

# Efficient Operations for Small Fleets and Owner-drivers

Guide





# Foreword

Freight Best Practice offers **FREE** advice and information to help you increase efficiency, reduce your environmental impact and **save money** in your freight transport operation.

Freight Best Practice is funded by the Department for Transport and managed by AECOM and produces guides, case studies and software, all of it **FREE!**

All Freight Best Practice materials can be downloaded from **[www.freightbestpractice.org.uk](http://www.freightbestpractice.org.uk)** or ordered through the Hotline on **0845 877 0877**.

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# 1 Introduction

## 1.1 The Purpose of This Guide

Around half of all trucks on the road are from fleets of 10 or fewer vehicles. This guide describes the actions that you can take as an owner-driver or small fleet operator to reduce the amount of fuel you use and improve your efficiency, as well as doing your bit for the environment.

The guide highlights a range of measures that can be introduced which are both **cost effective** and **easily implemented**. Use it to improve your efficiency and save money!

## 1.2 Who is This Guide Is for?

This guide is for anyone who has responsibility for a small fleet, including:

- ➔ Owner-drivers
- ➔ Owners and transport managers of small haulage companies
- ➔ Small own account fleets whose primary business is not transport

You may be an owner-driver with your own truck and you're responsible for everything to do with it.

You may be the owner of a small haulage company sub-contracting from, or competing with, large multi-depot freight firms.

You may be part of a large organisation that needs to run a small transport fleet as part of its main business.

Depending on which of these categories you fall into, you may find that one or two sections in this guide do not apply directly to you but whatever your operation, you will find plenty in this publication to help you run your transport operation more efficiently.

This guide is aimed at small fleets, by which we mean those with up to 10 vehicles. Operators of larger fleets, however, will also find the information useful.

## 1.3 How Much Can Be Saved?

The following three examples show some of the methods employed by small companies to reduce fuel use and improve efficiency and illustrate just how much can be saved.

### N.R.D. Transport

Neil Davis, trading as N.R.D. Transport, is an owner-driver based in Birmingham. He has achieved a **15%** reduction in fuel use by:

- ➔ Measuring his costs
- ➔ Using his vehicle's cruise control and exhaust brake more efficiently
- ➔ Maximising his vehicle's aerodynamic efficiency
- ➔ Maximising back-loading opportunities and reducing empty miles



### Logiq UK Ltd

Operating nine vehicles, Logiq UK Ltd is a Kent-based haulage company that has reduced its fuel consumption by **10%** by:

- ➔ Introducing a driver bonus scheme based on fuel consumption
- ➔ Using sat-nav and vehicle tracking technology
- ➔ Regularly checking tyre wear, pressures and wheel alignment
- ➔ Specifying cab roof air deflectors on its vehicles



## Riverford Organic Vegetables Ltd

Riverford Organic Vegetables Ltd operates a small fleet of articulated vehicles to deliver produce to regional hubs for its organic home delivery business. It has reduced its fuel use by **9%** by:

- ➡ Specifying the correct vehicles and trailers for maximum efficiency
- ➡ Monitoring driver and vehicle performance
- ➡ Maximising vehicle utilisation



More information about these companies can be found in the Freight Best Practice Case Study, **Owner-drivers and Small Fleet Operators: Simple, Cost Effective Ways to Improve Efficiency** available through the Hotline on **0845 877 0 877**, or via the website at **[www.freightbestpractice.org.uk](http://www.freightbestpractice.org.uk)**

## 1.4 A Quick Look at Fuel Use and CO<sub>2</sub> Emissions

Reducing fuel consumption saves you money but also provides the added bonus of reducing your carbon dioxide (CO<sub>2</sub>) emissions at the same time.

The amount of CO<sub>2</sub> produced by your vehicles is directly linked to the amount of fuel that you use. The more fuel you use, the more CO<sub>2</sub> you produce. So if you can save fuel, you end up reducing your environmental impact as well as saving money and increasing your profits. It's a win-win situation!

The issue of climate change and greenhouse gas emissions has become one of the most important subjects of our time. Companies of all types and sizes are now being asked to prove their 'green' credentials. Many large companies are investing in new technology to address this or commissioning studies on ways to reduce their fuel usage - and with it their CO<sub>2</sub> emissions.

The good news is that fuel saving and emissions reducing measures are not just something that can be carried out by big organisations with large budgets. There are many measures small firms can introduce to cut down on fuel consumption, reduce their CO<sub>2</sub> emissions and increase their profits and many can be done very quickly, without major investment.

## 1.5 Finding Your Way around This Guide

Figure 1 shows the structure of this guide, which begins with a profile of the types of operator the publication is aimed at.

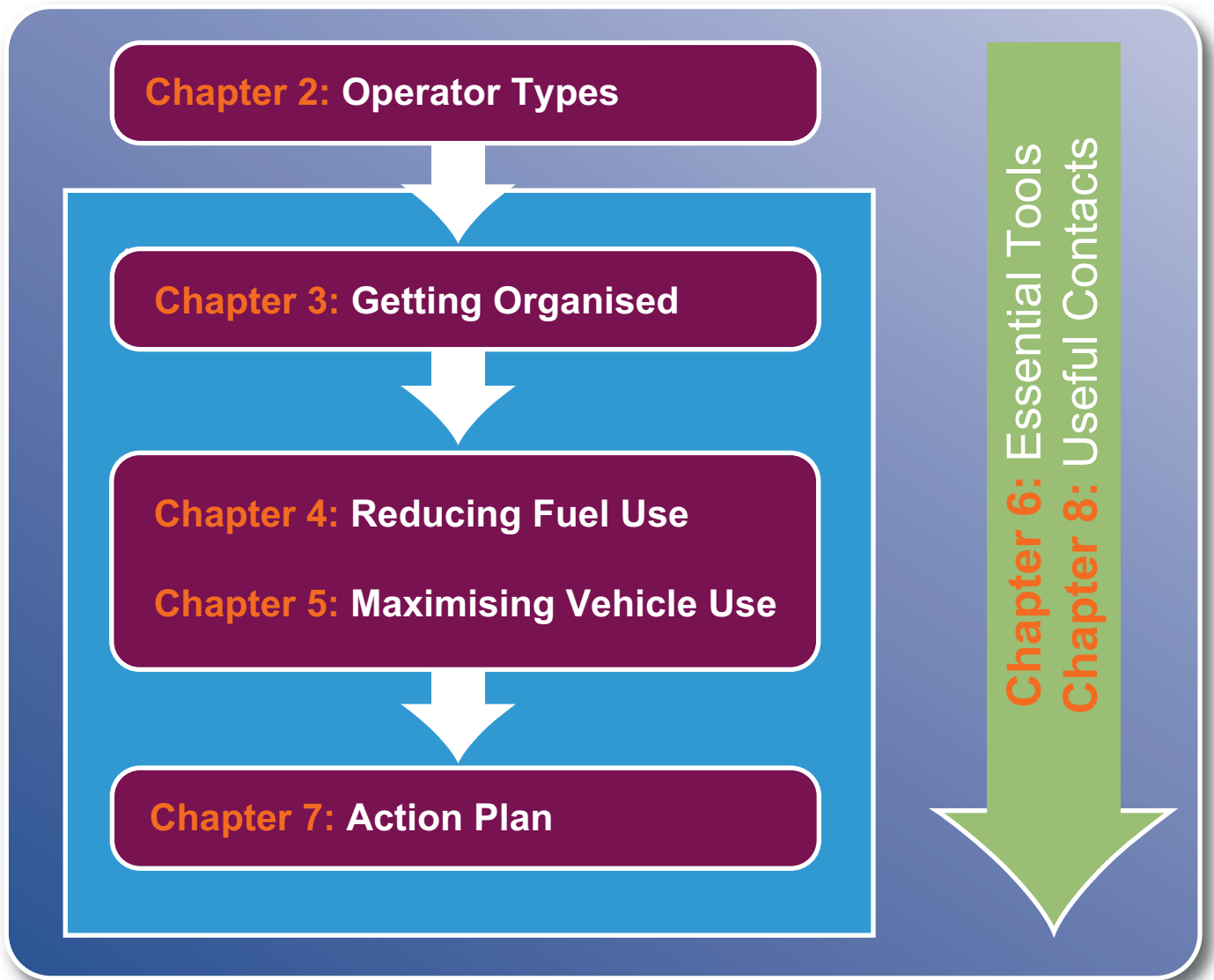
The guide then takes readers through the following key areas:

