
Report on the implementation of Directive 1999/94/EC relating to the availability of consumer information on fuel economy and CO₂ emissions in respect of the marketing of new passenger cars

Final Report



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Executive summary

Background

AEA, with TEPR and KTI, were commissioned to inform the European Commission (DG CLIMA) of the state of play of implementation of Directive 1999/94/EC in a chosen group of EU Member States: Belgium, Denmark, France, Germany, Hungary, Romania, Spain and the UK.

The purpose of the vehicle labelling Directive 1999/94/EC, as stated in its Article 1, “*is to ensure that information relating to the fuel economy and CO₂ emissions of new passenger cars offered for sale or lease in the Community is made available to consumers in order to enable consumers to make an informed choice*”.

The Directive requires information on fuel economy and CO₂ emissions to be displayed on a **fuel economy label** for all new cars to be displayed at the point of sale; a **guide on fuel economy** and CO₂ emissions that should be available at the point of sale and from designated bodies; a **poster (or a display)** showing the official fuel consumption and CO₂ emissions data of all new passenger car models displayed or offered for sale or lease at, or through, the respective point of sale; and all **promotional literature** must contain the official fuel consumption and specific CO₂ emission data for the passenger car model to which it refers.

Methodology

The compilation of this report was based around three key tasks:

- Task 1: State of implementation of Directive 1999/94/EC in a chosen group of Member States (see Section 2);
- Task 2: Enforcement of Directive 1999/94/EC (see Section 3); and
- Task 3: Policy recommendations (see Section 4 onwards).

With regards to the policy recommendations the objective was to explore and provide advice on:

- Possible harmonization of the label across the EU, including the layout and content of the label
- Other possible measures, including voluntary tools, increasing the effectiveness of the Directive.
- Improvement of the readability criteria of mandatory consumer information in the car promotional materials (Annex IV of the Directive)
- Possible extension of the scope of the Directive to:
 - Other categories of vehicle; and
 - Other media.

The following activities were undertaken:

- **Desk-based research** – Desk-based research was undertaken in the initial stages of developing the Member States case studies on the implementation and enforcement of the Directive and research regarding parallel legislation on the provision of consumer information in order to identify best practice (Tasks 1 and 2).

- **Literature review** – A literature review was undertaken following on from the European Parliament (2010) study and looked in more detail regarding the four key policy options identified. Findings were used as a basis for discussions with stakeholders and the further development of potential policy options (Task 3).
- **Stakeholder Engagement** – Stakeholder engagement was undertaken with both national and European level stakeholders. This took the form of telephone interviews, email requests for information, interviews with EC-desk officers (responsible for parallel legislation concerned with provision of consumer information) and a dedicated stakeholder workshop, that was held on 29th September 2011 in Brussels (inputs to all tasks).

Key findings

Implementation of the Directive (see Section 2 of the main report for full details):

All eight Member States considered within this study have successfully transposed the Directive into national legislations, meeting the minimum requirements. However, some Member States have gone beyond the Directive in terms of additional legislative and voluntary requirements for the information tools.

Label

Of the Member States covered in this report, six out of the eight (Denmark, Germany, France, Romania, Spain and the UK) have based the design of their label on the household products energy label, while according to EP (2010) a further two countries (Finland and Netherlands) use a similarly-designed label. Of the other Member States covered by this study, Belgium has introduced a colour-coded label that has a different format to the energy products energy label, while EP (2010) identified that Austria had also introduced a colour-coded label that was not consistent in terms of design with the energy products energy label. Hence, of the 15 countries covered by this report and EP (2010), 8 have based their label on the energy products energy label, while a further two use a different colour-coded label.

Overview of Member State label features:

Member State	Label type	No coloured bands	of Relative/absolute	Running costs	Other cost info (incl. tax)	Applicable to other vehicles?
Belgium	Continuous comparative label	N/A	Absolute	No	No	No
Denmark	EU Energy Labelling style	7 (A to G)	Absolute	Yes	Yes	Vans under 3.5 tonnes
France	EU Energy Labelling style	7 (A to G)	Absolute	No	No	No
Germany	EU Energy Labelling style	8 (A* to G)	Relative	Yes	Yes	No
Hungary	List format	N/A	N/A	No	No	No
Romania	EU Energy Labelling style	7 (A to G)	Absolute	No	No	No
Spain	EU Energy Labelling style	7 (A to G)	Relative	No	No	No
UK	EU Energy Labelling style	7 (A to G)	Absolute	Yes	Yes	Used cars (voluntary)

Guide on fuel economy

All of the Member States met the Directive requirements with regards to the Guide on fuel economy. The majority of Member States also made the guide available to download from the internet, and 5 Member States had developed an additional searchable online database for consumers (the main areas where Member States had gone beyond the requirements of the Directive).

Poster

All Member States met the Directive requirements with regards to the poster. Very few went beyond these requirements when transposing into national legislation.

Promotional materials

Again, all Member States met the Directive requirements with regards to promotional materials. Only Denmark has gone significantly beyond the Directive, requiring that the coloured bands/arrow from the label which indicates CO₂ emissions is displayed on promotional material in addition to the text. A number of voluntary measures have been implemented in relation to the promotional materials, mainly in the form of raising awareness of the requirements and providing guidance on the requirements for providing CO₂ emissions and fuel consumption information on promotional materials.

Planned modifications

There are a number of modifications being planned (or recently implemented) by the Member States. The majority of the planned changes are concerned with the format and the application of the label rather than the other information tools. In summary, these relate to:

- Presentation of information on the label:
 - Use of a colour-coded scale to indicate CO₂ information;
 - The number of bands/categories in use (increasing from 7 bands, “A” to “G” to include “A+”, “A++” and “A+++”);
 - Indication of annual fuel costs;
 - Indication of national taxation and other financial penalties/rewards;
 - Indication of electricity consumption (where applicable).
- Application of the label:
 - Extending its use to used cars;
 - Extending its use to rental vehicles.

Effectiveness of the information tools

The effectiveness of the information tools were considered in terms of increasing consumer awareness and reducing the average CO₂ of new passenger cars. There is limited evidence to suggest that the Directive may have a positive impact on raising consumer awareness. However, very few studies or surveys have been undertaken within Member States with regards to awareness or effectiveness of the Directive.

Average CO₂ emissions from passenger cars have decreased to 140.3g CO₂/km in 2010 down from 145.7g CO₂/km in the previous year. However, due to the range of other policies and measures that have been implemented within Europe/Member States (including the Voluntary Agreement on Passenger Car CO₂ emissions; Regulation 443/2009, and vehicle and fuel taxation), it is not possible to state that this decline in average CO₂ emissions is due to the implementation of Directive 1999/94/EC in isolation. It is therefore likely that the package of measures working in combination have led to this decrease.

Enforcement of the Directive (see Section 3 of the main report for full details):

The findings of this report, taken together with the findings of the European Parliament study, suggest that there are relatively low levels of non-compliance with the Directive, although it is important to note that compliance has only been assessed on a regular, let alone ongoing, basis in only a few countries. In some cases, surveys by NGOs or independent organisations have suggested that there are actually higher levels of non-compliance than have been suggested by national authorities or other surveys.

Where compliance has been assessed on some form of regular basis, it appears as though compliance has improved over time. Indeed, it was noted at the workshop that simply by attempting to measure compliance, compliance tends to improve as those responsible for the various provisions within the Directive become more aware of what is required of them.

The enforcement of the Directive can be split between national and local levels, e.g. in Germany, the UK and Spain, in which cases it is more difficult to obtain a clear picture of the level of enforcement activities, and consequently the actual extent of non-compliance, as data on local enforcement activities are often not collated at the national level. It was noted, however, that this situation would improve once the Market Surveillance Regulation has been implemented. Specific problems have been identified in relation to the enforcement of the provisions relating to promotional activities, i.e. those contained in Annex IV of the Directive.

The review of other EU legislation that aims to provide consumers with information identified that the Market Surveillance Regulation appears to be potentially useful in informing enforcement provisions. The Regulation itself requires Member States to be more proactive in relation to their market surveillance. Both the Household products energy labelling Directive and the Tyre labelling Regulation have made use of the model provisions set out in the Decision that accompanies the Market Surveillance Regulation to improve their respective enforcement provisions. In the workshop, some stakeholders felt that making use of these provisions would improve the enforcement of the passenger car CO₂ labelling Directive.

Recommendations

The following recommendations have been made (see Section 6 of the main report for full details):

Improving the enforcement of the Directive:

- In any future revision of Directive 1999/94, the Commission could draw on the Market Surveillance Regulation and its complementary Decision 768/2008 in order to inform the enforcement provisions of the amended Directive. In particular, a requirement could be included to require Member States to report to the Commission every four years on the scale and type of their enforcement activities and the levels of compliance with the Directive.

Harmonising the requirements of the Directive relating to the label:

- It is recommended to consider harmonising the design of the label reflecting the design of the EU household energy product label.
- It could be considered to make the inclusion of information on annual vehicle running costs on the label mandatory.
- It could be considered to require Member States to include information on relevant vehicle taxation rates on their respective labels, e.g. where these are linked to a car's CO₂ emissions.

- It is recommended that any future harmonisation of the label should not be too prescriptive in relation to other elements to be included on the label, so as to enable Member States to take account of national circumstances.
- It is recommended to investigate the potential to have a composite label that is clear and easy for consumers to understand and which includes information on both the absolute and relative CO₂ performance of the vehicle.
- If it is not possible to develop a simple and clear composite label, a requirement to use an absolute label could be considered.
- However, it is recommended to base this policy choice on a consumer behavioural study to test the effectiveness of alternative schemes.
- If it proves not to be possible to agree on either a composite or an absolute label, then it could be considered to develop guidelines in the Directive for the development of relative labels.
- It could be considered to leave the definition of bands to Member States, but in such a case the revised Directive should set out clear principles for the allocation of cars to bands.

Other means of improving the effectiveness of the Directive – Guide on fuel economy:

- The Commission could allow Member States more flexibility in relation to the requirements relating to the fuel economy guide, with respect to making it available to consumers.

Other means of improving the effectiveness of the Directive – Poster/display:

- It could be considered to remove the requirement for a poster/display within the showroom/at the point of sale.

Other means of improving the effectiveness of the Directive – Promotional materials:

- It could be considered to make the requirements in relation to promotional literature, as currently defined by the Directive, more prescriptive, including the addition of minimum requirements in terms of size and position (which could be different for different types of promotional material).
- It could be considered to update the definition of "promotional literature" to reflect the realities of the increasing use of electronic media (e.g. external electronic posters in public spaces).
- If the Directive is not revised, the production of guidance could be considered on the Commission's understanding of what is meant in Annex IV by 'easy to read' and other commonly misinterpreted phrases.

Other means of improving the effectiveness of the Directive – Discrepancy between real world and test cycle information:

- If the revised light duty test cycle takes more time to develop than expected, or does not sufficiently replicate EU real world emissions, it could be considered to develop a scaling factor to convert test cycle emissions to real world emissions.

Other means of improving the effectiveness of the Directive – Information to increase awareness:

- It could be considered to commission research on the potential benefits of including the CO₂ and fuel efficiency information (e.g. a simplified form of a harmonised label) on other information that is provided to consumers.

Extension of the Directive to other modes:

- It could be considered to investigate further whether there should be a requirement to provide information on vehicle CO₂ emissions and fuel economy to purchasers and users of other types of road transport (including vans, heavy-duty vehicles, two- and three-wheelers and used cars).
- It could be considered to include on the label indicative values for the carbon intensity of fuels and energy sources converted into gCO₂/km.

Extension of the Directive to other media:

- It could be considered to extend the provisions of the Directive to cover promotional material on the internet that is visual and static.
- Undertaking research, or even a trial, to understand whether there are any benefits in terms of increasing consumers' awareness of extending the provisions of the Directive to cover other types of visual and dynamic media (including that on the internet) could be considered.

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1 Introduction

AEA, with TEPR and KTI, were commissioned to inform the European Commission (DG CLIMA) of the state of play of implementation of Directive 1999/94/EC in a chosen group of EU Member States. The aim of this report was therefore to develop an in-depth understanding of the implementation of the Directive in Belgium, Denmark, France, Germany, Hungary, Romania, Spain and the UK. It was also necessary to build upon an earlier study for the European Parliament (2010¹). The previous European Parliament study included the following Member States: Austria, Czech Republic, Finland, France, Germany, Italy, Netherlands, Poland, Sweden, and the UK. This study includes three main tasks, which are as follows:

- Task 1: State of implementation of Directive 1999/94/EC in a chosen group of Member States.
- Task 2: Enforcement of Directive 1999/94/EC.
- Task 3: Policy recommendations.

This report sets out the findings of the study based on the tasks above.

1.1 Regulatory Framework and Directive 1994/94

The purpose of the vehicle labelling Directive 1999/94/EC, as stated in its Article 1, “*is to ensure that information relating to the fuel economy and CO₂ emissions of new passenger cars offered for sale or lease in the Community is made available to consumers in order to enable consumers to make an informed choice*”. The Directive requires information on fuel economy and CO₂ emissions to be displayed in the following ways (referred to as “information tool” in the remainder of this report):

- A **fuel economy label** for all new cars to be displayed at the point of sale.
- A **guide on fuel economy** and CO₂ emissions that should be available at the point of sale and from designated bodies.
- A **poster (or a display)** showing the official fuel consumption and CO₂ emissions data of all new passenger car models displayed or offered for sale or lease at, or through, the respective point of sale.
- All **promotional literature**² must contain the official fuel consumption and specific CO₂ emission data for the passenger car model to which it refers³.

The Directive has four Annexes, each of which sets out a more detailed specification of one of the four information tools. While the Directive has not been fully revised since its publication, there have been two changes (one required, the other recommended) relating to the way in which information is to be displayed, i.e.:

¹ Gruenig, M, Skinner I, Kong, MA and B Boteler (2010) *Study on consumer information on fuel economy and CO₂ emissions of new passenger cars – Implementation of the Directive 1999/94/EC* report to the European Parliament’s ... Committee, IP/A/ENV/ST/2009-12

² The Directive actually covers and defines “Promotional literature”. “Promotional Materials” are referred to in passing, and is not defined in the Directive. However, “Promotional Material” is defined in Recommendation 2003/217/EC, to include electronic, optical and magnetic media (includes advertising, but excludes TV and radio). We therefore refer to “promotional materials” throughout this report, which includes both the Directive’s “Promotional Literature” and Recommendation’s “promotional materials” definitions.

³ Directive 1999/94; see <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2000:012:0016:0023:EN:PDF>

- Directive 2003/73/EC⁴ required that, in addition to (or even instead of) the poster/display, information on fuel economy and CO₂ emissions should also be displayed on an electronic screen.
- Commission Recommendation 2003/217/EC⁵ recommended, rather than required, Member States to ensure that promotional material transmitted electronically or stored using electronic, magnetic or optical media should contain information on a car's fuel economy and CO₂ emissions. It also recommended that the latter information is available generally by electronic means.

As noted above, Directive 1999/94 was always meant to work in conjunction with supply-side policies (i.e. first the voluntary agreements, then Regulation 443/2009) and demand-side instruments, such as vehicle taxation, as part of wider strategy. In this respect, it is not surprising that it is difficult to identify the impact of the label on its own, which was the conclusion of the first study on the effectiveness of the Directive (ADAC, 2005)⁶. As was reported in the review of relevant literature undertaken for the European Parliament study (EP, 2010), other authors have also reached this conclusion, with Anable *et al* (2008) arguing that the provision of fuel economy information is necessary but not sufficient to influence consumers' choices⁷.

The literature reviewed for the European Parliament study concluded that the provision of information is most effective when linked to financial incentives. A number of Member States (e.g. the UK) have, therefore, linked a revised label, i.e. one that goes beyond the requirements of the Directive, to their circulation taxes. The label can also be used for the purpose of a short-term incentive, as has been done in the Netherlands (see TNO *et al*, 2006).

Hence, in reviewing the informational measures of Directive 1999/94, it is important to remember the fact that such measures are most effective as complementary instruments. This might, for example, impact on the degree of harmonisation across Member States that would be considered to be most preferable.

1.2 Approach to the study

As mentioned earlier, this study was based on three key tasks. Each of the tasks, and the methodology used, are described in more detail below.

⁴ Commission Directive 2003/73/EC; see <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:186:0034:0035:EN:PDF>

⁵ Recommendation 2003/217; see <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:082:0033:0034:EN:PDF>

⁶ ADAC (2005) *Study on the effectiveness of Directive 1999/94/EC relating to the availability of consumer information on fuel economy and CO₂ emissions in respect of the marketing of new passenger cars*, A report to DG Environment, March 2005.

⁷ Anable, Jillian *et al.* (2008): "Car buyer survey: From 'mpg paradox' to 'mpg mirage': How car purchasers are missing a trick when choosing new and used cars" (Final report), Research conducted on behalf of the Low Carbon Vehicle Partnership.

Figure 1.1: Methodology



1.2.1 Task 1: Implementation of Directive 1999/94/EC

The objective of Task 1 was to gather information on the implementation of the CO₂ car labelling Directive in eight Member States (Belgium, Denmark, France, Germany, Hungary, Romania, Spain and the UK), building upon the recent European Parliament (2010) study. The countries covered in this previous study included Austria, Czech Republic, Finland, France, Germany, Italy, Netherlands, Poland, Sweden, and the UK. France, Germany and the UK are included in this study, despite being included in the EP (2010) study, as they were identified previously as considering changes to the implementation of the Directive. Therefore the aim was for this study to review the state of implementation in these three countries and capture any further developments.

The subtasks / outputs of Task 1 were:

- Update of existing previous analysis in this area;
- Information on where national legislation goes beyond the requirement of the Directive;
- Identification of existing or planned voluntary measures;
- Critical assessment of the effectiveness of the information tools;
- Other existing and planned voluntary measures in the field of consumer information on vehicle CO₂ emissions and/or fuel economy; and
- Preparation of an Annex of findings.

The approach to this task was to treat each of the Member States as a detailed case study. Members of the project team gathered information on the implementation of the Directive in

each of the countries through web-based research, complemented with directly contacting the relevant ministries responsible for transposing the Directive into national legislation. A fiche was developed (based upon that used in the European Parliament study) to enable the collation of information on the content and format of the label and other measures included in the Directive (see Appendix 1). The information required by the fiche included:

- The content and layout of the car label in each country;
- Requirements relating to each of the other information tools;
- Where the national transposing legislation goes beyond the Directive;
- Planned modifications; and
- Existing or planned voluntary measures on consumer information on vehicles CO₂ emissions and/or fuel efficiency.

The information contained within each of the Member States case studies was subsequently reviewed and the state of implementation of the Directive reported.

1.2.1.1 Assessing the effectiveness of the information tools

In addition to the collation and analysis of information on the state of implementation of the Directive, the effectiveness of the Directive's information tools was also considered. The effectiveness of the information tools have been assessed in two ways:

1. Assessing the effectiveness of the information tools in increasing consumer awareness; and
2. Assessing the effectiveness of the information tools in improving the CO₂ performance of new cars.

To assess the effectiveness of the information tools in increasing consumer awareness, a comprehensive assessment of whether and how the Directive has improved consumer awareness of car CO₂ emissions levels would require detailed consumer surveys to be carried out in each of the eight countries. However, within the resources and time available for this study, this is not possible. Stakeholder consultation was therefore carried out with a range of national-level organisations in each of the eight countries (telephone interviews). The types of organisations contacted included:

- Ministry or Government bodies responsible for implementation and enforcement of national legislation on the provision of information on car CO₂ emissions;
- National consumer councils / consumer protection organisations;
- National car manufacturers/retailers trade associations; and
- National environmental NGOs.

Where contact was made with organisations in the Member States, information on the following topics was gathered (where available):

- Numbers of consumers contacting consumer protection organisations with respect to queries relating to the CO₂ label
- Number of consumer queries/complaints received about the CO₂ information provided in car promotional material
- Number of hard copies of fuel economy/CO₂ guides published/distributed each year
- Number of times per year the online fuel economy/CO₂ guides in each country have been accessed

Each of the national level stakeholders contacted (and European level) was asked if they were aware of any studies concerned with the assessment of the effectiveness of the tools. Where this was the case, we have drawn from the findings in this report. Stakeholders were also asked if they had a qualitative view on the effectiveness of the various information tools.

In order to assess the effectiveness of information tools in improving the CO₂ performance of new cars, annual CO₂ figures for new cars sold in Europe/Member States was examined to identify whether improvements had been made. However, it is unlikely that any improvements identified in the data will be directly attributable to the implementation of Directive 1999/94/EC in isolation, it is more likely that it is due to a range of policies and measures that have been implemented over the past decade or longer that have had an impact on CO₂ from passenger cars.

1.2.2 Task 2: Enforcement of Directive 1999/94/EC

The objective of the task on enforcement was to assess whether enforcement of Directive 1999/94/EC could be improved. Task 2 on enforcement of the Directive had three separate elements:

- Identification of areas where the implementation of, or compliance with, the Directive poses difficulties in the eight Member States covered by this project.
- Critical assessment of the enforcement measures undertaken by France, Germany and the UK.
- Identification of best practices for enforcement. This was based on a review and examination of other European legislation concerned with the provision of consumer information to identify whether there are good practices that may be transferable to the provision of passenger car CO₂ information to consumers.

For both of the first two sub-tasks, the method involved:

- Engagement with Member States. This was undertaken in parallel to Task 1 engagement that focused on implementation.
- Engagement with other national stakeholders. This was also undertaken in parallel to the engagement with Member States under Task 1.
- Engagement with European level stakeholders, which was undertaken as part of the wider engagement with European stakeholders.
- Review of infringement proceedings.

In order to perform a critical assessment of the enforcement measures in France, Germany and the UK, the study team used the engagement with Member States in Task 1 to ask additional questions regarding enforcement, including:

- Scope of enforcement activities;
- Specific enforcement activities carried out;
- Whether the level of enforcement activity has increased or decreased in the years since the Directive was transposed into national legislation;
- Any problems that have arisen with regard to enforcement activities; and
- Any innovative measures that have been introduced to aid compliance and enforcement activities.

The third sub-task involved a review of the various pieces of legislation coupled with interviews with relevant European Commission representatives responsible for the relevant legislation.

1.2.3 Task 3: Policy Recommendations

The final task was to develop advice on the following four issues:

- Possible harmonization of the label across the EU, including the layout and content of the label
- Other possible measures, including voluntary tools, increasing the effectiveness of the Directive.
- Improvement of the readability criteria of mandatory consumer information in the car promotional materials (Annex IV of the Directive)
- Possible extension of the scope of the Directive to:
 - Other categories of vehicle; and
 - Other media

In order to develop this advice, the following sub-tasks were undertaken:

- Literature review;
- Interviews with national stakeholders;
- Engagement with European stakeholders.

The approach to these sub-tasks is described in more detail in the subsequent sections.

1.2.3.1 Literature review

The European Parliament study (2010) reviewed 54 pieces of literature in relation to consumer information and car buying behaviour. This study aimed to build upon the previous review and update with any additional information received. Additionally, the literature review covered studies that have looked at the issues related to the four areas that the Commission is seeking advice on (see Section 4). In order to identify relevant studies, the project team made requests to Member State stakeholders (as part of the engagement in Tasks 1 and 2), made requests to European stakeholders; and undertook an internet search to identify more recent literature of relevance. A fiche was used in the EP study to identify relevant studies. The questions in the fiche were updated for this study to reflect the areas in where the Commission is seeking advice (See Appendix 1).

1.2.3.2 Interviews with national stakeholders

Interviews were undertaken with national and European stakeholders (discussed in this section and the following section) to confirm the main policy options for possibly revising the Directive. National stakeholders were asked for their views on the four issues when being contacted to complete the national Member States case studies in Tasks 1 and 2. National stakeholders were asked the following questions:

1. To which other types of vehicle should the provisions of Directive 1999/94 be applied? Please explain your answer, including any thoughts on how this might be achieved.
2. To which other types of media should the provisions of the Directive be expanded? Please explain your answer, including any thoughts on how this might be achieved.
3. Should the label under Directive be harmonised at the EU level? Please explain your answer, including which elements should and should not be harmonized.
4. How should the mandatory information on the promotional material be improved, e.g. made easier to understand?

5. How else might the Directive be made more effective?

1.2.3.3 Engagement with European stakeholders

In addition to engagement with national stakeholders, engagement with European stakeholders was also undertaken. Engagement took the following format:

- Initial contact to ask stakeholders to provide any evidence on these issues, e.g. published reports, etc, and to request an interview. A list of the EU level stakeholders contacted for this project is given in Appendix 2.
- An interview was held with those stakeholders who were willing to be interviewed, which covered the five issues above. A list of the questions that formed the basis of these interviews is presented can be found in Appendix 3.
- A workshop was held in Brussels on 29th September to which all stakeholders (other than those who had expressed a desire not to be further involved in the process) were invited. The Background Paper was circulated to stakeholders prior to the workshop - a summary report of the discussion at the workshop can be found in Appendix 4.
- Stakeholders were asked to provide comments on the Background Paper after the workshop.

1.2.3.4 Development of advice on the four issues

Based upon the findings and evidence from the literature review and the engagement with national and European stakeholders, the study team has developed advice and recommendations regarding the four issues. Where conclusive advice could not be given, we identified the reasons and proposed additional research that would be necessary to enable more conclusive advice to be reached.

1.3 Report structure

This report sets out our research findings and policy recommendations in the following sections:

- **Section 2: Implementation of Directive 1999/94/EC** – Provides an overview of the implementation of the Directive in the eight selected Member States, with information on other Member States where available.
- **Section 3: Enforcement of Directive 1999/94/EC** – Enforcement activities in France, UK and Germany; review of compliance with the Directive in Member States; and review of best practice in enforcement in parallel legislation.
- **Section 4: Development of policy options** – Including the review of the literature, findings from the stakeholder engagement, and summary of the issues related to the four policy areas.
- **Section 5: Conclusions and Recommendations** – Recommendations relating to implementation and enforcement of the Directive and related to the policy options and concluding remarks.

2 Implementation of Directive 1999/94/EC

The state of implementation of the Directive, in particular the four information tools (label, guide on fuel economy, poster and promotional literature – Annexes I to IV), has been examined in the eight selected Member States: Belgium, Denmark, France, Germany, Hungary, Romania, Spain and UK. Each of the Member States has transposed the Directive into national legislation, which is outlined in Table 2.1.

Table 2.1: Transposing National Legislation – Eight selected Member States

Member State	Transposing National Legislation
Belgium	Arrêté royal du 05.09.2001, amended 03.09.2004.
Denmark	"Bekendtgørelse om energiemaerkning m.v. af nye personbiler, nr. 216 af 28.03.2000" and "Bekendtgørelse om ændring, nr. 121 af 27.02.2003"
France	"Décret n° 2002-1508, 23.12.2002" and "Arrêté, 10.04.2003", amended November 2005.
Germany⁸	Verordnung über Verbraucherinformationen zu Kraftstoffverbrauch und CO ₂ -Emissionen neuer Personenkraftwagen (Pkw-Energieverbrauchskennzeichnungsverordnung – Pkw-EnVKV) 2004. Currently being amended and expected to enter into force by end of 2011.
Hungary	Decree 12/2002
Spain	Real Decreto 837/2002, de 2 de agosto, amended by Government Decision no. 343 of 18 th march 2004
Romania	HG 313/18.03.2004
UK	"Statutory Instrument 2001 No. 3523 - The Passenger Car (Fuel Consumption and CO ₂ Emissions Information) Regulation 2001" Further amended by UK S.I. 2004 No. 1661, 'The Passenger Car (Fuel Consumption and CO ₂ Emissions Information) (Amendment) Regulations 2004'

For each of the four information tools, the following information has been identified and is summarised in the following sub-sections, through the preparation of Member State case studies:

- Content and layout/requirements of the information tools;
- Going beyond the Directive; and
- Voluntary measures.

The full case studies can be viewed in Appendix 6, and an overview of the state of implementation in the EP (2010) Member States is provided in Appendix 7.

Any planned modifications to national legislation have been identified and discussed. Other existing and planned and voluntary measures in the field of consumer information on vehicle CO₂ emissions and/or fuel economy have also been identified within each of the Member

⁸ Analysis of the German Case Study in this report is based on the new legislation requirements, which came into force on 1st December 2011.

States. Finally, the effectiveness of the information tools has been considered. Where information on implementation of the Directive is available for other Member States (i.e. from the European Parliament, 2010, study) it has also been included here.

2.1 Label

The Directive Requirements for the label (Annex I) are summarised in Box 2.1 below.

Box 2.1: Summary of Directive Requirements – Label (Annex I)

- Comply to a standardised format in order to allow greater recognition by consumers
- Are of a size of 297mm x 210mm (A4)
- Contain a reference to the model and fuel type of the passenger car to which they are attached
- Contain the numerical value of the official fuel consumption and the official specific emissions of CO₂
- Contain specific text on the availability of the guide on fuel consumption and CO₂ emissions
- Contain specific text on other factors that affect fuel consumption (i.e. driver behaviour) and that CO₂ is the main GHG responsible for global warming

2.1.1 Content and layout of the car label

The way in which the required information is displayed (and the type of information) on the labels varies by Member State. Annotated versions of the eight Member States' labels are provided in Appendix 5. Each of the labels presented in the Appendix include where they meet the requirements of Directive 1999/94/EC (see Box 2.1 above) and where they have gone beyond the requirements of the Directive in transposing the national legislation.

Denmark, France, Germany, Romania, Spain and the UK all use an EU household product energy labelling-style label, which is a comparative label that utilises colours in a scaled format. Belgium's label is also scaled and coloured, but is presented in a one-bar format. Hungary meets the minimum requirements through requiring a label that simply lists the required information.

Table 2.2: Label format in Member States

Label format	This study	EP study (2010)
EU-Energy Labelling style label	Denmark (differentiated between petrol and diesel), France, Germany, Romania, Spain, UK	Finland, Netherlands
Continuous comparative label	Belgium (differentiated by petrol and diesel)	Austria
List format	Hungary	Italy, Sweden
No format mandated	-	Czech Republic, Poland

Both Belgium and Denmark differentiate between petrol and diesel-fuelled cars on the label (i.e. - the band thresholds differ according to whether the vehicle is petrol or diesel).

Denmark, France, Romania and the UK all use an absolute label format, whereby each car is categorized according to a comparison against all cars. Two of the Member States use relative labelling schemes – these are Germany and Spain. The relative scheme is where a

car is categorized according to a comparison of ‘similar’ cars. The German scheme will come into force at the end of 2011, and requires that the energy efficiency of a vehicle is evaluated on the CO₂ emissions and weight of individual passenger cars. Therefore the scheme shows the CO₂ performance and potential for improvement within a vehicle class. The Spanish relative scheme is based upon the vehicle’s footprint/area. The reference level for the Netherlands’s relative scheme (as identified in the EP study) is the weighted average of the average CO₂ emissions of all cars in the same size class (weight of this part is 75%) and the average CO₂ emissions of all cars.

Table 2.3: Use of relative or absolute labels in Member States

Relative or absolute labels	This study	EP study (2010)
Absolute	Belgium, Denmark, France, Romania, UK	Finland, Austria
Relative	Germany (weight), Spain (footprint)	Netherlands (CO ₂ performance)

Both the absolute and relative label formats require the use of bands or categories (typically 7 bands, labelled “A” to “G”) with regards to displaying CO₂ emissions. “A”/green categories symbolize the lowest CO₂ emissions with “G”/red categories signifying the worst polluters. The revised Household products energy labelling Directive allows for the adoption of “A+” to “A+++” categories for products that are significantly more efficient than products that just receive an “A” rating, meaning the number of categories/bands in use can be increased (known as an ‘open’ system, as opposed to a ‘closed’ system that limits the categories used to 7/“A” to “G”). The use of an “A+” category or higher for cars is allowed in Germany and has been proposed in Denmark. Some of the Member States, for example the UK, have linked the bands/categories to their CO₂-based vehicle taxation, with the objective of strengthening the signal to consumers in line with the objectives of the Directive⁹.

Additional information is included on a number of the Member States’ labels. Running costs, including information on fuel economy and taxation costs, is one such example. Denmark, Germany and the UK include information on estimated annual running costs and annual tax. Estimated annual running costs are based on price per 20,000km in Denmark and 12,000 miles in the UK. Running costs in Germany refer to the annual average energy costs, including fuel and electricity. Annual vehicle circulation tax information is provided in Denmark and the vehicle circulation tax (Vehicle Excise Duty) for 12 months in the UK (1st year and standard rate). Germany provides information on the annual tax costs.

Other additional information may also be included on the labels. Denmark’s label includes the EuroNCAP¹⁰ safety rating of the vehicle, as well as information on whether diesel cars are fitted with particle traps (if they are, then owners required to pay additional tax). Although electric and other alternatively fuelled cars (M1 vehicles) are covered by the Directive, Germany requires that the following information is included on the label:

- Consumption of natural gas or biogas as a fuel different from a) in kg/100km; and
- Power consumption of pure electric vehicles and hybrid electric vehicles for external recharge in kilowatt hours per 100 kilometres (kWh/100 km).

The EP (2010) study also revealed that a number of the Member States required additional information to be displayed on the label. Finland includes information on running costs (18,000 km per year) and annual tax. Austria includes a range of additional information, such as exhaust emissions class; amount of standard consumption output as a percentage of

⁹ The UK links the bands/categories to their CO₂-based taxation system. In this case, the categories are listed as A to M, but still retain the 7 bands (In the majority of cases there are two categories/letters per band).

¹⁰ European New Car Assessment Programme

selling price; biofuel sustainability; indication of usability of other fuels; operating noise; vehicle weight; vehicle length and width; number of seats. Additional information is not required or refused by the national legislation in Poland, and its inclusion is at the discretion of vehicle manufacturers.

Table 2.4 provides an overview of the additional information that is displayed on the Member States' labels.

Table 2.4: Inclusion of additional information on labels in Member States

Additional information	This study (2011)	EP study (2010)
Running costs	Denmark, Germany, UK	Finland
Annual car tax	Denmark, Germany, UK	Finland
Other information	Denmark (Euro NCAP rating, whether particle trap fitted) Germany (Consumption of natural gas or biogas as a fuel kg/100km; and Power consumption of pure electric vehicles and hybrid electric vehicles for external recharge in kilowatt hours per 100 kilometres (kWh/100 km)).	Austria (exhaust emissions class; amount of standard consumption output as a percentage of selling price; biofuel sustainability; indication of usability of other fuels; operating noise; vehicle weight; vehicle length and width; number of seats) Netherlands (car fuel efficiency class – A to G) Poland (labels presented by sellers may include other technical data about the car)

The prominence of information on certain labels should also be noted. For example, vehicle price and vehicle detail are clearly the focus of the label in Hungary. Belgium, France and Romania all prominently display the required numerical values for fuel consumption and CO₂ emissions, in addition to any graphical representation. In the majority of Member States, including Belgium, Denmark, France, Germany, Romania, Spain and the UK, the colour-coded EU household product energy style label and corresponding arrows (a bar in the case of Belgium) is the prominent information being portrayed to consumers.

In most cases, the label is required only for new passenger cars (as is required by the Directive). However, in Denmark a label is also required for **vans** under 3.5 tonnes. France plans to introduce requirements for a label for light commercial vehicles from early 2012. The UK enables a label for **used cars** to be generated on a voluntary basis including the same information as the required label for new passenger cars (data are available for cars registered from 2001). France plans to introduce a mandatory used car label for vehicles registered from 2004, and for rentals longer than three months.

2.1.2 Going beyond the Directive in transposing legislation at the national level - Label

Table 2.5 provides an overview of where national transposing legislation exceeds the requirements of Directive 1999/94/EC with regards to the label. These are those measures that are specifically set out in and required by national legislation. The subsequent section provides an overview of any voluntary measures that are in place with regards to the label (i.e. those measures that OEMs/dealers are not obliged to use).

Table 2.5: Where the transposing legislation goes beyond the requirements of Directive 1999/94/EC - Label

Member State	Where the transposing legislation goes beyond the requirements of Directive 1999/94/EC (information required by national transposing legislation)
Belgium	<ul style="list-style-type: none"> • Bands/scales on the label are differentiated by petrol/diesel
Denmark	<ul style="list-style-type: none"> • Presents CO₂ information in EU Energy Labelling-style format. It is an absolute label and includes bands A to G (7 bands). Includes an arrow depicting the vehicle's band. • Fuel consumption is presented in km/litre • Includes Annual Road tax costs • Includes typical fuel costs for 20,000km • Includes EuroNCAP star rating • Includes information on whether diesel cars have a particle trap (if not, they are required to pay additional tax) • Labelling is also required for light commercial vehicles (LCVs)/vans under 3.5 tonnes
France	<ul style="list-style-type: none"> • Presents CO₂ information in EU Energy Labelling-style format. It is an absolute label and includes bands A to G (7 bands).
Germany	<ul style="list-style-type: none"> • Presents CO₂ information in EU Energy Labelling-style format. It is a relative label and includes bands A+ to G (8 bands). (Two additional bands, A++ and A+++, will be introduced if at least 5% of newly registered vehicles in a calendar year meet their requirements) • Includes annual road tax costs • Includes typical energy costs (fuel and electricity) • Includes fuel consumption for natural gas or biogas in kg/100km (where applicable) • Includes power consumption for pure electric and hybrid vehicles (external recharge) in kWh/100km (where applicable) • Needs to include energy source and mass of vehicle
Hungary	<ul style="list-style-type: none"> • N/A
Romania	<ul style="list-style-type: none"> • N/A
Spain	<ul style="list-style-type: none"> • Includes fuel consumption in kms per litre in addition to litres per 100km
UK	<ul style="list-style-type: none"> • Includes fuel consumption in miles per gallon in addition to litres per 100km

2.1.3 Label voluntary measures

Table 2.6 provides an overview of the label voluntary measures identified in the case study Member States. These are those measures that are not required by the Directive or the national transposing legislation, but are regularly included on the label by manufacturers/dealers.

Table 2.6: Label voluntary measures

Member State	Voluntary measures (information typically included on the label, but not required by the national transposing legislation or the Directive)
Belgium	<ul style="list-style-type: none"> • Presents CO₂ information in a scaled and coloured format. It is an absolute label and includes bands A to G (7 bands).
Denmark	<ul style="list-style-type: none"> • N/A
France	<ul style="list-style-type: none"> • N/A
Germany	<ul style="list-style-type: none"> • In Germany, there are a number of statements that may be voluntarily included on the label. These include: <ul style="list-style-type: none"> ○ "The indicated values are in accordance with the measuring process outlined in § 2 Nos 5, 6, 6a of the EnVKV directive in its current version" ○ "CO₂ emissions caused by the production and delivery of the fuel or other energy sources are not taken into account in determining the CO₂ emissions. This is in accordance with Directive 1999/94/EC." ○ "The figures do not refer to a specific vehicle and are not part of the offer, but are merely for purposes of comparison between different vehicle types."
Hungary	<ul style="list-style-type: none"> • N/A
Romania	<ul style="list-style-type: none"> • Presents CO₂ information in EU Energy Labelling-style format. It is an absolute label and includes bands A to G (7 bands).
Spain	<ul style="list-style-type: none"> • Presents CO₂ information in EU Energy Labelling-style format. It is a relative label and includes bands A to G (7 bands).
UK	<ul style="list-style-type: none"> • Presents CO₂ information in EU Energy Labelling-style format. It is an absolute label and includes bands A to M (7 bands) (voluntary). • Includes annual vehicle excise duty (VED/car tax) • Includes typical fuel costs for 12,000 miles • The label's application to used cars is also voluntary, which started in November 2009. The label for used cars includes a note which states: <ul style="list-style-type: none"> ○ "The fuel consumption figure shown is taken from the official test results obtained from this vehicle type when new. It is intended to provide a standard figure for comparing the relative fuel economy of different vehicles of a similar age and condition and does not represent the average fuel consumption that will be achieved on the road. A number of factors not included in the official new vehicle test will affect the fuel consumption achieved on the road including: vehicle age, how it has been maintained, road/weather conditions and driving style".

2.2 Guide on fuel economy

The Directive Requirements for the guide on fuel economy (Annex II) are summarised in Box 2.2

Box 2.2: Summary of Directive requirements – Guide on Fuel Economy (Annex II)

- List all new passenger car models available for purchase within the Member States on a yearly basis, grouped by makes in alphabetic order
- For each model, the fuel type, the numerical value of the official fuel consumption and the official specific emissions of CO₂ should be given
- Prominent listing of the 10 most fuel-efficient new passenger car models ranked in order of increasing specific emissions of CO₂ for each fuel type
- Advice to motorists that correct use and regular maintenance of the vehicle and driving behaviour
- An explanation of the effects of greenhouse gas emissions, potential climate change and the relevance of motor a reference to the Community's target for the average emissions of CO₂ from new passenger cars and the date of which the target should be achieved
- A reference to the Commission's guide on fuel economy and CO₂ emissions on the Internet (when available)

2.2.1 Content and requirements of the guide on fuel economy

All of the Member States covered in this study have produced and made available a guide on fuel economy. The guide on fuel economy is available in all of the Member States as a hard copy (to varying degrees), and in most cases is available to download from the internet. Differing numbers of guides are printed (see Table 2.7), with the UK now producing fewer guides than in previous years and instead provides a CD-ROM that contains the complete database, including passenger car CO₂ information for vehicles registered from 2001 onwards. As the guides are now available to download in the majority of Member States, fewer copies will need to be printed in the future. This also ensures that the consumer can easily access the most up to date version of the guide.

In addition to the provision of the guide in electronic format, Belgium, Denmark, Spain and the UK all have fully searchable online databases in addition to the standard guide on fuel economy, and some stakeholders in countries currently without such online databases suggested that these might be developed for their countries. Additionally, the previous report for the EP (2010) found that Finland and Poland also have some form of online database.

Table 2.7: Summary of approach to the guide on fuel economy in Member States

	Hard copy available meeting minimum requirements?	Frequency of update	No of copies printed/year	Available to download from the internet?	Other
Belgium	✓	Annual	35,000 (10,000 distributed by showrooms, and 25,000 distributed directly via banks etc)	✓	Searchable online database; regular updates
Denmark	✓	Annual	100,000	✓	Searchable online database; new models added weekly
France	✓	Annual	40,000	✓	Searchable online database

	Hard copy available meeting minimum requirements?	Frequency of update	No of copies printed/year	Available to download from the internet?	Other
Germany	✓	Four times a year (voluntarily updated by vehicle manufacturers)	300,000	✓	
Hungary	✓	Up to six times a year		✓	
Romania	✓	Annually	3,000 (2,326 distributed Q1&2 2011)	x	
Spain	✓	At least annually		✓	Searchable online database
UK	✓	Annually	5,000 (those without access to the internet and Welsh language)	✓	Searchable online database, and from 2011, guide will be produced in CD-ROM format (annually)

In both this study and the previous EP (2010) study, some Member States questioned whether it was appropriate to continue to provide a large number of hard copies of the guide, for reasons including the cost of printing and the updates that are required to ensure that it is up to date. Belgium estimated that the costs of producing the guide were in the region of €70,000 to €80,000 (approximately €2 per copy). The Belgian Ministry also stated that it can take up to five months to prepare the guide, so when it is published, it is often already out of date. Overall, however, there were far fewer views and opinions about the guide and its usefulness than with respect to the label, for example.

The effectiveness of the guide on fuel economy in its current required format (i.e. printed format) was also questioned by a number of EU level stakeholders that were interviewed for this project. It was considered to be expensive to maintain for its usefulness, particularly when compared to the internet. The internet has other advantages in that it is far more easily (and more cheaply) kept up-to-date and online tools can also enable consumers to search and compare cars that they are interested in, rather than having to turn through pages of information on other vehicles.

2.2.2 Going beyond the Directive in transposing legislation at the national level – Guide on fuel economy

The main action that has gone beyond the requirements of the Directive includes making this guide available electronically and developing online tools to enable consumers to search information themselves. Table 2.8 provides an overview of where the transposing legislation has gone beyond the Directive requirements in the Member States other than on-line guide.

Table 2.8: Where the transposing legislation goes beyond the requirements of Directive 1999/94/EC – Guide on Fuel Economy

Member State	Where the transposing legislation goes beyond the requirements of Directive 1999/94/EC (information required by national transposing legislation)
Belgium	<ul style="list-style-type: none"> N/A
Denmark	<ul style="list-style-type: none"> N/A
France	<ul style="list-style-type: none"> Summary of current legislation and initiatives that affect car owners Importance of reducing CO₂ emissions by selecting more environmentally-friendly cars How to keep cars well-maintained so as to reduce CO₂ emissions. How to calculate annual running costs for 15,000km as well as the Bonus/Malus figures Provision of comparisons to show how much more (Malus) the consumer would have to pay for a more polluting car, and how much bonus (rebate amount) would be taken off for final purchase price of the car due to more environment-friendly features.
Germany	<ul style="list-style-type: none"> The guide lists data on CO₂ emission and energy consumption of the vehicles listed and provides comparative context for: <ul style="list-style-type: none"> consumption of natural gas or biogas the power consumption of pure electric vehicles and hybrid electric vehicles for external recharge (for more details see below)
Hungary	<ul style="list-style-type: none"> N/A
Romania	<ul style="list-style-type: none"> N/A
Spain	<ul style="list-style-type: none"> Provision of information on alternative clean technology vehicles and fuel, including hybrids, fuel cell and electric cars; and natural gas, LPG and bioethanol Database of detailed information and comparative information on fuel consumption and characteristics of new cars offered for sale in Spain
UK	<ul style="list-style-type: none"> States that fuel consumption shall be expressed either in litres per 100 kilometres (l/100km) or kilometres per litre (km/l), and quoted to one decimal place, or, to the extent compatible with the provisions of Council Directive 80/181/EEC(a) in miles per gallon (units recognised in the UK)

2.2.3 Guide on fuel economy voluntary measures

A number of elements of the guide, or activities related to the guide, are implemented in Member States on a voluntary basis.

In addition to the required CO₂/fuel economy information in the guide on fuel economy, the UK guide also includes information providing background and context. Vehicle listings also include data on other air pollutants such as HC, CO, NO_x and particulates, as well as noise emissions. The German guide on fuel economy currently includes the following additional voluntary information:

- A monetary example to consumers about the potential savings due to increased fuel efficiency.
- A pie graph depicting the amount of CO₂ emissions in Germany (for 2009) – where passenger vehicles contribute 12% of total CO₂ emissions.
- An explanation about the CO₂ saving potential of the various fuel types. For example, bio fuels are suggested as an alternative that reduces CO₂ emissions.

The Belgian guide provides more general information on CO₂ and the problems it causes, as well as the (non-climate change) impact of other pollutants such as particles. It also mentions an incentive to have particle filters, whilst also mentioning a range of other incentives, such as Fiscal incentive for private buyers. Guides are also more frequently updated in Germany and Hungary than is required by the Directive (4 and up to 6 times a year respectively).

In addition to the hard copy of the guide, or those versions available on the internet, a number of the Member States have online searchable databases, including Belgium, Denmark, France, Germany, Spain and the UK. In France, ADEME provides a searchable online database to help consumer identify the least polluting vehicle fulfilling their requirements. The consumer enters the criteria they want the vehicle to have; they can include a specific brand and model. The tool will generate the CO₂ impact for that vehicle but will also show other car that could be considered that are best and worse choice. It provides information on the malus or bonus the vehicle would generate. In Germany, the VDIK has set up a separate web page with information about reducing CO₂ emissions from cars and the vehicle replacement programme, which encourages consumers to purchase new vehicles to help the reduction of CO₂ emissions from passenger cars¹¹. Denmark's online searchable database enables the user to search by energy class, collision safety, fuel type, brand and model. It is also possible to search by new/old car/van.

As mentioned earlier, the UK has this year introduced a CD-ROM version of the guide, which includes a searchable database containing fuel economy information for all models going back to 2001. This is in response to the increased desire to access information electronically and in an attempt to reduce the burden of frequently printing updated versions of the guide.

2.3 Poster

Directive 1999/94/EC requires that a poster (or a display) is used to show the official fuel consumption and CO₂ emissions data of all new passenger car models displayed or offered for sale or lease at, or through, the respective point of sale. Box 2.3 provides an overview of the Directive requirements with respect to the poster.

Box 2.3: Summary of Directive requirements – Poster (Annex III)

- Poster / display has a minimum size (70 cm × 50 cm); its information is easy to read
- Screen size of any electronic display has a minimum size (25 cm × 32 cm)
- Models grouped and listed separately by fuel type. Within each fuel type, models are ranked in order of increasing CO₂ emissions, with the model with the best fuel economy first
- For each model, the make, official fuel consumption and specific CO₂ emissions are given
- Poster / display contains a specified reference to the guide and states that this is available free of charge at any point
- Poster / display contains specified text that other factors also influence a car's CO₂ emissions / fuel consumption and that CO₂ is the main greenhouse gas responsible for global warming
- Poster is to be completely updated at least every six months
- Between updates, new cars are to be added to the bottom of the list
- Poster / display may be substituted completely and permanently by an electronic screen that attracts the awareness of the consumer at least with the same intensity as a poster / display

¹¹ www.pro-saubereluft.de

2.3.1 Content and requirements of the poster

The posters used by the Member States within both this study and EP (2010) typically include the same information as the labels in each of the Member States in a list format (as required by Annex III). All of the Member States appear to meet the minimum requirements of the Directive.

Table 2.9: Poster

	Meets minimum Directive requirements?	Goes significantly beyond the Directive?
Belgium	✓	x
Denmark	✓	x
France	✓	x
Germany	✓	x
Hungary	✓	x
Romania	✓	x
Spain	✓	x
UK	✓	x

The European Parliament study (2010) also revealed very little further information on the poster, as the implementation of the poster-related requirements is often left to the car dealer, as long as the necessary information is provided.

2.3.2 Going beyond the Directive in transposing legislation at the national level – Poster

Very few Member States were identified as having requirements in national legislation related to the poster that go beyond the Directive requirements. In Germany, the poster is to be updated every 3 months, rather than the Directive requirement of 6 months.

The UK legislation allows for a three dimensional display, simply specifying that two of its dimensions must meet the minimum sizes given in the EC directive. The UK also requires that “a poster shall show the date on which it was published and display the date on which its assembly was completed”.¹²

2.3.3 Poster voluntary measures

No voluntary measures were identified with regards to posters in the Member States.

¹² http://www.legislation.gov.uk/ukxi/2001/3523/pdfs/ukxi_20013523_en.pdf

2.4 Promotional materials

A summary of the Directive requirements for promotional materials (Annex IV) is provided in Box 2.4.

Box 2.4: Summary of Directive Requirements: Promotional Materials (Annex IV)

- Information on CO₂ emissions and fuel consumption should be easy to read and no less prominent than the main part of the information provided in the promotional literature
- Easy to understand even on superficial contact
- Official fuel consumption data should be provided for all different car models to which the promotional material covers. If more than one model is specified then either the official fuel consumption data for all the models specified is included or the range between the worst and best fuel consumption is stated.
- If the promotional literature only contains reference to the make, and not to any particular model, then fuel consumption data need not be provided.

2.4.1 Content and requirements of the promotional materials

All of the Member States covered in this study appear to have met the minimum requirements of the Directive with regards to promotional materials, with none of them going significantly beyond these requirements.

Table 2.10: Promotional Materials

	Meets minimum Directive requirements?	Goes significantly beyond the Directive?
Belgium	✓	x
Denmark	✓	✓
France	✓	x
Germany	✓	x
Hungary	✓	x
Romania	✓	x
Spain	✓	x
UK	✓	x

There appears to be a lack of clarity as to what “promotional material” covers. It is sometimes assumed to include advertising whereas in other cases it was assumed to refer to the documentation prepared by manufacturers relating to the vehicle.

There is also lack of clarity with regards to what is meant by the information being “easy to read and no less prominent than the main part of the information provided in the promotional literature”. This has led to confusion at the Member States level. In the UK, lawyers have advised that it would be very difficult to bring a successful prosecution due to the ambiguity.

2.4.2 Going beyond the Directive in transposing legislation at the national level – Promotional materials

Very few Member States' legislation goes beyond the Directive requirements with respect to promotional materials. Germany and Spain have transposed the Commission Recommendation of 26th March 2003 (2003/217/EC) into its' national legislation. Recommendation 2003/217/EC recommends that information on CO₂ emissions is made available when cars are offered for sale or lease by electronic means, or when electronic, magnetic or optical storage media are used in the marketing, advertising and promotion of new passenger cars.

The UK's legislation requires that "fuel consumption figures shall be expressed in miles per gallon (mpg) and in either litres per 100 kilometres (l/100 km), or kilometres per litre (km/l) or an appropriate combination of these" to reflect local circumstances.

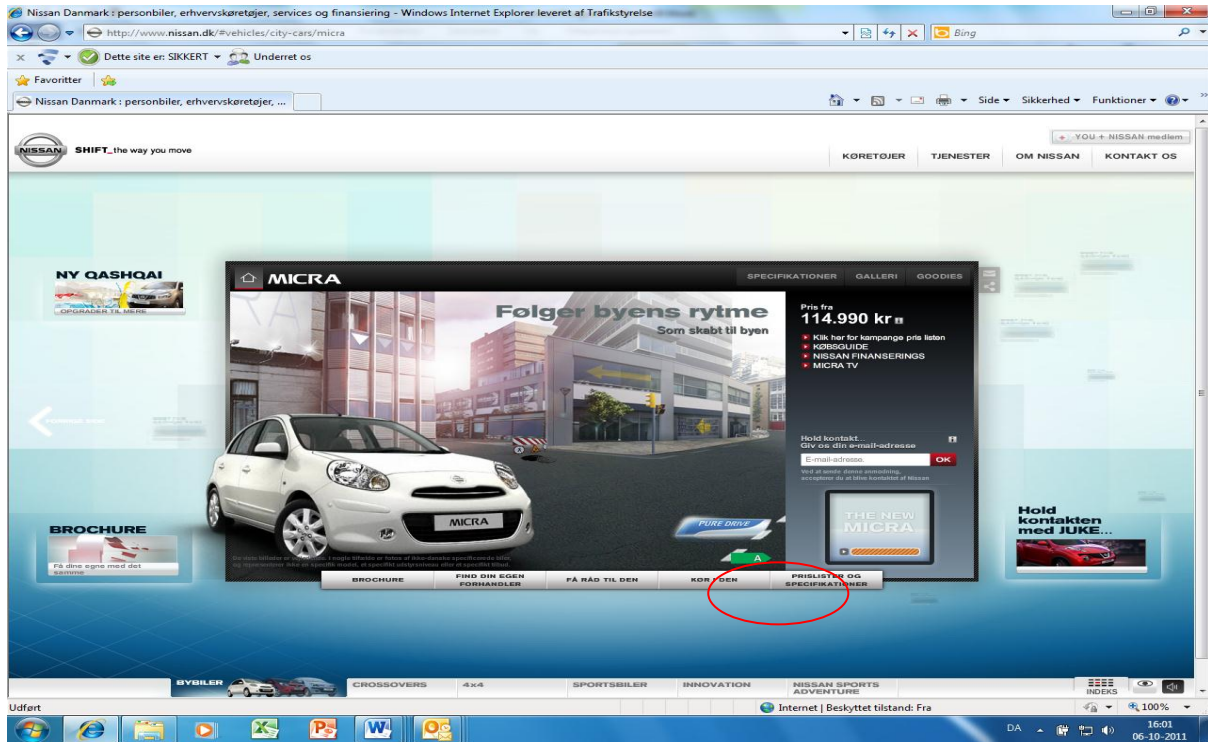
However, Denmark has taken steps to increase the basic requirements of the Directive by requiring (since end of 2010) that in addition to the mandatory information on CO₂ and fuel consumption, the colour-coded arrow indicating the cars' energy class/es should also be included in advertisements where several models/variants are displayed, the lowest and highest bands will be displayed) – both in print and on the internet. A minimum size requirement for the arrow is also indicated (15mm). Examples from Danish advertisements are shown in

Figure 2.1 and Figure 2.2.

Figure 2.1: Example of Danish promotional materials, including CO₂ band information - Peugeot (bottom left-hand corner)



Figure 2.2: Example of Danish promotional materials (internet advertising), including CO₂ band information - Nissan (bottom right-hand corner)



2.4.3 Promotional material voluntary measures

A number of voluntary measures have been implemented in Member States with regards to promotional materials. These mainly relate to raising awareness and providing guidance on the requirements.

In the UK, the Vehicle Certification Office (VCA) now offers a pre-publication screening process for promotional materials, which a number of manufacturers and agencies take advantage of to be sure of proper compliance. A guidance document has also been prepared on the requirements of the UK regulations¹³ (Department for Transport (DfT), Vehicle Certification Authority (VCA), the Society of Motor Manufacturers' and Traders (SMMT) and other industry stakeholders - including marketing and advertising representatives and those responsible for regulating advertising). The guidance provides examples of good (and bad) practice to assist enforcement authorities, as well as industry. Additional guidance has also been published regarding best practice principles for environmental claims in automotive marketing to consumers, prepared by the low Carbon Vehicle Partnership (LowCVP), SMMT and IBA¹⁴.

A voluntary advertising code (the Febiac code¹⁵) based on the legislation implementing Directive 1999/94/EC has also been created in Belgium by the Jury d'Ethique Publicitaire (JEP¹⁶). The Febiac code interprets the regulation in more detail and specifies, for example, font sizes to be used in promotional materials.

The EP study (2010) also revealed that there are various advertising codes in place or planned in Member States. In the Netherlands car manufacturers are required to abide with the rules of the 'Advertising Code' (Reclamecode), containing a number of specific items relating to passenger cars. These included (amongst others) a specification of the

¹³ <http://www.dft.gov.uk/vca/additional/files/fcb--co2/enforcement-on-advertising/vca061.pdf>

¹⁴ <http://www.lowcvp.org.uk/assets/banner/files/4250575342495A58.pdf>

¹⁵ http://www.jep.be/media/pdf/sectoriele_code/pub_code_nl_2008.pdf

¹⁶ JEP is a body created by the Conseil de la Publicite

requirements concerning advertisements as given by Directive 1999/94/EC. The Reclamecode specifies the minimum size of letters and of the space to be used for this information on fuel consumption and CO₂ emissions. In Finland, all sales people have been provided with training on interpreting the information on the label and using this information in discussions with customers (this will be part of standard training in the future). The Swedish Consumer Agency was planning to issue new restrictions on car advertisements, particularly in relation to environmental claims.

2.5 Planned modifications

A number of the Member States discussed planned modifications to their national legislation. However, these were not all necessarily going to take place, as Member States are also interested to know whether there are plans for the Directive to first be revised.

The final draft of Germany's amended legislation was adopted in August 2011 and published in September 2011. The legislation was effective from 1st December 2011. The three major changes to the legislation are as follows:

- The use of a relative CO₂ efficiency scale on the label (based on CO₂ emissions and weight of vehicle);
- Indication of electricity consumption information for all electric vehicles and externally chargeable hybrid vehicles; and
- Information on annual tax and annual average energy costs (fuel and electricity).

The German Ministry responsible for implementation of the Directive wanted to move towards the use of a relative label in order to show the CO₂ efficiency performance and potential for improvements in all vehicle segments. It was felt that an absolute approach would reduce the pressure to optimise energy efficiency in certain vehicle segments (e.g. the small car sector), even though these cars, due to their number, account for a major share of the overall carbon emissions of passenger cars. Providing an indication of electricity consumption aims to address the increasing development of electric mobility. The CO₂ emissions of electric vehicles are currently listed as 'zero' on the labels (as based on tail pipe emissions), so this action aims to provide more relevant information to the consumer. Finally, annual tax and annual average energy costs are being included as it is recognised that average running costs are, from a consumer perspective, an essential aspect of the purchase decision and can depict fuel savings in monetary terms.

Denmark, France, Hungary and the UK all also discussed potential modifications to their legislation, which are summarised in Table 2.11.

Denmark plans to revise the label requirements, with changes planned to take effect from early 2012. Planned changes include the addition of new classes to the label, including "A+", "A++", and "A+++", bringing the total to 10 classes (including the original 7 "A" to "G"). The reasoning behind these changes is that the current seven classes are to some extent diluted in the sense that over 50% of new passenger cars in 2010 were rated as class "A". Another reason for supporting increasing the number of bands rather than revising the existing band values was that it may have an effect on other existing Danish policies. For example, taxis have minimum requirements based on the existing bands. If they were revised, then existing taxis would no longer meet the requirements.

France is considering a number of modifications. The first two relate to the inclusion of additional information on the label, including annual fuel costs and the identification of the fiscal category of the vehicle (e.g. whether the vehicle falls in the malus/bonus fiscal incentives and the amount). Other changes relate to the vehicles to which the label applies. France is considering extending the requirement of the label to light commercial vehicles (LCVs) (category N1, less than 3.5 tonnes), and to second hand cars (from 2004 onwards)

and rentals less than three months long (annual fuel costs will not be included on second hand and rental car labels).

Hungary is considering updating the way in which CO₂ information is presented on the label in terms of presenting vehicle classes and using a colour-coded scale, as has been done in other Member States.

Finally, the UK has been considering improvements to the voluntary section of the label, including a clearer portrayal of typical running costs, reinforcing the benefits of electric vehicles. These costs may also be displayed over a 3 or 5 year period, and include insurance and maintenance costs.

Table 2.11: Summary of Planned Modifications in Member States

Member State	Planned modifications
Denmark	<ul style="list-style-type: none"> Changes will include the addition of new energy classes to the label, including A+, A++, and A+++, bringing the total to 10 classes (including the original A to G)
France	<ul style="list-style-type: none"> The addition of annual fuel costs Identification of the fiscal category of the vehicle (e.g. whether the vehicle falls in the malus/bonus fiscal incentives and the amount) Extension of the current application to light commercial vehicle use (category N1, less than 3.5 tonnes) Extension of the application of the labelling to second hand cars (from 2004 onwards) and rentals less than three months long (annual fuel costs will not be included on second hand and rental car labels)
Hungary	<ul style="list-style-type: none"> Hungary is currently considering changing the label requirements to include vehicle classes and using a colour-coded scale, as has been done in other MSs
UK	<ul style="list-style-type: none"> Improvements to the voluntary section of the label - More clearly portray typical running costs (reinforcing benefits of electric vehicles over conventional ones) - possibly over a 3 or 5 year period, including insurance and maintenance costs.

Therefore, of those Member States examined in this study, all of the planned modifications were in relation to the layout or application of the label, rather than any proposed changes to the requirements of the other information tools.

The European Parliament Study also identified a number of Member States that were planning modifications to their legislation, including Sweden and Italy¹⁷. A review was undertaken in 2007 in Sweden to identify possible revisions and to take new alternatives into account, although it is unknown when the modifications will take place and what their specifics will be. Discussions with stakeholders have been held in Italy regarding the size of information on fuel consumption and CO₂ emissions with a view to proposing a minimum size for this information on promotional materials. Some thought has also been given to extending the Directive to TV and internet adverts, and it was noted that consideration would have to be given to minimum time and space necessary for the communication of fuel and CO₂ emissions.

¹⁷ The EP study also identified planned changes that were to take place for the UK, Germany and France. Changes in the UK and Germany have taken effect (or are about to) and have been discussed in this report. Frances proposed changes are also discussed in this report.

2.6 Other existing and planned voluntary measures in the field of consumer information on vehicle CO₂ emissions and/or fuel economy

A range of other existing and planned voluntary measures in the field of consumer information on vehicle CO₂ emissions and/or fuel economy are undertaken in the Member States.

The Danish Transport Authority (Trafikstyrelsen) has a greener driving campaign (Kørgrønt¹⁸). This campaign running during 2010-2012 offers users the ability to

- find their vehicle;
- look at the energy marking of their vehicle or any other vehicle type;
- review information relating to their fuel consumption;
- information about the Kørgrønt driving course and certification; and
- video providing tips for energy efficient driving, as well as ten tips on the website.

The Spanish Institute for Energy Diversification and Energy Saving (IDEA) publishes and updated information on consumption and emissions of new vehicles in the national territory¹⁹.

The German Association of the Automotive Industry (VDA) assists in the promotion of the German automotive industry through, for example, a 'green technology' themed exhibition at the Internationale Automobile Ausstellung (IAA), which includes tours for school, press conferences, a practical guide to the CO₂ label, talks on the advances in the reduction of CO₂ emissions. They also promote through the 'Unsere Autos²⁰' website to advertise the research and development of German car manufacturers. The Federation of German Consumer Organisations (VZBV) led a campaign in Germany on climate protection, within which a guide was developed on the CO₂ consumption of passenger cars.

There are also currently information campaigns being run by the German Energy Agency (dena, on behalf of German Federal Ministry of Economics and Technology BMWi) which accompany the introduction of the new Regulation. Dena is working closely with the relevant business associations and non-governmental organisations. The target groups of the campaign include manufactures, traders and advertising businesses; opinion-forming organisations, such as NGOs, parliamentarians and journalists etc; and consumers.

2.7 Effectiveness of the information tools

There are two ways in which to assess the effectiveness of passenger car CO₂ information tools. Firstly, if tools are effective in providing consumers with information, the level of public awareness of car CO₂ emissions should have increased since the implementation of the Directive and the associated national transposing legislation. Secondly, if the tools are effective, then the take up of more efficient cars in the market place should have increased and the average level of new car CO₂ emissions should have declined. Both of these approaches are considered in more detail below.

¹⁸ <http://www.koergrønt.dk/>

¹⁹ www.idae.es/coches

²⁰ www.unsere-autor.de

2.7.1 Assessing the effectiveness of information tools in increasing consumer awareness

Stakeholder consultation was undertaken with a range of national level organisations to identify information that may indicate the effectiveness of the information tools in increasing consumer awareness.

Table 2.12: Overview of awareness of Directive information tools in Member States

<p>Numbers of consumers contacting consumer protection organisations with respect to queries relating to the CO₂ label</p>	<p>Denmark – Very few, if any.</p> <p>Germany – The Consumer Association of North Rhine-Westphalia (largest consumer organisation in Germany) indicates that there are ‘little or no’ questions in the counselling centres on CO₂ labelling.</p> <p>UK – Increase in number of consumers contacting authorities regarding real world fuel consumption figures (which can be significantly higher than the test cycle figures stated by manufacturers, approximately 2 or 3 people a month (DfT) and 4 to 5 people a month (VCA). The office of Fair Trading had received 70 complaints during the period July 2010- July 2011 where the consumer had purchased a new car and the achieved miles per gallon (mpg) figures did not match the figures advertised.</p>
<p>Number of consumer queries/complaints received about the CO₂ information provided in car promotional material</p>	<p>Belgium – Complaints are received by JEP regarding the mention of CO₂ and fuel consumption rather than the CO₂ label.</p> <p>Denmark – Very few, if any.</p> <p>France – No direct consumer complaints received by ADEME, although they are more likely to be received at regional offices.</p> <p>UK – About five complaints a year received by the Advertising Standards Agency (ASA) regarding differences between the test cycle fuel economy figures and those achieved under real-world conditions (almost all relating to advertisements in magazines). Five or fewer complaints a year are also received regarding the omission of CO₂ and fuel economy information on bill board adverts.</p>
<p>Number of hard copies of fuel economy/CO₂ guides published/distributed each year</p>	<p>Denmark – Between 80,000 and 160,000 copies a year.</p> <p>France – 40,000 copies a year.</p> <p>Germany – 300,000 copies a year.</p> <p>Romania – 3,000 in 2011 (2,326 distributed by July 2011).</p> <p>UK – Approximately 150,000 copies produced/distributed a year (although only 5,000 hard copies from 2011, with 130,000 copies of the guide on CD-Rom).</p>
<p>Number of times per year the online fuel economy/CO₂ guides in each country have been accessed</p>	<p>Belgium – Car section of the ministry’s website approximately 12,000 visits a year, with the section containing the guide receiving 6,000 visits a year.</p> <p>UK – Approximately 1 million visits a year.</p>

One of the Member States pointed out that although few queries/complaints have been received in relation to the CO₂ label or the promotional material, it doesn’t mean consumers are not interested in the issue, but so far the existing CO₂ label is not really meaningful to them. The fact that consumer centres are not very proactive in the transport sector also plays a role.

With regards to the number of guides printed and distributed each year, some of the Member States mentioned that a large proportion of them are not picked up by consumers and end up being destroyed at the end of the year or when new guides are available. In Denmark, the DCIA and Trafikstyrelsen coordinated an approach whereby they explained what was required to the car manufacturers' respective marketing divisions.

National level organisations were also asked for their views on the effectiveness of the various information tools (qualitatively), although very few responses were received to this question. One Member State mentioned that they were happy with current design of the label and the guide. Another mentioned that the colour-coded banded system used in a number of the MSs are user friendly than the basic version of the label in the existing Directive and they would like to see any new proposals along similar lines. Concern was raised regarding the guide on fuel economy in that it is not perceived to be the most effective method to convey the required information and does not represent good value for money, whereas a website would be better. Finally, it was mentioned that the existing Directive could be clearer, in particular with regards to Annex IV. Lawyers in the UK have advised that it would be very difficult to bring a successful prosecution due to the ambiguity.

Although these comments from Member States identify some of the weaknesses of the Directive and ways in which they have dealt with these issues, they do not provide an insight into the effectiveness of the information tools themselves on raising consumer awareness.

There was very little evidence available in literature/studies on the effectiveness of the information tools themselves. In terms of increased consumer awareness, only one study was identified that was directly concerned with the effectiveness of the label. Additionally, some national level studies have been undertaken in relation to effectiveness of or compliance with the national legislation. A Spanish study was undertaken in 2004 examining the effectiveness of the Directive and transposing legislation²¹. In order to assess the effectiveness, the study undertook a series of 'mystery shopper' visits to dealers (711 dealers) and interviews with consumers/vehicle users (304 interviews), with a heavy emphasis on compliance and awareness. With regards to the information tools required by the Directive in general:

- 57% of respondents were very/fairly positive with regards to the information provided by the various existing sources and fuel consumption;
- 45% of respondents considered very/fairly high level of influence of the current system of information on fuel consumption and CO₂ emissions in the decision to purchase a new vehicle.

The study also reported on compliance, which at the time of writing was low, due to the legislation coming into force relatively recently (21% dealer complying with one of the information tools²², 18% complying with two, and 0.8% complying with all three). With regards to the consumers, 25% can recall having seen the label, 19% the poster and only 9% have knowledge of the guide (although this will have links to compliance with the Directive in order for consumers to have access to the information tools).

A French study was undertaken in 2008 on the eco-labelling of a wide range of products, including passenger cars. The study followed the introduction of the bonus/malus incentive. The results of the study showed that:

- For 31% of respondents, the key purchasing criterion was price (up from 24% in 2004);
- The importance of CO₂ emissions in decision making rose from 33% in 2007 to 41% in 2008 (as 'very important');

²¹ IDAE (2004) Evaluación Del Impacto de la Directiva 1999/94/CE y del real Decreto 837/2002 de Transposición en España

²² Label, guide on fuel economy and poster. Promotional material not the responsibility of the dealer.

