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Resetting business for a sustainable future

Five steps for transport fleets going green

Introduction

The green agenda presents businesses with an opportunity to demonstrate leadership, innovation and a laudable commitment to protecting our environment.

Marrying these goals with growth, profitability and the need to deliver the highest possible service standards may seem challenging, but the objectives will often prove complementary.

Indeed, investments in green, sustainable initiatives can represent more than just ethical thinking. They can underpin strategies designed to reduce costs, boost brand image and drive competitive advantage.

Although the sustainability spotlight for fleet transport companies will often focus on the decarbonisation of vehicle operations, becoming an environmentally friendly organisation means taking eco-conscious decisions across all areas of the business.

The following guide explores five key areas where meaningful eco-change can be effected.

1 Decarbonising workspace, from warehouse to office

Transport and logistics businesses can ill-afford to ignore the environmental impact of warehousing and office operations on their carbon footprint.

Although storage, fulfilment and administrative services will rarely generate the same level of emissions as vehicle fleets, these functions can still contribute significantly to carbon output.

Going paperless

Paper usage across the fleet transport industry is yet to be eradicated and going paperless – or at least 'paperlite' – by digitising operational processes should remain a core business objective, helping leave trees in the ground, conserve energy and reduce waste. Moreover, digitisation can significantly raise the bar in business efficiency.

The connectivity capabilities of open telematics platforms have had a big impact in helping businesses transition from the manual processing of paper documentation to more streamlined cloud-based operations.

They have led to integrations between fleet management software and office suites, such as supply chain planning and asset management. They have also led to integrations with mobile devices, including tablet-style devices, such as the WEBFLEET PRO 8 series, that host business apps to automate on-site tasks.

The benefits of this end-to-end data connectivity has been highlighted by a growing number of industry operators.

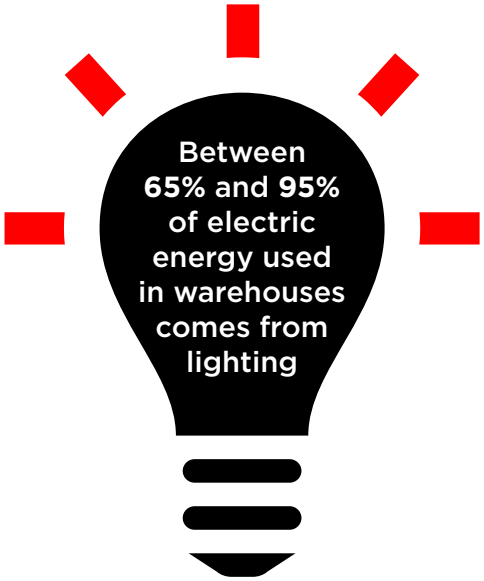
Discover how concrete company Wright Mix saw a productivity uplift of more than 25 per cent after switching to a paperless system for ordering and job scheduling:

READ CASE STUDY

A smart approach to energy

The introduction of smart, low energy management systems can offer one of the simplest ways to chart a course to an eco-friendlier business environment.