- ➡ Getting organised to make real savings
- ➡ Reducing fuel and maximising vehicle use
- ➡ Creating a proper action plan

To help vehicle operators on their way, there is also a section in this guide that outlines some useful tools from Freight Best Practice to help you make savings and improve efficiency. There is also a list of organisations that can provide further assistance.



Figure 1 Guide Structure



## 2 Operator Types

This section briefly outlines some of the characteristics of small fleets and owner-drivers and some of the challenges they face. Obviously every company is different, so not all the characteristics and challenges shown will apply to you, but you should recognise certain things which affect your business.

### Small Own-Account Fleet Operator

#### Characteristics

- ➡ Specialist transport systems and equipment geared towards main business
- ➡ Knowledge of business sector and transport within that sector
- ➡ Performance measures may concentrate on service rather than operational efficiency

#### Challenges

- ➡ As transport is not the company's main business, there may be knowledge gaps amongst transport staff when it comes to compliance, training, efficiency, etc
- ➡ The demands of the business can often mean improving delivery service performance to the detriment of the transport operation

### Small Haulage Operator

#### Characteristics

- ➡ Flat business structure – ease of communication and flexible service
- ➡ Less data to handle – complex monitoring systems not required
- ➡ Used as subcontractors, wealth of experience of different contracts
- ➡ Specialism, many small firms tap into niche markets

#### Challenges

- ➡ Less well known
- ➡ Restricted opportunities for training, advice, systems development
- ➡ Vehicles off the road have more of an impact on small fleets

### Owner-driver

#### Characteristics

- ➡ Flexible, not limited by company working practices, shift patterns, wage structures
- ➡ Can provide a personal service to customers
- ➡ Their own boss - no one reports to the owner-driver and they in turn do not report to anyone else

#### Challenges

- ➡ Finding time to carry out driving duties as well as running the business
- ➡ No company support when it comes to training and compliance
- ➡ Vehicle servicing and maintenance need to be carefully planned to ensure minimal impact on the business
- ➡ Vehicle breakdowns can be a particular issue as the vehicle is the owner-driver's only source of income

## 3 Getting Organised - Managing Costs and Efficiency

Before you can start to implement an efficiency plan, there are three things you need to do.

1. **Plan your time** to make the most of the limited time you have. As an owner-driver or small fleet operator, it is you who must assume the role of 'Fuel Champion' - the person in an organisation responsible for implementing efficiency improvements. You'll therefore need to make some time available for this important task.
2. You need to **start collecting data** on what your costs are, for example how much fuel you are using and how much you're spending on things like fuel, vehicle repayments and servicing.
3. You need to **record how well your transport operation is performing**.

You then have a base on which you can start making savings.

### 3.1 Time Management Planning Your Time

Time management is all about managing yourself. It is about ensuring that you make the best possible use of the time available to you. Good time management is at the heart of being effective in your job and comes from being results-focused and knowing what you want to achieve.

Follow the steps below to start planning your time more effectively.

1. Do your planning at the same time every day. This may be in the morning, or in the evening for the following day
2. Write down a 'to do' list. This gives you:
  - ➡ A roadmap of what you need to do at the beginning of the day
  - ➡ A reminder of what still needs to be done throughout the day
  - ➡ A place to check off your accomplishments at the end of the day

3. Separate the list into **A**, **B** and **C** priorities:
  - ➡ **A** items are top priority
  - ➡ **B** items are reasonably important
  - ➡ **C** are the less important things
4. Do the **A** list first, then **B** and finally **C**
5. Check off items as you complete them
6. Remember to allocate time for driving and other major activities
7. Don't plan too many activities for any one day - don't fill your planner up to overflowing! Much of your work will come in during the day and you need to allow for that

### Interruptions

No matter how well organised you are, you will always have to manage interruptions. These can be by phone, by e-mail or simply people coming up to you. Some are important, others are not. But they all need to be managed to ensure they don't take up too much of your time. If the balance is right, then important interruptions can be processed as necessary whilst the less important ones can be put to one side for later.

#### Tips

- ➡ Inform people when you are willing or unwilling to be interrupted
- ➡ Set time limits - ask those interrupting you how long it will take
- ➡ Arrange meetings at times convenient to you
- ➡ Don't invite interruptions e.g. by having an empty chair by your desk

### 3.2 Collecting Data

#### Costs

Before you can start to make savings, you need to know how much your operation is costing you. This is just as important for an owner-driver as it is for the manager of a multi-vehicle fleet. It is also important to know your costs when it comes to providing quotes for work.

There are different ways to collect data but a manual checklist is probably the easiest, especially if you're an owner-driver (though larger fleets often benefit from using sophisticated computer packages and systems for

automatically collecting and recording such data). A common way is to record the information onto a spreadsheet. Once the spreadsheet is set up, it takes little time to regularly input the data.