- In 2008, 35% of buyers knew the CO₂ emissions of the vehicle they were buying (compared to 33% in 2007) due to the use of the label;
- 67% of consumers recognised the label as an indicator of CO₂ emissions for the vehicle; and
- The label (coupled with the bonus/malus incentive) has influenced purchasing behaviour: 83% saw it as an incentive compared to 77% in 2007.

The European Parliament Study (2010) considered the general role of information in changing consumer behaviour. This noted that recognition of a popular label can be effective in influencing purchasing decisions. One of the most important consumer demands was for information that allowed them to compare products, particularly in terms of their cost and performance. In this respect, the energy efficiency label that is used on white goods has become well-known and respected among consumers.

The study team is not currently aware of any other national level studies that consider the effectiveness of the label. However, from the compilation of the Member State case studies, it is evident that almost all of the MSs have gone beyond the Directive when implementing requirements, implying perceived greater effectiveness in their enhanced formats. As described earlier, these additional requirements include presenting CO₂ information in the EU Energy Labelling format (using either an absolute or relative approach); the inclusion of estimated running costs (fuel and taxes).

Our report has also identified and examined planned changes to national transposing legislation within the selected MSs in order to assess effectiveness through identifying areas that MSs have decided to change or improve. The planned modifications were discussed in detail in Section 2.5. The majority of the planned changes are concerned with the format and the application of the label rather than the other information tools. In summary, these relate to:

- Presentation of information on the label:
 - Use of a colour-coded scale to indicate CO₂ information;
 - The number of bands/categories in use (increasing from 7 bands, “A” to “G” to include “A+”, “A++” and “A+++”);
 - Indication of annual fuel costs;
 - Indication of national taxation and other financial penalties/rewards;
 - Indication of electricity consumption (where applicable).
- Application of the label:
 - Extending its use to used cars;
 - Extending its use to rental vehicles.

2.7.2 Assessing the effectiveness of the information tools in improving the CO₂ performance of new cars

In addition to increasing overall levels of consumer awareness, the effectiveness of the directive can also be increased by examining the impacts of the label and other measures on the CO₂ performance of new cars purchased in each country. Therefore, this section reviews the published annual figures for new cars sold in Europe/selected Member States.

Regulation (EC) no. 443/2009 requires Member States to record information for each new passenger car registered in its territory, which is submitted to the Commission. This includes manufacturer name; type, variant, version, make and commercial name; specific emissions

of CO₂; mass in running order; wheel base; and tack width. The latest data available on CO₂ is for 2010.

Table 2.13 displays the average CO₂ emissions of new cars registered in the EU-27 between 2001 and 2010.

Table 2.13: Average CO₂ emissions of new car registrations in EU-27 (EEA, 2011a²³)

MS	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	165.6	164.4	163.8	161.9	162.1	163.7	162.9	158.1	150.2	144
Belgium	163.7	161.1	158.1	156.5	155.2	153.9	152.8	147.8	142.1	133.4
Denmark	172.9	170	169	165.9	163.7	162.5	159.8	146.4	139.1	126.6
Finland	178.1	177.2	178.3	179.8	179.5	179.2	177.3	162.9	157	149
France	159.8	156.8	155	153.1	152.3	149.9	149.4	140.1	133.5	130.5
Germany	179.5	177.4	175.9	174.9	173.4	172.5	169.5	164.8	154	151.2
Greece	166.5	167.8	168.9	168.8	167.4	166.5	165.3	160.8	157.4	143.7
Ireland	166.6	164.3	166.7	167.6	166.8	166.3	161.6	156.8	144.4	133.2
Italy	158.3	156.6	152.9	150	149.5	149.2	146.5	144.7	136.3	132.7
Luxembourg	177	173.8	173.5	169.7	168.6	168.2	165.8	159.5	152.5	146
Netherlands	174	172.4	173.5	171	169.9	166.7	164.8	156.7	146.9	135.8
Portugal		154	149.9	147.1	144.9	145	144.2	138.2	133.8	127.3
Spain	156.8	156.4	157	155.3	155.3	155.6	153.2	148.2	142.2	138
Sweden	200.2	198.2	198.5	197.2	193.8	188.6	181.4	173.9	164.5	151.2
UK	177.9	174.8	172.7	171.4	169.7	167.7	164.7	158.2	149.7	144.2
Bulgaria							171.6	171.5	172.1	159
Cyprus				173.4	173	170.1	170.3	165.6	160.7	155.8
Czech Republic				154	155.3	154.2	154.2	154.4	155.5	148.9
Estonia				179	183.7	182.7	181.6	177.4	170.3	162
Hungary				158.5	156.3	154.6	155	153.4	153.4	147.6
Latvia				192.4	187.2	183.1	183.5	180.6	176.9	162
Lithuania				187.5	186.3	163.4	176.5	170.1	166	150.9
Malta				148.8	150.5	145.9	147.8	146.9	135.7	131.3
Poland				154.1	155.2	155.9	153.7	153.1	151.6	146.4
Romania							154.8	156	157	148.5
Slovakia					157.4	152	152.7	150.4	146.6	149
Slovenia				152.7	157.2	155.3	156.3	155.9	152	144.4
EU-27	169.796	167.21	165.54	163.38	162.36	161.26	158.64	153.56	145.69	140.3
EU-15	169.796	167.21	165.54	163.69	162.57	161.47	158.71	153.26	145.2	139.86
EU-12					158.23	157.2	157.79	156.86	154.15	148.18

CO₂ emissions from passenger cars are improving in the EU-27 according to the data. Average CO₂ emissions were 140.3g CO₂/km in 2010 compared to 145.7g CO₂/km in 2009, a decrease of 5.4g CO₂/km.

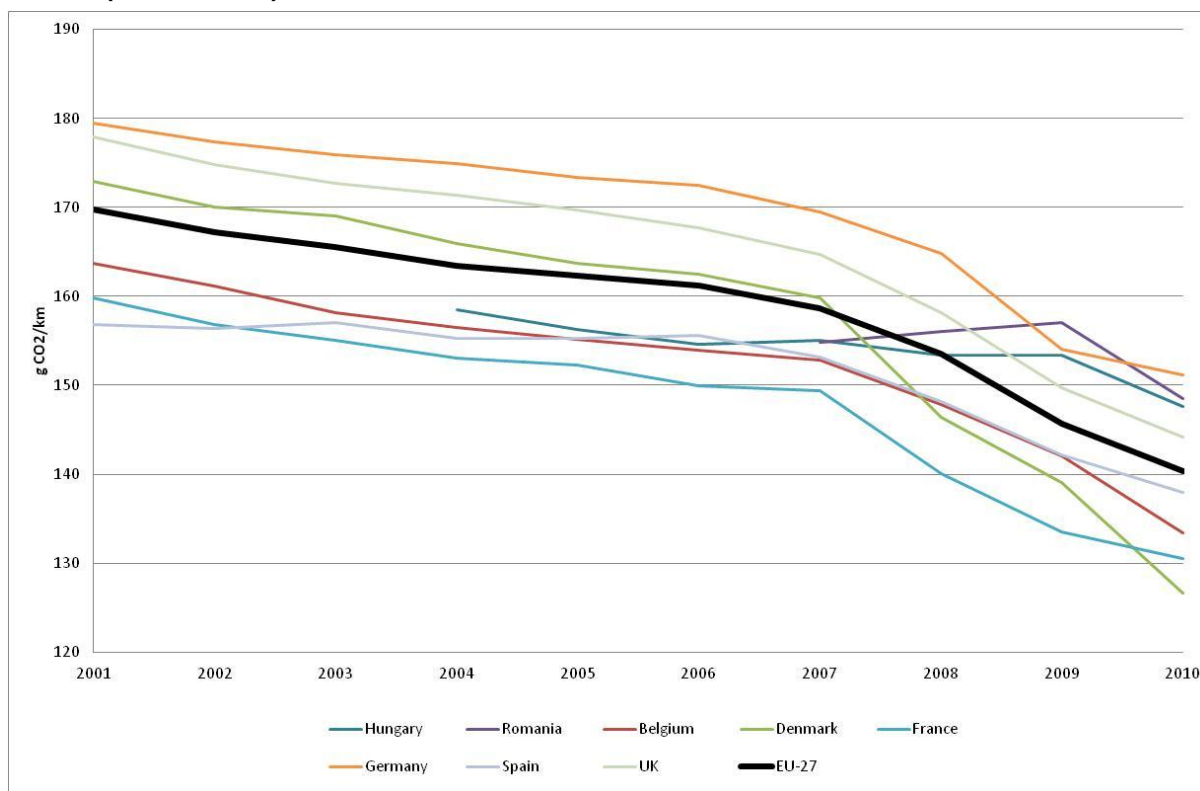
The EEA summary report of the 2010 data (EEA, 2011b²⁴) notes that dieselisation of the vehicle fleet is continuing, although the relative benefits of dieselisation are decreasing as

²³ EEA (2011a) *Monitoring of CO₂ emissions from passenger cars – Regulation 443/2009*, <http://www.eea.europa.eu/data-and-maps/data/co2-cars-emission>

the emissions gap between diesel and gasoline is considerably lower than it was a decade ago (3.3g CO₂/km compared with 17g CO₂/km). Vehicle registrations decreased by around 2.3 million in 2010 compared to 2007 (last year before the economic recession). The majority of the registrations took place in the EU-15 (95%) where a new car emits 7.9g CO₂/km less than the average vehicle in the EU-12. The decrease in average CO₂ emissions from new passenger cars in the EU-12 in 2010 was greater than in the EU-15 (6 gCO₂/km compared with 5.3g CO₂/km). Finally, the summary report notes that the weight of cars has increased significantly after a sharp decrease in 2009, and is now back at the level seen in years prior to the economic crisis. However, advances in technology helped to improve fuel efficiency and cut the average CO₂ emissions per kilometer travelled (EEA, 2011).

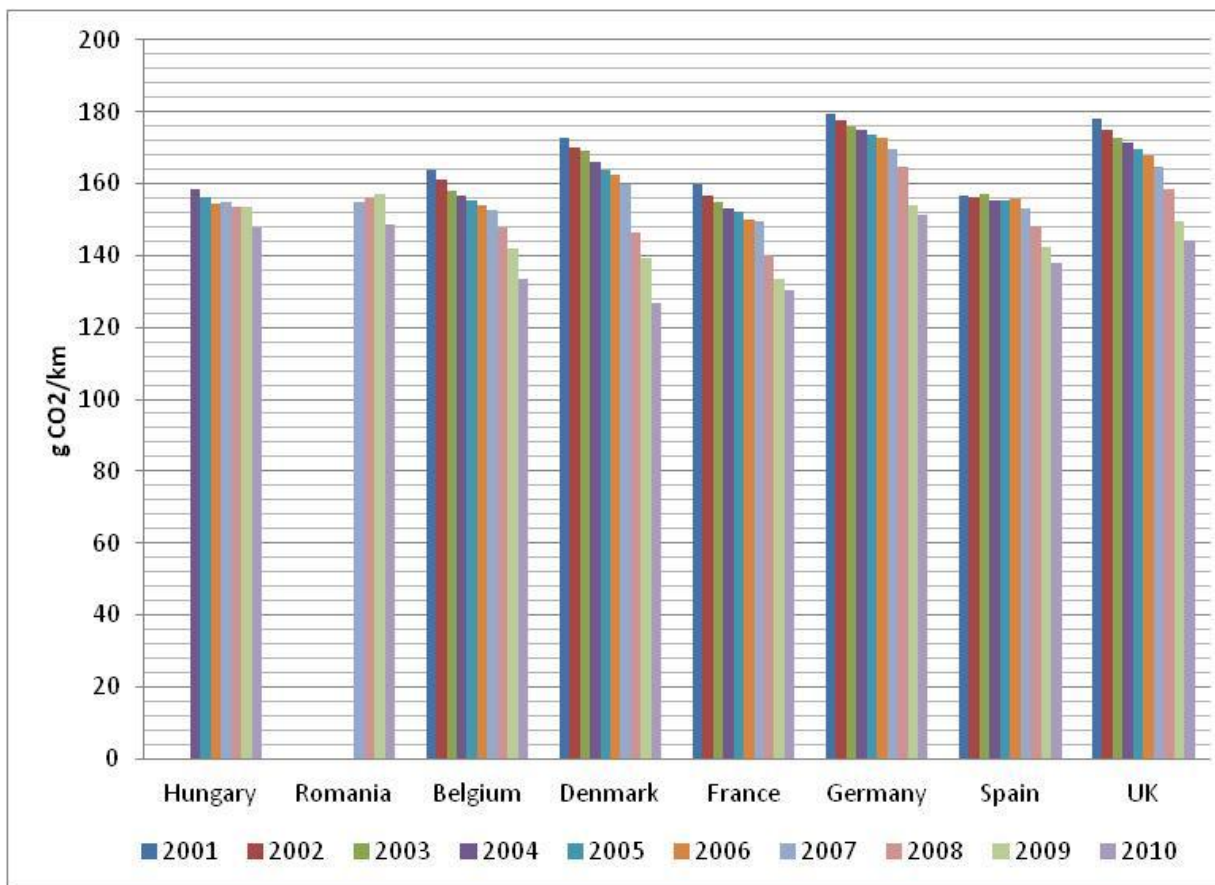
Figure 2.3 and Figure 2.3 show the average CO₂ emissions of new car registration in the case study Member States between 2001 and 2010.

Figure 2.3: Average CO₂ emissions of new car registrations in case study Member States (EEA, 2011a)



²⁴ EEA (2011b) *Monitoring the CO₂ emissions from new passenger cars in the EU: summary of data for 2010*, EEA. <http://www.eea.europa.eu/data-and-maps/data/co2-cars-emission>

Figure 2.4: Average CO₂ emissions of new car registrations in case study Member States (EEA, 2011a)



Although CO₂ has declined in recent years, it is not possible to state that this is due to the implementation of Directive 1999/94/EC in isolation. A range of policies and measures have been implemented over the last decade (at least) that are likely to have an impact on reducing emissions of CO₂ from new passenger cars, including:

- Voluntary Agreement on Passenger Car CO₂ emissions;
- Current regulation on new car CO₂ emissions (Regulation No. 443/2009); and
- Vehicle/fuel taxation.

The effectiveness of the information tools is also considered further in Section 4.2 and 5.4.

2.8 State of Implementation - Summary

All eight Member States considered within this study have successfully transposed the Directive into national legislations, meeting the minimum requirements. However, some Member States have gone beyond the Directive in terms of additional legislative and voluntary requirements for the information tools.

2.8.1 Label

Of the Member States covered in this report, six out of the eight (Denmark, Germany, France, Romania, Spain and the UK) have based the design of their label on the household products energy label, while according to EP (2010) a further two countries (Finland and Netherlands) use a similarly-designed label. Of the other Member States covered by this

study, Belgium has introduced a colour-coded label that has a different format to the energy products energy label, while EP (2010) identified that Austria had also introduced a colour-coded label that was not consistent in terms of design with the energy products energy label. Hence, of the 15 countries covered by this report and EP (2010), 8 have based their label on the energy products energy label, while a further two use a different colour-coded label.

Table 2.14: Overview of Member State label features

Member State	Label type	No coloured bands	of Relative/absolute	Running costs	Other cost info (incl. tax)	Applicable to other vehicles?
Belgium	Continuous comparative label	N/A	Absolute	No	No	No
Denmark	EU Energy Labelling style	7 (A to G)	Absolute	Yes	Yes	Vans under 3.5 tonnes
France	EU Energy Labelling style	7 (A to G)	Absolute	No	No	No
Germany	EU Energy Labelling style	8 (A* to G)	Relative	Yes	Yes	No
Hungary	List format	N/A	N/A	No	No	No
Romania	EU Energy Labelling style	7 (A to G)	Absolute	No	No	No
Spain	EU Energy Labelling style	7 (A to G)	Relative	No	No	No
UK	EU Energy Labelling style	7 (A to G)	Absolute	Yes	Yes	Used cars (voluntary)

2.8.2 Guide on fuel economy

All of the Member States met the Directive requirements with regards to the Guide on fuel economy. The majority of Member States also made the guide available to download from the internet, and 5 Member States had developed an additional searchable online database for consumers (the main areas where Member States had gone beyond the requirements of the Directive).

2.8.3 Poster

All Member States met the Directive requirements with regards to the poster. Very few went beyond these requirements when transposing into national legislation.

2.8.4 Promotional materials

Again, all Member States met the Directive requirements with regards to promotional materials. Only Denmark has gone significantly beyond the Directive, requiring that the coloured bands/arrow from the label which indicates CO₂ emissions is displayed on promotional material in addition to the text. A number of voluntary measures have been implemented in relation to the promotional materials, mainly in the form of raising awareness of the requirements and providing guidance on the requirements for providing CO₂ emissions and fuel consumption information on promotional materials.

2.8.5 Planned modifications

There are a number of modifications being planned (or recently implemented) by the Member States. The majority of the planned changes are concerned with the format and the application of the label rather than the other information tools. In summary, these relate to:

- Presentation of information on the label:
 - Use of a colour-coded scale to indicate CO₂ information;
 - The number of bands/categories in use (increasing from 7 bands, “A” to “G” to include “A+”, “A++” and “A+++”);
 - Indication of annual fuel costs;
 - Indication of national taxation and other financial penalties/rewards;
 - Indication of electricity consumption (where applicable).
- Application of the label:
 - Extending its use to used cars;
 - Extending its use to rental vehicles.

2.8.6 Effectiveness of the information tools

The effectiveness of the information tools were considered in terms of increasing consumer awareness and reducing the average CO₂ of new passenger cars. There is limited evidence to suggest that the Directive may have a positive impact on raising consumer awareness. However, very few studies or surveys have been undertaken within Member States with regards to awareness or effectiveness of the Directive.

Average CO₂ emissions from passenger cars have decreased to 140.3g CO₂/km in 2010 down from 145.7g CO₂/km in the previous year. However, due to the range of other policies and measures that have been implemented within Europe/Member States (including the Voluntary Agreement on Passenger Car CO₂ emissions; Regulation 443/2009, and vehicle and fuel taxation), it is not possible to state that this decline in average CO₂ emissions is due to the implementation of Directive 1999/94/EC in isolation. It is therefore likely that the package of measures working in combination have led to this decrease.

3 Enforcement of Directive 1999/94/EC

Task 2 on enforcement of the Directive had three separate elements:

- Identification of areas where the implementation of, or compliance with, the Directive poses difficulties in the eight Member States covered by this project.
- Critical assessment of the enforcement measures undertaken by France, Germany and the UK.
- Identification of best practices for enforcement. This was based on a review and examination of other European legislation concerned with the provision of consumer information to identify whether there are good practices that may be transferable to the provision of passenger car CO₂ information to consumers.

The findings in relation to the three sub-tasks are presented in Sections 3.1 to 3.3 below, while Section 3.4 provides an overview of stakeholders' views on compliance and enforcement and Section 3.5 presents some conclusions.

3.1 Difficulties in implementation of or compliance with the Directive

3.1.1 Compliance issues identified in the Member States

As was noted in Section 1, this report complements the previous study undertaken for the European Parliament (2010). A summary of the compliance issues in the Member States identified in the European Parliament study is given in Table 3.1.

Table 3.1: Summary of reported compliance issues in Member States covered by EP

Member State	Label	Guide	Poster	Promotional Material
Austria	N/A	N/A	N/A	N/A
Czech Republic	✓	N/A	N/A	✓
Finland	N/A	N/A	N/A	N/A
France	✓	✓	N/A	✓
Germany	N/A	N/A	N/A	✓
Italy	✓	N/A	N/A	✓
Netherlands	✓	N/A	N/A	✓
Poland	N/A	N/A	N/A	✓
Sweden	✓	✓	✓	✓
UK	N/A	N/A	N/A	N/A

Source: "Study on consumer information on fuel economy and CO₂ emissions of new passenger cars", European Parliament, 2010)

Of the Member States that it surveyed, European Parliament (2010) noted that the most common issues relating to compliance that were reported were in relation to the promotional material. However, few legal proceedings were identified and those that were initiated were often dropped as a result of the violation being addressed. The report identified legal action for various infringements in a number of countries, including seven fines in the Czech Republic (based on a 2007 compliance survey), 16 cases that involved court proceedings in France (based on a 2005 survey) and 17 sets of legal proceedings in Germany (between 2006 and March 2010).

A summary of the compliance issues identified in the Member States covered in this study is presented in Table 3.2. An important point to make with respect to the information presented is that it has not been collated over comparable periods, e.g. some information relates to a survey undertaken in a particular month or months, while information presents the cumulative number of cases that have arisen up to a certain date. The survey undertaken by Trafikstyrelsen in Denmark was the only ongoing survey that was identified in the Member States covered, while regular surveys have been undertaken – sometimes at irregular intervals – in France, Belgium and the UK. In Romania, the survey for which the information was presented relates to a survey undertaken in November 2010. In Germany, the information relating to promotional material represents a cumulative figure of cases between 2006 and early 2010. However, these are the only provisions for which information on non-compliance is collated at the federal level (see Section 3.2); all of the other information presented for Germany relates to surveys undertaken by selected Länder.

From the information presented, it can be seen that, where reviews of compliance have been undertaken, some degree of non-compliance was identified. In many cases, non-compliance is relatively low, e.g. in the order of, and in many cases less than, 10%. In Hungary no cases of non-compliance were known by the national ministry.

The surveys that have been undertaken on more than one occasion (if not ongoing), e.g. the ones by the Trafikstyrelsen in Denmark, the DGCCRF in France and the LowCVP, suggest that compliance has increased over time. However, surveys undertaken by NGOs or independent institutes have often revealed higher levels of non-compliance than those perceived by the authorities responsible.

Few cases of legal action were identified in the Member States covered in this study. In Denmark two cases of non-compliance were referred to the police as a result of the survey undertaken in the first quarter of 2011, while in Romania there were 69 fines and 97 warnings resulting from the 2010 survey and 117 proceedings were taken forward in Spain after the 2010 campaign. There is one ongoing legal case in Germany, which was taken against a car manufacturer with respect to an advert in a magazine that did not contain the necessary information. The issue on which the case was based was the interpretation of the EU requirements in national legislation; the manufacturer lost the initial case and is appealing.

Table 3.2: Summary of compliance issues reported by Member States covered in this project

	Label	Poster	Guide	Promotional material	Source, survey size, date
Belgium	*10% no labels 12% some missing	46% 10% no poster)	14% (8% no guide)	*	Belgian Environment Department/Ministry, 100 showrooms, early 2011
Denmark	10% not satisfactory	Not always	*	*	Trafikstyrelsen, about 50, first quarter 2011
France	10%				Direction General de la Concurrence, de la Consommation et de la Répression des Fraudes (DGCCRF), 2009
Germany	67 (39%) ¹ 4 (17%) ^{2a} 3 (5%) ³	17 (10%) ¹ 14 (48%) ^{2b} 7 (13%) ³	10 (6%) ¹ 1 (4%) ^{2a} 6 (11%) ³	306 ⁴	¹ Rhineland-Palatinate, 171, 2010 ² Bremen, 24 retailers/29 brands, 2010 ³ Saarland, 56, Nov 2010 – Jan 2011 ⁴ German Competition Office (Wettbewerbszentrale), 2006/10
Hungary	None known**				
Romania	1%	16%	13%	Only 1 case	National Authority for Consumer Protection, 307, 2 to 6 November 2010
Spain	10%				Instituto Nacional del Consumo, 2010
UK	7% ¹	None known**	None known	49 alleged violations ²	¹ Low Carbon Vehicle Partnership (Low CVP); ² Vehicle Certification Agency

Notes: * No information

** Independent/NGO survey revealed different findings that suggested higher non-compliance

3.1.2 EC infringement proceedings

Action against Member States in relation to Directive 1999/94 began in 2001 when the Commission sent a Reasoned Opinion (effectively a second warning letter) to France, Belgium, Germany, Italy, the United Kingdom, Greece, Spain and Portugal for failing to adopt and communicate the necessary laws to the Commission²⁵. In 2002, the Commission referred France, Germany, the United Kingdom, Italy and Spain to the European Court of Justice (ECJ) for failing to implement the Directive²⁶. In July 2005, the Commission announced that Luxembourg had been sent a final written warning over its failure to submit a report under Article 9 of the Directive²⁷, while Italy was sent a final warning for failing to notify the Commission of its implementing legislation for Directive 2003/73²⁸.

A search of website of the Court of Justice of the European Union²⁹ for cases relating to Directive 1999/94 revealed the results presented in Table 3.3. This suggests that, of the six countries referred to the ECJ in 2002, legal action was begun against all of the countries except the UK.

Table 3.3: Summary of cases relating to Directive 1999/94

Country	Date
Commission brought action against the following countries for failing to bring into force (or at least for having failed to inform the Commission of) the necessary laws to comply with Directive 1999/94	
Spain	January 2002
Italy	January 2002
France	April 2002
Greece	February 2006 (in relation to Commission Directive 2003/73/EC)
Court found against the following countries for failing to adopt or communicate to the Commission the necessary laws to comply with Directive 1999/94	
France	June 2003 (for failing to communicate the necessary laws)
Italy	September 2003 (for failing to adopt the necessary laws)
Germany	September 2003 (for failing to adopt the necessary laws)
Commission brought action against the following countries for failing to submit a report to the Commission under Article 9 of Directive 1999/94	
Luxembourg	May 2006
Court found against the following countries for failing to submit a report to the Commission under Article 9 of Directive 1999/94	
Luxembourg	December 2006

According to EP (2010), the European Commission investigated seven Member States (Belgium, France, Germany, Italy, Poland, Slovenia and Spain) in 2008 for failing to ensure that the fuel consumption figures were prominently displayed in car advertisements (in accordance with Annex IV of the Directive). The action followed an official complaint from several NGOs, including Friends of the Earth.

²⁵ Press release "Commission acts against France, Belgium, Germany, Italy, UK, Greece, Spain and Portugal over fuel economy and CO2 emissions data"; IP/01/1146, date 30/07/2001

²⁶ Press release "Air quality and emissions: Commission moves against France, Germany, the United Kingdom, Greece, Spain, Austria, Italy, Ireland, Denmark and Finland over non-implementation of EU laws"; IP/02/414, date 14/03/2002

²⁷ Press release "Luxembourg: Commission takes action over infringements of environmental laws"; IP/05/912, date 12/07/2005

²⁸ Press release "Italy: Commission takes action over infringements of environmental laws"; IP/05/10007, date 26/07/2005

²⁹ <http://curia.europa.eu/>

3.2 Identification and critical assessment of enforcement measures

This section focuses on assessing the enforcement activities in three selected EU Member States (France, Germany and the UK) in relation to the national legislation in place that transposes Directive 1999/94/EC. These countries have the largest annual sales of new cars in the EU and hence the enforcement of the provisions of the Directive 1999/94/EC in these countries could potentially have a significant impact on the market for new cars in the EU.

Before discussing what is enforced and how, it is important to set out who is responsible for enforcement in each country. In Germany, enforcement of the national legislation is the responsibility of the Bundesländer. The federal government has no executive responsibility, but does offer information and support with respect to issues of interpretation. The federal government has no detailed information on violations, as the Länder are not required to report these. However, some of the Länder have undertaken surveys of compliance in their respective regions (see Table 3.2).

In the UK, the Vehicle Certification Agency (VCA; an agency of the national Department for Transport) enforces the provisions relating to promotional materials, while Trading Standards officers (employees of local authorities) cover the fuel economy label, guide and poster. There is no requirement for local authorities to report on the level of enforcement activity (and therefore of compliance) to central government, although surveys of compliance have been undertaken (see Table 3.2) Hence, in Germany and the UK, enforcement is, at least in part, the responsibility of local or regional authorities. (This is also the case in Spain.)

In France, the national DGCCRF (General Directorate for Competition Policy, Consumer Affairs and Fraud Control) is responsible for enforcement, as it is generally responsible for enforcing rules on the provision of information to, and fair business practices directed at, consumers.

In all three of these countries, enforcement activities cover all four of the materials covered by the Directive, although the focus differs. In Germany, responses from the Länder and others suggested that enforcement activities focus on the promotional materials, whereas in France the focus is on the display of the label in the showrooms.

In Germany, enforcement through competition law plays an important role. Legal challenges brought by competitors, or consumer or business groups, can result in a verbal warning and a letter, which is followed by a fine (after subsequent court proceedings) if the non-compliance is not addressed. As noted above, there appears to be only one legal action resulting from such processes, as in the majority of cases non-compliance has been addressed in response to a warning. However, surveys undertaken by the German Environmental Aid Association suggest that few Länder actively engage in enforcement activities and that, even in 2010, all Länder had not named the institution responsible for enforcement.

In France, the main enforcement activity has been visits to dealerships and showrooms. These are coordinated nationally and have been undertaken at various intervals in recent years; these visits have been the main source of information on the violations of the Directive (see Table 3.2). Where cases of non-compliance have been identified, a written notification and a reminder of legal requirement have usually been enough to ensure compliance.

In the UK, at the local level enforcement activities consist of unannounced showroom visits, while the VCA reviews samples of promotional material and also responds to concerns raised by individual consumers and consumer groups. In relation to promotional material, legal advice given to the VCA has indicated that many potential prosecutions of alleged breaches of the respective provisions of national legislation would be unlikely to be successful. While central government estimates that enforcement activity has remained

stable, anecdotal evidence from the UK suggests that the frequency of local authority visits has declined.

In Germany, the implementation of the Market Surveillance Regulation will improve the amount of information held centrally, as the Länder will be required to report on their enforcement activity to federal government.

3.3 Best practice in enforcement

3.3.1 Review of other EU legislation that provides information to consumers

Legislative requirements to provide consumer information and product labels are present in a number of different areas of EU legislation. Given the broad scope of coverage of such labels, and in some cases the long history of using product labels, there is practice from other sectors that could potentially be used to improve the compliance and enforcement of passenger car CO₂ information.

For the purposes of identifying best practices, a scoping of a range of selected EU legislation areas was undertaken, and a selection of pieces of legislation were taken forward to investigate in more detail, including the identification of compliance and enforcement measures in place (taking into account how effective these measures are in practice). Where available, specific best practice examples that could be transferable to the area of passenger car CO₂ information have been identified and reviewed.

Legislation reviewed at the scoping stage included the following:

- Directives on Energy Labelling of Household Products (Directive 92/75/EEC until mid-2011 and Directive 2010/30/EU from July 2011), which we will refer to as the “Household products energy labelling Directive”.
- Cosmetic products (composition, labelling and testing) (Directive 76/768/EEC and from 2013 Regulation (EC) No 1223/2009), or the “Cosmetics products labelling Directive”.
- Labelling of tyres – Regulation (EC) 1222/2009, the “Tyre Labelling Regulation”.
- Health and Nutritional claims Regulation (N° 1924/2006), the “Health and Nutritional claims Regulation”.
- Labelling, presentation and packaging of foodstuffs (Directive 2000/13/EC), the “Food labelling Directive”.
- Proposed legislation – provision of food information to consumers – combines Directive 2000/13/EC (above) and Council Directive 90/496/EEC (nutritional labelling for foodstuffs) into one instrument. Also requires simplification of structure of the horizontal food labelling in 2000/13/EC, or the “Proposal for a revised Food labelling Directive”.

As can be seen from the list, even though all of the pieces of legislation focuses on providing information to consumers, they are different in nature, e.g. in terms of the requirements for labelling, although there are similar characteristics, such as the fact that enforcement is often a national, or even a local issue.

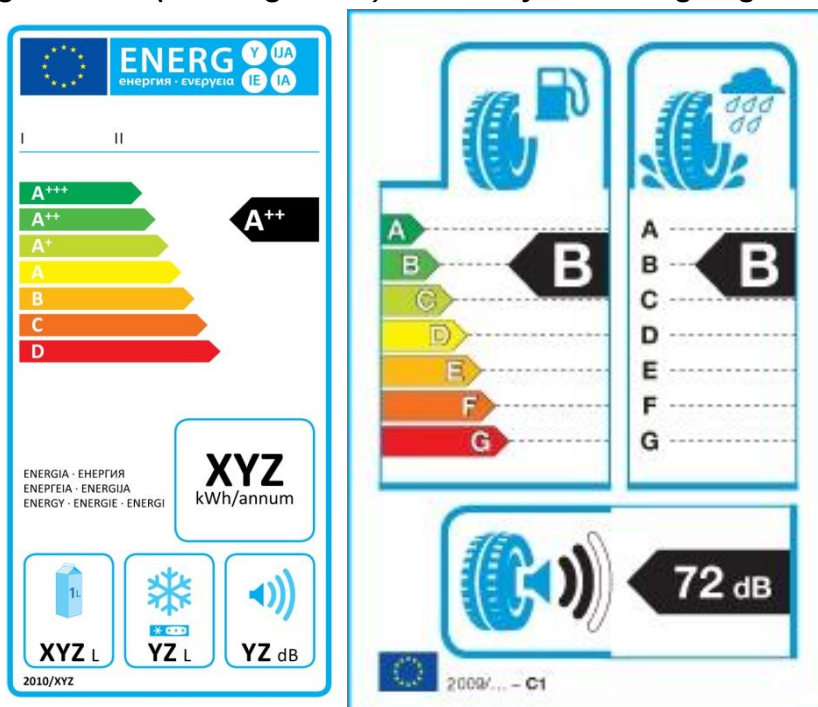
The original initial intention was to use the scoping stage to eliminate the pieces of legislation that appeared to be the least relevant. In this respect, the most relevant pieces of legislation appeared to be the Household products energy labelling Directive and the Tyre labelling Regulation, as these both require the use of a colour-coded label with categories labelled A to G to be put on their products (although the details differ), the minimum size of which is specified. However, given the time taken for the reviews and the fact that some of the

legislation appeared to be of little relevance, all of the pieces of legislation listed above were reviewed to some extent.

On the basis of the more comprehensive review, including in most cases an interview with the respective European Commission desk officer (a list of the questions asked can be found in Appendix 8), the Household products energy labelling Directive and the Tyre labelling Regulation were indeed identified as being the most relevant pieces of legislation. In addition to both requiring the use of a similar colour-coded label (see Figure 3.1), both focus on a similar issue as the car label, i.e. energy rather than on CO₂ emissions and fuel economy, and both aim to provide information to assist consumers with their purchase decision.

The Household products energy labelling Directive is a framework Directive that sets out the commonalities of various energy labels to be used on a range of household products, but leaves the technical details to delegated legislation to be developed by the European Commission with technical input from relevant experts. The Tyre labelling Regulation could have been a delegated Directive of the Household products energy labelling Directive, if cars had been within the scope of the latter. Both pieces of legislation require the same basic colour-coded label with categories labelled “A” to “G” to be put on their products, although some of the details differ, such as any additional information to be included (see Figure 3.1). For both household products and tyres, the minimum requirements with respect to the size of label are clearly set out in an Annex to the respective legislation (in each of the respective delegated Directives for the household products).

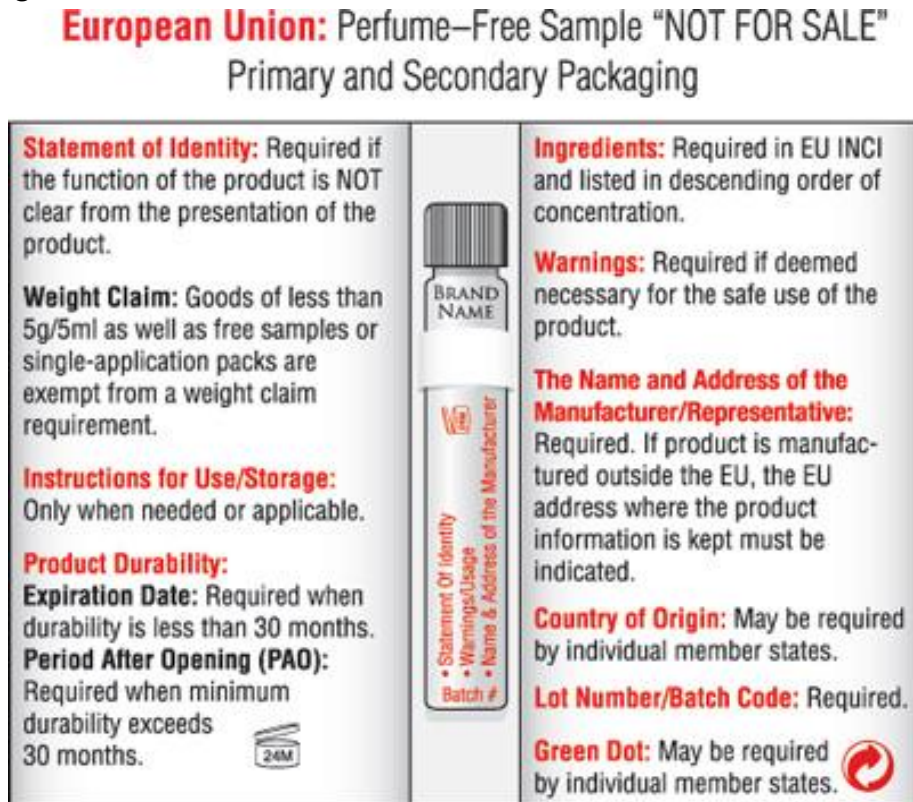
Figure 3.1: Examples of the energy labels required by the Household products energy labelling Directive (the fridge label) and the Tyre labelling Regulation



The other pieces of legislation are less prescriptive with respect to the way in which the information should be presented and instead focus on the detail of the information that needs to be communicated. The Cosmetic products labelling Directive and the Food labelling Directive simply list the information that needs to be included on the packaging of the product (or, where not possible on the packaging, then on a leaflet inside the package in the case of the former). Whereas neither the Food labelling Directive nor the Health and Nutritional claims Regulation make any additional specifications about the label, the Proposal for a revised Food labelling Directive would set a minimum print size for the information and

specify that there should be a significant contrast between the text and the background. Figure 3.2 shows an example of the type of information that needs to be included on a label under the Cosmetics products labelling Directive.

Figure 3.2: An example of the information required by the Cosmetics products labelling Directive



Source: *Cosmetic + Personal Care Packaging* (www.cpcpkg.com)

In relation to the way in which the various pieces of legislation are enforced, there is a need to find a balance between allowing Member States to enforce the legislation in a way that is consistent with national culture and institutions, and the need for the legislation to be enforced in a way that is sufficient to ensure the proper functioning of the internal market. Additionally, the monitoring of areas of legislation can be governed by other pieces of EU legislation, not just the legislation under consideration. For example, the monitoring system for the labelling legislation focusing on food is set out in other legislation that deals more generally with the monitoring of that sector, i.e. Regulation 882/2004³⁰.

The enforcement provisions of the two pieces of legislation focusing on energy labelling draw from, or make references to, the Market Surveillance Regulation (Regulation (EC) No 765/2008)³¹. Among other elements, this Regulation:

- Requires that Member States give responsibility for market surveillance to an authority and communicate this information to Member States and the Commission.
- Requires that Member States give the authority the powers and resources to enforce the legislation.
- Requires that Member States communicate their market surveillance programme to the Commission and other Member States.

³⁰ Regulation 882/2004 on official controls of feed and food

³¹ Regulation 765/2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products

- Provides the legal basis for Administrative Co-operation Groups in which the Member States (and the Commission) can discuss enforcement issues.

The Market Surveillance Regulation is directly applicable in Member States, so its provisions do not need to (and indeed should not) be replicated in other Community legislation. However, the Regulation is complemented by Decision 768/2008³², which, in its Annex, provides a set of model provisions that the Commission should consider including in sector-specific harmonisation legislation. This so-called “New Legislative Framework” contains useful definitions, as well as a series of obligations that should be imposed on the various economic operators, e.g. in Chapter R2 (obligations of economic operators). Additionally Articles R31 and R32 set out safeguard procedures – at respectively the national and European levels – that could be put in place for dealing with products presenting a risk. The Council and the European Parliament are currently discussing the proposal to revise the type approval process for motorcycles, which includes provisions to improve enforcement based on the Market Surveillance Regulation. The Commission is currently considering amending the type approval Regulations for light duty vehicles and for heavy duty engines in a similar way in order to improve enforcement. This would draw on the Market Surveillance Regulation and the accompanying Decision and could *inter alia* define the responsibilities of the different economic operators and Member State authorities with respect to enforcement.

The energy labelling of household products Directive contains a number of provisions to improve enforcement informed by the Market Surveillance Regulation and the accompanying Decision, including a requirement that Member States:

- Take action to oblige a supplier to remedy any non-compliance, with the ultimate sanction of prohibiting the sale of the product. Other Member States shall be informed in such circumstances. (Article 3(2))
- Report every four years to the Commission on their enforcement activities and the level of compliance. (Article 3(3))
- Set penalties, which should be effective, disproportionate and dissuasive, for infringements to the national transposing legislation. (Article 15)

Additionally, provisions of the Directive:

- Require that suppliers make technical documentation available for inspection and to supply these electronically to national market surveillance organisations and to Member States when requested. (Article 5(c))
- Enable Member States to ask suppliers for proof that a product is in compliance where they suspect it might not be. (Article 8(2))
- Requires the delegated legislation to be developed by the Commission to enable national market surveillance authorities to verify whether products comply with the information provided. (Article 10(1))

The Tyre labelling Regulation contains similar provisions, such as those in Articles 3(2) and 5(c). Additionally, Article 12 of the Tyre labelling Regulation requires that Member States ensure that their respective authorities responsible for market surveillance verify that suppliers and distributors of tyres and vehicles comply with the Regulation. However, there is no requirement for the results of this work to be communicated to the Commission or for penalties for non-compliance to be set.

The changes to the Household Products energy labelling Directive in relation to enforcement were introduced as the preceding legislation had contained vaguer provisions with respect to enforcement, which had been complied with in different ways by Member States. It was felt

³² Decision No 768/2008/EC on a common framework for the marketing of products

that such an unequal implementation undermined the level playing field with respect to the internal market. Compliance and enforcement under the revised Directive will also be assisted by the setting up of an Administrative Cooperation Group, which provides a forum in which Member States can discuss relevant issues and share experiences.

3.4 Stakeholder engagement

The first session of the workshop focused on enforcement. A summary of the issues outlined above was presented. The respective questions asked at the workshop can be found in Table 3.4.

Table 3.4: Summary with respect to harmonising the design of the label

Questions asked at the workshop	How confident can we be that compliance is good and that enforcement activities are sufficient?
	What can be learnt from other energy labelling legislation and applied to the CO ₂ labelling of cars?

3.4.1 Summary of findings from stakeholder interviews

Of those stakeholders that had views on the existing enforcement of the Directive, several noted that the Directive had not been enforced properly and argued that this undermined its effectiveness. On the other hand, a number of stakeholders felt that the existing rules were fine and that no changes were necessary to improve compliance. Of those that noted problems with enforcement, some argued that this needed to be addressed before any amendment to the Directive should even be considered, while others argued that enforcement so far had been reactive and that, as a consequence, stronger provisions were needed in the Directive to improve enforcement.

However, in terms of how enforcement might be improved, few stakeholders had any concrete suggestions. Some suggested that there was a need to clarify the wording on promotional material in Annex IV (also see Section 5.6, below). Another stakeholder argued that the legislation needed to set clear guidelines to be followed by manufacturers and enforced by Member States, and also be clear on the procedures to be followed in the event of a complaint and the penalties that could be levied. On the other hand, a couple of stakeholders mentioned additional legislation that might be relevant in this context, i.e.:

- Market Surveillance Regulation³³.
- Unfair Competition Directive³⁴. In this case, it was noted that discussions are already ongoing with the Commission to include green claims within the scope of this Directive.

As was noted in Section 3.3.1, the Market Surveillance Regulation had already been raised as a potentially relevant and important piece of legislation in the course of the review of the other EU legislation that provides information to consumers.

3.4.2 Summary of discussion from workshop

It was noted by a representative of a Member State that, while the enforcement of the label and guide were manageable, the provisions relating to promotional material, particularly advertising in printed media, would benefit from being more clearly defined. A couple of other Member State representatives noted that they preferred to work with advertisers and

³³ Regulation 765/2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products

³⁴ Directive 2005/29/EC concerning unfair business-to-consumer commercial practices in the internal market

manufacturers to improve the implementation of these provisions, rather than risking an uncertain outcome by prosecuting. In the UK, guidance to advertisers and manufacturers on what could be considered to be a reasonable green claim has been developed, including how to use language and images and how to present data.

A Member State stakeholder noted that enforcement requires resources, so it was important to be careful about increasing the amount of enforcement activities. It was suggested that the requirements either needed to be very prescriptive, otherwise they risked being ambiguous. On the other hand, a representative of an environmental NGO noted that the Directive currently contains no information on how the Directive should be enforced, so clearer guidance is necessary. Another NGO stakeholder suggested that the Market Surveillance Regulation would provide a better framework for enforcement.

One stakeholder noted that it was not clear that there was evidence from the study from which it could be concluded that enforcement was good, as result of the limited number of surveys undertaken by Member States. In the UK, it was noted that compliance had been much lower, but had increased in recent years, at least in part by attempts to measure it. In other words, by measuring compliance you end up changing the results. Consequently, using market surveillance requirements to require periodic checks would be likely to increase compliance.

3.5 Conclusions

The findings of this report, taken together with the findings of the European Parliament study, suggest that there are relatively low levels of non-compliance with the Directive, although it is important to note that compliance has only been assessed on a regular, let alone ongoing, basis in only a few countries. In some cases, surveys by NGOs or independent organisations have suggested that there are actually higher levels of non-compliance than have been suggested by national authorities or other surveys.

Where compliance has been assessed on some form of regular basis, it appears as though compliance has improved over time. Indeed, it was noted at the workshop that simply by attempting to measure compliance, compliance tends to improve as those responsible for the various provisions within the Directive become more aware of what is required of them.

The enforcement of the Directive can be split between national and local levels, e.g. in Germany, the UK and Spain, in which cases it is more difficult to obtain a clear picture of the level of enforcement activities, and consequently the actual extent of non-compliance, as data on local enforcement activities are often not collated at the national level. It was noted, however, that this situation would improve once the Market Surveillance Regulation has been implemented. Specific problems have been identified in relation to the enforcement of the provisions relating to promotional activities, i.e. those contained in Annex IV of the Directive.

The review of other EU legislation that aims to provide consumers with information identified that the Market Surveillance Regulation appears to be potentially useful in informing enforcement provisions. The Regulation itself requires Member States to be more proactive in relation to their market surveillance. Both the Household products energy labelling Directive and the Tyre labelling Regulation have made use of the model provisions set out in the Decision that accompanies the Market Surveillance Regulation to improve their respective enforcement provisions. In the workshop, some stakeholders felt that making use of these provisions would improve the enforcement of the passenger car CO₂ labelling Directive.

4 Review of policy options (literature review)

The previous two chapters have focussed on the implementation of the Directive, and its enforcement. This chapter is dedicated to a considering potential policy options to improve various aspects of the existing Directive through reviewing existing literature and research. The policy options considered include:

- Harmonisation of the requirements of the Directive relating to the label;
- Other means of improving the effectiveness of the Directive;
- Extension of the Directive to other modes; and
- Extension of the Directive to other media.

These policy options are considered and developed in more detail in Section 5 of this report.

4.1 Harmonisation of the label

There appears to be widespread consensus that label harmonisation would be beneficial, and most Member States would prefer this option (European Parliament, 2010).

EU-wide harmonisation for content and design would be in line with internal market requirements by helping to avoid distortions and create synergies between Member States. This is particularly relevant due to the multinational nature of the car industry and the ease of purchasing cars in different Member States.

In this section, we review options for harmonisation of the label with respect to the following:

- Presentation;
- Efficiency ratings;
- Comparison method used to assign efficiency classes;
- Differentiation of car types;
- Provisions for updating the system; and
- Mandatory information.

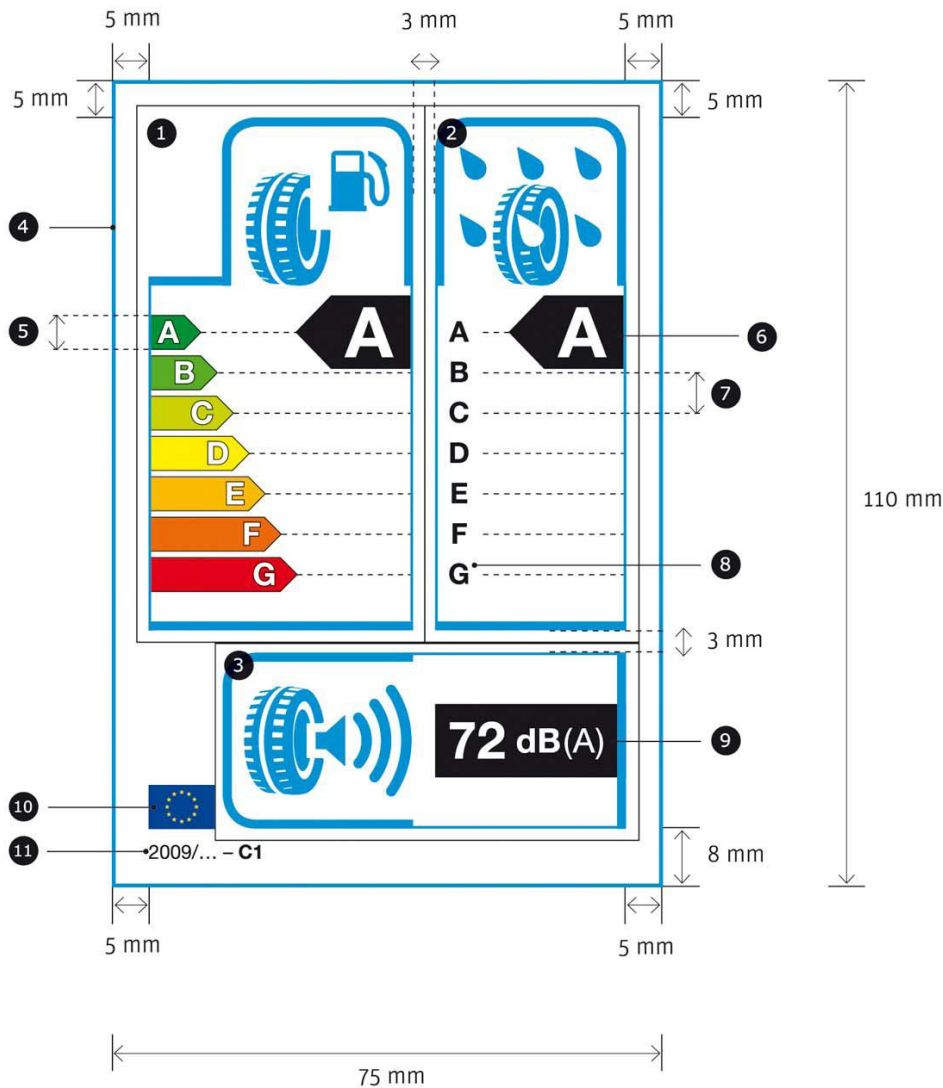
4.1.1 Presentation

The general role of information in changing consumer behaviour was reviewed in the European Parliament study (2010). This noted that recognition of a popular label can be effective in influencing purchasing decisions. It also noted that one of the most important consumer demands was for information that would allow them to compare products, particularly in terms of their cost and performance. In this respect, the energy efficiency label that is used on white goods has become well-known and respected among consumers. A consumer survey found that consumers had generally low awareness of environmental labels, with the exception being the White Goods label, where over three-quarters of respondents said they were familiar with it (Defra, 2010). Furthermore, a very high proportion of respondents who had seen the White Goods label showed a specific understanding of what it meant (82%). This compares very favourably with other labels, such as the Green Dot, where virtually no respondents had a specific understanding. Nearly 60% of respondents reported that they “often used” the White Goods label, perhaps because people are more willing to spend time looking at a label for one-off purchases (Defra, 2010).

There is an opportunity to harmonise the format of the car label with that for tyres and white goods by using the formatting and layout of the labels, in addition to the A-G ratings.

The provisions for tyre labelling in Europe could provide an example to follow in car labelling. Tyre labelling for passenger cars and light trucks will take effect from 1 November 2012 under European Regulation No 1222/2009. Information will be presented in a standardised way, as set out in Figure 4.1, which broadly follows the EU energy efficiency label design. The size and dimensions of the label are clearly specified, as well as the colours, fonts and layout.

Figure 4.1: Specifications for proposed tyre label



Source: Regulation (EC) 1222/2009

Using similar designs for both cars and tyres will enhance recognition of the label. The increasing number of labels and their complexity often inhibits the consumer from making the environmentally-better decision (European Parliament, 2010). Therefore, the challenge is to provide enough information for the more concerned consumers, while also enabling the less engaged to easily understand and react to the information. Some Member States have already chosen to specify the format of the label, whereas others have not. Member States have also suggested that harmonising design and content of the labels would result in easier

handling and lower cost for car manufacturers (ADAC, 2005). The increased recognition could make the label more user friendly and immediately informative.

As well as harmonising the format of the label, it could also be useful to specify the colour-coded scale. There is some evidence that the use of colour increases understanding of the label. YouGov (2009) found that four times as many people said a colour-coded example was easier to understand compared to when the information was presented in plain writing. In addition, the use of a colour-coded label increased the number of people who were able to correctly identify the efficiency (56% compared to 31%).

Option	Advantages	Disadvantages
Harmonise presentation	<ul style="list-style-type: none"> ✓ Easy to understand and interpret; ✓ Instantly recognisable and user-friendly; ✓ Easier handling and lower cost for car manufacturers. 	<ul style="list-style-type: none"> ✗ Could be seen as too prescriptive.

4.1.2 Efficiency ratings

Research has shown that consumers struggle with the measure of grams of CO₂ per km used in car adverts (e.g. see Consumer Focus, 2009). Without a basis for comparison, it is difficult to interpret the measure as anything other than a random number. A rating system could provide a context for the CO₂ emissions of cars. In addition, there is evidence to suggest that fuel efficiency is much more important to car buyers than emissions (MORI, 2003), so it could be preferable to base a rating system on fuel efficiency rather than – or in addition to - CO₂ emissions. There is generally a poor understanding of the relationship between fuel consumption and emissions.

There is currently no requirement to assign efficiency ratings to cars, although some Member States have opted to do so. Behavioural research indicates that people are highly influenced by how they compare with others; in the context of domestic energy efficiency, telling consumers how their energy use compares with similar households was shown to reduce energy consumption in higher-than-average users (Cabinet Office, 2011). Providing a rating system would allow consumers to compare the energy efficiency of their vehicles with the rest of the market. The most popular rating system provides a number of efficiency classes labelled from A (best) to G (worst). This is a similar format to the label for white goods and the proposed label for tyre labelling. It is also the most preferred method for Member States in practice for current car efficiency ratings.

Scaled comparative labels such as the EU's energy efficiency label can conceal information - for example, products with different ratings may in fact have very similar efficiencies. Additionally, it has been shown that manufacturers put products on the market that just qualify for a particular category. On the other hand, evidence suggests that the existence of the energy label for white goods has stimulated manufacturers to improve the energy performance of their products.

The A to G ratings used on the label for white goods are considered user-friendly and informative in comparative terms (European Parliament, 2010). Other systems in operation include a star rating system, as in Australia and New Zealand, or a numerical scale from 1-10, as in the US. A continuous scale has been used in Austria, but the lack of specific categories makes it more difficult for consumers to compare models (European Parliament, 2010).

The case for efficiency class harmonisation is demonstrated by the following example, which shows that various types of VW Golf can fall into different categories depending on the country:

Figure 4.2: Classification of various types of VW Golf

Model	CO2 (g/km)	Energy efficiency classes					
		Absolute comparison			Relative comparison		
		B	DK	UK	NL	SP	CH
VW Golf 1.9 TDI	135	C	B	C	C	B	A
VW Golf 1.9 TDI	135	C	B	C	B	B	A
VW Golf 1.9 TDI (MT6)	140	C	B	C	C	C	A
VW Golf 2.0 SDI	143	C	B	C	C	C	A
VW Golf 2.0 TDI	146	D	B	C	C	C	A
VW Golf 1.9 TDI (direct MT)	151	D	B	D	D	C	A
VW Golf 1.9 TDI 4Motion	157	D	C	D	D	D	A
VW Golf 2.0 TDI (direct MT)	159	D	C	D	D	D	A
VW Golf 2.0 TDI 4Motion	159	D	C	D	D	D	A
VW Golf 1.4 FSI	149	C	B	C	B	A	A
VW Golf 1.6 FSI	154	C	B	D	B	A	B
VW Golf 1.4 16V	163	D	C	D	C	B	C
VW Golf 1.6	173	D	D	E	C	B	C
VW Golf 1.6 FSI	173	D	D	E	C	B	C
VW Golf 2.0 FSI	173	D	D	E	C	B	C
VW Golf 1.6	194	E	E	F	E	C	D
VW Golf 2.0 FSI	194	E	E	F	D	C	D
VW Golf 2.0 FSI 4Motion	202	E	E	F	E	C	E
VW Golf (IV) R32 (direct MT)	245	F	G	F	G	G	G
VW Golf (IV) R32	276	G	G	F	G	G	G

Source: LAT et al (2008), adapted from ADAC (2005)

The numerical values for CO₂ emissions and fuel consumption have been shown to have little meaning for consumers (ADAC, 2005). An energy rating system provides context for the numbers, and thereby a means of understanding whether they indicate good performance or not.

However, it may be difficult to harmonise efficiency class ratings across Member States, for several reasons. First, Member States may wish to calculate ratings based on their national average fleet performance, which varies across Europe. Second, they may wish to link the bands to national tax systems based on CO₂ emissions, which also vary across Europe.

Option	Advantages	Disadvantages
Efficiency ratings	<ul style="list-style-type: none"> ✓ Easy to understand and interpret; ✓ Enables consumers to make a direct comparison between fuel efficiencies of different cars; ✓ May stimulate manufacturers to improve efficiency; ✓ Can be linked to national CO₂ tax systems to improve incentives. 	<ul style="list-style-type: none"> ✗ Ratings may need adjustment to take into account changes in efficiency; ✗ Cars with different ratings may actually have very similar performance; ✗ Different national systems which assign different ratings to the same car can be confusing; ✗ Would not link with tax incentives if the bands did not match national systems.

4.1.3 Comparison method

There are several ways of assigning efficiency classes:

- **Absolute labelling:** categories relate to the absolute CO₂ emissions level of the car compared to the entire range of potential models. Hence, a car with low emissions would be in category “A” no matter what its size or type, while a car in category “G” would have high emissions, independent of its size or type. ;
- **Relative labelling:** compares cars within the same type or class of car, i.e. a large car can receive an “A” rating if it is the best performing of its type, however this may be defined; and
- **Combination:** the overall class is determined by combining the weighted results of the absolute and relative methodologies.

ADAC (2005) finds that most Member States preferred an absolute comparison method. Given that different Member States have opted to enforce different comparison methods, there is no clear preference for one over another. The stakeholder consultation of 2008 was also inconclusive in this respect. On the other hand, the majority of participants in the consumer survey by ADAC (2005) reported that they would prefer a comparison of cars of a certain group. Most stakeholders in the European Parliament study (2010) were in favour of an absolute labelling scheme³⁵, with only the representative from a German manufacturer opposing.

An absolute rating system is far simpler to implement and administer than a relative system, and is generally easier to understand. An example of an absolute system outside the EU is in Australia, where an “across the fleet” basis is used to calculate ratings. A class-based rating was rejected because they “inevitably lead to unacceptable anomalies in comparisons across vehicle classes” (Australian Government, 2011). The US EPA also uses a single scoring system that can be used to compare all vehicles and all model years against each other. A relative grading scheme for cars would ensure that consumers could find an A rated vehicle in every category. However, it is for precisely this reason that Germany’s revised car labelling scheme has met opposition from environmental groups and even some automakers. The scheme will take into account the relative weight of a vehicle so that cars could be labelled “A” even if they have high absolute CO₂ emissions. Opponents of the scheme suggest that it contravenes the Directive, which stipulates that labelling is prohibited if the display “might cause confusion to potential customers of new passenger cars”. A relative scheme may encourage manufacturers to upscale borderline cases to get a more efficient label (ADAC, 2005). Furthermore, a relative grading system could influence consumers in a negative way because their definitions of vehicle types/classes can differ from those held by industry. Although consumers generally have a vehicle class in mind before they start searching, and narrow down their choices within this initial class, some were found to consider vehicles across several different classes. Research in the US suggests that consumers group vehicles according to personal perceptions in ways that do not necessarily match the official class definitions (EPA, 2010).

In the Netherlands, the reference level is the weighted average of the CO₂ emissions of all cars in the same size class (75%) and the CO₂ emissions of the entire fleet (25%).

Even drawing from other European legislation, there are examples of both absolute and relative comparison methods. The Tyre Labelling Regulation (1222/2009) sets out energy efficiency ratings on an absolute basis as shown in Figure 4.1. There is a separate scale for C1 tyres (cars), C2 tyres (vans) and C3 tyres (trucks). Each class can be further broken down into summer and winter tyres, but these do not have separate ratings.

³⁵ In favour were a representative from a French manufacturer, BEUC, FoEE and FIA

Table 4.1: Energy efficiency labelling of tyres

Energy efficiency, RRC in kg/t			Class
C1 tyres (car)	C2 tyres (van)	C3 tyres (truck)	
$RRC \leq 6.5$	$RRC \leq 5.5$	$RRC \leq 4.0$	A
$6.6 \leq RRC \leq 7.5$	$5.6 \leq RRC \leq 6.5$	$4.1 \leq RRC \leq 5.0$	B
$7.6 \leq RRC \leq 8.5$	$6.6 \leq RRC \leq 7.5$	$5.1 \leq RRC \leq 6.0$	C
$8.6 \leq RRC \leq 9.5$	$7.6 \leq RRC \leq 8.5$	$6.1 \leq RRC \leq 7.0$	D
$9.6 \leq RRC \leq 10.5$	$8.6 \leq RRC \leq 9.5$	$7.1 \leq RRC \leq 8.0$	E
$10.6 \leq RRC \leq 11.5$	$9.6 \leq RRC \leq 10.5$	$RRC \geq 8.1$	F
$RRC \geq 11.6$	$RRC \geq 10.6$	Empty	G

Source: T&E (2009b), adapted from Regulation (EC) 1222/2009

The ratings for the Energy Labelling Directive on household appliances (1992/75/EC) are determined on a relative scale. For example, the energy consumption of a fridge freezer is linked to the internal volume of its compartments. The reason for this is that consumers should be able to compare products which provide for their needs – i.e. consumers requiring a large fridge will not purchase a smaller one on the basis of its lower energy consumption. While labelling of household appliances is clearly not the same as labelling vehicles, there is evidence that consumers first choose a car of a particular size, and then make comparisons of similar characteristics (ADAC, 2005).

ADAC (2005) summarises the benefits and drawbacks of absolute and relative systems as follows:

Option	Advantages	Disadvantages
Absolute rating system	<ul style="list-style-type: none"> ✓ Simple to administer; ✓ Easy to understand; ✓ Avoids having to define categories by which vehicles will be grouped; ✓ Does not allow manufacturers to game the rating; ✓ Directly encourages consumers to buy cars with fewer emissions and provides an incentive for downsizing; ✓ Directly supports manufacturers' efforts to comply with CO₂ reduction targets. 	<ul style="list-style-type: none"> ✗ Consumers may decide first on the vehicle category and wish to compare similar vehicles; ✗ Erodes differences between the ratings assigned to similar cars e.g. small cars will tend to be clustered at the high end of the scale and large cars will tend to have low ratings.
	Advantages	Disadvantages
Relative rating system	<ul style="list-style-type: none"> ✓ Enables comparison of cars with similar characteristics; ✓ Consumers may decide first on the vehicle category and wish to compare similar vehicles; ✓ Manufacturers of executive and luxury class cars have an incentive to provide information if their cars do not automatically fall into the worst classes 	<ul style="list-style-type: none"> ✗ Difficult to develop a consistent and fair method for relative comparison; ✗ Harder for consumers to understand; ✗ Could penalise certain cars e.g. small cars with low absolute emissions ✗ Gives no incentive for downsizing within the complete car fleet; ✗ Borderline cases could make

Option	Advantages	Disadvantages
		labelling misleading; × Manufacturers could manipulate car characteristics to achieve a better rating without improving CO ₂ performance e.g. by increasing weight in a weight-related system; × May not be directly linked with fiscal measures, which are linked to absolute emissions.

4.1.4 Differentiation of car types

Differentiation between fuel types and/or engine types is possible, although ADAC (2005) recommends that all kinds of engine and/or fuel types should be treated in the same way to ensure direct and fair competition.

The case for differentiation between cars that consume electricity and those that do not is most compelling. Currently, tailpipe emissions are shown, which fails to take into account the wider factors that influence a vehicle's overall emissions.

4.1.5 Updating

There are two methods of updating the labelling scheme:

- **Static scheme:** vehicles are labelled according to the class they fall into and this does not change over time.
- **Dynamic scheme:** classes are distributed such that the number of vehicles in each class remains the same as technology improves over time.

An important feature of the label is that it will remain relevant as technology improves in the future. A static rating can be adjusted to keep up with technological advances by adding more categories over time. In the case of the Energy Labelling (92/75/EEC), ratings of A+, A++ and A+++ have been added. This scheme has been criticised, as many products are now rated A or higher, making it difficult for consumers to distinguish between them. Additional categories in the Energy Label have been found to weaken the effect of the label, resulting in lower awareness of energy efficiency as an important attribute (Universitat St. Gallen, 2009). Rather, consumer groups and manufacturers are generally in favour of a dynamic labelling scheme (Europe Economics, 2007). The Energy Labelling Directive shows that the classes should be regularly reviewed to account for technical development, otherwise consumers will not be able to differentiate between the increasing number of products in the higher classes (ADAC, 2005). A static system is easy to read and calculate, and the classes could be periodically shifted down to accommodate more efficient technologies.

A dynamic labelling scheme shows how a vehicle is rated compared to the existing market. Labels could be uploaded onto a website so that dealers would be able to print the most up-to-date information – a scheme that is already in operation in some Member States. On the other hand, it requires additional resources to develop the reviews. Industry stakeholders would also be resistant to downgrading of their models.

Both the US EPA and the Australian government periodically review ratings to ensure that they continue to reflect the nature of the fleet.

Option	Advantages	Disadvantages
Static scheme	<ul style="list-style-type: none"> ✓ Easy to calculate; ✓ Easy to understand; ✓ Simple to administrate. 	<ul style="list-style-type: none"> ✗ Needs to be revised to keep up with technical advances; ✗ Consumers may not be able to distinguish well between vehicles as they all tend to gain higher ratings over time.
Option	Advantages	Disadvantages
Dynamic scheme	<ul style="list-style-type: none"> ✓ Shows how a vehicle is rated compared to existing market ✓ May help consumers distinguish between different models more easily. 	<ul style="list-style-type: none"> ✗ More complex calculation method; ✗ May need more frequent revisions to account for market evolution; ✗ Manufacturers would resist downgrading ratings on their vehicles; ✗ May lead to increased administrative costs.

4.1.6 Mandatory information

In its most basic compliant form, the current label shows numerical values for fuel consumption and CO₂ emissions. In general, fuel economy information is considered the more important metric, as consumers are more familiar with it (Ecolane, 2010). While car buyers were aware that cars have an adverse environmental impact, car purchasing behaviour can be complex and is influenced by a range of factors. While environmental issues are often considered to be low priority, fuel economy or fuel consumption is usually important due to its economic implications (European Parliament, 2010). This finding supports the consideration of including running costs on the revised car label.

There are many other factors which could influence purchasing decisions including financial information (capital cost, maintenance/operating costs, taxes and subsidies); environmental data (air pollutant emissions, fuel availability) and technical information (performance, range, number of seats etc). In view of helping consumers to make better decisions, it could be desirable to extend the requirements for mandatory information to include these details. For instance, a recent study suggests that the label would be more effective if it mentioned the financial advantages and disadvantages of each label category (European Parliament, 2010). Some Member States have opted to include additional information although there is no requirement to do so. Examples include fuel costs and vehicle taxes, which may have an impact on purchase decisions. However, too much information can be confusing for consumers; to be most effective, the label should be simple.

The three pieces of information on the current UK new car label which are of most value to customers are (AECOM, 2009):

1. Average fuel consumption;
2. Yearly fuel cost; and
3. Vehicle Excise Duty branding relating to CO₂ emissions.

It could be useful to emphasise benefits other than environmental performance. Consumer research suggests that products and services should also provide reassurance that they deliver on cost and performance as well as green claims if consumers are to respond favourably (Consumer Focus, 2009). Providing running costs could help consumers to understand how an additional upfront cost could lead to savings in the longer term.

Behavioural research often indicates that people have a tendency to discount the future, i.e. they may prefer a smaller reward today than a larger reward in the future (e.g. see Cabinet Office, 2011). Explicit provision of fuel cost savings on the label would enable consumers to compare costs more directly. The length of time over which these savings are calculated is still a matter of debate – a longer time period would make fuel savings appear larger, but may be seen as less credible to consumers.

A number of different options for the presentation of running costs were identified in the study for the European Parliament (2010):

- Average annual fuel costs.
- Average fuel costs for an agreed distance. This approach has been adopted in some countries, e.g. the UK and Finland. This is complicated because mileage tends to be different across the EU.
- Average costs over a three year period. This option was proposed as studies suggest that consumers take account of up to the first three years of fuel costs when considering the value of fuel economy when buying a car.
- Including annual average fuel and taxation costs. In the UK, where the label is linked to the annual circulation tax, the annual circulation tax rate that applies to the specific vehicle is also displayed in order to reinforce the link between the label and the rates of circulation tax.
- Lifetime running costs. This is more challenging, as running costs and the levels of taxation change, and is arguably not useful or meaningful if consumers only take costs over shorter time periods into account when purchasing cars, as noted above

The main problems with providing cost information are the fluctuating price of fuel and the different taxation schemes in each Member States. Frequent updating would be required to ensure continuing accuracy. In addition, taxation schemes are not necessarily linked directly to CO₂ or fuel efficiency performance, which may be confusing for consumers. This suggests that it might be more practical to provide an official online calculator which could take into account the most recent information relevant to the consumer's location. Research in the US (EPA, 2010) found that consumers did not consider the fuel cost estimates on the labels to be useful, as they did not take into account changes in fuel prices or their city/highway driving ratios. However, consumers did use the fuel cost information to compare different vehicles in order to make a purchase decision.

A recent Eurobarometer report (2011) examined the ability of consumers to interpret labels and information. The results were as follows:

- Respondents were shown a nutritional information label and asked to identify the fat content per 100g – information that was included in the table - and 42% of respondents were unable to answer correctly.
- When identifying best before dates on a product, respondents were able to answer correctly in 82% of cases.
- Less than half of respondents were able to provide correct answers to three numerical questions (basic, intermediate and advanced). Although 80% of respondents were able to answer the basic numerical skill question correctly, this percentage fell to 56% for the advanced skill question.
- Only 2% of the population surveyed were able to correctly identify 5 logos (CE mark, organic farming, eco-friendly products, recyclable product and hazardous).

This highlights the need for simple and clear information.