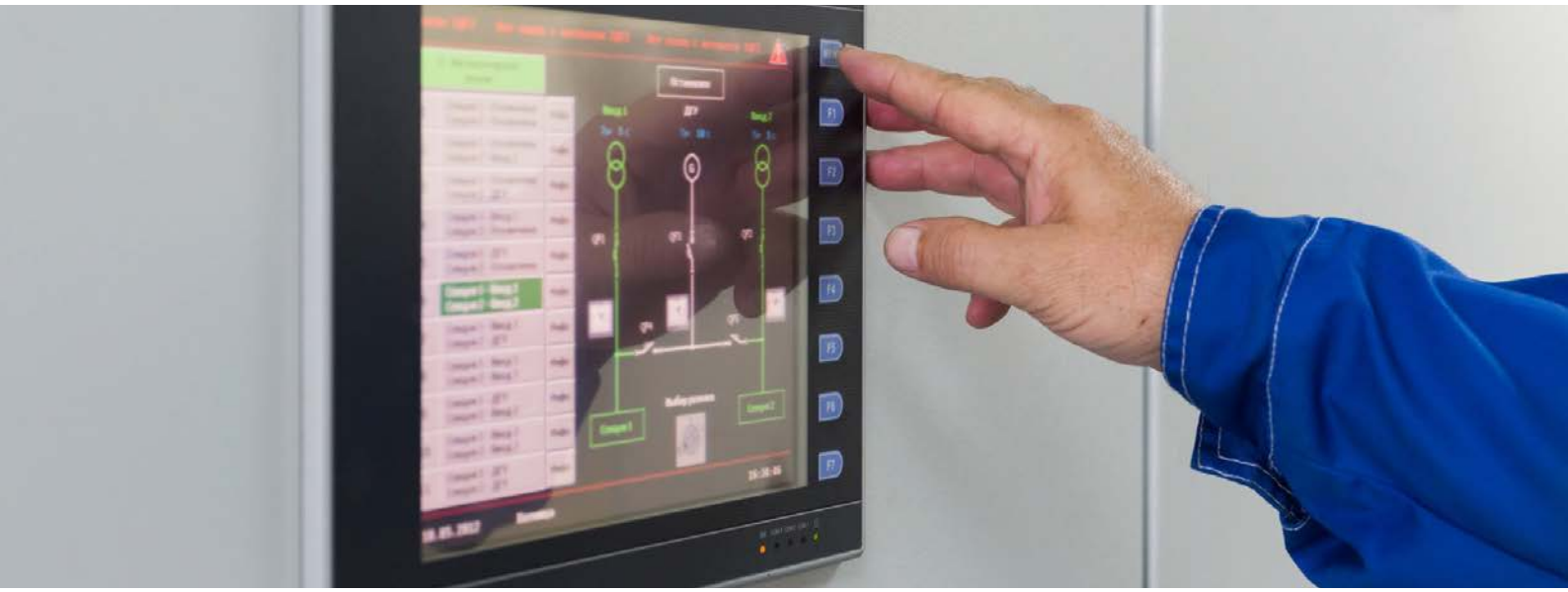
According to the Carbon Trust, between 65 and 95 per cent of electric energy used in warehouses – and typically more than a quarter in office buildings – comes from lighting[1&2].



Although adequate lighting remains a vital safety consideration, motion sensors and advanced control systems can enable lights to be more easily switched off or dimmed where and when full illumination is not required. Smart connected technologies will also allow lighting to be wirelessly scheduled.

What's more, the benefits can extend beyond carbon savings and cost control. Such systems can improve the health and wellbeing of employees, with computer-controlled lighting having now been developed that can mimic outdoor daylight patterns, including brighter white in the morning and warmer tones in the afternoon and evening.

Where possible to do so, legacy warehouse light bulbs, such as sodium, metal halide discharge or fluorescent tubes, should be updated with more efficient LEDs, which are capable of delivering energy savings of up to 80 per cent[3]. Solar energy generation, utilising large, flat warehouse roofs for solar panels, should also be considered.



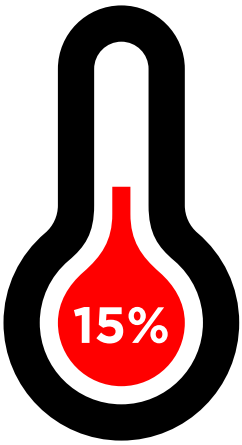
The second biggest consumer of energy for warehouse and logistics operations, according to the Carbon Trust, is heating, either by gas, oil or kerosene. This accounts for around 15 per cent of output[4].

Effective insulation that minimises heating requirements should be a focus here.

Poorly insulated windows, doors and walls will force HVAC equipment to work harder and consume more energy. Efforts should consequently be made to ensure new warehouse or office building space, along with refurbished premises, meet or exceed building regulation standards.