There are two types of costs to record:

- ➡ Fixed (standing) costs
- ➡ Running costs

The main cost types within each category are as follows:

Fixed Costs	Running Costs
Vehicle Excise Duty	Fuel
Insurance	Oil
Vehicle Finance	Tyres
Depreciation	Maintenance
Overheads	Driver Costs
	Road Charges / Tolls

### Other Data

As well as these, there are one or two other pieces of information that need to be recorded. Examples include:

- ➡ Vehicle miles or kilometres travelled
- ➡ Empty miles travelled
- ➡ Total time vehicle has worked

Once a system for recording data has been set up, you are then in a position to do something with it.

## 3.3 Measuring Performance

### Key Performance Indicators

There are a number of measures that can be used to monitor various aspects of your transport operation. These are commonly known as key performance indicators (KPIs).



There are many possible KPIs that can be recorded. The KPIs that are suitable for you will depend on the particular type of operation you are running and the efficiency improvements you want to set for yourself. One company, for example, may be particularly interested in reducing the time spent by vehicles travelling empty; another might be more concerned with total vehicle costs per mile.

Among the most common, however, are:

#### Vehicle costs

How much your vehicle is costing for every mile it travels. This is calculated as follows:

$$\text{Vehicle Costs} = \frac{\text{Fixed costs} + \text{Running costs}}{\text{Distance travelled}}$$

**Percentage of empty miles run** – what proportion of your mileage is empty. This is calculated as follows:

$$\text{Percentage of empty miles run} = \frac{\text{Total empty miles run}}{\text{Total miles run}}$$

**Miles per gallon or kilometres per litre** (see page 7)

## Measuring Miles per Gallon (MPG)

For most transport operations, fuel consumption is perhaps the most important efficiency measure to be recorded. Fuel accounts for anything between 25% and 40% of total vehicle operating costs, so reducing fuel usage is a key part of making savings for most vehicle operators.

In its most basic form, measurement of fuel consumption means nothing more than recording, for each vehicle on your fleet, how much fuel it has used and how far it has travelled. This is the beginning of a fuel management system. Whether you prefer to measure in terms of miles per gallon (MPG) or kilometres per litre (KPL) isn't really important. Whichever you choose, to calculate fuel consumption you simply divide the distance travelled by the volume of fuel used as follows:

$$\text{Miles per gallon} = \frac{\text{Total miles travelled}}{\text{Total gallons of fuel used}}$$

$$\text{Kilometres per litre} = \frac{\text{Total kilometres travelled}}{\text{Total litres of fuel used}}$$

The data used to calculate fuel consumption in this way can easily be recorded on a simple spreadsheet which will reduce the time required for calculations in the future.

## Using KPIs

A KPI on its own can only take you so far. Individual measures and data need to be turned into information that can help you make decisions. This means setting a target, and measuring and monitoring KPIs over a period of time to see how you perform against this target. Weekly, monthly and annual reports allow you to monitor progress and see which areas need the greatest attention. Producing graphs or charts will often be the best way of showing performance progress.

KPIs can be used when trialling efficiency improvements. The performance of the operation is measured before the improvement is introduced and then again afterwards. This will show how effective any improvement has been.



The Freight Best Practice '**Fleet Performance Management Tool Incorporating CO<sub>2</sub> Emissions Calculator**' available through the Hotline on **0845 877 0 877**, or via the website at **www.freightbestpractice.org.uk**. This guide can help you record your costs and measure your performance. Further information can be found in section 6.3 of this guide.

## 3.4 Job Costing

One advantage of monitoring your costs is that it gives you a solid basis on which to price jobs for potential customers. Instead of using 'gut feel' for pricing a job or just trying to undercut the competition, you can price the job knowing what the profit margin will be.

When recording your costs for job pricing purposes, you need to ensure that you account not just for the fixed and running vehicle costs described in section 3.2 but also for the other costs of running your business. These 'overhead' costs include things like lighting and heating, office equipment hire and advertising.



Freight Best Practice's '**Transport Operators' Pack**' (see section 6.1) includes the **Job Costing Tool**, an interactive spreadsheet for recording costs and pricing jobs for customers, which can be used in conjunction with the Freight Best Practice guide – '**An Introduction to Job Costing for Road Freight Operators**'. Both are available through the Hotline on **0845 877 0 877**, or via the website at **www.freightbestpractice.org.uk**

## 4 Reducing Fuel Use - Improving Your MPG

Fuel can account for anything between 25% and 40% of your total costs. Therefore, anything that can be done to reduce fuel use can yield significant savings for your company. This section highlights some simple and effective ways of improving the MPG of your vehicle or fleet.

### 4.1 Driver Training

No matter what size your operation, the greatest single influence on fuel efficiency is the driver. Investing in driver training and development can help you adapt to changes and improve efficiency, assist in safe driving and improve employee retention. Remember, your employees are your greatest asset!

There are three key skill areas for drivers in any operation, big or small:

- ➡ **Technical skills** - safe and fuel efficient driving, maintenance skills
- ➡ **Personal skills** - customer care, communication, teamwork
- ➡ **Knowledge** - knowledge of the vehicle, routes, products, customers and legislation

Professional training courses available for drivers include Safe and Fuel Efficient Driving (SAFED), National Vocational Qualifications (NVQs), Certificates of Professional Competence (CPCs) and other accredited courses.

The following will help you identify relevant courses for your drivers:

- ➡ SAFED ([www.safed.org.uk](http://www.safed.org.uk))
- ➡ Skills for Logistics ([www.skillsforlogistics.org](http://www.skillsforlogistics.org))
- ➡ The Chartered Institute of Logistics and Transport ([www.ciltuk.org.uk](http://www.ciltuk.org.uk))

#### SAFED

The Safe and Fuel Efficient Driving training programme consists of a one-day training course which includes practical assessments and theory on:

- ➡ Accident prevention and reduction
- ➡ Fuel efficient driving

Companies that have trained their drivers using SAFED have typically reduced fuel consumption by between 3% and 12%.



'SAFED for HGVs: A Guide to Safe and Fuel Efficient Driving for HGVs'

'SAFED for Vans: A Guide to Safe and Fuel Efficient Driving for Vans'

'Companies and Drivers Benefit from SAFED for HGVs: A Selection of Case Studies'

All are available through the Hotline on **0845 877 0 877**, or via the website at [www.freightbestpractice.org.uk](http://www.freightbestpractice.org.uk)

Benefits of Driver Training		
For Drivers	For the Organisation	For the Fleet Manager / Owner-driver
➡ Reduced stress and enhanced satisfaction	➡ Development of a health and safety culture	➡ Reduced fuel spend and running costs
➡ Increased confidence in driving performance	➡ Effective risk management	➡ Improved resale value of fleet
➡ Increased own-vehicle MPG	➡ Reduction of harmful emissions	➡ Potential reductions in insurance premiums
	➡ Reduction of accidents and incidents	➡ Increased productivity and vehicle utilisation

## Driver CPC

From September 2009 all drivers of goods vehicles over 3.5 tonnes will need to hold a Driver CPC as well as their vocational driver's licence. The main aim of the new Driver CPC qualification is to improve road safety but it will also improve drivers' knowledge, professionalism and driving skills.

