Transport Sustainability Guide

At AIB, sustainability is a key pillar of our strategy.

As a financial institution at the heart of the economy, we recognise that the scale and impact of our business gives us a responsibility to the wider economy and society. We have committed to do more to help ensure a greener tomorrow, by backing those building it today.

AIB has a target to achieve Net Zero in our own operations by 2030 and an ambition that green/transition lending will account for 70% of overall new lending by 2030, with a target to achieve Net Zero in our financed emissions by 2040 for our lending portfolio (2050 including agriculture).

To support our customers, AIB has developed a series of sector specific sustainability guides. These guides aim to provide practical tips and information which can be used by businesses to transition their operations to a more sustainable footing.

This series has been produced in partnership with Arthian, a leading independent sustainability, engineering, planning and safety consultancy firm. To view the full series of guides, please visit: **www.aibni.co.uk/sustainability**

Transport - Sustainability guide

In a global context, the transport sector is one of the world's key emissions drivers. In the Intergovernmental Panel on Climate Change (IPCC) AR6 Synthesis Report: Climate Change 2023, it was noted that transport accounted for 15% of total GHG emissions, with average annual emissions remaining on a rough growth trajectory of 2% since 2010[1].

Transport is the largest contributor to UK domestic greenhouse gas (GHG) emissions, responsible for 29% in 2023[2]. Domestic GHG emissions from transport have been broadly flat for the last two decades, even as those of other sectors have declined. Better engine efficiency has been made up for by increasing numbers of journeys; the growth of electric and hybrid vehicles has been made up for by the growth in diesel and petrol SUVs.

Decarbonising Transport: A Better, Greener Britain, the UK's transport decarbonisation plan published in 2021, brought together existing work to reduce emissions across all forms of transport, and laid out the scale of the additional reductions needed to deliver transport's contribution to legally binding carbon budgets and delivering net zero by 2050.

UK strategic priorities in the path to net zero transport

- Accelerating modal shift to public and active transport
- Decarbonising Road Transport
- Decarbonising how we get our goods
- UK as a hub for green transport technology and innovation
- Place-based solutions to emissions reduction
- Reducing carbon in a global economy

This guide looks at key areas for consideration in a business with a significant transport / logistic function, including:

Fleet efficiency measures

Combustion engine alternatives

Alternative fuels

Social sustainability

Each section has a number of recommendations that can be incorporated into your business to reduce fossil fuel usage and the overall environmental and social impact of operations.

[1] https://www.ipcc.ch/report/ar6/wg3/chapter/chapter-10/
[2] https://assets.publishing.service.gov.uk/media/67a30e4f7da1f1ac64e5feb1/2023-final-greenhouse-gas-emissions-statistical-release.pdf

Fleet efficiency measures

Vehicle efficiency

Choosing the right vehicle is key to both your business operation and environmental commitments. While more sustainable technologies are being developed, current offerings on the market may not always be financially viable or practicable. However, there are steps which can be taken to ensure that you are as efficient as possible with existing options:

Efficiency options

Engine efficiency

Ensure only vehicles with excellent fuel economy and low CO^2 emissions are acquired.

Speed limiters

Speed limiters can improve fuel efficiency.

Appropriate vehicle sizes

Larger, heavier vehicles will generally be less fuel efficient, so consider vehicle size and aim for the smallest appropriate vehicle for the operation.

Stop start functionality

The use of stop-start technology reduces fuel consumption which results from idling.

Fuel management

Excellent fuel management is considered best practice. Monitoring operational fuel usage is a fundamental step in establishing baseline data which will enable corrective actions to be implemented.

Businesses can track their fuel consumption through fuel card invoices and/or staff expenses claims, while larger companies may well have their own fuel depots from which fuel usage can be monitored.

The use of telematics software is quickly becoming the most precise and effective way of collating data relating to fuel use within vehicle fleets, providing information to operators on everything from location and speed to engine diagnostics and even driver behaviour. Even where fleet tracking technology exists, it is still good practice to record mileage every time a vehicle is refuelled so that overall miles per gallon (MPG) can be factored into company fuel performance[3].

This process is typically enacted by using fuel cards, making them a popular choice for tracking and understanding fuel use in many businesses.

[3] https://energysavingtrust.org.uk/advice/efficient-driving/

Key performance indicators & fuel budget management

You can't improve what you can't measure. Most fleet managers aim to control expenses and maximise profitability. Unfortunately, many fleet managers don't have a way to accurately track expenses.