Once again, smart energy management systems and timing controls can have an important role to play by regulating a building's heating or cooling needs in the most energy-efficient way. The latest innovations will even allow automatic adjustments to be made to smart window shades, based on natural daylight detection.

All the while, the installation of destratification fans can help drive warm air displaced upwards back down to floor level.



Heating accounts for around 15% of energy output

1 Warehousing and logistics, Energy efficiency opportunities for warehousing and logistics companies, 2019

2 The CTA / Waterman Group, 2021

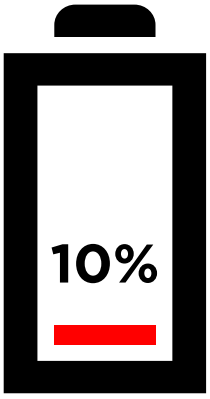
3 Alliance for Energy Efficiency

4 Warehousing and planning, Energy efficiency opportunities for warehousing and logistics companies, 2019

An electric forklift future

Additional considerations for warehousing and logistics operations should include the electrification of forklifts, which can typically account for up to 10 per cent of non-road energy costs[5].

Much is being made of the transition to zero-emission road vehicles, but diesel has also been the dominant forklift fuel to date. According to Toyota Material Handling, the UK market for electric counterbalanced forklift trucks is now expected to grow by as much as 10 per cent over the next five years[6].



Forklifts account for up to 10% of non-road energy costs

5 Toyota Material Handling, Factors driving the rise of the electric-powered forklift, 2021
6 Toyota Material Handling, Factors driving the rise of the electric-powered forklift, 2021

2 Reduce, reuse, recycle

Transport packaging waste can be particularly harmful to the environment. Indeed, millions of unboxing social media videos can be found online that name and shame companies for their failings in this area.

The war on plastic waste has become a notable focus in recent years, with the UN going so far as to describe the problem as a "planetary crisis". Packaging is responsible for up to a third of all plastics production[7], but less than 10 per cent of UK plastic packaging currently gets recycled[8].

Rethinking plastic

Eliminating plastic from packaging is one of the easiest eco-steps businesses can take.

Indeed, many transport and logistics companies have already made the switch to more sustainable alternatives, such as corrugated recyclable material. We are also seeing increasingly innovative approaches being taken in this area. Dell, for example, has pioneered the use of bamboo packaging, while British firm Woolcool has even managed to develop insulated packing from sheep's wool.

Systems that see transit packaging reused – collected and backhauled on delivery – not only offer obvious environmental benefits, they can also realise significant bottom line savings.

Check out these seven eco-friendly packaging products, compiled by B2B e-commerce platform Bizongo:

WATCH

7 The New Plastics Economy: Rethinking the future of plastics, the World Economic Forum and Ellen MacArthur Foundation, 2016

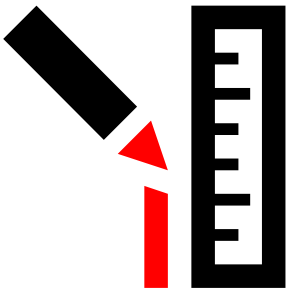
8 Greenpeace, What really happens to your plastic recycling? 2021

Size matters

All the while, ‘reduction’ has become one of the golden rules for sustainable logistics and distribution.

Reducing the overall size and weight of packaging will not only help to eliminate packaging waste, but less space will also be used on delivery vehicles, fewer vehicle journeys will be made and, in turn, fewer emissions will be emitted.

Although oversized packaging has been a longstanding problem with product fulfilment, automated ‘fit-to-size’ packaging systems can now help address the issue.



Automated ‘fit-to-size’ packaging systems can now help address the issue

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3 Sustainable supply chain management

Supply chains can be complex, but efforts to cascade sustainable business practices across commercial networks can help propagate robust environmental standards.