### Tip

When investigating driver training, find out what Government funding is available to help finance your training. For further information on funding, contact Skills for Logistics ([www.skillsforlogistics.org](http://www.skillsforlogistics.org)) or Train to Gain ([www.traintogain.gov.uk](http://www.traintogain.gov.uk)).

## 4.2 Anti-idling

Excessive idling of vehicle engines wastes fuel and money. With modern vehicles, the cost of switching off the engine and starting up again is usually less than the cost of leaving the engine idling.

On tickover, a large HGV can use up to two litres of fuel per hour.

Follow this simple process to support the introduction of an anti-idling campaign in your operation:

### ➔ Plan your campaign

Measure fuel consumption for at least two weeks without anti-idling to help set a benchmark MPG figure and realistic targets. Then measure fuel consumption for two weeks with anti-idling to gain a 'before and after' picture.

### ➔ Brief your drivers

Gather your drivers together for a briefing - no more than five minutes may be required.



Anti-idling training presentation and posters are available from the Transport Operators' Pack, downloadable from [www.freightbestpractice.org.uk](http://www.freightbestpractice.org.uk)

### ➔ Run the campaign

After your drivers have been briefed you can start to analyse your 'before' and 'after' data to determine improvements.

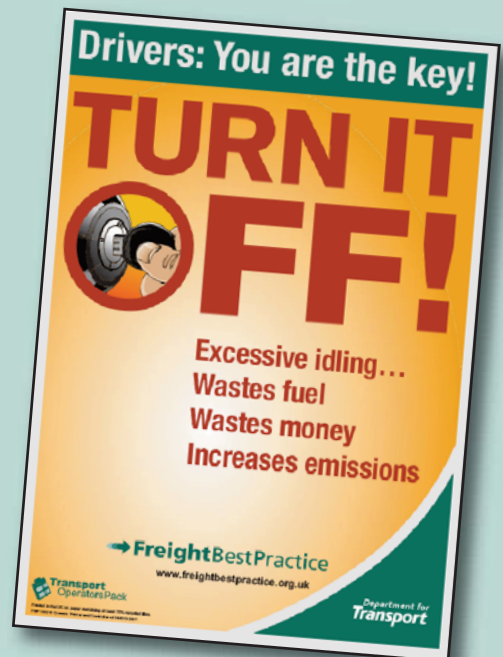
### ➔ Communicate the results

Present the results and provide feedback back to your drivers. Continue to monitor progress together with periodic briefings to maximise benefit over the long term.

### Tip

Most modern vehicles with engine management systems can be programmed to automatically cut out after idling for more than a specified length of time, for example after five minutes.

Examples of anti-idling campaign posters found in the **Transport Operators' Pack**



## 4.3 Vehicle Specification

Whether buying new or second hand vehicles, spending time developing an accurate vehicle specification can really help you achieve a reduction in your fuel costs and improve your bottom line.

Specifying the wrong vehicle can result in a truck that is unsuitable for the task for which it has been acquired and more costly than necessary to operate.

To specify the right vehicle for your operation, you need to do the following:

- ➔ Think about what type of work the vehicle will be carrying out
- ➔ Identify the basic vehicle type that's most suitable for your operation
- ➔ Complete a detailed specification for the following core vehicle components – **chassis, suspension, axles, tyres and wheels, engine, transmission, fuel tank, cab, body and trailer**



**Truck Specification for Best Operational Efficiency** is available through the Hotline on **0845 877 0 877**, or via the website at **www.freightbestpractice.org.uk**

### Tip

Set the speed limiters on your vehicles to the speed that yields the best fuel consumption for each one. Reducing the speed limiter from 56 to 54 mph can improve fuel usage by 2%. The Fuel Ready Reckoner from Freight Best Practice (see section 6.2) can provide more detailed figures on the savings that can be made through using limiters. Ensure your drivers are aware of any changes to limiter settings.

## 4.4 Aerodynamics

The benefits of aerodynamic styling features can be significant. Trials have revealed fuel savings of up to 16% through fitting aerodynamic features, in fact. The benefits include:

- ➔ Reduced fuel consumption (and therefore lower running costs)
- ➔ Lower vehicle emissions

- ➔ Improved vehicle handling
- ➔ Spray reduction
- ➔ Reduced sensitivity to side winds, increasing vehicle stability
- ➔ Improved vehicle appearance
- ➔ Reduced build-up of road film and dirt



**Smoothing the Flow at TNT Express and Somerfield using Truck Aerodynamic Styling** is available through the Hotline on **0845 877 0 877**, or via the website at **www.freightbestpractice.org.uk**

**As a general rule, the faster and further a vehicle travels, the greater the potential savings from aerodynamics.**

As well as specifying aerodynamic equipment, there is much that you and your drivers can do to your current vehicles to optimise aerodynamic performance, including:

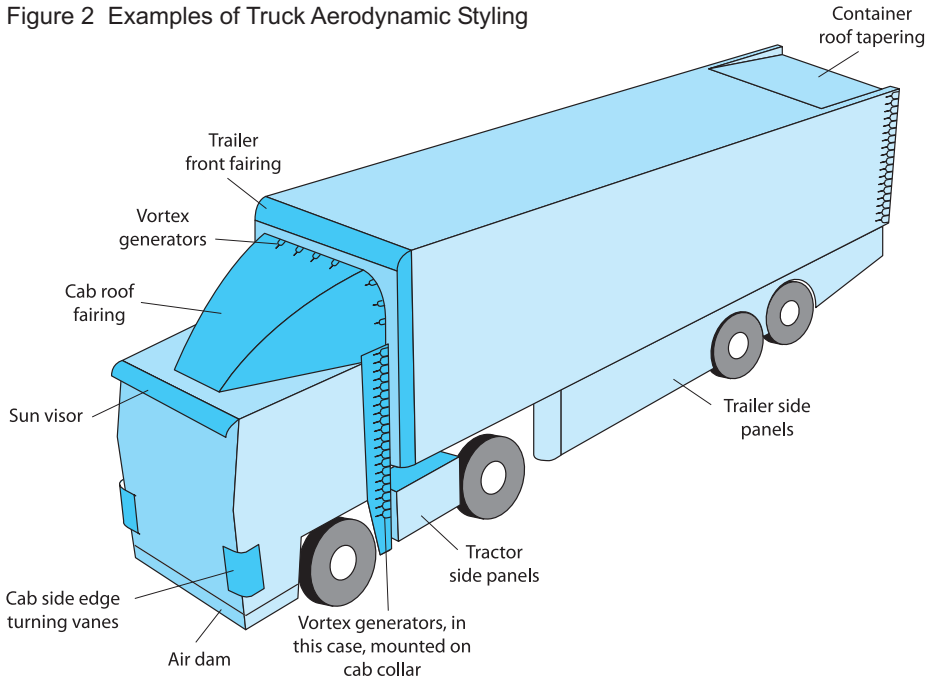
- ➔ Minimising the gap between the cab and trailer on articulated vehicles
- ➔ Ensuring that any cab roof deflectors are correctly adjusted
- ➔ Checking that curtain straps are tight and secure - a flapping curtain increases aerodynamic drag
- ➔ Sheeting tipper bodies while travelling
- ➔ Making sure that there is no damage to the vehicle bodywork, to curtains or to any existing aerodynamic features – these can all affect performance