Because there are so many costs associated with fleets, manually calculating expenses is an uphill battle. Not only is it difficult to ensure accuracy, but by the time you reconcile your budget, you've already fallen behind.

Fleet management software allows you to track expenses in real–time. By managing your fleet with software, you can view expenses on a line item level and automatically calculate your true total cost of ownership (TCO).

Monitoring costs with configurable fleet reports allows you to confirm trends across your fleet and take necessary action for improvement.

When setting fleet management KPIs for expense management, you can create broad targets, such as cutting fleet expenses by 10%, or track specific benchmarks such as:

- Total cost per mile
- Parts and labour costs
- Fuel expenses
- Taxes and registration
- Optimal vehicle replacement

Maintenance management & downtime prevention

Developing fleet management KPIs for maintenance helps ensure your vehicles are serviced quickly to keep your fleet productive. Prioritising maintenance productivity reduces downtime and maximises efficiency.

When determining maintenance benchmarks for a productive fleet, first consider measuring repair turnover rate. Monitoring your technician efficiency ensures your vehicles are getting in and out of the shop quickly and avoiding downtime.

You should also track issues by vehicle. Are there certain vehicles that experience frequent oil leaks or other issues? Comprehensively tracking vehicle health allows you to spot recurring issues and trends across your vehicles.

To avoid recurring issues, fleet managers should take a proactive approach to maintenance. Adhering to a preventative maintenance schedule helps identify and repair issues before they compound and cause downtime.

To stay on top of preventative maintenance, consider setting a fleet management KPI to measure how well you're following service schedules. This should be an easy target to hit if you've set up automatic service reminders.

Optimal vehicle replacement targets

We've discussed both expense and maintenance management. These two aspects of your fleet management plan can help you make one of the more challenging decisions for your fleet: vehicle replacement.

Determining the best time to replace vehicles is complex. You want to get the most out of your assets, but there comes a point of diminishing returns with every vehicle. At some point, maintenance expenses outweigh the cost of a new vehicle.

Leveraging software to monitor vehicle health and expenses can help identify optimal replacement windows. For example, with Fleetio's Optimal Replacement Analysis Tool, fleet managers can take a strategic approach to replacement and estimate replacement windows based on a variety of factors.

With this analysis, you can centre your fleet management KPIs to target lengthening asset lifespan and create a target to replace vehicles at optimal times to avoid spending more money in the long run.

Fuel costs

Fuel keeps your fleet running – literally. Fuel is one of the largest ongoing costs for fleets, and while unavoidable, fuel costs can be managed. Monitoring fuel consumption and expenses in a centralised software allows you to develop strategies for improvement.

When setting fleet management KPIs surrounding fuel, fleet managers should target fuel efficiency. This involves both monitoring fuel consumption trends as well as improving routes and driver behaviour.

Tracking fuel consumption is time–consuming if you're trying to keep up with paper receipts and manual data entry. Having drivers input fuel entries into fleet management software saves time and allows you to view fuel costs in real time. For further efficiency and access to additional fuel data, fleets can integrate their fuel cards with software packages.

Fleet managers can also hit their target fleet KPIs by optimising routes. Are some vehicles driving longer distances than others? Balancing asset utilisation and streamlining routes can improve performance and fuel efficiency across your fleet and even help you save on fuel expenses.

Compliance and inspections

The Driver and Vehicle Standards Agency has produced a guide[4] to explain the responsibilities and systems involved in maintaining vehicles in a roadworthy condition, regardless of operating conditions, fleet size, or vehicle type. Roadworthiness means complying with the appropriate vehicle construction, road safety, environmental and operating standards required by UK law.

Licensed operators have specific legal duties, such as carrying out periodic safety inspections. If you are a new operator, this guide will help you develop, install and monitor a system for ensuring roadworthiness. If you are an experienced vehicle operator, this guide should help you benchmark whether your systems are sufficiently comprehensive or should be improved to maintain compliance.

Creating a fleet management KPI to target thorough inspections is one of the best ways to maintain compliance. Monitoring completion rates in fleet management software ensures your drivers are keeping up with compliance and keeps you informed of any vehicles that require maintenance.

Safety and driver behaviour

Safety is a fleet manager's top priority, and just like costs and maintenance, safety can be measured. Setting fleet management KPIs surrounding safety and driver behaviour allows you to ensure your vehicles, your drivers and the public at large are safe on the roadways.

Consider creating fleet management KPIs for the number of incidents each quarter. While this number should be as close to zero as possible, sometimes accidents are unavoidable (but hopefully never your driver's fault).