Purchasing policies which include environmental criteria, for example, will encourage suppliers to develop environmental management systems. Service level agreements can play an important role here, requiring suppliers to have policies in place that reduce waste, energy consumption and raw material use and to use renewable resources wherever possible.

Environmental performance can be validated by suppliers implementing stages of the BS 8555 standard or by environmental management accreditation, such as ISO 14001, as held by Webfleet Solutions. Environmental reviews of suppliers are mandatory under both ISO 14001 and the Eco-Management and Audit Scheme (EMAS).

It is worth noting, however, that supplier collaboration to encourage positive environmental practices and processes has been found to be more effective than monitoring strategies and coercive tactics[9].

9 Green supply chain management approaches: drivers and performance implications, 2015

4 Engaging employees in sustainable working practices

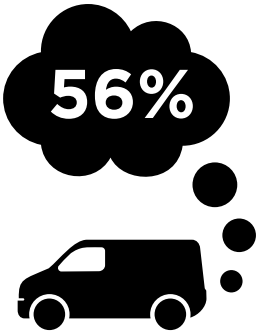
While many businesses harbour green ambitions, delivering on sustainability objectives can be a challenging undertaking and, in some cases, represents significant organisational change.

A recent research study from Bridgestone and Webfleet Solutions found that, according to more than half of fleet decision makers (56 per cent), transport decarbonisation risks being held back by competing business interests. Sixty per cent cited the need for a cultural shift within their companies for it to be embraced by all business stakeholders.

So, if green business objectives are to be effectively realised, senior management and key stakeholders should align on the goal of becoming a sustainable business from the outset. This will help ensure environmental responsibility is ingrained within the corporate mindset, permeating a company's culture across all areas of operation.

Indeed, eco-friendly working practices are as important for employees outside the vehicle cab as for those behind the wheel.

The wider workforce is integral to a company's sustainability mission and all employees should understand what it is trying to achieve and how it plans to achieve it. With sustainability at the heart of a business's modus operandi, and with these messages clearly communicated, employees will have the context they need to practice environmental responsible behaviours.



say transport decarbonisation risks being held back by competing business interests

HR teams should focus on recruiting and supporting a workforce that has a sustainability conviction, with staff trained on environmental best practice. Initiatives could also be set up that reward employees for their sustainability efforts, with individual and corporate successes shared through effective internal communication campaigns that reinforce a culture of positivity and progress.

60% **cited the need for a cultural shift**

The business and environmental returns of such an approach can play out in a multitude of ways. A well-informed procurement team will be better placed to mobilise suppliers, for example, while a knowledgeable sales team can help boost brand image by communicating a company's low-carbon values and achievements to customers.

5 Decarbonise your fleet

Companies should establish clear carbon-reduction targets for their fleets, with key performance indicators (KPIs) set to gauge performance and success.

Having these KPIs at their fingertips will help them devise their strategic policies to achieve their goals.

There may be limited scope for reducing fleet mileage, for example, but significant opportunities to transition to alternative fuels and powertrains, or to improve fuel economy by improving driving behaviour through training programmes and the use of telematics performance data.

Electro-mobility is currently at the fore of the transport decarbonisation agenda, and the transition from fossil-fuelled vehicles is well underway.

While the momentum towards electric cars, vans and short-haul trucks is rapidly gathering pace, however, electrification for long-haul road transport presents greater technical challenges. This has led to an extended 2040 end of sale date in the UK for new diesel and petrol HGVs.

Where electrification is not yet a feasible or financially viable option for businesses, alternative solutions can include renewable biomethane and advanced biofuels. According to Logistics UK, most of England and Wales is already within a 300-mile round trip of a biomethane refuelling station[10].

The direction of travel is a positive one with 43 per cent of HGV operators planning to invest in alternative fuel vehicles and 36 per cent of van fleets in EVs over the next 12 months, according to research from Bridgestone and Webfleet Solutions.