4.1.7 Labels from other countries

This study has considered passenger car CO₂ labels from EU Member States. However, they have been developed and are used in many other countries. On country that has recently revisited label requirements is the USA. An overview of the latest development in CO₂ car labelling in the USA is provided in Box 4.1.

Box 4.1: Vehicle labelling in the USA³⁶

The rules governing the new US label were agreed in the summer of 2011 and will be mandatory from 2013. They apply to cars, SUVs and pick-ups. Compared to the previous label, the new label includes estimates of fuel savings (or increased expenditure) over 5 years compared to the average new vehicle, ratings for air pollutant and CO₂ emissions on a scale of 1 to 10, an estimate of the fuel or electricity needed to travel 100 miles and, for electric vehicles, information on driving range and charging time. Additionally, a (smartphone and internet) tool to enable drivers to obtain more personalised information is being developed. The label presents the consumption of electricity in terms of a “miles per gallon equivalent”. There are 9 different labels for different types of vehicle depending on the fuel or energy source that they use. All labels are based on the same basic design, but include different information of relevance to the fuel/energy source used. Separate labels exist for gasoline and diesel vehicles, flexible fuelled, CNG, hydrogen, electric and plug-in vehicles.

The fuel consumption and CO₂ emission label values continue to be based on the revised test procedures adopted in the 2006 fuel economy label rule. The fuel economy label values were revised in 2006 to ensure that the information on the label better reflects real world conditions. Conventional vehicles, including hybrids, are subject to testing on five separate cycles, but can also use equations to determine fuel economy and CO₂ emissions if the vehicles fall within a certain range on the 5-cycle tests. The 2011 rules extended the label provisions to electric and fuel cell vehicles for the first time, although the approach is slightly different. While testing on the five separate cycles is allowed, the equations can be used without validation on the respective 5-cycle tests and the maximum adjustment is capped at 30%.

In response to a consultation on the development of a regulation to require CO₂ emissions reductions from heavy duty vehicles, a number of stakeholders recommended that the US EPA should develop a fuel economy label or tool for these vehicles. While the EPA agreed that a label/tool could be useful, nothing along these lines was proposed alongside the final HDV CO₂ reduction regulation. The EPA considered that the development of a label or tool was too complicated and important to undertake in the time period available, but will consider a label in its work on the second phase of the HDV regulation.

4.1.8 Policy options

Presentation	Efficiency ratings	Comparison method
<ul style="list-style-type: none"> • Harmonise format – e.g. follow the format of the label for white goods and tyres • Minimum font size/dimensions; • Standardised colours; 	<ul style="list-style-type: none"> • Ratings A-G • Stars / numerical scores • Continuous 	<ul style="list-style-type: none"> • Absolute • Relative • Combination / provide both absolute and relative comparisons

³⁶ Sources: <http://www.epa.gov/otaq/carlable/regulations.htm>; <http://www.epa.gov/otaq/carlable/feallabels.pdf> (for all of the car labels); <http://www.epa.gov/otaq/climate/documents/420r11004.pdf> (re the HDV label). Thanks also to John German of the ICCT for commenting on this box.

<ul style="list-style-type: none"> Other harmonised design 		
Differentiation of vehicle types	Updating the ratings	Mandatory information
<ul style="list-style-type: none"> None Engine types Fuel types 	<ul style="list-style-type: none"> Static Dynamic 	<ul style="list-style-type: none"> Taxation Annual running costs Lifecycle running costs

More detailed policy design options will be required for any scheme. For example, energy efficiency ratings must have defined bandwidths. Consideration of these aspects is beyond the scope of the current study.

4.2 Other measures, including voluntary tools, to improve the effectiveness of the label

A long-list of additional measures was captured during the wider literature review. These have been collated here, with no assessment made as to their feasibility, desirability or practicality. Rather, the focus at this stage is on completeness; many of these options will be discarded at the more detailed review stage.

Additional features:	
<ul style="list-style-type: none"> Fuel economy & CO₂ emissions <ul style="list-style-type: none"> “best in class” Separate figures for urban/extra urban and combined cycles Lifecycle costs/savings Classification as a Light-duty Environmentally Enhanced Vehicle (LEEV) Electric vehicles <ul style="list-style-type: none"> Electricity needed to drive 100 miles Charging time Driving range Technical information <ul style="list-style-type: none"> Fuel type, biofuel capacity Noise data Emissions standard EuroNCAP ratings Transmission type Number of seats 	<ul style="list-style-type: none"> QR code to allow users of smartphones to access additional information online Searchable online version of the Guide Endorsements Consumer rights How driving behaviour affects fuel consumption CO₂ is the main GHG responsible for climate change Auxiliary fuel consumption from air conditioning & heaters The importance of regular maintenance to keep emissions low Training of sales personnel
Removing aspects:	Code of conduct:
<ul style="list-style-type: none"> Print version of the Guide Poster/display 	<ul style="list-style-type: none"> Ensure that complaints can be made easily and decisions on ads are taken swiftly; Forbid use of terms such as 'good for the environment', 'eco', 'green', 'environmentally friendly' to describe cars. Ensure that environmental information should be factual and based on specific data comparisons ('The 2007 model is 10% more fuel efficient than the 2004 model').

Additional features:	
	<ul style="list-style-type: none"> • Forbid association of cars with nature, animals etc. • Ban adverts for the most polluting cars, i.e. those that emit more than 50% above the previous year's EU average, and ads for SUVs in cities. • Forbid promotion of speed, acceleration, dangerous driving etc.

Sources: T&E (2009b), Ecolane (2010), European Parliament (2010), <http://www.epa.gov/otaq/carlabel/basicinformation.htm>

4.3 Extension of the Directive to other modes

The purpose of Directive 1999/94/EC is to inform consumers about the emission performance of new cars in order to influence their purchasing decisions. The Directive could be extended to address similar information barriers in the following sectors:

- New light commercial vehicles (LCVs);
- New heavy duty vehicles (HDVs);
- Two- or three-wheelers and quadricycles;
- Second hand cars; and
- Plug-in electric vehicles.

Application of the Directive in these sectors is likely to be more complicated than for new passenger cars. In this section, the practical challenges and possible solutions are reviewed including:

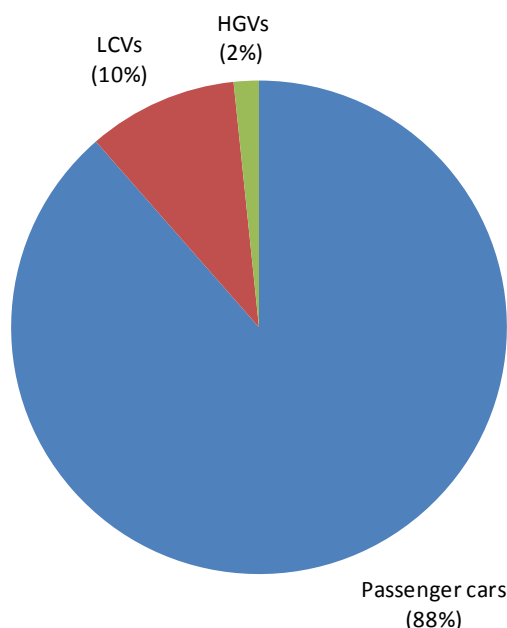
- **Relevance** of a CO₂ label: the information must be accessible to the person responsible for purchasing decisions, and ideally it will influence their choice of vehicle. Not all information that could potentially be provided will be of equal significance to the consumer.
- **Feasibility** of a label: the CO₂ and/or fuel efficiency must be measurable, accurately reflect performance, and able to be communicated in a meaningful way. It should not be possible for manufacturers to change the classification of a model by simple manipulation.
- **Policy options:** at this stage, all potential policy options have been captured in a list, and no assessment has been made.

4.3.1 New LCVs

Light commercial vehicles (LCVs) are goods or service vehicles with a gross vehicle weight (GVW) of less than 3.5 tonnes. They are typically used in urban conditions with high annual mileage, many restarts and periods of idling. This consequently leads to high fuel consumption. Approximately 12% of the light duty vehicle fleet (i.e. passenger cars and vans) in Europe is made up of LCVs (EC, 2009).

In 2010, almost 1.5 million new LCVs were registered in the EU-27, or around 10% of total new motor vehicle registrations.

Figure 4.3: New motor vehicle registrations in the EU-27 (2010)



Source: ACEA statistics

4.3.1.1 Relevance of a CO₂ label

In general, running costs influence purchasing decisions for LCVs to a much greater extent than for passenger cars. Vehicle pricing and operating costs are ranked first in terms of importance for the purchase of company vans, contrasted with a ranking of around tenth for private passenger cars (AEA, 2010). However the understanding of differences in vehicle fuel economy and the impact on running costs varies widely. Surging oil prices and increasing fuel duties are also causing greater demand for efficient fleets. In some cases environmental concerns are also a driver for fuel efficiency (DfT, 2009).

A study for the European Commission suggested that a fuel efficiency label for LCVs was potentially not as relevant as that for cars, as fuel efficiency was already an important consideration in their purchase (TNO et al, 2004). However, UK data shows that the LCV market is not completely rational in this way. There are large discrepancies between the CO₂ performance of models with similar functionality – average CO₂ emissions could be 17% lower if the most fuel-efficient model in each class was used (T&E, 2009a). This evidence suggests that consumers/businesses would benefit from more transparent information about fuel consumption. In particular, it might influence choices between otherwise similar vehicles which have different fuel efficiencies.

4.3.1.2 Feasibility of a fuel efficiency label

A basic requirement for extension of the Directive to LCVs is that there is an agreed methodology for measurement of CO₂ emissions and fuel efficiency. The amendment of Directive 70/156/EEC and 80/1268/EEC by Directive 2004/3/EC has provided for mandatory measurement of this information for N1 vehicles.

The feasibility of a labelling scheme for LCVs has been demonstrated in New Zealand and Australia (since 2004), where new vans under 3.5 tonnes GVW must display a vehicle fuel economy label. This information is based on the European test cycle.

4.3.1.3 Policy options

Labelling of:	Basis for information
<ul style="list-style-type: none"> • All new LCVs • All LCVs offered on the market since 2005 (when Class I LCVs first started having CO₂ emissions measured; later for other classes) • Labelling of all new Class I LCVs only 	<ul style="list-style-type: none"> • Standard test procedure • Different treatment for different size classes

Extending the Directive to LCVs could be possible, as the information required for the label can be derived from measurements carried out under Directive 2004/3/EC. ADAC (2005) suggests that since LCVs vary widely in their weight, the different size classes should be treated separately. Class I LCVs are broadly recognised as car-derived vans – labelling could be restricted to these types as the testing requirements are similar to cars. However, this could encourage manufacturers to increase the mass of LCVs at the higher end of the scale. In addition, we note that all classes are included in Directive 2004/3/EC, which provides for van CO₂ measurement.

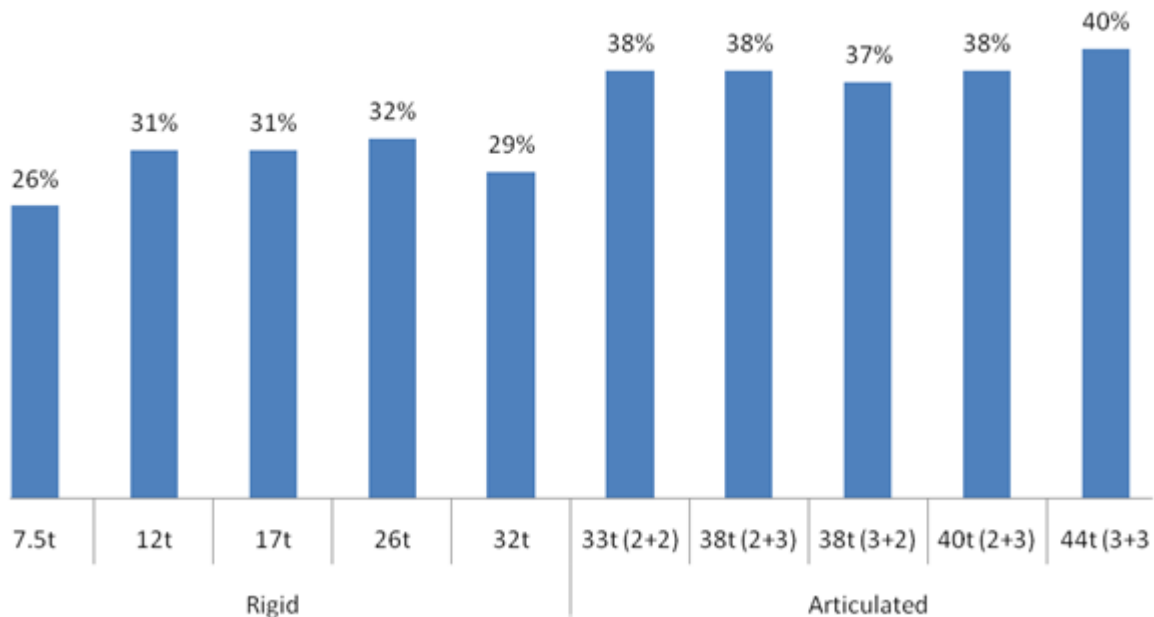
4.3.2 New HDVs

European road haulage is characterised by high fuel prices, high weights and volumes and relatively long distances. Therefore, while HDVs only account for around 3% of the EU vehicle fleet, they account for 7% of total vehicle-km driven, and almost a quarter (23%) of CO₂ emissions from road transport (CE Delft, 2009). In 2010, there were just under 250,000 new registrations of HDVs in the EU-27, corresponding to 2% of total motor vehicle registrations.

4.3.2.1 Relevance of a CO₂ label

Fuel efficiency already forms a cornerstone of HDV purchasing decisions. Western European customers rate fuel consumption as the third most important criteria overall, and Eastern European customers rate it second (Oliver Wyman, 2010). This is because of the high cost of fuel. As a percentage of total cost of the vehicle and driver, fuel costs start at around 26% for smaller rigid vehicles and increase to as much as 40% for articulated vehicles (FTA, 2011).

Figure 4.4: Fuel costs as a percentage of HGV operating costs



Source: FTA (2011)

Notes: Fuel costs as a percentage of total cost of vehicle and driver. Percentage shown is for average mileage

Although market forces will ensure the continuing improvement of fuel efficiency, labelling will provide consumers with relevant information for making purchasing decisions. This will be particularly helpful for smaller operators who may not be able to test their own vehicles.

4.3.2.2 Feasibility of a fuel efficiency label

Significant challenges in designing a suitable labelling scheme are created because the market for HDVs is highly complicated compared to that for cars. Both the vehicles and auxiliary equipment tend to be specifically adapted to customer requirements (ACEA, 2010) which results in diverse final vehicle performance. The actual CO₂ emissions in practice are also affected by variation in duty cycles (AEA & Ricardo, 2011). Labelling could be developed in a stepwise process which starts with the labelling of HDV engines based on the standardised test procedure. This could be extended to full vehicle labelling using modelling techniques to estimate the overall efficiency. The overall vehicle fuel efficiency depends on the way in which the components work in combination. A “Certified declaration of fuel efficiency” for vehicles and vehicle combinations is favoured by some stakeholders. Finally, labelling could be extended to vehicle components such as superstructures and trailers (AEA & Ricardo, 2011). All types of vehicle could be targeted, but it would be necessary to recognise the operating cycles.

Extension of the Directive to HDVs will be more feasible after updates to certification of methods to increase transparency of fuel efficiency data (European Parliament, 2010). The methodology for measuring CO₂ emissions from new HDVs that is being developed for the European Commission will be critically important in determining the extent to which labelling can be applied to new HDVs, or their components and/or combinations.

4.3.2.3 Policy options

Labelling of:	Basis for information
<ul style="list-style-type: none"> Engines Components, subassemblies Completed vehicles 	<ul style="list-style-type: none"> Testing of vehicles Computer simulation

In particular, computer simulation could cost-effectively evaluate a large number of vehicle types under different operating conditions. In this case, full vehicle testing would only be carried out to validate the model. The appropriate metric would be in terms of the work done i.e. per ton-km, passenger-km or m³-km. Engine dynamometer testing in conjunction with vehicle simulation modelling is used for regulatory certification of HDV fuel efficiency in Japan. Many of these tools are already used by manufacturers, governments or component suppliers; for example, Ricardo compared 19 vehicle simulation codes that could be used for regulatory evaluation of HDV fuel economy in terms of accuracy, ease of use and other factors (Ricardo, 2009).

4.3.3 New two- or three- wheelers

In 2010, the number of newly registered powered two-wheelers (powered cycles, mopeds, scooters and motorcycles) dropped to just over 1.5 million units in Europe - a reduction of 25% from 2008. The number of vehicles in circulation is around 30 million.

The share of road transport CO₂ emitted by powered two-wheelers is estimated to be 1.3% (ACEM, 2010).

4.3.3.1 Relevance of a CO₂ label

Purchasing decisions of people who buy powered two-wheelers (PTWs) for commuting to work may be interested in fuel efficiency information. People who ride PTWs for pleasure or sport are less likely to be influenced (EC, 2010).

A modal shift from passenger cars to powered two-wheelers would be beneficial from an emission reduction perspective. Due to their light weight and ability to move through traffic, emissions from powered two-wheeler journeys tend to be relatively low. The French Environment and Energy Management Agency (ADEME), the UK Department for Transport (DfT) and the European motorcycle industry (ACEM) have shown that average motorcycle CO₂ emissions are lower than for passenger cars (MCI, 2011).

4.3.3.2 Feasibility of a CO₂ label

Europe intends to update the Type Approval process for L1 vehicles as proposed in COM(2010)542. The industry appears to support the introduction of CO₂ measurement as first step towards labelling; both ACEM and ETRA back the proposals.

LAT et al (2008) highlights the risk that countries will devise their own labelling scheme in the absence of Commission action. This could be confusing for consumers and cause distortion of the market.

4.3.3.3 Policy options

Labelling of:	Basis for information
<ul style="list-style-type: none"> All new two- or three-wheelers 	<ul style="list-style-type: none"> Based on type approval data

4.3.4 Used passenger cars

The sales volumes of used cars are far greater than for new cars. In the top five markets alone there are 22 million used car sales annually, compared to 13.4 million new car registrations in the EU-27 (BCA, 2010). Market share of used cars aged up to two years old is expected to fall in line with the reduced sales of new cars following the economic crisis. Sales of cars older than nine years have also fallen because scrappage schemes have reduced supply.

The second hand car market represents an important consumer group. Although many car buyers aspire to owning a new vehicle, the majority will never buy a brand new vehicle.

4.3.4.1 Relevance of a CO₂ label

The European Parliament study (2010) suggests that that scope of the Directive should not be extended to used cars or other road modes, on the grounds that there are no clear benefits from this action. However, there is evidence that extending the Directive would provide benefits to both purchasers and dealers of used cars. Some dealers thought that customers assume that a new car would automatically have better fuel economy than an older car; therefore labelling would improve consumer information (AECOM, 2009). In general, labels are thought to help sell smaller, less polluting models.

A labelling system for used cars could be based on the “initial” label, i.e. the label that was relevant to the car when it was bought. Most evidence suggests that fuel economy doesn’t degrade significantly over time. Alternatively, the labelling could be based on a new measurement of CO₂ emissions. This approach would require an agreed methodology for measuring the fuel economy of used cars to be included in European-wide legislation.

4.3.4.2 Feasibility

Information provided on a new version of the model may not be applicable to a used vehicle, as CO₂ performance depends on many factors, including maintenance and age. However, with proper upkeep, fuel economy should not decrease significantly for recent models. Consumers have stated that they would trust information on used cars up to three years old (AECOM, 2009).

There are currently two examples of working used car labelling schemes:

In the UK, which has operated a voluntary scheme since 2009, a survey of participating dealers found that 60% said the label aided or improved the sales process (LowCVP, 2011). Furthermore, two-thirds of used car buyers said the information had influenced their purchase decision, and more than half said that the label had enhanced their impression of the dealer. The used car label is almost identical to the existing new car label.

New Zealand has opted for a mandatory used vehicle fuel economy label which was introduced at the same time as mandatory labelling for new vehicles. It shows a star rating out of 6, annual running cost, and the fuel economy in terms of litres per 100km. New vehicles in New Zealand are tested using the European cycle, and used cars are usually tested using the Japanese cycle to measure fuel consumption (as around 96% of used cars tend to be imported from Japan). Results from the Japanese test cycle are not directly

comparable to results from the European test cycle. The system does not attempt to reconcile these test processes; rather it is clearly stated that fuel consumption ratings are indicative only, and will not be fully representative of real-life driving conditions.

4.3.4.3 Policy options

The administrative costs are generally low for labelling schemes, due to low printing costs. Costs would be particularly low if the original label was kept, rather than re-testing used cars. In light of this evidence, several policy options are therefore proposed:

Labelling of:	Basis for information
<ul style="list-style-type: none"> • All used cars built after 2001 (at which point type approval began to include CO₂ measurement) • All used cars up to 3 years old • All used cars up to 3 years old & on a voluntary basis for older cars (with the proviso that all such stock must be labelled i.e. not just lower emitting cars) 	<ul style="list-style-type: none"> • Based on corresponding new car label • Updated information based on maintenance & usage data • Updated information based on re-testing of vehicles

4.3.5 Plug-in electric vehicles

Plug-in electric vehicles include:

- Full electric vehicles (FEVs) that have no internal combustion engine (ICE);
- Plug-in hybrid electric vehicles (PHEVs) that have an ICE and an electric engine. These can be plugged in to an external charging source such as the grid. PHEVs derive most of their motive power from the internal combustion engine;
- Electric vehicles with range extender (EREVs) that have an electric engine and an ICE which can be used to charge the battery. As with PHEVs, EREVs can also be plugged into an external charging source such as the grid to recharge the battery pack. EREVs derive most of their motive power from the battery pack.

Current market penetration of plug-in electric vehicles in Europe is low, but in the long term they could constitute a substantial proportion of the car fleet. According to projections by CE Delft (2011), sales volumes will remain low in the short term. By 2020, the most likely scenario projections assume that PHEVs will account for 2.1 million cars in the fleet, EREVs account for 0.7 million cars and FEVs account for 0.5 million cars. In total, this amounts to approximately 1% of the total fleet. By 2030, the proportions may rise to 11%, 4% and 3% respectively for PHEVs, EREVs and FEVs.

Market penetration of plug-in electric vehicles may be greater in some non-passenger car segments such as city bicycles. In some cases, non passenger car EVs have already gained a substantial market share – for example, 10% of bicycles in the Netherlands are electric (CE Delft, 2011).

4.3.5.1 Relevance of a CO₂/fuel efficiency label

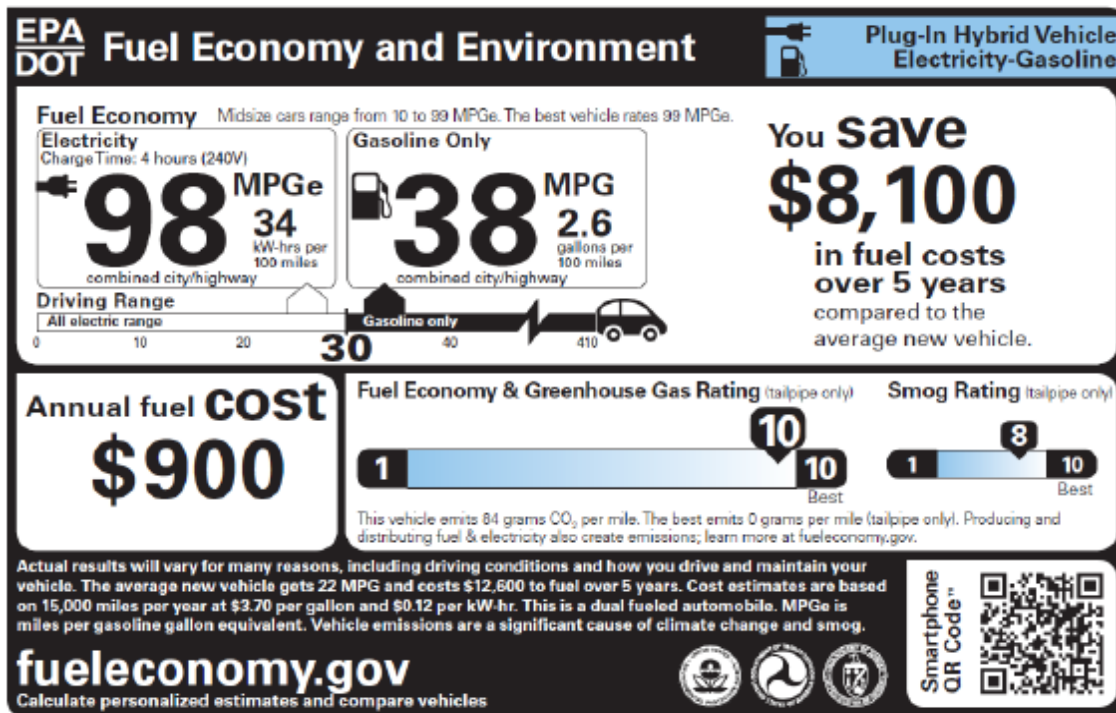
It may be more important to provide consumers with the specialized information that is relevant to them, rather than having a uniform label across all car types. There are several pieces of information unique to electric vehicles which may influence purchasing decisions including:

- Electric/fossil fuel ranges;

- Recharge time;
- Battery durability.

It would be helpful if the labels allowed consumers to compare conventional vehicles with plug-in electric vehicles on the basis of cost or emissions. In particular, plug-in electric vehicles may offer reduced running costs which could compensate for a higher upfront cost compared to a conventional vehicle. In the US, car labels provide estimates of running costs over a period of five years so that this trade-off is clear – see Figure 4.5 (and Box 4.1).

Figure 4.5: Example of US label for a gasoline PHEV



Source: EPA (2011)

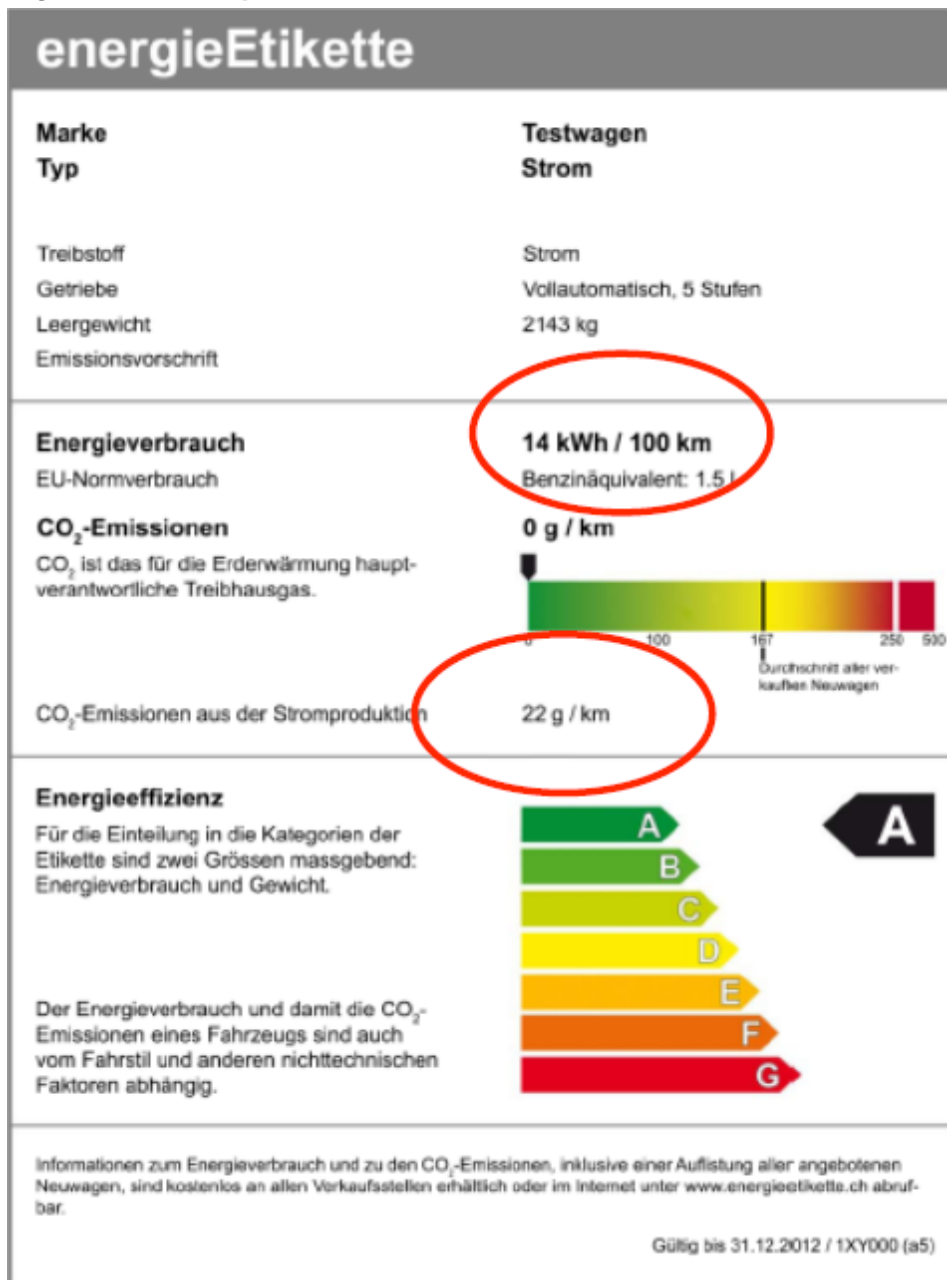
4.3.5.2 Feasibility

Labelling of plug-in electric vehicles will become increasingly important if they achieve significant market penetration in the future. Despite their zero tailpipe emissions, FEVs cause indirect emissions upstream at the power plant. It will be necessary to decide whether indirect emissions should be included.

The calculation methodology will need to be carefully defined. It is complicated by several factors, particularly in the case of PHEVs and EREVs which can use either electricity or fossil fuels. The electric range of a plug-in electric vehicle may be compromised by use of heating and/or air conditioning systems and it may be necessary to make this clear to consumers.

The revised Swiss Energy Label shows the CO₂ emissions from electricity generation, assuming the Swiss electricity consumption mix (Buhlmann, 2011). One of the drawbacks of this approach is that it treats plug-in electric vehicles differently – emissions for these types of vehicles are shown on a well-to-wheels basis, whereas emissions for other vehicle types are shown on a tank-to-wheels basis. Introducing well-to-wheel emissions across the board would greatly increase the complexity of the CO₂ calculations.

Figure 4.6: Example of Swiss label for electric vehicles



Source: Bulmann (2011)

The US has announced an updated labelling scheme that will be differentiated according to whether the vehicle is:

- Gasoline/diesel, or hybrids that use only self-generated electricity;
- Plug-in hybrid; and
- Pure electric vehicles running on plug-in power (see [reference] for more details on the USA label).

The labels for other technologies such as flex-fuel vehicles, hydrogen fuel cell vehicles and compressed natural gas vehicles are based on the gasoline/diesel vehicle labels. This scheme was announced in May 2011 and is due to take effect from 2013. The label shows miles per gallon gasoline equivalent (MPGe), which shows the energy consumption of a non-

gasoline vehicle in terms of how many miles the vehicle could travel on an amount of fuel which has the equivalent energy content as a gallon of gasoline.

4.3.5.3 Policy options

Labelling of:	Information provided
<ul style="list-style-type: none"> All new plug-in electric vehicles 	<ul style="list-style-type: none"> Fuel efficiency in terms of fossil fuel equivalents Range

In this section, we have focussed on plug-in electric vehicles, as they are likely to have greater fleet penetration compared to other alternative-fuel vehicles such as hydrogen fuel cell vehicles. It may become necessary to develop policy options specifically for fuel cell vehicles in the future. However, a comprehensive assessment of electric and other alternative fuel vehicles is beyond the scope of the current study.

4.4 Extension to other media

The Commission Recommendation (2003/217/EC) to extend the Directive to non-print media has not been widely implemented; however, such resources are of growing importance to consumers. In this section, we review the possibility of extending the Directive to include:

- The internet;
- Television;
- Radio; and
- Electronic storage media such as video tapes, DVDs and CD-ROMS.

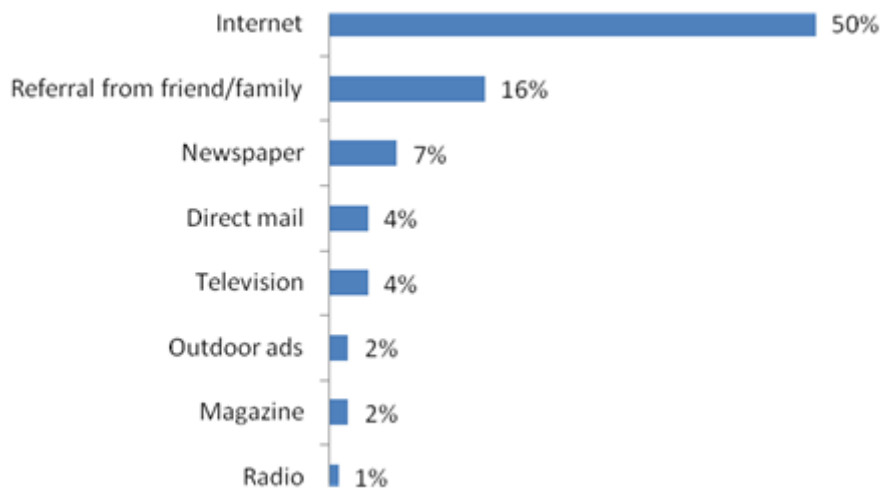
In this section we examine whether these sources of information are regularly used by consumers, how important they are as part of the decision-making process and what practical problems may arise if the Directive is extended to cover these other types of media.

4.4.1 Sources of consumer information

Online advertising - more so than any other media - plays a vital role in influencing the makes and vehicle models that consumers buy, as well as the dealer they eventually make the purchase from. Almost 90% of consumers in markets worldwide used the internet to research vehicles in 2010, up from 61% in 2005 (Capgemini, 2010). In the past, consumers relied more on information from manufacturers, dealers, third parties, classified adverts and personal recommendations. Mature markets such as Western Europe are moving away from these sources. The role of TV adverts and auto shows has also diminished.

A survey by Polk & Autotrader (2011) also found that the internet has become the primary research tool for car buyers. Half of new vehicle buyers in the US considered the internet as the predominant source that led them to dealers. The role of television and radio was much smaller, at 4% and 1% respectively. Other "traditional" media (newspapers, direct mail, outdoor adverts and magazines) also scored poorly.

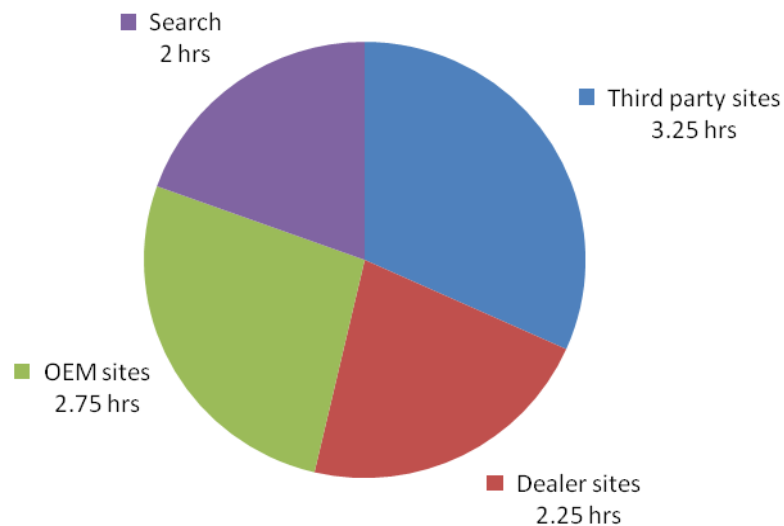
Figure 4.7: Most influential sources leading new vehicle buyers to dealer



Source: Polk & Autotrader (2011)

In total, 60% of shopping time is spent online - around 11.5 hours out of a total of 19 hours (Polk & Autotrader, 2011). Consumers were found to use a variety of online sources, including price/model comparison tools, manufacturer and dealership websites and other third party sites. New vehicle buyers distribute their time fairly evenly across these different types of automotive sites. As such, there is not an obvious single focus point for regulation, although new vehicle buyers find comparison tools and pricing information the most helpful.

Figure 4.8: Allocation of online shopping time – new vehicle buyers



Source: Polk & Autotrader (2011)

Although the results from Polk & Autotrader (2011) are focussed on the US, it is not unreasonable to assume that similar trends apply in Europe, which is also a mature vehicle market.

Several other consumer surveys also support the view that the most important sources of information are dealerships and the internet, whereas the least important sources are TV and advertising. For example:

- In a survey conducted by ADAC (2005) consumers reported that the most important sources of information were dealerships and the internet, particularly the websites of car manufacturers. Sales brochures, magazines, automobile clubs and consumer protection organisations were also helpful. TV, promotions and advertising were seen as the least important.
- In the UK, a review has concluded that the internet was the third (out of 11) most important source of information on cars for potential car buyers, behind the salesperson/dealership and consumers' guides and magazines. In the same survey, the fuel efficiency label came tenth, while the fuel economy guide was eleventh (GfK, 2009).

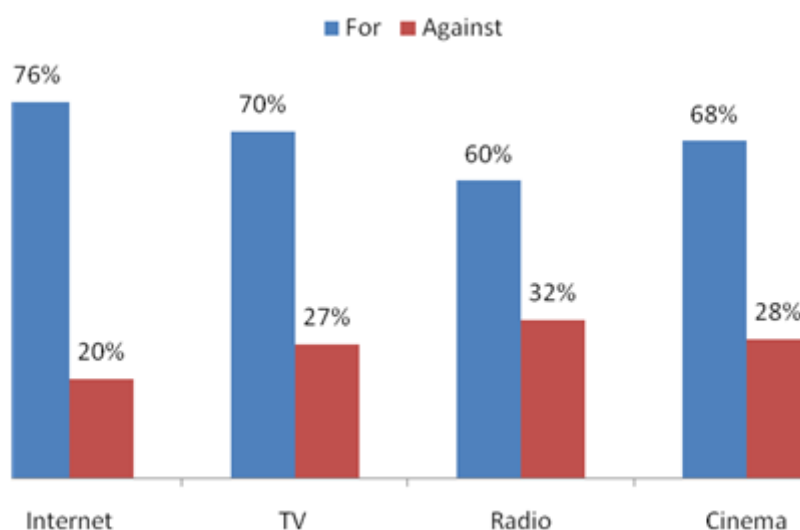
4.4.1.1 Relevance of extending the Directive to other media

Having established the extent to which consumers rely on different types of media, it becomes necessary to determine the relevance of extending the Directive in each case.

Arguments for extending the Directive to other media generally relate to the need to provide fuel efficiency and CO₂ information to consumers as per the aims of the original Directive. In view of this, it is ever more important to ensure consumers have access to fuel efficiency information before they visit dealerships. Due to the amount of information that is available from non-print sources, consumers are much closer to a final decision by the time they enter a dealership than in the past (EPA, 2009). Furthermore, non-print advertising affects consumer awareness, brand engagement and other behaviours leading to a sale. In fact, more consumers are purchasing vehicles without seeing them in a dealership - internet purchases in the US have shown an annual growth rate of 14.6% over the past 5 years (Polk & Autotrader, 2011).

In the stakeholder consultation of 2008 (EC, 2008), a majority supported extending the Directive to cover additional media, as shown in Figure 4.9. At the time, almost 70% of respondents agreed that the display of mandatory advertising was more important than liberty/freedom in car advertising.

Figure 4.9: Stakeholder responses to extending Directive to cover additional media



Source: EC stakeholder consultation (2008)

The prominent role of the internet suggests that fuel efficiency and CO₂ emission performance should be made available to consumers in a consistent format. Online

provision of this data varies widely between manufacturers. For example, Ecolane (2010) reviewed over 1,000 sample adverts from six European companies. Only half of web visitors were able to find the correct CO₂ emissions for a car, and even when users were able to retrieve a value, it was only correct in 68% of cases. A mere 5% of successful lookups were due to the fuel economy label. Further discrepancies relate to the ease of locating the information; average time taken to find the data ranged from 74 seconds to nearly eight minutes. Using Flash technology or PDF downloads was found to increase the time taken to find CO₂ information.

Emerging new sources of information include social media, micro-blogging sites, online forums and RSS feeds. The use of these tools to research car models has grown in recent years (Capgemini, 2010). In the future, it may become necessary to consider these other sources of information for inclusion in the Directive.

Arguments against extending the Directive to cover other media are generally founded in the belief that it is not appropriate to include detailed information in advertisements. For example, in research by Navigator (2004), it was suggested that advertising was not the best place to deliver health warnings. Rather, consumers felt that advertising played two distinct roles as follows:

- A reminder of which providers were in the market: consumers expanded their shortlists of providers beyond their existing relationships;
- Providing pointers as to what to look for in a product: consumers expanded their list of features they needed to consider as a result of exposure to adverts.

Consumers thought health warnings would be more helpful if delivered at a later stage, for example, when filling out an application form. Providing even more detailed information through extended broadcasts was thought to be ineffective as it was confusing and discouraged further investigation. Therefore, advertising draws attention to the different market offerings but does not substitute for consumers undertaking detailed research into their shortlist of providers.

In the case of health warnings, respondents felt that their effectiveness varied depending on the medium.

- **Print:** Warnings in print were generally approved of, although the appearance of the text could be off-putting. The value to the consumer depended on how well the information was presented.
- **TV:** Warnings on TV were thought to be difficult to understand and retain, but served as a reminder to research the topic further. Attention could also be distracted by action in the commercial.
- **Radio:** Broadcasts on radio were difficult to follow and seen to be more intrusive than in print or TV. Respondents claimed they would ignore the health warning section if they did not find the content interesting or useful. Some felt there would be value in a shorter message which reminded the consumer to investigate further.
- **Internet:** The internet was considered to be a useful source of information, although some respondents thought it was too time-consuming to use. Along with print media, the internet was considered to be the most appropriate place to deliver a warning.

Research undertaken in Germany by the German Automobile Association (ADAC) and the German Association of Communication Agencies (GWA) in 2008 with 1,173 participants revealed that 78% of respondents ranked information in brochures/leaflets at first or second place as the most appropriate information source for environmental-related data on cars. This was followed by manufacturers' websites (54%) and showroom display standards (33%). Information of this kind in print, screen and billboard advertisements came bottom in consumer ranking. Technical promotional literature, websites of car dealers and

manufacturers and showroom displays are therefore viewed as being the most effective way to inform the consumer about the environment related data of the specific car they intend to buy before the purchase decision is finalised.

In conclusion, the Navigator (2004) study suggests that extending the Directive to transitory broadcast media (i.e. radio and TV) would not be effective, as consumers are not able to understand or retain the details. On the other hand, extending the Directive to the internet would be useful to consumers. For broadcast media, a shorter message which reminds the consumer to investigate further would be useful. For example, TV adverts could direct consumers to seek out the fuel efficiency guide. The Navigator (2004) study also highlighted the need for a simple format for the information which all providers would adopt. This would prevent attempts to obscure the information by using complicated language and illegible text, as was found in some examples. The respondents would have preferred a standard template which would appear in a separate panel so it could be readily identified. This last point is supported by other consumer research, which finds a widespread dislike of small text, asterisks and footnotes (Consumer Focus, 2009).

Overall, the literature suggests that extending the Directive to the internet would be useful for consumers. On the other hand, extending the Directive to TV, radio and other advertisements may not be as useful, as consumers do not consider these to be important sources of information. This view is also supported by feedback on the effectiveness of the Directive, where the poster is generally seen as the least effective instrument (ADAC, 2005).

4.4.1.2 Feasibility

The Energy Labelling Directive provides an example of how additional media could be regulated. It states that consumers should be provided with the information specified on the energy label in cases where they cannot expect to see the product displayed. This includes mail order, catalogues, the internet and telemarketing. Studies of compliance rates across the EU for distance selling (mail order and internet stores) have produced disappointing results. This is probably because Member States do not usually monitor or control distance selling. Overall, information provided was either incomplete or in the wrong order in two-thirds of cases. However, mandatory information was completely missing in only 2% of cases (Fraunhofer ISI, 2009).

In Recommendation 2003/217/EC, the Commission recommends that the information should be “no less prominent than the main part of the information provided.” A mandatory minimum percentage of advertising could be specified for both visual displays and broadcast promotions. A 20% share has been suggested³⁷, although other percentages are possible. For example, the Tobacco Labelling Directive (2001/37/EC) stipulates that 30-40% of the packet surface should be given over to health warnings. More general steps to improve the ease of reading include specifying a minimum label/font size. In the UK, for example, information on billboard adverts must be clearly legible to a person standing across the road. The Tyre label stipulates the minimum size which must be used, while larger labels must maintain the correct proportions.

Regulation of broadcast media is perhaps more difficult, especially in the case of radio (EC, 2008). CERCA point out that labelling should be visual, and thus does not translate well to wireless adverts (CECRA, 2008).

An alternative way of ensuring consumers have access to fuel efficiency information on the internet would be to provide an official web comparison tool or online database. This would also have the advantage of being able to provide the most up-to-date material in an efficient manner. ADAC (2005) points out that a network of national databases sharing a common

³⁷ For example in European Parliament Resolution **2007/2119 (INI)** of 24 Oct 2007 on the Community Strategy to reduce CO₂ emissions from passenger cars and light-commercial vehicles (2007/2119(INI))

methodology would be efficient and would considerably reduce maintenance costs. The US EPA provides a consumer website³⁸ which allows drivers to enter personalized information such as local fuel prices and mileage. The site uses this information to estimate greenhouse gas emissions and costs for individuals. This information is supplied in addition to the average factors which are used to calculate the values displayed on labels.

4.4.1.3 Policy options

Extension to:	Mandatory provisions:
<ul style="list-style-type: none"> • Internet; • Television; • Radio; • Electronic storage media; • Voluntary extension to other media, with centrally provided comparison website or online database 	<ul style="list-style-type: none"> • 20% of advertising space for information on CO₂ and fuel consumption • 20% of time for broadcast promotions, or a minimum of 30 seconds • Fuel efficiency and CO₂ information should be given equal prominence to other key model information • Standardised format e.g. following label design • Directing consumers to seek further information, as opposed to providing full details

There is a risk of consumers making purchasing decisions before seeing any of the mandatory labelling information if the Directive is not extended to include non-print media. This is particularly the case for internet marketing, and more so as increasing numbers of consumers make purchases online. In contrast, the role of other media is diminishing.

The Recommendation to extend the Directive to non-print media has not been widely implemented. This suggests a further role for the EC may be necessary, while still respecting the principle of subsidiarity by not being too prescriptive on Member States.

³⁸ www.fueleconomy.gov

5 Development of policy options

5.1 Introduction

As mentioned earlier, the aim of Task 3 was to provide policy recommendations on a number of issues. A consideration of these issues might suggest possible amendments to the Directive in the event of any eventual revision. These issues were:

- Harmonisation of the label;
- Other ways of improving the effectiveness of the Directive, including changes to the other provisions of the Directive;
- Extension of the Directive to other modes; and
- Extension of the Directive to other media.

Information from the literature on these issues is presented above in Section 4. As noted above, the Commission held a consultation on a possible revision to the Directive in 2008 during which a number of stakeholders communicated their views on many of these potential amendments to the Commission. Hence, as part of Task 3, EU and national stakeholders were contacted and asked for their views on whether there was a case for amending the Directive in relation to any of these issues (see Sections 1.2.3.2 and 1.2.3.3 for full approach to stakeholder engagement). In the sections that follow we cover each of the issues listed above in turn in the following manner:

- The first sub-section summarises the findings from the stakeholder interviews.
- Each second sub-section includes a summary of the discussion at the workshop and responses received after the workshop.
- Summary of arguments for and against amending the Directive with respect to the issue under discussion. An earlier (and in fact very similar) version of these arguments was presented to the stakeholders at the workshop based on the literature review and the responses to the interviews.

Our conclusions and recommendations on the issues are presented in the final and subsequent chapter.

However, prior to considering a range of policy options for improvements to Directive 1999/94/EC, the continued retention of the Directive has been considered. Here we consider whether the Directive has met its' original aims, and its' continued relevance and purpose.

5.2 Retention of Directive 1999/94/EC

Article 1 of Directive 1999/94/EC states that the purpose of the Directive is “to ensure that information relating to the fuel economy and CO₂ emissions of new passenger cars offered for sale or lease in the Community is made available to consumers in order to enable consumers to make an informed choice”. In this respect, the Directive (where it has been properly transposed in Member States' legislation) has achieved its original aims. Where the label is present on new passenger cars at point of sale; guides made available, posters displayed, and CO₂ information displayed on promotional material, then the information has been made available to consumers and could therefore potentially inform their purchasing decision.

This study has considered the purpose of other labels that have been introduced, including labels for tyres and household products. In the case of tyres, the aim of Regulation 1222/2009³⁹ is to “*increase the safety, and the economic and environmental efficiency of road transport by promoting fuel-efficient and safe tyres with low noise levels*”. In the case of household appliances, the purpose of Directive 1992/75⁴⁰ is “*to enable the harmonisation of national measures on the publication, particularly by means of labelling and product information on the consumption of energy and of other essential resources, and additional information concerning certain types of household appliances, thereby allowing consumers to choose more energy-efficient appliances*”. When compared to these other pieces of legislation that require labelling, Directive 1999/94/EC isn't trying to do anything different – they have the common aim of ensuring that environmental/energy information is provided to the consumer, which may or may not influence their purchasing decision.

Earlier in this report the effectiveness of the Directive was considered in terms of raising consumer awareness and reducing the average CO₂ of new passenger cars. It was concluded that it is extremely difficult to assess the effectiveness of the Directive on both of these issues, mainly due to the wide range of other policy measures and initiatives aimed at reducing GHG emissions from new passenger cars. However, the importance of a package of measures working together that will reinforce the common CO₂ reduction message to consumers and industry is recognised.

The requirements of Directive 1999/94/EC are important in terms of ensuring the consumer is provided with key information at the point of sale. However, there is some information that consumers are arguably more interested in than others, and they will invariably pay more attention to this when making any decision (e.g. if included, running costs of the vehicle including taxation may be a higher priority for the consumer). We know from other studies that factors such as reliability, functionality and cost effectiveness are likely to play an important role in the purchase decision compared to CO₂ emissions, which may rank very low. However, through continuing to provide this information, and potentially improving the way in which this information is communicated, such information may potentially play a more important part in the purchasing decision.

Through continued exposure to car CO₂ labelling at the point of sale and displaying information in advertisements/promotional material, consumers may become more familiar with the underlying message that is trying to be portrayed. This is reinforced further where national tax is linked to the CO₂ information provided in the label, sending further signals to the consumer. The consumer may not necessarily understand the information relating to fuel consumption or CO₂ emissions, but this is an issue that can be improved upon (such issues will be considered in the development of policy option).

Therefore, in combination with other measures, the Directive is likely to have an important part to play in providing the information to consumers that may influence their decision to purchase vehicles with lower CO₂ emissions or fuel consumption.

Finally, it is also worth noting that similar information on the CO₂ emissions and fuel consumption of passenger cars is provided in countries outside of the EU, e.g. USA, Australia and New Zealand. Consequently, retaining, and even improving, the requirement to provide such information to consumers in the EU is consistent with the approach being taken elsewhere.

³⁹ Regulation (EC) No 1222/2009 of the European Parliament and of the Council of 25 November 2009 on the labelling of tyres with respect to fuel efficiency and other essential parameters. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:342:0046:0058:EN:PDF>

⁴⁰ Directive 1992/75/EEC of 22 September 1992 on the indication by labelling and standard product information of consumption of energy and other resources by household appliances. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1992:297:0016:0019:EN:PDF>

5.3 Harmonisation of the requirements of the Directive relating to the label

5.3.1 Summary of findings from stakeholder interviews

As was noted in Section 2.1, of the Member States covered in this report, six out of the eight (Germany, France, UK, Spain, Romania and Denmark) have based the design of their label on the household products energy label, while according to EP (2010) a further two countries (Finland and Netherlands) use a similarly-designed label. Of the other Member States covered by this study, Belgium has introduced a colour-coded label that has a different format to the energy products energy label, while EP (2010) identified that Austria had also introduced a colour-coded label that was not consistent in terms of design with the energy products energy label. Hence, of the 15 countries covered by this report and EP (2010), 8 have based their label on the energy products energy label, while a further two use a different colour-coded label.

Of the stakeholders that expressed an opinion when interviewed, a majority were in favour of the **harmonisation of the label**, and most of those that had a view on the design of the label suggested that the label should be harmonised on the basis of the design of the energy products label. While one stakeholder felt that harmonising the label would bring additional bureaucracy and another felt that existing self-regulatory codes were already sufficient, many of the others were in favour of harmonisation in order to improve consumer recognition, to reduce the risk of confusion, to reduce costs and not to adversely affect the functioning of the internal market. It was argued that a harmonised label would reduce costs as if a common format were applied across the EU, it would be less costly for both manufacturers and advertisers. The household products energy label, which is a colour-coded label with seven categories labelled (at least initially) “A” to “G” (see Figure 3.1 in Section 3.3.1), was considered to be a good example to follow, as it is simple, clear and transparent and already has some degree of consumer recognition.

In terms of the detail of the **information on the label**, it was underlined by many that it was important to keep the information simple, as this is what works best in terms of communicating information to consumers. It was also underlined that this information had to be relevant, both to consumers and within the national context. On the other hand, a number of stakeholders felt that it was important to harmonise as many elements as possible in order that labels did not lead to confusion and adversely affect the internal market. Such considerations are relevant both to the way in which the categories on the label are defined, as well as to other information that might be included on the label.

In relation to the way in which the **categories on a colour-coded label** should be defined, seven of the ten Member States from this study and EP (2010) that use a colour-coded label use an absolute label (six of these define their categories by CO₂ emissions, while Denmark uses fuel economy); Spain, Germany and the Netherlands use relative labels. Of the stakeholders that expressed a preference for an absolute or a relative label, most supported the former, apart from some national stakeholders in Germany which supported the German, weight-based relative approach to the definition of the categories.

As for other information that could be included on the label, a number of stakeholders noted that research suggests that **information on fuel economy**, particularly the potential costs saved, are of more relevance to most consumers than information on CO₂ emissions. In this case, it was suggested by a couple of stakeholders that information on vehicle taxation, if this taxation was also linked to the CO₂ emissions of a vehicle, could also be included on the label, as it is the financial information that most motivates consumers. Some Member States already include information on average annual running costs and relevant taxes on the label, e.g. Germany, UK (on a voluntary basis) and Denmark. A couple of stakeholders also considered that it might be possible to include comparative information, including on running

costs saved, within the respective vehicle classes as additional information on a label that was based on an absolute scale.

With respect to the **definition of the “A” to “G” categories**, some stakeholders noted that some Member States link their categories to their CO₂-based vehicle taxation. This can be considered to strengthen the signal to consumers in line with the objectives of the Directive, but reduces the potential to harmonise the detailed way in which the categories are defined. A couple of stakeholders argued that it was important for a car to be categorised in the same way throughout the EU in order to avoid confusion among consumers, although others were not as convinced that this was that important.

The revised Household products energy labelling Directive allows for the adoption of “A+” to “A+++” categories for products that are significantly more efficient than products that just receive an “A” rating (see Section 3.3.1). The use of an “A+” category or higher for cars is allowed in Germany and has been proposed in Denmark. While agreeing with the design of the household products energy label, a couple of stakeholders argued against the adoption of “A+” to “A+++” categories for cars, arguing that this would confuse consumers. The reason for this was that generally people consider that something receiving an “A” rating would be good, whereas if the ratings are allowed to reach “A+++”, then cars receiving an “A” rating could be only average, if not worse (as is increasingly the case with some household products). Instead, these stakeholders preferred that the categorisation of cars within categories should be regularly reviewed and cars re-categorised, as appropriate, in order to ensure that the proportion of cars receiving an “A” rating was relatively fixed. For these stakeholders, the fact that a car’s rating may vary from one year to the next was not considered to be a problem, given that CO₂ emissions can vary significantly between different models of the same basic car as it is.

5.3.2 Summary of discussion and reaction from the workshop

At the workshop, there appeared to be a general acceptance that some degree of **harmonisation of the label** would be beneficial, although it was also noted it was important that Member States continued to be able to ensure that the label was compatible with national circumstances. In this respect a number of Member States raised concerns against any requirements to harmonise the label that prevented them being able to use the label in a way that was considered to be most effective according to the research undertaken in their respective countries. In this respect, it was noted by some Member States that it would be important for them to be able to continue to link the categories on their label to vehicle taxation. Others expressed concern if harmonisation required the use of a harmonised label in other media, such as the guide and the internet.

Some stakeholders noted that consumers did not understand the label as it is required by the Directive, which is why many Member States have adopted colour-coded bands. A number of stakeholders cited the conclusions of Consumer Focus (2009) that environmental labels need to adhere to the three “C”s, i.e. they must be clear, credible and enable comparisons. Other stakeholders supported these conditions explicitly, e.g. arguing for transparency and some means of comparing cars, or implicitly, e.g. by raising concerns about the accuracy of the existing fuel economy figures (see Section 5.4, below, for a further discussion of this issue). One stakeholder noted that it is well known that labels on their own do not change consumer behaviour; rather they help make consumers more receptive to the message and encourage the consideration of more environmentally-friendly purchasing decisions in the future. Another stakeholder argued that it would never be possible to have accurate information on the label, as a driver’s fuel economy (and CO₂ emissions) depends on the way in which each driver drives their car; in this respect even including information on average fuel consumption is misleading.

Whilst noting the need for the label to be simple and the concerns over the extent of harmonisation that is necessary, a number of stakeholders noted that the **inclusion of**

information on running costs would be important. In the UK, a lot of work has been undertaken on the design of the label and this concluded that the label must be simple, focus on fuel costs not CO₂ emissions and that it is important to make sure that the banding system covers the full range of vehicles, so that the potential case where the majority of vehicles are in a minority of bands is avoided. The research also concluded that consumers want better comparative information. In this respect consumers do not generally understand the concept of “best in class”, i.e. that it is possible to choose a car with similar characteristics, but often with noticeably better fuel economy (and emissions). This information is rarely available to consumers in a form that is easily accessible and understandable. In this respect, it was considered that the Directive needs to be revised, as it no longer reflects best practice.

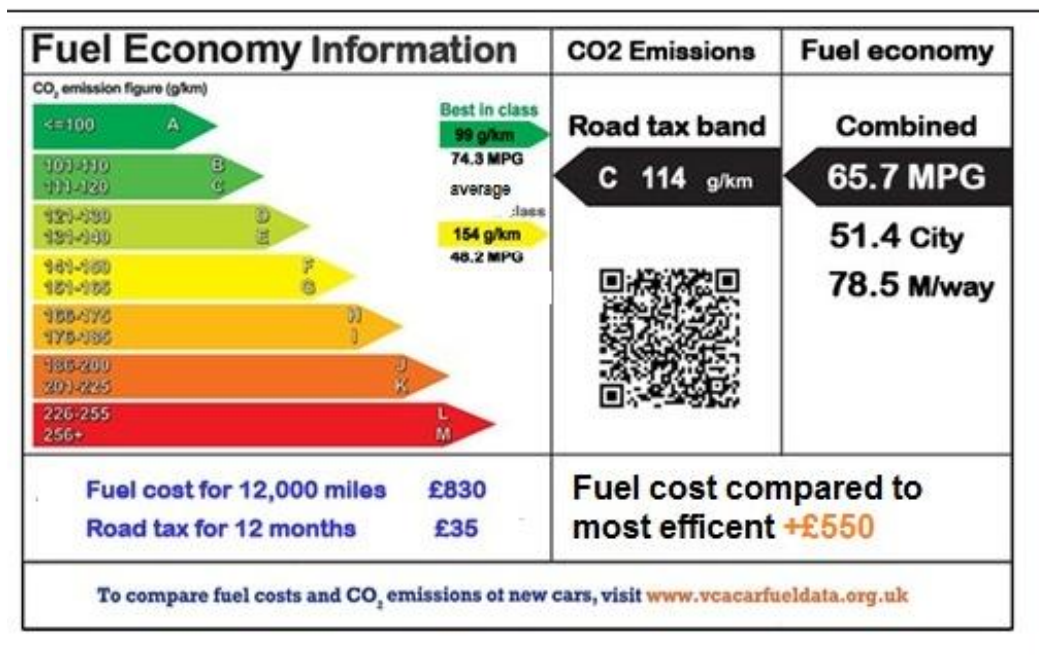
Many stakeholders that spoke were in favour of an **absolute rather than a relative label**, as it was considered that this was simpler for consumers to understand. It was noted that, under a relative label, a car emitting 140gCO₂/km could be in a higher band than a car with emissions of 180gCO₂/km, which was potentially misleading to consumers. Others disagreed, citing as an example the household product energy labels, which are relative, and apparently do not confuse consumers. One stakeholder suggested that, if it did not prove to be possible to agree to harmonise the Directive on the basis of either an absolute or a relative label, then there would still need to be clear rules on the parameter and slope that could be used on a relative label. In this respect, it would be important to ensure that any parameter used as the basis of a relative label was important for consumers in that it reflected utility, in which case weight should not be used. It was noted that current relative labels produce some strange outliers and that reducing weight should be rewarded. In response, it was argued that the weight-based passenger car CO₂ Regulation has not been preventing manufacturers from reducing the weight of vehicles, as was evident at motor shows this year.

A couple of stakeholders underlined that the approach taken in the car labelling Directive need not, and perhaps even should not, be consistent with the approach taken in the passenger car CO₂ Regulation⁴¹, as the purpose of the two pieces of legislation was different: the former aims to influence consumers; while the later requires manufacturers to reduce the CO₂ emissions of the cars that they produce. Other stakeholders disagreed arguing that the label – particularly a relative label – stimulates innovation by manufacturers within classes of car. Consequently, if you wanted to stimulate competition between manufacturers to improve the CO₂ performance of cars within segments, a relative label was needed. In response, it was argued that it was not the case that cars in a particular class had similar CO₂ performance, in which case an absolute label provided sufficient differentiation within the market.

As noted above, a number of stakeholders argued that the label would benefit from containing **comparative information**. Supporters of a relative label argued that this was what a relative label did and therefore if you want to include comparative information on the label, then a relative label was better than an absolute label. In response, one stakeholder noted that there might be possible to identify a middle ground between a purely absolute and a purely relative label, as it might be possible to develop an absolute label containing relative information (see Figure 5.1). Such a composite label might address the risk of discrediting the label if cars with better fuel economy were labelled worse than more efficient cars, but still be able to present consumers with information on best in class. Various designs that try to do this would soon be tested amongst consumers in the UK. It was noted, and acknowledged, that presenting information on best in class would not be straightforward, as cars are entering the market all the time.

⁴¹ Regulation (EC) 443/2009

Figure 5.1: Possible composite label, based on an absolute scale, but containing comparative information



While supporting in principle the inclusion of **information on best in class**, some argued that it was difficult to do this. Even in a single Member State, it is often difficult to define classes that easily capture all vehicles. To do this across the EU would be even more difficult, as different definitions of classes are used in different Member States to reflect different national markets. In response, it was argued that it should be relatively straightforward to categorise most vehicles by class and, while it was recognised that differences between the definitions of classes do exist between countries, it was suggested that it should be relatively easy to define classes that would work in all Member States.

One stakeholder noted that the household product and tyre energy labels both used **pictograms** and were **text free**, so wondered whether the car label should be developed in a similar way. If pictograms were used, it was noted that it was important that consumers were able to recognise these easily, which it was suggested was not the case with some of the pictograms currently in use. It was also suggested that while the text-free nature of some of the other labels, particularly the tyre label, was important as it was often difficult to know in which country a tyre would eventually be sold, for cars this was probably not the case. Another stakeholder was concerned that pictograms might be too simplistic, whereas the current requirements for the text that had to be included on the label were too much. In particular, it was noted that the wording of the required “health warning”, i.e. the message that informs consumers of the issue and the link between fuel consumption and CO₂ emissions, needs to be both larger and clearer. In this respect, it was important to strike a balance.

Another issue that was discussed related to whether the scale used on the label should be **open**, i.e. it is possible to use categories beyond “A”, i.e. “A+”, “A++”, etc., or **closed**, i.e. be limited to categories “A” to “G”. A number of stakeholders argued that the potential inclusion of “A+” to “A+++” categories would only serve to confuse consumers. In this respect, a couple of stakeholders questioned where an open categorisation might end, e.g. it is possible that “A++++” and beyond might eventually be needed. Instead, these stakeholders preferred a closed label in which the categories were updated regularly to ensure that there was a good spread of vehicles across all of the bands.

While cautioning against total harmonisation, it was suggested that it should be possible to identify **certain principles** on the basis of which labels across the EU could be harmonised, e.g. that there should be colour-coded bands, that running costs should be included and that there should be comparative information on the best in class. In this respect, it was noted that car dealerships across Europe are not harmonised, as they need to reflect national circumstances. In the same way, a harmonised label needs to be able to reflect national circumstances and therefore Member States need to be allowed to tailor their labels accordingly. It was also noted that there are a lot of questions that remain in relation to understanding what the best approach to the label actually is, and so that it is important to identify what research to be undertaken.

One stakeholder noted that the ongoing revision of the text cycle, which generates the CO₂ information used on the label (also see Section 5.4), will require that a review of the passenger car (and van) CO₂ Regulations be undertaken in order to translate the existing targets into figures relevant to the new test cycle. The new test cycle will also have implications for the information included on the label, as the fuel economy and CO₂ emissions information produced by the new test cycle should be higher than those currently presented on the label. It will be necessary to explain these changes to consumers, so it would make sense if the label were amended at the same time as the passenger car Regulation was revised to take account of the new test cycle.

5.3.3 Summary arguments for and against harmonisation of the label

As noted in the previous sections, the majority of stakeholders were in favour of harmonising the design of the label in line with the design of the energy products energy label, which would be in line with the approach taken in at least 8 Member States. Arguments for and against the harmonisation of the design of the label are presented in Table 5.1.

Table 5.1: Summary with respect to harmonising the design of the label

Arguments for harmonising the design of the label	<ul style="list-style-type: none"> - Improving consumer recognition - Reducing risk of confusion - Improving the functioning of the internal market - Reducing costs - Basing the design on a label that is simple and already has some consumer recognition, such as the household products energy label, would build on existing work/recognition
Arguments against harmonising the design of the label	<ul style="list-style-type: none"> - Some countries would have to change the format of their labels - Risks making it difficult for the label to be integrated with other individual Member State policies
Question asked at the workshop	<p>Could the design of the label be harmonized?</p> <p>Are there any additional considerations, if the car label were based on the household products energy label?</p>

The first important issue in relation to defining the categories of the label is whether it would be preferable to base the label on absolute CO₂ performance levels, i.e. each car is categorised according to a comparison against all cars, or relative CO₂ performance levels, in which a car is categorised according to a comparison against “similar” cars. There are arguments for and against using both approaches (see Table 5.2).

Table 5.2: Summary with respect to the means of defining the categories of a harmonised label

Arguments for an absolute label	<ul style="list-style-type: none"> - Simple, easier to understand - Clear communication of environmental benefits to the consumer - Avoids the need to define reference values against which to compare vehicles
Arguments against an absolute label	<ul style="list-style-type: none"> - Does not provide much information to consumers about variations within class - Concern that all medium and large cars will have an orange or a red label, regardless of their efficiency compared to others in the same class - Inconsistent with weight-based approach of Regulation 443/2009 (although this regulation addresses suppliers (OEMs) rather than consumers – therefore consistency may not be necessary) - Limited incentives for improvement within classes
Arguments for a relative label	<ul style="list-style-type: none"> - Identifies best in class, so cars of any size could receive an A rating - Stronger signal to consumers to buy best in class - If weight-based, would be consistent with Regulation 443/2009
Arguments against a relative label	<ul style="list-style-type: none"> - Risks confusing the consumer - Basis more complex to explain - Need to agree on reference values
Questions asked at the workshop	<p>Should the label be based in absolute or relative CO₂ performance levels?</p> <p>What considerations need to be taken into account with respect to the definition of the categories of a colour-coded label?</p> <p>What approach should be taken to take account of improvements in the emissions/energy performance of cars?</p>

Further harmonisation of the detail of the label would need to be balanced against allowing Member States to link the label to other policy instruments, such as vehicle taxation, which are beneficial to the aims of the Directive, but which are not harmonised at the European level (see Table 5.3). In line with keeping the information simple and clear and of relevance to consumers, the inclusion of annual running costs and a link to vehicle taxes is an option. Another option might be to adopt a similar approach to take account of technical improvements as the household energy products label, i.e. adopt an open label that allows for the use of categories ranging from “A+” to potentially “A+++”; an alternative is a closed, but dynamic label, which fixes its categories between “A” and “G”, but the assignment of cars to these categories is regularly reviewed and updated, as necessary.

Table 5.3: Summary with respect to further harmonisation of the elements of the label

Arguments for harmonisation of more elements of the label	<ul style="list-style-type: none"> - Ensures that consumers are provided with consistent, clear, simple and relevant information across the EU - Minimise the risk of labels undermining the internal market
Arguments against harmonisation of more elements of the label	<ul style="list-style-type: none"> - Undermines ability of Member States to align the label with national circumstances, including other policies that reinforce objective of the label, such as vehicle taxation

<p>Questions asked at the workshop</p>	<p>What other elements of a label should be harmonised?</p> <p>Should these be mandatory or recommended?</p>
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There appears to be a need to clarify the definition of “promotional material”, while the potential harmonisation of the car energy label along the lines of the household products energy label potentially provides a solution to the problems with the enforcement of the provisions relating to promotional material.

5.3.4 Harmonisation of the requirements of the Directive relating to the label - conclusions

The overall conclusion appears to be that some degree of harmonisation of the label, beyond the existing requirements of the Directive would be beneficial, but that the Directive should not be over-prescriptive in this respect, i.e. harmonisation should not prevent Member States from using a label that is best-suited to national circumstances. The crucial issue in this respect is identifying where this balance lies.

From the arguments presented, harmonising the design of the car label on the basis of the design of the household products energy label could be an option, as this label was considered to be clear and already has a fair degree of consumer recognition. On the other hand, some Member States have adopted other colour-banded approaches, which might be more relevant for passenger cars. The important issue in this respect is to understand how car buyers understand and relate to the car label and the extent to which this is different from consumers reaction to, say, the household products energy label.

Additionally, it appears to be important to include running costs on the label, e.g. annual costs based on the average distance travelled in a country, as research seems to suggest that consumers respond and relate to such financial information more than to information on CO₂ emissions, which is apparently difficult to relate to for many consumers. There may even be a case for basing a colour-coded label on fuel efficiency rather than CO₂ emissions, as this is apparently the information to which consumers relate, although removing reference to a car’s CO₂ emissions risks breaking the link in the consumers mind between the label and climate change, which could be detrimental to increasing wider awareness of the issue.

