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COMMISSION STAFF WORKING DOCUMENT

Evaluation 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 ('car labelling Directive')

{SWD(2016) 271}

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1. INTRODUCTION

Directive 1999/94/EC ('car labelling Directive') aims to raise consumer awareness on fuel use and CO₂ emission of new passenger cars. By doing so consumers should be incentivised to purchase or lease cars which use less fuel and thereby emit less carbon dioxide (CO₂). In turn it should provide an additional incentive to manufacturers to take steps to reduce the fuel consumption of new cars and offer more fuel efficient cars. The 'car labelling Directive' is thus considered as an important complementary measure affecting consumer demand, which helps car manufacturers to meet their specific CO₂ emission targets as set under Regulation (EC) 443/2009. However, CO₂ emission targets are expected to make a significantly greater contribution to emission reductions in the transport sector compared to the expected effects of the EU car labelling directive.

An ex-post evaluation of the car labelling Directive was launched in 2015 to examine the actual implementation and the achievement of the car labelling Directive compared to what was expected. The evaluation's main objectives were to:¹

- Have a better understanding of where, and why, the car labelling Directive has worked well or not so well, identifying factors which have helped or hampered achievement of its objectives.
- Quantify and qualify the impact of the legislation, particularly in terms of progress towards achieving its objectives.

This Staff Working Document summarises the work done and findings of the evaluation.

2. BACKGROUND TO THE INITIATIVE

The car labelling Directive aims "*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*" (Art. 1). For that purpose the Directive contains four main provisions:

- A label on fuel efficiency and CO₂ emissions to be displayed near each passenger car model at the point of sale (Art. 3 and Annex I).
- A guide on fuel economy and CO₂ emissions of all new passenger cars to be made available to consumers (Art. 4 and Annex II).
- A poster or display, showing the fuel consumption data and CO₂ emissions of all car models displayed at a point of sale (Art. 5 and Annex III). Annex III has been amended by the Commission Directive 2003/73/EC to include in the scope of this provision any electronic displays.
- All promotional literature, defined as "all printed matter used in the marketing, advertising and promotion of vehicles" has to contain fuel consumption and specific CO₂ emissions data of the car models to which it refers (Art. 6 and Annex IV).

¹ For more information see Evaluation Roadmap:

http://ec.europa.eu/clima/policies/transport/vehicles/labelling/docs/evaluation_roadmap_car_labelling_en.pdf

The Directive has four Annexes, each of which sets out a more detailed specification of these four information tools. While the Directive has not been fully revised since its adoption, there have been two changes relating to the way in which information is to be displayed, reflecting a move away from paper based information towards electronic means, i.e.:

- Directive 2003/73/EC² defined requirements for information on fuel economy and CO₂ emissions displayed on an electronic screen.
- Commission Recommendation 2003/217/EC³ recommended Member States to ensure that promotional material transmitted or stored electronically contains information on a car's fuel economy and CO₂ emissions. It also recommended that the latter information is available generally by electronic means.

The car labelling Directive is to address the following problems:

- High level of contribution of the EU road transport sector to total greenhouse gas (GHG) emissions;
- High level of dependence of the EU transport sector on oil; and
- Consumers are not fully aware of the level of fuel efficiency and CO₂ emissions when purchasing vehicles.

The Directive complements the fleet-wide average CO₂ emission standards for new passenger cars⁴. While emission standards aim to ensure that manufacturers develop more fuel efficient cars and that these are put on the market, the car labelling Directive focuses on increasing consumer awareness on the fuel efficiency and CO₂ performance of new cars. It is assumed that if consumers are aware of the differences in the fuel efficiency and CO₂ emissions of the cars they are considering buying more efficient cars.

Against this background the general objectives of the Directive are to:

- Reduce GHG emissions from the EU road transport sector, particularly of cars;
- Reduce the oil dependency of the EU transport sector, particularly of cars;
- Improve the fuel efficiency of the EU road transport sector, particularly of cars; and
- Raise consumer awareness of the fuel economy and CO₂ emissions of new cars on the EU market.

More specifically, taking account of mutual interactions with other measures, such as the 1995 strategy aimed i.a. to promote fuel-efficient cars by fiscal measures, the Directive aims to:

- Enable more informed purchase decisions and influence consumer choice in favour of more fuel efficient/less CO₂ emitting cars;
- Encourage manufacturers to take steps to reduce the fuel consumption and CO₂ emissions of new cars.

