



Driving for Excellence

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1.0 Introduction

1.1 Aim of this brochure

Transport by road is a very hazardous activity. In 2004 the World Health Organisation estimated that every year road accidents account for 1.2 million deaths and 50 million injuries worldwide. The majority of road accidents occur for two reasons: 1) lack of basic driving skills, 2) attitudes that lead to dangerous driving. This brochure is aimed at changing the attitudes of all drivers, both full time professionals and casual drivers. The brochure assumes that professional drivers are amongst the best on the road, but, as the number of fatal driving accidents show, more must be done. The tools provided here are meant to prevent good drivers, whether they are professional or casual from becoming complacent, and becoming even better drivers.

This brochure is based on a worldwide study of drivers, that investigated their attitudes and beliefs. These drivers are very professional, but some erroneous beliefs were found; e.g. most drivers believe that they are good enough to avoid accidents, even when they are very tired. The study also found that many problems were due to external factors affecting the driver like pressure of work or long hours that are beyond a driver's control.

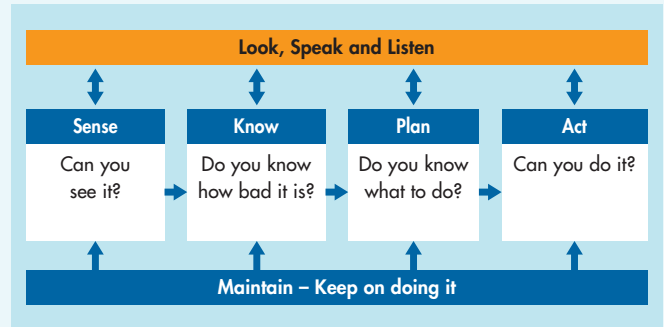
1.2 What is different?

This brochure offers an opportunity where drivers can discover and articulate the reasons why they might be in an accident. This opportunity should not be limited to the drivers as most approaches to driver safety imply, but also their supervisors, managers and contract holders, who have a significant role to play in minimising the risk of road accidents. As a result the brochure contains workshops aimed at both drivers and the people who manage transport operations.

A second difference to most approaches to improving driver safety is the use of the Hearts and Minds “Model of Safe Behaviour”. This model shows how there are several steps involved in safe driving behaviour; with the key belief that it is not enough just to tell people to try harder. In order for someone to work (and drive) safely six main steps are necessary:

- **Sense** the hazard – can you even see/hear it?
- **Know** the hazard – do you understand what could happen?
- **Plan** your response – what are you going to do about it?
- **Act** in the best way – will you actually do the right thing?

In addition you also need to **Maintain** this way of driving, be prepared to give and receive feedback to make driving safely a habit – **Look, Speak and Listen**.



Model of Safe Behaviour

The model provides the structure for the process of improvement and attitude change. Different workshops or activities in the form of tools are aimed at different parts of the Sense-Know-Plan-Act /Maintain elements of the model. Each tool is intended to create improvements by getting people to engage actively in the process of looking for hazards, thinking through problems and actively selecting the best solutions. (Passive participation never alters attitudes.)

Finally, unlike many approaches to solving the problem of road accidents, there are no pictures of crashes, victims or damage. This is partly because an audience of professional drivers knows about such outcomes, but the main reason is that pictures of crashed vehicles and bloody casualties create a ‘turn-off’ effect – people feel psychologically threatened, turn away and switch off. They feel that something as bad as that won't happen to them.



1.3 Changing attitudes

A change of attitude does not take place in a single session, but is the result of cumulative experience. This means that the tools in this brochure should be used frequently to ensure lasting change, whether in dedicated sessions or integrated into defensive driving courses. The tools are aimed at influencing peoples' personal beliefs about how good a driver they are, about what other road users are thinking and doing, and about what drivers' problems really are. This often involves making practical changes to how driving tasks are designed and scheduled, which is typically under the control of supervisors and contract holders rather than drivers. This means that one of the best ways to improve attitudes is to implement permanent changes in the work environment with the input of the supervisors and contractholders, which will be identified when using the tools. Similarly, one way to destroy good attitudes is by not following up on promised improvements to the working environment and the managers workshop in section 7.0.