On the other hand, the arguments presented appear to oppose too much harmonisation, e.g. of the way in which the bands are defined, as Member States want to be allowed discretion to make the label as relevant as they can taking into account national circumstances. It was highlighted in this respect that national car markets are all different, and so labels should be allowed to respect these differences as much as possible. Of particular importance in this respect, is the link that some Member States make between the label categories and their tax bands, which can be an important means of strengthening the message communicated by the label. Too prescriptive harmonisation would risk deterring Member States from linking their respective policies in this way.

In terms of other elements to include on the label, a balance needs to be struck between including information that is relevant to consumers and keeping the label simple and easy to understand. In this context, the inclusion of pictograms and other text, such as the “health warning”, need to be carefully considered to ensure that these are clear and understood, rather than confuse and alienate consumers.

The way in which the categories of any harmonised colour-coded label should be defined appears to be the most controversial issue. The main argument in favour of an absolute label over a relative label was that the former was less confusing for consumers in that a car in a higher category would always be less fuel efficient. The main argument in favour of a relative approach was that these labels included the comparative information that some of those in

favour of an absolute label felt was also important to have on the label. Additionally, the household products energy label is itself a relative label. It must be assumed that the household products energy label is relative for reasons that have been considered, e.g. in the recent amendment to that Directive. However, the important question is, therefore, whether the reasons that support a relative energy label for household products are equally as valid in relation to passenger cars, or whether the way in which cars are bought and used argues for an absolute label. One potential difference between a car and a household product is that running a car would generally take a larger proportion of the average household budget than, say, running a washing machine. Additionally, a car's fuel costs are also more visible to the consumer in that they are paid for separately, whereas the energy used by household products is measured and paid for as part of a general fuel bill. Hence, the potential for the anomalies that arise from the use of a relative car label to discredit the label might be significantly higher than with the household product energy label. The composite label that was mentioned (see Figure 5.1) might be a useful compromise, but again a balance would need to be struck to ensure that consumers understand what the additional arrows mean.

The importance of aligning the underlying approach of the car labelling Directive to that of the passenger car CO₂ Regulation needs to be considered. Given that they are targeting different stakeholders – i.e. consumers and manufacturers, respectively – the argument that they do not need to be made consistent appears valid. However, this does not necessarily argue against the underlying approach of the two pieces of legislation being aligned. At issue, is the impact of a relative label based on, for example, weight, compared to a relative label based on another parameter, e.g. footprint, and an absolute label. There appears to be little evidence on which is best, although several of the arguments do appear to have some validity.

Finally, some stakeholders underlined that a harmonised, colour-coded car label should not completely follow the household product energy label, as it has been taken forward in the 2010 revision. The main issue in this respect was the potential use categories beyond “A” on the label, i.e. “A+”, “A++”, “A+++”, arguing that this potentially confused consumers as an “A” rated product could have only average energy efficiency, or even less. In this respect, it will be important to ensure that the use of additional categories, as well as the use of any pictograms, is useful to consumers, rather than confusing them.

5.4 Other means of improving the effectiveness of the Directive

A couple of issues raised by stakeholders in relation to improving the effectiveness of the Directive have been covered in earlier sections, including:

- More harmonisation of the label, e.g. the use of the A to G label set out in the Household products labelling Directive (see Section 5.3).
- Need to implement the Directive properly, as currently enforcement is lacking (see Section 3).

This section covers the other media covered by the provisions of the Directive, i.e. the guide on fuel economy, the poster/display in the showroom and the provisions relating to promotional material. Additionally, in the discussions with Member States and stakeholders, two additional issues in relation to effectiveness were raised:

- Discrepancy between the CO₂ emissions performance and fuel economy performance information presented on the label and real world CO₂ emissions/fuel economy performance; and
- Inclusion of information on more documents given to consumer.

Both of these issues are also discussed in the remainder of this section.

5.4.1 Summary of findings from stakeholder interviews

As was noted in Section 2.2, many Member States are increasingly producing downloadable electronic versions of the guide on fuel economy, which are less expensive to produce. Additionally, some Member States have developed online searchable databases, while the UK has begun to produce a CD-ROMs that contains the various guides and databases.

In the course of the interviews, several stakeholders questioned whether the guide on fuel economy and the poster/electronic display in the showroom should be retained. The **guide on fuel economy** was considered to be expensive to maintain compared to its usefulness, particularly when compared to the possibilities offered by the internet. With respect to the **poster/display**, some of those who expressed an opinion felt that it was not that important as potential buyers had usually researched the information prior to going to the showroom; while others felt that, if it is retained, it should be required to be prominently displayed. The usefulness of both of these provisions was questioned in light of the increasing use of the internet as a means both to obtain information and to compare car models. In this respect, it was suggested that a harmonised internet guide that could be accessed in the showroom if required might be more appropriate. However, generally, few strong views were expressed in relation to these two provisions.

Some stakeholders felt that the provisions with respect to **promotional material** were already sufficient; on the other hand, some stakeholders argued that the main problem had been enforcement of the provisions by the Commission and the Member States, rather than there being a problem with the existing legislation. Others argued that the lack of proper enforcement argued for the need for improved enforcement. As was noted in Section 2.4.1, some Member States had problems with enforcing these provisions as they are currently stated in the Directive. Some of the stakeholders that were in favour of the car label being harmonised along the lines of the household products energy label proposed that this label could be displayed on promotional material, with perhaps the size (or a minimum size, e.g. of 20%) and position of the label harmonised in the Directive. Finally, there appears to be a lack of clarity as to what “promotional material” covers. Some advertisers assumed it included advertising whereas others argued that advertising should not be included under a definition of promotional material.

There were different views in relation to how to address the **discrepancy between the fuel economy figures** achieved in use and the fuel economy (and CO₂ emissions) figures presented on the label (as measured according to the type approval test cycle). Two stakeholders argued that the existing discrepancy risks undermining the credibility of the information of the label in the eyes of consumers. As a result, it was suggested that some means of translating the existing test cycle emissions to real world emissions might be appropriate for the information included on the label, as is undertaken by the US EPA. Others noted that action was already ongoing to amend the test cycle to enable it to better reflect real-world emissions and hence there was no need to take any action to remedy the existing discrepancy.

Two stakeholders also proposed that the effectiveness of the Directive could be improved if fuel economy data was included on all information provided to consumers, including quotes for purchases, bills and tax renewal documents where the tax concerned is linked to CO₂ emissions.

5.4.2 Summary of discussion and reaction from the workshop

At the workshop, some stakeholders believed that neither the **poster** nor the **guide on fuel economy** in its current form were still relevant. Few people used either, and the guide was expensive to produce. In the UK, it was noted that producing a CD-ROM instead of more

paper copies of the guide had saved a lot of money. Others noted that the provisions as they stand – i.e. that the guide has to be available at the point of sale and made available free of charge to the consumer – costs a lot of money, even in a small country. Consequently, a number of Member States called for flexibility in relation to the requirements relating to the guide.

Another stakeholder noted that, while a recent survey by CapGemini has suggested that 90% of car buyers use the internet to help their decisions, it is important to note that the information on the internet would generally be different from that contained in the guide (see Section 5.5.4, below).

With respect to the provisions relating to **promotional material**, one stakeholder expressed surprise that there had been problems with these, as they felt that the definition of promotional material included in the Directive was clear enough, i.e. that it covered “all printed matter used in marketing, advertising and the promotion of vehicles to the general public”. In this respect, what they objected to was the inclusion of “advertisements in newspapers, magazines and trade press and posters” in this definition. They argued that, as the printed media was under increasing pressure from the internet, the fact that it was covered by the Directive, while other media that car manufacturers used were not, was not fair. In this respect, the approach taken within the tyre labelling Directive, which does not include printed advertising in its definition of “technical promotional material”, was a better approach.

Others, however, noted that the requirements in the Directive relating to promotional material were far from clear, e.g. what is meant by starting the information should be “easy to read”? Consumer groups, in particular, are not happy with the terminology used. Any discussion on the issue becomes a discussion about font size and spacing.

A couple of stakeholders also noted that there were increasingly issues in relation to consumers noticing that the **fuel economy figures** that had been contained on the label were not the figures that they had been achieving in practice. In this respect, a couple of stakeholders argued that action should be taken to remedy this as soon as possible, for example, by adopting the approach taken in the US, where the figure used on the label is an estimate of the real world emissions and fuel economy. In response, it was noted that it would take time to agree an approach across the EU and implement it. It was questioned whether this could be achieved much before the implementation of the new test cycle, which was already under development. On the other hand, other stakeholders had confidence that the ongoing text cycle revision would address the issue of the ongoing discrepancy.

There was little support at the workshop for the inclusion of the information on fuel economy and CO₂ emissions to be included on other documentation provided to consumers.

5.4.3 Summary arguments for and against amending the Directive

The main issue with respect to the **guide on fuel economy** appears to be whether it should be retained in its current printed format, or whether it should be replaced by an internet-based tool. The cost of producing and maintaining the guide is perceived to be an issue by the Member States. However, only one Member state provided cost details – Belgium claimed that the cost of producing the guide each year was €70-80,000, approximately €2 per copy. The internet is perceived to be easier to update and potentially a better source of comparative information, while the extent that the potential buyers use the guide has been questioned. The arguments for and against retaining the guide are set out in Table 5.4.

Table 5.4: Summary with respect to provisions relating to the guide on fuel economy

<p>Arguments for retaining the guide on fuel economy</p>	<ul style="list-style-type: none"> - Not all new car buyers will have undertaken internet-based research prior to coming to the showroom, in which case guides, if visible, accessible and available, could still be a useful source of information for consumers - (Ease of) access to the internet is lower in some Member States than in others.
<p>Arguments against retaining the guide on fuel economy</p>	<ul style="list-style-type: none"> - Expensive to maintain (anecdotal evidence – comparison to provision of electronic information not calculated) - Perceived low level of use by public - Increasing irrelevance as a source of information in light of the ongoing development of the internet as an information tool. - Sustainability - Environmental consequences of printing paper copies of the guide annually (resource use, distribution etc).
<p>Questions asked at the workshop</p>	<p>Should the printed guide be retained?</p> <p>If so, why? How could it be made more useful?</p> <p>If not, should anything take its place? If so, what?</p>

As with the guide, the main issue with respect to the **poster/display** appears to be whether or not it should be retained. There is also some evidence that posters are not always displayed in prominent and visible positions (see Section 3.1.1). The arguments for and against retaining the poster/display are set out in Table 5.5.

Table 5.5: Summary with respect to the poster and display in the showroom

<p>Arguments for retaining the poster/display</p>	<ul style="list-style-type: none"> - Not all new car buyers will have undertaken internet-based research prior to coming to the showroom, in which case information on posters/displays, if visible, accessible and available, could be useful - (Ease of) access to the internet is lower in some Member States than in others.
<p>Arguments against retaining the poster/display</p>	<ul style="list-style-type: none"> - Perceived low level of use by public - Increasing irrelevance of these as sources of information in light of the ongoing development of the internet as an information tool - Information provided too late in the decision-making process to influence decision?
<p>Questions asked at the workshop</p>	<p>Should the poster/display be retained?</p> <p>If so, why? How could it be made more useful?</p> <p>If not, should anything take its place? If so, what?</p>

There appear to be some issues in relation to the provisions of the Directive that relate to promotional material (see Table 5.6 for a summary of the arguments with respect to amending these provisions).

Table 5.6: Summary with respect to provisions relating to promotional material

Arguments for amending the provisions relating to promotional material	<ul style="list-style-type: none"> - Lack of clarity with respect to what the provisions apply to - Problems with enforcement - Lack of compliance
Arguments against amending the provisions relating to promotional material	Minimum requirements for advertising potentially restricts the creativity of advertisers
Questions asked at the workshop	<p>Do the provisions relating to promotional material need to be amended?</p> <p>If so, how should they be amended?</p>

As was noted in Section 5.3, for the information communicated to consumers to be credible, it is important that it is relevant for consumers. At the moment, the information on fuel economy is not as relevant as it might be due to the discrepancy between the information provided and a driver's real world experience. This issue has been recognised and is being addressed by the development of a revised test cycle. However this will take some years to develop and in the meantime credibility of the information is still an issue. Hence, there are arguments in favour and against taking action to address this discrepancy (see Table 5.7).

Table 5.7: Summary with respect to source of the fuel economy/CO₂ information presented

Arguments for changing the source of the estimates of fuel economy/CO₂ information presented	The current discrepancy between the presented fuel economy data (i.e. test cycle) and real world experience risks undermining the credibility of the information amongst consumers.
Arguments against changing the source of the estimates of fuel economy/CO₂ information presented	Action is ongoing to remedy this discrepancy.
Questions asked at the workshop	<p>To what extent does the difference between the label and real world information undermine the credibility of the information?</p> <p>What is the way forward?</p>

It has been suggested that communicating the information (on CO₂ emissions and fuel economy) more widely to consumers, e.g. on all documentation that they receive relating to potential purchases and cars that they own, including on annual vehicle tax reminders (where tax is lined to a car's CO₂ emissions), quotes and receipts for purchases, etc, could improve the effectiveness of the legislation by increasing consumer awareness.

Table 5.8: Summary with respect to adding fuel economy/CO₂ information to all relevant documentation supplied to consumers

Arguments for adding information on fuel economy/CO₂ information to all relevant documentation	Improve awareness of the label; Potential to influence the current purchase decision (when included on offers) and future purchase decisions (as awareness is raised)
Arguments against adding information on fuel economy/CO₂ information to all relevant documentation	On receipts and tax demands, information is too late to influence purchase decision; Issues with respect to providing this information with respect to used cars (for tax demands)
Questions asked at the workshop	Would adding the information to all relevant documents given to consumers be beneficial?

5.4.4 Other means of improving the effectiveness of the Directive - conclusions

It appears that there is little support for retaining the poster and the guide on fuel economy in its current form. However, in relation to both, it is important to remember that ease of access to the internet, which many put forward as a better potential source of information, is likely to differ between Member States. Hence, more flexibility in relation to the requirements in relation to the guide might be considered.

In relation to the existing provisions relating to promotional material, it would appear that these need to be revised in order to clarify how and what information should be presented, while consideration could be given to the media to which the provisions currently apply (see also the discussion of Section 5.5.4).

It was recognised that the discrepancy between real world fuel economy/CO₂ emissions and the information presented on the label was an issue. As understanding and knowledge of the information grows amongst consumers, there is a potential risk that the label is discredited by this ongoing discrepancy. However, as was noted by many stakeholders, action is being undertaken to remedy the discrepancy through the development of the new test cycle for light duty vehicles. Given that it would take time for the technical and legislative work to agree on a short-term factor for scaling up test cycle emissions to better reflect real world emissions, if the ongoing amendment to the type approval process is delivered within the next couple of years as planned, then this may be sufficient. If it is anticipated that the revision and implementation of the test cycle may yet take a few more years, or that the test cycle would not be a sufficiently accurate reflection of real world emissions, then consideration could be given to taking action at the European level.

There were few views on the potential to include information on CO₂ emissions and fuel economy on other documentation delivered to the consumer. Essentially, the important issue would be whether the costs of implementing the additional requirements were worth it in order to deliver any benefits. The Tyre labelling Regulation does include a similar provision as it requires, inter alia, the energy efficiency class of the tyre to be stated on or with bills delivered to end users when they purchase tyres. However, more work would need to be undertaken to identify the extent of the benefits, although it could be argued that the more widely a label is seen, the more it increases awareness of the issue.

5.5 Extension of the Directive to other modes

As noted in Section 4.3, the “other modes” covered in this report are as follows:

- Vans, i.e. vehicles defined as N₁ vehicles.
- Heavy duty vehicles, i.e. those vehicles defined as M₂, M₃, N₂ and N₃ vehicles.

- Two- and three-wheeled vehicles, i.e. those defined as L category vehicles.
- Used cars, i.e. used M₁ vehicles.
- Electric vehicles, i.e. those M₁ vehicles that use an electric motor instead of an internal combustion engine (although the issues raised would potentially apply to other types of electric vehicle). Electric vehicles are covered by the Directive. However, the implications of the Directive for these vehicles have led to some issues that needed to be explored (see Section 4.3.5).

In each of the following sections, the possible extension of the Directive to each of the above vehicle types is discussed in turn.

5.5.1 Summary of findings from stakeholder interviews

With regards to **vans**, the response from stakeholders was mixed. It was acknowledged that it was generally possible to produce a label for vans consistent with passenger cars and that CO₂ data was becoming available (although there may be some barriers such as how to measure the emissions from part-finished vans with specialist bodies fitted etc). Additionally, some argued that there was potential for significant savings from fuel consumption and CO₂ emissions in relation to van selection. However, some stakeholders questioned whether it was necessary to label vans due to the way in vans are typically purchased and used. Vans are predominantly purchased by commercial large fleets and the factors determining purchase decisions are very different to those of passenger cars. Stakeholders also pointed out that the point of sale was likely to be different, with far fewer vans being sold through dealerships than was the case with passenger cars. Therefore a different approach to CO₂ labelling may be required to have the desired effect in influencing or informing consumer purchases.

There was very little support for an extension of the Directive to **HDVs** from stakeholders. For some this was simply due to the recognition of the absence of an agreed test cycle for measuring CO₂ emissions, thus preventing the labelling from being extended until a basis for measuring whole vehicle CO₂ emissions is established. Some stakeholders suggested that it should be extended 'in principle', or on a voluntary basis. On the other hand, there were those who questioned whether a label was appropriate for HDVs. These stakeholders noted that, as with vans, such vehicles were bought and used differently to cars and that fuel economy was already an important factor in deciding which HDV to buy. Another stakeholder explicitly opposed the expansion of the label to buses, noting that the Commission had already introduced requirements for public authorities to take environmental considerations into account in purchasing decisions under the Clean Vehicle Directive⁴².

There was a mixed response from stakeholders regarding the extension of the Directive to **two-wheelers** (and others in this category). Those in favour of extending it to two-wheelers stated that it may improve the environmental performance of such vehicles and increase awareness amongst consumers, who may be less aware about fuel consumption and emissions of CO₂. Two- and three-wheelers are also primarily purchased by private individuals for their own personal mobility needs – the segment that the labelling Directive is aiming to influence. However, others mentioned the absence of agreed European test cycles for two-wheelers as a barrier to their inclusion. The inclusion of **quadricycles** was also mentioned by a few of the stakeholders, who pointed out that electric vehicles often fall into this category. However, if they were to be included, stakeholders pointed out that it should be made clear that less onerous type approval (including crash safety) was used in comparison to passenger cars.

⁴² Directive 2009/33/EC of the European Parliament and of the Council on the promotion of clean and energy-efficient road transport vehicles, OJ L 120/5, 15.5.2009

With regards to **used cars**, the stakeholders again had a mixed response to their inclusion in the Directive. Those in favour suggested that they should be included as used cars are actually some of the more polluting vehicles in use. One stakeholder thought that the second hand car market was likely to be more sensitive to fuel costs and so labelling on used cars could have impacts on their residual value, and could potentially have more impact than new car labelling. It was suggested that labelling could be mandatory for car dealers that sell a certain amount of cars, e.g. over a certain annual threshold. Those stakeholders that argued against extending the Directive to used cars cited the difficulties in monitoring the second hand car market, particularly with respect to the volume of sales points, including private sales.

A number of stakeholders raised issues with respect to the way in which **electric vehicles** (and other alternatively fuelled vehicles such as plug-in hybrids and hydrogen fuel cell) are covered by the Directive. The primary issue of concern cited by stakeholders was whether direct/tail pipe/in-use emissions or emissions from the point of combustion should be used. Many considered that there was a need for a harmonised approach as to how electric vehicles and their emissions would be measured across the industry and represented on the label. If the combustion emissions (i.e. those generated in the course of electricity generation) were included, this would amount to a well-to-wheel approach being taken, which would be different to that taken for conventional passenger cars, which is only tank-to-wheel (i.e. it excludes emissions from the production of petrol and diesel). It therefore needs to be considered if there is a method that could be applied consistently across all types of passenger cars.

Alternatively, it was mentioned that there could be a separate labelling scheme to cover electric and alternatively fuelled vehicles, which would enable consumers to understand which vehicles are most energy efficient. Some stakeholders believe that the fact that a label for an electric car would currently show 'zero emissions' is creating confusion amongst consumers. Additionally, such an approach does not enable comparisons to be made between conventional petrol and diesel powered vehicles and new technologies such as battery electric and plug-in hybrids, which are being promoted as being more environmentally friendly.

In terms of other categories of vehicle that could be included in an extension to the Directive, one of the stakeholders mentioned **rental cars**. It was suggested that in the medium term, consumer demand could influence the purchasing behaviour of rental companies.

5.5.2 Summary of discussion and reaction from the workshop

At the workshop there was some support for extending the Directive to cover some other types of vehicle, but there was also a fair amount of opposition.

In relation to **vans**, it was noted that, while a lot of vans are bought by large fleet operators, many are bought by small business and private buyers, who would benefit from the provision of advice on fuel economy. Additionally, it was suggested that, as there are few van dealerships, the costs of implementation would be relatively small. Others disagreed arguing the decision to purchase a van was completely rationale and so labelling vans would be unnecessarily bureaucratic. It was also noted that, as vans are generally used for transporting goods, it would be important to communicate the information in an appropriate way, i.e. using an appropriate metric; otherwise, consumers could be guided to buy the wrong type of van for their needs. In response, another stakeholder argued that, while van buying was probably more rational than for cars, van buying was still not completely rational. In Denmark, the decision to extend the label to vans was due to the more favourable tax treatment of vans compared to cars, which has led to private buyers purchasing vans instead of cars. There has also been a tendency to buy large vans with big engines, as it was a way of buying a powerful vehicle at lower cost.

With respect to **HDVs**, it was acknowledged that it was difficult to take any action with respect to labelling in the short-term due to the absence of a test cycle. However, it was suggested that for such vehicles, it would be even more important to provide such information earlier in the decision-making process.

For **two- and three-wheelers**, it was noted that the ongoing proposed revision to the type approval Regulation would make it mandatory for manufacturers to provide the necessary information. The one stakeholder that commented supported the extension of the label to these vehicles on the basis of this information, although cautioned against the use of weight if a relative label were used.

In relation to **used cars**, the views of stakeholders were mixed. One stakeholder noted that there had been few studies on used cars, so it was not really known what proportion were sold through large, as opposed to small, dealers. Given that second hand buyers are potentially more sensitive to fuel prices than new car buyers, it was suggested that extension of the label to used cars should not be dismissed. Stakeholders from Member States were less convinced, with one suggesting that, while a voluntary scheme would be possible, a mandatory approach would be difficult from the perspective of the market surveillance authorities who enforce the provisions. Another noted that expanding the Directive to used cars would increase the amount of regulation and be difficult to manage, while a third doubted the benefits of extending the use of the label to used cars.

From the contributions at the workshop, it was clear that there was recognition that the inclusion of relevant information on labels to be used on **electric vehicles** was a challenge. It was suggested that the energy consumption of such vehicles could be included (e.g. in kWh/100km) to enable consumers to compare between less and more efficient electric cars. In response, one stakeholder noted that the label was supposed to be consumer facing and was not convinced that the kWh/100km metric would mean anything to consumers. In Germany, information on the electricity consumption of electric cars will be presented on their new label (see Section 2.1) and this will be accompanied by a publicity campaign. Other Member States that fuel consumption and CO₂ emissions were currently included on the label.

Two stakeholders proposed, as had been discussed in relation to the revision of the label (see Section 5.3.2), that information on the running costs (e.g. energy costs) is the important information to include on the label for electric vehicles. It was noted that this is potentially more challenging for electric vehicles, as the costs of electricity varies depending on the time at which a vehicle is charged. Reference was made to the approach used in the US. One stakeholder argued that the approach taken in the US, where the label differs depending on the type of car (e.g. the fuel or energy source it uses), should be avoided as all cars compete in the same market and so the information given to consumers should be consistent and comparable. Another noted the benefits of another aspect of the US approach in that energy/fuel consumption for all types of vehicle are translated to, and presented in, the form of, a common metric. This was particularly important for multi-fuel vehicles where, it was suggested, the current approach taken in relation to providing information to consumers on the fuel consumption of multi-fuel vehicles is misleading. It was noted that whatever approach was taken to the inclusion of more information relating to alternatively-fuelled vehicles on the label, the approach should be future-proof in that it should work for future developments in the car market.

In relation to other potential vehicles to which the vehicle could be extended, one stakeholder noted that extending the use of the label to **rental cars** could be an option, as it would benefit consumers to be offered a choice to use more fuel efficient cars.

5.5.3 Summary arguments for and against extending the scope of the Directive

The extension of the Directive to other categories of road vehicle requires that there is an agreed methodology for measuring CO₂ emissions and fuel efficiency of the vehicles concerned. At the moment, labelling would be possible for new vans, as their CO₂ emissions and fuel efficiency are measured, but it is not currently possible for new HDVs and new two- and three- wheelers (although it may be soon for both types of vehicle). There are different issues with respect to the potential labelling of used cars.

In the context of expanding the scope of the Directive to other categories of vehicle, the first thing to note is that the same rationale for applying the provisions of Directive 1999/94/EC to new passenger cars cannot necessarily be applied to new vehicles of other road modes. This is because different modes are used differently and therefore consumers take different considerations into account when purchasing these vehicles. Additionally, with respect to vans and particularly HDVs, there are many different types of vehicle that are covered by the respective categories, many of which have different usage profiles.

In the conclusions of the European Parliament study (EP, 2010), it was suggested that extending the Directive to vans, HDVs or used cars should only be implemented after additional policy research had been undertaken, or that it was introduced on a voluntary basis. This was based on the fact that different vehicle categories are used by a range of different consumers and, in the case of vans and many HDVs, by commercial organisations. Therefore, due to the different consumer groups that will take into account different considerations when purchasing a vehicle, the study recommended that the specific impacts of extending the Directive be reviewed in regards to these markets before mandating any policy.

5.5.3.1 Vans

It would be possible to extend the Directive to vans, but stakeholders had mixed views with respect to whether the label should be extended to these vehicles. Experience shows that it is feasible to introduce labelling schemes for vans. Denmark currently operates a van labelling scheme for vans up to 3,500 kg in weight. Labelling was extended to vans in Denmark as they were included in the annual taxation system used for passenger cars, and it was deemed logical that they were brought into the same labelling system. However, the extension of the labelling scheme to cover vans in Denmark has not been without its difficulties, the main issue being the high number of model variants available. (In July 2011, there were 3,735 different vans with eco-labels listed on the Trafikstyrelsens website⁴³). Each type of van that is available to purchase from a showroom must have an official energy label. Where fuel consumption information is not available for that specific model, then a formula is applied to estimate the fuel consumption per km. This estimation will result in a higher annual tax than if they were able to calculate fuel consumption. Typically manufacturers are able to provide information on the fuel consumption of a van under various different configurations so this is not a problem.

The labelling of vans in Denmark applies to the vehicle on display. The information is also available online in the same format as for passenger cars. However, other elements that apply to cars according to the car labelling Directive do not apply to vans. For example a hardcopy guide is not produced for vans, nor is it a requirement for a poster display at points of sale. France plans to introduce a label for vans in early 2012. The literature review also identified further examples of van labelling in New Zealand and Australia, where labels have been required since 2004. These labels are required for vans weighing less than 3.5 tonnes GVW based on the European test cycle.

⁴³ <http://www.hvorlangtpaaliteren.dk/sw163529.asp>

Another consideration is the way in which consumers purchase (factors affecting the decision-making process and how they are purchased) and use vans. A 2004 study for the European Commission in policy options for reducing CO₂ emissions from new vans concluded that a fuel efficiency label for vans was potentially not as relevant as that for cars, as fuel efficiency was a more important consideration in the purchase of a van than it was in the purchase of a car (TNO et al, 2004⁴⁴).

In understanding how purchase decisions are made regarding vans compared to those of passenger cars, a UK study found that a key difference between the two was the importance of economic considerations for company purchases. Businesses rank the importance of economic considerations when making vehicle purchasing decisions in first place rather than in tenth place which is the ranking given by private car purchasers. Company vans account for two thirds of van kilometres driven, but the proportion of new vans brought by companies is even higher, with private buyers dominating the second hand market. Therefore if company purchasers are buying the most fuel efficient/economical vehicles, then these will also be the vehicles that are finding their way into private ownership in time (Norris et al, 2009⁴⁵). It can therefore be assumed that fuel consumption (and CO₂ emissions) is already a large part of the purchasing decision for vans. However, the introduction of a label would reinforce this and provide more information for the decision making process. This is particularly important as the evidence suggests that this will also influence the second hand van market.

Another important factor is the way in which vans are sold, as this differs compared to passenger cars. A large proportion of vans will not typically be sold on forecourts, and therefore the way in which information on CO₂ emissions is effectively communicated is likely to be different. The most effective methods that could be used will not necessarily include a label on the vehicle itself, but other media such as the internet or CO₂ guides may be more relevant.

Table 5.9: Summary – Extension of the Directive to vans

Arguments for extending the Directive to vans	<ul style="list-style-type: none"> - It is possible to measure a van’s CO₂ emissions and fuel economy - Labelling on vans is feasible, as it is already required in a number of countries - Labelling could be beneficial for small and medium sized enterprises (SMEs) and individuals who buy vans.
Arguments against extending the Directive to vans	<ul style="list-style-type: none"> - Purchase decisions for vans are already (more likely) to be based on fuel economy - Most vans are purchased by companies - Possibly too many van model variants available on the market to make labelling relevant - Directive aims to provide information to consumers, not commercial entities
Questions asked at the workshop	To what extent would the differences in the way in which vans are bought and used affect the relevance and effectiveness of a label?

⁴⁴ TNO, LAT, IEEP (2004) Measuring and preparing reduction measures for CO₂ emissions from N1 vehicles for DG Environment.

⁴⁵ Norris, J., Stones, P., and Reverault, P (2009) *Light Goods Vehicle – CO₂ Emissions Study: Final Report*. Report to DfT, UK.

5.5.3.2 HDVs

The absence of an agreed test cycle for CO₂ emissions for HDVs resulted in their being little support for an extension of the Directive to these vehicles. HDVs are also often specifically adapted to customer requirements which results in diverse vehicle performance. A report for the EC's DG Climate Action reviewed relevant literature and assessed the potential to apply different policy options, including labelling, in order to reduce CO₂ emissions of new HDVs (AEA and Ricardo, 2011⁴⁶). It noted that labelling for HDVs would be more complicated for these vehicles as HDVs are assembled from various components, such as chassis, trailers and engines into a wide range of vehicles, so it would be more complex to identify the CO₂ emissions for a particular vehicle. The same study also mentioned that labelling may potentially have benefits in terms of providing increased information, particularly to smaller companies that own such vehicles.

In this respect, the methodology for measuring CO₂ emissions from new HDVs that is being developed by the European Commission will be critically important in determining the extent to which labelling, or something similar, can be applied to new HDVs, or their components and/or combinations.

Purchase decisions for HDVs are also more likely to be similar to decisions made when purchasing vans, particularly larger vans, than for passenger cars, with fuel economy/efficiency one of the priorities. Smaller operators are also likely to benefit from labelling for HDVs and associated CO₂/fuel consumption reductions, particularly as 85% of HDV operators have fewer than 10 vehicles (AEA and Ricardo, 2011).

Table 5.10: Summary - extension of the Directive to HDVs

Arguments for extending the Directive to HDVs	The provision of CO ₂ information may be useful for smaller operators who are unable to test their own vehicles. Potential CO ₂ emission savings
Arguments against extending the Directive to HDVs	<ul style="list-style-type: none"> - HDVs are often specifically adapted to customer requirements, resulting in diverse vehicle performance - Type approval tests are undertaken on engines, not vehicles - There is currently no methodology for measuring CO₂ emissions from HDVs or their components (although work is ongoing) - Purchase decisions are similar to those purchasing vans (particularly large ones), so fuel economy is already a priority - Directive aims to provide information to consumers, not commercial entities
Questions asked at the workshop	To what extent would the differences in the way in which HDVs are bought and used affect the relevance and effectiveness of a label?

5.5.3.3 Two-wheelers

Where a two-wheeler is purchased as an alternative to the private passenger car as a means of commuting, it can be a much better option in terms of CO₂ emissions and fuel efficiency in which case a label for such vehicles might be useful. On the other hand, where a two-wheeler is purchased for leisure/sports purposes, consumers may not be interested in, or influenced by, fuel efficiency and CO₂ emission information.

⁴⁶ AEA and Ricardo (2011) Reduction and testing of greenhouse gas emissions from heavy duty vehicles: Lot 1, for European Commission, DG CLIMA, 2011.

Few studies have been identified on the assessment of policy options for reducing CO₂ emissions from two- and three- wheeled vehicles, especially at the European level. As a passenger mode, it is likely that the purchasing behaviour associated with these vehicles is likely to be closer to that for passenger cars, than to that of vans or HDVs. However, once the European type approval process for L1 vehicles has been updated, extending the Directive to two-wheelers would be feasible.

With regards to other types of vehicles in this broad category, such as **quadricycles**, it should be made clear that less onerous type approval (including crash safety) was used in comparison to passenger cars. However, they are covered by the revised type approval legislation for motorcycles (COM(2010) 542 final).

Table 5.11: Summary – Extension of the label to two- and three-wheelers

<p>Arguments for extending the Directive to two- and three-wheelers</p>	<ul style="list-style-type: none"> - Consumers may be similar to those purchasing passenger cars, therefore information on fuel consumption/CO₂ is relevant and may have an impact on the purchase decision; - Modal shift to two- and three-wheelers is desirable for some journeys, due to lower emissions of these vehicles; - Countries could devise their own labels in the absence of Commission action, which risks similar problems to those currently experienced with respect to the car label.
<p>Arguments against extending the Directive to two- and three-wheelers</p>	<ul style="list-style-type: none"> - Type approval process for L1 vehicles not yet approved. - Purchase decisions and use will be different to cars.
<p>Questions asked at the workshop</p>	<p>To what extent would the differences in the way in which two-wheelers are bought and used affect the relevance and effectiveness of a label?</p>

5.5.3.4 Used cars

Whilst the European Parliament study (2010) suggested that the scope of the Directive should not be extended to used cars based on the grounds that there are no clear benefits from this action, evidence to the contrary suggests that an extension of the Directive to include used cars would have benefits to both consumers and car dealers. The literature review identified that some dealers thought that customers assume that a new car would automatically have better fuel economy than an older car (AECOM, 2009⁴⁷). However, this is not always the case (particularly when comparing different sized vehicles). Therefore labelling for used passenger cars could help to sell smaller, less polluting models.

The fuel economy and CO₂ emissions for new passenger cars are measured according to the NEDC on labels, which does not yet accurately reflect real-world emissions (e.g. see TNO, 2010⁴⁸). It is possible that as cars are used, their fuel consumption and CO₂ emissions can change and is dependent on a number of factors, including the extent of use, the quality of the maintenance etc. On the other hand, we found no evidence of such factors being applied, e.g. in the UK economy-wide emissions inventory, no factor was used to reduce the CO₂ emissions of older cars, as it was considered that this was a marginal effect. Consequently, any change would appear to be typically small, and potentially less than the variance between the CO₂ emissions measured according to the NEDC and real-world CO₂ emissions of new cars. Any labelling for used cars could therefore be based on the ‘initial’ label, i.e., the label that was relevant to the car when it was bought.

⁴⁷ AECOM (2009) *Exploring the scope for used car fuel efficiency labelling*

⁴⁸ TNO (2010) Passenger car CO₂ emissions in tests and in the real world – an analysis of business use data. Report no: MON-RPT-2010-00114, prepared for the Dutch Ministry of Housing, Spatial Planning and the Environment.

The majority of passenger cars on sales forecourts in some countries are pre-registered, so the Directive applies to a smaller proportion of ‘new’ passenger cars than might have been expected. In addition, a small percentage of the population ever buys a new car (estimated at fewer than 10% in the UK). Therefore, extending the Directive to include used cars would ensure that a much larger proportion of the population is reached and awareness regarding CO₂ emissions/fuel consumption of vehicles is significantly increased.

With regards to feasibility, both the UK and New Zealand currently operate used passenger car labels. The UK operates a voluntary used car label is very similar to the one used for new passenger cars. The label states: “*the fuel consumption figure shown is taken from the official test results obtained from this vehicle type when new. It is intended to provide a standard figure for comparing the relative fuel economy of different vehicles of a similar age and condition and does not represent the average fuel consumption that will be achieved on the road. A number of factors not included in the official new vehicle test will affect the fuel consumption achieved on the road including: vehicle age, how it has been maintained, road/weather conditions and driving style*”. The New Zealand label is mandatory and it shows a star rating out of 6, annual running cost, and the fuel economy in terms of litres per 100km. France plans to introduce a mandatory label for vans early 2012.

However, the extension of the Directive to the used car market would not be without its difficulties, particularly with regards to enforcement and monitoring. Determining when the label will be required will need to be decided. CO₂ data for used cars is available from 2001 onwards, therefore determining that a label will only be able to be produced for those vehicles registered in or after 2001. With regard to monitoring, the private used cars sales market could be difficult to monitor, as will would the volume of smaller car dealerships. Therefore, it may be sensible to assume that the used car labels will be required by dealers over a certain size threshold.

Table 5.12: Summary – Extension of the label to used cars

Arguments for extending the Directive to used cars	<ul style="list-style-type: none"> - A larger proportion of car sales are of used cars in comparison to new car sales – therefore reaching a much larger target audience - Some “new cars” can be excluded from Directive as it currently stands (e.g. “pre-registered cars”)
Arguments against extending the Directive to used cars	<ul style="list-style-type: none"> - More difficult to monitor and enforce, due to the volume of used car outlets and the private sale of used cars - Relatively unregulated industry
Questions asked at the workshop	To what extent would the differences in the way in which used cars and used affect the relevance and effectiveness of a label?

5.5.3.5 Electric vehicles

Although electric vehicles (and other alternatively fuelled vehicles under the M₁ category) are covered by the Directive, there are issues with the way in which their CO₂ information is communicated. The main issues relate to what and how CO₂ information should be included – i.e. tail pipe emissions (which can be zero for full electric vehicles, but will differ for PHEVs and EREVs) or combustion emissions (i.e. emissions at the point of combustion – when the electricity was generated). However, this can also lead to other issues as electricity sources varying over Europe, complicating the values for CO₂ that could be used.

Recent changes to the German legislation include the requirement to indicate **electricity consumption information** for all-electric vehicles and externally chargeable hybrid electric vehicles. In view of the development of electric mobility, it will also be required to indicate the overall power consumption of electrically operated vehicles and externally chargeable hybrid electric vehicles. For all-electric vehicles, the term “zero emissions” will be entered under the

category CO₂ emissions. Consumption of natural gas or biogas as fuel needs to be included in kilograms per 100 kilometers (kg/100km) and power consumption of pure electric vehicles and hybrid electric vehicles for external recharge need to be indicated in kilowatt hours per 100 kilometres (kWh/100 km).

The literature review also identified that the Swiss label includes CO₂ emissions from electricity generation, assuming a Swiss electricity consumption mix. However, this method uses a well-to-wheel emissions calculation rather than tank-to-wheels as conventional passenger cars use. Introducing well-to-wheels emissions across the board will greatly increase the complexity of the CO₂ calculations.

It was generally agreed amongst stakeholders that the use of ‘zero emissions’ when referring to electric vehicles creates confusion amongst consumers. This approach does not allow comparisons to be made between conventional petrol and diesel powered vehicles and new technologies such as battery electric and plug-in hybrids, which are being promoted as being more environmentally friendly.

Whatever method of inclusion is used, it needs to be easily understood by consumers. One option may be to have a separate labelling scheme to cover electric vehicles and other alternatively fuelled vehicles, enabling consumers to understand which the most efficient alternatively-fuelled cars are. However, this will not enable the consumer to compare alternatively and conventionally fuelled vehicles easily.

With regards to other alternatively-fuelled vehicles, for example hybrids, it was suggested that separate information could be provided for each mode of operation. Currently, hybrids tend to include an aggregate figure, which is potentially misleading for consumers.

Table 5.13: Summary – Electric vehicles – What and how CO₂ information should be communicated

Questions asked at the workshop	<p>What information should be included on the label for electric cars (while keeping information simple and relevant)?</p> <p>What other considerations are relevant?</p>
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5.5.3.6 Other vehicles to which the Directive might be extended

There are potentially a range of other transport mode types that the Directive could be extended to, including rental cars, car clubs and taxis.

Rental cars were suggested by one stakeholder as one potential mode category, as the users are responsible for paying for fuel used. The way in which cars are rented will have to be carefully thought about, as the consumer generally knows what category/class of car they are renting (‘mini’, ‘small’, ‘medium’ etc), but not the make and model, and therefore are unable to select lower CO₂ emitting cars within a category/class. Labelling may generate consumer demand for more efficient vehicles, which might then encourage them to dire them from companies that have more efficient cars. This in turn could influence the purchase decisions of the rental car market.

In a similar way, car clubs are also providing vehicles for (short-term) rent where consumers are paying a fee for fuel consumed. It would be in the consumers’ interest to have the most fuel efficient vehicles available to keep costs down.

In Denmark, a requirement was brought in for taxis to have energy class B as a minimum. It was announced in July 2011 that the minimum threshold was increasing from class C, for specific types of taxis lower energy classes are permitted. Changing the existing band values influences any requirements in other legislation, so it was more straightforward to add additional energy classes.

Table 5.14: Summary – Extension of the Directive to other modes

<p>Questions asked at the workshop</p>	<ul style="list-style-type: none"> ● Should/could the Directive be extended to: <ul style="list-style-type: none"> ○ Rental cars? ○ Car clubs? ○ Taxis? <p>Other vehicle segments?</p> <p>If the Directive is to be extended to cover such categories of vehicle, what are the implications for the design of the label?</p>
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5.5.4 Extension of the Directive to other modes - conclusions

The most important issue, which is a barrier to the extension of the label to some types of vehicle, is the ability to measure (and therefore report) the CO₂ emissions and fuel economy of vehicles in a fashion that is consistent (and therefore agreed) across the EU. The CO₂ emissions and fuel economy of vans are measured as part of the existing type approval process. However, currently, the CO₂ emissions and fuel economy of two- and three-wheeled vehicles and of HDVs are not measured as part of the type approval process, which is a barrier to the extension of the label, at least in the short-term. However, the Regulation that governs the type approval for two- and three-wheeled vehicles is currently being amended and, as it was proposed, it would require the measurement of such information, which could then be reported. For HDVs, as has been noted above, the development of a common means of measuring fuel economy and CO₂ emissions is more difficult, but again action is being taken in this respect to define a test procedure for the EU that can be agreed and used. Once a test procedure is in place that is able to measure fuel economy and CO₂ emissions from these types of vehicle, this barrier to the extension of the labelling Directive to such vehicles will have been removed.

Notwithstanding the removal of this barrier, there remains a clear divergence of views in relation to the possible extension of the Directive to other types of vehicles. With respect to vans and HDVs, industry tends to argue that fuel economy is already an important consideration in the decisions that commercial organisations make when buying such vehicles and so labelling is unnecessary. On the other hand, while many purchases of such vehicles are by large commercial organisations, many operators are small, and some vans in particular are bought by private individuals. This supports the argument of other stakeholders that labelling would at least benefit some users of these vehicles, which would in turn have some environmental benefits and could act as a stimulus to more technical improvements in the industry.

However, it is not clear whether the increased costs associated with the labelling of vans, particularly from the administrative perspective, would be outweighed by the potential benefits to some consumers and the environment. Additionally, if information were to be provided in relation to the fuel economy and CO₂ emissions of vans and HDVs, then it would be important to understand fully how these vehicles are purchased in order to ensure that the mechanisms used to supply the information – which could include a label – are the most appropriate.

In relation to two- and three-wheeled vehicles, there was apparent support for extending the Directive to cover these vehicles, although fewer stakeholders had an opinion. Additionally, it is worth noting that there has been comparatively little work undertaken, particularly at the EU level, on policies and the potential for reducing CO₂ emissions from such vehicles. This is

probably due to their relatively smaller share of transport CO₂ emissions⁴⁹. In this respect, an important consideration in relation to extending the Directive to these vehicles would also be whether the potential savings would be worth the additional costs.

With respect to used cars, again there appear to be potential benefits, as there are more used cars than new cars and it would seem to be logical that the purchasers of these cars are likely to be more sensitive to fuel prices. However, concerns about the difficulties and costs associated with implementing and enforcing a mandatory extension of the label to used cars needs to be taken seriously. As with the possible extension of the label to other modes, there would appear to be a need for a better understanding of the potential costs and benefits of extending the Directive to used cars before an informed decision can be made.

In relation to electric vehicles, it appears to be clear that the current approach – under which electric cars are labelled as having zero emissions – is potentially misleading to consumers. Indeed explicitly advertising such cars as having zero emissions has been prohibited by advertising regulators in some countries. There is an apparent agreement on the need for a harmonised approach to providing information on electric vehicles, but the chosen approach would need to be relevant to consumers. In this respect, the usefulness of a measure of energy efficiency, e.g. kWh/100km, is questionable, whereas the inclusion of energy costs, as was discussed in relation to internal combustion engines (see Section 5.3), might be an appropriate alternative. However, it would be important to ensure that such an approach would be relevant for consumers. It might also be appropriate to consider taking a similar approach for mixed fuel vehicles, as the current approach also risks being misleading.

Finally, in relation to rental cars, again there might be some benefits, but also costs, related to extending the Directive to these vehicles, which need to be better understood. Additionally, the practicality and enforceability of extending the Directive to these vehicles would need to be explored.

5.6 Extension of the Directive to other media

In Sections 5.3 and 5.4, consideration was given to whether changes should be made in relation to the media covered by the existing Directive. In this section consideration is given to the potential extension of the Directive to other media. Stakeholders were asked if they were in favour of extending the Directive to the following media:

- The internet;
- TV;
- Radio; and
- Cinema.

Each of these media is considered in the sections below.

5.6.1 Summary of findings from stakeholder interviews

The potential of extending the Directive to the **internet** received a fair amount of support. In general, it was felt that the internet allowed consumers to make comparisons, unlike in TV or radio advertising. Consumers could easily be directed to find more detailed information on the internet, although some stakeholders pointed out that CO₂ information is often not easy to find on manufacturers' websites. Several stakeholders mentioned that it would be important to set rules to ensure that consumers are provided with reliable information. However, some stakeholders pointed out that while the internet is a valuable source of information, it is not as important for advertising.

⁴⁹ For example, in the work undertaken under the *EU Transport GHG: Routes to 2050* project for DG Climate Action, it was estimated that greenhouse gas emissions from motorcycles made up around 1% of transport's greenhouse gas emissions (see www.eutransportghg2050.eu).

Overall, support for extending the Directive to **TV, radio and cinema** was not strong. A common argument against including these types of media in the scope of the Directive was that the advertising slots are short and therefore would not allow time to communicate the information. In addition, slots are expensive, so the inclusion of additional information could deter advertisers, and could result in negative economic impacts for the industry. If the advertising message is damaged by linking it to a poor environmental rating, advertisers are likely to be deterred. Advertising revenues are also important for financing a free and independent European press. Furthermore, several stakeholders believe that consumers are unable or unwilling to interpret technical information that is delivered verbally. One stakeholder pointed out that the media selected varies according to the target audience, the time they are targeted, and the environment they are in. This suggests that the same information requirements should not be imposed on a range of media.

Arguments for including **TV, radio and cinema** media in the Directive are that consumers should be provided with reliable CO₂ and fuel efficiency information whenever they are exposed to advertising. By this measure, the Directive could also be extended to other media including electronic posters and mobile phone apps. The opposing view is that consumers need only be provided with detailed technical information at the point of sale; advertising serves only to attract interest rather than persuading people to buy a car.

5.6.2 Summary of discussion and reaction from the workshop

It was noted by a number of stakeholders that the guide is available online in many countries, and that, as this information is provided by the government, it is impartial, which is potentially important for consumers. It was noted that several manufacturers already use information on fuel economy and CO₂ emissions in their online advertising. In this respect, it was proposed that broad best practice guidelines should be developed, preferably by the Commission, to inform such advertising. It was noted that in the UK, there is already guidance on best practice for the use of green claims in adverts, which covers information on CO₂ emissions. Previously there had also been more information on CO₂ emissions from cars on the websites of agencies that were at least part-funded by the government.

An environmental NGO argued that there was a need for an overhaul of the media covered by the Directive. They felt that all digital and analogue material should be covered, as well as all commercial material and advertising. Currently, they noted that there was a large variation in how accessible information on the CO₂ emissions of passenger cars was on the internet. It was also noted by a national stakeholder that, whereas at the point of sale a consumer wanted information on a specific model, the information required in printed and online advertising was different, so these should be treated differently.

In relation to a possible extension of the Directive to TV, radio and cinema, a Member State stakeholder noted that it would be very difficult to enforce. Additionally, it was argued by media stakeholders that for many media, information on climate change was already communicated to consumers by means other than advertising. It was also argued that research suggests that advertising is not a main driver of consumer behaviour and that including CO₂ information on car advertising would be confusing for consumers. Consequently, the information should be on the internet, and not contained in adverts.

In response, a stakeholder from an environmental NGO argued that the current inclusion of the information on CO₂ information and fuel economy, which often results in the information being included in the small print at the bottom of the advert, was pointless. While it was acknowledged that TV advertisements tend to focus more on brands, it was argued that print and billboard advertising was different and so it would make sense to present the information in a consistent manner.

Representatives from advertising and broadcasting disagreed and argued that any form of advertising was not the best place to communicate this information to consumers, as the

complex measures needed for selling cars cannot be communicated in advertisements. Additionally, it was suggested that including information that could be considered to be negative, such as poor fuel efficiency, is not the type of information that is included in advertisements. If the Directive were expanded to advertising, advertisers were concerned that large cars would no longer be advertised, thus reducing advertising income. In response, it was underlined that not all large cars had high CO₂ emissions, so the extension of the legislation to other media would not necessarily result in less advertising of large cars.

It was noted that Denmark has recently introduced a requirement that the coloured arrow from the colour-coded label is to be included in printed advertisements and on the internet. Initially, there were some problems with advertising agencies understanding the requirements, but these have now been resolved. The rationale was that no one reads the small print of advertisements and, as it was felt that it was important to communicate this information, it was decided to require the arrow from the label to be published. It was still too early to judge the effectiveness of the measure, but it was not considered that it was too onerous.

Finally, it was noted that while industry probably had a right to feel punished when the ban on advertising cigarettes was introduced, it was not clear what the objection was in relation to cars as the restrictions being discussed were in relation to the information communicated, not with advertising in its own right. In response a publishing stakeholder noted that the issues with respect to tobacco advertising were very different. With respect to cars, advertising some would be adversely affected, whereas others would not.

5.6.3 Summary arguments for and against amending the Directive

As was noted in the literature review (see Section 4), studies suggest that the internet is becoming an increasingly important source of information for car buyers. Capgemini (2010)⁵⁰ suggested that almost 90% of consumers in markets worldwide used the internet to research vehicles in 2010, up from 61% in 2005, whereas a survey by Polk & Autotrader (2011)⁵¹ suggested that the internet has become the primary research tool for car buyers in the US with over half of new vehicle buyers considering the internet as the predominant source that led them to dealers. The survey found that 60% of “shopping time” was spent online with over two hours on average spent each on OEM sites, dealer sites and third party sites.

In an older survey for the EU (ADAC, 2005), consumers reported that the most important sources of information were dealerships and the internet, particularly the websites of car manufacturers. In the UK, a review has concluded that the internet was the third (out of 11) most important source of information on cars for potential car buyers, behind the salesperson/dealership and consumers’ guides and magazines. In the same survey, the fuel efficiency label came tenth, while the fuel economy guide was eleventh (GfK, 2009⁵²).

The Commission has already recommended (Recommendation 2003/217/EC) that the Directive be extended to electronic, optical and magnetic media (excluding TV and radio broadcasts), but to-date this has not been widely implemented. There is a risk that consumers will make purchasing decisions without seeing the mandatory label, particularly as the level of internet sales increases. However, consideration should be given to the ways in which different media are used by advertisers and consumers. Without establishing whether the information will be useful, there is a risk of imposing regulatory burdens that do not benefit the public and could have negative consequences for the advertising industry.

⁵⁰ Capgemini (2010) *Cars Online 09/10*

⁵¹ Polk & Autotrader (2011) *Automotive buyer study*

⁵² GfK (2009) *GfK Automotive, Car Buyer Attitude Survey for Low Carbon Vehicle Partnership*, presentation by Dixon, Graham and Hill, Jennifer.

As was noted in Section 5.4, many Member States have made the guide available electronically on the internet, which reduces the need for printed copies, and some have also developed internet tools to enable consumers to compare information on particular models.

Arguments for and against extending the Directive to the internet are presented in Table 5.15.

Table 5.15: Summary - extending the Directive to the internet

<p>Arguments for extending the Directive to the internet</p>	<ul style="list-style-type: none"> - Reliable, standardised information is especially important on the internet, since the internet does not provide for personal information (as in a showroom); - The internet is an important source of information; - The internet allows for comparison of more detailed information - In other media, consumers could be directed to more detailed information on the internet - The importance of the internet is growing - very few people buy cars without some form of internet research
<p>Arguments against extending the Directive to the internet</p>	<ul style="list-style-type: none"> - Implementation and enforcement is not straightforward - The internet is changing all the time, with an increasing number of functions and devices being used
<p>Questions asked at the workshop</p>	<p>Should the Directive be extended to apply to the internet?</p> <p>If so,</p> <ul style="list-style-type: none"> • To what types of website should it apply? • What provisions should apply to the internet, e.g. when should it be specified that fuel economy/CO₂ emissions is given? <p>How can we avoid unclear provisions in order to deliver a “future-proof” Directive with respect to the internet?</p>

In the ADAC (2005) survey for the EU, consumers reported that TV, promotions and advertising were the least important source of information when buying a new car, while Polk & Autotrader (2011) found that TV and radio were relatively unimportant in helping US consumers to choose a dealer. On the other hand, due to the amount of information that is available from non-print sources, consumers are much closer to a final decision by the time they enter a dealership than in the past (EPA, 2009⁵³). In the US, Polk & Autotrader (2011) found that more consumers are purchasing vehicles without seeing them in a dealership, as US internet purchases have shown an annual growth rate of 14.6% over the past five years.

In the stakeholder consultation of 2008 (EC, 2008⁵⁴), a majority supported extending the Directive to cover additional media. On the other hand, research by Navigator (2004⁵⁵) concluded that advertising was not the best place to deliver wealth warnings, as consumers felt that advertising played two distinct roles:

- It acts as a reminder of which providers were in the market: consumers expanded their shortlists of providers beyond their existing relationships; and

⁵³ EPA (2009) *Fuel economy label redesign*

⁵⁴ EC (2008) Revision of Directive 1999/94/EC - *Report on the public consultation 01 June – 28 July 2008*

⁵⁵ Navigator (2004) *Radio commercials and wealth warnings*

- It provides pointers as to what to look for in a product: consumers expanded their list of features they needed to consider as a result of exposure to adverts.

Arguments for and against extending the Directive to the internet are presented in Table 5.16.

Table 5.16: Summary - extending the Directive to TV & cinema

Arguments for extending the Directive to TV & cinema	<ul style="list-style-type: none"> - Consumers should be able to get reliable and comparable information on CO₂ emissions and fuel consumption at the point where manufacturers are trying to win consumers over (i.e. all advertising) - Improve market transparency - Standardised label (e.g. based on the energy product label) would be easy to display and clearly readable - Wider use of label would raise consumer awareness of issue
Arguments against extending the Directive to TV & cinema	<ul style="list-style-type: none"> - Not the best place to communicate detailed information due to the nature (and length of) adverts - Limitations on space as advert slots are short and expensive - Potential impact on advertising revenues - Verbal information does not enable comparisons - Importance of such advertising is diminishing - No evidence that including information on advertising would be effective
Questions asked at the workshop	<p>To what extent would the characteristics of TV and cinema affect the relevance and effectiveness of using them to communicate information on fuel economy/CO₂ emissions?</p> <p>What role does advertising have in increasing consumers' awareness of fuel economy/CO₂ emissions?</p>

Extending the Directive to radio is perhaps more difficult, as the label is a visual instrument. Evidence suggests, for instance, that consumers actively ignore the wealth warnings on radio adverts (see the summary of the arguments in Table 5.17). Extending the Directive to radio received the lowest level of support (60% for, 32% against) in the stakeholder consultation of 2008 (EC, 2008).

Table 5.17: Summary - extending the Directive to radio

Arguments for extending the Directive to radio	<ul style="list-style-type: none"> - Consumers should be able to get reliable and comparable information on CO₂ emissions and fuel consumption at the point where manufacturers are trying to win consumers over (i.e. all advertising) - Improve market transparency
Arguments against extending the Directive to radio	<ul style="list-style-type: none"> - Not the best place to communicate detailed information due to the nature (and length of) adverts - Limitations on space as advert slots are short and expensive - Potential impact on advertising revenues - Verbal information does not enable comparisons - Importance of such advertising is diminishing

	- No evidence that including information on advertising would be effective
Questions asked at the workshop	<p>To what extent would the characteristics of radio affect the relevance and effectiveness of using them to communicate information on fuel economy/CO₂ emissions?</p> <p>What role does advertising have in increasing consumers' awareness of fuel economy/CO₂ emissions?</p>

5.6.4 Extension of the Directive to other media - conclusions

The most compelling arguments to extend the scope of the Directive to other media were in relation to a possible extension to the internet. Since the publication of the original Directive, the use of the internet in consumer decision-making has increased significantly. Additionally, the internet is being increasingly accessed in different ways, e.g. smart phones, etc. Such trends are likely to continue. Evidence also suggests that car buyers use a range of sites on the internet to assist with their purchase decisions. The challenge in extending the Directive to the internet would be in developing provisions that clearly set out what is required, the responsibilities for the requirements, and to make the provisions as “future-proof” as possible, without being too prescriptive. From some perspectives, a voluntary approach might be best, but such an approach is likely to be implemented and enforced differently in different Member States, unless some provisions relating to enforcement could be adopted that would assist with ensuring a more equal implementation (for example, see the discussion in Section 3).

There appears to be little support for extending the Directive to other media, such as TV, cinema and radio. On one side, it is argued that such media are not the place to communicate the type of information required by the Directive, that requiring such media to include the information would influence the quality of and from advertising and that there is no evidence that including the information in the advertisements on these media would be effective. On the other side, it is argued that advertisements do influence consumers and that it is important to provide information on fuel efficiency and CO₂ emissions at this point. If recognition and understanding of a colour-coded label increased amongst the general public, it might be possible to address some of these issues.

It has already been noted that even labels in themselves do not change consumer behaviour; rather they make consumers more receptive to the messages and encourage the consideration of more environmentally-friendly purchasing decisions in the future (see Section 5.3.2). In this respect, the main question in relation to extending the provisions of the Directive to all forms of advertising is the extent to which advertising does contribute to increasing consumer awareness and making them more receptive to the messages. Within the project, we were not able to identify any convincing information on this issue, as the evidence that did exist tended to come from consumer surveys regarding the most important sources of information when buying a car; they were not about general awareness raising. Even if advertising is shown to increase consumer awareness, the potential adverse impacts on the industries of expanding the Directive to their advertising, balanced against the benefits, would need to be investigated before any extension to these media was considered.

6 Conclusions and Recommendations

The previous chapters of this report have outlined the results of the tasks undertaken in this project. Chapter 2 reviewed the way in which the existing provisions of the Directive have been implemented in eight Member States. Together with the previous report for the European Parliament, this means that 15 Member States have been covered by the two studies. The main conclusions of the review of the implementation of the existing provisions of the Directive are summarised briefly in Section 6.1.

Chapter 3 looked at the enforcement of the Directive, including areas where there have been problems with compliance, critically assessed the enforcement measures in France, Germany and the UK, and reviewed best practice relating to enforcement in similar EU legislation that focused on providing consumers with information. The conclusions and recommendations in relation to enforcement are presented in Section 6.1.

Chapter 4 examined potential options for amending the Directive, based on a literature review and engagement with stakeholders. It identified the arguments for and against amending Directive 1999/94/EC in line with these options and discussed the potential with stakeholders. Sections 6.3 to 6.6 present a set of recommendations regarding each of the policy option areas covered in Chapter 5 should the Commission decide to revise the Directive. These are the views of the authors based upon research carried out in this study (including evidence from the literature and engagement with stakeholders). Where further research is required to make a recommendation, this need has been identified.

6.1 Implementation of the Directive

Chapter 2 looked in detail at the implementation of the directive in the 8 selected Member States (a summary has been provided in Section 2.8). Whilst it was clear that transposing legislation meets the minimum requirements of the Directive, some Member States had gone beyond the Directive in relation to certain areas, whereas others were considering future changes. The majority of the changes (implemented or considered) are primarily concerned with the format and the application of the label rather than the other information tools. In summary, these relate to:

- Presentation of information on the label:
 - Use of a colour-coded scale to indicate CO₂ information;
 - The number of bands/categories in use (increasing from 7 bands, “A” to “G” to include “A+”, “A++” and “A+++”);
 - Indication of annual fuel costs;
 - Indication of national taxation and other financial penalties/rewards;
 - Indication of electricity consumption (where applicable).
- Application of the label:
 - Extending its use to LGVs/vans
 - Extending its use to used cars;
 - Extending its use to rental vehicles.

This suggests that Member States may consider these changes an improvement on the existing Directive requirements. Therefore, the majority have been considered as potential policy options within this report.

6.2 Improving the enforcement of the Directive

Recommendation:

In any future revision of Directive 1999/94, the Commission could draw on the Market Surveillance Regulation and its complementary Decision 768/2008 in order to inform the enforcement provisions of the amended Directive. In particular, a requirement could be included to require Member States to report to the Commission every four years on the scale and type of their enforcement activities and the levels of compliance with the Directive.

From the discussion in Chapter 3, it is clear that the Market Surveillance Regulation (Regulation (EC) No 765/2008⁵⁶) and its complementary Decision 768/2008⁵⁷ have a potentially important role in improving the enforcement of the provisions of an amended Directive 1999/94. The Regulation requires *inter alia* that each Member State designates an authority responsible for market surveillance, that this authority is given the necessary powers and resources to enforce the Regulation and that a market surveillance programme is developed and communicated to the Commission and other Member States. Hence, the implementation of this Regulation has the potential to impact on the way in which market surveillance is undertaken in the Member States. Decision 768/2008 contains a set of model provisions that the Commission should consider including in sector-specific legislation. The revised Household products energy labelling Directive and the Tyre Labelling Regulation both drew on this Decision in their respective enforcement provisions. Relevant provisions on enforcement include obliging suppliers to remedy non-compliance, requiring Member States to set penalties for non-compliance and requiring Member States to report to the Commission on enforcement activities and compliance levels. Consideration could be given to the inclusion of similar provisions in the event that Directive 1999/94 is revised. Additionally, it would be important to take account of any provisions on market surveillance included in the next revision of the Type Approval Regulations for light duty vehicles, which the Commission is currently considering. It is also worth noting that the Commission's first report on the implementation of the Market Surveillance Regulation is due by 1 January 2013⁵⁸, the findings of which might also be relevant for any enforcement provisions included in a revision of Directive 1999/94⁵⁹.

On the other hand, in some Member States it has been shown that compliance levels can be increased by simply trying to measure compliance; working directly with industry has also proved to be beneficial in some countries. It was also noted that taking legal action can lead to uncertain results, while enforcement does require resources. Any additional enforcement provisions in a revised Directive 1999/94 would have to take account of such issues.

The choice of provisions to include in any revised Directive should take into account any lessons from the review of the Market Surveillance Regulation, any market surveillance provisions included in the next amendment of the light duty type approval Regulations, and any other relevant information. The inclusion of provisions should also take account of the need to be proportionate, so as not to provide unnecessary burdens on Member States and

⁵⁶ Regulation 765/2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products

⁵⁷ Decision No 768/2008/EC on a common framework for the marketing of products

⁵⁸ Article 40 of the Regulation

⁵⁹ Depending on the timing of any revision to Directive 1999/94, the reviews of the Household products energy labelling Directive (due by the end of 2014) and of the Tyre Labelling Regulation (due by 1 March 2016) could also be relevant.

industry, and also leave Member States flexibility for taking softer, more engaged approaches to enforcement, where these deliver equivalent results.

6.3 Harmonisation of the requirements of the Directive relating to the label

As was noted in Section 4.2 the first policy option that was considered, which could be included should the Commission decide to review Directive 1999/94, was whether the provisions relating to the label should be harmonised and, if so, what elements should be harmonised. Our recommendations in this respect, followed by our reasoning, are presented below.

Recommendation:

It is recommended to consider harmonising the design of the label reflecting the design of the EU household energy product label.

A requirement to harmonise the label could be considered under any revised Directive 1999/94 so that it is a colour-coded label, where a green arrow represents the best category (labelled A) and a red arrow indicates the worst category. In this case, for each vehicle on which the label is fixed, there should be an arrow indicating which category the labelled vehicle is in, as is the case with both the Household energy product and tyre energy labels.

There are several reasons for reaching this conclusion. First, many Member States – eight out of the 15 covered in this study and the study conducted for the European Parliament, EP (2010) – have already introduced a similar label, although the details are different in many cases. The confidence in using this format is supported by studies that have shown that consumers understand the information better when it is presented in this format than when it is presented in line with the minimum requirements prescribed by the Directive (i.e. numerical values for CO₂ emissions/fuel consumption).

The household energy product label already has a high degree of existing recognition, e.g. a recent report for the UK environment ministry suggested that 75% of consumers were familiar with this label. The tyre label uses a similar format, so car users will also become more familiar with the label as that Regulation is implemented. Hence, using a similar design for the car label would build on existing high levels of awareness and help to enhance the general recognition of the label.

The household energy product label is also considered to be simple and understandable, which are two important considerations for consumer labels. Another benefit of the label, according to consumer studies, is that energy performance metrics are meaningless to consumers without a context. In other words, a simple consumption figure, as is currently required by Directive 1999/94, is difficult for consumers to assess. On the other hand, if the consumption figure is shown on a scale, as it is with the household energy products label, then it is a lot easier for consumers to interpret.

From a practical perspective, the harmonisation of the design of the label also has the potential to reduce costs, as the same basic label design would be used in all EU Member States. Finally, the majority of stakeholders that were consulted – from environmental NGOs and consumer groups to manufacturers – seemed to support harmonising the design of the label on the basis of the household energy product label, probably as a result of some, if not many, of these reasons.

Recommendations:

It could be considered to make the inclusion of information on annual vehicle running costs on the label mandatory.

It could be considered to require Member States to include information on relevant vehicle taxation rates on their respective labels, e.g. where these are linked to a car's CO₂ emissions.

As a result of the consumer research that has been undertaken, it appears to be important to include information on the label on the economic impacts to consumers of purchasing and using the vehicle. Indeed, the consumer studies have suggested that including such information makes the label more relevant to consumers. In this respect, annual running costs and vehicle taxes, where available, could be included on the label.

However, as the annual running costs will depend on Member State-specific information, as well as the characteristics of each car, each Member State should use its own relevant national figures, e.g. for average national fuel prices and distance travelled, to estimate the annual running costs for each car. The revised Directive could include some guidance to Member States on the numbers to be used, and it could propose a source for a default value in the absence of relevant national information. The minimum size and font to be used for this text on the label should be specified in the general dimensions of the label that are specified in the Directive and could be determined on the basis of trials with consumers, as well as the positioning of this text. The Directive could also define the minimum period after which the information on costs should be reviewed, e.g. every year, to ensure these continue to be relevant.

Recommendation:

It is recommended that any future harmonisation of the label should not be too prescriptive in relation to other elements to be included on the label, so as to enable Member States to take account of national circumstances.

While there are likely to be advantages in harmonising the fundamental design of the label, the requirements for the label set by any revised Directive should not be too prescriptive. National car markets, and the consumers within those markets, are different, and the label should be able to reflect these differences in order to maximise its effectiveness. Another argument in favour of allowing labels to reflect national circumstances is that some Member States link the categories used in the label to one-off or annual vehicle taxes; this link reinforces the messages of the respective policies. If the requirements of the Directive were too prescriptive, it might influence a Member State's ability or willingness to link label categories to their national vehicle taxation systems.

Hence, while remembering that the label should be kept as simple as possible, a revised Directive should allow Member States the flexibility to:

- **Use metrics of relevance to their country's consumers** (e.g. miles per gallon in the UK).
- **Reduce the minimum text that is required on the background to the issue.** At the moment, the label has to include a reference to the fuel economy guide, to other means of reducing a car's CO₂ emissions and to the fact that CO₂ is one of the main

greenhouse gases. The inclusion of such information can distract from the overall message. Hence, the inclusion of the text could be made optional, as long as it is replaced (at the minimum) with a reference to a government website (or publication) where more information could be found on the issue.

- **Include other information relating to the environmental performance of the cars**, as appropriate in each country, e.g. if a car is subject to a higher tax if it lacks a certain device for improving the car's environmental (e.g. a particulate trap).
- **Include other information of relevance to the consumers' purchase decision**, e.g. Euro NCAP rating.

In order that this additional information is i) readable; and ii) does not excessively expand the size of the label, the defined dimensions of the label should prescribe the maximum space allowed, and the minimum font size, for additional Member State-specific legislation. This would implicitly limit the amount of additional information of this sort that could be added.

Recommendations:

It is recommended to investigate the potential to have a composite label that is clear and easy for consumers to understand and which includes information on both the absolute and relative CO₂ performance of the vehicle.

If it is not possible to develop a simple and clear composite label, a requirement to use an absolute label could be considered.

However, it is recommended to base this policy choice on a consumer behavioural study to test the effectiveness of alternative schemes.

If it proves not to be possible to agree on either a composite or an absolute label, then it could be considered to develop guidelines in the Directive for the development of relative labels.

Of those Member States that have adopted a colour-coded label, different approaches have been taken to defining the categories used in the label, i.e. the methodology that determines the category to which any particular car is to be assigned. There are pros and cons to using both a relative and an absolute approach. Those in favour of an absolute approach argue that it is less confusing for consumers, as a low CO₂ emitting car will always have a better rating than a high CO₂ emitting car. Those in favour of a relative label argue that this approach enables consumers to compare better between similar types of cars, e.g. within car classes, as the relative approach can provide a wider range of categorisations for similar cars. Additionally, some stakeholders argued that basing a relative approach on a car's weight meant that the approach taken for the label was consistent with that which is taken by the passenger car CO₂ Regulation, which is also weight-based. Even some of the advocates of an absolute label acknowledged that some means of enabling consumers to better understand and purchase the "best in class", i.e. a similar car with lower emissions, as is facilitated explicitly by a relative label, would be useful.