**Quick Guide to Truck Aerodynamics** is available through the Hotline on **0845 877 0 877**, or via the website at **www.freightbestpractice.org.uk**



Figure 2 Examples of Truck Aerodynamic Styling



“We have had cab roof fairings fitted to all of our 7.5 tonne trucks. Although there was the extra cost of having them fitted, we know that they will more than pay for themselves in the long run.”

**David Crayford, Director, Logiq UK Ltd**

## 4.5 Fuel Efficient Tyres and Wheel Alignment

### Fuel Efficient Tyres

Many operators know that improving the aerodynamic performance of their vehicles can reduce fuel consumption. But did you know that reducing the rolling resistance of a vehicle’s tyres can also have a positive impact, both on fuel consumption and CO<sub>2</sub> emissions?

- ➡ A complete set of the latest low-rolling-resistance tyres can give fuel economy gains of up to 6% on long-haul work
- ➡ The longer the distance travelled, the greater the fuel saving compared to standard tyres
- ➡ Tyre pressure is also something to watch out for. If tyre pressure falls below recommended levels, rolling resistance increases and fuel is wasted
- ➡ A 10lb per square inch fall in tyre pressure is likely to result in a 1% fall in fuel economy

**Remember**  
Tyre selection can also affect tachograph and speed limiter calibration.

### Wheel Alignment

As well as making sure that the tyres on your vehicles are in good condition, having the wheel alignment checked can also reap huge savings. Proper alignment can lead to:

- ➡ Reduced fuel usage (a 1° misalignment on one axle could increase fuel consumption by around 5%)
- ➡ Improved tyre life (a 0.5° misalignment can reduce tyre life by up to 50%)
- ➡ Reduced emissions
- ➡ Less wear and tear on mechanical components
- ➡ Improved driver comfort and safety
- ➡ Reduced potential for tyre overheating

**Keeping Profit on Track with Wheel Alignment** is available through the Hotline on **0845 877 0 877**, or via the website at **www.freightbestpractice.org.uk**

## 4.6 Preventative Maintenance

Preventative maintenance is a programme of care for your vehicles that maximises vehicle efficiency and reliability. A preventative maintenance programme includes:

- ➔ Daily vehicle checks
- ➔ Systematic safety inspections at regular intervals
- ➔ A system for dealing effectively with any faults
- ➔ A system for documenting these activities



Being proactive about vehicle maintenance can save you a lot of time, money and trouble in the long run. As an operator of a smaller fleet, the consequences of having a vehicle out of action can be enormous, ranging from unscheduled disruptions to lost earnings.

Poor vehicle maintenance can also reduce vehicle life, increasing whole-life vehicle cost. A proactive maintenance strategy, on the other hand, can make for significant savings.

Preventative maintenance improves safety, reduces fuel use and can help your vehicles achieve a higher pass rate at annual roadworthiness inspections.

➔ **Preventative Maintenance for Efficient Road Freight Operations** is available through the Hotline on **0845 877 0 877**, or via the website at **[www.freightbestpractice.org.uk](http://www.freightbestpractice.org.uk)**

➔ The **'Transport Operators' Pack'** (see section 6.1) includes driver vehicle check and defect forms and an interactive maintenance planning tool and is available via the website at **[www.freightbestpractice.org.uk](http://www.freightbestpractice.org.uk)**.

Figure 3 Maintenance Planner

YEAR:		Depot: _____ Fleet: _____														
		Month	January	February	March	April	May	June	July	August	September	October	November	December		
		Week No.														
Vehicle/Trailer Reg	Type	MOT Date														

**Key:**   A = A service     C = C service     M = MOT     R = Reduced Pollution Check  
           B = B service     I = Inspection     P = Tanker Pressure Test     T = Tachograph Recalibration

## 5 Maximising Vehicle Use - Making Every Mile Count

Once your truck is in service, using the right technology to plan and manage your work can help you maximise vehicle and driver efficiency and maintain your competitive edge. This section of the guide highlights a number of measures that could help boost your efficiency, your productivity and your profitability, using simple and cost effective information technology (IT) and other strategies to maximise vehicle fill.

### Using Technology

IT systems, routing software and on-board telematics can be rather daunting, especially if you are not a computer buff. But you don't need to understand how such technology works - only what it can do for your operation.

IT systems by themselves do not save you money. It is how you use the information they provide that will improve your efficiency.

### 5.1 IT Systems

#### Routing and Scheduling Systems

Routing and scheduling systems can help you to plan the best routes and schedules to fulfil your orders quickly and accurately. They tend to be quite sophisticated software packages and can provide benefits in many areas, in addition to rapid planning of routes. These systems are generally expensive, however, and are more suited to operators with large fleets and complex delivery systems.

#### Journey Planning Tools

Mainly used to plan single journeys, these systems cost considerably less than vehicle scheduling systems. They are more affordable for smaller organisations and they can prove very effective in organisations operating a small fleet of ten or less vehicles, where the number of routes or the number of calls on each route is relatively small.

These systems hold a digital map of the road network and calculate the best route between two or more points, based on various factors such as road speeds and road types.

The simplest of these systems can be used online for free. More advanced programmes can be bought or downloaded and cost typically between £25 and £75.

The advantages of the planning tools are that:

- ➡ They provide the most efficient route for the journey
- ➡ They can reduce travel time and lost running
- ➡ They provide maps and directions for the routes
- ➡ They can be linked to live traffic information
- ➡ They are low cost

They have to be used with care, however, as such programs may not highlight road features such as low bridges and weight restrictions.

#### Satellite Navigation

Satellite navigation (sat-nav) systems contain a digital map of the road network and pick up signals from global positioning satellites (GPS) to calculate a vehicle's current position, using that information to guide a driver to their destination.

A sat-nav unit is a useful tool, especially for multi-drop operations where drivers are travelling to unfamiliar destinations. These systems have become very affordable and can be bought off the shelf in most electrical retailers.