1.4 How to use the brochure

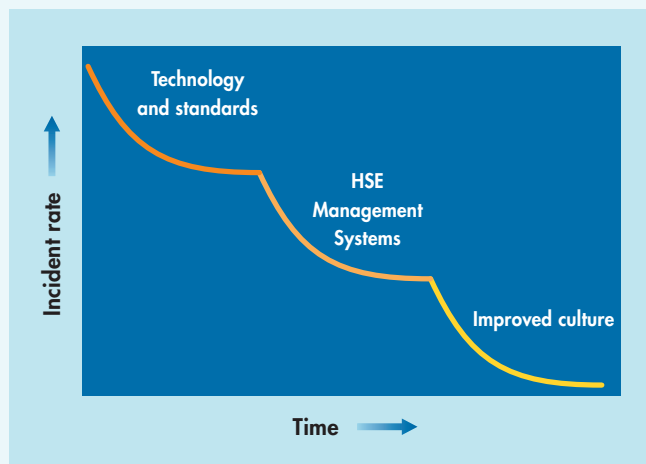
There are two routes through this process/brochure; one for the drivers', and another for the supervisors'. Both of these routes consists of a number of tools that impact on different parts of the Safe Behaviour model. The 2 routes are formed by similar tools for both drivers and supervisors/ managers which are all in the centre page of this brochure (exercises 4.1 – 4.7).

The differences in the exercises using different routes are in the application areas:

- drivers concentrate on road hazards,
- supervisors and managers concentrate on plans and schedules that affect drivers' safety.

The exception is the "Juggling Risks" tool (5.3) which is meant as an additional exercise for supervisors/ managers only.

It is recommended to use the tools in this brochure several times per year as part of an ongoing program aimed at developing excellent transport operations. The preferred approach, certainly the first time, is to have a whole day session with drivers and a separate session with supervisors, contract holders and managers. Starting with drivers will provide valuable input to the supervisors' session. Subsequent sessions could be done with individual modules, each of which need take no longer than an hour, as circumstances allow, in safety meetings, extended toolbox talks, defensive driving courses, etc.



HSE performance over time

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2.0 Sense

Defensive driving training is based upon being able to spot dangers from behind the wheel. In any driving scene there will be hazards that can be easily seen, some which can be anticipated, but there are also some which you will never be able to see, no matter how well you have been trained. We can learn to recognise potential problems like dangerous intersections or places where pedestrians can suddenly appear, but it is almost impossible to recognise a driver who is tired, confused or pre-occupied, or one who wants to get there first.

Attitudes are a big influence on safe driving, these include the attitudes of drivers, their managers in transport operations, and those of all other road users. Attitudes cannot be seen and identified in the same way as other hazards, but to be a safe driver, or a good manager of drivers, you must be aware of the effect attitudes can have on driving safety of all road users all of the time.

The lesson we need to learn is that we can practice spotting visible hazards but we must also understand that there are dangers we will never be able to see. It is typically the non-visible hazards that appear in accident and incident reports. This is not surprising; more experienced drivers can avoid the dangers they can see, leaving them to face the invisible, and therefore unpredictable, hazards that cause the type of accidents professional drivers tend to have.

The Sense exercise (4.2), involves teams looking at still or moving pictures of everyday road traffic conditions. It gets people to think about safe driving and teaches them what their eyes can see. Professional drivers can usually see a lot of dangers in the most ordinary scene; non-professionals can use this exercise as an extra training for their eyes. Both groups can be made aware of the things they will never be able to see – attitudes and personal circumstances of other road users – and brought to realise that these are the most likely to cause them problems. Discussion will often bring to light ways of recognising even apparently invisible hazards, such as tired drivers, those using mobile phones or drivers who believe the road was made for them alone.

Defensive driving teaches people to spot physical hazards on and beside the road. Not all hazards can be seen immediately, but safe drivers learn to look for indications. Many dangers are hard to see, but you can learn to look for them, e.g. driver attitudes; distracted or tired drivers; inexperience and vehicle condition.

Analysis of accidents shows that such 'invisible' dangers, especially driver attitudes, form the majority of causes. People can see and recognise the obvious, the best drivers also go looking for these invisible hazards.



Is there another vehicle?