We are more convinced with the arguments in favour of an absolute label over those in favour of a relative label, but accept that providing consumers with information on best (and worst) in class could be beneficial. We are also not convinced of the need for consistency in the approach to be taken to the definition of the categories used on the label and the need for consistency with the approach taken in the passenger car CO₂ Regulation. Additionally, the risk of confusion from using a relative label could increase further, if, as we recommend

above, more prominence were to be given on the label to the annual running costs of each car. Comparisons with the household energy product label, which is a relative label, might not necessarily be valid, as car fuel costs are a higher proportion of the household budget than the running costs associated with any individual household appliance. Additionally, car fuel costs are also far more visible to consumers as car fuel is bought separately, whereas the cost of operating any household appliance is only one of many factors that contribute to the charge on an electricity bill, even if smart meters are used. For these reasons, we believe that a composite label, which provides relative information on an absolute label (see Figure 5.1 for an example of such a label), might be able to deliver the best of both approaches, if it can be designed in a way that is clear and simple for consumers to understand. This would ensure that cars are ranked according to their actual CO₂ emissions, while still having an indication of their emissions relative to the best (and possibly worst and/or average) in class. If it is concluded that such a composite label is a good option, Member States should be able to present information comparing each car to the best (and worst) in class on the basis of the car classes of most relevance to their particular countries. This would be in line with the principle of allowing Member States flexibility to reflect national circumstances, as applied above. However, it is recommended to base this policy choice (i.e. the use of a composite label) on a consumer behavioural study to test the effectiveness of alternative schemes.

In the event that the definition of a composite label that presents absolute and relative information to consumers in a simple and clear manner does not prove to be possible, and that it is not possible to reach an agreement on the use of an absolute label, then principles would also need to be developed for the allocation of cars to categories under relative labels. These principles would have to ensure that *inter alia* any potential confusion to consumers is minimised.

It is possible that the current metric used by the passenger car CO₂ Regulation, which is based on a car's tailpipe CO₂ emissions, might be replaced in the future by a lifecycle approach to measuring vehicle CO₂. We have proposed that the categories of the label should remain linked to CO₂, as we believe that it is important for the label to be explicitly linked to the environmental issue that it is aiming to help address. However, if the passenger car CO₂ Regulation were to move to a lifecycle approach at some point in the future, the implications of this for the label would need to be thought through in order that the basis of the categories remains relevant for consumers. An option might be to link the label to lifecycle CO₂ emissions, but continue to communicate figures on fuel economy and annual running costs in the same way as proposed above.

Recommendation:

It could be considered to leave the definition of bands to Member States, but in such a case the revised Directive should set out clear principles for the allocation of cars to bands.

In line with the flexibility for Member States to ensure that the label is consistent with national circumstances noted above, the definition of bands, i.e. the methodology underlying the allocation of cars to bands, could be left to Member States, as long as these are in line with certain principles that should be set out in the Directive. These high level principles could include, for example, that the cars available in the respective Member State are spread across all of the bands covered by its label in order to avoid cars being concentrated in a subset of bands. Additionally, we believe that the approach used should ensure that the label is closed, i.e. always limited to 7 bands and is dynamic, i.e. subject to regular review that could result in some cars being re-categorised.

We support the concept of a closed label, as we believe that there is a clear risk that consumers could be confused by the use of additional categories, e.g. “A+”, etc, as is allowed by the household energy product label. If a label were to be closed, it would need to be dynamic, as otherwise cars would eventually become concentrated in a subset of categories, thus reducing the usefulness of the information for consumers. We understand that one of the main arguments in favour of the use of additional categories (i.e. “A+”, etc) is the cost of re-categorising products. However, given the importance of driving down CO₂ emissions from cars over the next 40 years, there are likely to be significant technological developments. This is likely to drive down the CO₂ emissions of new cars significantly. However, it would not be useful for consumers at this point for a label to have, for example, a separate category for vehicles emitting between 70gCO₂/km and 80gCO₂/km, whereas in 15 years this would be useful. Hence, some degree of review and amendment to the categories used by the label will be required. Under a closed, dynamic label, this would be undertaken by a regular reclassification of the categories, whereas under an open label, the “A”, then “A+”, etc categories, would need to be continually sub-divided raising the prospect of an “A” category with many “+”s. With this in mind, it would appear that reclassifying a closed dynamic label would be a better option, and less confusing to consumers, than adding multiple “+”s. In the case of a closed, dynamic label, the Directive should state the minimum period for review of the categories to which cars have been allocated, e.g. every five years.

6.4 Other means of improving the effectiveness of the Directive

Our recommendations regarding the other main provisions of the existing Directive are given in the following sections. These include other ways of improving the effectiveness of the Directive and are presented along with our reasoning.

6.4.1 Guide on fuel economy

Recommendation:

The Commission could allow Member States more flexibility in relation to the requirements relating to the fuel economy guide, with respect to making it available to consumers.

At the moment, the Directive requires that the guide is portable, compact and available free of charge to consumers at the point of sale. The guide is considered by many stakeholders and Member States to be expensive to produce and maintain, particularly in relation to the provision of the information via internet. Additionally, many printed guides are not taken by consumers meaning that some have to be destroyed or recycled, which is not a good outcome, considering that Directive 1999/94 is concerned with improving environmental performance.

Many Member States are already enabling electronic versions of the guide to be downloaded from the internet, while several have also developed online tools that consumers can search to find information on cars’ fuel economy, while the UK is producing a CD-ROM.

In this respect, Member States could be allowed flexibility in the ways in which that can meet the portability requirements of the existing provisions, if alternative, relevant means of accessing information are provided to potential new car buyers. What is relevant is likely to

vary between Member States and could include factors such as household internet access, PC ownership and the type of people that buy new cars. Suitable alternatives could include online searchable databases, electronic, downloadable copies of the guide, CD-ROMs and printing the guide to order (free of charge), e.g. in car showrooms. It would be up to each Member State to demonstrate that it does not need to meet the portability requirements with respect to the guide, on the basis of the existence of alternatives and a justification that such flexibility would not prevent the majority of its potential new car buyers from accessing the information that is presented in the guide. Member States should still have to ensure that all consumers who want to access the guide are able to do so and that all consumers who want a printed copy of the guide can have one.

6.4.2 Poster/display

Recommendation:

It could be considered to remove the requirement for a poster/display within the showroom/at the point of sale.

There was little support for retaining the poster/display, as required by Article 5 of the Directive, amongst stakeholders and Member States. Most believed that this was rarely used by consumers and was probably irrelevant as a result of the increased use of the internet. Additionally, research suggests that providing information in this way at the point of sale is probably too late in the decision-making process to be of much influence in consumers' purchase decisions.

6.4.3 Promotional material

Recommendations:

It could be considered to make the requirements in relation to promotional literature, as currently defined by the Directive, more prescriptive, including the addition of minimum requirements in terms of size and position (which could be different for different types of promotional material).

It could be considered to update the definition of "promotional literature" to reflect the realities of the increasing use of electronic media (e.g. external electronic posters in public spaces).

If the Directive is not revised, the production of guidance could be considered on the Commission's understanding of what is meant in Annex IV by 'easy to read' and other commonly misinterpreted phrases.

In some cases the enforcement of the provisions relating to promotional literature has been difficult as a result of the relatively vague terminology of Annex IV of the Directive. Phrases such "easy to read", "no less prominent" and "easy to understand even on superficial contact" need interpreting and can be too vague as the basis of enforcement action. If, as we recommend above, a harmonised label based on the household energy product label is required under an amended Directive, this could be used as the basis of the information included in promotional material. For example, a simplified version of the label could be used

with a minimum size and in a specified position, which could vary according to each type of promotional material, whenever a specific model is shown in promotional literature. In this respect, the effectiveness of the use of the arrow from the label on printed and internet advertisements in Denmark will be interesting to monitor.

In order to keep the amount of information that needs to be communicated to a minimum, promotional material should refer consumers to a government website (or publication) where further information could be found.

The definition of “promotional literature” is out-of-date, as it is defined explicitly as “printed matter”, which does not therefore cover the increasing prominence of promotional activity via electronic media, including electronic advertisements in public spaces. (In this section, we are not considering the extension of the provisions in relation to promotional literature to the internet or mobile phones; this is addressed in Section 6.6, below.)

The inclusion of the relevant information on promotional material appears to be a potentially useful means of increasing awareness of the CO₂ emissions of cars (and of a harmonised label, if this is adopted). In order to determine the most effective means of communicating the information to consumers via promotional material, it would be important to ensure that the coverage of any revised definition of promotional material (as well as the minimum requirements proposed above) would be effective in raising consumer awareness of the issue.

6.4.4 Discrepancy between real world and test cycle information

Recommendation:

If the revised light duty test cycle takes more time to develop than expected, or does not sufficiently replicate EU real world emissions, it could be considered to develop a scaling factor to convert test cycle emissions to real world emissions.

There was concern that there is a significant discrepancy between test cycle CO₂ emissions (as presented on the label) and real-world CO₂ emissions (and fuel economy) which risks undermining the label. On the other hand, the current light duty test cycle (which covers cars) is in the process of being revised and this revised test cycle is expected to better reflect real world driving conditions. Furthermore, it is not clear that the development and agreement within the EU of any factor to scale up test cycle to real world CO₂ emissions would take less time than the on-going amendment to the test cycle. Hence, it is probably not worth investing in the additional resources required to develop such a scaling up factor.

However, if either the revision of the test cycle, or the test cycle that was emerging, did not sufficiently address the existing discrepancy, then consideration should be given to developing a scaling up factor.

6.4.5 Information to increase awareness

Recommendation:

It could be considered to commission research on the potential benefits of including the CO₂ and fuel efficiency information (e.g. a simplified form of a harmonised label) on other information that is provided to consumers.

The inclusion of a harmonised car label on a wider range of information provided to the consumer, e.g. receipts, quotes and tax reminders, could have potential benefits in terms of increasing awareness. This could be important for buyers that currently buy second hand cars, but who might buy a new car in the future, as their income increases.

6.5 Extension of the Directive to other modes

Recommendation:

It could be considered to investigate further whether there should be a requirement to provide information on vehicle CO₂ emissions and fuel economy to purchasers and users of other types of road transport (including vans, heavy-duty vehicles, two- and three-wheelers and used cars).

There appear to be potential benefits to the environment, particularly in terms of reduced CO₂ emissions, and to the purchasers and users of vans, heavy-duty vehicles, two- and three-wheelers and used cars, in providing information on CO₂ emissions and fuel economy performance for these modes.

The extension of the requirements of the Directive to vans is possible, as CO₂ emissions are measured at type approval. It is also feasible, as van labelling already occurs in at least one Member State and in other countries outside of the EU. While fuel economy is already a high consideration for van purchasers, there is evidence to suggest that the van purchasing process is not a completely rational process based solely on minimising whole-life costs. Furthermore, there is evidence that van models with similar functionality can have significantly different levels of CO₂ emissions (see Section 4.1.1.1). SMEs, and people who purchase vans for private use, are likely to benefit from the provision of such information. Indeed, given the sensitivity of van buyers to fuel use, providing more consistent information to van drivers on fuel economy and CO₂ emissions might even have a larger relative impact than for cars. Finally, the European Parliament and the Council, in the recitals of the van CO₂ Regulation, have called for the scope of Directive 1999/94 to be extended to vans. If the Directive was to be extended to cover vans, it would be important to ensure that the provision of information to potential van buyers took account of the differences in the ways in which cars and vans are bought and used. This would need to include the fact that there are many van variants, and that these differences are reflected in the requirements of the Directive.

The importance of providing information to potential buyers of heavy duty vehicles is based around similar arguments for vans, particularly the potential for reduced CO₂ emissions and for fuel savings. In this respect, again the benefit might be felt more by small operators, as 85% of heavy duty vehicle operators have fewer than ten vehicles. A current barrier – the absence of an agreed procedure for measuring the necessary CO₂ emissions – is currently being addressed, so the measurement of CO₂ emissions could be required within the next

few years. However, heavy duty vehicles are more likely to be assembled to meet the needs of specific customers than vans, so providing information on the components of vehicles, e.g. engines, could be an alternative approach. On the other hand, it might be possible to develop a tool to simulate the fuel economy of individual users for vehicles from different manufacturers, as is often already done by individual vehicle suppliers in relation to their own vehicles. Industry is in favour of a voluntary approach to providing information on fuel economy to heavy duty vehicle purchasers, the merits of which could be investigated alongside the mandatory provision of information.

Similarly, the extension of the provisions of the Directive to two- and three-wheelers should be considered due to the potential benefits in relation to CO₂ emissions and fuel savings. In spite of there not being as good an understanding about the level of CO₂ emissions, and the potential for their reduction, from these vehicles, the relevant industry stakeholders appear to be supportive of such an extension.

Extending the provisions of the Directive to used cars would require a different approach and thus careful consideration, as it would not be based on new vehicles, as has been discussed above with respect to other types of vehicle. However, extending the provisions of the label to used cars could be beneficial to a wider range of drivers, who are also likely to be more price sensitive than new car buyers, so therefore could deliver larger CO₂ reductions and fuel savings. Additionally, there is some evidence that cars that most people would classify as being “new” can be classified as “used” as a result of, for example, being “pre-registered”, a loophole that would be closed if used cars were included in the scope of the Directive. However, used cars are bought and sold in many different ways, including individual-to-individual, and the market is less well regulated than the new car market. Such complexities would be a challenge for those responsible for enforcement, although such concerns could perhaps be reduced by only extending the provisions of the Directive to used car dealers that sold significant numbers of vehicles, e.g. over a specified threshold.

Recommendation:

It could be considered to include on the label indicative values for the carbon intensity of fuels and energy sources converted into gCO₂/km.

The label of an electric car would currently show that its CO₂ emissions are zero, which is consistent with the source of the CO₂ emissions measurements used by the Directive (i.e. only tailpipe emissions are included). However, consumers are often aware that electric vehicles do not actually have zero CO₂ emissions when the CO₂ emissions from electricity production are taken into account. For those aware of this, the information provided is potentially misleading. The labels in use in some countries try to account for this in different ways. For example, the Swiss label contains the CO₂ emissions from electricity generation (expressed in g/km), assuming the Swiss electricity consumption mix, while the new German label includes the power consumption for pure electric and plug-in hybrid vehicles represented in kWh/100km.

The approach in Switzerland effectively starts to take account of some of the relevant lifecycle CO₂ emissions of a vehicle (although not emissions from the manufacture and disposal of the vehicle), but does not include these for other fuels and energy sources, so is inconsistent in its approach. In order to address this inconsistency, the carbon intensity of other fuels could also be converted into gCO₂/km, based on, for example, the default carbon intensity values being considered for the fuel quality Directive⁶⁰. While this would only be

⁶⁰ Directive 98/70/EC relating to the quality of petrol and diesel fuels; as amended by Directive 2009/30/EC; see <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0088:0113:EN:PDF>

approximate, it would at least allow for the inclusion of electric vehicles' electricity emissions, in a comparable manner to other fuels. The underlying principles to estimate these figures, or even the figures themselves where this is appropriate, should be set at the European level, although Member States should be allowed some flexibility, e.g. in using national energy mixes for electricity. This approach would not be needed if there was a move towards regulating vehicles according to their lifecycle CO₂ emissions.

If as was recommended above, the inclusion of annual running costs on the label is made mandatory, this provision should also apply to electric vehicles. In this respect, the average annual running costs for electric vehicles should be based on similar information as for conventional cars, e.g. Member State-specific electricity costs. This approach should also be applied to plug-in hybrid vehicles. Such an approach would do away with the need to include a reference to the energy efficiency of electric vehicles (e.g. in the form of kWh/km) as this would be factored into the annual costs of use.

6.6 Extension of the Directive to other media

In this section we present our recommendations, and reasoning, in relation to the potential extension of the Directive to other media.

Recommendation:

It could be considered to extend the provisions of the Directive to cover promotional material on the internet that is visual and static.

In the decade since Directive 1999/94 appeared, the role of the internet in purchasing, and in informing purchasing decisions has increased significantly. Additionally, the internet is increasingly being accessed in a range of different ways, e.g. laptops, smart phones, tablet computers etc, and these trends are likely to continue. Evidence also suggests that car buyers use a range of sites on the internet to assist with their purchase decisions. Hence, it is important that the Directive be extended to cover the internet.

However, this would not necessarily be straightforward. Provisions would need to be developed that clearly set out what is required and where the responsibilities for the requirements lie, taking into account the need to enforce the provisions. It would also be important to make the provisions as "future-proof" as possible, without being too prescriptive, so that the Directive did not become out of date too quickly. In the event that a revised Directive adopts a harmonised label, as recommended above, perhaps the simplest requirement would be that on all internet sites that are the responsibility of manufacturers, the label should be provided when price information is displayed or requested. Consideration should also be given to expanding these requirements to other websites that consumers use when undertaking research on cars. However, it will be important to understand which websites these are and how best to ensure that the provisions apply equally to all relevant websites.

Recommendation:

Undertaking research, or even a trial, to understand whether there are any benefits in terms of increasing consumers' awareness of extending the provisions of the Directive to cover other types of visual and dynamic media (including that on the internet) could be considered.

There was a fair amount of opposition on the part of some stakeholders to extending the provisions of the Directive to other media, including visual media. Some of these concerns might be overstated or could be overcome. For example, comparisons with the restrictions on tobacco and alcohol advertising were mentioned in this context, but the provisions of Directive 1999/94 do not restrict advertising directly, only requiring the provision of additional information. Some stakeholders also raised concerns that visual advertisements were not the place to communicate complex information such as CO₂ emissions and fuel economy. However, if, as we recommended above, a recognisable label is used instead of the need to use small print, then this might overcome some of these problems. The inclusion of the label on visual, dynamic advertisements, e.g. on the TV, at the cinema and on the internet, could also increase consumer awareness of the label and of the issue of cars and climate change more generally. If a label were included on such advertisements, the minimum time and space that the label should be shown would need to be specified for each media in the Directive.

However, there is no evidence at the moment that the inclusion of a label in this way on visual, dynamic media would be effective in raising consumers' awareness. Additionally, industry's concerns about the potential impact of the inclusion of the information, even of a simple label, should be understood further before extending the provisions of the Directive to such media. Finally, the enforcement of provisions extended to these media could also prove to be difficult, unless the provisions were very clear.

With respect to audio media, such as radio or audio on the internet, the main options appear to be to require that CO₂ emissions be mentioned in the core advertisement, which appears to be too prescriptive, or that the CO₂ emissions figure of a model featured, or a reference to government website if the ad was for a brand, is included in the "legals" at the end of the advertisement. However, evidence suggests that consumers pay little attention to these, so extending the provisions of the Directive to radio and audio on the internet in an effective manner does not appear to be feasible.

6.7 Final conclusions/recommendations

As discussed previously, the Member States considered within this study (and other recent studies) have implemented the Directive in accordance with its requirements. However, a number of the Member States have gone beyond these requirements (or plan to) when transposing the Directive into national legislation, indicating that there are perhaps elements that could be improved upon. Engagement with national level stakeholders (and wider European stakeholders) also revealed that there were requirements/areas of the Directive that they felt were less relevant today that could potentially be reconsidered, or identified parts of the Directive that are perhaps not so effective. The analysis of potential policy options presented within this report has also shown that there could be a range of options aimed at improving the Directive that may increase its effectiveness. As recommended above, in many cases, it would be important to ensure, e.g. through consumer testing or trials, that proposed changes would be effective and meaningful for consumers.

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Appendices

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Appendix 1 - Literature review fiche

The questions should cover the following types of providing information, as required by the Directive 1999/94/EC (and amending Directive 2003/73/EC):

- **Car label**, particularly the use and understanding of the colour efficiency labels where this is used for the car label (this was specifically requested by the EP); **Poster / electronic display; Car advertisement, particularly the CO₂ information** at the bottom of adverts (this was specifically requested by the EP); **Guidance**

For each, the following considerations are important:

- **Appearance** (i.e. colour, layout, font, size, style, shape, **text / picture balance** etc); **Content** (i.e. facts given, how many years' running costs/savings, style and language used (**formal / technical / financial / personal**)); **Positioning** (i.e. location, visibility); **Means of communication**, e.g. what metric is used, e.g. for running costs

In reviewing the literature, please consider:

- * **For each type of information listed above (as far as is possible), whether there is any evidence of:**
 - The extent to which consumers understand the information provided by the different means (i.e. label, poster, guide, adverts); How consumers respond to the information provided by different means; How effective the current information has been (by different means).

Where evidence exists, please explain.
- * **Are there any suggestions as to how the current information (label, guide, poster/electronic display, adverts) could be improved? Please explain.**
- * Is there any information regarding the extension of the scope of the Directive to other vehicles? In particular:
 - Used cars; New vans; New HDVs; New two- and three- wheeled vehicles; and Electric cars/vehicles.
- * Is there any information regarding the extension of the scope of the Directive to other media? In particular:
 - Internet; TV/Cinema; and Radio.
- * Is there any information available on the possible harmonization of the label across the EU? In particular information on:
 - Label format (A-G categorization etc); Means of categorization (relative or absolute); Information to include on the label (e.g. running costs); Extent of harmonization; and Harmonization issues in the context of extending the scope to other vehicles and media.
- * Is there any information available on the readability criteria of consumer information in car promotional materials? In particular:
 - The interpretability or understandability of the information provided; and
 - 'Understandability' in the context of extending the scope to other vehicles and media.
- * **Is there any evidence that one tool in particular is more extensively used by producers, or is preferred by consumers, than any of the others?**
- * **Are there any suggestions as to which alternative approaches could be more effective? Please explain.**
 - Has anything beyond the requirements of the Directive been implemented? How is it different? What have been the results / responses / reactions? Do consumers prefer any additional environmental information, or alternatives to the existing tools, that they currently do not receive?
- * **Is there any information regarding consumers' priorities when purchasing a new car? Consider:**
 - What is the consumer car purchasing environment like? What type of decision making processes do consumers go through when purchasing a new car? What are the main drivers behind car purchasing behaviour? Consumers' changing priorities (i.e. the environment may be considered a high priority until the cost becomes prohibitive, illustrating the true level of priorities); What trade-offs are commonly made (e.g. between fuel economy, reliability, safety, and upfront costs? Or similar); Consumers' time horizons (i.e. how many years 'payback' time is acceptable?); For which types of car does environmental information work best?

Appendix 2 - Stakeholders Consulted

The following organisations agreed to take part in some or all of the study engagement activities.

Stakeholder Type	Organisation
Environmental NGOs / Transport & Environment experts	Greenpeace
	Friends of the Earth (FoE)
	We are Futureproof
	European Environment Agency (EEA)
	European Federation for Transport and the Environment (T&E)
	OECD
	European Parliament
	European Environment Bureau (EEB)
Vehicle Traders	European Council for Motor Trades and Repairers (CECRA)
	ACEM (Association des Constructeurs Européens de Motocycles)
	European two-wheel retailers Association (ETRA)
Vehicle Users	Federation of International Automobiles (FIA)
	International Association of Public Transport (UITP)
	International Road Transport Union (IRU)
Consumer Organisations	European Trade Union Confederation
	European Consumer Voice Standardisation
	European Consumers Organisation (BEUC)
Vehicle manufacturers/manufacturer associations	Renault
	PSA - Peugeot Citroen
	FIAT
	Ford
	Volkswagen
	Daimler
	Nissan
	BMW
	Association of small volume automotive manufacturers
	Korean Automobile Manufacturing Association (KAMA)
	Japanese Automobile Manufacturing Association (JAMA)
	European Automobile Association (ACEA)
	Association of International Motor Vehicle Manufacturers (VDIK)

	European Association of Automotive Suppliers (CLEPA)
Advertising and Broadcasting	Association of Television and Radio Sales Houses (EGTA)
	European Interactive Advertising Association (EIAA)
	Internet Advertising Bureau (IAB)
	European Advertising Standards Alliance (EASA)
	European Association of Communication Agencies (EACA)
	Association of European Radios (AER)
	Federation European Direct and Interactive Marketing (FEDMA)
	European Association of Directory and Database Publishers (EADP)
	European Broadcasting Union (EBU)
	Association of Commercial Television (ACT)
	Advertising Information Group (AIG)
	Publishing
Federation of European Publishers	
European Newspaper Publishers Association	
World Federation Publishers	
European Publishers Council	

Appendix 3 - Interview questions for European Stakeholders

1. **In the view of your organisation, to which other types of vehicle should the provisions of Directive 1999/94 be applied?**
 - a. Where you support an extension of the Directive, then:
 - i. Are some provisions of Directive 1999/94 more or less relevant to these types of vehicles? Please explain your answer.
 - ii. Should the application be mandatory or voluntary? Please explain your answer
 - iii. What are the barriers and how might these be overcome?
 - b. Where you do not support an extension to a particular type of vehicle, please explain your reasons?
 - c. Follow up questions relating to vehicle types not yet mentioned (e.g. vans, HDVs, two-wheelers, used cars, electric vehicles).
2. **In the view of your organisation, to which other types of media should the provisions of the Directive be expanded?**
 - a. If they support an extension, then what particular issues need to be taken into account when extended the Directive to each of these media?
 - b. Where you do not support an extension to a particular media, please explain your reasons?
 - c. Follow up questions relating to media not yet mentioned (e.g. internet, television, cinema, radio)
3. **Should the label under Directive 1999/94 be harmonised at the EU level?**
 - a. If "Yes": What elements should be harmonised and which should not?
 - i. Complementary questions on specific options, including:
 1. Detailed format of the label (e.g. should it follow the format of the energy-product label)?
 2. Content of label (e.g. should it include information on running costs, taxes)?
 3. Should the label be relative or absolute label?
 - b. If "No": Why not?
4. **How should the readability of the mandatory information on the promotional material be improved?**
 - a. If you support the extension of the Directive to other media, how should the readability/understandability of the information be assured?
5. **How else might the Directive be made more effective? Follow-up questions:**
 - a. How might the guide be changed to improve the effectiveness of the Directive?
 - b. How might the poster/display be changed to improve the effectiveness of the Directive?
 - c. What other action is needed to increase the effectiveness of the Directive?
6. **Are additional requirements needed in the Directive in order to improve enforcement and compliance? If so, what requirements need to be added?**

Appendix 4 - Agenda and summary report of discussion at stakeholder workshop

Stakeholder Workshop Agenda – 29th September 2011

9.30 – Registration and coffee

10.00 – Introduction (EC)

10.10 – Intro/Overview – AEA/Project team

10.30 – Session 1: Enforcement of the Directive

Experience of enforcement in MSs, issues identified, parallel legislation and best practice, lessons that could be applied to the Directive

12.00 – Lunch

13.00 – Session 2: Implementation of the Directive and Policy Options

Overview of the implementation of the Directive in Member States, and discussion of relevant policy options (Information tools: label. Policy options: harmonization, other modes)

14.30 – Coffee Break

15.00 – Session 3: Implementation of the Directive and Policy Options

(continued) *Overview of the implementation of the Directive in Member States, and discussion of relevant policy options (Information tools: guide, poster and promotional materials. Policy options: Annex IV, extension to other media, effectiveness of the information tools)*

16.30 – Summary, final questions and next steps

17.00 – END

Report on the implementation of Directive 1999/94/EC – Stakeholder Workshop
Meeting Note – 29th September 2011

The following types of stakeholder were invited to attend the workshop:

- Those responsible for national implementation of the Directive;
- Vehicle manufacturers / manufacturing associations;
- Environmental NGOs / transport experts;
- Vehicle users;
- Publishing; and
- Advertising and broadcasting.

This note presents an overview of the comments made by stakeholders in relation to the questions/issues raised during the workshop.

Session 1: Enforcement (Task 2)

Enforcement and compliance issues

Questions/Issues for Discussion

- How confident can we be that compliance is good and that enforcement activities are sufficient?
- What can be learnt from other energy labelling legislation and applied to the CO₂ labelling of cars?

Regarding advertising prosecution – better to work with advertisers and manufacturers – easier to do a softly softly approach, rather than risk an uncertain outcome in the case. [National Implementation]

Minor correction – make 200 visits per year – every year. [National Implementation]

Bit concerned at the way the first question is phrased – seems to try to capture all four elements of the Directive. [National Implementation]

In terms of labelling and the guide which are more manageable for Member States (MSs) – but in terms of advertising, the requirements in the Directive are not clear. Provisions in Annex IV could be more clearly defined. [National Implementation]

LowCVP and DfT have developed voluntary labelling schemes for new and used cars – new in 2005 and used in 2009 – couple of observations on enforcements – last survey in 2009 showed very high levels of compliance – but it took several years to build up to this level of compliance. Before the introduction of the colour-coded bands, compliance was much lower – It was built up from 50% to 90% over a four year period. By measuring, you actually change the result (Heisenberg uncertainty principle). Using the surveillance requirements to require periodic checks would significantly increase the uptake. However, not clear that the evidence is there to say that enforcement is good as a result of this study, due to the limited number of Member States considered that have actually undertaken surveys. [National Implementation]

Regarding advertising, there has been a huge increase in the numbers of green claims on vehicles – big challenge regarding legitimate and reasonable claims. If your advert is not fair or reasonable you have to withdraw it. Working with the motor industry and advertising industry, LowCVP has developed guidance on what are reasonable claims – how to use language and images and how to present data. Since this, there have not been any inappropriate claims. [Environmental NGOs/Transport Experts]

The study is a good basis for research and future development of the legislation. It would be good to follow up on key Member States in more details – Spain, Italy and Belgium is missing. Also research is missing on – what are the most important things to improve in the future are important – consumer behaviour and the impacts of the label are key. [Vehicle Manufacturers/Manufacturing Associations]

Key deciding behaviour is price, but the label has already been indicated as being important – more research must be added to identify what are the key influencing factors. There are a lot of instruments – there are good and bad practices – it may not be necessary to move further but better to discuss how to use existing instruments in a better way. It's about improving implementation of existing legislation. [Vehicle Manufacturers/Manufacturing Associations]

The frequency of visits was increased at car dealers in Denmark. The ministry communicated with them in a friendly way and got a good result – very much agree with the UK approach of increasing the amount of enforcement activities in order to increase compliance. [National Implementation]

In some countries there are a lot of dealerships – enforcement is not free – so you would need to increase the budget. We therefore need to be careful about increasing the amount of enforcement activities. Needs to either be very prescriptive – or it risks being too ambiguous. [National Implementation]

The Directive doesn't say anything about how the Directive should be enforced – it would be good to include clearer guidance on how to achieve enforcement and to provide figures on what levels of compliance should be expected. [Environmental NGOs/Transport Experts]

The Market Surveillance regulations would provide a better framework for enforcement. [Environmental NGOs/Transport Experts]

Session 2: Implementation and Policy Option (Tasks 1 and 3) - Label

Effectiveness of the label/other information tools

Questions/Issues for Discussion

- What evidence exists that the provisions (either as they are set out in the Directive or how they have been implemented by Member States) have been effective in:
 - Increasing consumer awareness
 - Improving the CO₂ performance of new cars
- Is there any further evidence of/studies on the effectiveness of the label /other information tools?
- What evidence is there, if any, that the basic requirements of the Directive are not effective?
- Is there any evidence to suggest that the alternative approaches selected by Member States are more effective than the basic requirements of the Directive?
- Are there other ways of improving the effectiveness of the Directive?
- If so, what are these, and how should they be implemented?

(Also discussed in Session 3)

Consumers do not understand the existing information on the label – so they didn't take it into account in their decisions – means nothing to most consumers – colour coded bands were introduced for these reasons in certain countries. Also, labelling alone does not change consumers behaviour – this is very well known and very well documented – information makes consumers more receptive to changing behaviour in the future – encourages them to look at and consider environmental friendly purchases in the future. Need to realise that there is a decision making funnel that consumers go through – by the time they see a label in a showroom, they are a long way through their decision making process – need to provide info through the internet – labelling is just one small tool to encourage people to help change behaviour. Current legislation is not sufficient. [Environmental NGOs/Transport Experts]

Fuel economy guide is very expensive to produce – some wording in the Directive to allow MS to be more flexible in their approach to the guide would be good. Directive wasn't able to envisage technological developments. [National Implementation]

In terms of studies – there is a study by Consumer Focus in the UK on information to consumers – should respect the “three Cs” (Clarity, Comparability, Credibility) rules – ANEC/BEUC’s assessment of the Directive is that it currently ensures none of these three rules. For eco design labelling and energy use labelling – use to be easy for consumers to understand but with A+++ labelling, this makes things difficult for consumers. You already have appliances ranked better than A+++ so how should you label them? [Consumer Organisation]

Lack of studies on the effectiveness of relative schemes – all suffered from significant flaws and tended to mislead consumers but there isn’t hard evidence to corroborate this as fact. Need some studies on consumer understanding.

Possible harmonisation of the label

Questions/Issues for Discussion

The nature of the requirements of the Directive has led to a proliferation of different approaches within Member States, particularly with respect to the label, which provides different information in different formats to consumers in different EU Member States, thus potentially adversely affecting consumer recognition and understanding of the problem as well as the functioning of the internal market.

- Would harmonisation of the label solve this problem?

Label harmonisation - Design

- Could the design of the label be harmonised?
- Are there any additional considerations, if the car label were based on the household products energy label?

Label harmonisation - Based on **absolute** or **relative** CO₂ performance levels?

- Should the label be based on absolute or relative CO₂ performance levels?
- What considerations need to be taken into account with respect to the definition of the categories of a colour-coded label?
- What approach should be taken to take account of improvements in the emissions/energy performance of cars?

Harmonisation of **other/more elements** of the label

- What other elements of a label should be harmonised?
- Should these be mandatory or recommended?

Changes that have been introduced by other MS indicate that changes are responding to more national orientations, rather than a more holistic approach. Harmonisation may not be a way forward – just an observation. [National Implementation]

Regarding the health warning on the label regarding info on CO₂ emissions and fuel consumption, i.e. that this is indicative. Wording needs to be bigger and clearer on the health warning. [National Implementation]

People are going into a showroom and being disappointed by the actual performance of the vehicle compared to test cycle figures. [National Implementation]

Need to limit information for the consumers – if you want to buy anything small, you google GoCompare – but for vehicles, the information for consumers are totally available on the internet – need simple transparent understandable information for consumers. Of course we are talking about EU27, so we need to come up with a harmonised solution for 27 states. For an EU wide solution, we think we can find a very simple solution related to CO₂ and fuel consumption – but should be EU wide – and also stable over time and not changing labels each and every year. Need to concentrate on certain limited information. [Vehicle Manufacturers/Manufacturing Associations]

Running costs

Buying advocates also for simple information that would reflect the total costs of running a vehicle. Simple information on running costs is crucial – must reflect reality. Needs to be considered as valid, accurate information – we would recommend a harmonised label. [Environmental NGOs/Transport Experts]

Should start from the degree of freedom – support the need for something really simple. Overall running cost information is important. [Environmental NGOs/Transport Experts]

Annual fuel consumption – provide info on annual running costs. [Environmental NGOs/Transport Experts]

Format of the label

UK and LCVP have done a lot of work with consumers underpinning the design of the label – will be doing more work in the near future. Label must be (i) simple, (ii) focus on fuel costs and not on CO₂ emissions, and (iii) make sure that the banding system covers the full range of vehicles so that you avoid having the majority of vehicles in one or two bands. The other point that people want is better comparative information. People need to be able to compare – but currently consumers just compare to their current car. So consumers miss the concept of best in class. This could bring about an enormous reduction in CO₂ emissions. UK government used to have a top ten on the Act on CO₂ website but no longer. Very difficult to obtain these comparisons. [Environmental NGOs/Transport Experts]

20% of people said that the label was very important, 50% said fairly important on purchasing decisions. [Environmental NGOs/Transport Experts]

Good info on CO₂ helps everyone. We believe that a significant overhaul of the directive is overdue – it's obsolete – it's not best practice. In relation to the CO₂ regulation, both directives have the same objective, but that is where the overlap between the two ends. The two have quite different purposes. [Environmental NGOs/Transport Experts]

What sorts of information should be provided? Harmonisation on a colour coded scheme would be a very good idea. [Environmental NGOs/Transport Experts]

Fuel economy is more important than CO₂. We want to add that what the US is doing in terms of estimating what the car will deliver in the real world is the way forward. Consumers are sensitive to costs – US approach of five year fuel savings is very good. Labels should be linked to taxes as much as possible – this is more important than ensuring that labels are harmonised across all countries. Need to ensure a good spread so that we avoid A+++. [Environmental NGOs/Transport Experts]

Simple label – absolute label is better. Is easier for consumers [Vehicle Manufacturers/Manufacturing Associations]

Depends on which elements you are considering to harmonise – colour coding would be fine. There are a lot of things that would need to be discussed further. Concerned that harmonisation would feed into other aspects of the Directive (e.g. would there be a requirement for colour coding in the guide or on websites). [National Implementation]

There are a lot of downsides to the total harmonisation of a label – wouldn't be able to use country-specific metrics (e.g. mpg). Also would lose the ability to link to individual tax regimes – very important message that vehicles are cheaper to tax and cheaper to run – the label helps to communicate this. Having said that, certain principles could be established that could be harmonised across Europe. Europe could decide that there are colour coded bands. It could be that we harmonise on providing data on annual fuel costs (e.g. comparing to the best in class). If harmonisation was the way to go – this should be on high-level principles. Car dealers are not harmonised across Europe, so tailoring to each market is important – information for consumers needs to be tailored to individual markets. [Environmental NGOs/Transport Experts]

Very much agree with previous speakers. In our opinion, we have been taking labelling seriously and we are just about to make new improvements to it. If we took our label and made it standard all over EU then fine! Complete harmonisation. [National Implementation]

More harmonisation is beneficial. However, it is important to link to tax regimes. [Environmental NGOs/Transport Experts]

We need something simple and that informs consumers on fuel efficiency and running costs [Environmental NGOs/Transport Experts]

Labelling directive is an old one – we need clear and simple information. It appears clear that many MS have gone beyond the Directive’s requirements and introduced colour bands. In France we prefer to keep absolute figures. The ongoing revision of the test cycle will require a review of the passenger car/van Regulations. There also might be a new utility criterion – we will have to translate the 2020 car CO₂ regs with the new test cycle and criterion. We will then have to explain the new figures to consumers. At the same time, it would make sense to revise the labelling Directive. While we may not need full harmonisation, some level of harmonisation would be good. It would be good if all the revisions could support the implementation of the new test cycle. In 2 or 3 yrs, have a good revision of the Directive – as soon as possible. [National Implementation]

Welcome harmonisation based on the colour coded energy label – should be simple. Must be flexibility to adapt – in UK we have 13 bands. [Vehicle Manufacturers/Manufacturing Associations]

There are a couple of issues relating to the household products label: i) whether there should be an open or closed scale. ii) Pictograms – should they be used and who should use them. iii) Household appliance label is text free – is this an option for the car label? [Consumer Organisation]

Text on labels – for the tyre label, there is no text because no way of telling where a tyre will end up. Not the same for cars. [Environmental NGOs/Transport Experts]

Depends what you put in the text. – current label provides too much info, whereas pictogram is potentially too simplistic – balance needs to be struck. [National Implementation]

Main topic today is about the CO₂ element of the label. We need to control CO₂ emissions. Consumers are driven by fuel economy data. Manufacturers are trying to get greener. When we try to follow an absolute value we want to tell consumers that this car is environmentally friendly. When you say best in class, most consumers are online, so are comparing what is best in class. [Vehicle Manufacturers/Manufacturing Associations]

We have a lot of questions with respect to the labelling approach. We have to base our decisions on incomplete knowledge. Question – what are the next steps in the research? [National Implementation]

Great care should be taken to ensure good spread of vehicles across the bands. Need for regular updates. As technology develops, the label needs to develop with it. [Environmental NGOs/Transport Experts]

Director of CECED stated that today for fridges, “A” is under the average. Open scales – where do they end? Closed scales – when do you update them? Favour closed scale with updates [Consumer Organisation]

Relative versus absolute

Why do we need a harmonised label? The label is not just an information tool for consumers, but a differentiation tool for manufacturers. Innovation is important and a relative label helps to stimulate innovation by manufacturers within market segments. If you want to increase competition you need a relative label. [Vehicle Manufacturers/Manufacturing Associations]

It is not the case that all cars in a particular class have the same CO₂ performance. As long as you choose your bands wisely, you still create differentiation in the market. I don’t agree that you need a relative measure to help consumers make their choices. It isn’t clear to consumers – it’s very counterproductive. [Environmental NGOs/Transport Experts]

It’s clear that we’re trying to confuse the consumers as much as possible. Unfortunately the figure must be precise, and unfortunately the CO₂ value can ever be precise. Average information is misleading. You need to take into account that driver behaviour also affects CO₂ emissions. [Vehicle Manufacturers/Manufacturing Associations]

Under a relative label, low emitting cars can get worse labels than high emitting cars. Send wrong message to consumers. Car emitting 180g could get better than 140 g car [Vehicle Manufacturers/Manufacturing Associations]

Regarding absolute vs. relative – we’re not dogmatic over this issue – relative labels are prone to lead to consumer confusions – prefer absolute labels. [Environmental NGOs/Transport Experts]

If we were unable to choose between harmonizing on the basis of an absolute label, then we would need strict rules on the parameter and slope to be used for a relative label. Need to avoid obvious mis-information for consumers – nobody chooses to purchase a 1500kg car. Reducing weight should be rewarded. Slope should be flat enough to avoid strange outcomes. Current relative labels lead to very strange outliers. [Environmental NGOs/Transport Experts]

There may be a middle ground – based on an absolute scale which compares to the best in class and average in class. The point is to avoid discrediting the labelling scheme by allowing small efficient vehicles to be rated as worse than large cars. All companies have their eco-brands –we need to help consumers become aware of these vehicles. Consumers don't recognise this best in class vehicles – therefore they miss an opportunity. [Environmental NGOs/Transport Experts]

The best in class idea is a lot more burdensome because new models are entering the market all the time. In Denmark, we provide all the labels to the car dealers. [National Implementation]

We would be happy with best in class approach. However, segmentation in each country is very different. And there are always some cross-over cars which makes things difficult to classify. An alternative could be based on weight categories – this is a linear approach that is consistent for all markets as well as with the passenger car CO₂ Regulation. There is still an incentive to make cars lighter, as light weighting is a key element of automotive R&D at the moment – this is to reduce CO₂ emissions. [Vehicle Manufacturers/Manufacturing Associations]

Consumers want to know the best car in the class – this can be shown by the relative label. Not convinced that a relative label is confusing for consumers. After all, a relative is used for household products. [National Implementation]

Is there evidence that consumers prefer relative labels? Clarity – three Cs – is the German label readily understandable? I.e. the fact that it includes the weight parameters is not necessarily clear to consumers. [Consumer Organisation]

No study as yet, but we can draw some conclusions by looking at the competition. The relevant market is within the segment, not the whole market. The energy efficiency of fridges is calculated relatively and does not make reference to the calculation method. [National Implementation]

Some of the household labels are more relative than others and this is bad. [Consumer Organisation]

Weight is not a utility parameter. [Environmental NGOs/Transport Experts]

Re absolute vs. relative, we think that the main objective is to inform consumers. The labels should be simple and easy to understand – absolute would be better. We need to harmonise labels in the review of the directive – we have to work on the type approval directive also, so that we have all the right data for consumers. [National Implementation]

Important to remember what the label is for – consumers don't think about the weight of a vehicle – irrelevant to tie the scheme to the car CO₂ regulation. There is not benefit in a weight-based metric. [Environmental NGOs/Transport Experts]

There will always be exception in that some vehicles don't fit neatly into a particular market segment, but in most cases there is consistency between the categorisations used in different Member States. The market segment classes are well known across Europe. Also manufacturers use these classes to make claims that they are best in class in their adverts. [Environmental NGOs/Transport Experts]

It is not easy to find a common European segmentation. [Vehicle Manufacturers/Manufacturing Associations]

If manufacturers were to collectively agree this, it could be done relatively quickly and easily. [Environmental NGOs/Transport Experts]

Possible extension of the Directive to other types of road transport

Questions/Issues for Discussion

In the UK, labels can be applied to used cars (possible introduction of a mandatory label for used cars in France)

In Denmark, the label is required for light commercial vehicles / vans (under 3.5 tonnes) (possible introduction of a requirement for a label for vans in France)

- To what extent would the differences in the way in which other vehicles (e.g. vans, HDVs, two-wheelers or used cars) are bought and used affect the relevance and effectiveness of a label?

Not a good idea that it's yet a good idea to capture other modes of transport. Also what would the Directive look like – risk that it would become confusing in itself. [National Implementation]

For used cars – as a voluntary element this could be fine, but if it were mandatory, it would be difficult for the market surveillance authorities. [National Implementation]

Vans

Lot of vans bought by large fleet operators, but also a lot bought by small businesses or private van buyers who need good advice. The number of dealerships for vans is very small. [Environmental NGOs/Transport Experts]

You always have to look at the decision making process for a van – it's totally rational – its purchasing costs and running costs. People buy vans to use them and do business with them – the decision is completely rational – we are not against labelling for vans but seems very bureaucratic. [Vehicle Manufacturers/Manufacturing Associations]

Vans are not just about carrying people but is also about carrying goods – so need to be careful re metric, as you do not want to push people to buy the wrong type of van for their needs. [Vehicle Manufacturers/Manufacturing Associations]

Should also include vans – van buyers are more rational than car buyers but by no means 100% more rational. On vans, people are not always aware of fuel consumption – they don't suddenly make big spreadsheets to calculate fuel costs. [Environmental NGOs/Transport Experts]

Want to explain why we are keen to get vans included in Denmark – professional buyers have a more professional approach to buying – in Denmark we have a special market because vans are taxed less than cars so private car buyers sometimes buy vans. There has been a tendency to buy vans with big engines because it was a way to buy powerful vehicles at low costs. [National Implementation]

HDVs

HDVs – difficult to move forward until test cycle and certification is sorted out. More important to provide this information earlier in the decision making process. [Environmental NGOs/Transport Experts]

Two and three wheelers

The proposed regulation on type approval will make it mandatory for manufacturers to provide info on CO₂ emissions and fuel economy on two wheelers. They support labelling based on this information for two/three-wheelers. For motorcycles and scooters you should not link it to weight. Consumers don't buy scooters based on weight. [Environmental NGOs/Transport Experts]

Used Cars

Relatively new discussion on used cars – no big studies have been done on this issue. No one knows what percentage of car sales go through small versus big dealers. I don't know what proportions sell second hand cars. Shame to dismiss on a gut feeling. Second hand car buyers are very likely to be very sensitive to fuel economy. We believe that 2nd hand cars should be included – they are most sensitive to fuel consumption. Affect the 2nd market then you will affect the residual value of fuel efficient cars. [Environmental NGOs/Transport Experts]

Used car label not in force in Denmark. It can affect depreciation. We doubt the benefits of this approach. Otherwise agree that it's very important that other measures are linked up to labelling. [National Implementation]

Even expanding the Directive to used cars would still increase the amount of regulation required and could be difficult to manage [National Implementation]

Electric Vehicles

Questions/Issues for Discussion

Electric vehicles – consider way in which information is presented

- What information should be included on the label for electric cars (while keeping information simple and relevant)?
- What other considerations are relevant?

Electric vehicles – label is supposed to be consumer facing. So how should consumers response to info on kWh/100 km? What do consumers understand by this? [National Implementation]

German label will be introduced at end of 2011. Will be a market development to EVs – there is a need for further information campaigns. Plan to have parallel campaigns to help consumers understand the new information on the new label. Consumers need time to understand the data on the labels. [National Implementation]

We do need to take into account different types of costs that apply, e.g. include running costs/costs of energy, also need to take into account the impacts on the environment, in relation to electric vehicles and alternatively fuelled vehicles. Information needs to be clear and simple [Environmental NGOs/Transport Experts]

For EVs – need to follow the same principles but focus on energy costs, and then consumers can be very clear [Environmental NGOs/Transport Experts]

The US has decided to go for eight or nine different labels – as we move forward these vehicles are all going to be competing – we should not follow the US approach – as much as possible we should try to harmonise on a label irrespective of the technology. Need to develop a future proof basis. [Environmental NGOs/Transport Experts]

The previous speaker made an important point. New tech has very little or no tailpipe emissions – this links to a larger point – Nissan stated that we are trying to educate on environmental impact. Or we give them all elements of info to tell consumers of climate impacts of their choices. [Environmental NGOs/Transport Experts]

Electric vehicles – question of electricity use and fuels played a major role – we are wondering whether the stocktaking on how electric vehicles are treated in other EU countries. [National Implementation]

It will be possible to put the figure on electric consumption. [National Implementation]

Fuel and CO₂ consumption is provided on the label – for EVs. [National Implementation]

On multi-fuel vehicles – this also relates to real-world fuel consumption of PHEVs – current type approval is derived from a zero emission measure and a fuel based measure and then the average of the two modes of operation. Current method is quite misleading for consumers – need to take US approach. [Environmental NGOs/Transport Experts]

Other Issues

Questions/Issues for Discussion

- Should/could the Directive be extended to:
 - Rental cars?
 - Car clubs?
 - Taxis?
 - Other vehicle segments?
- If the Directive is to be extended to cover such categories of vehicle, what are the implications for the design of the label?

Rental cars – very good to be offered a choice on fuel efficient cars. [Environmental NGOs/Transport Experts]

Session 3: Implementation and Policy Options (Tasks 1 and 3) Guide on fuel economy, Poster and Promotional Materials

Existing provisions – guide, poster, display

Guide on fuel economy:

- Should the printed guide be retained?
- If so, why? How could it be made more useful?
- If not, should anything take its place? If so, what?

Poster/display:

- Should the poster/display be retained?
- If so, why? How could it be made more useful?
- If not, should anything take its place? If so, what?

Promotional materials:

- Do the provisions relating to promotional material need to be amended?
- If so, how should they be amended?

Existing provisions should be limited/deregulated. Tyre directive is best practice. [Advertising and Broadcasting]

Existing provisions are not very clear – consumer groups are very anxious and agitated – what does “easy to read” mean. Too ambiguous. Directive hasn’t done this in a very effective way. End up talking about font sizes and spacing – become quite tricky – I feel something needs to be done to put the information out in a way that is effective, Germany had some issues. [National Implementation]

Enforcement is a difficult issue – it’s possible if these are manufacturer websites – the broader you define this, the more difficult it gets to undertake surveillance. [National Implementation]

Poster and the guide are not relevant anymore – we would like to see them both removed. [National Implementation]

Poster – long list of cars then no one looks at this. [National Implementation]

Moving to CD-rom has saved a lot of money. I see this as a short term step- would like to see some flexibility in the directive to allow MS to tailor what they do to national needs. In some cases booklet/hardcopy is appropriate whilst in others having the data on a live website would be moiré appropriate – hence the requirement for flexibility. [National Implementation]

A number of copies that have to be printed – guide has to be available at each point of sale and free of charge to the consumer. Possibly 20 or 30 copies per dealer – which means that for the Netherlands many thousands have to be printed. [National Implementation]

Printed guide has outlived its role – editing the hardcopy is onerous – printed version takes a lot of effort to update – would be happy to remove requirement for the guide. [National Implementation]

CapGemini survey 2010/11 showed that 90% of car buyers use internet in helping their decisions. Dealerships in some cases are more important than the internet in some cases but the info they provide is different to internet – in particular they will focus on finance and trade-in of used cars. Shouldn't assume that the guide is more important than the internet. [Environmental NGOs/Transport Experts]

Poster is pretty irrelevant in the context. [Environmental NGOs/Transport Experts]

Possible extension of the Directive to other media

Questions/Issues for Discussion

Possible extension of the Directive to the internet:

- Should the Directive be extended to apply to the internet? If so:
 - To what types of website should it apply?
 - What provisions should apply to the internet, e.g. when should information be given?
 - How can we avoid unclear provisions/make internet provisions “future-proof”?

Possible extension of the Directive to TV, cinema and radio:

- To what extent would the characteristics of these media affect the relevance and effectiveness of using them to communicate information on fuel economy/CO₂ emissions?
- Is there any evidence that extending Directive to these media would be effective?
- What role does advertising have in increasing consumers' awareness of fuel economy/CO₂ emissions?

Other considerations re possibly extending the Directive to other media:

- Are there any other media that the Directive should cover?

Internet

The guide is available online in certain countries – this represents Government information and so is impartial. So you could have access to a government site on the internet which would help enable comparisons. In terms of internet advertising, a lot of advertisers already do this. Should follow broad best practice guidelines, preferably from the Commission. [National Implementation]

A big overhaul is required in terms of the scope of media addressed. Internet – we believe that all digital and analogue material should be covered. All commercial material should be covered. Big variation in terms of how accessible car CO₂ info is available on the internet. [Environmental NGOs/Transport Experts]

LCVP, SMMT, ISBA, made guidance on best practice claims guidance for green claims – includes specific guidance on CO₂ information – including that this should be provided on the basis of least number of clicks. EST previous work on web info on CO₂ information. [Environmental NGOs/Transport Experts]

Internet – at point of sale we choose a specific model. Here we need. Print and online advertising should be treated differently. [National Implementation]

TV, Cinema, radio

You simply wouldn't be able to enforce it. [National Implementation]

Other

How an expansion to other media hasn't taken into account climate policy aspects. The role of consumers taking these aspects into account must be accounted for. For our specialised press, these questions are already addressed rather than via advertising. Editorial content is not for free and anything that makes advertising less attractive to advertisers will have negative impacts on publishers. [Publishing]

Agree with previous speaker – advertising. All of the research I've seen in the last six to ten years has shown that the main drivers of consumer behaviour is not advertising and hence what advertising is trying to is to get them to engage with brands. Car advertising has much longer term objectives than other types of advertising and trying to mix these messages with information on CO₂ is confusing. Information of this nature should be on the internet rather than in advertising. We would like to see the correct information given at the correct time and we don't muddle consumers. [Advertising and Broadcasting]

The importance for the press reporting on environmental issues. We have been hearing a lot about consumer behaviour today. This is why websites of newspapers and specialised magazine provide this information. We have been a little surprised by questions about what promotional information is. We have submitted answer to the questionnaire – there is discrimination in the existing Directive against certain types of media. If we extend the Directive to other vehicles, we will have an increasing discrimination. Printed press is financed by advertising to the extent of 50%. We do not ask for an extension to other media – in other labelling legislation we have a very good description of promotional material and we would like to see this type of approach for cars. This definition in the tyre labelling directive clearly excludes print advertising and other types of advertising. [Publishing]

TV adverts are very much focused on promoting brands. Billboard and print advertising however is much more focused on selling the vehicle directly. In 2008 we did a survey on how much info was included in adverts on CO₂ messaging – by 2009, 10% of adverts had information on fuel economy and/or running costs. I don't think it's entirely fair to say that this is a message that isn't being put forward in billboards and magazine. What this means is that if this is a trend to put info into the main body of the advert, I don't see why there are objections to doing this in a more consistent way. Current approach of putting this information as a small strip at the bottom of the page is pointless – we have to find a way that doesn't impede advertisers getting their messages across to consumers. [Environmental NGOs/Transport Experts]

Scope of advertising – needs to be extended. [Environmental NGOs/Transport Experts]

The importance of advertising in terms of financing and plurality of the press means that nobody is going to advertise negatively – means only advertise. [Advertising and Broadcasting]

Advertising and mass media is just a first suggestion re a product range. It cannot replace the more complex messages required for selling cars – it's not the right place for informing consumers. We support the approach used in the tyre labelling directive. [Advertising and Broadcasting]

We introduced stricter rules for advertisers in newspapers – a coloured energy arrow has to appear in all newspaper and magazine adverts. There was initially some problems in getting advertising agencies to understand the rules – but now we don't get problems with them understanding this approach. We think this information is important. No one reads the very small print at the bottom of adverts hence we tightened the rules – so they have to put the energy class. [National Implementation]

If the information is given at the point of sale then what does it add to add it to advertising. There is a risk that advertising a G-rated car then risks being counterproductive. We think there is a risk that

certain manufacturers would not advertise bigger cars then if you risk a small amount of advertising going away, some publication may not be able to finance themselves anymore. [Publishing]

Not all large cars have very high CO₂ emissions – the idea that “large cars = bad and small cars = good” is a gross simplification of reality. To assume that some mfrs will stop advertising is not true. It won't lead to stopping advertisements for large vehicles – this is a complete misunderstanding of the market. [Environmental NGOs/Transport Experts]

Green claims initiative – what happened to this – France has this and possibly UK. [Environmental NGOs/Transport Experts]

Has the Danish approach been effective? [Advertising and Broadcasting]

It was only introduced in January – it's not worse than the already current rules in the Directive – the colour mark is the additional thing in Denmark - it's not too onerous. We also included internet. [National Implementation]

Reminds me of the advertisement provisions re cigarettes – then it did make sense that advertising felt punished. In this case, it's difficult to see why the industry feels punished. [Consumer Organisation]

Everyone who opens up a newspaper today can read about climate change – if this goes ahead – we see magazine and newspapers going more and more online – we see dangers and threats from all angles. One should take a holistic approach. On tobacco products, this is very different. The difference was that this was that in this case some cars will be affected and others won't. [Publishing]

Sources of information

Questions/Issues for Discussion

Source of information on fuel economy / CO₂ emissions:

- To what extent does the difference between the label and real world information undermine the credibility of the information?
- What is the way forward?

We have strong views – in today's market, the relationship between real world and regulated test cycle emissions become ever more complicated. Wide divergence between real world and test cycles that relate to specific models fitted with new technologies. The US has taken an approach to come up with real world figures – we can also do a lot better. We could develop something that would help consumers. [Environmental NGOs/Transport Experts]

Agree that action on this sooner rather than later would be better. Need to do something –it's becoming more and more of an issue. Could have a quick fix by adding a disclaimer. [National Implementation]

US style presents a correction formula (advanced approach) – not saying we should do the same thing. Factor varies by geography, power of the car, etc, etc. [Environmental NGOs/Transport Experts]

These are important points – we know that consumers are increasingly distrustful of this info. Partly already being looked at via WLTP test cycle development. [Environmental NGOs/Transport Experts]

Need to use NEDC data and then highlight importance of driver behaviour [Vehicle Manufacturers/Manufacturing Associations]

Adjusting official CO₂ data for driver behaviour, duty cycle, climate etc would be too complex and confusing to the consumer. Need a standard test procedure that gives a figure by which you can compare vehicle A with vehicle B. The absolute numbers are not critical, but they need to be comparable relative to each other. This is work in progress within the WLTP [Vehicle Manufacturers/Manufacturing Associations].

Working out a procedure for a real world figure is what is already going on in the WLTP test development. Figure will never be perfect for everyone in EU. Climate, duty cycles, etc all influence final figure. [Vehicle Manufacturers/Manufacturing Associations]

Need the value obtained under a legally defined process. Optimistic that WLTP will give us a better figure for each vehicle. Depends on many parameters – stick to the legal basis we have and not overcomplicate this issue. [National Implementation]

Progress on WLTP is slow and timetable is being openly questioned – won't materialise before 2020. Correlation factor would be good like EPA approach. [Environmental NGOs/Transport Experts]

General comments

Advertising – data from Eurobarometer shows that high percentage of consumers does not understand a great deal of the more well-known labels. Results of DG SANCO studies would be very useful. [Advertising and Broadcasting]

Appendix 5 - Member States Label Examples

Text in red represents where the label requirements in national legislation exceed those of Directive 1999/94/EC.

Figure A1.2: CO₂/Fuel Economy Label - Belgium

Vehicle make and model information

Fuel consumption in litre/100km

CO₂ emissions in g/km

CO₂ information presented in scaled and coloured format
Absolute label
7 bands A to G

Availability of guide on fuel economy

Driver behaviour and GHG/global warming information

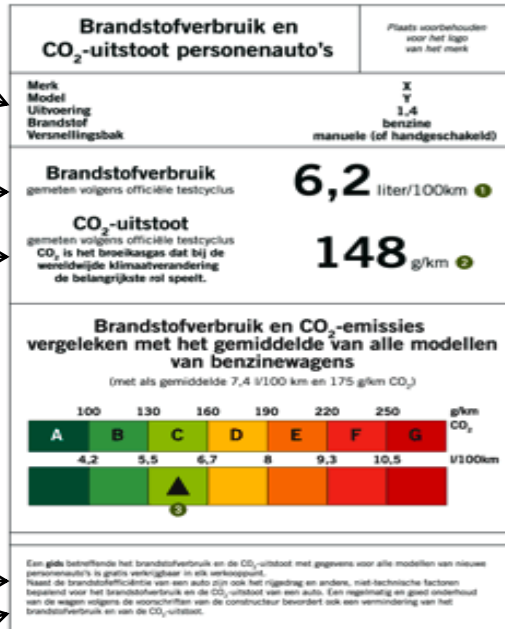


Figure A1.3: CO₂/Fuel Economy Label – Denmark

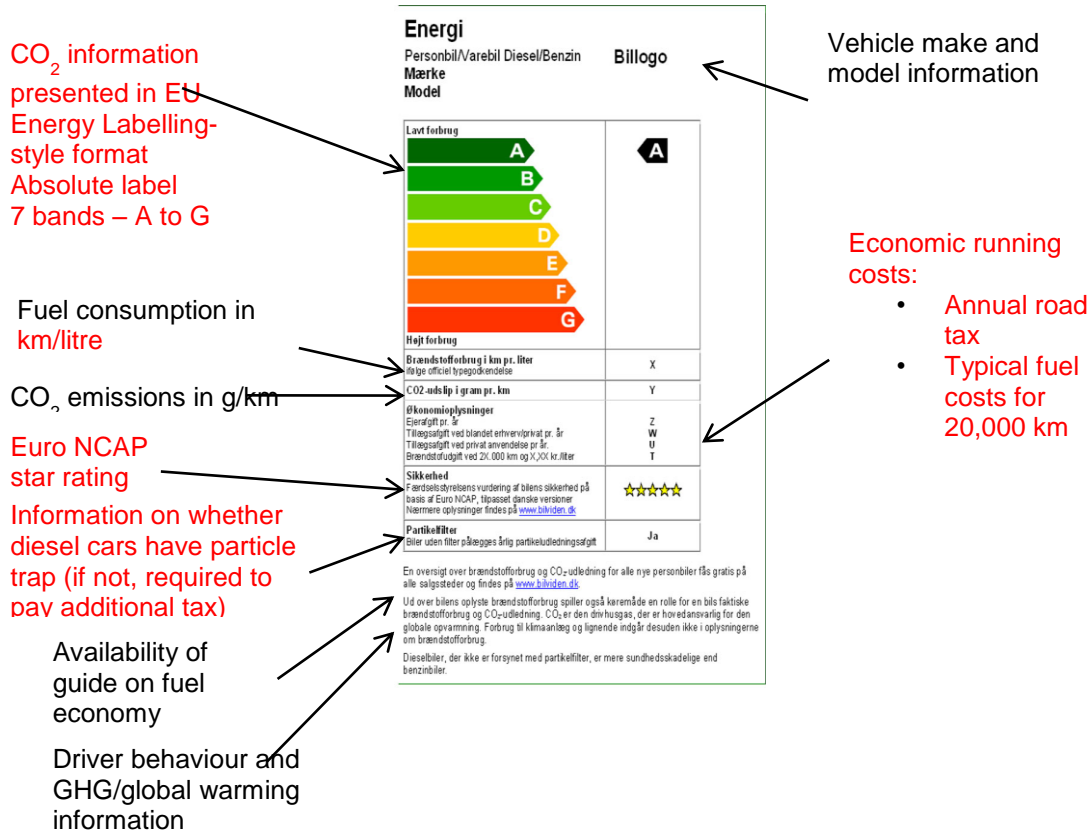


Figure A1.4: CO₂/Fuel Economy Label – France

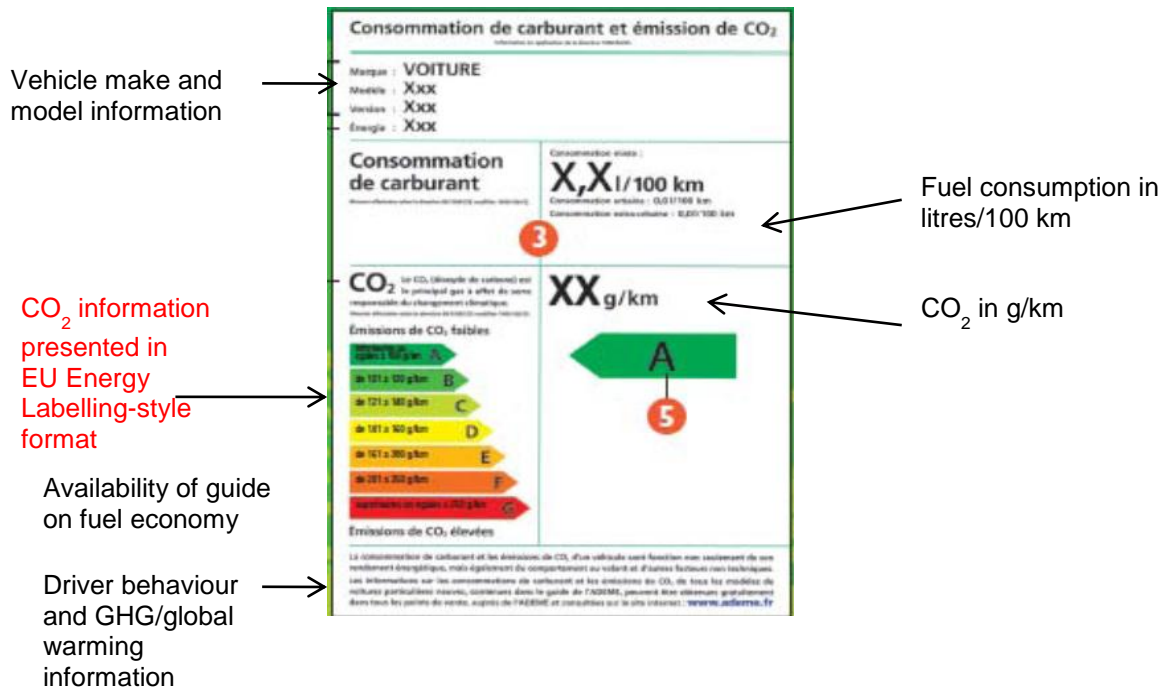


Figure A1.8: CO₂/Fuel Economy Label – Germany

Fuel consumption in litres/100 km (natural gas or biogas in kg/100km)

CO₂ in g/km

CO₂ information presented in EU Energy Labelling-style format Relative label 8 bands A+ to G (currently)

Information über Kraftstoffverbrauch, CO₂-Emissionen und Stromverbrauch i. S. d. Pkw-EnVKV

Marke:	Kraftstoff:
Modell:	andere Energieträger:
Leistung:	Masse des Fahrzeugs:

Kraftstoffverbrauch /100 km

kombiniert:	/100 km
innerorts:	/100 km
außerorts:	/100 km

CO₂-Emissionen g/km

kombiniert:	g/km
-------------	------

Stromverbrauch kWh/100 km

kombiniert:	kWh/100 km
-------------	------------

CO₂ Effizienz Auf der Grundlage der gemessenen CO₂-Emissionen unter Berücksichtigung der Masse des Fahrzeugs ermittelt.

A+ A B B C D E F G

Erstellt am:

Vehicle make and model information

Power consumption pure electric and hybrid electric vehicles (external recharge) in kWh/100km

Availability of guide on fuel economy

Driver behaviour and GHG/global warming information

Economic running costs:

- Annual road tax
- Typical energy costs (fuel and electricity)

Figure A1.1: CO₂/Fuel Economy Label – Hungary

Fuel consumption in litre/100km

CO₂ emissions in g/km

Availability of guide on fuel economy

Driver behaviour and GHG/global warming information

HYUNDAI 2010 FIFA World Cup Official Partner

L30 Classic 1.4i DOHC

Műszaki adatok: **1400 cm³** Teljesítmény: 109 LE
 Hengerelrendezés: **6, 1 / 120 km/h** Maximális sebesség: 187 km/h
 Átlagos fogyasztás: **6,1 l/100 km** Motor jellege: Benzines, soros, 4-üzemű
 CO₂ kibocsátás vegyes üzeműnél (ciklus): **145 g/km**

Felszereltség:

- > Vezető, utas, oldalsó és függőlegeslégszék
- > ABS + EBD (fékretörésvédő), Távcsárka első hátról
- > Kínaberepítés, manuális
- > Elektronikus szervokormány
- > Aktív fejtiltás az első ülésen, Immobilizátor, Biztonsági gyermekzár
- > ISO FIX gyermekülési rögzítés
- > Elektronikus ablak emelő, Klímaberendezés
- > Altlámpa üzemanyagigény-vezérlés, Altlámpa magassági biztonsági üz.
- > Hálókábel és kulcskulcstartó készlet
- > Fényerővel külső tükrök és klímák
- > Rakodóhely az első ülésnél
- > Feküdtető szándékjelző, Szélterelő üvegezés
- > MP3-as, beépített gyári rádió kódsz. vez. USB/AUX/POD csatlakozó
- > 185/65 R15 gumibetések

Listaár: **3.749.000 Ft**
 Kedvezmény: **- 250.000 Ft**
 Egyedi kedvezmény a kiállított autóra: **- 255.000 Ft**
 Metálfényezés: **+ 105.000 Ft**

Kiállított modell vételára: **3.449.000 Ft**

Székelygarnitúra: 9.900 Ft Teljes csomagár: 32.600 Ft

5 év garancia kilométer korlátozás nélkül!