For owner-drivers and small operators travelling to unfamiliar destinations, sat-nav can:

- ➡ Eliminate the need for drivers to obtain detailed directions to their next destination
- ➡ Improve drivers' concentration on the road by automatically guiding the way
- ➡ Reduce planning time and lost running as well as decreasing overall travel times

Some systems can also advise drivers of traffic delays and assist in re-routing, where necessary.

**Warning!** Don't over-rely on sat-navs. Most systems are not yet designed with large vehicles in mind and so do not account for height restrictions, weight restrictions and unsuitable roads. Systems are now being developed specifically for trucks. Additionally, the Highway Code warns drivers against being distracted by in-vehicle systems such as satellite navigation, congestion warning systems and multi-media.



## Telematics

'Telematics' refers to any remote device fitted into vehicles, including sat-nav and a variety of other applications such as:

- ➡ Vehicle and driver monitoring
- ➡ Communications systems
- ➡ Vehicle and trailer tracking
- ➡ Traffic information systems
- ➡ Safety and security systems

Until quite recently, many telematics systems have proved too expensive for small fleet users, due both to their complexity and the costs involved in their development. Advances in this technology, however, are now making cheaper 'off the shelf' systems widely available.



**Information Technology for Efficient Road Freight Operations** is available through the Hotline on **0845 877 0 877**, or via the website at **www.freightbestpractice.org.uk**

## 5.2 Back-loading and Online Freight Exchanges

### Back-loading

Back-loading (also known as backhaul) is the practice of making use of spare capacity on the return leg of a delivery journey.

Collecting additional loads for the empty or partially loaded return journey can:

- ➡ Improve operational efficiency
- ➡ Increase vehicle and driver utilisation
- ➡ Increase the revenue from each trip
- ➡ Remove the need for an additional vehicle journey
- ➡ Increase profits

The highly competitive nature of the road distribution market gives operators a strong incentive to eliminate wasteful journeys, minimise costs and satisfy their customers. As well as making better use of your vehicle, back-loading can also raise the profile of your business as it can give you the opportunity to work with many more haulage companies than you would otherwise be doing and become better known within your industry. New contacts and trading partners you establish can expand the reach of your business and improve your profits.

#### Tip

Own account transport fleets operating on a Restricted Operator's Licence cannot collect goods from suppliers for payment as this will be deemed as working for 'hire or reward'. For this, a Standard Operator's Licence is required.

### Online Systems

Online freight exchanges are systems that allow organisations with loads to move to post the loads online for hauliers seeking loads or back-loads to consider. These systems match buyers (those with goods to be transported) with sellers (those who have vacant vehicle space).

Online freight exchanges may not benefit companies with only a small number of vehicles operating in a limited area. However, for owner-drivers or small companies with a national or international operation, they can be a useful way to obtain back-loads and reduce empty running. Such exchanges can help:

- ➡ Save time and money, for both consignors and hauliers
- ➡ Provide ready access to a wide customer base
- ➡ Enhance back-loading opportunities
- ➡ Improve vehicle fill

#### Tip

There are now ways to connect to the internet away from home using mobile phone networks. These can be used to find back-loading opportunities while away from your base.

“When away from base, I use my mobile phone to access the internet to look at online freight exchanges and monitor back-loading opportunities in real time. I have found this facility crucial to my success as an owner-driver.”



**Neil Davis, Owner-driver,  
N.R.D. Transport**

## Alternative Methods for Generating Work

As well as freight exchanges, there are other ways to generate work to maximise vehicle utilisation, including:

- ➡ **Sub-contracting** - providing your services to other companies to help to fulfil their schedules; each job could be either a 'one-off' or part of a regular contract
- ➡ **Partnering** - collaborating with other companies; this may be to bid for a contract which would be too big to service by yourself, work with a haulier in another sector (for example a primary distribution company working with a courier for the final distribution stage), or even work with a haulier from another area to provide backhaul opportunities for both companies
- ➡ **Pallet networks** - groups of companies working together, formally or informally, in a network for the movement of palletised goods around the country



**Profit through Partnership** is available through the Hotline on **0845 877 0 877**, or via the website at **[www.freightbestpractice.org.uk](http://www.freightbestpractice.org.uk)**

## 6 Essential Tools to Improve Efficiency

This section highlights some of the some of the tools in the Freight Best Practice programme which will help you to make fuel and efficiency savings.

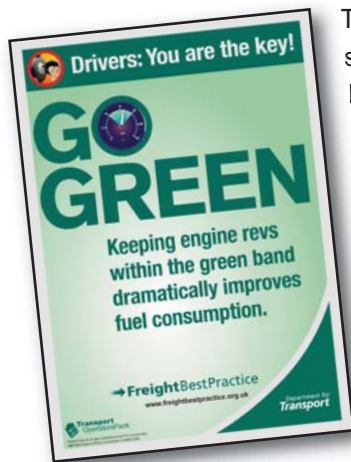
### 6.1 Transport Operators' Pack (TOP)

The Transport Operators' Pack is a downloadable package of tools and information designed for transport managers and owner-drivers to help them run their operations as efficiently as possible.

It provides practical, everyday support on managing staff and operations, along with a number of helpful checklists, spreadsheets, forms, presentations, posters and key fact reminders.

The **forms** and **checklists** can be edited as required and printed out for repeat use.

The **'top tips'** sheets can be wall-mounted or filed away as reference material.



The **posters** in the pack support specific Freight Best Practice campaigns, such as those on fuel management, road safety and anti-idling.

The **interactive spreadsheets**, meanwhile, can be used with the forms and checklists to further improve your operation. They are simple to download and include clear instructions. Examples include the Job Costing Tool and the Vehicle Maintenance Planning Tool.



The various sections of the Transport Operators' Pack can all be downloaded **FREE** from the Freight Best Practice website ([www.freightbestpractice.org.uk](http://www.freightbestpractice.org.uk)).

### 6.2 Fuel Ready Reckoner

The Fuel Ready Reckoner is a **FREE**, web-based tool that quickly helps you estimate how much money you could save by introducing various fuel saving measures into your operation. It is designed for any fleet looking to create an action plan for fuel saving.

There are 21 different measures that can be tested, including:

- ➡ Increasing vehicle fill
- ➡ Driver training
- ➡ Aerodynamic features
- ➡ Wheel alignment
- ➡ Fuel efficient tyres
- ➡ Anti-idling

The tool is very simple to use. After entering the current price of fuel, you just need to:

- ➡ Enter the details of your vehicles
- ➡ Test the effects of different fuel saving techniques against each vehicle group in your fleet
- ➡ View the results for your whole fleet
- ➡ Change the techniques and again view the results
- ➡ Calculate how long it will take for the technique to pay for itself using the payback calculator

A detailed instruction booklet can be downloaded which includes screenshots and step-by-step instructions.