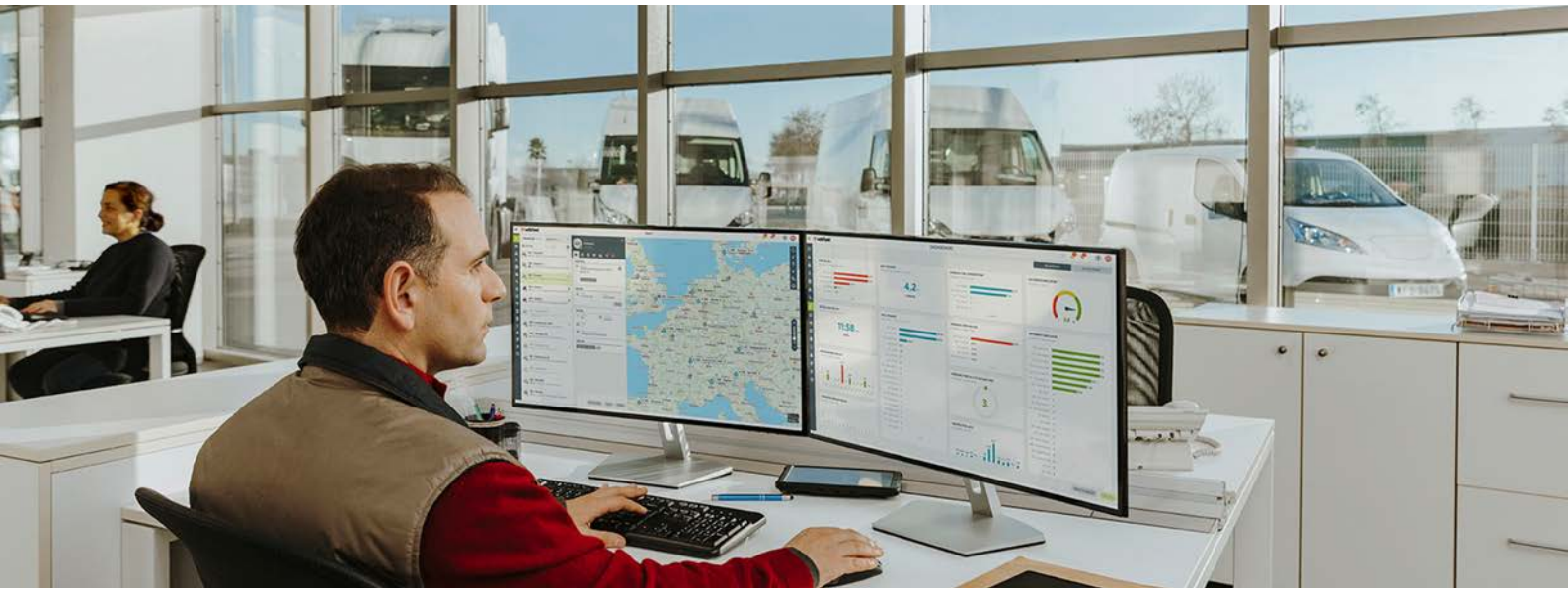
43%

of HGV operators are planning to invest in alternative fuel vehicles

36%

of van fleets are planning to invest in EVs

10 Biomethane – the fuel of the future? Logistics UK, 2021



All the while, supporting technologies – notably telematics – remain invaluable for cost control.

For businesses looking to make the move to electric vehicles, telematics-generated data intelligence is helping ease the transition and support their on going operation.

For traditional ICE fleets, by combining reporting intelligence – everything from vehicle location, routing, scheduling and driver behaviour scores to mpg and idling time, maintenance and fuel card information – trends can be easily identified and the root causes of fuel wastage tackled.

Beyond the powertrain

Ensuring vehicles are properly maintained can also be an influencing factor on carbon-efficiency, not to mention employee safety. Clogged air filters and poorly tuned engines can reduce mpg, while fitting the right tyres, inflated to the correct pressures, can also cut fuel consumption.