Vehicle make and model information

Figure A1.5: CO₂/Fuel Economy Label – Romania

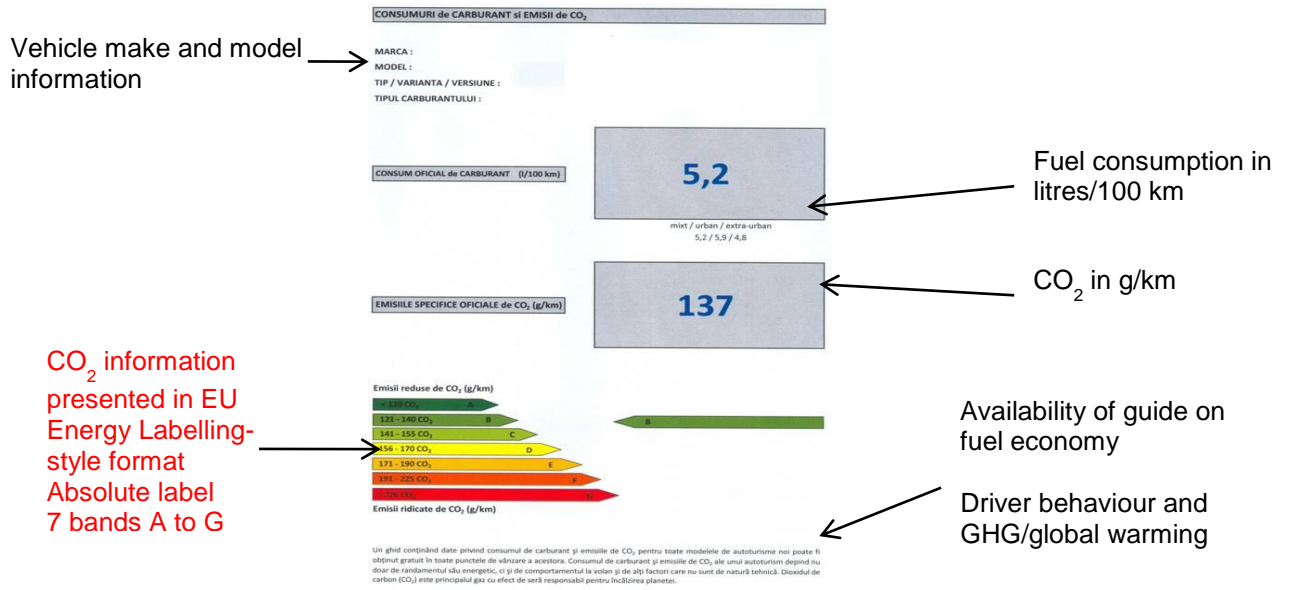


Figure A1.7: CO₂/Fuel Economy Label – Spain

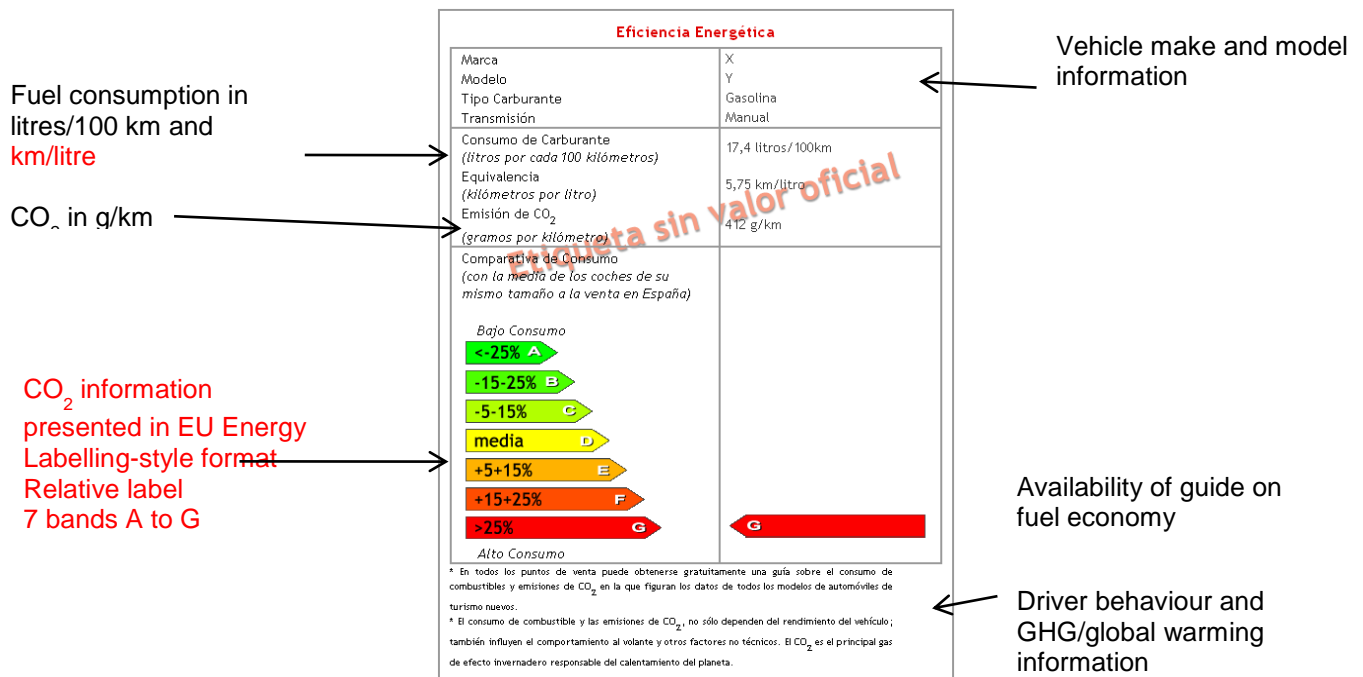
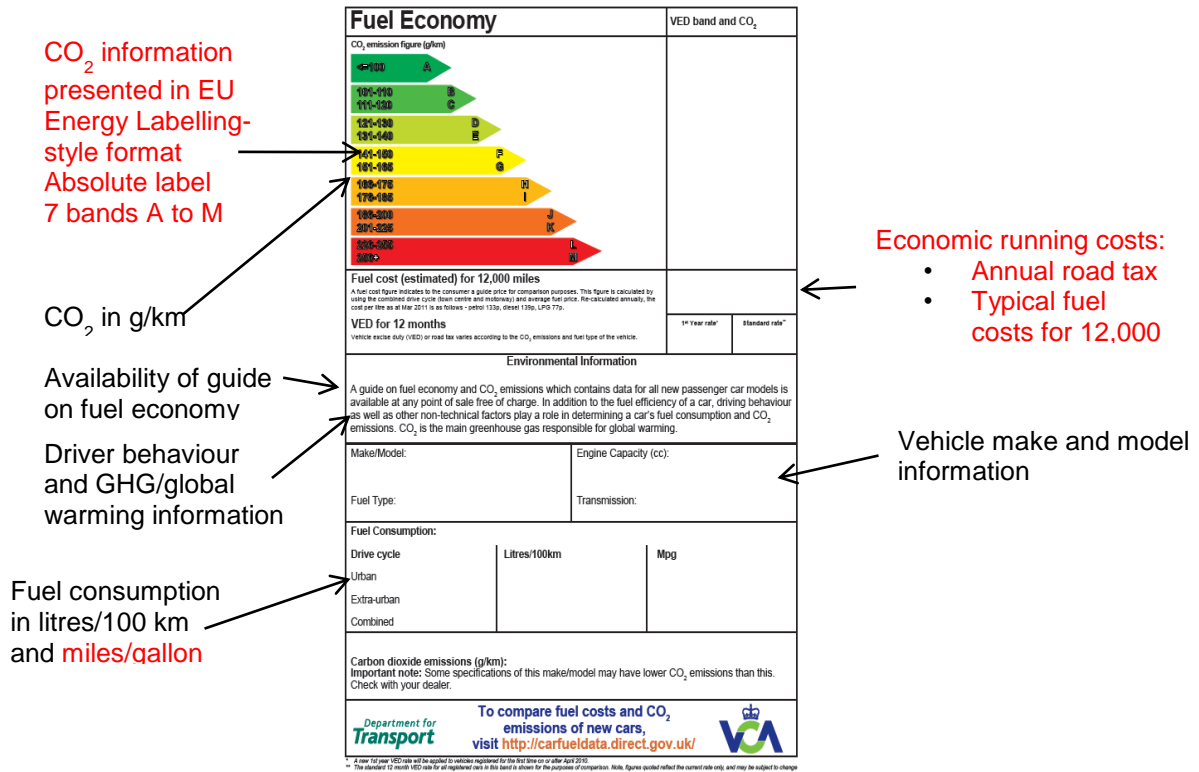
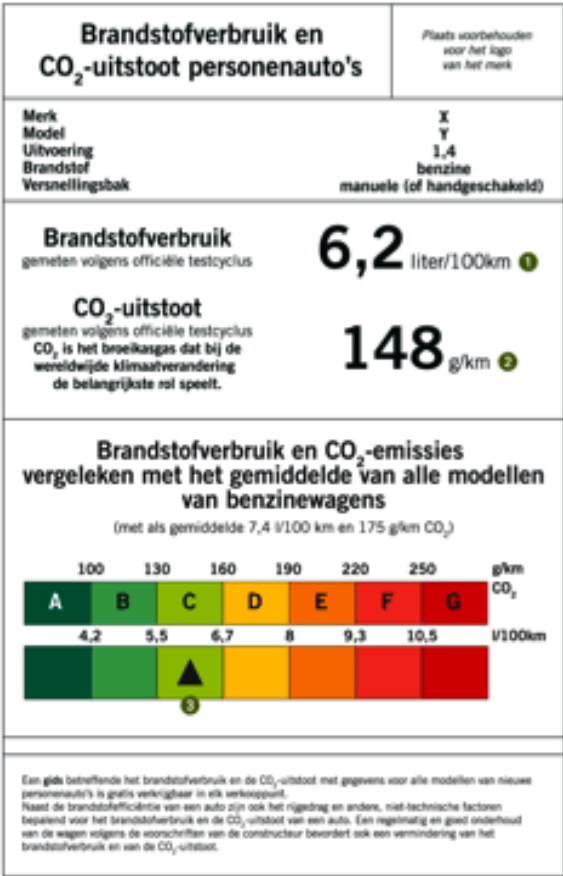


Figure A1.6: CO₂/Fuel Economy Label – UK




Appendix 6 - Member States Case Study Fiches


MEMBER STATE	Belgium																					
Member State Contact Information																						
Institution	Environment Ministry																					
Contact person	Mr. Sebastien Grogna																					
Implementation in Member State																						
Implementing legislation	<p>Royal Decree of 5th Sept 2001, which contains all requirements of the Directive. Koninklijk besluit 5th September 2001 (Royal decision KB20010905) – implementing Guideline 1999/94/CE:</p> <p>http://www.health.belgium.be/eportal/Environment/Products/Carsandbiofuel/cars/9446474</p> <p>Royal Decree of 2004, containing corrections following amendments to the Directive.</p>																					
Additional legislation	None																					
Planned modifications	None planned. Consideration is being given to other fuels (beyond petrol and diesel) such as LPG and electricity. Average value of fuel consumption is also being considered.																					
Links to other policy measures, e.g. taxation, incentives	<p>Fiscal incentives are available for private buyers: the seller gives a discount for low CO₂ cars, which the seller then recoups from the government. Only applies to individuals, rather than companies, who have to be registered in Belgium. (http://www.health.belgium.be/eportal/Environment/Products/Carsandbiofuel/cars/Encouragementfiscal/index.htm?fodnlang=nl).</p> <p>The measures include a 15% reduction on the purchase price (including VAT), up to a maximum of €4,540, for vehicle with emissions of less than 105 g CO₂/km. For vehicles with emissions between 105 and 115 g CO₂ /km the reduction is €850. The guidance states that the consumer will receive the cost reduction from the seller of the vehicle, and should enquire specifically about the CO₂ emissions of the vehicle, and the effect of additional option on the emissions of the vehicle. For enterprises there are three stimulation measures in place:</p> <ul style="list-style-type: none"> • 120% for electric cars down to 60% above a certain level • Fiscal taxation for private fuel is based on CO₂ emissions of car • Electric vehicles have a price reduction. This is not directly linked to CO₂, but it was taken into account in the design of the measure. <p>For business vehicles, the Belgian government has introduced tax allowances ('Fiscale aftrekbaarheid', deductions) based on CO₂ banding.</p> <table border="1"> <thead> <tr> <th colspan="2">CO₂ - uitstoot</th> <th>Fiscale aftrekbaarheid (tax deductions)</th> </tr> <tr> <th>Diesel</th> <th>Benzine (Petrol)</th> <th></th> </tr> </thead> <tbody> <tr> <td><105 g</td> <td><120 g</td> <td>90%</td> </tr> <tr> <td>105 – 115 g</td> <td>120 – 130 g</td> <td>80%</td> </tr> <tr> <td>116 – 145 g</td> <td>131 – 160 g</td> <td>75%</td> </tr> <tr> <td>146 – 175 g</td> <td>161 – 190 g</td> <td>70%</td> </tr> <tr> <td>>175 g</td> <td>>190 g</td> <td>60%</td> </tr> </tbody> </table>	CO ₂ - uitstoot		Fiscale aftrekbaarheid (tax deductions)	Diesel	Benzine (Petrol)		<105 g	<120 g	90%	105 – 115 g	120 – 130 g	80%	116 – 145 g	131 – 160 g	75%	146 – 175 g	161 – 190 g	70%	>175 g	>190 g	60%
CO ₂ - uitstoot		Fiscale aftrekbaarheid (tax deductions)																				
Diesel	Benzine (Petrol)																					
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105 – 115 g	120 – 130 g	80%																				
116 – 145 g	131 – 160 g	75%																				
146 – 175 g	161 – 190 g	70%																				
>175 g	>190 g	60%																				


MEMBER STATE	Belgium
	<p>In addition, for business vehicles, the Belgian government has introduced a 'solidarity' payment which is made by the employer. This is governed by the Rijksdienst voor Sociale Zekerheid (Ministry of Social Security).</p> <p>The Belgian government has invited all government departments to only purchase vehicles in the A, B or C classes (i.e. less than 160 gCO₂/km).</p>
Label	
Label example	 <p>http://www.health.belgium.be/eportal/Environment/Products/Carsandbiofuel/cars/CO2etvoitures/index.htm</p>
Format of the label	<p>The label typically uses 7 coloured boxes to categorise the energy efficiency and CO₂ emissions of a vehicle. The scale ranges from A (green) to G (red), with vehicles in Group A emitting less than 100 g CO₂/km, and using less than 4.2 l/100 km. Conversely, Group G vehicles emit more than 250 g CO₂/km and use more than 10.5 l/100 km.</p> <p>The emissions and fuel consumption of the vehicle, measured according to the official test cycle, feature prominently at the top of the logo. An explanation is included in the header of the CO₂ emissions figure which states that CO₂ is the dominant GHG gas in global warming.</p> <p>In addition, the label features a black triangle which indicates the fuel consumption and CO₂ emissions of the vehicle compared to all other vehicles using the same fuel.</p>

MEMBER STATE	Belgium
	<p>Make, model and engine size are stated, space is reserved for the manufacturer's logo in the top right hand side of the label. The label also states the fuel type of the vehicle (petrol or diesel), as well as the type of transmission (manual or automatic).</p> <p>The label further includes guidance on the availability of further information from vehicle sellers, as well as information relating to non-technical factor influencing fuel consumption such as maintenance and driving style.</p>
Explanation of the label, including any classes	See above.
Label responsibilities and enforcement	<p>The Economic Affairs Department/Ministry has responsibility for advertisement and the label.</p> <p>The Environment Department/Ministry has responsibility for the label.</p>
Planned modifications	None planned. Consideration given to adding additional fuels such as LPG and electricity. Also energy may be added.
Research reports/initiatives	None.
Comments	N/A
Label violations	During the last inspection campaign (early 2011), 100 showrooms were visited. Of these 60% were ok (in terms of their labels). In 10% of cases no labels were present, in 12% of cases some labels were but not on all vehicles. Other issues included language issues, and size problems.
Overview of requirements in national legislation beyond Directive	Belgian legislation requires a split between petrol and diesel on the label. No other additional requirements.
Overview of any voluntary action beyond requirements of national legislation	<p>The label uses 7 coloured boxes to categorise the energy efficiency and CO₂ emissions of a vehicle. The scale ranges from A (green) to G (red), with vehicles in Group A emitting less than 100 g CO₂/km, and using less than 4.2 l/100 km. Conversely, Group G vehicles emit more than 250 g CO₂/km and use more than 10.5 l/100 km.</p> <p>In addition, the label features a black triangle which indicates the fuel consumption and CO₂ emissions of the vehicle compared to all other vehicles using the same fuel.</p>
Guide on fuel economy	
Example for Guide on Fuel Economy	<p>Database updated regularly. Hardcopy guide is updated annually. It is free, sent in hardcopy to all dealers as well as customers requesting a copy. Electronic versions are available from http://www.health.belgium.be/internet2Prd/groups/public/@public/@mixednews/documents/ie2divers/3142391_nl.pdf</p> <p>It is available in Dutch, French and German.</p>
Internet version	http://www.health.belgium.be/pls/apex/f?p=295:335:4140685773947696::NO::

Report on the implementation of Directive 1999/94/EC relating to the availability of consumer information on fuel economy and CO₂ emissions in respect of the marketing of new passenger cars

MEMBER STATE	Belgium																																																																											
	 <p>Co2-Gids van de auto</p> <p>Resultaat van deze selectie</p> <p>U kunt een persoonlijke selectie aanmaken en bewaren van de auto's die u interesseren. Ook als u een volgende keer terugkomt naar deze pagina zal uw selectie er nog staan. Als u voor het eerst op deze pagina komt, is de persoonlijke lijst leeg. Om er wagens in op te nemen moet u die opzoeken: via selectie wagens via de beste keuze</p> <p>In die lijsten moet u het vakje 'mijn selectie' aanvinken en op de hoofding klikken om de auto's in uw persoonlijke selectie op te nemen. Als u bij een volgende bezoek aan deze website terug naar 'mijn selectie' komt, zult u nog alle auto's aantreffen die u vroeger selecteerde. Zo kunt u uw persoonlijke selectie op elk moment aanpassen, uitbreiden of korter maken. De fiscaal beloonde wagens zijn aangeduid met een groene of witte ster. Zo kunt u ze in een oogwenk terugvinden. Klik op de kolomtitels voor meer uitleg over de betekenis van elke kolom.</p> <p>Gegevens van 11/05/2011 , gepubliceerd 11-05-11</p> <p>Nieuwe selectie</p> <table border="1" data-bbox="491 862 1342 1122"> <thead> <tr> <th>Korting op factuur</th> <th>Merk</th> <th>Model</th> <th>cc</th> <th>kw</th> <th>Fisc. PK</th> <th>Versn.</th> <th>Brandstof</th> <th>Co₂</th> <th>Verbruik</th> <th>Categorie</th> <th>Deeltjes</th> <th>Roetfilter</th> <th>Euro</th> <th>Mijn selectie</th> </tr> </thead> <tbody> <tr> <td>€</td> <td>AUDI</td> <td>A1 1.6TDI77 ATTRACTION</td> <td>1598</td> <td>77</td> <td>9</td> <td>M</td> <td>DIESEL</td> <td>103</td> <td>3.9</td> <td>B</td> <td>NV</td> <td>✓</td> <td>5</td> <td><input type="checkbox"/></td> </tr> <tr> <td>€</td> <td>AUDI</td> <td>A1 1.6TDI77 ATTRACTION MEDIASTYLE</td> <td>1598</td> <td>77</td> <td>9</td> <td>M</td> <td>DIESEL</td> <td>103</td> <td>3.9</td> <td>B</td> <td>NV</td> <td>✓</td> <td>5</td> <td><input type="checkbox"/></td> </tr> <tr> <td>€</td> <td>AUDI</td> <td>A1 1.6TDI77 AMBITION E LINE</td> <td>1598</td> <td>77</td> <td>9</td> <td>M</td> <td>DIESEL</td> <td>103</td> <td>3.9</td> <td>B</td> <td>NV</td> <td>✓</td> <td>5</td> <td><input type="checkbox"/></td> </tr> <tr> <td>€</td> <td>AUDI</td> <td>A1 1.6TDI77 AMBITION MEDIA STYLE</td> <td>1598</td> <td>77</td> <td>9</td> <td>M</td> <td>DIESEL</td> <td>103</td> <td>3.9</td> <td>B</td> <td>NV</td> <td>✓</td> <td>5</td> <td><input type="checkbox"/></td> </tr> </tbody> </table> <p>Allows selection of vehicles, and allows selection of lowest CO₂ vehicles of all makes and models sold in Belgium.</p>	Korting op factuur	Merk	Model	cc	kw	Fisc. PK	Versn.	Brandstof	Co ₂	Verbruik	Categorie	Deeltjes	Roetfilter	Euro	Mijn selectie	€	AUDI	A1 1.6TDI77 ATTRACTION	1598	77	9	M	DIESEL	103	3.9	B	NV	✓	5	<input type="checkbox"/>	€	AUDI	A1 1.6TDI77 ATTRACTION MEDIASTYLE	1598	77	9	M	DIESEL	103	3.9	B	NV	✓	5	<input type="checkbox"/>	€	AUDI	A1 1.6TDI77 AMBITION E LINE	1598	77	9	M	DIESEL	103	3.9	B	NV	✓	5	<input type="checkbox"/>	€	AUDI	A1 1.6TDI77 AMBITION MEDIA STYLE	1598	77	9	M	DIESEL	103	3.9	B	NV	✓	5	<input type="checkbox"/>
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Version reviewed in case study																																																																												
Comparison of vehicle models, energy efficiency rating	Specific vehicles can be selected or the best performing vehicles can be listed.																																																																											
Guide on fuel economy: responsibilities and enforcement	The Environment Agency is responsible for design and publishing of the guide, and they check this themselves. In terms of enforcement at point of sale, both the Environment and Economic Ministries have responsibility.																																																																											
Planned modifications	None. Considering the utility of the guide (hard copy). It takes 4 to 5 months to prepare, so at publication is out of date (i.e. new models etc.). It also costs €70,000 to €80,000 per year to produce. Consideration is being given if there are better ways of achieving the same goals, such as more internet based, as most people research new cars on internet as well as showrooms. The paper guide isn't mandatory in the directive, so Belgium may well go in a paperless direction.																																																																											
Research reports/initiatives	None																																																																											
Comments	Guide is available on the internet. There is also a further website (see research notes) which is linked to the Directive but also includes running costs of cars, fuel consumption, CO ₂ emissions and an economic evaluation.																																																																											
Guide on fuel economy violations	During the last inspection campaign 86% of showrooms were ok. At 8% the guide wasn't available, at 2% the incorrect version was available, and at 4% it was not visible.																																																																											

MEMBER STATE	Belgium
<p>Overview of requirements in national legislation beyond Directive</p>	<p>None.</p>
<p>Overview of any voluntary action beyond requirements of national legislation</p>	<ul style="list-style-type: none"> • Giving more general information on CO₂ and the problems it causes, as well as the (non climate change) impact of other pollutants such as particles. • The guide mentions an incentive to have particle filters. • The guide mentions the incentives outlined above.  <p>https://portal.health.fgov.be/portal/page?_pageid=56,12404492&_dad=portal&_sc_hema=PORTAL</p> <p>Website allows for the calculation of running cost and CO₂ emissions of your existing vehicle and a selection of 7,580 new vehicles. It gives information on some of the factors influencing fuel consumption, including vehicle age, power, efficiency, weight and air resistance, distance travelled, driving style, load carried, tyre pressure and filter maintenance.</p> <p>Website allows you to order a number of copies of the CO₂ guide of a vehicle.</p> <p>Website allows you to explore the fiscal stimulation measures associated with purchasing private or business low CO₂ vehicles (see below).</p> <p>Website offers this information in Dutch, French, German and English.</p> <p>The Belgian government makes available a guide which outlines the benefits of choosing a low CO₂ vehicle. Information given includes fiscal stimulation measures, references to further information, background information on climate change, european strategy for emissions reductions, health effects, etc. It also includes information on efficient driving styles</p> <p>Further website: http://www.ecoscore.be/</p>

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	 <p>The screenshot shows the homepage of the Ecoscore website. At the top, there is a navigation bar with 'Welkom' and language options (MTV Web, NL, FR, EN). A large green circle with the number '72' is prominent, with the text 'Hoe milieuvriendelijk is jouw wagen echt?' (How environmentally friendly is your car?). Below this, a green car icon is shown with 'ecoscore' written on it. To the right, there is a map of Belgium and a question 'Hoe scoort de Belgische vloot?' (How does the Belgian fleet score?). A sidebar on the left contains a search bar, 'Bereken' (Calculate), 'Infopagina's' (Info pages), 'Belgische Vloot' (Belgian Fleet), 'FAQ', 'Links', and 'Contact'. A 'Partners' section at the bottom left lists 'vito' and other organizations. The main content area contains a welcome message and information about the website's purpose and how scores are calculated.</p> <p>This website rates old and new vehicles on their environmental impact, based on CO2 emissions, air and noise pollution. Each vehicle is assigned a score between 1 and 100, with higher score indicating lower environmental impact.</p> <p>The website contains further information and links to enable users to reduce the environmental impact of their vehicle use.</p> <p>Scores are calculated by the Vlaamse Instelling voor Technologisch Onderzoek (VITO) or Flemish Institute for Technological Research.</p> <p>Further website http://www.belgium.be/nl/mobiliteit/Voertuigen/ecologisch_rijden/</p> <p>Website contains wide ranging information relating to vehicles, including purchasing, taxation, registration, safety, as well as CO₂ emissions. A more general website.</p>
Poster	
Guidance material	None
Comparison of vehicle models, energy efficiency rating	As per the Directive
Explanation of the poster	
Poster responsibilities and enforcement	Mainly the Economic Ministry, also the Environmental Ministry.
Planned modifications	No
Research reports/initiatives	No
Comments	Better usability needed, such as search options instead of hierarchical arrangement of information (relates to guide).

MEMBER STATE	Belgium
Poster violations	During the last inspection campaign 54% were ok. In 10% no posters were present. 16% had issues relating to models, 8% had problems relating to the mandatory text, 5% had language issues, 4% needed to be updated and 2% had issues with the size of poster.
Overview of requirements in national legislation beyond Directive	A division between petrol and diesel engines.
Overview of any voluntary action beyond requirements of national legislation	None
Promotional materials	
Guidance material	None
Planned modifications	No planned changes for the national legislation. However, there are changes planned for the Febiac code, regarding the size of print/text used on leaflets smaller than A4 (see 'voluntary actions' below).
Research reports/initiatives	No
Comments	<p>The guidance provided in the Directive isn't precise enough, and is too open to interpretation. The Febiac code is becoming more precise.</p> <p>There are fiscal tax benefits ('ECO premie') available for cars with CO₂ emissions below certain levels (105 and 115 g CO₂ / km respectively). Advertisers and manufacturers place a lot of emphasis on the fuel efficiency and CO₂ emissions of cars that qualify for the benefits, by using large letters etc in advertisements. There is a marked contrast with adverts for cars above the threshold.</p>
Promotional material violations	<p>No info available, as the economic ministry is responsible.</p> <p>A Friends of the Earth Europe (2009) publication has considered compliance with the Annex IV of the Directive. In the study, 42 press advertisements (newspapers and magazines) and 8 billboards were examined in Belgium over a three-month period in 2009 to assess their compliance with "all promotional literature [must] contain the official fuel consumption and CO₂ emissions data", and that these figures should be "easy to read and no less prominent than the main part of the information provided in the promotional literature". The CO₂/fuel consumption information was present/compliant in 36% of advertisements, with the CO₂ information missing in 12% and the information being smaller than the main information in 52% of cases. 13% of billboards were fully compliant, with 0% missing CO₂ information and 88% having the CO₂ information smaller than the main information.</p>
Overview of requirements in national legislation beyond Directive	None
Overview of any voluntary action beyond requirements of	The Jury d'Ethique Publicitaire (JEP), a body created by the Conseil de la Publicité (broadly similar to the Advertising Standards Agency), and the sector have developed a voluntary code (the Febiac code) based on the legislation implementing 1999/94/EC. Febiac interprets the regulation in more detail, and specifies for example font sizes. The same code also specifies measures which

MEMBER STATE	Belgium
national legislation	<p>are unrelated to 1999/94/EC. Consumers can lodge complaints on legibility and clarity etc with JEP, the Jury for Ethical Practice in advertising (Le Jury d’Ethique Publicitaire – De Jury voor Ethische Praktijken inzake Reclame). JEP can rule over objective matters, as stated in the Febiac code, not over subjective matters and therefore they solicited the Conseil de la Publicité and Febiac to launch objective criteria about legibility and visibility for the CO₂ and consumption mentions.</p> <p>The ‘Febiac’ code has been devised to provide more clarity surrounding the implementation of the law. It includes specifications including minimum letter heights, need for horizontal descriptions, good levels of contrast, ensuring the stated CO₂ values apply to the model or models advertised, etc.</p> <p>JEP has received complaints in 2 ‘waves’, from a relatively small group of consumers. The first wave occurred before the launch of the “new” Febiac Code. Once Febiac had agreed to step over to objective criteria and parameters, no major new complaints have been received regarding the major advertising channels. The vehicle manufacturers and sellers have responded well to the implementation of the code and JEP’s complaint resolutions.</p> <p>The second wave of consumer complaints occurred more recently, and centred on advertisements in door-to-door magazines. The issue has been a mainly technical one, in that advertisers submit a advertisement to the magazine. The advertisement at this stage meets all the requirements of the law. The magazine companies then reduce the size of the entire advertisement, for example from A4 to A5, in order to fit it into the magazine. The resulting advertisement can then be in breach of the law on minimum font size.</p> <p>JEP has very recently reached an agreement with the three largest door-to-door magazine companies to prevent this happening in the future. The Febiac code is being updated with new guidance for this type of advertisements, including larger font sizes, and self-verification by the door-to-door magazines’ advertisers, who will notify JEP directly of any issues (i.e. perhaps even before consumers).</p> <p>JEP has also conducted <u>‘sensibilisation’ actions</u> on the implementation of this legislation/Code, including:</p> <ul style="list-style-type: none"> • Provision of seminars for the industry outlining the legal requirements • Sending of memo’s outlining the above • Mail to all distributors with a one page summary outlining the new rules, and good and bad examples. • Offering copy-advice to the advertisers, medias and agencies <p>Note: the response to the above question is a more general one, i.e. not specifically related to the CO₂ label. JEP is authorised to deal with advertisements and mass media, not directly with the CO₂ label for cars.</p> <p>http://www.jep.be/media/pdf/sectoriele_code/pub_code_nl_2008.pdf</p> <p>Based on a small sample of cases documented on the JEP website, any manufacturer / advertiser whom the jury has found to be infringing the Febiac code on individual advertisements is asked to comply with it in the future.</p>
Other information	
Details of any other existing or planned voluntary measures in the field of consumer	The Jury d’Ethique Publicitaire (JEP), a body created by the Conseil de la Publicité (broadly similar to the Advertising Standards Agency), and the sector have developed a voluntary code (the Febiac code) based on the legislation implementing 1999/94/EC. Febiac interprets the regulation in more detail, and specifies for example font sizes. The same code also specifies measures which

MEMBER STATE	Belgium
information on vehicle CO ₂ emissions / fuel efficiency	<p>are unrelated to 1999/94/EC.</p> <p>http://www.jep.be/media/pdf/sectoriele_code/pub_code_nl_2008.pdf</p>
Numbers of consumers contacting consumer protection organisations with respect to queries relating to the CO ₂ label	<p>JEP receives almost no queries, as it purely deals with complaints. Some complaints are received in the form of questions. The complaints are about CO₂ mentions and fuel consumption and not about the CO₂ label.</p>
Numbers of consumer queries/complaints received about the CO ₂ information provided in car promotional material	<p>JEP has received the following complaints regarding car advertising (not necessarily related to fuel economy regulations):</p> <p>Q1 2010: 297 Q2 2010: 140 Q3 2010: 4 Q4 2010: 1 Q1 2011: 247</p> <p>http://www.jep.be/media/Stats%201e%20trimester%202011%20juiste%20versie.pdf</p> <p>The JEP annual report 2010 states that of the total 560 dossiers under investigation (all subjects), 387 relate to environmental matters, of which 379 relate to fuel consumption and CO₂ emission statements.</p> <p>http://www.jep.be/media/Jaarverslag%202010.pdf</p> <p>Based on a small sample of cases documented on the JEP website, any manufacturer / advertiser whom the jury has found to be infringing the Febiac code on individual advertisements is asked to comply with it in the future. In the sample there were no examples of punitive measures.</p> <p>http://www.jep.be/nl/beslissingen-van-de-jep/?tri=0&adv=0&ser=0&cat=10&cri=0&dec=0</p> <p>Note: the below response relates to all complaints received on car CO₂ emissions advertisements. It does not specifically refer to one element of the legislation.</p> <p>Here is an overview of the number of complaints received:</p> <ul style="list-style-type: none"> - 2008: 140 - 2009: 60 - 2010: 400 - 2011: 630 <p>These complaints appeared to be generated by some 4 or 5 consumers.</p> <p>Since the last wave of complaints (1st trimester 2011), the number of complaints has dropped dramatically to one or two a month.</p> <p>JEP has received some complaints about perceived incorrect promotion of 'green' cars with levels of CO₂ emissions perceived to be too high to be called 'green'. It has carried out 'sensibilisation' actions on this issue. JEP and Conseil de la</p>

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	<p>Publicité have been organising seminars and workshops for advertisers, agencies and education institutes (centrally or in-house)</p> <p>The Consolidated ICC Code of Advertising and Marketing Communication Practice (ICC), which Belgium adheres to, also requires that no absolute statements are made, all statements should be supported by evidence, and advertisements should be internally consistent.</p>
<p>Number of hard copies of fuel economy/CO₂ guides published/distributed each year</p>	<p>35,000 are available, of which 10,000 are distributed via showrooms and 25,000 directly (via banks, etc).</p>
<p>Number of times per year the online fuel economy/CO₂ guides in each country have been accessed</p>	<p>This is recorded, for the website that hosts this information. That website also has other information on it relating to non-car environmental matters. It is not known if visitor numbers to individual sections are tracked.</p>
<p>Qualitative information on the organisations view of the effectiveness of the various tools available to them.</p>	<ul style="list-style-type: none"> • Questions from the public are received regularly on car models not on the list yet. • Also questions on old vehicles. • Environmental ministry is perceived as an authority on CO₂ by the public. • Information provision is only a part of emissions reductions. Personal opinion is that incentives are more effective, but that these require information to work. <p>It has been identified that there was a large negative side effect of the Belgian fiscal stimulation measures aimed at reducing CO₂ emissions, which has resulted in a large increase in the number and proportion of diesel vehicles in the Belgian car fleet (to ~65%). For consumers driving short distances, particularly in cities, a petrol car would be more efficient and environmentally friendly.</p> <p>Complaints about statements and advertisements have been resolved. JEP is confident the issue surrounding door-to-door magazines will be resolved with the recent agreement.</p> <p>JEP is also confident the agreement will be respected and followed by all stakeholders, just as it has been done in all cases in the past.</p>
Enforcement	
<p>Scope of enforcement activities (e.g. does enforcement relate to all of the information tools or just some of them?)*</p>	<p>All</p>
<p>Specific enforcement activities carried out*</p>	<ul style="list-style-type: none"> • Inspection campaigns • Informed of infringements (these tend to be mistakes, there appear to be a lot of goodwill). • Warning to dealers on infringement, followed by court or penalties if required
<p>Whether the level</p>	<p>It has stayed relatively steady over the last few years, though individual categories</p>

MEMBER STATE	
Belgium	
of enforcement activity has increased or decreased in the years since the Directive was transposed into national legislation	move up and down year-to-year. Detail is available. No historical detail is available before 2009.
Any problems that have arisen with regard to enforcement activities	Not aware of any. Some issues encountered with the colour scale, as a car may be in the C-scale on CO ₂ emissions, and in the D-scale on fuel consumption for example.
Any innovative measures that have been introduced to aid compliance and enforcement activities	Febiac code
Any quantitative information from enforcement bodies on how effective they believe the enforcement measures available to them have been	No problems with the guide and the label. Some problems with promotional material. Febiac is much more precise than the Directive, hence it is easier to determine compliance.
Reported compliance issues (label, poster, guide, promotional material) – number of violations	<p>See above.</p> <p>Note: the below response relates to all complaints received on car CO₂ emissions advertisements. It does not specifically refer to one element of the legislation.</p> <p>Here is an overview of the number of complaints received:</p> <ul style="list-style-type: none"> - 2008: 140 - 2009: 60 - 2010: 400 - 2011: 630 <p>These complaints appeared to be generated by some 4 or 5 consumers.</p> <p>Since the last wave of complaints (1st trimester 2011), the number of complaints has dropped dramatically to one or two a month.</p>

DENMARK	
Member State	
Contact Information	
Institution	<p>www.centerforgrontransport.dk</p> <p>Trafikstyrelsen, Center for Grøn Transport / Danish Transport Authority Gammel Mønt 4 DK-1117 København K</p>

DENMARK	
	Tlf.: +45 33929100
Contact person	Ulrich Lopdrup, Consultant Direkte: +45 33929152 Fax: +45 33932292 e-mail: ulo@trafikstyrelsen.dk
Implementation in Member State	
Implementing legislation	Trafikstyrelsen
Additional legislation	<ol style="list-style-type: none"> 1. 'Braendstofforbrugsafgiftsloven 02/09/2010- annual vehicle taxation based upon fuel economy 2. 'Bekendtgørelse om energimærkning m.v. af nye person- og varebiler' Updated in January 2010 with an additional requirement that light goods vehicles as well as passenger vehicles are required to display an energy label and comply with the above Braendstofforbrugsafgiftsloven
Planned modifications	See 'planned modifications' in label section below.
Links to other policy measures, e.g. taxation, incentives	The annual taxation under Braendstofforbrugsafgiftsloven is based upon vehicle fuel economy which is described under in the annual publication 'Hvor langt på litern', the relevant detail of this is discussed below.
Label	
Label example	The label below contains an example from the Danish Transport Authorities website.

DENMARK													
	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Energi</p> <p>Personbil/Varebil Diesel/Benzin</p> <p>Mærke</p> <p>Model</p> </div> <div style="width: 45%; text-align: right;"> <p>Billogo</p> </div> </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;"> <p>Lavt forbrug</p> <p>Højt forbrug</p> </td> <td style="width: 50%; padding: 5px; text-align: center;"> </td> </tr> <tr> <td style="padding: 5px;"> <p>Brændstofforbrug i km pr. liter ifølge officiel typegodkendelse</p> </td> <td style="padding: 5px; text-align: center;">X</td> </tr> <tr> <td style="padding: 5px;"> <p>CO2-udslip i gram pr. km</p> </td> <td style="padding: 5px; text-align: center;">Y</td> </tr> <tr> <td style="padding: 5px;"> <p>Økonomioplysninger Ejersafgift pr. år Tillægsafgift ved blandet erhverv/privat pr. år Tillægsafgift ved privat anvendelse pr. år Brændstofudgift ved 2X.000 km og X,XX kr./liter</p> </td> <td style="padding: 5px; text-align: center;">Z W U T</td> </tr> <tr> <td style="padding: 5px;"> <p>Sikkerhed Færdselsstyrelsens vurdering af bilens sikkerhed på basis af Euro NCAP, tilpasset danske versioner Nærmere oplysninger findes på www.bilviden.dk</p> </td> <td style="padding: 5px; text-align: center;">★★★★★★</td> </tr> <tr> <td style="padding: 5px;"> <p>Partikelfilter Biler uden filter pålægges årlig partikeludledningsafgift</p> </td> <td style="padding: 5px; text-align: center;">Ja</td> </tr> </table> <p style="font-size: small; margin-top: 10px;">En oversigt over brændstofforbrug og CO₂-udledning for alle nye personbiler fås gratis på alle salgssteder og findes på www.bilviden.dk.</p> <p style="font-size: small;">Ud over bilens oplyste brændstofforbrug spiller også køremåde en rolle for en bils faktiske brændstofforbrug og CO₂-udledning. CO₂ er den drivhusgas, der er hovedansvarlig for den globale opvarmning. Forbrug til klimaanlæg og lignende indgår desuden ikke i oplysningerne om brændstofforbrug.</p> <p style="font-size: small;">Dieselbiler, der ikke er forsynet med partikelfilter, er mere sundhedsskadelige end benzinbiler.</p>	<p>Lavt forbrug</p> <p>Højt forbrug</p>		<p>Brændstofforbrug i km pr. liter ifølge officiel typegodkendelse</p>	X	<p>CO2-udslip i gram pr. km</p>	Y	<p>Økonomioplysninger Ejersafgift pr. år Tillægsafgift ved blandet erhverv/privat pr. år Tillægsafgift ved privat anvendelse pr. år Brændstofudgift ved 2X.000 km og X,XX kr./liter</p>	Z W U T	<p>Sikkerhed Færdselsstyrelsens vurdering af bilens sikkerhed på basis af Euro NCAP, tilpasset danske versioner Nærmere oplysninger findes på www.bilviden.dk</p>	★★★★★★	<p>Partikelfilter Biler uden filter pålægges årlig partikeludledningsafgift</p>	Ja
<p>Lavt forbrug</p> <p>Højt forbrug</p>													
<p>Brændstofforbrug i km pr. liter ifølge officiel typegodkendelse</p>	X												
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<p>Sikkerhed Færdselsstyrelsens vurdering af bilens sikkerhed på basis af Euro NCAP, tilpasset danske versioner Nærmere oplysninger findes på www.bilviden.dk</p>	★★★★★★												
<p>Partikelfilter Biler uden filter pålægges årlig partikeludledningsafgift</p>	Ja												
Format of the label	<p>The precise specifications of the label are listed on https://www.retsinformation.dk/Forms/R0710.aspx?id=128887 with the numbered sections summarised below:</p> <ol style="list-style-type: none"> 1. The label describes the type of vehicle (passenger/commercial), manufacturer, model, variant and fuel type (diesel or petrol) 2. The vehicles specific fuel consumption in km/litre is stated in accordance with the national legislation 80/1268/EØF 16 December 1980 and placed in energy classes A-G as shown in the box below. 3. The vehicles specific fuel consumption in km per litre 4. The vehicles specific CO₂ emissions in g/km are stated 5. Box 5 covers the economic running cost information, with the first figure (Z) being the road tax cost per annum and figure (T) being the typical fuel costs for driving 20,000km, all costs stated in Danish Kroner. Points (W) and (U) are additional annual taxes for light goods vehicles for either mixed commercial/private use or just private use. 6. A vehicle safety box based upon EuroNCAP ratings for vehicles the first being passive protection or the 'Adult Occupant Protection' and the second set of 												

DENMARK

stars being the active or 'pedestrian protection' scoring.

7. Whether the vehicle has a particle filter or not. Those without face an additional tax.
8. The text provides a summary of where further information on all vehicles performance can be found. It also states that driving style influences CO₂ emissions. Finally diesel vehicles not fitted with particle filters are more health damaging than petrol vehicles.

The label does not apply to electric vehicles and the regulations do not apply to second hand vehicles.

A manufacturer or retailer could create their own energy label however given the detail of the above specifications this would essentially look the same. Trafikstyrelsen consulted the industry at the time of introducing the eco-label and they made an agreement with industry that they would facilitate their introduction. The approach taken is that each dealer (and/or private individual) can download the energy label for the specific model by clicking on the energy label on the website against that specific model number. For example the first listed vehicle an Alfa Romeo model will bring up the following label:
<http://www.hvorlangtpaaliteren.dk/hvor/energimaerke/energimaerke.asp?billID=603740>

This overcame initial reluctance and that some dealers were creating their own labels (that were inappropriate). Anecdotal evidence would suggest that the system is working well with good compliance and consumers are becoming much more aware and interested in the label (Trafikstyrelsen and Danish Car Importers Association).

Labelling of vans up to 3,500kg:

The label is also required for commercial vans 'Bekendtgørelse om energimærkning m.v. af nye person- og varebiler' January 2010. The main reasoning behind the application of the label to vans was that vans are included in the annual taxation system used for passenger vehicles, and it is therefore logical to bring them into the same labelling system. Vans are also often bought for non-commercial reasons in Denmark.

- It applies to vans up to 3,500kg
- At the time of research July 2011 there were 3735 different vans listed on Trafikstyrelsens website <http://www.hvorlangtpaaliteren.dk/sw163529.asp> with energy labels. This includes all sub-categories of a van model for example specific model variants of a Ford Transit (i.e there are 24 different 2.4 litre Ford Transit vans listed, then subsequent variants of larger engine versions). For vans the exact same fuel economy classes are used as for passenger vehicles.

Trafikstyrelsen acknowledge that labelling of vans is more troublesome for than for passenger cars due to the number of model variants. However, each type of van that is available for purchase from a showroom must have an official energy label. If the information is not available for fuel consumption of that specific model then a formula is applied to estimate the fuel consumption per km. This estimation will result in a higher annual tax than if they were able to calculate fuel consumption. Typically manufacturers are able to provide information on the fuel consumption of a van under various different configurations so this is not a problem

The labelling of vans in Denmark applies to the vehicle on display. The information on labelling is also available online as in the same format as for passenger cars. However, other elements that follow the Directive for passenger vehicles are not the same for vans. For example a hardcopy guide is not produced for vans nor is it a requirement for

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	a poster display at points of sale.																										
Explanation of the label, including any classes	<p>The label is based upon defined classes from A-G each with defined thresholds for petrol and diesel vehicles respectively. As mentioned above the classes are based upon fuel consumption per km. The categories are also split into sub-classes for annual vehicle taxation (see second table) with the taxation level stated in the guidance document 'Hvor langt på litern'</p> <p>Table adapted from: https://www.retsinformation.dk/Forms/R0710.aspx?id=128887</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th rowspan="2">Energy Class</th> <th colspan="2">Fuel Consumption km per. litre</th> </tr> <tr> <th>Petrol</th> <th>Diesel</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>At least 18,2</td> <td>At least 20,5</td> </tr> <tr> <td>B</td> <td>18,1 - 15,4</td> <td>20,4 - 17,3</td> </tr> <tr> <td>C</td> <td>15,3 - 14,3</td> <td>17,2 - 16,1</td> </tr> <tr> <td>D</td> <td>14,2 - 12,5</td> <td>16,0 - 14,1</td> </tr> <tr> <td>E</td> <td>12,4 - 11,8</td> <td>14,0 - 13,2</td> </tr> <tr> <td>F</td> <td>11,7 - 10,5</td> <td>13,1 - 11,9</td> </tr> <tr> <td>G</td> <td>Under 10,5</td> <td>Under 11,9</td> </tr> </tbody> </table>	Energy Class	Fuel Consumption km per. litre		Petrol	Diesel	A	At least 18,2	At least 20,5	B	18,1 - 15,4	20,4 - 17,3	C	15,3 - 14,3	17,2 - 16,1	D	14,2 - 12,5	16,0 - 14,1	E	12,4 - 11,8	14,0 - 13,2	F	11,7 - 10,5	13,1 - 11,9	G	Under 10,5	Under 11,9
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Label responsibilities and enforcement	<p>All new passenger cars and vans under 3.5 tonnes for sale must exhibit the energy label. This requirement is stated in national legislation and failure to comply with the specific content and display standards could be penalised. The Trafikstyrelsen are responsible for enforcement of the directive and regularly visit car dealers to monitor and ensure compliance (see label violations for further information).</p> <p>The label has been a requirement for passenger vehicles since 2000 and vans since January 2010.</p>																										
Planned modifications	<p>According to plans, the labelling will be revised in 2011 – adding new energy classes to the label (A+, A++ and A+++). The reason for this is that the current classes are to some extent diluted in the sense that more than 50 pct of the new passenger cars in 2010 were energy class A. This is planned to be introduced in early 2012.</p> <p>This approach has been taken as certain trades such as taxis have a requirement for energy class B as a minimum. It was announced in July 2011 that the minimum threshold was increasing from class C, for specific types of taxis lower energy classes are permitted. Changing the existing band values influences any requirements in other legislation, therefore it was more straightforward to add additional energy classes.</p>																										
Research reports/initiatives	N/A																										
Comments	N/A																										

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Label violations	<p>Trafikstyrelsen undertake ongoing control with unannounced visits at about 200 randomly chosen dealers per year. The percentage of dealers following the rules in all aspects is continuously rising. In the first quarter of 2011 more than 55 percent were fully satisfactory and about 35 percent followed the legislation with only minor comments. About 10 percent were not satisfactory and two have been reported to the police for non compliance. In reporting to the police the dealers are given a warning mark first, if following a second inspection the problem has not been rectified then the police are informed.</p>
Overview of requirements in national legislation beyond Directive	<p>The specific requirements of the label i.e. the content, size and format as outlined above.</p> <p>The national legislation also has an annual taxation on vehicles fuel economy introduced on the 02/09/2010 'Braendstoffforbrugsafgiftsloven'. This applies to all passenger vehicles (carrying up to 9 people) registered from the 1st July 1997. For light goods vehicles the annual taxation applies to vehicles registered after the 18th March 2009. For vehicles registered before these respective dates 'Vægtafgiftsloven' applies for full rates see http://www.skm.dk/tal_statistik/satser_og_beloeb/242.html under Vægtafgiftsloven taxation level is based upon the vehicles weight.</p> <p>The 'Braendstoffforbrugsafgiftsloven' annual vehicle taxation breaks the energy classes defined by the energy label into further sub-categories. Each sub-category has a specific vehicle tax and estimation of the annual fuel costs for comparative purposes and is shown below.</p> <p>Taxation of vans:</p> <p>For the annual taxation of vans under 'Braendstoffforbrugsafgiftsloven' an additional surcharge of 2,520 Kroner per 6 months is applied for vehicles under 3,000kg and 7,500 Kroner per 6 months for vehicles between 3,001-3,500kg.</p>

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	Energiklasse	Benzin km/l	Årlig ejeravgift kr.	Energiklasse	Diesel km/l	Årlig ejeravgift kr.
	A	Mindst 20,0	510	A	Mindst 32,1	160
	A	19,9 - 18,2	1.020	A	32,0 - 28,1	740
	B	18,1 - 16,7	1.520	A	28,0 - 25,0	1.320
	B	16,6 - 15,4	2.020	A	24,9 - 22,5	1.960
	C	15,3 - 14,3	2.520	A	22,4 - 20,5	2.600
	D	14,2 - 13,3	3.020	B	20,4 - 18,8	3.220
	D	13,2 - 12,5	3.500	B	18,7 - 17,3	3.860
	E	12,4 - 11,8	4.000	C	17,2 - 16,1	4.500
	F	11,7 - 11,1	4.500	D	16,0 - 15,0	5.140
	F	11,0 - 10,5	5.000	D	14,9 - 14,1	5.780
	G	10,4 - 10,0	5.500	E	14,0 - 13,2	6.420
	G	9,9 - 9,1	6.480	F	13,1 - 12,5	7.080
	G	9,0 - 8,3	7.500	F	12,4 - 11,9	7.720
	G	8,2 - 7,7	8.500	G	11,8 - 11,3	8.340
	G	7,6 - 7,1	9.480	G	11,2 - 10,2	9.620
	G	7,0 - 6,7	10.480	G	10,1 - 9,4	10.920
	G	6,6 - 6,3	11.480	G	9,3 - 8,7	12.180
	G	6,2 - 5,9	12.460	G	8,6 - 8,1	13.480
	G	5,8 - 5,6	13.460	G	8,0 - 7,5	14.700
	G	5,5 - 5,3	14.480	G	7,4 - 7,0	15.980
	G	5,2 - 5,0	15.480	G	6,9 - 6,6	17.280
	G	4,9 - 4,8	16.460	G	6,5 - 6,2	18.540
	Sætserne for vægtafgift for ældre biler kan du finde på www.skat.dk			G	6,1 - 5,9	19.820
				G	5,8 - 5,6	21.140
				G	5,5 - 5,4	22.400
Overview of any voluntary action beyond requirements of national legislation	The following actions undertaken by the Trafikstyrelsen are example of action beyond the requirements of the Directive.					
	<ul style="list-style-type: none"> - Labelling of vans - Energy arrows - Provision of information on safety - Provision of information on costs - Provision of information on whether diesel vehicles have particulate trap or not 					
Guide on fuel economy						
Example for Guide on Fuel Economy	‘Hvor langt på literen 2011’ (How far per litre) published by Trafikstyrelsen is publicly available via the link below (accessed July 2011). They print around 100,000 per year which are automatically sent out to every “new car” dealer, to all vehicles inspection locations and libraries. http://www.fstyr.dk/DA/Groen-Transport/~media/280441F397DD4CA2ADEFAC41B7AF40B.ashx					
Internet version	A web based interactive version of ‘Hvor langt på literen’ is also available online and allows users to search for specific vehicle types. It also contains a calculator to determine the annual cost of running your vehicle. The web based version includes all goods vehicles where as the printed Guide covers just passenger cars. http://www.hvorlangtpaaliteren.dk/sw163551.asp (for web version) http://www.hvorlangtpaaliteren.dk/sw99245.asp (for web based calculator tool)					

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Version reviewed in case study	'Hvor langt på literen 2011' as published April 2011 by the Danish Transport Authority																											
Comparison of vehicle models, energy efficiency rating	The 'Hvor langt på literen 2011' provides details of all major vehicle manufactures and models. As previously mentioned above the web based version also allows users to review the fuel efficiency of any older vehicles dating back to 1997.																											
Guide on fuel economy: responsibilities and enforcement	Trafikstyrelsen update the guide on fuel economy on an annual basis. The web site is active and is uploaded with new models every week. Trafikstyrelsen are also responsible for enforcement and undertake random checks.																											
Planned modifications	In the future it seems reasonable to stop the printed version and only keep the web site, since this is uploaded on a regular basis and therefore much more relevant. It is also Trafikstyrelsen's impression that most consumers use the internet to get their information.																											
Research reports/initiatives	N/A																											
Comments	N/A																											
Guide on fuel economy violations	The availability of the printed version at the car dealers might not always be fully satisfactory since they seem to misplace it or forget to order new copies when they are out of pamphlets.																											
Overview of requirements in national legislation beyond Directive	<ul style="list-style-type: none"> -The guide provides 10 tips for energy efficient driving technique -Taxation of vehicles without approved particle filters. From the 1st January 2011 all diesel vehicle must meet the Euronorm 5 standards which requires particle filters. For vehicles that sold in 2011 that meet Euronorm 4 that do not have an approved particle filter they must pay an annual fee of 1.000 DK -Annual taxation of light goods vehicles and availability of emission information on goods vehicles. -Vehicles dating from 1997 onwards are required to pay an annual taxation based upon fuel economy, the online guide provides categorisation of which energy efficiency band the vehicle lies in. -All vehicle advertisement should clearly include the energy class should the advertisement refer to a specific vehicle model. https://www.retsinformation.dk/Forms/R0710.aspx?id=128887 																											
Overview of any voluntary action beyond requirements of national legislation	-Trafikstyrelsen's Web based tool is an example of going beyond the directive.																											
Poster																												
Guidance material	<p>An example of the poster content is below that must display the vehicle performance of every vehicle being sold at a particular location.</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Fuel type</th> <th>Ranking</th> <th>Model</th> <th>CO₂-emissions</th> <th>Fuel economy</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Petrol</td> <td>1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> </tr> <tr> <td>...</td> <td></td> <td></td> <td></td> </tr> <tr> <td rowspan="2">Diesel</td> <td>1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Fuel type	Ranking	Model	CO ₂ -emissions	Fuel economy	Petrol	1				2				...				Diesel	1				2			
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	...				
Comparison of vehicle models, energy efficiency rating	Refer to the table above.				
Explanation of the poster	<ul style="list-style-type: none"> The poster must be at least 70cm x 50cm and easily readable The vehicles must be ranked according to their fuel consumption within fuel type i.e. A ranking for petrol vehicles and one for diesel. 				
Poster responsibilities and enforcement	<p>The poster must include text that an overview document of the CO₂ emissions from all new passenger vehicles is available from all points of sale. In addition specified text also must be included that states driving style influences CO₂ emissions which is a greenhouse gas that causes global warming.</p> <p>The poster should be updated at least every 6 months; new vehicles added in between updates should be included on the bottom of the list.</p> <p>Trafikstyrelsen are responsible for enforcement of the poster.</p>				
Planned modifications	No planned modifications to the poster				
Research reports/initiatives	No				
Comments	N/A				
Poster violations	No information available				
Overview of requirements in national legislation beyond Directive	None				
Overview of any voluntary action beyond requirements of national legislation	N/A				
Promotional materials					
Guidance material	<p>In relation to promotion of fuel efficient cars and fuel efficient driving, Trafikstyrelsen are currently running a campaign called "Kør Grønt" (2010-2012). Through TV- and radio spots, web sites, events etc the aim is to try and push forward the message to the consumers to go for the most efficient cars and to drive all cars at the most efficient way. www.korgront.dk</p> <p>See further information below.</p>				
Explanation of promotional materials					
Planned modifications	None				
Research reports/initiatives	N/A				
Comments	N/A				

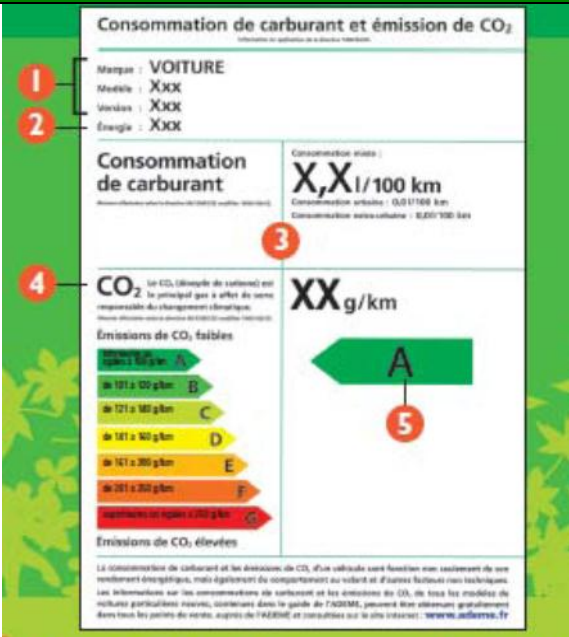
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Promotional material violations	No information available
Overview of requirements in national legislation beyond Directive	Since January 2011, advertisements are required to display the coloured band/arrow for the model of car being advertised in addition to the text on fuel consumption/CO ₂ emissions.
Overview of any voluntary action beyond requirements of national legislation	N/A
Other information	
Details of any other existing or planned voluntary measures in the field of consumer information on vehicle CO ₂ emissions / fuel efficiency	<p>The Danish Transport Authority (Trafikstyrelsen) has, at the time of writing (July 2011), a greener driving campaign (Kørgrønt) http://www.kørgrønt.dk/ This campaign running during 2010-2012 offers users the ability to:</p> <ul style="list-style-type: none"> -find their vehicle; -look at the energy marking of their vehicle or any other vehicle type; -review information relating to their fuel consumption; -information about the Kørgrønt driving course and certification; and -video providing tips for energy efficient driving, as well as ten tips on the website.
Numbers of consumers contacting consumer protection organisations with respect to queries relating to the CO ₂ label	Very few if any consumers contacting consumer protection organisations with respect to queries relating t the CO ₂ label.
Numbers of consumer queries/complaints received about the CO ₂ information provided in car promotional material	Very few if any queries/complaints received. The implementation of the Directive has been relatively smooth, although there was initially a small problem at the start with the large manufacturers. This situation was resolved by the DCIA and Trafikstyrelsen through coordinating an approach to explain to the manufactures respective marketing divisions on what they had to do. This approach offered some flexibility for example, at the time of changing the requirements they allowed a 3 month window during which manufactures were allowed to use up 'old' marketing material
Number of hard copies of fuel economy/CO ₂ guides published/distributed each year	Between 80,000 and 160,000 guides issued each year.
Number of times per year the online fuel economy/CO ₂ guides in each country have been accessed	No information available.
Qualitative	No information available.

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information on the organisations view of the effectiveness of the various tools available to them.	
Enforcement and compliance	
Reported compliance issues (label, poster, guide, promotional material) – number of violations relating to car CO ₂ information	Information on the level of compliance on label is presented above (in the label section). Compliance for appropriate display of the energy is has label is the highest priority for Trafikstyrelsen as this links with the web information and tax levels. Guidance leaflet and poster are monitored but with a lower level of enforcement.

FRANCE	
Member State Contact Information	
Institution	Ministère de l'environnement Direction General de l'énergie et du Climat
Contact person	Mr Yannick Souchet (DGEC) Yannick.Souchet@developpement-durable.gouv.fr
Implementation in Member State	
Implementing legislation	<p>Implementation of Directive 1999/94 was adopted into French law under Decree n° 2002-1508 of 23 December 2002, implemented by the "Arrete" of the 10th April 2003, amended in November 2005. This decree is part of the wider Climate Change Action Plan (Plan Climat).</p> <p>Under the Decree, consumers should be informed on fuel consumption and CO₂ emissions for all new passenger cars and vans. This information has to be made available through a label displayed on new cars, on posters displayed at the points of sale, on any promotional materials, as well as in technical manuals. A Decree of 10 April 2003 allows for the electronic transmission of this information; however, this method is not widely used. In France, the DGCCRF (General Directorate for Competition Policy, Consumer Affairs and Fraud Control) is responsible for ensuring and enforcing rules on required information to consumers and fair business practices directed at consumers. Accordingly, the DGCCRF ensures that consumers are given clear and honest information concerning goods and services offered for sale. It oversees the proper use of symbols that enhance the value of products (quality logos, labels, certifications of origin, organic agriculture labelling, etc.). It detects and sanctions practices deemed detrimental to consumers (e.g., deceptive advertising, artificial discounts and abuse of weakness) and checks for compliance with price posting rules.</p> <p>l'ADEME (Agence de l'Environnement et de la Maîtrise de l'Energie) which falls under the Ministry of the Environment is responsible for compiling and publishing the guide on fuel economy and CO₂ emissions which is updated</p>

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	yearly.												
Additional legislation	N/A												
Planned modifications	<p>A review of the Decree is underway, and is planned for implementation early 2012. The key amendments to the Decree will be as follow (still under consultation):</p> <ul style="list-style-type: none"> • Add annual fuel cost • Identify fiscal category of the vehicle (i.e. does the vehicle fall within the malus/bonus fiscal incentives and if so to what amount) • Extend current application to light commercial use vehicle (category N1 i.e. less than 3.5 tonnes) • Extend the application of the labeling to second hand cars (that have been put on the market from 2004, which is when vehicle registration documents started to state CO₂ emissions), and rental cars (for rentals less than 3 months long). However the label requirement will be “lighter”, it will need to show CO₂ emissions but won't be required to include annual fuel cost 												
Links to other policy measures, e.g. taxation, incentives	<p>(décrets n° 2007-1824 du 25 décembre 2007 et 2007-1873 du 26 décembre 2007)</p> <p>http://www.legifrance.gouv.fr/affichTexte.do;jsessionid=B79C0CDE9B09E441CFCB661E87E0662A.tpdjo08v_1?cidTexte=LEGITEXT000017788012&dateTexte=20110721</p> <p>Bonus-Malus: France introduced the Bonus-Malus scheme for personal cars in 2008 to encourage manufacturers to develop low-emission vehicles by guiding consumer choice. The Bonus- Malus system is a financial incentive/penalties aimed at rewarding consumers that choose to buy greener more efficient cars. The scale of emission rates has been updated yearly to reflect emission improvements in new models. The income generated by the “malus” was to subsidize the “bonus” incentives, however the initiatives has been so successful that it has not achieve financial equilibrium. It was initially launched for 4 years (i.e to 2012) and so far there has not been any confirmation of is being renewed or cancelled.</p> <p>This scheme provides a financial subsidy to those who purchase a new car that emit less than 110 grams of CO₂ per kilometre, while imposing a financial penalty on those who buy new cars that emit over 151 g CO₂/km.</p> <p>2011 Bonus (financial incentives)</p> <table border="1"> <thead> <tr> <th style="background-color: #008000; color: white;">Emission rates g CO₂/km</th> <th style="background-color: #008000; color: white;">Amount of financial support (€)</th> </tr> </thead> <tbody> <tr> <td>Less than 60</td> <td>5,000</td> </tr> <tr> <td>Between 61 and 90</td> <td>800</td> </tr> <tr> <td>Between 91 and 110</td> <td>00</td> </tr> <tr> <td>Between 111 and 150</td> <td>0</td> </tr> </tbody> </table> <p>Hybrid vehicles receive a €2,000 reward if the CO₂ emissions are less than 110 gCO₂/km. This was lowered from 135 gCO₂/km in January 2011.</p> <p>2011 Malus (Financial penalties)</p> <table border="1"> <thead> <tr> <th style="background-color: #008000; color: white;">Emission rates g CO₂/km</th> <th style="background-color: #008000; color: white;">Amount of financial penalties (€)</th> </tr> </thead> <tbody> </tbody> </table>	Emission rates g CO ₂ /km	Amount of financial support (€)	Less than 60	5,000	Between 61 and 90	800	Between 91 and 110	00	Between 111 and 150	0	Emission rates g CO ₂ /km	Amount of financial penalties (€)
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	<p>It is estimated that 31% of new cars bought benefit from a bonus, whereas for 25% a new cars a financial penalties will apply.</p> <p>From 1st of January 2012 the tax will be as follow will be:</p> <table border="1"> <thead> <tr> <th style="background-color: #008000; color: white;">Emission rates g CO₂/km</th> <th style="background-color: #008000; color: white;">Amount of financial support (€)</th> </tr> </thead> <tbody> <tr> <td>Less than 0</td> <td>5,000</td> </tr> <tr> <td>Between 50 and 60</td> <td>3,500</td> </tr> <tr> <td>Between 61 and 0</td> <td>600</td> </tr> <tr> <td>Between 91 and 105</td> <td>300</td> </tr> <tr> <td>Above 10</td> <td>0</td> </tr> <tr> <th colspan="2" style="background-color: #008000; color: white;">Amount of financial penalties (€)</th> </tr> <tr> <td>Between 141 and 150</td> <td>200</td> </tr> <tr> <td>Between 151 and 155</td> <td>500</td> </tr> <tr> <td>Between 156 and 180</td> <td>750</td> </tr> <tr> <td>Between 181 and 190</td> <td>1,100</td> </tr> <tr> <td>Between 191 and 230</td> <td>1,600</td> </tr> <tr> <td>Over 231g</td> <td>2,600</td> </tr> </tbody> </table> <p>http://www.developpement-durable.gouv.fr/Le-bonus-ecologique-c-est-facile.html</p> <p>There is an additional CO₂ tax on car registrations (“carte grise”) for all second handcars that were first registered after 1st of June 2004. This additional tax has been active since 1st of July 2006. This surtax applies as follow:</p> <ul style="list-style-type: none"> • No surtax if the CO₂ emissions are below 200g/km • Surtax applies to all vehicles with CO₂ emission above 200g/km <ul style="list-style-type: none"> ○ €2 per gram for vehicles with CO₂ emission between 201 and 250g/km ○ An additional 4 € per gram of CO₂ emissions above 250g/km <p>In addition to the above, France is considering introducing a “super-bonus” that would be allocated to a consumer that has disposed of (not sold on) a car at least 15 years old and buying a low CO₂ emission replacement car.</p> <p>France is also looking at implementing an annualised malus system for the most polluting vehicles, in addition to current taxes.</p>	Emission rates g CO ₂ /km	Amount of financial support (€)	Less than 0	5,000	Between 50 and 60	3,500	Between 61 and 0	600	Between 91 and 105	300	Above 10	0	Amount of financial penalties (€)		Between 141 and 150	200	Between 151 and 155	500	Between 156 and 180	750	Between 181 and 190	1,100	Between 191 and 230	1,600	Over 231g	2,600
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Label																											

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Label example	 <p>1-Identification: Indicates the make and model of the car</p> <p>2-Type of fuel: Petrol, diesel, GPL (liquefied petroleum gas), GNV (natural gas for vehicles)</p> <p>3-Consumption: Fuel consumption of the car measured by XX litres per 100 km (based on urban cycles and extra-urban cycles)</p> <p>4-CO₂: CO₂ emissions based on a mixed cycle expressed in g/km</p> <p>5-Ranking of car performance relative to CO₂ emissions (on a scale from A to G)</p>														
Format of the label	The current label format, which includes 7 colour codes (similar to the EU energy label used for household electrical appliances), was implemented in 2005 through modification to the Arrêté of 2003. The label allows the potential car purchaser to visually interpret and compare the CO ₂ emissions of different vehicles.														
Explanation of the label, including any classes	<p>CO₂ emissions (g/km)</p> <table border="1" data-bbox="549 1487 1066 1621"> <thead> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>G</th> </tr> </thead> <tbody> <tr> <td><10 0</td> <td><12 0</td> <td><14 0</td> <td><16 0</td> <td><20 0</td> <td><25 0</td> <td>>25 0</td> </tr> </tbody> </table>	A	B	C	D	E	F	G	<10 0	<12 0	<14 0	<16 0	<20 0	<25 0	>25 0
A	B	C	D	E	F	G									
<10 0	<12 0	<14 0	<16 0	<20 0	<25 0	>25 0									
Label responsibilities and enforcement	The DGEC (French Ministry of Environment) is responsible for ensuring that labels placed on new cars contain correct and required information.														
Planned modifications	There revision of the Decree plans to introduce additional information on the label such as the yearly fuel cost, and a shorter label for second-hand car (it won't require the yearly fuel cost).														
Research reports/initiatives	<p>http://www.developpement-durable.gouv.fr/National-experimentation-for-the.html : study on eco labelling of wide range of products – trial across France.</p> <p>The last survey conducted by ADEME was in 2008 just after the bonus/malus incentive was implemented (not published/publicly available). Its results showed that:</p> <ul style="list-style-type: none"> For 31% of respondents the key criteria was price (against 24% in 														

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	<p>2007)</p> <ul style="list-style-type: none"> • The importance of CO₂ emissions in the decision making rose from 33% in 2007 to 41% as very important • In 2008 35% of buyers knew the CO₂ emission of the vehicle they were buying (compared to 33% in 2007) due to the label • 67% of buyer recognized the label as an indicator of CO₂ emissions for the vehicle • The label (coupled with the malus/bonus incentive) has influence purchasing behavior, 83% of buyer saw it as an incentive against 77% in 2007.
Comments	N/A
Label violations	<p>As of September 2011, the only official statistics available regarding violation of the label requirements were from 3 reports – two were conducted in 2007 and the last one was completed in 2008.</p> <p>The DGccrf reported that only minor infractions were being recorded. The DGccrf registered less than 10% of violations from controlled dealerships, and it stated that there was very rarely any legal proceeding against organisations for violations in 2011.</p> <p>In 2009, the main violations recorded were:</p> <ul style="list-style-type: none"> • That the label was displayed in black and white instead of in colour. • The lack of information on price and options of vehicle on display. <p>Friend of the Earth completed a field study in 2009 regarding the implementation of the Directive across 6 member states. The study included visits to 23 showroom and showed that 17% were non-compliant by not displaying any CO₂ emissions information or poorly displayed.</p>
Overview of requirements in national legislation beyond Directive	None.
Overview of any voluntary action beyond requirements of national legislation	<p>A new format of the existing label for new passenger vehicles is being planned that would display annual running costs based on average annual estimated fuel costs. This modification to the Decree is currently planned for adoption early 2012. The Ademe will be responsible for communicating the format requirements of the new label format to professionals through the Ademe website.</p> <p>.</p>
Guide on fuel economy	
Example for Guide on Fuel Economy	<p>The Guide ('Consommations de carburant et émissions de gaz carbonique') is available here:</p> <p>http://www2.ademe.fr/servlet/getDoc?cid=96&m=3&id=52820&p1=00&p2=12&ref=17597</p> <p>Previous versions of the guides from 2004 up to 2011 can be downloaded from the website. The guide is updated annually.</p>
Internet version	<p>The label and detailed description can be accessed on various internet sites and included in a brochure to be downloaded from the internet from the ADEME (French Environment and Energy Management Agency) website -</p> <p>http://www2.ademe.fr/servlet/getBin?name=1468EE1DDC1D67B36A62E15B0E86EAC21153908873316.pdf</p>
Version reviewed in case study	The 2011 edition

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Comparison of vehicle models, energy efficiency rating	<p>Tables are included in the Guide that contain information on the make, model, horsepower, transmission, fuel type, fuel consumption, CO₂ emissions, CO₂ class grade, and bonus/malus costs that allow car owners to compare the energy and environmental performance of new cars.</p> <p>The guide present a summary for the top 10 model for each type of fuel, and further table listing all models on the market by manufacturers and models.</p>
Guide on fuel economy: responsibilities and enforcement	<p>The ADEME is responsible for collecting the data and publishing the Guide on Fuel Economy every year. Data is collected annually from the UTAC (Technical Union of Automobiles and Motorcycles) and from car manufacturers. The ADEME is responsible for ensuring the Guide on Fuel Economy is available free of charge in the points of sale.</p> <p>No information has been reported regarding the enforcement of the guide. This one is available at dealership and showroom in hard copies if it has been requested, otherwise it can be accessed online.</p>
Planned modifications	See information included on planned modifications in the Implementation section. 2011
Research reports/initiatives	N/A
Comments	N/A
Guide on fuel economy violations	None.
Overview of requirements in national legislation beyond Directive	<p>The additional information provided in the guide includes a summary of current legislation and initiatives that affect car owners, a section on the importance of reducing CO₂ emissions by selecting more environment-friendly cars, and how to keep the car well maintained so as to reduce CO₂ emissions.</p> <p>The guide provides information on how car owners can calculate annual running costs for 15 000 km as well as the Bonus/Malus figures. Comparisons in the guide show how much more (Malus) the consumer would have to pay for a more polluting car, and how much bonus (rebate amount) would be taken off the final purchase price of the car due to more environment-friendly features.</p>
Overview of any voluntary action beyond requirements of national legislation	<p>Online web-tool/calculator that allows potential car owners to select the least polluting cars based on search criteria such as the make and model of the vehicle, vehicle size, number of doors etc. The tool can be accessed here: www.ademe.fr/internet/aide_choix_vehicule .The Ademe also publishes every a year a list of the best vehicles in terms of environmental performance ("Palmarés 2011").</p> <p>The Ademe website also provides a list of French consumer magazines and guides that compare CO₂ emissions of cars.</p> <p>An additional consumer's guide is published annually to inform consumers about the different financial incentives available when purchasing less polluting passenger vehicles. The goal of this guide is to make it more financially attractive to purchase more environment-friendly cars. In addition, comparisons are included in the guide that shows the differences in annual running costs of less polluting vehicles compared to more polluting ones. The guide can be downloaded here: http://ecocitoyens.ademe.fr/sites/default/files/guide_aides_vehicules09.pdf</p>
Poster	

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Guidance material	Not available.
Comparison of vehicle models, energy efficiency rating	
Explanation of the poster	<p>The poster should recapitulate fuel economy and CO₂ emissions of new passenger cars</p> <p>As per the Directive, the poster should include :</p> <ul style="list-style-type: none"> Data on fuel consumption and CO₂ data should be grouped by manufacturer and by type of fuel. The types of vehicles are classified in growing order of CO₂. <p>For each type and variant of models it needs to show the name of the model, the type (CNIT), the CO₂ value, mixed fuel consumption (urban, motorway..) and the main technical characteristics.</p>
Poster responsibilities and enforcement	The DGCCRF is responsible for ensuring that posters contain correct and required information. Under Article 3 of the Decree, at every point of sale data must be displayed in a visible manner on the fuel economy and CO ₂ emissions of new passenger cars.
Planned modifications	See information included on planned modifications in the Implementation section.
Research reports/initiatives	None
Comments	N/A
Poster violations	No information available.
Overview of requirements in national legislation beyond Directive	None
Overview of any voluntary action beyond requirements of national legislation	None
Promotional materials	
Guidance material	
Explanation of the promotional materials	As per description in poster section
Planned modifications	The Ministry of the Environment is awaiting for a revision of the Directive to identify what else can/ should be done in term of media, but it thinks that the revisions of the Regulation about to be implemented should already improve the current situation.
Research reports/initiatives	No new studies since the previous report on this Directive
Comments	N/A
Promotional material violations	<p>Recently, several individual consumer and consumer association complaints in France pointed out that on several promotional materials, such as TV advertisements, information on CO₂ emissions and fuel consumption are not visible enough. Currently no legal proceedings have been filed in reaction to these complaints.</p> <p>Friend of the Earth completed a field study in 2009 regarding the implementation of the Directive across 6 member states. Out of 125 adverts in newspaper and magazines in France, 7% were compliant, 15% were not presenting any CO₂ information and 78% had the CO₂ information smaller</p>

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	than the core information in the advert. It looked at 44 billboards advert and just 5% were compliant with the Directive requirements, a further 66% displayed some information on the CO ₂ emission but in small font.
Overview of requirements in national legislation beyond Directive	None
Overview of any voluntary action beyond requirements of national legislation	
Other information	
Details of any other existing or planned voluntary measures in the field of consumer information on vehicle CO ₂ emissions / fuel efficiency	None has been mentioned
Numbers of consumers contacting consumer protection organisations with respect to queries relating to the CO ₂ label	None reported by the representative association of advertising companies.
Numbers of consumer queries/complaints received about the CO ₂ information provided in car promotional material	After contacting the ADEME it appears that they don't receive any direct consumer complaints at headquarter, however they do have regional offices and believe that they would most likely receive any complaints through these offices. They were unable to indicate how many (if any) have been received in any specific year.
Number of hard copies of fuel economy/CO ₂ guides published/distributed each year	The ADEME stated hat 40,000 hard copies are published, but were unable to provide details on how many hits on their website they got relating to the guide.
Number of times per year the online fuel economy/CO ₂ guides in each country have been accessed	No information available.
Qualitative information on the organisations view of the effectiveness of the various tools available to them.	Seem happy with the current design of the label and the guide.
Enforcement	
Scope of enforcement activities (e.g. does enforcement relate to all of the information tools or just some of them?)	Enforcement activities are mainly related to the display of label in showroom.
Specific enforcement activities carried out	Carry out visit of dealership and showroom. Very few problems are being registered and in general the DGccrf mentioned that a written notification and a reminder of the legal requirement is enough to ensure actions are taken to

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	ensure compliance.
Whether the level of enforcement activity has increased or decreased in the years since the Directive was transposed into national legislation	The enforcement activities have greatly reduced since the Decree was implemented. Today less than 10% of showroom and dealership visited were non-compliant with the regulations and there were mainly minor violations.
Any problems that have arisen with regard to enforcement activities	None reported
Any innovative measures that have been introduced to aid compliance and enforcement activities	None identified
Any quantitative information from enforcement bodies on how effective they believe the enforcement measures available to them have been	DCccfr mentioned that there are very little enforcement taking place as just a reminder of the legal requirements are almost always enough to get full compliance.
Reported compliance issues (label, poster, guide, promotional material) – number of violations relating to car CO ₂ information	In 2009 a national investigation was carried out to verify the extent and accuracy to which car labels presented information on CO ₂ emissions. Results of this investigation were considered satisfying as there has been a significant decrease in infractions of the Decree compared to the number of violations reported in 2005. Most infractions concerned problems with the proper display of posters at points of sale, which are often not visible enough or updated on a regular basis. Less frequent violations include those professionals that display the car label in white and black instead of in colour.