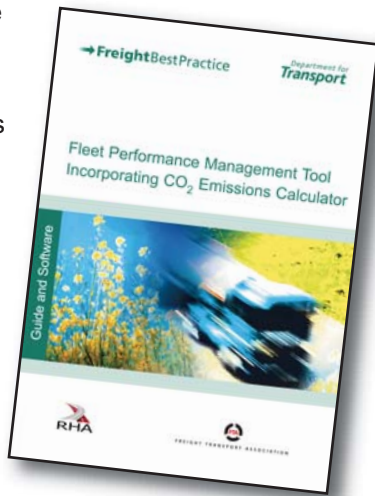
The **Fuel Ready Reckoner** can be accessed for **FREE** via the Freight Best Practice website [www.freightbestpractice.org.uk](http://www.freightbestpractice.org.uk)

	Name	Vehicle Type and Number	GWW	Average Payload Used %		Empty Running %		Group Annual Mileage	Miles per Gallon	Edit	Delete
				Current	Target	Current	Target				
Test Possible Savings	BITE TEST	ARTIC x 1	26	8	16	9	0	8	8	Edit	Delete
Test Possible Savings	NEW	ARTIC x 2	44	62.4*	62.4	27.9*	27.9	240000	7.75*	Edit	Delete

\* estimate based on UK average taken from the Continuous Survey of Road Goods Transport

## 6.3 Fleet Performance Management Tool Incorporating CO<sub>2</sub> Emissions Calculator

The Fleet Performance Management Tool Incorporating CO<sub>2</sub> Emissions Calculator is a ready-made spreadsheet to help you measure the performance of your operation. If you're an owner-driver or run a small fleet, it will help you to understand your operation more fully and then identify which areas can be improved.



The tool works by providing the user with key performance indicators (KPIs) which are measures of how well your operation is performing. Examples of such KPIs include:

- ➡ Cost per unit delivered
- ➡ Average miles per gallon or kilometres per litre
- ➡ Percentage empty running total
- ➡ Percentage of late deliveries

There are a total of 24 KPIs in the tool but not all of them need to be used - just the ones that are important to your operation. Once these have been identified, you need to collect and input the data into the spreadsheet to produce the reports.

The tool produces a series of reports and charts automatically which clearly show how well the operation is performing in your chosen areas.

The accompanying guide provides full instruction on how to use the tool, with screenshots of the spreadsheet, background information on KPIs, handy tips for using and understanding the tool and details on how to read the charts.



**'The Fleet Performance Management Tool Incorporating CO<sub>2</sub> Emissions Calculator'** can be ordered **FREE** from the Freight Best Practice hotline on **0845 877 0 877**. It can also be downloaded along with the guide from the Freight Best Practice website **[www.freightbestpractice.org.uk](http://www.freightbestpractice.org.uk)**.

"Once you have entered all the information required for your vehicles, the spreadsheet works everything out for you. Thanks to the Fleet Performance Management Tool, we are now seeing rewards in reduced fuel use and much better overall operational efficiency."

**John Claffey, Transport Manager, A1 Paper**



## 7 Create an Efficiency Action Plan

This guide has already covered a range of actions that owner-drivers and small fleet operators can take to improve their efficiency, all of which are both cost effective and easily implemented.

This final section of the guide provides the outline for an action plan that can be used either to start monitoring performance and improving efficiency, or to introduce new measures into your operation to further improve its performance.

A bit of time may initially be required to start carrying out these actions but in the long run they will provide significant savings without occupying much of your time. Monitoring performance and fuel use should become part of your daily routine as a transport operator. Doing so will reap benefits for you in improved performance and reduced costs.



Not all of the ideas in this guide will be suitable for you and your particular operation, but you can concentrate on the ones you feel will make the biggest difference.

In Figure 4 you will find a checklist to help make sure you've got everything in place to make your efficiency improvements.

Your time is precious, but spending a little of it to properly plan your activities will pay dividends in the long run. Figure 5 gives you the key stages of an action plan to help you organise your efficiency improvements, step by step.

Before implementing any efficiency strategy, always seek ways to test it first - for example in a short trial. Make sure that you can measure the results, establish some KPIs and record your performance. If you find that the improvements are too small, try something else. If the trial is successful, then you can fully implement the system.

Above all else, keep monitoring your performance and keep looking for opportunities to make further improvements.