Organisations should have a strict vehicle servicing and maintenance schedule with drivers conducting routine vehicle checks to ensure issues are identified at the earliest possible opportunity.

As efforts continue to be made to reduce the weight and aerodynamic drag of truck cabs and trailers, fleets

Carbon offsetting

The development of the WEBFLEET EV solution builds on the company's longstanding commitment to decarbonisation, embodied in its Green Mission to build a more sustainable future for mobility.

This has included the Green Your Fleet Proposition, allowing customers to offset their fleet's CO2 through the use of data, working in partnership with global NGO JustDiggit.

Through Justdiggit, Webfleet Solutions has invested in regreening an area in Tanzania four times larger than the centre of Amsterdam, resulting in 51,800 tonnes of CO2 being sequestrated by bringing back more than 130,000 trees.

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should also be aware that tyres are being engineered with ever greater precision to maximise fuel efficiency and minimise rolling resistance. Furthermore, their maintenance and repair is become increasingly pre-emptive.

Bridgestone's NanoPro-Tech compound, for instance, has been proven to lower the internal friction between different tyre compounds. This in turn reduces top compound energy loss. Deployed in Ecopia H002 tyres, alongside design details such as slim beads and buttresses, it can help cut annual CO2 emissions for an average long-haul fleet by 546 tonnes.

Underinflated tyres also increase rolling resistance, fuel consumption and CO2 emissions, not to mention compromising safety. WEBFLEET TPMS has signalled yet another significant sustainability development in this area.

Manual tyre pressure checks can be time consuming and slow leaks difficult for drivers to detect, but by utilising sensors that continuously monitor tyre pressure levels and temperature, WEBFLEET TPMS automates this process.

Discover more about the Bridgestone Ecopia Effect:

WATCH

Tyre action for sustainability

The impact tyres can have on a fleet's fuel bill is far bigger than many might imagine.

Changing the tyre policy on a truck to lower rolling resistance tyres can save five per cent fuel consumption per label grade improvement. For an average long-haul truck, this translates to a saving of 1,500 litres of diesel per year. It also prevents four tonnes of CO2 from being emitted into the atmosphere – the equivalent of the annual CO2 absorption of 180 trees.

Bridgestone is pioneering best-in-class, fuel-efficient tyres, innovating new materials and technologies designed to cut carbon emissions.

Bridgestone is also fully committed to re-using and recycling, as well as reducing emissions. Its premium Bandag retreads support the transition to a circular economy by re-using existing tyres.

A safe, reliable alternative to a new tyre, retreads deliver similar performance levels but require require 70 per cent less oil, 32kg less rubber and 14kg less steel. They also produce up to 80 per cent less carbon emissions.

Ecopia H002

The Ecopia H002 achieves best in class fuel efficiency through an EU label A-A-A grade combination in steer, drive and trailer. An average long-haul fleet would be able to make more than a €200,000 saving per year on fuel costs and reduce their CO2 emissions by 546 tonnes per year.

Duravis R002

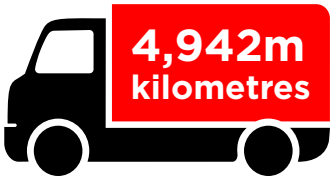
The Duravis R002 offers up to 45 per cent better wear life than its predecessor, while cost per kilometre is reduced by 15 per cent.

Eliminating empty running

According to Department for Transport (DfT), during 2020 HGVs travelled a total of 4,942 million empty kilometres (carrying zero tonnes of freight). In light of this, transport fleets should also review opportunities for load sharing and back-hauling.

Platforms such as freight exchanges make it easier for operators to share loads by exploiting spare capacity or back-hauling goods for others.

HGVs travelled



carrying zero tonnes of freight

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Discover more about Bridgestone's sustainability journey **here**.

For information about how WEBFLEET can help your business decarbonise,

call **0208 822 3605** or visit **www.webfleet.com**