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Member State Contact Information	
Institution	Bundesministerium für Wirtschaft und Technologie (Federal Ministry for Economy and Technology) Scharnhorststraße 34-37 10115 Berlin Germany
Contact person	Ms. Beate Braams, LL.M. Desk Officer Unit III A 5 - Spezielle Fragen der rationellen Energienutzung und der Energieeffizienz, dena (Specific questions on energy efficiency and Dena) Tel: +49 (0)30 18615 7378 Fax: +49 (0)30 18615 507378 E-Mail: mailto:beate.braams@bmwi.bund.de URL: http://www.bmwi.de/
Implementation in Member State	
Implementing legislation	The passenger car energy consumption labelling regulation (car EnVKV) from 2004 has recently been amended. The Federal Ministry of Economics and Technology has presented on completion of the departmental vote in August 2010 a draft for modification. The German Laender and interest groups hearings on proposed

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amendments to the PkV EnVKV were initiated in August 2010 and completed in September 2010. On 13 October 2010 the European Commission was notified about the intended changes. Following the notification and the expiration of the standstill period associated therewith, the draft was adopted by the Federal Ministry of Economics and Technology in agreement with the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety.

After the German Cabinet took note of the amendments to the Ordinance on the Fuel Efficiency Labelling of Passenger Cars, the draft was forwarded to the German Bundesrat (higher parliamentary chamber). The Bundesrat has approved a final draft text on 8 July 2011. The amended Ordinance entered into force on 1 December 2011.

Verordnung über Verbraucherinformationen zu Kraftstoffverbrauch, CO₂-Emissionen und Stromverbrauch neuer Personenkraftwagen (Pkw-Energieverbrauchskennzeichnungsverordnung – Pkw-EnVKV)

The German Ordinance on Energy Consumption Labelling for Cars is based on Directive 1999/94/EC of the European Parliament and of the Council of 13 December 1999 relating to the availability of consumer information on fuel economy and CO₂ emissions in respect of the marketing of new passenger cars (OJ L 12 of 18 January 2000, p. 16).

The amendment to Germany's Ordinance on Energy Consumption Labelling for Cars is thus intended to make use of the Directive's margin of discretion and contains three major changes:

- a) To improve consumer information the existing numerical indication of the absolute fuel consumption and CO₂ emission figures will be supplemented by a **relative CO₂ efficiency scale on the label**. The labelling format already familiar from household appliances in terms of Directive 2010/30/EU (predecessor Directive 92/75/EEC) will be used as a basis.
- b) In order to adjust to new developments, especially the emerging electric vehicle market, it will be required to indicate **electricity consumption information** for all-electric vehicles and externally chargeable hybrid electric vehicles.
- c) The new label will also contain **information on the annual tax and annual average energy costs (fuel and electricity)** to serve as a further guide to consumers in making their purchase decisions.

In detail

a) Relative model to indicate energy efficiency

The introduction of CO₂-efficiency classes is based upon a relative model. The energy efficiency of a vehicle is evaluated on the basis of the CO₂ emissions and the weight of the individual passenger car. This relative approach is a common procedure used also for energy labeling of appliances: In the case of refrigerators, for example, not only the total electricity consumption but also the volume of the refrigerator is taken into account.

The main idea behind the introduction of a relative energy efficiency scale is to show the CO₂ efficiency performance and potential for improvements in all vehicle segments. An absolute energy consumption labeling scheme which determines efficiency solely on the basis of the CO₂ emissions would put smaller vehicles at an advantage. An absolute approach would reduce the pressure to optimize energy efficiency in certain vehicle segments (e.g. the small-car-sector), even though these cars - due to their number - account for a major share of the overall carbon emissions of passenger cars.

Taking the vehicle mass into account corresponds to the criterion laid down in other European legislation, i.e. Regulation (EC) No 443/2009 on setting emission

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	<p>performance standards for new passenger cars.</p> <p>b) Taking account of electric vehicles</p> <p>In view of the development of electric mobility, it will also be required to indicate the overall power consumption of electrically operated vehicles and externally chargeable hybrid electric vehicles. For all-electric vehicles, the term “zero emissions” will be entered under the category CO₂ emissions. This value corresponds to the data contained in the so-called Certificate of Conformity (CoC) within the meaning of Regulation (EC) No 385/2009 of the Commission which replaces Annex IX to Directive 2007/46/EC of the European Parliament and of the Council on establishing a framework for the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles. For externally chargeable hybrid vehicles, the values for overall fuel consumption, CO₂ emissions and power consumption are indicated in accordance with European regulations (cf. Regulation (EC) No 385/2009 Annex IX, part 1, vehicle class M1 No. 49).</p> <p>c) Information on the annual tax and annual average energy costs</p> <p>The amendment to the Ordinance on Energy Consumption Labelling for Cars also requires information on the annual tax and annual average energy costs (fuel and electricity). Average running costs are from a consumer perspective and essential aspect of the purchase decision and can depict fuel efficiency savings in monetary terms</p>
Additional legislation	<ul style="list-style-type: none"> • Motor tax, based on emission level and engine capacity. • Tax-free allowance for low emission passenger cars. • New motor tax system based on CO₂ emissions in discussion. • Ecological fuel tax reform: fuel tax increase in 5 steps. • Reduction of the income tax relevant “distance rate”. • Commitment of ACEA, JAMA and KAMA regarding the reduction of CO₂ emissions of new passenger cars. • Commitment VDA and VDIK regarding the introduction of energy saving measures as standard equipment of new passenger cars. <p>Source: ADAC 2005</p>
Planned modifications	See above
Links to other policy measures, e.g. taxation, incentives	
Label	

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Label example	<div style="text-align: center; border: 1px solid black; padding: 5px;"> <p>Information über Kraftstoffverbrauch, CO₂-Emissionen und Stromverbrauch i. S. d. Pkw-EnVKV</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Marke:</td> <td style="width: 50%;">Kraftstoff:</td> </tr> <tr> <td>Modell:</td> <td>andere Energieträger:</td> </tr> <tr> <td>Leistung:</td> <td>Masse des Fahrzeugs:</td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Kraftstoffverbrauch</td> <td style="width: 50%;">kombiniert: /100 km</td> </tr> <tr> <td></td> <td>innerorts: /100 km</td> </tr> <tr> <td></td> <td>außerorts: /100 km</td> </tr> <tr> <td>CO₂-Emissionen</td> <td>kombiniert: g/km</td> </tr> <tr> <td>Stromverbrauch</td> <td>kombiniert: kWh/100 km</td> </tr> </table> <p style="font-size: small;">Die angegebenen Werte wurden nach vorgeschriebenen Messverfahren (§ 2 Nrn. 5, 6, 6a PKW-EnVKV in der gegenwärtig geltenden Fassung) ermittelt. CO₂-Emissionen, die durch die Produktion und Bereitstellung des Kraftstoffes bzw. anderer Energieträger entstehen, werden bei der Ermittlung der CO₂-Emissionen gemäß der Richtlinie 1999/94/EG nicht berücksichtigt. Die Angaben beziehen sich nicht auf ein einzelnes Fahrzeug und sind nicht Bestandteil des Angebotes, sondern dienen allein Vergleichszwecken zwischen den verschiedenen Fahrzeugtypen.</p> <p style="font-size: small;">Hinweise nach Richtlinie 1999/94/EG: Der Kraftstoffverbrauch und die CO₂-Emissionen eines Fahrzeugs hängen nicht nur von der effizienten Ausnutzung des Kraftstoffs durch das Fahrzeug ab, sondern werden auch vom Fahrverhalten und anderen nichttechnischen Faktoren beeinflusst. CO₂ ist das für die Erderwärmung hauptsächlich verantwortliche Treibhausgas. Ein Leitfaden für den Kraftstoffverbrauch und die CO₂-Emissionen aller in Deutschland angebotenen Personenkraftfahrzeugmodelle ist unentgeltlich an jedem Verkaufsort in Deutschland erhältlich, an dem neue Personenkraftfahrzeugmodelle ausgestellt oder angeboten werden.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">CO₂-Effizienz</td> <td style="width: 40%; text-align: right; font-size: small;">Auf der Grundlage der gemessenen CO₂-Emissionen unter Berücksichtigung der Masse des Fahrzeugs ermittelt.</td> </tr> <tr> <td colspan="2" style="text-align: center;"> </td> </tr> <tr> <td style="font-size: x-small;"> Jahressteuer für dieses Fahrzeug Euro Energieträgerkosten bei einer Laufleistung von 20.000 km: Kraftstoffkosten (_____) bei einem Kraftstoffpreis von _____ Euro/Abrechnungseinheit Euro Stromkosten bei einem Strompreis von _____ Euro/Abrechnungseinheit Euro </td> <td style="font-size: x-small; vertical-align: bottom;">Erstellt am:</td> </tr> </table> </div>	Marke:	Kraftstoff:	Modell:	andere Energieträger:	Leistung:	Masse des Fahrzeugs:	Kraftstoffverbrauch	kombiniert: /100 km		innerorts: /100 km		außerorts: /100 km	CO₂-Emissionen	kombiniert: g/km	Stromverbrauch	kombiniert: kWh/100 km	CO₂-Effizienz	Auf der Grundlage der gemessenen CO ₂ -Emissionen unter Berücksichtigung der Masse des Fahrzeugs ermittelt.			Jahressteuer für dieses Fahrzeug Euro Energieträgerkosten bei einer Laufleistung von 20.000 km: Kraftstoffkosten (_____) bei einem Kraftstoffpreis von _____ Euro/Abrechnungseinheit Euro Stromkosten bei einem Strompreis von _____ Euro/Abrechnungseinheit Euro	Erstellt am:
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Format of the label	<p>The new label is with coloured efficiency scales. The fuel, CO₂ emission and energy consumption information is provided as:</p> <ol style="list-style-type: none"> a. Official fuel consumption – l/100km (urban, rural and combined) rounded to the first decimal place and official CO₂ emissions – g/km as a complete number or rounded off. b. Consumption of natural gas or biogas as a fuel different from a) in kilograms per 100 kilometers (kg/100 km) c. Caron emissions are to be indicated in g/km d. the power consumption of pure electric vehicles and hybrid electric vehicles for external recharge in kilowatt hours per 100 kilometers (kWh/100 km) e. The efficiency class of the passenger car model has to be indicated on a 																						

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	<p>colored efficiency scale (see more information below)</p> <p>All numbers should be rounded off to the first decimal digit.</p> <p>Physical description:</p> <ul style="list-style-type: none"> - Size: 297mm x 210mm (DIN A4) - Table/ list format. - Coloring – white background with black lettering and colored efficiency scale - The use of large lettering is required. <p>The label also makes the required references as set forth by the EC Directive.</p>																								
<p>Explanation of the label, including any classes</p>	<p>The manufacturer has to indicate the CO2-efficiency of the vehicle by disclosing the vehicle efficiency class. For this purpose he/she has to calculate the deviation of the vehicle's official specific CO2 emissions from a reference value. The reference value is to be determined as follows: Reference value (in g CO2 per kilometer) = 36.59079 + a × M Whereby: M = mass of the vehicle in kilograms (kg) a = 0.08987. The reference value is to be rounded up or down according to commercial rules. The deviation of the official specific CO2 emissions of the vehicle from the reference value is to be indicated as a percentage via the difference of the two values and is to be calculated as follows:</p> $\text{Percentage deviation (CO}_{2\text{Diff. in \%})} = \frac{\text{CO}_{2\text{PKW}} - \text{CO}_{2\text{Ref}}}{\text{CO}_{2\text{Ref}}} \times 100$ <p>Whereby: CO2 Ref = reference value of the vehicle-specific CO2 emissions CO2 PKW = official specific CO2 emissions of the vehicle. The percentage is rounded to two digits after the decimal.</p> <p>According to the percentage of deviation from the reference value, the vehicle is to be grouped into the following specific efficiency classes:</p> <table border="1" data-bbox="454 1397 1394 1747"> <thead> <tr> <th>CO2-Efficiency class</th> <th>Scale of deviation from the reference value</th> </tr> </thead> <tbody> <tr> <td>A +</td> <td>≤ -37 %</td> </tr> <tr> <td>A</td> <td>36,99 % bis -28 %</td> </tr> <tr> <td>B</td> <td>-27,99 % bis -19 %</td> </tr> <tr> <td>C</td> <td>-18,99 % bis -10 %</td> </tr> <tr> <td>D</td> <td>-9,99 % bis -1 %</td> </tr> <tr> <td>E</td> <td>-0,99 % bis +8 %</td> </tr> <tr> <td>F</td> <td>+8,01 % bis +17 %</td> </tr> <tr> <td>G</td> <td>> +17,01 %</td> </tr> </tbody> </table> <p>The higher grades A++ and A + + + will be introduced if at least five percent of newly registered vehicles in a calendar year meet their requirements.</p> <table border="1" data-bbox="454 1868 1394 2011"> <thead> <tr> <th>CO2-Efficiency class</th> <th>Scale of deviation from the reference value</th> </tr> </thead> <tbody> <tr> <td>A ++</td> <td>≤ -46 %</td> </tr> <tr> <td>A+</td> <td>-45,99 % bis -37 %</td> </tr> </tbody> </table>	CO2-Efficiency class	Scale of deviation from the reference value	A +	≤ -37 %	A	36,99 % bis -28 %	B	-27,99 % bis -19 %	C	-18,99 % bis -10 %	D	-9,99 % bis -1 %	E	-0,99 % bis +8 %	F	+8,01 % bis +17 %	G	> +17,01 %	CO2-Efficiency class	Scale of deviation from the reference value	A ++	≤ -46 %	A+	-45,99 % bis -37 %
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Label responsibilities and enforcement	<p>The retailer is required to ensure that all new passenger cars for sale or lease at that particular location have an official CO₂ label that is easily visible, either on or near the passenger car. The automotive supplier is required to provide all data required for the label. The label can be easily obtained and adapted through an online tool provided by the Deutsche Energieagentur (dena) on their website.</p> <p>The enforcement of the Ordinance lies in the responsibility of the German Bundeslaender. For more information see below.</p>						
Planned modifications	See above						
Research reports/initiatives	For an overview on reports on the implementation of the Directive and German legislation see below.						
Comments	N/A						
Label violations	See enforcement section below						
Overview of requirements in national legislation beyond Directive	<ul style="list-style-type: none"> - In addition to the requirements in the Directive the vehicle model is specified through type, version and performance - Information on the label needs to include energy source and mass of the vehicle - the consumption of natural gas or biogas as fuel needs to be included in kilograms per 100 kilometres (kg/100 km) - the power consumption of pure electric vehicles and hybrid electric vehicles for external recharge need to be indicated in kilowatt hours per 100 kilometers (kWh/100 km) - Values are to be indicated based on the results of a combined-cycle test - A multi-colour scale CO₂ efficiency comprising the efficiency categories A + (green, very efficient) to G (red, not very efficient at all) will be introduced with the adjusted ordinance. The calculation of the CO₂ efficiency is based on a "relative model". This means that the CO₂ efficiency is quantified on the basis of the CO₂ emissions taking account of the vehicle mass - The higher grades A ++ and A + + + will be introduced if at least five percent of newly registered vehicles in a calendar year meet their requirements. - CO₂-efficiency of the vehicle will be indicated by means of a black arrow that bears in white colour the identification letter of the efficiency class. The tip of the arrow needs to be positioned directly next to the field of the respective CO₂ efficiency class. - In addition, the sign also contains information about future tax years and the average annual energy costs (fuel and electricity) providing support to the consumer in entering the purchase decision. <p>Within three years after entry into force of this Regulation, the Federal Ministry for Economics and Technology will review and if necessary adapt the basis for calculating the reference value, particularly alternatives to the reference value mass, and the proportion of vehicles registered in the various classes .</p>						
Overview of any voluntary action beyond requirements of national legislation	<p>According to the new regulation, the following information may be added on the label:</p> <ul style="list-style-type: none"> a) "The indicated values are in accordance with the measuring process outlined in § 2 Nos 5, 6, 6a of the EnVKV directive in its current version" b) "CO₂ emissions caused by the production and delivery of the fuel or other energy sources are not taken into account in determining the CO₂ emissions. This is in 						

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	<p>accordance with Directive 1999/94/EC."</p> <p>c) "The figures do not refer to a specific vehicle and are not part of the offer, but are merely for purposes of comparison between different vehicle types."</p> <p>The German Ministry contract also mentioned the following voluntary measures:</p> <p>The German Energy Agency (dena) will coordinate on behalf of the Federal Government, the information campaign to the consumers, vehicle manufacturers and sellers on the introduction of the new regulation.</p> <p>The Federal Consumer Federation and associations like the German Umwelthilfe are expected to produce enhanced information on the occasion of the introduction of the new regulation.</p> <p>Independent from the car labelling regulation there are many platforms reporting and information on electric mobility.</p> <p>(For more information on voluntary action see below)</p>
Guide on fuel economy	
Example for Guide on Fuel Economy	The following example shows the Guide as it currently stands based on the old regulation: http://www.dat.de/leitfaden/LeitfadenCO2.pdf
Internet version	The guide can currently be downloaded here: http://www.dat.de/leitfaden/LeitfadenCO2.pdf
Version reviewed in case study	Requirements according to the new regulation and example based on old regulation (Version 2011, second quarter)
Comparison of vehicle models, energy efficiency rating	<ul style="list-style-type: none"> - For each of the models listed in the guide - according to capacity, power, transmission and mass of the vehicle - the fuel type or any other energy sources need to be indicated. - Regarding type of fuel, different grades of a fuel can be combined (e.g., Super and Super Plus to petrol), - Information on CO2 efficiency and, where appropriate the official energy consumption estimated through a combined test cycle need to be included. - For passenger car models with more than one liquid or gaseous fuel the figures for all fuels should be specified. The same is true for externally chargeable hybrid electric vehicles. - If several variants and / or versions are summarized under one model, the values of the official fuel consumption, the official specific CO2 emissions and electricity consumption shall be indicated on the basis of the variant and version with the highest official level. The same applies to the CO2-efficiency class, for which the lowest is to be indicated on the label. When indicating the mass of a car for a model the highest mass value must be reported. - For each fuel type a prominent listing of the ten most fuel-efficient new passenger car models stating the CO2-efficiency rating, the official fuel consumption, the official specific CO2 emissions, and where appropriate, the official electricity consumption, beginning with the model with the lowest CO2 emissions.
Guide on fuel economy: responsibilities and enforcement	See above
Planned modifications	See above

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Research reports/initiatives	See above
Comments	It was suggested by the VDA and the VCD to develop an online database to provide the information currently included in the fuel economy guide, which can be updated in real time and which can be searched by consumers to find relevant information about the vehicles they are interested in and also include a comparison tool for consumers. The guide should also include the relative efficiency classes used in the modified label
Guide on fuel economy violations	
Overview of requirements in national legislation beyond Directive	<p>The guide lists data on CO₂ emission and energy consumption of the vehicles listed and provides comparative context for:</p> <ul style="list-style-type: none"> - consumption of natural gas or biogas • the power consumption of pure electric vehicles and hybrid electric vehicles for external recharge (for more details see below). <p>According to the new regulation the guide needs to include the following additional information:</p> <p>Part I</p> <ul style="list-style-type: none"> - A reference to the driver that fuel consumption, CO₂ emissions and electricity consumption through regular maintenance work on the vehicle, its careful use and a respective driving manner, can be reduced considerably, in particular through a defensive driving style, low travel speeds, preventive braking, sufficient tire pressure and the avoidance of unnecessary engine idling and ballast; - An explanation of the effects of greenhouse gas emissions, the possibility of climate change and the contribution of motor vehicles to the latter, as well as an indication of the options of consumers in the choice of available fuel types and their environmental effects, based on current scientific evidence and applicable laws; - A reference to the current objective of the European Union regarding average CO₂ emissions from new passenger cars as well as the deadline for achieving this objective; - A reference to the Commission's guide on fuel consumption, CO₂ emissions and power consumption on the internet, if available. <p>Part II</p> <ul style="list-style-type: none"> - A reference to the drivers that fuel consumption, CO₂ emissions and electricity consumption depend on the production and supply of other energy sources and that the vehicle user, through the use of low carbon fuels and energy, can contribute to the further reduction of CO₂ emissions.
Overview of any voluntary action beyond requirements of national legislation	<p>The guide is voluntarily updated 4 times per year by the car manufacturers</p> <p>The current guide (based on the old German regulation) includes the following additional information to the above:</p> <ul style="list-style-type: none"> - A monetary example to consumers about the potential savings due to increased fuel efficiency. - A pie graph depicting the amount of CO₂ emissions in Germany (for 2009) – where passenger vehicles contribute 12% of total CO₂ emissions. - An explanation about the CO₂ saving potential of the various fuel types. For example, bio fuels are suggested as an alternative that reduces CO₂ emissions.
Poster	
Guidance material	See information on voluntary actions provided by dena below.

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Comparison of vehicle models, energy efficiency rating	For each fuel or other energy source, models should be listed in ascending order according to their specific CO2 emissions in the combined test cycle, the model with the lowest official fuel consumption or the lowest official electricity consumption in the combined test cycle positioned on the top of the list. Metrics should be used as outlined under the label specifications above.
Explanation of the poster	See below
Poster responsibilities and enforcement	<p>The legal person exhibiting a new passenger car for sale or leasing has the responsibility to ensure that at the point of sale the poster will be clearly visible, listing the CO2 efficiency classes, the official fuel consumption, the official CO2 emissions and, where appropriate, the official power consumption of all models on display. The poster is to be updated every three months. New models arriving between revisions of the poster are to be added to the bottom of the list.</p> <p>For enforcement see information below.</p>
Planned modifications	See above
Research reports/initiatives	
Comments	
Poster violations	See below
Overview of requirements in national legislation beyond Directive	<ul style="list-style-type: none"> - The poster is to be titled with "poster under Directive 1999/94/EC" and the following note "fuel consumption, CO2 emissions and energy consumption of all passenger cars of the brand [N. N.] presented for sale and to be ordered at this location" - The passenger car models are to be listed in groups distinguishing between fuel type and other sources of energy, whereby different qualities of fuel can be summarized (e.g., Super and Super Plus to petrol [Ottokraftstoff]). <p>For each passenger car model the list shall include:</p> <ul style="list-style-type: none"> - The model, specified by capacity, power, transmission and mass, - CO2 efficiency, - the official fuel consumption in the combined test cycle, - the official specific CO2 emissions in the combined test cycle, - Official power consumption in the combined test cycle if relevant. <p>For passenger car models with more than one liquid or gaseous energy source details for all energy sources/fuels shall be listed. The same is true for externally chargeable hybrid electric vehicles.</p> <p>The notice may be replaced by an electronic display on a screen (as far as location and text are following the same requirements as for the poster)</p>
Overview of any voluntary action beyond requirements of national legislation	For overview on voluntary information provided see below.
Promotional materials	
Guidance material	
Explanation of the	Meets the minimum requirements of the Directive

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promotional materials	
Planned modifications	See above
Research reports/initiatives	See above
Comments	
Promotional material violations	<p>According to the German Competition Office (Wettbewerbszentrale): 2006: 108 Proceedings 2007: 91 Proceedings 2008: 62 Proceedings 2009: 28 Proceedings 2010 (until March): 17 Proceedings Total: 306</p> <p>Between March 2006 and March 2010, 306 proceedings (official complaints to the competition office) were received. In 140 cases injunctions relating to competition law were sent, demanding that the action cease otherwise penalties would be imposed. There were also 19 lawsuits through an arbitration committee for competition disputes. In addition, legal action was brought to the State Courts four times and three applications for injunctions were made. In two cases only a written notice was sent to advertisers. All complaints relating to promotional material concerned print and internet media, not car showroom promotions.</p> <p>A Friends of the Earth Europe (2009) publication has considered compliance with the Annex IV of the Directive. In the study, 71 press advertisements (newspapers and magazines) and 13 billboards were examined in Germany over a three-month period in 2009 to assess their compliance with "all promotional literature [must] contain the official fuel consumption and CO₂ emissions data", and that these figures should be "easy to read and no less prominent than the main part of the information provided in the promotional literature". The CO₂/fuel consumption information was present/compliant in 14% of advertisements, with the CO₂ information missing in 28% and the information being smaller than the main information in 58% of cases. None of the billboards were fully compliant, with 92% missing CO₂ information and 8% having the CO₂ information smaller than the main information.</p>
Overview of requirements in national legislation beyond Directive	<p>Manufacturers and sellers who produce or commission to produce promotional material or distribute the latter, must ensure that this includes information on the official fuel consumption and official specific CO₂ emissions of each new passenger car model depicted as outlined under the label section above. This is applicable for</p> <ul style="list-style-type: none"> (a) electronically distributed promotional material (b) Promotion through electronic, magnetic or optic media <p>Excluded are radio and audio-visual media services (such as TV)</p> <p>The new national regulation provides for a differentiation in disseminating information and contains no general extension of the already existing obligation on advertising in the media. The label with the new efficiency scale, i.e. the graphic colour scale, must be included only at the "point of sale" and in the case of distance/remote selling. The national regulation differentiates between distance selling situations:</p> <ul style="list-style-type: none"> a) in the case of online-selling on the internet or the exhibition of the vehicle on the internet, the graphical scale on the label needs to be included in the description of the vehicle model next to the emission and fuel consumption information. A link to the economy fuel guide is to be included. The seller has to ensure that the above information including the graphic representation of the efficiency class spectrum

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	<p>has to be put to the potential buyer as soon as the latter has selected a car model for potential purchase or has entered a configuration.</p> <p>b) When purchasing or leasing offers are included in brochures and advertising material (e.g. catalogues) an indication of the efficiency rating (e.g. A+, A, B) - that is in text form – is sufficient, that is, the graphic colour scale needs not to be included.</p> <p>If no distance selling situation exists and the vehicle will not be displayed on the internet the regulation - as before - requires information on the fuel consumption and CO₂ emissions. This must be stated both in advertisements and in promotional materials distributed electronically.</p> <p>If the promotional material is only referring to the car manufacturer but not to any specific car model no indication on energy efficiency or fuel consumption needs to be included.</p> <p>At point of sale situations a note/link to the Guide on Fuel Economy needs to be included.</p>
Overview of any voluntary action beyond requirements of national legislation	For overview on voluntary information provided see below.
Other information	
Details of any other existing or planned voluntary measures in the field of consumer information on vehicle CO ₂ emissions / fuel efficiency	<p>Participants of the study highlighted that many car manufacturer have now started to introduce a range of fuel efficient models under a particular brand such as “Blue Efficiency” at Daimler and “BlueMotion” at Volkswagen.</p> <p>The VDIK has set up a separate webpage with information about reduction of CO₂ emissions in cars and the vehicle replacement programme, encouraging consumers to purchase new vehicles to help reduce CO₂ emissions. www.pro-saubereluft.de</p> <p>The VDA helps to promote the German automotive industry through for example a green technology themed exhibition at the Internationale Automobile Ausstellung (IAA) (including tours for schools, press conferences, a practical guide to the CO₂ label, talks on the advances in the reduction of CO₂ emissions) and the “Unsere Autos” website (www.unsere-autos.de) to advertise the research and development of German car manufacturers.</p> <p>In addition, the VDA stated that any voluntary measures implemented by the car manufacturers and sellers are driven by the need to differentiate themselves in a competitive marketplace with well-educated customers. Especially in saturated markets the car very often no longer presents a status symbol to the customer (with the exception of a few), but is merely a form of transport. The customer is interested to buy a car within his price and size range, which has low running costs and low CO₂ emissions. In contrast emerging markets need more transportation (cars and trucks) for further economic development. The increasing number in cars in these markets is more than evident. At the same time, the need for fuel efficient cars in these markets is crucial due to increasing energy prices, the further urbanisation and growing mega-cities.</p> <p>Currently, dena is working on behalf of the BMWi on an information campaign to accompany the revision of the regulation. To this end, she works very closely with the relevant business associations and non-governmental organisations.</p> <p>The campaign will be implemented at three levels: 1st Target group: Manufacturers, traders and advertising business 2nd Opinion-forming organizations such as NGOs, parliamentarians, journalists,</p>

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	<p>etc 3rd Consumers</p> <p>The planned communication platform was initiated by dena independently and will be implemented through multiple channels:</p> <p>1st Internet Platform for different target groups (including consumers). Here, questions can be answered.</p> <p>2nd User-friendly graphics and information for group multipliers (i.e. organisations or individuals that inform a wider group of stakeholders on the requirements of the regulation)</p> <p>3rd Online tools (software or online interactive tool). This can be used by car dealers for the creation of labels. But also, consumers can obtain information interactively, for example the efficiency rating of their current cars.</p> <p>4th Information brochures for the users of the label. For this purpose, regular meetings and workshops with the associations and NGOs will determine the needs for the information users and consumers.</p> <p>5th A telephone hotline for consumers and users will be opened to directly answer questions regarding the use and interpretation of the label.</p> <p>6th Media work. Preparation of press materials and preparation of media background talks, offerings of articles for newspapers and smaller Radio background talks, cooperation with advertising agencies etc in order to generate attention for the label.</p> <p>7th Organization of events, e.g. At the International Motor Show in September 2011, possibly Parliamentary breakfast talks, one-to-one discussions with NGOs and consumer organizations, etc.</p> <p>Supporting information and tools for the old regulation and labelling 2004 (Software for the label design and link to the Fuel Economy Guide): http://www.dena.de/themen/thema-mobil/projekte/projekt/pkw-label/</p> <p>The media plays an important role in distributing voluntary environmentally relevant information about cars to consumers. Newspapers and magazines report in their daily, weekly and monthly publications on all platforms on a voluntary basis on all aspects of energy efficiency and climate change through a wide range of editorial coverage, such as political issues, special reports on certain aspects, test reports, event notes and articles on how to save energy and how to adapt one's own personal behaviour etc. By fostering the debate about these issues the press plays a vital role in raising awareness and informing consumers and is therefore indispensable for any effective climate policy (ZAW; VDZ, BDZV).</p> <p>The Traffic Club Germany (Verkehrsclub Deutschland) conducts regular tests on the environmental standards and energy consumption levels of cars http://www.vcd.org/verweis_vcd_auto_umweltliste.html</p> <p>The VZBV led a campaign on climate protection in which framework a guide was developed on CO2 consumption of cars.</p> <p>The ADAC offers an Eco-test for new cars which follows a class related approach (small cars, middle-class, premium etc). This voluntary rating system is however not suitable as a basis for regulation http://www.adac.de/infotestrat/tests/eco-test/default.aspx?ComponentId=29755&quer=ecotest</p>
Numbers of consumers contacting consumer protection organisations with	The Consumer Association of North Rhine-Westphalia, the largest consumer organization in Germany, indicates that there are "little or no" questions in the counselling centers on CO2 labeling. This does not mean that consumers are not interested in the issue, but so far the existing CO2 label is not really meaningful to them. The fact that the consumer centers are not very proactive in the transport sector also plays a role.

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respect to queries relating to the CO2 label	
Numbers of consumer queries/complaints received about the CO2 information provided in car promotional material	
Number of hard copies of fuel economy/CO2 guides published/distributed each year	Our contact at the National Ministry mentioned that 300,000 copies are printed annually. However, the requirement of printed versions at the point of sale does not seem timely anymore as the majority of hard copy guides are not picked up by consumers and need to be destroyed at the end of the year. The Internet should serve as the main source of information for the guide. The obligation to print should be loosened. Instead a shortened form of the guide could be printed on a voluntary basis
Number of times per year the online fuel economy/CO2 guides in each country have been accessed	
Qualitative information on the organisations view of the effectiveness of the various tools available to them.	In DUH's view the amendment of the regulation to become legally binding in Germany is violating European law because it is not reinforcing protection measures under Article 193 AEUV and Article 169 IV AEUV, but rather weakens the requirements of the EU. See below for more information.
Enforcement and compliance	
Scope of enforcement activities (e.g. does enforcement relate to all of the information tools or just some of them?)	<p>The enforcement of the regulation is entirely in the hands of the German Bundeslaender. There is no executive responsibility at the federal level. The federal government, however, offers information and support with interpretation issues. There are no reporting requirements of the Laender to the federal government. Therefore, our Ministerial contact doesn't hold any detailed information on violations of the regulation. However, Ms Braams highlighted that according to information she has obtained the majority of enforcement cases does not happen on the provincial level but seem to be issued through complaints by consumer organizations and associations against car manufacturers and dealers violating competition rules at the level of civil courts.</p> <p>Up from autumn of this year, the information requirements of the German Laender to the federal government will be extended via the alignment of the German law with EU Regulation 765/2008. This will also affect information on enforcement activities within the framework of the car labeling directive. The German Laender will then need to report on their enforcement activities to the Federal government (no further information was provided).</p> <p>The fact that there is not much information existing Re enforcement on the federal level underscores the difficulties in the coordination of the regulation's</p>


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	<p>implementation between Laender and federal level.</p> <p>The below information on the enforcement situation in the German Bundeslaender is based on the feedback to the Federal Ministry of Economics and Technology from:</p> <ul style="list-style-type: none"> • Bavaria • Brandenburg • Bremen • Hamburg • Lower Saxony • Rhineland - Palatinate • Saarland • Thuringia <p>Summary of the German Bundeslaender (Provinces) responses:</p> <p>Enforcement activities cover all information tools named in the Regulation. The focus is primarily on enforcing the rules on advertising materials.</p>
Specific enforcement activities carried out	<p>Summary of the German Bundeslaender (Provinces) responses:</p> <p>If violations are identified, and if it is a first-time violation of the regulations, the responsible legal entity will be requested to establish a rule-obeying situation. This is done in the Bundeslaender partly by a verbal warning and partly in form of a letter outlining the need for corrective action and a deadline for implementing the changes.</p> <p>In the case of refusal or repetition of the violation fines as part of a magistrate court proceedings may be imposed.</p> <p>When imposing enforcement measures the principle of proportionality needs to be followed.</p> <p>In addition to regulatory measures of the federal states, compliance with the requirements of the national regulation on compulsory information is mainly enforced through competition rule related legal warnings, initiated by competitors themselves, but also by business and consumer groups (e.g. the German Wettbewerbszentrale and German Environmental Aid). This competition-related tool provides a quick and effective remedy to any violations of the regulation and creates a warning effect - mostly due to high contractual penalties in case of non-compliance – on other regulated parties (ZAW).</p> <p>The two organisations highlight that they are not aware of any major compliance or enforcement issues with the current regulation. In addition to the enforcement of the Pkw-EnVKV by the German Laender consumers are also protected against misleading commercial practices by the Gesetz gegen den unlauteren Wettbewerb (UWG), the German transposition of the Directive 2005/29/EC on Unfair Commercial Practices ('UCP Directive'). This law also provides for a right for consumer organisations to complain or act to initiate proceedings to halt or prevent a misleading advertisement. The possibility for example to issue undertakings to cease and desist supported by a penalty clause has been proven to be a successful and efficient means to prevent infringements. Any questions that might arise in this regard can therefore according to our information be sufficiently addressed in the existing legal framework (VDZ and BDZV).</p>
Whether the level of enforcement activity has increased or	<p>In the majority of German Bundeslaender there is no change in the numbers of enforcement activities observable.</p> <p>I</p>

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decreased in the years since the Directive was transposed into national legislation	
Any problems that have arisen with regard to enforcement activities	<p>In the majority of the Bundeslaender no problems have occurred. The personnel capacities are however limited.</p> <p>In the event of a violation, provinces refer to their specific regulations (such as the police law) and tools.</p> <p>Within the current revision of the so-called energy efficiency labeling law (EnVKG) implemented in accordance with Regulation EC No 765/2008 on accreditation and market surveillance, broader powers, in particular access rights will be regulated in federal law. This will enable more uniform enforcement of the car energy consumption labeling regulation within the German territory.</p> <p>The car EnVKV in § 7 outlines what type of violations of the labelling requirement will be enforced. However, pressure by the automobile manufacturers seems to have lead to a failure to execute controls according to the requirements outlined in the regulation. [No fine for violations is specified in the regulation]. In contrast, the Energy Consumption Labelling Act [for white goods] (EnVKG) states in § 2 that violations can be punished by a fine of up to 50,000 € (DUH).</p> <p>Surveys that are conducted by the DUH since several years in the German Laender (most recently in August 2010) [confirm the weak enforcement and] show that until now, seven years after entry into force, still not all German Laender responsible for the enforcement have named the responsible institutions. Checks took place only in a few cases in the minority of states, and not until after the DUH had complained for several years. DUH is only aware of one known case of an administrative fine proceeding in connection to the regulation.</p>
Any innovative measures that have been introduced to aid compliance and enforcement activities	<p>For the majority of the German provinces no. In Rhineland-Palatinate information measures for both the industry and for the citizens, including brochures, leaflets and information sessions were carried out in addition to the measures on monitoring.</p> <p>In Thuringia the same authority is responsible for the enforcement of the car labeling directive and the energy efficiency labeling direct. This results in synergy effects (the energy efficiency labeling directive is the national implementation of the directive on energy labeling in the product sector, RL 92/75/EEC, today RL 2010/30/EU).</p> <p>Overall, it should be considered whether there are opportunities for streamlining government inspection activities in these fields. For this purpose improved information system on suspect cases could be established.</p> <p>In the view of individual provinces the possible role of environmental and consumer protection organizations (competitors claim) and competitors (competitors claim) should be considered, whereby it must be ensured that proportionate judgments are taken.</p> <p>In the German Laender there is no uniform rule according to our information, on how the income through fines should be used. Some states have a legal requirement that the fine, in contradiction to the Law on Administrative Offences (Administrative Offences Act) will be transferred to the authorities themselves. A direct feed of the fine money to the controlling law enforcement agencies would increase their willingness to take action significantly (DUH).</p>
Any quantitative information from enforcement bodies on how effective	<p>Figures on the effectiveness of control measures are not available in the majority of Bundeslaender. In Rhineland-Palatinate, the State Agency for Metrology and Verification is responsible. Here it was found that under an initial inspection, the complaint rate was 51%. Under a second inspection the complaint rate was only</p>

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they believe the enforcement measures available to them have been?	27%. From this, Rhineland-Palatinate draws the conclusion that a continuous surveillance lead to significant successes in the enforcement of the regulation.
Reported compliance issues (label, poster, guide, promotional material) – number of violations relating to car CO2 information	<p>In many states, the data is not statistically recorded. From the states of Saarland, Bremen and Rhineland-Palatinate the following statistical data were provided. In approximately 25% of inspections carried out faulty or missing provision of information were recorded. More than half of the violations were due to a faulty or missing poster. Less than a quarter of the violations concerned the notice/label on or in the passenger vehicle. A flawed or inadequate fuel economy guide was recorded for little less than a quarter.</p> <p>Rhineland-Palatinate, Saarland and Bremen have sent through the specific numbers of cases:</p> <p>1st Rhineland-Palatinate:</p> <p>By the State Office for Metrology and Verification in 2010, a total of 171 inspections were carried out and revealed the following violations:</p> <ol style="list-style-type: none"> 1. No label in 33 cases (for retailers) 2. Incorrect label in 34 cases (for retailers) 3. Missing information in 10 cases* 4. Missing fuel economy guide in 10 cases* 5. Incorrect poster in 17 cases* 6. Errors in the promotional material in 2 cases <p>*) No. 3 to No. 6, no addition, because multiple errors are possible.</p> <p>2nd Bremen:</p> <p>In 2010, in Bremen 24 dealers were inspected with a total of 29 trademarks. On-site inspections showed that the label was missing in one case and in three cases the information on the label was incorrect.</p> <p>It was further noted that the poster was not up to date for 14 trademarks (in some cases the data timeliness could not be substantiated), and one case the poster was missing completely.</p> <p>The fuel economy guide was available at all retailers, however at one retailer it was out of date.</p> <p>3rd Saarland:</p> <p>From November 2010 to January 2011 56 new car retailers were inspected. For 12 of these cases several violations were reported.</p> <p>In three cases, the label indicating fuel consumption and CO2 emissions was missing. Seven retailers had not placed the poster on the sales floor and six retailers did not have the fuel economy guide available (or could not show it in a reasonable time span).</p> <p>There are currently court proceedings taken against Jaguar by the Deutsche Umwelthilfe (DUH). Jaguar had advertised one type of vehicle in a German car magazine without providing information on fuel consumption and car emissions. Jaguar argued that the German legislation does not require the provision of such information if the advertisement covered a general type of vehicle and not a specific model. The DUH however argued that the German legislation was not implemented in line with the EU directive, which required the inclusion of such information. The court of the Federal State in Frankfurt am Main decided in favour of the DUH [and</p>

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	argued that the exceptions to the labelling requirements in the German regulation depart significantly and that the German regulators have apparently misunderstood the EU requirements]. Jaguar has now appealed the judgement (DUH).

HUNGARY	
Member State Contact Information	
Institution	Ministry of National Development, Head Office Akadémia Street 3 Budapest, 1054 Website: http://www.nfm.gov.hu/
Contact person	Imre Mészáros, Zsuzsanna Bibók
Implementation in Member State	
Implementing legislation	1999/94/EC Directive The Passenger Car (Fuel Consumption and CO ₂ Emissions Information) Regulations. This directive was adapted by the Hungarian order. Other restrictive modification did not occur, the Hungarian rule fulfils the prescribed requirements and recommendation. It considers four tools necessary: <ul style="list-style-type: none"> 6. Label for the each new vehicle detailing fuel consumption information; <ul style="list-style-type: none"> • Summary of CO₂ information for new vehicles in the location of vehicle purchase, • the comparing sign about the order of rank of the sold vehicles according to the consumption; and 7. Publishing data in the written and electronic material in connection with selling the new vehicle.
Additional legislation	No information available.
Planned modifications	None
Links to other policy measures, e.g. taxation, incentives	There is no political or economic arrangement in connection with the CO ₂ emission. There were previously plans to change vehicle taxes based on CO ₂ . (Plans: CO ₂ -based taxation)
Label	

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Label example	
Format of the label	<p>The distributor is responsible for showing the label (297 by 210 mm) of the cost-efficiency with the content of:</p> <ol style="list-style-type: none"> 1. The name of the manufacturer or trade mark: 2. <ol style="list-style-type: none"> a) Type of the vehicle (the variety of the type, form); b) Fuel type; c) Official fuel consumption (l/km, corrected to one place of decimals); and d) Official, specific CO₂ emission (g/km, made round to whole number). 3. Provide information about the sign of the cost-efficiency labels: In every store for the consumer there is a free leaflet that includes data about fuel consumption and CO₂ emission of each new vehicle. 4. General information: Besides the characteristics of the vehicle's fuel cost-efficiency, driver behaviour and other non-technical aspects will affect fuel consumption and CO₂ emission of the vehicle. CO₂ is the most important of the greenhouse gases.
Explanation of the label, including any classes	<p>Labels currently used in Hungary do not include classes of vehicles, or the use of any colour-coding (e.g. similar to energy-rating) The current order includes the requirements of the content and form. (They use CO₂ label, but do not contain colour codes.)</p>
Label responsibilities and enforcement	<p>Car showrooms/other locations where new passenger car sales are carried out are responsible for displaying the labels. The consumer protection authority (Hungarian Authority for Consumer Protection) controls is responsible for enforcement relating to labels.</p>

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Planned modifications	The label adapted in Hungary fulfils the requirement of the EU. Modifications relating to the label are currently planned. The planned modification is related to including classes of vehicles based on a colour-coded scale, which has been adapted successfully in other EU Member States. This will aid consumers in gaining further information, making clear the differences between the types.
Research reports/initiatives	Researching and development are under construction. (There are no definitive reports.)
Comments	None
Label violations	Where labels are available, they are deemed suitable for the requirements. According to a survey undertaken by KTI, labels were found to be appropriate in 8 of the 14 locations examined. However, in 6 of the locations, there were no labels or they were not appropriate. (The survey is not public. We visited during the survey car dealers are completely random, without prior notice.)
Overview of requirements in national legislation beyond Directive	No additional requirements
Overview of any voluntary action beyond requirements of national legislation	None
Guide on fuel economy	
Example for Guide on Fuel Economy	<p>The National Transport Authority (www.nkh.hu) updates the data content of the guide until the 5th day of every odd month. The fuel cost efficiency guide has to be made available given to the consumer free in every store and in the consumer protection authority.</p> <p>The guide about the fuel -efficiency has to include the following information:</p> <ol style="list-style-type: none"> 1. All available the new vehicle types (variety, form) listed in alphabetical order. 2. In the guide the type (the variety of it, form) <ol style="list-style-type: none"> a) Fuel type; b) Official fuel consumption (l/km, corrected to one place of decimals); and c) Official, specific CO₂ emission (g/km, made round to whole number) 3. According to the type of the fuel an advanced list about the top ten vehicles (the variety of types, form) with the best fuel consumption. 4. Advice and recommendations for drivers on how to use the vehicle expertly, maintain it regularly and to behave normally on the roads, such as to avoid driving aggressively, to travel with low speed, breaking carefully, to set the appropriate pressure of the tyre, to reduce the period of the neutral gear, to avoid delivery of bigger load. Each of these actions can decrease the fuel consumption of the car and reduce the CO₂ emission.

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	<p>5. Explanation of the effects of the greenhouse gases and the subsequent potential global climate changing of vehicles, and reference to the type of fuel and their effects on the environment based on the latest scientific evidences and law requirements.</p> <p>6. An overview of the aim of the EU referring to the new car's average CO₂ emissions and the planned date of the achievement.</p> <p>7. Reference to the European Committee's overview of the fuel cost-efficiency and CO₂ emission being available on the Internet (when it is available on it).</p>
Internet version	The transport authority publishes the overview about the fuel consumption and CO ₂ emission of the new cars until 1 October at least once a year. It can be freely downloaded from Internet.
Version reviewed in case study	None
Comparison of vehicle models, energy efficiency rating	<p>The requirements of the overview referring to its content and form:</p> <ol style="list-style-type: none"> 1. All the new sold vehicle types (the variety of it, form) classified according to make in alphabetical order. 2. In the guide the type (the variety of it, form): <ol style="list-style-type: none"> a) Fuel type; b) Official fuel consumption; c) Official fuel consumption (l/km, corrected to one place of decimals) d) Official, specific CO₂ emissions (g/km, made round to whole number) 3. According to the type of fuel used, a list of the top ten new types of vehicles (the variety of types, form) that have the best fuel consumption. <p>Within every fuel type (the varieties, forms) are ranked according to the specific CO₂ emissions in increasing order. The list has to include the type (the variety of the type, form), the official fuel- consumption and the numbered rate of the official CO₂ emission.</p> <ol style="list-style-type: none"> 4. Advice, recommendation for drivers 5. Explanation 6. The overview about the aim of the EU referring to the new car's average CO₂ emission and the planned date of the achievement. 7. The reference of the European Committee's overview about the fuel cost-efficiency and CO₂ emission being available on the Internet (when it is available on it).
Guide on fuel economy: responsibilities and enforcement	The stores have the responsibility of placing out the labels. The consumer protection authority controls the execution.

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Planned modifications	None
Research reports/initiatives	None
Comments	None
Guide on fuel economy violations	No known offences. One of the most problematical fields in the examination made by KTI is regarding the overview of fuel cost-efficiency - the overview has not been available so far, and it was not shown when asked for.
Overview of requirements in national legislation beyond Directive	None
Overview of any voluntary action beyond requirements of national legislation	None
Poster	
Guidance material	The regulation is in the current Hungarian order. (12/2002 (III.14.) It orders that in the store the distributor is responsible for putting a poster or display that includes the official fuel consumption and CO ₂ emission data and formal requirements of the new cars sold by the distributor.
Comparison of vehicle models, energy efficiency rating	<p>The requirements and content of the poster or the display (This is no different from Directive 1999/94/EC):</p> <ol style="list-style-type: none"> 1. The size of the poster or the display except for the computer screen: at least 70x50 cm. In the case of the information displayed on the computer screen the size of the screen is at least 25 by 32 cm (17"). To display the data with the appropriate letter sizes the scroll bar can be used. 2. In the case of using computer screen it needs a board (at least 50 by 70 cm) or a display to pay attention to the following information: 'In this showroom there is an electronic display included the official fuel consumption and CO₂ emission data of each new car, which is showed in this place or offered to sell or for leasing.' 3. This information needs to be legible easily. 4. The poster or the display should include the following information. <ol style="list-style-type: none"> 4.1. The types of the cars (the varieties of the types, forms) classified according to the type of the fuel (e.g. petrol, gas. etc.).

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	<p>[Within every type of fuel the types (the varieties, forms) are ranked according to the specific CO₂ emissions in increasing order. The type with the lowest fuel consumption should be on the top of the list.]</p> <p>4.2. The types (the variety of types, forms) in the list:</p> <ol style="list-style-type: none"> a) its make b) the official fuel consumption of it: c) the official fuel consumption (l/km, corrected to one place of decimals) d) the official, specific CO₂ emission (g/km, made round to whole number) <p>4.3. The poster or the display should include the following text referring to the fuel cost-efficiency and CO₂ emission. 'In every store for the consumer there is a free leaflet that includes the data about the fuel consumption and CO₂ emission of all the new vehicles.' In the case of an electronic screen this information should be able to be seen permanently.</p> <p>4.4. The poster or the display should include the following information: 'Besides the characteristics of the vehicles fuel cost-efficiency, the driver's behaviour and further not technical aspects effect on the fuel consumption and CO₂ emission of the vehicle. The CO₂ is the most important of the greenhouse gases.'</p> <p>The poster or the display must be put into a place that can be seen well. The poster has to be upgraded at least after 6 months and the display after 3 months.</p>
Explanation of the poster	The current Hungarian order includes the requirements of the form and the content of the poster and the display.
Poster responsibilities and enforcement	The stores have the responsibility of placing out the posters. The consumer protection authority (Hungarian Authority for Consumer Protection) controls is responsible for enforcement relating to posters.
Planned modifications	None
Research reports/initiatives	None
Comments	None
Poster violations	There is no comment according to the information everything is alright. According to the own survey of the KTI it can be alleged that there were no posters in 6 of 14 examined places while in 8 places there was information with the help of a chart, which does not or partly fulfil the requirements..
Overview of requirements in national legislation beyond Directive	None

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Overview of any voluntary action beyond requirements of national legislation	None
Promotional materials	
Guidance material	<p>The regulation is in the current Hungarian order (12/2002 (III.14.)). In it the following information needs to be published. The specific fuel consumption and CO₂ emission data of the new car is available in the overview of the fuel cost-efficiency, which can be available free in every store and at the consumer protection authority or it needs to include information for the availability of the specific fuel consumption and CO₂ emission data of the new car on the homepage of the transport authority. It needs to include link in which the referenced data can be available on the Internet.</p>
Planned modifications	None
Research reports/initiatives	None
Comments	The manufacturer and the distribution are responsible for providing that the leaflet in connection with the cars made and sold by them should include the official fuel consumption and official CO ₂ emission data of the given type.
Promotional material violations	There is no comment according to the information, everything is all right.
Overview of requirements in national legislation	None

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beyond Directive	
Overview of any voluntary action beyond requirements of national legislation	None
Other information	
Details of any other existing or planned voluntary measures in the field of consumer information on vehicle CO ₂ emissions / fuel efficiency	None planned
Numbers of consumers contacting consumer protection organisations with respect to queries relating to the CO ₂ label	No information available.
Numbers of consumer queries/complaints received about the CO ₂ information provided in car promotional material	No information available.
Number of hard copies of fuel economy/ CO ₂ guides published/distributed each year	No information available.
Number of times per year the online fuel economy/ CO ₂ guides in each country have been accessed	No information available.

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Qualitative information on the organisation's view of the effectiveness of the various tools available to them.	No information available.
Enforcement and compliance	
Reported compliance issues (label, poster, guide, promotional material) – number of violations relating to car CO ₂ information	<p>The consumer protection authority needs to control the execution of the order. The consumer protection authority does not examine or the authority does it superficially with a lack of regulation. According to its statement reporting or remarks have not been in connection with the posters, labels and leaflets with information. But for the sake of the view the KTI surveyed in 14 car traders in Budapest.</p> <p>The result of the survey: Posters and leaflets with information: they were not available in 6 of 14 places. Labels: they were partly appropriate in 2 of 14 places with formal mistakes in 4 places and they were appropriate in 8 places. So summarizing the survey made in the stores it can be alleged that the execution of the few-years' order is usually incomplete.</p>

ROMANIA	
Member State	Contact Information
Institution	<p>Ministry of Economy, Trade and Business (METB) Calea Victoriei, nr. 152, sector 1, București, cod 010096</p> <p>National Authority for Consumer Protection (NACP) Bulevardul Aviatorilor nr. 72, sector 1, Bucuresti</p> <p>Romanian Auto Register (RAR)– Department for Regulations, Training and International Cooperation Calea Grivitei nr. 391A , sector 1, Bucuresti - 010719</p>
Contact person	<p>METB - Gheorghe SAVU <i>Superior Counsellor grade I</i> 004 021 20.25.281, gheorghe_savu@minind.ro</p> <p>NACP – Eng. Stelica Nicula 004 0372 131 944 / 004 0372 131 951, stelicanicula@anpc.ro</p> <p>RAR - Eng. Cristian UTA <i>Department Manager</i> 004 021 318.17.42, ext 261, Cristian.uta@rarom.ro</p>
Implementation in Member State	
Implementing legislation	<p>Directive 1999/94/EC of the European Parliament and Council of 13 December 1999 on the availability of information on fuel consumption and CO₂ emissions for the new passenger cars has been transposed in Romania by Government Decision no. 343 of 18 March 2004 providing information on fuel consumption and CO₂ emissions in respect of the marketing of new passenger cars.</p>

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	<p>Regulation available at: http://www.minind.ro/domenii_sectoare/leg_armonizata/mediu_31_01/HG_343_2004_informatii_consum_carburanti_31_01.html</p> <p>The Romanian transposition does not go beyond the provisions of the scope set out in the EC Directive.</p> <p>The key elements of the Romanian legislation are:</p> <ul style="list-style-type: none"> • The provision of the label containing information relating to the official fuel consumption and the official specific CO₂ emissions (fixed on each new car model offered for sale) • The provision of a fuel consumption guide (updated annually), containing information about the specific CO₂ emissions for every make and model available for sale, which must be available free of charge • The display of the official fuel consumption and specific CO₂ emissions for all the new models on the market • The completion of the promotional literature with information about the official fuel consumption and CO₂ emissions of the new car models that it refers to
Additional legislation	None
Planned modifications	None
Links to other policy measures, e.g. taxation, incentives	No information available
Label	

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Label example	<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; background-color: #cccccc; margin: 0;">CONSUMURI de CARBURANT și EMISII de CO₂</p> <p>MARCA : MODEL : TIP / VARIANTA / VERSIUNE : TIPUL CARBURANTULUI :</p> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 20px;"> <div style="border: 1px solid black; padding: 2px; font-size: small;">CONSUM OFICIAL de CARBURANT (l/100 km)</div> <div style="text-align: center; flex-grow: 1;"> <div style="border: 1px solid black; padding: 10px; background-color: #cccccc; font-size: 2em; font-weight: bold; margin: 0 auto;">5,2</div> <p style="font-size: x-small; margin: 0;">mixt / urban / extra-urban 5,2 / 5,9 / 4,8</p> </div> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 20px;"> <div style="border: 1px solid black; padding: 2px; font-size: small;">EMISIILE SPECIFICE OFICIALE de CO₂ (g/km)</div> <div style="text-align: center; flex-grow: 1;"> <div style="border: 1px solid black; padding: 10px; background-color: #cccccc; font-size: 2em; font-weight: bold; margin: 0 auto;">137</div> </div> </div> <div style="margin-top: 20px;"> <p style="font-size: x-small;">Emisii reduse de CO₂ (g/km)</p> <table style="width: 100%; border-collapse: collapse; font-size: x-small;"> <tr><td style="background-color: #006633; color: white; padding: 2px;">< 120 CO₂</td><td style="text-align: center; padding: 2px;">A</td></tr> <tr><td style="background-color: #008000; color: white; padding: 2px;">121 - 140 CO₂</td><td style="text-align: center; padding: 2px;">B</td></tr> <tr><td style="background-color: #90EE90; padding: 2px;">141 - 155 CO₂</td><td style="text-align: center; padding: 2px;">C</td></tr> <tr><td style="background-color: #FFFF00; padding: 2px;">156 - 170 CO₂</td><td style="text-align: center; padding: 2px;">D</td></tr> <tr><td style="background-color: #FFD700; padding: 2px;">171 - 190 CO₂</td><td style="text-align: center; padding: 2px;">E</td></tr> <tr><td style="background-color: #FF8C00; padding: 2px;">191 - 225 CO₂</td><td style="text-align: center; padding: 2px;">F</td></tr> <tr><td style="background-color: #FF0000; padding: 2px;">> 226 CO₂</td><td style="text-align: center; padding: 2px;">G</td></tr> </table> <p style="font-size: x-small;">Emisii ridicate de CO₂ (g/km)</p> </div> <p style="font-size: x-small; margin-top: 20px;">Un ghid conținând date privind consumul de carburant și emisiile de CO₂ pentru toate modelele de autoturisme noi poate fi obținut gratuit în toate punctele de vânzare a acestora. Consumul de carburant și emisiile de CO₂ ale unui autoturism depind nu doar de randamentul său energetic, ci și de comportamentul la volan și de alți factori care nu sunt de natură tehnică. Dioxidul de carbon (CO₂) este principalul gaz cu efect de seră responsabil pentru încălzirea planetei.</p> </div>	< 120 CO ₂	A	121 - 140 CO ₂	B	141 - 155 CO ₂	C	156 - 170 CO ₂	D	171 - 190 CO ₂	E	191 - 225 CO ₂	F	> 226 CO ₂	G
< 120 CO ₂	A														
121 - 140 CO ₂	B														
141 - 155 CO ₂	C														
156 - 170 CO ₂	D														
171 - 190 CO ₂	E														
191 - 225 CO ₂	F														
> 226 CO ₂	G														
	<p><u>Translation of the above</u></p> <p>Fuel economy and CO₂ emissions Make: Model: Type / Variant / Version: Fuel type: Official fuel consumption: - l/100 km - km/l²) Official specific emissions of CO₂ - g/km</p> <p>A guide on fuel economy and CO₂ emissions which contains data for all new passenger car models is available at any point of sale free of charge. In addition to the fuel efficiency of a car, driving behaviour as well as other non-technical factors play a role in determining a car's fuel consumption and CO₂ emissions.</p> <p>Carbon dioxide (CO₂) is the main greenhouse gas responsible for</p>														

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	global warming.
Format of the label	<p>According to Annex 1 of HG 343 of March 18, 2004, the label on fuel economy and CO₂ emissions should be standardized to be easily recognizable by buyers. The format of the label is 297 mm x 210 mm (A4 format).</p> <p>Example of label:</p> <p>New vehicle GLK 220 CDI Basic Price (EUR) 33.600,-</p> <p>Technical information</p> <p>Engine: 4- cylinders in line Transmission: 7G – Tronic Power: 170 CP Engine capacity: 2.143 cm³ Price without VAT (EUR) Fuel: Diesel Mixed consumption l/100 km 6.7- 6.9 38.095,- CO₂ emissions (g/km) 176 – 182 EURO 5</p> <p>Standard equipment (selection)</p> <p>Central computer Chrome package Fog lights DISCOUNT Automatic air conditioning – Thermatic 5.105 EURO ASSYST PLUS System – service warning ABS / ASR / BAS / ESP</p> <p>Optional equipment (selection) Price without VAT (EUR)</p> <p>Colour: Silver Upholstery: Black leather / cloth Sport Interior Package 32.990,- Sport Exterior Package Decorative pattern package Price without VAT (EUR) Parktronic Heated front seats 40.908,-</p> <p>Standard financing (EUR) Monthly rate (EUR)</p> <p>Mercedes – Benz Financial Services offer. Example</p> <p>Period : 48 months Deposit : 20 % 8.172,- Interest: 4.95 % Residual 0.1 % : 41 Management Fee : 1.023,- 902,-</p>

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	<p>Prices include VAT and the CASCO insurance (equivalent of the comprehensive insurance in the UK).</p> <p>Carbon dioxide (CO₂) is the main greenhouse gas responsible for global warming. In addition to the fuel efficiency of a car, driving behaviour as well as other non-technical factors play a role in determining a car's fuel consumption and CO₂ emissions.</p>
Explanation of the label, including any classes	<p>The fuel economy label is a label that contains consumer information on the official fuel consumption and official specific emissions of CO₂ of the car on which the label is attached or next to.</p> <p>All fuel economy labels must meet the following conditions:</p> <ol style="list-style-type: none"> 1. comply with a standardised format in order to allow greater recognition by consumers; 2. are of a size of 297 mm x 210 mm (A4 format); 3. contain a reference to the model and fuel type of the passenger car to which they are attached; 4. Contain the numerical value of the official fuel consumption and the official specific emissions of CO₂. The value of the official fuel consumption is expressed in either litres per 100 kilometres (l/100 km), or an appropriate combination of these and is quoted to one decimal place. <p>The official specific emissions of CO₂ are quoted to the nearest whole number in grams per kilometre (g/km). Such values can be expressed in different units (gallons and miles) to the extent compatible with the provisions of Directive 80/181/EEC(1);</p> <ol style="list-style-type: none"> 5. contain the following text regarding the availability of the guide on fuel consumption and CO₂ emissions: "A guide on fuel economy and CO₂ emissions which contains data for all new passenger car models is available at any point of sale free of charge" 6. Contain the following text: "In addition to the fuel efficiency of a car, driving behaviour as well as other non-technical factors play a role in determining a car's fuel consumption and CO₂ emissions. CO₂ is the main greenhouse gas responsible for global warming".
Label responsibilities and enforcement	Label enforcement provisions are made by certain authorized personnel of the Ministry of Economy, Trade and Business and the National Authority for Consumer Protection.
Planned modifications	None
Research reports/initiatives	None
Comments	<p>Additional information provided, e.g. comparisons within class, or with highest and lowest emitters</p> <p>Example:</p> <p>Information on the CO₂ emissions for CITROEN vehicles (according to Government Decision no. 343 of March 18, 2004) - Annex 3:</p> <p>28 Citroen models on petrol were presented, engine capacity (cc) between 998-2946, Power (kW) 50 - 155, consumption (l/100 km) in urban areas between 5.5 and 16.3, extra urban between 3.9 - 8.2, Mixed between 4.5 - 11.2. For each of the 28 models presented in ascending order, the CO₂ emissions (g / km) range between 106-266.</p>

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	<p>At the same time, 41 Citroen models on Diesel were presented, engine capacity (cc) between 1398 - 2198, Power (kw) between 40 - 150, consumption (l/100km) in urban areas between 5.3 and 12.0, Extra urban between 3.4 and 8.4, Mixed between 109 – 246. For each of the 41 models presented, the CO₂ emissions (g/km) range between 109 – 246.</p> <p>In addition to the fuel efficiency of a car, driving behaviour as well as other non-technical factors play a role in determining a car's fuel consumption and CO₂ emissions. CO₂ is the main greenhouse gas responsible for global warming. A guide on fuel economy and CO₂ emissions which contains data for all new CITRÖEN passenger car models is available at any CITRÖEN showroom free of charge.</p>
Label violations	<p>From 2 to 6 November 2010, 307 traders and 2207 new cars were checked at national level, and deviations from the law were found at 147 traders and 221 cars. For the violations found, 147 new cars were temporarily retracted from sale until they comply with the legislation regarding the label. Also, 69 fines worth 225,000 RON (around 53,000 Euros) and 97 warnings were applied.</p> <p>The main violation registered was that the label on fuel economy and CO₂ emissions was missing at about 1.18% of the total number of traders.</p> <p>Survey of dealers was performed by the National Authority for Consumer Protection (NACP)</p>
Overview of requirements in national legislation beyond Directive	None
Overview of any voluntary action beyond requirements of national legislation	Presentation of CO ₂ emissions information in EU energy labelling style, including 7 colour-coded bands, A to G.
Guide on fuel economy	
Example for Guide on Fuel Economy	<p>The guide on fuel economy must contain at least the following information:</p> <ul style="list-style-type: none"> • A listing of all new passenger car models available for purchase, grouped by makes in alphabetical order, developed yearly. If the guide is updated more than once a year, then the guide should contain a listing of all new passenger car models available on the date of the publication of this update; • For each model that appears in the guide, the fuel type, the numerical value of the official fuel consumption and the official specific emissions of CO₂. The value of the official fuel consumption is expressed in either litres per 100 kilometres (l/100 km) or kilometres per litre (km/l), or an appropriate combination of these, and is quoted to one decimal place. The official specific emissions of CO₂ are quoted to the nearest whole number in grams per kilometre (g/km). Such values can be expressed in different units (gallons and miles) to the extent compatible with the provisions of Directive 80/181/CEE; • A prominent listing of the 10 most fuel-efficient new passenger car models ranked in order of increasing specific emissions of CO₂ for each fuel type. The listing must contain the model, the numerical value of the official fuel consumption and the official specific emissions of CO₂; • Advice to motorists that correct use and regular maintenance of

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	<p>the vehicle and driving behaviour, such as avoiding aggressive driving, travelling at lower speeds, anticipation braking, correctly inflating tyres, reducing periods of idling, not carrying excessive weight, improve the fuel consumption and reduce the CO₂ emissions of their passenger car;</p> <ul style="list-style-type: none"> An explanation of the effects of greenhouse gas emissions, potential climate change and the relevance of motor cars as well as a reference to the different fuel options available to the consumer and their environmental implications based on the latest scientific evidence and legislative requirements.
Internet version	Not available on the Internet
Version reviewed in case study	The guide is reviewed annually
Comparison of vehicle models, energy efficiency rating	The guide is structured according to the provisions of the Directive
Guide on fuel economy: responsibilities and enforcement	<p>RAR is responsible for developing the guide METB and NACP are responsible for the implementation</p> <p>Guide enforcement provisions are made by certain authorized personnel of the Ministry of Economy, Trade and Business and the National Authority for Consumer Protection.</p> <p>Articles 4 and 8 of HG 343/2004 explain the responsibilities and enforcement</p>
Planned modifications	METB doesn't hold any information.
Research reports/initiatives	None
Comments	None
Guide on fuel economy violations	<p>Following the inspections conducted during 2 to 6 November 2010 by the National Authority for Consumer Protection on compliance with the provisions of HG no. 343 of 18 March 2004, violations of the legislation in terms of fuel economy guide were found.</p> <p>Violations were found at 33 traders (12.67 % of the total number) from the following counties: Ilfov, Bihor, Satu - Mare, Caras-Severin, Neamt, Arad etc.</p> <p>Survey of dealers was performed by the National Authority for Consumer Protection (NACP)</p>
Overview of requirements in national legislation beyond Directive	N/A
Overview of any voluntary action beyond requirements of national legislation	N/A
Poster	
Guidance material	N/A
Comparison of vehicle models, energy efficiency rating	Yes, as per the Directive
Explanation of the poster	For each make of car, a poster or a display is exhibited with a list of the official fuel consumption data and the official specific CO ₂ emissions data of all new passenger car models displayed or offered for sale or lease at or through that point of sale. This data shall be displayed in a

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	<p>prominent position and in accordance with the format specified in Annex 3 of HG 343/2004.</p> <p>The poster / display must meet the following requirements:</p> <ul style="list-style-type: none"> • The poster or display is a minimum size of 70 cm x 50 cm; • The information is easy to read; • If the information is displayed on an electronic screen, the screen size should be a minimum of 25 cm x 32 cm (...17 inches). Information may be submitted by scrolling techniques; • The passenger car models are grouped and listed separately according to fuel type (e.g. petrol or diesel). Within each fuel type, models are ranked in order of increasing CO₂ emissions, with the model with the lowest official fuel consumption being placed at the top of the list; • For each passenger car model in the list, the make, the numerical value of the official fuel consumption and the official specific emissions of CO₂ are given. The value of the official fuel consumption is expressed in either litres per 100 kilometres (l/100 km), kilometres per litre (km/l), or an appropriate combination of these, and is quoted to one decimal place. The official specific emissions of CO₂ are quoted to the nearest whole number in grams per kilometre (g/km). <p>Such values may be expressed in different units (gallons and miles) to the extent compatible with the provisions of Directive 80/181/CEE.</p> <p>Annex 2 of HG nr.343-2004 contains a suggestion as follows:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Fuel type</th> <th style="text-align: left;">Classification</th> <th style="text-align: left;">Model</th> <th style="text-align: left;">CO₂ Emissions</th> </tr> </thead> <tbody> <tr> <td>Consumption</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Petrol</td> <td>1</td> <td>2</td> <td>...</td> </tr> <tr> <td>Diesel</td> <td>1</td> <td>2</td> <td>...</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • The poster / display contains the following text regarding the availability of the guide on fuel economy and CO₂ emissions: “A guide on fuel economy and CO₂ emissions which contains data for all new passenger car models is available at any point of sale free of charge”: Where an electronic screen is used, this message must be permanently visible; • The poster / display contains the following text: “In addition to the fuel efficiency of a car, driving behaviour as well as other non-technical factors play a role in determining a car’s fuel consumption and CO₂ emissions. CO₂ is the main greenhouse gas responsible for global warming”. Where an electronic screen is used, this message must be permanently visible ; • The poster / display will be updated at least every six months. Where an electronic display is used, the information shall be updated at least every three months; • The poster / display may be substituted completely and permanently by an electronic screen. In this case the electronic screen shall be presented in such a way that it attracts the awareness of the consumer at least with the same intensity as a poster / display would have achieved. 	Fuel type	Classification	Model	CO ₂ Emissions	Consumption				Petrol	1	2	...	Diesel	1	2	...
Fuel type	Classification	Model	CO ₂ Emissions														
Consumption																	
Petrol	1	2	...														
Diesel	1	2	...														
Poster responsibilities and enforcement	Poster enforcement provisions are made by certain authorized personnel of the Ministry of Economy, Trade and Business and the National Authority for Consumer Protection.																