Fleet managers can also monitor driver behaviour with telematics tools to identify harsh braking and speeding. Training drivers regularly on safe driving habits and creating safety procedures can ensure your team is taking safety seriously. Not only does this decrease liability, but it can also help avoid fines and violations.

[4] https://www.gov.uk/government/publications/guide-to-maintaining-roadworthiness/guide-to-maintaining-roadworthiness-commercial-goods-and-passenger-carrying-vehicles

Driver training

Poor driving behaviours such as speeding, aggressive driving, frequent or sudden braking and idling are strongly associated with inefficient fuel consumption and can lead to increased costs on fuel, maintenance and also insurance liabilities. Incorporating driver training into a sustainable fleet management strategy can go a long way to avoiding these outcomes. Logistics UK offers eco-driver training, which can help drivers adopt new behaviours to help business reduce fuel spend, lower transport related carbon emissions and improve safety. These types of training courses are generally based on the principles of eco-driving techniques which encourages drivers to:

Drive smoothly

Anticipate situations and other road users as far ahead as possible to avoid unnecessary braking and acceleration. Maintain a greater distance from the vehicle in front, so that you can regulate your speed when necessary without using the brakes.

Shift up early

- When accelerating, shift to higher gear early, usually by around 2,000–2,500 revs per minute (RPM).
- Skip gears when appropriate.

Step off the accelerator

When slowing down or driving downhill, remain in gear but take your foot off the accelerator as early as possible. In most situations and for most vehicles, this will activate the fuel cut-off switch, reducing fuel flow to virtually zero.

Avoid excessive speed

High speeds greatly increase fuel consumption.

Targets and incentives

To see improvements and encourage long-term adoption of fuel-efficient driving, fleet managers should follow up on monitoring and / or eco-driving training by engaging with staff in a number of ways.

Identify drivers who need support

Vehicles or drivers should be ranked by their performance, so you can identify exceptional fuel consumption (MPG) (e.g. 20% below the manufacturer's estimate or against the fleet average) by vehicle make, model or driver.

- For drivers in the bottom quartile, you should ask questions to identify any reasons for the poor performance and discuss actions. Poor MPG might be due to mechanical problems or different duty cycles, such as more frequent stopping and starting or heavier loads.
- Help, advice, information and appealing to a driver's pride in his or her work are often more effective than disciplinary action. Suggestions could include carrying out any necessary vehicle repairs, reviewing equipment required to be carried, potentially removing excess weight in a vehicle, and avoiding excessive speeds.
- Accurate and continual monitoring of fuel use allows you to identify drivers who will benefit most from attending an eco-driving training course, and track their improvement after training.

For more information and case studies, see **advising fuel efficient driving techniques for your fleet.**

Set targets

Individual, team or department targets can be set relative to the manufacturer's MPG (e.g. 15% below the manufacturer's MPG) or against historic performance, or by pence per mile. See below for more information on setting up a communication programme. You can share information with managers or directly with drivers.

Produce a driver league table and reminders

Producing a monthly or quarterly league table of drivers' MPG can reward and encourage fuel-efficient driving through healthy competition. A league table, plus periodic reminders about the principles, or top tips, are effective ways to embed the principles of eco-driving training.

Offer incentives

Incentive schemes, which identify and reward the most efficient drivers, can be an inexpensive way to promote fuel efficient driving.

- Individual or team bonuses, vouchers, donations to a chosen charity or team social fund can also motivate improvements and may be funded through savings on fuel costs.

Communicating with staff

It's helpful to think about how fuel economy information is shared with staff to maximise engagement.

As a starting point, it's helpful to share information on fuel costs, including the total spend on fuel by the business, by department, and individually. Key indicators to report on are MPG, pence per mile for each vehicle, and averages across groups of vehicles or teams. Information on the variation in MPG across the business might also prompt discussion and engagement.

If targets are being introduced, drivers should be aware how targets have been set and given advice (i.e. driving tips) on how they can meet the targets or be offered training.

Information can be shared via intranet, email and text as well as team briefings and scheme policy documents.

Telematics

Fleet tracking software, also known as telematics, provide exceptional data on fleet performance across a range of variables. Using advanced diagnostics, fleet operators are able to identify trends relating to fuel efficiency and inform action for improvement. Data can typically reflect accurate technical details on fuel use, speed, braking patterns, load, and engine performance. Outlay costs will vary, depending on size of fleet, but can be significant when factoring in the purchase of the appropriate hardware, installation and setup in individual vehicles, software, and monthly subscription fees, as well as potential staff training and resourcing.