Canadian road conditions



The Philippines



South-Africa, the scene of a fatal accident

3.0 Know

Being able to recognise hazards is not enough. We have to learn that it is our own attitudes, as well as those of people around us, that can cause accidents. The road is a hazardous environment, and as road users we all depend on each other to keep risk to a minimum. At the same time, everybody makes mistakes – it is part of being human, but because we get it right most of the time we often believe it couldn't happen to me.

Overconfidence makes people underestimate risks, believe they are invulnerable and therefore become complacent. But even the best drivers can never predict and control everything on the road; driving is an inherently dangerous activity. The safest drivers learn to treat themselves as one of the potential problems on the road.

3.1 Who is a bad driver?

A good defensive driver is a calm and reflective driver. We can improve our own driving by taking time to think more deeply if something annoys us or goes wrong when we're driving. Think about whether you could have been driving better, e.g. "Was I looking in the rear view mirror enough?" Or think, "Is that driver really trying to annoy me? Are they just having a bad day?"

When we make a mistake ourselves the natural tendency is to blame our circumstances, but when we see someone else making a mistake (even if it is one we also make ourselves) we blame it on that individual. If we find ourselves in the wrong lane, we may think, "The lane markings were not clear" or "The signposting was bad". However, if we see another driver in the wrong lane we usually think they are stupid or incompetent, but it is just as likely they also found the lane markings to be unclear or didn't see the sign. We explain our 'poor' driving by pointing at the situation, and their 'poor' driving by saying they're a bad driver.

This means that we see no need to change our own behaviour, after all it's the circumstances or environment that are to blame. We get angry and frustrated by others' mistakes because we think they are stupid or intentionally careless – "they need to change their behaviour". Really we need to have more understanding of what other road users are experiencing and see the world through their eyes. Remember: at the end of the day, we are all just trying to finish work and get home safely.

The workshop (section 4.3) gets people to think about themselves and others.

3.2 I can always avoid major accidents

People often distinguish between major and minor accidents. The reality is that there are significant personal consequences even from minor incidents – the insurance paperwork, the delays, the irritation, the police etc. Everyone can discover which personal consequence they wish to avoid most and work out what it takes for them to avoid that consequence (see section 4.4). The fact is that any preventative measure, taken seriously, will reduce the chance of both major and minor accidents. A technique of asking people to write down what they personally intend to do, and keeping it with them by putting the paper in their wallet, was shown to reduce accident rates up to 50% in the Swedish Post Office!

The workshop (section 4.4) makes people think about and choose personal actions that can avoid the consequences of any type of accident they might have.

3.3 Knowing when you are getting into trouble

Every experienced driver has had a 'Trip from Hell'. This will have been on a day when everything that could go wrong went wrong, all at the same time. These are times when accidents are very likely. What happens is that people tolerate already poor situations and fail to recognise when they get worse. The *Rule of Three* Hearts and Minds tool provides a way of understanding when a driver should stop when confronted with poor situations and when they can continue a journey if they take certain specific precautions.

The workshop (section 4.5) identifies what makes for a Trip from Hell. When done by both drivers and supervisors/managers it becomes clear to all that they are in agreement about when to stop and make a journey safer.

7.0 Managing Transport Operations

The manager of a transport operation carries a lot of the responsibility for safety. This may be a heavy goods operation, but can also be a manager or supervisor who has people driving under their responsibility, in order to carry small goods or just to get to or from work locations. This responsibility involves not only the safety of those on board a vehicle, but also the safety of those outside the vehicle. A manager who puts a driver into an unsafe situation cannot rely upon the driver to solve all the problems that subsequently arise.

There are three elements to safety management of transport.

- Creating safe conditions to operate in – e.g. by not setting impossible schedules, choosing safe low exposure routes etc.
- Providing a level of control over drivers, in the personal interest of the driver.
- Setting crystal clear expectations for both management and drivers. See the OGP standards in the box below.

OGP Standards

Safe transport operations rely upon clear and effective standards. This section helps operators to implement two of these, IVMS and Journey Management. The Oil and Gas Producers (OGP) safety standard is a model example and covers:

1. Seatbelts
2. Driver Training and Qualification
3. In Vehicle Monitoring Systems
4. Cellular Telephones and Two-way Communication Devices
5. Journey Management Procedures
6. Substance Abuse
7. Vehicle Specifications

Two approaches support these. One is effective Journey Management, the other involves some form of in-vehicle monitoring system (IVMS) to record what actually happens on the road. The workshops in this section are specifically intended for management, including contractor managers and supervisors and Company contract holders. The aim is to persuade these people that Journey Management is much more than just a contractual obligation – you would want to have it anyway because of the commercial benefits it can provide – and that IVMS provides much more than just a ‘spy in the cab’.