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Planned modifications	none
Research reports/initiatives	none
Comments	-
Poster violations	<p>Following the inspections conducted during 2 to 6 November 2010 by the National Authority for Consumer Protection on compliance with the provisions of HG no. 343 of 18 March 2004, poster violations of the legislation were found at 41 traders (15.7% of the total number).</p> <p>Survey of dealers was performed by the National Authority for Consumer Protection (NACP)</p>
Overview of requirements in national legislation beyond Directive	N/A
Overview of any voluntary action beyond requirements of national legislation	N/A
Promotional materials	
Guidance material	
Explanation of the promotional materials	<p>The promotional material must contain the official fuel consumption and official specific CO₂ emissions data of the new vehicles to which it refers and is developed according to the provisions of Annex 4 of HG 343/2004:</p> <p>All promotional literature must contain the official fuel consumption and official specific CO₂ emissions data of the vehicle to which it refers. This information should, as a minimum, meet the following requirements:</p> <ol style="list-style-type: none"> 1. Be easy to read and no less prominent than the main part of the information provided in the promotional literature 2. Be easy to understand even on superficial contact 3. Official fuel consumption data should be provided for all different car models to which the promotional material covers. If more than one model is specified then either the official fuel consumption data for all the models specified is included or the range between the worst and best fuel consumption is stated. Fuel consumption is expressed in either litres per 100 kilometers (l/100 km), kilometers per litre (km/l) or an appropriate combination of these. All numerical data are quoted to one decimal place. <p>Such values may be expressed in different units (gallons or miles) to the extent compatible with the provisions of Directive 80/181/EEC.</p> <p>If the promotional literature only contains reference to the make, and not to any particular model, then fuel consumption data need to be provided.</p>
Planned modifications	none
Research reports/initiatives	none
Comments	-
Promotional material violations	<p>Following the inspections conducted during 2 to 6 November 2010, promotional material violations were found at only one trader (0.38% of the total number)</p> <p>Survey of dealers was performed by the National Authority for</p>

ROMANIA	
	Consumer Protection (NACP)
Overview of requirements in national legislation beyond Directive	N/A
Overview of any voluntary action beyond requirements of national legislation	N/A
Other information	
Details of any other existing or planned voluntary measures in the field of consumer information on vehicle CO ₂ emissions / fuel efficiency	none
Numbers of consumers contacting consumer protection organisations with respect to queries relating to the CO ₂ label	Don't hold this information
Numbers of consumer queries/complaints received about the CO ₂ information provided in car promotional material	Don't hold this information
Number of hard copies of fuel economy/CO ₂ guides published/distributed each year	2010 – published: 3,000 distributed: 2,732 2011 – published: 3000 distributed until July: 2,326 The number of printed guides depends on demand, which is not high. Generally, guides are available at suppliers' locations on demand. Their availability on the market is controlled by the Ministry of Economy, Trade and Business and the National Authority for Consumer Protection.
Number of times per year the online fuel economy/CO ₂ guides in each country have been accessed	N/A as the guide is not available online
Qualitative information on the organisations view of the effectiveness of the various tools available to them.	Don't hold this information
Enforcement and Compliance	
Reported compliance issues (label, poster, guide, promotional material) – number of violations relating to car CO ₂ information	As above

SPAIN	
Member State Contact Information	
Institution	ANFAC: C/Fray Bernardino Sahagún, 24. Planta Baja- 28036 Madrid TF 91

SPAIN	
	<p>343 13 45</p> <p>ANIACAM: Núñez de Balboa, 114, 3ª pl. Of. 17-28006 Madrid- Teléfonos: 91 561 63 03 - 04</p> <p>IDAE: C/ Madera, 8 – 28004 Madrid</p>
Contact person	Angel Cediel (acediel@idae.es) - IDAE: C/ Madera, 8 – 28004 Madrid TF: 914564900
Implementation in Member State	
Implementing legislation	<p>Directive 1999/94/EC was implemented in the Spain by Royal Decree 837/2002.</p> <p>It was further amended by the publication of Directive 2003/73/EC to take account of reviews of requirements relating to promotional literature.</p> <p>The regulation text is available at: http://www.idae.es/coches/porta/RealDecreto.aspx</p> <p>The key elements of the legislation in Spain are:</p> <ul style="list-style-type: none"> • The provision of a fuel economy label, either on or near new cars offered for sale; • The provision of fuel consumption booklets which must be free and available on request; • The provision of a poster, showing cars available at the point of sale, ranked by CO₂. This can be an electronic display; • The provision of fuel consumption and CO₂ information in promotional literature.
Additional legislation	Since the introduction of the Law 34/2007 (Ley de calidad del aire y protección de la atmósfera) in 2008, the circulation registration tax is linked to the CO ₂ emissions of the vehicle itself.
Planned modifications	No planned modifications
Links to other policy measures, e.g. taxation, incentives	http://www.boe.es/boe/dias/2007/11/16/pdfs/A46962-46987.pdf
Label	

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Label example	<div style="border: 1px solid black; padding: 10px;"> <p style="text-align: center; color: red; font-weight: bold; margin: 0;">Eficiencia Energética</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Marca</td> <td style="padding: 2px;">X</td> </tr> <tr> <td style="padding: 2px;">Modelo</td> <td style="padding: 2px;">Y</td> </tr> <tr> <td style="padding: 2px;">Tipo Carburante</td> <td style="padding: 2px;">Gasolina</td> </tr> <tr> <td style="padding: 2px;">Transmisión</td> <td style="padding: 2px;">Manual</td> </tr> <tr> <td style="padding: 2px;">Consumo de Carburante <i>(litros por cada 100 kilómetros)</i></td> <td style="padding: 2px;">17,4 litros/100km</td> </tr> <tr> <td style="padding: 2px;">Equivalencia <i>(kilómetros por litro)</i></td> <td style="padding: 2px;">5,75 km/litro</td> </tr> <tr> <td style="padding: 2px;">Emisión de CO₂ <i>(gramos por kilómetro)</i></td> <td style="padding: 2px;">412 g/km</td> </tr> <tr> <td style="padding: 2px;">Comparativa de Consumo <i>(con la media de los coches de su mismo tamaño a la venta en España)</i></td> <td style="padding: 2px;"></td> </tr> </table> <div style="text-align: center; margin-top: 10px;"> <p><i>Bajo Consumo</i></p> <p><i>Alto Consumo</i></p> </div> <p style="font-size: small; margin-top: 10px;">* En todos los puntos de venta puede obtenerse gratuitamente una guía sobre el consumo de combustibles y emisiones de CO₂ en la que figuran los datos de todos los modelos de automóviles de turismo nuevos. * El consumo de combustible y las emisiones de CO₂, no sólo dependen del rendimiento del vehículo; también influyen el comportamiento al volante y otros factores no técnicos. El CO₂ es el principal gas de efecto invernadero responsable del calentamiento del planeta.</p> </div> <p style="margin-top: 20px;">http://www.idae.es/Coches/Repositorio/Ficheros/18/Manual%20Usuario.pdf http://www.idae.es/Coches/PDF/GuiaFinalN.pdf</p>	Marca	X	Modelo	Y	Tipo Carburante	Gasolina	Transmisión	Manual	Consumo de Carburante <i>(litros por cada 100 kilómetros)</i>	17,4 litros/100km	Equivalencia <i>(kilómetros por litro)</i>	5,75 km/litro	Emisión de CO ₂ <i>(gramos por kilómetro)</i>	412 g/km	Comparativa de Consumo <i>(con la media de los coches de su mismo tamaño a la venta en España)</i>	
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Format of the label	<p>The label features seven colour coded bands in the style of those that appear on white goods, such as refrigerators and washing machines. The bands indicate the range of CO₂ emissions to compare to the average car of the same size into which the car in question falls (relative label).</p> <p>The exact emissions of CO₂ in g/km for the vehicle are shown in the 2nd top cell on the right hand side.</p> <p>Also, specifications of the vehicle are given, followed by data on its fuel consumption in litres per 100km and km/litre.</p> <p>Below there is a note that explains that a guide on fuel economy and CO₂ emissions is available free of charge from any point of sale. It also highlights the role of driving behaviour in CO₂ emissions, and states that CO₂ is the main greenhouse gas responsible for global warming, as required by the Directive.</p>																
Explanation of the label, including any classes	<p>The fuel economy label is a label that contains consumer information on the official fuel consumption and official specific emissions of CO₂ of the car on which the label is attached or next to.</p> <p>All fuel economy labels must meet the following conditions:</p> <ol style="list-style-type: none"> 1. comply with a standardised format in order to allow greater recognition by 																

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	<p>consumers;</p> <p>2. are of a size of 297 mm x 210 mm (A4 format);</p> <p>3. Contain a reference to the model and fuel type of the passenger car to which they are attached;</p> <p>4. Contain the numerical value of the official fuel consumption and the official specific emissions of CO₂. The value of the official fuel consumption is expressed in either litres per 100 kilometres (l/100 km), or an appropriate combination of these and is quoted to one decimal place. The official specific emissions of CO₂ are quoted to the nearest whole number in grams per kilometre (g/km).</p> <p>5. Contain the following text regarding the availability of the guide on fuel consumption and CO₂ emissions: "A guide on fuel economy and CO₂ emissions which contains data for all new passenger car models is available at any point of sale free of charge"</p> <p>6. Contain the following text: "In addition to the fuel efficiency of a car, driving behaviour as well as other non-technical factors play a role in determining a car's fuel consumption and CO₂ emissions. CO₂ is the main greenhouse gas responsible for global warming".</p>
Label responsibilities and enforcement	The responsibility of the application and pursuit of the RD falls into the Regional Governments although at national level there are three Ministries affected by the RD: Ministry of Health, Social Policy and Equality; Ministry of Industry, Tourism and Commerce; Ministry of Environment and Rural and Marine Affairs.
Planned modifications	No modifications planned.
Research reports/initiatives	Not aware of any report or study on the effectiveness of the effective legislation, although in 2002 a study was sent to the European Commission by the prescribed channel.
Comments	
Label violations	No current information available.
Overview of requirements in national legislation beyond Directive	Includes fuel consumption in kms per litre in addition to litres per 100km
Overview of any voluntary action beyond requirements of national legislation	Presents CO ₂ information in EU Energy Labelling-style format. It is a relative label and includes bands A to G (7 bands). The activities of the manufacturers/salesmen have been limited to those which enforced by the RD.
Guide on fuel economy	
Example for Guide on Fuel Economy	<p>The guide on fuel economy must contain at least the following information:</p> <ul style="list-style-type: none"> • A listing of all new passenger car models available for purchase, grouped by makes in alphabetical order, developed yearly. If the guide is updated more than once a year, then the guide should contain a listing of all new passenger car models available on the date of the publication of this update; • For each model that appears in the guide, the fuel type, the numerical value of the official fuel consumption and the official specific emissions of CO₂. The value of the official fuel consumption is expressed in either litres

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	<p>per 100 kilometres (l/100 km) or kilometres per litre (km/l), or an appropriate combination of these, and is quoted to one decimal place. The official specific emissions of CO₂ are quoted to the nearest whole number in grams per kilometre (g/km). Such values can be expressed in different units (gallons and miles) to the extent compatible with the provisions of Directive 80/181/CEE;</p> <ul style="list-style-type: none"> • A prominent listing of the 10 most fuel-efficient new passenger car models ranked in order of increasing specific emissions of CO₂ for each fuel type. The listing must contain the model, the numerical value of the official fuel consumption and the official specific emissions of CO₂; • Advice to motorists that correct use and regular maintenance of the vehicle and driving behaviour, such as avoiding aggressive driving, travelling at lower speeds, anticipation braking, correctly inflating tyres, reducing periods of idling, not carrying excessive weight, improve the fuel consumption and reduce the CO₂ emissions of their passenger car; • An explanation of the effects of greenhouse gas emissions, potential climate change and the relevance of motor cars as well as a reference to the different fuel options available to the consumer and their environmental implications based on the latest scientific evidence and legislative requirements. • A reference to the Community's target for the average emissions of CO₂ from new passenger cars and the date of which the target should be achieved; • A reference to the Commission's guide on fuel economy and CO₂ emissions on the Internet, when available. <table border="1" style="width: 100%; margin-top: 10px;"> <thead> <tr> <th>Class</th> <th>Relative energy efficiency index (%)</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Index < -25%</td> </tr> <tr> <td>B</td> <td>-25% <= index < -15%</td> </tr> <tr> <td>C</td> <td>-15% <= index < -5%</td> </tr> <tr> <td>D</td> <td>-5% <= index < 5%</td> </tr> <tr> <td>E</td> <td>5% <= index < 15%</td> </tr> <tr> <td>F</td> <td>15% <= index < 25%</td> </tr> <tr> <td>G</td> <td>25% <= index</td> </tr> </tbody> </table>	Class	Relative energy efficiency index (%)	A	Index < -25%	B	-25% <= index < -15%	C	-15% <= index < -5%	D	-5% <= index < 5%	E	5% <= index < 15%	F	15% <= index < 25%	G	25% <= index
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Internet version	http://www.idae.es/Coches/PDF/GuiaFinalN.pdf																
Version reviewed in case study																	
Comparison of vehicle models, energy efficiency rating	<p>Several different specifications (variants/versions) of a given model may be grouped together in the list – these figures are therefore indicative only. Definitive figures for a given specification will be available at the point of sale. Information is provided for petrol and diesel vehicles with 110g/km CO₂ or less, in the following categories:</p> <ul style="list-style-type: none"> • Make and model • Type of vehicle • Engine capacity (cc) • CO₂ (g/km) • Fuel consumption (km/l) • Fuel cost of driving 10,000 km 																

SPAIN	
Guide on fuel economy: responsibilities and enforcement	<p>IDAE has the responsibility to create the guide at least once a year.</p> <p>The responsibility of the application and pursuit of the RD falls into the Regional Governments although at national level there are three Ministries affected by the RD: Ministry of Health, Social Policy and Equality; Ministry of Industry, Tourism and Commerce; Ministry of Environment and Rural and Marine Affairs.</p> <p>Available to consumers for free at retail outlets and online.</p>
Planned modifications	No planned modifications
Research reports/initiatives	www.idae.es/coches
Comments	
Guide on fuel economy violations	None
Overview of requirements in national legislation beyond Directive	<p>Information on alternative clean technologies vehicles and fuels is given:</p> <ul style="list-style-type: none"> • Hybrids, fuel cell and electric cars • Natural gas, LPG and Bioethanol
Overview of any voluntary action beyond requirements of national legislation	IDAE has developed a database where detailed information and comparative information on fuel consumption and characteristics of new cars offered for sale in Spain.
Poster	
Guidance material	
Comparison of vehicle models, energy efficiency rating	
Explanation of the poster	<p>For each make of car, a poster or a display is exhibited with a list of the official fuel consumption data and the official specific CO₂ emissions data of all new passenger car models displayed or offered for sale or lease at or through that point of sale. This data shall be displayed in a prominent position and in accordance with the format specified in Annex 3 of HG 343/2004.</p> <p>The poster / display must meet the following requirements:</p> <ul style="list-style-type: none"> • The poster or display is a minimum size of 70 cm x 50 cm; • The information is easy to read; • If the information is displayed on an electronic screen, the screen size should be a minimum of 25 cm x 32 cm (... 17 inches). Information may be submitted by scrolling techniques; • The passenger car models are grouped and listed separately according to fuel type (e.g. petrol or diesel). Within each fuel type, models are ranked in order of increasing CO₂ emissions, with the model with the lowest official fuel consumption being placed at the top of the list; • For each passenger car model in the list, the make, the numerical value of the official fuel consumption and the official specific emissions of CO₂ are given. The value of the official fuel consumption is expressed in either litres per 100 kilometres (l/100 km), kilometres per litre (km/l), or an appropriate combination of these, and is quoted to one decimal place. The official specific emissions of CO₂ are quoted to the nearest whole number in grams per kilometre (g/km).

SPAIN	
Poster responsibilities and enforcement	The responsibility of the application and pursuit of the RD falls into the Regional Governments although at national level there are three Ministries affected by the RD: Ministry of Health, Social Policy and Equality; Ministry of Industry, Tourism and Commerce; Ministry of Environment and Rural and Marine Affairs.
Planned modifications	None
Research reports/initiatives	None
Comments	
Poster violations	There is not current information available.
Overview of requirements in national legislation beyond Directive	
Overview of any voluntary action beyond requirements of national legislation	
Promotional materials	
Guidance material	•
Explanation of promotional materials	<p>Information on the promotional materials should be:</p> <ul style="list-style-type: none"> • be easy to read and no less prominent than the main part of the information provided in the promotional literature; • be easy to understand even on superficial contact; <p>it must include the official fuel consumption and the official specific emissions of CO₂ are given. The value of the official fuel consumption is expressed in km/l. The official specific emissions of CO₂ are quoted to the nearest whole number in g/km.</p> <p>Meets the minimum requirements of the Directive.</p>
Planned modifications	None
Research reports/initiatives	None
Comments	
Promotional material violations	<p>A Friends of the Earth Europe (2009) publication has considered compliance with the Annex IV of the Directive. In the study, 161 press advertisements (newspapers and magazines) and 16 billboards were examined in Spain over a three-month period in 2009 to assess their compliance with “all promotional literature [must] contain the official fuel consumption and CO₂ emissions data”, and that these figures should be “easy to read and no less prominent than the main part of the information provided in the promotional literature”. Whilst the CO₂/fuel consumption information was present in all literature surveyed, it was smaller than the main information in all cases.</p> <p>We understand that action is currently being taken in Spain with regards to</p>

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	non-compliance with the requirements for promotional materials. A campaign was undertaken in 2010 to assess compliance. It is understood that following the campaign, proceedings have been initiated in 117 cases.
Overview of requirements in national legislation beyond Directive	
Overview of any voluntary action beyond requirements of national legislation	The activities of the manufacturers/salesmen have been limited to those which enforced by the RD.
Other information	
Details of any other existing or planned voluntary measures in the field of consumer information on vehicle CO ₂ emissions / fuel efficiency	The IDAE publishes and updates information on consumption and emissions of new vehicles in the national territory (www.idae.es/coches) aside from the Web site is a guide in pdf format that is updated periodically. This guide has been printed in several Local Authorities by the regional governments. There are also links from different regional governments' and local authorities' websites.
Numbers of consumers contacting consumer protection organisations with respect to queries relating to the CO ₂ label	No information available.
Numbers of consumer queries/complaints received about the CO ₂ information provided in car promotional material	No information available.
Number of hard copies of fuel economy/CO ₂ guides published/distributed each year	No information available.
Number of times per year the online fuel economy/CO ₂ guides in each country have been accessed	No information available.
Qualitative information on the organisations view of the effectiveness of the various tools available to them.	No information available.

UNITED KINGDOM	
Member State Contact Information	

UNITED KINGDOM	
Institution	Department for Transport Address: Great Minster House 76 Marsham Street London SW1P 4DR Website: http://www.dft.gov.uk/
Contact person	Andrew Kelly (also Lynn Stevens to whom Andrew report, and Paul Cooke of VCA)
Implementation in Member State	
	<p>Directive 1999/94/EC was implemented in the UK by UK S.I. 2001 No. 3523, 'The Passenger Car (Fuel Consumption and CO₂ Emissions Information) Regulations 2001'. Regulation available at: http://www.opsi.gov.uk/SI/si2001/20013523.htm http://www.dft.gov.uk/vca/additional/files/fcb--co2/enforcement-on-advertising/si2001.pdf</p> <p>It was further amended by UK S.I. 2004 No. 1661, 'The Passenger Car (Fuel Consumption and CO₂ Emissions Information) (Amendment) Regulations 2004' following the publication of Directive 2003/73/EC to take account of reviews of requirements relating to promotional literature. Regulation available at: http://www.dft.gov.uk/vca/additional/files/fcb--co2/enforcement-on-advertising/si2004.pdf</p> <p>UK transposition in law does not go beyond the provisions or the scope set out in Directive 1999/94/EC. However, see the voluntary aspects below.</p> <p>The key elements of the UK legislation are:</p> <ul style="list-style-type: none"> • The provision of a fuel economy label, either on or near new cars offered for sale; • The provision of fuel consumption guides which must be free and available at point of sale and on request; • The provision of a poster, showing cars available at the point of sale, ranked by CO₂. This can be an electronic display; • The provision of fuel consumption and CO₂ information in model specific promotional literature. If the promotional literature in question does not refer to vehicle models then there is no requirement to provide this information. <p>Note that the UK labelling system includes a voluntary section which forms the upper half of the label and includes colour-coded bandings and running costs (circulation tax and annual fuel cost). This system was developed by the Low Carbon Vehicle Partnership in collaboration with the Department for Transport and vehicle manufacturers in order to ensure that the information provided is clear and accessible to consumers.</p>
Additional legislation	<p>Vehicle Excise Duty (VED) The system of VED (circulation taxes) introduced by the UK Government brackets together vehicles according to their level of CO₂ emissions. It is</p>

UNITED KINGDOM	
	<p>intended to provide a signal to motorists of the environmental impacts of their choice of car. Initially vehicles were segmented into 7 bands (A to G).</p> <p>From April 2010, a new graduated rate was introduced which applies in the year of first registration for vehicles first registered after April 2010. Cars that emit high levels of CO₂ attract a high first year rate of VED. At the same time the system was modified to accommodate 13 bands (A to M). First year rate charges range from £105 for a band E vehicle up to £1000 for a band M.</p> <p>This fiscal measure is intended to incentivise people to choose more efficient and lower CO₂ vehicles. It is expected that the VED reforms will contribute a cumulative reduction of 1 million tonnes CO₂ by 2020 and encourage greater environmental innovation in the motor industry.</p> <p>Further information:</p> <p><i>The cost of vehicle tax:</i> http://www.direct.gov.uk/en/Motoring/OwningAVehicle/HowToTaxYourVehicle/DG_4022118</p> <p><i>Impact Assessment of reforms to the Vehicle Excise Duty rules on refunds and six month licences:</i> http://www.hmrc.gov.uk/ria/reforms-vehicle.pdf</p> <p><i>UK Car fuel data, CO₂ and vehicle tax tools database:</i> http://carfueldata.direct.gov.uk/</p> <p>PREVIOUS</p> <p>The Passenger Car Fuel Consumption Order (1993) Previously, this piece of UK legislation outlined the need for a fuel economy label, and specified the need to show fuel consumption and CO₂ information in promotional literature when claims about fuel economy were made.</p>
Planned modifications	<p>There are currently no specific plans for modifications. However improvements to the voluntary section of the label are being examined. In particular, ministers are keen that the fuel economy label more clearly conveys typical running costs, particularly as this may reinforce the potential benefits of electric vehicles over conventional ones.</p> <p>Ideas under consideration include providing running costs for three or five years and including such things as maintenance and insurance. Insurance costs may be an issue for electric vehicles as insurers may charge significantly more due to the new technology involved.</p> <p>In the longer term, the Low Carbon Vehicle Partnership has also been looking at the possibility of moving away from the tailpipe CO₂ performance metric towards a well to wheel or lifecycle metric including consideration of manufacture and disposal.</p> <p>The Low Carbon Vehicle Partnership has conducted research into possible changes to the label however the Department for Transport is also interested to find out what plans the European Commission themselves may have for changes.</p>
	<p>Links to other policy measures, e.g. taxation, incentives</p> <p>Company car taxation is linked to vehicle CO₂ emissions with the</p>

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	<p>percentage “benefit in kind” calculation increasing from 15% to 35% with increasing CO₂ (125g/km to 235g/km in 5g/km bands). 76-120g/km vehicles have a special lower percentage applied (10%). Vehicles with CO₂ emissions less than 75g/km have 5% applied. The lowest appropriate percentage is 0 per cent and applies to cars with CO₂ emissions of zero at the tailpipe. http://www.hmrc.gov.uk/cars/rule-changes.htm</p> <p>For companies purchasing vehicles, those with sub-110g/km CO₂ emissions are also eligible for a special 100% first year capital allowance “write down”.</p> <p>http://www.hmrc.gov.uk/manuals/camanual/ca23153.htm</p> <p>These policies are determined by the Treasury department (HMT) and Her Majesty’s Revenue and Customs (HMRC). However an expert is available at the Department for Transport if there are further questions regarding company car taxation policy.</p> <p>Further examples of policy measures linked to vehicle CO₂ emissions include the congestion charging scheme in London and local authority parking charges being linked to CO₂ emissions and incentives for the uptake of ultra-low emissions vehicles such as the £5,000 grant scheme and provision of free parking and free charging for electric vehicles.</p>
Label	

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<p>Label example</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">Fuel Economy</td> <td colspan="2" style="text-align: center;">VED band and CO₂</td> </tr> <tr> <td colspan="2"> <p>CO₂ emission figure (g/km)</p> </td> <td colspan="2"></td> </tr> <tr> <td colspan="2"> <p>Fuel cost (estimated) for 12,000 miles</p> <p><small>A fuel cost figure indicates to the consumer a guide price for comparison purposes. This figure is calculated by using the combined drive cycle (town centre and motorway) and average fuel price. Re-calculated annually, the cost per litre as at Mar 2011 is as follows - petrol 133p, diesel 135p, LPG 77p.</small></p> </td> <td colspan="2"></td> </tr> <tr> <td colspan="2"> <p>VED for 12 months</p> <p><small>Vehicle excise duty (VED) or road tax varies according to the CO₂ emissions and fuel type of the vehicle.</small></p> </td> <td style="text-align: center;"><small>1st Year rate*</small></td> <td style="text-align: center;"><small>Standard rate**</small></td> </tr> <tr> <td colspan="4" style="text-align: center;">Environmental Information</td> </tr> <tr> <td colspan="4"> <p><small>A guide on fuel economy and CO₂ emissions which contains data for all new passenger car models is available at any point of sale free of charge. In addition to the fuel efficiency of a car, driving behaviour as well as other non-technical factors play a role in determining a car's fuel consumption and CO₂ emissions. CO₂ is the main greenhouse gas responsible for global warming.</small></p> </td> </tr> <tr> <td colspan="2"><small>Make/Model:</small></td> <td colspan="2"><small>Engine Capacity (cc):</small></td> </tr> <tr> <td colspan="2"><small>Fuel Type:</small></td> <td colspan="2"><small>Transmission:</small></td> </tr> <tr> <td colspan="4">Fuel Consumption:</td> </tr> <tr> <td><small>Drive cycle</small></td> <td><small>Litres/100km</small></td> <td colspan="2"><small>Mpg</small></td> </tr> <tr> <td><small>Urban</small></td> <td></td> <td colspan="2"></td> </tr> <tr> <td><small>Extra-urban</small></td> <td></td> <td colspan="2"></td> </tr> <tr> <td><small>Combined</small></td> <td></td> <td colspan="2"></td> </tr> <tr> <td colspan="4"> <p>Carbon dioxide emissions (g/km): <small>Important note: Some specifications of this make/model may have lower CO₂ emissions than this. Check with your dealer.</small></p> </td> </tr> <tr> <td colspan="2" style="text-align: center;"> </td> <td colspan="2" style="text-align: center;"> <p>To compare fuel costs and CO₂ emissions of new cars, visit http://carfueldata.direct.gov.uk/</p> </td> </tr> <tr> <td colspan="4"> <p><small>* A new 1st year VED rate will be applied to vehicles registered for the first time on or after April 2010. ** The standard 12 month VED rate for all registered cars in this band is shown for the purposes of comparison. Note, figures quoted reflect the current rate only, and may be subject to change</small></p> </td> </tr> </table>	Fuel Economy		VED band and CO ₂		<p>CO₂ emission figure (g/km)</p>				<p>Fuel cost (estimated) for 12,000 miles</p> <p><small>A fuel cost figure indicates to the consumer a guide price for comparison purposes. This figure is calculated by using the combined drive cycle (town centre and motorway) and average fuel price. 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<p>Format of the label</p>	<p>The UK fuel economy label consists of a voluntarily agreed section in the upper half which shows seven colour-coded bandings featuring the 13 Vehicle Excise Duty classes – A to M as well as fuel and vehicle excise duty costs. The colour-coding were introduced in 2005 and were intended to increase the value of the label from a simple information source to a tool for comparison of different makes and models. This section was introduced under a voluntary agreement between Government agencies and car manufacturers and retailers, organised by the Low Carbon Vehicle Partnership. It is maintained and updated by the Vehicle Certification Agency (VCA), an agency of the Department for Transport.</p> <p>In the lower half of the label is the prescribed information required under the Directive.</p> <p>In April 2010, the label was slightly revised in order to show a new 'first</p>																																																																

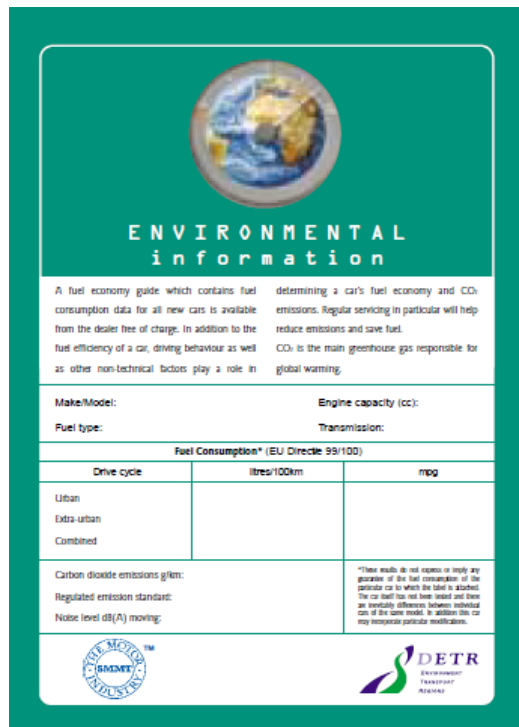
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	<p>year rate' of vehicle excise duty which was introduced (as described in the 'additional legislation' section).</p> <p>The VCA has also developed an online tool which allows car manufacturers' dealer networks to download labels in the required format populated with the relevant information. The use of this tool is not obligatory – manufacturers may make their own arrangements as long as the correct information is included.</p>
Explanation of the label, including any classes	<p>The label features seven colour coded bands in the style of those that appear on white goods in the UK, such as refrigerators and washing machines. The bands indicate the range of CO₂ emissions into which the car in question falls and its corresponding VED band.</p> <p>The exact emissions of CO₂ in g/km for the car are given by the black arrow on the right hand side.</p> <p>The estimated fuel cost per 12,000 miles (19,300 km) is given. The figure is calculated by using the combined drive cycle (town centre and motorway) and average fuel price. It is recalculated annually. The first year cost of vehicle excise duty is also given alongside the standard rate used for future years.</p> <p>A short piece of text explains that a guide on fuel economy and CO₂ emissions is available free of charge from any point of sale. It also highlights the role of driving behaviour in CO₂ emissions, and states that CO₂ is the main greenhouse gas responsible for global warming.</p> <p>Below this, specifications of the vehicle are given as required by the directive, followed by data on its fuel consumption in litres per 100km and miles per gallon.</p> <p>The vehicle excise duty bands shown are A to M. These are defined as follows:</p> <ul style="list-style-type: none"> Band A: <100g/km Band B: 100-110g/km Band C: 111-120g/km Band D: 121-130g/km Band E: 131-140g/km Band F: 141-150g/km Band G: 151-165g/km Band H: 166-175g/km Band I: 176-185g/km Band J: 186-200g/km Band K: 201-225g/km Band L: 226-255g/km Band M: 256g/km and more <p>Further explanation, and a history of the development and example picture of the current label is available here: http://www.lowcvp.org.uk/cutting-carbon/fuel-economy-label-</p>

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[background.asp](#)
<http://www.lowcvp.org.uk/cutting-carbon/fuel-economy-explained.htm>

Further information is available through the UK car fuel database:
<http://carfueldata.direct.gov.uk/>

Prior to the LowCVP's formation, in 1999, SMMT had launched an industry-wide voluntary label for new cars to provide clear and consistent information for customers on the environmental performance of new cars. It contained information on fuel consumption, emissions standards and noise as shown in the illustration below:



Label responsibilities and enforcement

Trading Standards Officers are responsible for enforcing:


- The provision of a fuel economy label, either on or near new cars where they are offered for sale;
- The provision of a poster, showing cars available at the point of sale, ranked by CO₂ (this can be an electronic display);
- The availability of the fuel consumption guide, which must be free and available on request. The guide is updated annually.

Enforcement is achieved through inspections carried out by Trading Standards officers on behalf of local authorities. Officers will visit motor trade premises unannounced and inspect vehicles and forecourts for compliance.

Evidence received from an independent auditor who is employed by the motor trade to carry out audits on premises suggests that Trading Standards officers only rarely carry out these inspections due to lack of manpower. He suggested it can be many years, possibly decades between inspections.

Trading Standards officers only have powers to carry out in-depth inspections including examining paperwork if they have reason to

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	<p>believe there has been wrongdoing.</p> <p>The Office of Fair Trading (OFT) might also be involved if it was felt that consumers were being misled by trading practices.</p>
Planned modifications	None planned
Research reports/initiatives	<p>The Low Carbon Vehicle Partnership has regularly undertaken mystery shopper audits at UK car dealerships to determine the uptake of the label. The last one indicated over 93% are using the label and consider it to be the most effective method of providing immediate, relevant and useful consumer information relating to the environmental credentials of new passenger cars.</p> <p>The Low Carbon Vehicle Partnership has also conducted research into possible improvements to the labelling scheme (see details in question 1). These included proposals to include information showing the best and worst in class CO₂ emissions figures as a comparison on the labels.</p> <p>SMMT commented that it was agreed in the forum of the LowCVP that it was inappropriate to change the label at that time, having reviewed the label design a year previously and with the expectation that the Commission would come forward with a proposal soon. None of the LowCVP members want to keep changing the label and risk undermining it's success.</p>
Comments	<p>The UK believes that the use of a colour-coding banding not only effectively complements the mandatory elements required in the label, but is also the simplest and most immediate method of providing consumers with the sort of information that they need when considering purchasing a new car. The UK also believes that the banding lends itself as a platform for other related information, such as linking national vehicle taxation directly to the emissions of a new car.</p>
Label violations	<p>The Department for Transport and the Vehicle Certification Authority (VCA) are not aware of any violations. Violations would be dealt with by trading standards officers working for local authorities.</p> <p>The Department has a good relationship with the Society of Motor Manufacturers and Traders and would expect that any significant issues would have been highlighted to them, but none have been. As previously stated, 93% of dealerships surveyed were found to be correctly displaying the labels on new cars.</p> <p>However the Department is aware that differences between real world fuel consumption and manufacturers' test cycle figures is an issue for consumers. They have received increasing numbers of complaints regarding this, with perhaps 3 or 4 complaints in the last couple of months.</p> <p>Anecdotaly it appears that 'eco' badged model variants appear to cause particularly high numbers of complaints.</p> <p>The Department notes that the value of the fuel economy labelling scheme depends on consumer confidence in the figures.</p>
Overview of requirements in national legislation beyond Directive	No additional requirements

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Overview of any voluntary action beyond requirements of national legislation	<p>As previously described, the upper half of the new car fuel economy label, showing colour coded bandings, fuel costs and vehicle excise duty costs is a voluntary initiative.</p> <p>In November 2009, the labelling scheme was also expanded to include used cars. The label used is very similar. It includes a note which states: "The fuel consumption figure shown is taken from the official test results obtained from this vehicle type when new. It is intended to provide a standard figure for comparing the relative fuel economy of different vehicles of a similar age and condition and does not represent the average fuel consumption that will be achieved on the road. A number of factors not included in the official new vehicle test will affect the fuel consumption achieved on the road including: vehicle age, how it has been maintained, road/weather conditions and driving style."</p> <p>An example of the used car label can be seen here: http://www.direct.gov.uk/prod_consum_dg/groups/dg_digitalassets/@dg/@en/documents/digitalasset/dg_182006.pdf</p>
Guide on fuel economy	
Example for Guide on Fuel Economy	<p>Between the years 2000-2010 a printed fuel economy booklet was made available annually. Alongside fuel consumption figures for specific models it also provided:</p> <ul style="list-style-type: none"> • Background information on the relationship between cars, carbon dioxide and climate change, along with an explanation of the policy/legislative context. • Tips on eco-driving. • The other pollutants in car exhaust fumes are described as well as their impacts on the environment and health. • Information about cars and noise • Information about cars and fuel options, including biofuels • The 13 VED bands are described in terms of CO₂ g/km and £ rate • The fuel consumption testing scheme is also described in detail. <p>The cover of the May 2010 edition is shown here:</p>  <p>As from 2011, the guide will be produced in a CD-ROM format. It will still be produced annually and will feature an updated general information section alongside fuel consumption figures for specific models. It will also include additional information on electric vehicles and a question and answer section covering aspects such as differences between real world and test cycle fuel consumption figures.</p> <p>The CD-ROM will include copies of all the previous year's guides so that data on past models is available and will have links to other Government website resources.</p> <p>The CD-ROM will also allow the same search functionality as the</p>

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	<p>website http://carfueldata.direct.gov.uk/. It will be made available from dealerships as well as directly from the Vehicle Certification Authority. It is intended to produce about 130,000 copies.</p> <p>5000 paper versions of the guide will be produced to take account of those without access to a computer, including some in Welsh language.</p>
Internet version	<p>The searchable website http://carfueldata.direct.gov.uk/ is the official UK information source for figures on car fuel consumption and exhaust emissions. It contains data for models on sale from 2000-2011.</p> <p>The database can be searched by manufacturer, model, fuel type and specification.</p> <p>The information given (when clicking on the 'description' link showing the exact model) includes fuel consumption, CO₂ emissions, noise level, fuel cost per 12,000 miles and other emissions (CO, HC, NO_x, HC+NO_x, particulates).</p> <p>The website is configured to show the top 10 vehicles for any given search. The website receives about 1 million visitors per year.</p>
Version reviewed in case study	May 2010
Comparison of vehicle models, energy efficiency rating	<p>Several search options are available, by VED band, by running cost, by fuel economy, by make or model, by company car tax percentage and by alternative fuel type. Some comparisons are possible here – for example a table of all vehicles in a specific tax band, all vehicles with a fuel economy better than a selectable figure, or all vehicles in a certain company car tax band.</p> <p>Several different specifications (variants/versions) of a given model may be grouped together in the list – these figures are therefore indicative only. Definitive figures for a given specification will be available at the point of sale.</p> <p>Information provided for petrol and diesel vehicles includes:</p> <ul style="list-style-type: none"> • Make • Model • Engine capacity (cc) • Transmission • CO₂ (g/km) • Fuel consumption (mpg) • Fuel cost of driving 12,000 miles <p>Vehicles which achieve sub 100g/km CO₂ are shown in a separate listing – band A VED.</p>
Guide on fuel economy: responsibilities and enforcement	The VCA are the designated authority for obtaining the guide outside the dealer network. The VCA is responsible for the production and distribution of the guide, though not the enforcement. Trading standards officers are responsible for enforcement.
Planned modifications	No planned modifications
Research reports/initiatives	No specific research relating to the fuel economy guide. However a survey will be conducted via the new CD-ROM format to assess the success of this approach.
Comments	In the longer term the Department for Transport / VCA would like to

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	provide all information via the website alone. However this would be dependent on changes to the Directive to allow this. In the meantime, a CD-ROM will continue to be produced annually and the success of this approach will be monitored.
Guide on fuel economy violations	Trading standards officers check to see if the guide is available at point of sale. The Department for Transport / VCA are not aware of any violations.
Overview of requirements in national legislation beyond Directive	None
Overview of any voluntary action beyond requirements of national legislation	<p>Legislation only requires CO₂ / fuel economy information to be provided in the guide. The UK Guide includes additional information as described in the example section above which gives background and context. The vehicle listings also include data on other air pollutants such as HC, CO, NOx and particulates, as well as noise emissions.</p> <p>However, the SMMT stated that DfT and industry have now agreed that this level of detail on regulated emissions is inappropriate as the type 1 test data should not be used to compare one vehicle with another. Only the Euro standard should be used for this purpose.</p>
Poster	
Guidance material	<p>Guidance is not provided for posters specifically, but for promotional material in general including posters, see:</p> <p>http://www.vca.gov.uk/vca/additional/files/fcb--co2/enforcement-on-advertising/vca061.pdf</p>
Comparison of vehicle models, energy efficiency rating	<p>The following information is extracted from the VCA guidance document:</p> <p>The Regulations allow manufacturers to group vehicles of slightly different specifications ("variants & versions" in European Whole Vehicle Type Approval terminology) with different fuel consumption and CO₂ emissions figures together under one 'model'.</p> <p>What comprises a 'model' is at the discretion of manufacturers, however we would expect the different specifications grouped within a 'model' for the purposes of labelling, posters/displays and the guidebook, not to differ in at least the following respects;</p> <ul style="list-style-type: none"> Make, Model Range, Engine Capacity, Fuel type, Transmission type <p>Where specifications of vehicle with differing fuel consumption and CO₂ figures are grouped together within one model description, for each parameter, the worst figures from all specifications in the group must be displayed. For example there may be 5 different specifications of vehicle within a model description, each with a different figure for CO₂ emissions, urban, extra-urban and combined fuel consumption. The figures displayed on the label for this model should be the worst CO₂ figure, the worst urban fuel consumption, the worst extra-urban fuel consumption and the worst combined fuel consumption regardless of</p>

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	<p>whether the worst figures for each parameter come from different vehicles within the group.</p> <p>It is not acceptable to choose to show the best figures for the model, or the figures relating to the vehicle on display, if another specification of the same model, as described on the poster/label, has worse figures. Checking that the right figures are displayed could ultimately require liaising with the manufacturer, but cross-referencing figures on labels with those on posters, on the VCA's web site and in promotional literature should usually be sufficient.</p>
Explanation of the poster	<p>The format of the poster is left up to manufacturers and dealerships to decide within the regulations imposed by the directive which are explained within the VCA guidance document.</p> <p>In addition the UK legislation allows for a three dimensional display, specifying that two of its dimensions must meet the minimum sizes given in the EC directive.</p> <p>The UK also requires that "a poster shall show the date on which it was published and display the date on which its assembly was completed".</p> <p>See Schedule 3 of the UK legislation available here: http://www.legislation.gov.uk/ukxi/2001/3523/pdfs/ukxi_20013523_en.pdf</p>
Poster responsibilities and enforcement	Responsibility for enforcement of display of the posters rests with trading standards officers
Planned modifications	None
Research reports/initiatives	None
Comments	None
Poster violations	<p>Department for Transport / VCA are not aware of any violations.</p> <p>We Are Futureproof did some research in 2006 or 2007, and found that less than half of the showrooms that they reviewed displayed the poster prominently. They felt that if the poster is retained, it should have to be displayed prominently.</p>
Overview of requirements in national legislation beyond Directive	None
Overview of any voluntary action beyond requirements of national legislation	None
Promotional materials	
Guidance material	<p>Guidance is provided on the requirements of the UK regulations. It was developed by the Department for Transport, the VCA, the Society of Motor Manufacturers and Traders (SMMT) and other industry stakeholders such as marketing and advertising representatives and national bodies responsible for regulating advertising, such as Trading Standards. It is available here: http://www.vca.gov.uk/vca/additional/files/fcb--co2/enforcement-on-</p>

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	<p>advertising/vca061.pdf</p> <p>The guidance provides recommendations and examples of good (and bad) practice, to assist enforcement authorities as well as industry.</p> <p>SMMT also provide a brief leaflet giving an explanation of the fuel economy label: https://www.smmt.co.uk/shop/colour-coded-fuel-economy-label-guidance-notes-april-2005/</p> <p>The Low Carbon Vehicle Partnership, SMMT and ISBA have also published best practice principles for environmental claims in automotive marketing to consumers:</p> <p>http://www.lowcvp.org.uk/assets/banner/files/4250575342495A58.pdf</p>																																																																																																		
Explanation of the promotional materials	<p>The UK regulations transpose almost exactly the requirements of the EC directive. The only addition is the requirement that fuel consumption figures are also provided in miles per gallon (mpg). Official specific CO2 emissions are be quoted to the nearest whole number in grams per kilometre (g/km).</p> <p>See Schedule 4 of the UK legislation available here:</p> <p>http://www.legislation.gov.uk/ukxi/2001/3523/pdfs/ukxi_20013523_en.pdf</p>																																																																																																		
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Research reports/initiatives	None																																																																																																		
Comments	The VCA is responsible for promotional literature, including outdoor advertising on billboards as well as advertising in magazines and other publications. It achieves enforcement by reviewing a range of publications, as well as responding to specific concerns raised by individual consumers or consumer groups.																																																																																																		
Promotional material violations	<p>The VCA provided the following information.</p> <p>ENFORCEMENT ON ADVERTISING -- The Passenger Car (Fuel Consumption and CO2 Emissions Information) Regulations (SI 2001 No. 3523)</p> <table border="1"> <thead> <tr> <th rowspan="2"></th> <th rowspan="2"># ALLEGED VIOLATIONS</th> <th colspan="2">REPORTED</th> <th rowspan="2">ADVERTS INSPECTED</th> <th rowspan="2">PRE-PUBLICATION & GENERAL ADVICE GIVEN</th> </tr> <tr> <th>By Others</th> <th>By VCA Inspection</th> </tr> </thead> <tbody> <tr> <td>2010</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>JULY</td> <td>2</td> <td></td> <td>2</td> <td>65</td> <td>1</td> </tr> <tr> <td>AUGUST</td> <td>2</td> <td></td> <td>2</td> <td>72</td> <td>2</td> </tr> <tr> <td>SEPTEMBER</td> <td>1</td> <td>1</td> <td>0</td> <td>49</td> <td>1</td> </tr> <tr> <td>OCTOBER</td> <td>16</td> <td></td> <td>16</td> <td>124</td> <td>6</td> </tr> <tr> <td>NOVEMBER</td> <td>1</td> <td></td> <td>1</td> <td>82</td> <td>4</td> </tr> <tr> <td>DECEMBER</td> <td>2</td> <td></td> <td>2</td> <td>76</td> <td>3</td> </tr> <tr> <td>2011</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>JANUARY</td> <td>11</td> <td>3</td> <td>8</td> <td>127</td> <td>7</td> </tr> <tr> <td>FEBRUARY</td> <td>2</td> <td></td> <td>2</td> <td>125</td> <td>6</td> </tr> <tr> <td>MARCH</td> <td>1</td> <td>1</td> <td>0</td> <td>128</td> <td>0</td> </tr> <tr> <td>APRIL</td> <td>2</td> <td></td> <td>2</td> <td>131</td> <td>1</td> </tr> <tr> <td>MAY</td> <td>7</td> <td></td> <td>7</td> <td>104</td> <td>2</td> </tr> <tr> <td>JUNE</td> <td>2</td> <td></td> <td>2</td> <td>102</td> <td>4</td> </tr> <tr> <td></td> <td>49</td> <td>5</td> <td>44</td> <td>1185</td> <td>37</td> </tr> </tbody> </table> <p>ALLEGED VIOLATIONS refers to suspected cases of infringement of the legislation REPORTED refers to complaints from other bodies INSPECTED refers to advertisements, inserts and leaflets in magazines and newspapers, and road-side hoardings inspected by VCA. ADVICE GIVEN includes pre production designs, general advice about legislation etc.</p> <p>A Friends of the Earth Europe (2009) publication has considered compliance with the Annex IV of the Directive. In the study, 208 press advertisements (newspapers and magazines) and 14 billboards were examined in the UK over a three-month period in 2009 to assess their compliance with "all promotional literature [must] contain the official fuel</p>		# ALLEGED VIOLATIONS	REPORTED		ADVERTS INSPECTED	PRE-PUBLICATION & GENERAL ADVICE GIVEN	By Others	By VCA Inspection	2010						JULY	2		2	65	1	AUGUST	2		2	72	2	SEPTEMBER	1	1	0	49	1	OCTOBER	16		16	124	6	NOVEMBER	1		1	82	4	DECEMBER	2		2	76	3	2011						JANUARY	11	3	8	127	7	FEBRUARY	2		2	125	6	MARCH	1	1	0	128	0	APRIL	2		2	131	1	MAY	7		7	104	2	JUNE	2		2	102	4		49	5	44	1185	37
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	consumption and CO ₂ emissions data”, and that these figures should be “easy to read and no less prominent than the main part of the information provided in the promotional literature”. The CO ₂ /fuel consumption information was present/compliant in 76% of advertisements, with the CO ₂ information missing in 8% and the information being smaller than the main information in 15% of cases. 43% of billboards were fully compliant, with 7% missing CO ₂ information and 50% having the CO ₂ information smaller than the main information.
Overview of requirements in national legislation beyond Directive	None
Overview of any voluntary action beyond requirements of national legislation	The VCA offers a pre-publication screening process for promotional materials, which a number of manufacturers and agencies take advantage of to be sure of proper compliance.
Other information	
Details of any other existing or planned voluntary measures in the field of consumer information on vehicle CO ₂ emissions / fuel efficiency	None planned
Numbers of consumers contacting consumer protection organisations with respect to queries relating to the CO ₂ label	<p>The Department for Transport reported that there has been increasing numbers of consumers contacting them regarding real world fuel consumption figures which are significantly higher than the test cycle figures stated by manufacturers. This has been particularly true with recent fuel price rises.</p> <p>Figures were estimated at about 2 or 3 people per month.</p> <p>VCA keep lists of consumer complaints and estimated about 4-5 per month on this issue.</p> <p>In general consumers had contacted their dealership, manufacturers themselves, and in some cases press publications, prior to contacting DfT / VCA. Some had also written to MPs.</p> <p>The Office of Fair Trading reported that 70 complaints were recorded for the period July 2010 - July 2011 relating to complaints where the consumer purchased a new car and the achieved mpg figures did not match the figures advertised by the dealer / manufacturer.</p>
Numbers of consumer queries/complaints received about the CO ₂ information provided in car promotional material	<p>ASA reported about five complaints a year regarding differences between test cycle fuel economy figures and those achieved under real world conditions. Almost all relate to adverts in magazines.</p> <p>ASA also reported five or less complaints a year are received concerning the omission of CO₂ and fuel economy data on bill board adverts.</p>
Number of hard copies of fuel economy/ CO ₂ guides published/distributed each year	Approximately 150,000 hard copies of the guide were produced and distributed each year. 130,000 copies of the new CD-ROM version will be produced this year with a further 5000 paper copies.

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Number of times per year the online fuel economy/ CO ₂ guides in each country have been accessed	Approximately one million visits per year.
Qualitative information on the organisation's view of the effectiveness of the various tools available to them.	<p>The Department feels that the colour coded banding system used in the UK is more user friendly than the basic version of the label in the existing Directive and would like to see any new proposals be along similar lines.</p> <p>As has previously been stated, there is concern that the fuel economy guide / booklet is not the most effective method to convey this information and does not represent good value for money. The Department would prefer to provide information through the website instead.</p> <p>VCA commented that the existing Directive could be clearer – it is currently difficult to enforce promotional literature requirements. Annex 4 is very ambiguous. e.g. the phrase “Should be easy to read” is open to interpretation. Lawyers have advised that it would be very difficult to bring a successful prosecution due to this ambiguity.</p> <p>Both DfT and VCA felt that the Commission should be completely clear what it is trying to achieve through the directive. Who is the information for and why?</p>
Enforcement and compliance	
Scope of enforcement activities (e.g. does enforcement relate to all of the information tools or just some of them?)	All of the materials are covered. VCA enforce promotional materials, while Trading Standards officers cover the fuel economy label, guide and poster.
Specific enforcement activities carried out	<p>Trading Standards officers conduct unannounced visits to motor trade premises and inspect vehicles and forecourts.</p> <p>VCA achieves enforcement of promotional materials by reviewing a range of publications, as well as responding to specific concerns raised by individual consumers or consumer groups.</p>
Whether the level of enforcement activity has increased or decreased in the years since the Directive was transposed into national legislation	Enforcement activity is judged by DfT / VCA to have remained stable. However evidence from an independent auditor of motor trade premises who was previously employed as a Trading Standards officer suggests that over the longer term enforcement by Trading Standards officers has declined: 15 years ago in the Local Authority for which he worked, the expectation was that every premises would be visited at least once every two years. Now he estimated it can be many years, possibly decades between visits.
Any problems that have arisen with regard to enforcement	Annex 4 of the Directive is too vague. It is very difficult to prosecute based on the wording of Annex 4. VCA stated that legal advice has indicated that many potential prosecutions would be unlikely to be successful.

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activities	
Any innovative measures that have been introduced to aid compliance and enforcement activities	VCA's pre-publication screening service is quite well liked by industry. This service and general advice has been given 37 times over the last 12 months by VCA.
Any quantitative information from enforcement bodies on how effective they believe the enforcement measures available to them have been	No information available specific to how effective enforcement has been.
Reported compliance issues (label, poster, guide, promotional material) – number of violations relating to car CO₂ information	<p>The Trading Standards Institute reported that to the best of their knowledge, no records are kept of the reported number of violations. Anecdotally the lead officer estimated that only about 25% of motor trade premises fully comply. The most common failure being lack of availability of the fuel economy guide.</p> <p>The Department for Transport and VCA reported that the primary concerns that have arisen are around actual fuel consumption achieved by consumers versus the stated test cycle consumption. Here it is difficult to make any enforcement since it is unlikely that any regulations are being breached.</p>

Appendix 7 - Overview of implementation of Directive 1999/94/EC in additional European Parliament (2010) Member States

This Appendix provides a summary of the implementation information for the additional Member States covered in the European Parliament (2010) study. For further information, please see the full report.

AUSTRIA	
Implementing legislation	Bundesgesetz über die Bereitstellung von Verbraucherinformationen beim Marketing für neue Personenkraftwagen (Personenkraftwagen-Verbraucherinformationsgesetz - Pkw-VIG)
Label	<ul style="list-style-type: none"> • Fuel economy and CO₂ information provided as: official fuel consumption l/100km; and official CO₂ emissions g/km. • 297mm x 210mm (A4) • High quality and colour format, although in certain cases black and white format acceptable. Can also be horizontal. • Label uses a horizontal, coloured bar, with an arrow depicting the vehicles greenhouse gas emissions. • The label may also be provided electronically. • Additional information on the label can include exhaust emissions class; amount of standard consumption output as a percent of the selling price; biofuels suitability; indication of the use of other fuels; operating noise; weight of the vehicle; length and width of the vehicles; number of seats. • Retailer is responsible for displaying the label, and automotive supplier required to provide all the required data for the label. • Label violations are regulated by district authorities and they are not required to report violations to the BMFLUW.
Guide on Fuel Economy	<ul style="list-style-type: none"> • Provided in two parts: 1 – list of the 30 (instead of 10) most efficient cars by fuel type; 2 – internet databank of available cars and CO₂ information. • Updated annually • Federal Board of the Automotive Trade (Das Bundesgremium des Fahrzeughandels) responsible for producing the Guide on Fuel Economy. • Additional information includes information encouraging consumers to reduce their CO₂ emissions, table showing the increase in CO₂ emissions, links to various relevant websites, references to other climate and transport initiatives including tax bonuses as well as an explanation of the CO₂ reduction possibilities of alternative fuel sources and lists if those cars ranking their efficiency.
Poster	<ul style="list-style-type: none"> • For every factory model provided on the poster (in ascending order of CO₂ emissions), the official CO₂ emissions (g/km) and fuel economy (l/100km) is supplied. New models arriving between updates should be added to the bottom of the list. • Retailers are required to display a poster for every factory model of a new passenger car for sale or lease at that place. • The automotive supplier is required to provide all necessary data

	<p>required for the poster.</p> <ul style="list-style-type: none"> • Poster is to be updated every 6 months. • Poster violations are regulated by district authorities and they are not required to report violations to the BMFLUW.
Promotional Materials	<ul style="list-style-type: none"> • Meets minimum requirements set out in the Directive.

CZECH REPUBLIC

Implementing legislation	Act no. 56/2001 Coll. On the conditions of road traffic – Section 24; Decree no, 245/2005 Coll. Laying down details of labels and posters on fuel consumption and CO ₂ emissions of new passenger cars; and Decree no. 341/2002 Coll. On the technical capacity and technical conditions of road vehicles, as amended.
Label	<ul style="list-style-type: none"> • Requirements as set out in Directive 1999/94/EC • No other standardized label requirements (e.g. colour/bands etc) – therefore it is up to car dealers, and they regularly use different formats. • Retailer is responsible for displaying the label, and automotive supplier required to provide all the required data for the label. • Label violations are recorded by the Czech Trade Inspection Authority. In 2007, 138 points of sale were visited over 26 different car brands. Financial penalties were imposed in 7 cases, altogether amounting to CZK 63,000 (EUR 2,423). Most frequent violations concerned missing labels and/or display obligations at sales points. On other occasions, the obligatory text was missing from the Guide on Fuel Economy, label or display or the CO₂ emissions and fuel consumption information was missing from the label.
Guide on Fuel Economy	<ul style="list-style-type: none"> • Information provided in l/100km. • Lists 10 most efficient cars. • Updated twice a year • Ministry of Transport responsible for producing the Guide on Fuel Economy, and COI responsible for enforcement. • No violations identified.
Poster	<ul style="list-style-type: none"> • Requirements as set out in Directive 1999/94/EC • Retailer is responsible for displaying the poster, and automotive supplier required to provide all the required data for the label. • No violations identified.
Promotional Materials	<ul style="list-style-type: none"> • Requirements as set out in Directive 1999/94/EC, with exception of the section on readability. • No violations identified (no organisation identified as being responsible for enforcement).

FINLAND

Implementing legislation	<ul style="list-style-type: none"> • Government Decree 938/2000, Valtioneuvoston asetus autojen polttoaineenkulutuksen ja hiilidioksidipäästöjen ilmoittamisesta (938/2000)
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Label	<ul style="list-style-type: none"> • Fulfils Directive requirements. • Absolute label, with 7 colour-coded bands. • Includes annual running costs • Transport Safety Agency (Trafi) responsible for the information contained within the label, as well as annual taxation of vehicles. • No plans for modifications.
Guide on Fuel Economy	<ul style="list-style-type: none"> • Fulfils Directive requirements. • Online database on vehicle models including CO₂ emissions. • Information provided in l/100km • Transport Safety Agency (Trafi) responsible for the enforcement of the Guide. • Online service is based on information provided by car manufacturers and Transport Safety Agency • Additional information is provided on the website, including engine techniques, recycling of scrap vehicles and information on traffic related environmental taxes, running costs (fuel) for each vehicle. • No plans for any modifications • No recorded violations.
Poster	<ul style="list-style-type: none"> • Instead of the poster, the information is often provided at the point of sale in electronic display using the online database provided by the Traffic Safety Agency. • No recorded violations
Promotional Materials	<ul style="list-style-type: none"> • Meets Directive requirements. • Additional guidance on the marketing of cars from the Consumer Agency: 'use of environmental statements in marketing of cars'. • No recorded violations.

ITALY

Implementing legislation	<ul style="list-style-type: none"> • Ministry Decree DM 6 April 2005
Label	<ul style="list-style-type: none"> • Meets the requirements of the Directive • Standardised version of the label presented in Annex I, font should be New Times Roman, size 12 font. Fuel consumption information provided in terms of litres/km and km/litre, and CO₂ emissions expressed in g/km. • Ministry of Economic Development responsible for the implementation of the information programme. Provincial Chambers of Commerce, Industry, Craft Trade and Agriculture are responsible for monitoring the correct implementation of the law. • Point of sale responsible for displaying the label with the appropriate information. Failure to do so will lead to an administrative fine (between 250 and 1,000). • No modifications currently planned.
Guide on Fuel Economy	<ul style="list-style-type: none"> • Guide available on a range of Ministry websites. • Updated annually. • Prepared by the Ministry of Economic Development with Ministry of

	<p>Environment and Ministry of Infrastructure and transport.</p> <ul style="list-style-type: none"> • More detailed information is provided in the Guide, including information on fuel consumption, distinguishing between urban, extra urban and an average of the two; advice to motorists on eco-driving; and top ten emission values for each fuel type car. • No planned modifications, but will possibly update in the future, following the example of other Member States such as the UK. • Also considering producing an electronic version to complement the paper version.
Poster	<ul style="list-style-type: none"> • Meets the minimum requirements as set out in the Directive. • Ministry of Economic Development responsible for implementation of the information programme and is meant to prepare a report on the implementation status and effectiveness of the law. • Provincial chambers of Commerce, Industry Craft Trade and Agriculture are responsible for monitoring the correct implementation of the law. • Those at point of sale are responsible for displaying the poster/monitor with the appropriate information. • No planned modifications.
Promotional Materials	<ul style="list-style-type: none"> • Meets the minimum requirements as set out in the Directive.

NETHERLANDS

Implementing legislation	<ul style="list-style-type: none"> • Besluit etikettering energiegebruik personenauto (Staatsblad, 2000, no. 475).
Label	<ul style="list-style-type: none"> • Contains classifications A to G in EU energy labelling format. • Relative label – based on the weighted average of the average CO₂ emissions of all cars in the same size class (weight of this part is 75%) and the average CO₂ emissions of all cars, regardless of size. • Road Traffic Agency is responsible for providing information on the average CO₂ emissions and car size parameters needed to calculate fuel efficiency class of cars. • Car suppliers responsible for providing labels to dealers. • Car dealers responsible for ensuring labels are attached to cars. • Enforcement is carried out by Food and Consumer Product Safety Authority. • Label violations can incur a maximum fine of 18,500 or six months detention.
Guide on Fuel Economy	<ul style="list-style-type: none"> • Road Traffic agency responsible for compiling the guide and making it freely available to car suppliers. • Ministry of the Environment (VROM) is responsible for appointing 1 or 2 institutions where the consumer can obtain a free copy of the guide. • Enforcement is the responsibility of the fiscal and Economic Investigation Service. • Guide provides information on the energy class for each model. • Recognise the importance of providing the guide in an electronic format.

Poster	<ul style="list-style-type: none"> Fuel efficiency should be specified in both l/100km and in km/l (for natural gas m³/100km and km/m³). There is no standard format for the poster – may differ by supplier. Car suppliers responsible for making poster available to dealers, and dealers for ensuring poster (or display) is clearly visible at point of sale.
Promotional Materials	<ul style="list-style-type: none"> Car suppliers are required to comply with the rule of the advertising code (Reclamecode), containing a number of specific items relating to passenger cars, including minimum font size of letters and space to be used for the information on fuel consumption and CO₂ emissions. .

POLAND

Implementing legislation	<ul style="list-style-type: none"> Articles 80a, 80b, and 167 of the Environmental Protection Act.
Label	<ul style="list-style-type: none"> Should include car details data about the fuel used by the car; fuel consumption in l/100km; emissions of CO₂ in g/km;. Label information is supplied by the Polish Liaison of Car Manufacturers or the Institute of Car Transport. Market Inspection are responsible for enforcing whether the label is presented at point of sale and information is correct. No planned modifications but consideration of using EU energy labelling format.
Guide on Fuel Economy	<ul style="list-style-type: none"> Information in the guide is presented in l/100km and g/km. Guide is issued in two versions: comparison of every vehicle and model available for sale; and rating of 20 car models, which have the lowest CO₂ emissions (according to fuel type – Diesel, fuel, CNG gas) Ministry of Infrastructure responsible for providing guide information. Additional information in the guide includes the code of the product according to national code of products; volume of the car engine; car engine power
Poster	<ul style="list-style-type: none"> Meets the minimum requirements as set out in the Directive. Poster information is supplied by the Polish Liaison of Car Manufacturers or the Institute of Car Transport. Market Inspection are responsible for enforcing whether the poster is presented at point of sale and information is correct.
Promotional Materials	<ul style="list-style-type: none"> Meets the minimum requirements as set out in the Directive.

SWEDEN

Implementing legislation	<ul style="list-style-type: none"> KOVFS 2002:2 as amended by KOVFS 2004:7
Label	<ul style="list-style-type: none"> Meets the minimum requirements as set out in the Directive.
Guide on Fuel Economy	<ul style="list-style-type: none"> Meets the minimum requirements as set out in the Directive. Includes an introduction on the dangers of climate change. Swedish Consumer Agency responsible for the production and distribution of brochures/guides

Report on the implementation of Directive 1999/94/EC relating to the availability of consumer information on fuel economy and CO2 emissions in respect of the marketing of new passenger cars

	<ul style="list-style-type: none"> • 140,000 brochures/guides distributed each year.
Poster	<ul style="list-style-type: none"> • Meets the minimum requirements as set out in the Directive.
Promotional Materials	<ul style="list-style-type: none"> • Meets the minimum requirements as set out in the Directive. • Possibly considering introducing new restrictions on car advertisements, where they claim they are 'environmentally friendly'.

Appendix 8 – Questions for Desk Officers – Alternative consumer information legislation, best practice

- What have been the most important issues that have resulted in non-compliance in the Member States in the context of the existing Directive/Regulation?
- What are the most important Articles of the Directive/Regulation in relation to the enforcement of the legislation?
- (Where the Directive/Regulation replaces or amends earlier legislation:
 - How do the current enforcement Articles differ from those previously in place?
 - What was the rationale behind these changes?)
- How effective have the Articles relating to enforcement been to date?
 - If there is an answer: Have any subsequent studies been undertaken to indicate effectiveness of these changes? (Obtain copies if possible, or discuss results – what impacts have the changes had on compliance?).
- Are any changes possible (or planned) to improve enforcement?
- Is (improved) harmonisation seen as an important means to increase enforcement?
 - What issues have arisen when introducing the requirement to harmonise the information provided?
 - Is there any evidence to suggest that harmonisation has increased compliance?
- What are your views on best practice in enforcement? Do you consider any of the enforcement measures to be transferable to Directive 1999/94/EC? What barriers may have to be overcome?



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