As a tool for correcting inefficiencies and reducing the carbon intensity of a transport fleet, telematics can be an important investment which ultimately save the business money in the long-term.

Alternatives to internal combustion engine

With the UK Government committing to phasing out new cars that rely solely on internal combustion engines (ICE) from 2030 through the Zero Emissions Vehicle Mandate, finding an alternative to internal combustion engines within their asset portfolios, will become of increasing importance. Different options have emerged over the last few decades including electrification and hydrogen fuel cell batteries, whilst alternative fuels such hydrotreated vegetable oil (HVO) and biogas have offered lower emission fuel alternatives for internal combustion engines. Significant barriers remain with regards to electrification of heavy-duty and medium-duty vehicles (HDVs and MDVs); however, technological advances are happening at a rapid rate.

The use of electric vehicles (EV) is growing within the logistics sector too, especially with delivery agents who can rely on small, localised route planning and local hubs for charging. Minimising charge downtime is a primary concern for fleet managers wanting to maximise productivity, which can make electrification of the heavy goods industry particularly challenging. However, recent developments at companies like Nissan and Scania are showing that disruption can be minimised through smart planning and charging protocols.

Nissan's Sunderland Plant has recently gone live with an electric truck charging station that aims to save 1,500 tonnes of CO2 a year. The project is a first in the UK automotive industry - powering up to ten electric heavy goods vehicles (eHGVs) simultaneously and supporting 60 eHGV deliveries to the plant daily.

A point of contention with the electric vehicle industry revolves around embodied carbon stemming from the manufacture of batteries. The production phase of battery manufacturing currently has a larger carbon impact than the manufacturing of conventional ICE vehicles, with the climate benefit of electric powered vehicles realised over the usage phase; however, this is entirely contingent on the average grid intensity of the respective region. This is why decarbonisation of the power sector is a key objective in achieving sustainable transport. Companies like Tesla are improving the production phase emissions of battery manufacture, with carbon neutral plants in Nevada now showing it is possible to produce at scale with renewable energy.

Steps for electrifying your business fleet are below:

1. EV suitability assessment

Will electrication work for your business?

2. Vehicle recommendation

How do you choose the right EVs for your business?

3. Charging infrastructure assessment

Which charge points, how many, and where?

4. Electrical site survey

What (if any) site infrastructure changes do you need to make?

5. Hardware Implementation

How do you smoothly execute your installation plan?

6. Charge point management

How do you programme and operate the installed hardware?

7. Maintenance and servicing

What happens if your charge points need updates or develop faults?

8. Enabling the power of telematics

How do you track data for real EV insights?

9. What next?

- → Use data to optimise the value of your investment.
- → Expand your initial investment to boost the benefits.
- → Innovate to stay ahead.

Alternative fuels

Until the wide scale economic disruption caused by the covid pandemic and conflict in Ukraine, global biofuel production had reached a record 154 billion litres per annum, with total global demand expected to expand by 20% over 2022 to 2027[5]. Some operators are now using HVO as a diesel replacement. This fully renewable raw material coming from waste vegetable oils can help achieve a 90% emissions reduction compared to conventional fuels and could offer a short-term solution for vehicle fleets seeking to decarbonise whilst electric vehicle infrastructure comes up to meet requirements[6].

Avoiding transport

Reducing road mileage, whilst glaringly obvious, is perhaps the most effective way of reducing transport emissions. Route optimisation software, which will be part of most telematics products, can help reduce unnecessary mileage and idling during peak times in congested areas. The practice of avoiding unnecessary mileage can be further enhanced through smart load optimisation strategies and software products which ensure that load capacity is optimised, reducing potential for further loads, road mileage and emissions.

Careful evaluation of how products are loaded and fitted together to maximise fill rate, can be done via 3D load optimisation software. Often reviewing packaging designs to reduce filler materials and air, helps optimise the load capacity, lowering potential emissions, whilst reducing packaging.

Another key concept in the sustainable utilisation of transport is ensuring that empty loads are reduced as far as possible. Empty running of truck and van fleets adds unnecessary costs to business operations, increased traffic on roads and increased emissions across the industry.

Collaborative approaches across the supply chain help ensure that spare capacity within trucks and vans is fully utilised. Use of apps like **https://www.shiply.com/** can be a way of maximising load space.