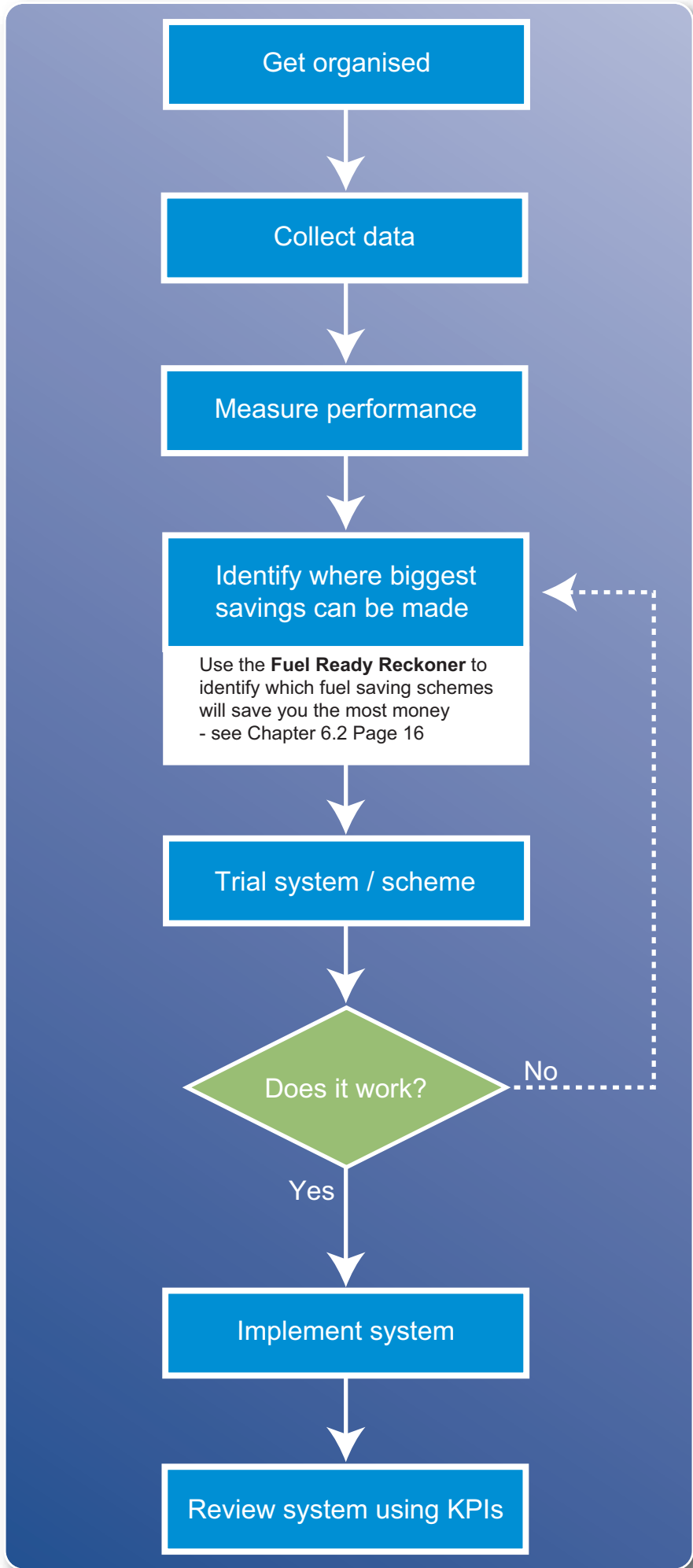




Figure 4 Action Planner Checklist

<b>Getting Organised</b>	✓
<b>Time Management</b>	
Have you prepared a 'to do' list?	
Have you prioritised the most important tasks?	
<b>Collecting Data</b>	
Have you recorded your operational costs?	
Are there other costs which you need to record?	
Do you record other data, such as mileage travelled?	
<b>Measuring Performance</b>	
Do you monitor and measure your fuel use?	
Do you record and measure other KPIs that are important to your operation?	
Do you price work based on actual job costs?	
<b>Reducing Fuel Use</b>	✓
<b>Driver Training</b>	
Do you have a driver training programme?	
If you're an owner-driver, have you recently attended a training course yourself?	
Have you identified appropriate training courses for yourself or your drivers?	
Have you investigated any funding that may be available?	
<b>Anti-idling</b>	
Is there an engine idling issue in your organisation?	
Have you planned an anti-idling campaign?	
<b>Truck Specification</b>	
Have you developed an appropriate vehicle specification for either your own vehicle or your fleet?	
<b>Aerodynamics</b>	
Are your vehicles fitted with suitable aerodynamic equipment?	
Is the aerodynamic equipment - and the vehicle as a whole - in good enough condition to achieve optimum aerodynamic performance?	
<b>Wheels and Tyres</b>	
Do you specify low rolling resistance tyres?	
Are tyres regularly checked for pressures and condition?	
Are your wheels regularly checked for alignment?	
<b>Preventative Maintenance</b>	
Do you have a preventative maintenance programme in place?	
<b>Maximising Vehicle Use</b>	✓
<b>Journey Planning Tools</b>	
Do you use or have you investigated the use of journey planning software?	
<b>Sat-nav and Telematics</b>	
Do you use sat-nav with mapping showing lorry route attributes such as low bridges and weight restrictions?	
Have you investigated manufacturer installed or off-the-shelf telematics systems?	
<b>Back-loading and Vehicle Fill</b>	
Do you maximise all opportunities for back-loading?	
Have you investigated all of the methods for generating extra work?	

Figure 5 Action Planner



## 8 Useful Contacts

- ➡ **Freight Best Practice**  
[www.freightbestpractice.org.uk](http://www.freightbestpractice.org.uk)
- ➡ **Business link**  
[www.businesslink.gov.uk](http://www.businesslink.gov.uk)
- ➡ **Department for Transport**  
Tel: 020 7944 8300  
[www.dft.gov.uk](http://www.dft.gov.uk)
- ➡ **Train to Gain**  
Tel: 0800 015 5545  
[www.traintogain.gov.uk](http://www.traintogain.gov.uk)
- ➡ **Road Haulage Association**  
Tel: 01932 841515  
[www.rha.net](http://www.rha.net)
- ➡ **Vehicle and Operator Services Agency (VOSA)**  
Tel: 0300 123 9000  
[www.vosa.gov.uk](http://www.vosa.gov.uk)
- ➡ **Freight Transport Association**  
Tel: 08717 112222  
[www.fta.co.uk](http://www.fta.co.uk)
- ➡ **Highways Agency Traffic Information**  
Tel: 08700 660115  
[www.highways.gov.uk/traffic](http://www.highways.gov.uk/traffic)
- ➡ **Chartered Institute of Logistics and Transport**  
Tel: 01536 740104  
[www.ciltuk.org.uk](http://www.ciltuk.org.uk)
- ➡ **Driving Standards Agency**  
Tel: 0115 901 2500  
[www.dsa.gov.uk](http://www.dsa.gov.uk)
- ➡ **Federation of Small Businesses**  
Tel: 01253 336000  
[www.fsb.org.uk](http://www.fsb.org.uk)
- ➡ **SAFED**  
Tel: 08701 908440  
[www.safed.org.uk](http://www.safed.org.uk)
- ➡ **Skills for Logistics**  
Tel: 08702 427314  
[www.skillsforlogistics.org](http://www.skillsforlogistics.org)
- ➡ **Driver and Vehicle Licensing Agency (DVLA)**  
Tel: 08702 400009 (Driver Enquiries)  
Tel: 08702 400010 (Vehicle Enquiries)  
[www.dvla.gov.uk](http://www.dvla.gov.uk)

Freight Best Practice publications, including those listed below, can be obtained FREE of charge by calling the **Hotline** on **0845 877 0 877** or by downloading them from the website **[www.freightbestpractice.org.uk](http://www.freightbestpractice.org.uk)**

### *Saving* **FUEL**

#### Fuel Efficient Truck Drivers' Handbook

This pocket guide provides information for truck drivers on fuel efficient driving techniques, details of the SAFED course and useful forms for daily use.

### *Performance* **MANAGEMENT**

#### Fleet Performance Management Tool Incorporating CO<sub>2</sub> Emissions Calculator

This tool has been designed to help fleet operators improve their operational efficiency using key performance indicators (KPIs) to measure and manage performance. KPIs include costs, operational, service, compliance, maintenance and environmental.

### *Developing* **SKILLS**

#### Saving Fuel Through People

This guide provides advice and real life examples to help operators motivate their staff effectively. It provides an understanding of the importance of people, the effects of change and shows how to implement and manage change more successfully.

### *Multi-***MODAL**

#### Choosing and Developing a Multi-modal Transport Solution

This guide provides a useful insight into the rail and water freight industries, explains the process for making an informed choice about modal shift, and also explains the availability of financial assistance such as grant funding.

### *Equipment &* **SYSTEMS**

#### Truck Specification for Best Operational Efficiency

A step-by-step guide to the process of correctly specifying an efficient and 'fit for purpose' vehicle.

### *Case* **STUDIES**

There are over 25 case studies showing how companies have implemented best practice. The following involve smaller companies:

- Owner-drivers and Small Fleet Operators - Simple, Cost Effective Ways to Improve Efficiency
- Small Fleet Performance Management Tool Helps A1 Paper Improve Efficiency