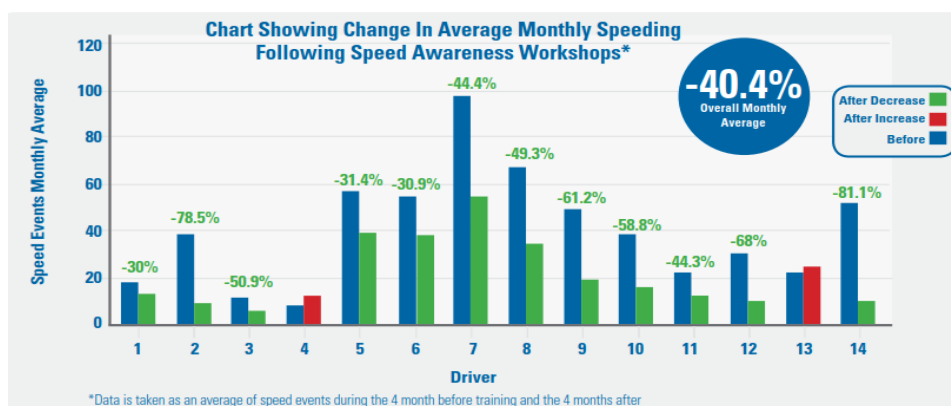
The Future

The DRM team has already developed a substantial service portfolio that can be delivered both to the Balfour Beatty community and to key external partners.

Current portfolio includes:

- On-Road Coaching
- Driver CPC Courses
- Licence Acquisition (B+E, C, C+E)

- Post Incidents Courses
- Speed Awareness Workshops
- Winter Driving Workshops
- 4wd Training
- Young Driver Workshops
- Event Management
- E-Learning
- Foreign Driver UK Familiarisation
- Safe Urban Driving (SUD)



Case study analysis

Speed Awareness Workshops in particular can be very effective. Through post course analysis we can easily demonstrate the effectiveness using the telematics data to illustrate pre and post course results.



Dash Cameras

Similarly we are very aware that technology moves very quickly and almost as soon as a new technology is deployed – a more innovative solution appears on the market. This is why we never stand still, driving our suppliers with ideas around product development.

We also have a finger on the pulse of any new technology being developed that could assist us in managing drivers within our business.

Additionally the DRM team are developing how data is captured, and how this can be best used to proactively drive performance improvements within our business units.

Driver Risk Health Rating	Score	Permit to Drive	Score
More efficient		A+: higher F: lower	A A B C D E F
A+	A	Fob Utilisation	A+: higher F: lower
A		A+: higher F: lower	A A B C D E F
B		Safety Score	A+: higher F: lower
C		A+: higher F: lower	A A B C D E F
D		Speeding Frequency	A+: higher F: lower
E		A+: higher F: lower	A A B C D E F
F		Idling	A+: higher F: lower
Less efficient		A+: higher F: lower	A A B C D E F

BB Driver Risk Health

Industry Recognition

Our DRM team have also contributed to the success on many awards Balfour Beatty has won:

Driver Training Related Awards

- East Midlands Regional Awards – Leadership & People Development – 2008
- Fleet Safety Forum – Company Driver Safety – 2009
- Fleet Safety Forum – Fleet Services Provider of the Year – 2009
- Fleet Safety Forum – Road Risk Manager of the Year – 2009
- ROSPA Gold Award – Managing Occupational Road Risk - 2010
- Fleet Safety Forum – Road Safety in the Community – 2010
- Fleet Safety Forum – Road Safety in the Community – 2011
- Fleet Safety Forum – Fleet Safety Analysis & Action – 2011
- Midlands Excellence Awards – Learning & Development – 2010/2011
- Fleet Safety Forum – Fleet Safety Analysis & Action – 2012
- Prince Michael Award – Fleet Award – 2010
- Fleet News Awards – Fleet Operator Initiative of the Year – 2011
- ROSPA Gold Award – Occupational Health & Safety – 2010
- Fleet Safety Forum – Company Driver Safety (Large Fleet) – 2011
- Fleet News Awards – Safe Fleet of the Year - 2013
- IRM Global Risk Awards – Delivering Value through Risk Management - 2013
- Brake Fleet Safety Awards – Safe Partnership Award – 2014
- Skills for Logistics – Driver CPC Excellence Award – 2014
- Heathrow Ltd Supplier Safety Award – Training Excellence – 2015
- Fleet News Awards – Safe Fleet of the Year – 2015
- Commercial Fleet Awards – Fleet of the Year, Utilities Sector – 2015
- Brake Fleet Safety Awards – Safe Driver Award - 2015
- Fleet News Awards - Cost Saving Initiative of the Year - 2016
- Commercial Fleet Awards – Fleet of the Year, Construction Sector - 2016
- Commercial Fleet Awards – Fleet of the Year, Safety & Compliance Award - 2017
- Commercial Fleet Awards - Commercial Fleet Manager of the Year – 2018 – **Adrian Wanford**

Individual Awards

- Fleet Safety Forum – Road Risk Manager of the Year – 2009 – **James Burrows**
- Fleet Van Awards – Fleet Safety Champion of the Year – 2011 – **Robert Lindsay**
- Fleet Safety Forum – The Kevin Story Award – Outstanding Commitment to Road Safety – 2012 – **Martin ‘Nobby’ Clark**
- Inspiring Safety Awards – Woodward Award – Most Inspiring Individual in Achieving Safety Excellence - HIGHLY COMMENDED – 2012 – **Martin ‘Nobby’ Clark**