7.1 Journey Management

Journey management involves knowing what is involved in a trip; it is really a record of a complete planning process. One of the advantages of journey management is that you can know when people have become lost/hijacked etc and have a better idea of what remedial actions to take, such as sending out search parties.

The group brainstorms what needs to be decided for journey management, e.g. deciding routes, selecting vehicles and drivers, calculating departure and arrival times. The group then discusses the advantages of possessing this information (e.g. for themselves, for their clients etc.).

The group splits into two: One subgroup lists arguments why this information does not need to be recorded, the second subgroup lists the advantages of having this information available.

The group debates whether the advantages are greater than the disadvantages.

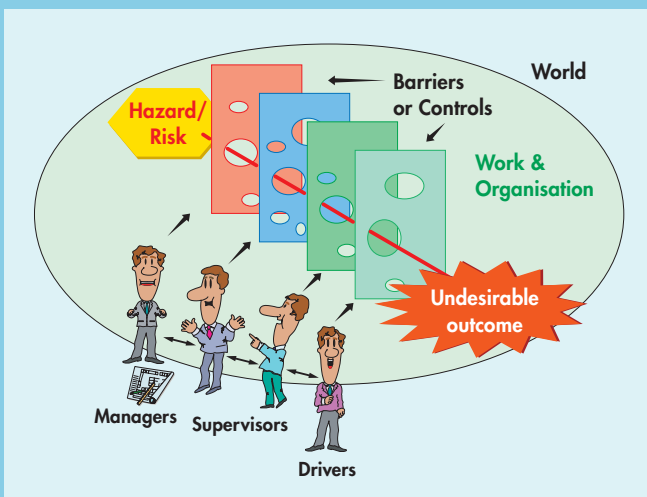
The question is set: Would we do this even if Journey Management was not a contract requirement?

Driving for Excellence

Keeping a large company like Shell on the move is an enormous task. Every day, all around the world, thousands of motor vehicles carry materials and people around in tankers and trucks, as well as cars and buses. Some of this driving is done in inhospitable, and sometimes even dangerous, places. Tragically driving accidents kill more people than any other cause, as driving is an activity that most company and contractor employees do frequently, either driving a vehicle themselves or as a passenger.

Most of the time, vehicles are driven on public roads away from the organisation. Unlike driving on a site like a refinery or a depot where there can be controlled by the organisation, on the open road a driver is a one-person management system. When road safety is a big challenge in a particular country, it is also a big problem for the Company operating in that country. In 2004, the World Health Organisation reported that traffic accidents directly cause as many as 1.2 million deaths and 50 million injuries each year.

These are frightening figures, but it is important to remember that behind these awful statistics are real human stories. Every driving accident happens to someone like you, someone with a life, a family and a future. The consequences of road traffic accidents can be devastating. At Shell we take every single accident seriously, and want to do all we can to reduce the risks and keep the drivers and their passengers safe. We have a corporate responsibility to demonstrate continuous improvement in the excellence of our drivers.



This brochure is designed to get people, both drivers and their supervisors/ management, to think about the underlying causes of driving accidents, e.g. pressure of work, long hours, poor maintenance, dangerous roads. Everyone has a role to play. It is not good enough to leave safety performance to the driver when the job demands, the roads, traffic conditions and the vehicle can all contribute to the chances of having an accident. Instead there needs to be full engagement with supervisors and management in the environment they create for the driver.

Key questions to consider are:

- Why are things going wrong?
- What is the link between problems and their underlying causes?
- What can individual drivers do to improve driving safety?
- What can supervisors and managers do to improve driving safety of their drivers and contractors?

The workshops in this brochure are intended to raise awareness of the more difficult problems on the road, such as drivers' attitudes, and develop practical ways of discovering improvements that effectively reduce the risks on the road.

For more information please visit
www.energyinst.org.uk/heartsandminds

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