[5] https://www.iea.org/reports/renewables-2022/transport-biofuels
[6] https://www.smmt.co.uk/wp-content/uploads/2025/03/SMMT-Fuelling-the-Fleet-Driving-Commercial-Vehicle-Decarbonisation.pdf

Social sustainability

Social sustainability assesses a company's engagement with, and impact on, its workers, customers, suppliers, and the local community. Organisations can positively contribute to fairness in society, investing in fair and equal opportunities and conditions for employees, people working in the supply chain, and local communities.

The benefits of improving social sustainability in your company:

- Enhanced business reputation.
- Attracting employees who value working for a socially and environmentally conscious employer.
- Attracting customers who may be more willing to support socially and environmentally progressive business compared to those who are less so.

Key social sustainability areas for consideration

Workforce

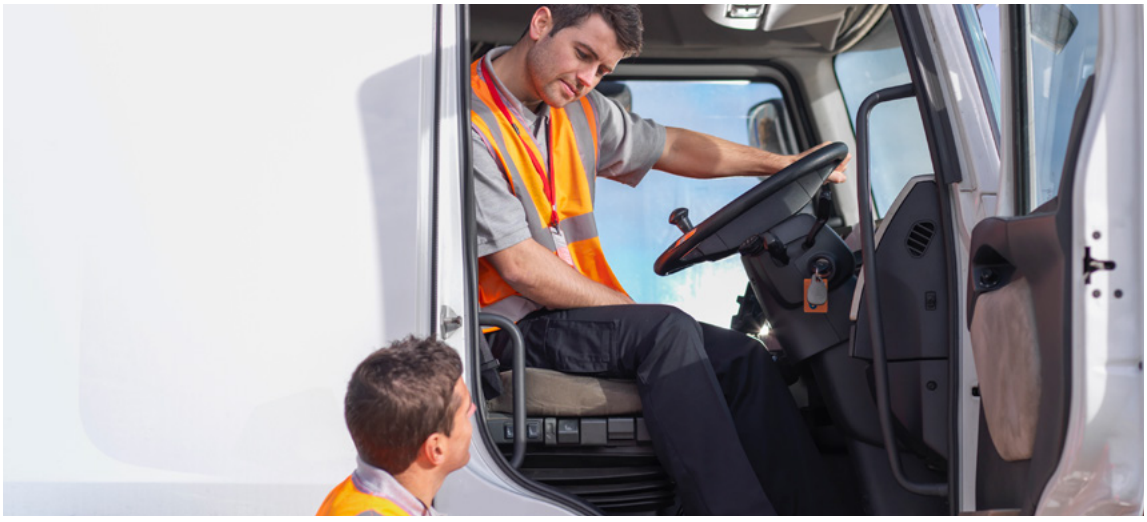
- **Staff development:** Providing regular training and support to staff to improve their confidence and sense of value in the team. Staff who feel valued and included are more likely to perform well and foster company loyalty. This can reduce costs associated with staff turnover and low productivity.
- **Health & safety:** Supporting health, safety and wellbeing makes your company a safe, welcoming and desirable place to work.
- **Equality:** Promoting equality in the workforce with diversity and inclusivity policies.

Suppliers

- **Labour:** Preventing abuses within the supply chain such as labour rights, including modern slavery.
- **Fair trade practices:** Uphold standards of fair trade and social equality.

Customer and community

- **Equality:** Preventing social injustices and promoting equality and inclusion within customer base.
- **Community engagement:** Contributing to the local community, such as investing in local projects or funding educational initiatives.



Additional resources

- **Logistics UK,** formerly known as the Freight Transport Association (FTA), represents the interests of companies involved in the logistics and transport sectors across the UK.
  https://logistics.org.uk/

- **Energy Saving Trust** is an independent organisation working to address the climate emergency and are a trusted voice on energy efficiency to businesses across the UK.
  www.energysavingtrust.org.uk

- **The Carbon Trust** provides advice and support to businesses looking to improve their environmental performance.
  www.carbontrust.com

- **Northern Ireland Sustainable Energy Programme** - An £8million fund that households and businesses can benefit from for energy efficiency schemes.
  www.energysavingtrust.org.uk/programme/nisep

- **Invest NI** is a regional development agency which provides support and funding to help businesses operate more efficiently, minimise waste, reduce costs and reduce environmental impact.
  www.investni.com

Arthian

Established in 1996, Arthian are a leading independent sustainability, engineering, planning and safety consultancy with offices throughout Ireland and the UK.

www.arthian.com