In order to achieve these objectives, relevant information on the fuel economy and CO₂ emissions of all new cars needs to be effectively communicated to consumers. At the same

² Commission Directive 2003/73/EC of 24 July 2003 amending Annex III to Directive 1999/94/EC of the European Parliament and of the Council

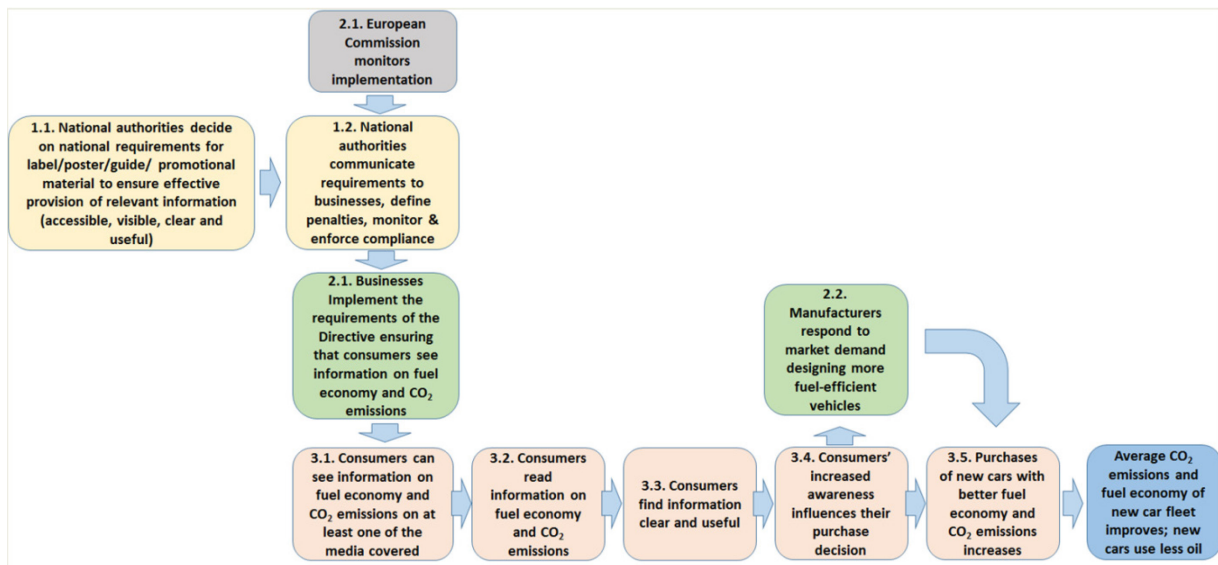
³ Recommendation 2003/217 of 26 March 2003 on the application to other media of the provisions of Directive 1999/94/EC concerning promotional literature

⁴ Regulation (EC) No 443/2009 of the European Parliament and of the Council of 23 April 2009 setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO₂ emissions from light-duty vehicles

time there needs to be a certain level of flexibility to take account of national circumstances, e.g. on vehicle taxation.

As for the necessary actions that derive from the Directive, Member States are required to ensure that mainly car dealers and manufacturers comply with the requirements on the different information tools (label, guide, poster, promotional material). Member States authorities are responsible for enforcement and, when appropriate, impose penalties for non-compliance.

The figure below summarises the actions and causal chains needed implicitly to achieve Directive's objectives (Grey: actions by the European Commission; Yellow: by Member State Authorities; Green: by Businesses; Orange: by Consumers).



3. EVALUATION QUESTIONS

Following the standard evaluation framework for an assessment of EU legislation the evaluation examined the relevance, effectiveness, efficiency, coherence and EU added value of the car labelling Directive. For each of these elements the following evaluation questions were analysed in detail:

Relevance

To what extent do the (current) objectives of the Directive still respond to the needs in the EU considering current and expected technical, environmental and economic challenges?

What, if any, technological, economic, or administrative issues exist that are not covered by the existing legislation which could be introduced in view of their potential added value?

Effectiveness

What have been the (qualitative and quantitative) effects of the intervention?

To what extent has the approach taken, in terms of both scope (e.g. the exclusion of used

cars) and main elements in the legislation, ensured or hampered the achievement of the objectives?

What factors influenced the achievements observed, how and to what extent?

What unintended or unexpected positive and negative effects, if any, have been produced?

Efficiency

To what extent are the costs resulting from the implementation of the legislation proportionate to the benefits that have been achieved as regards each main element of the Directive?

To what extent do the different types of costs resulting from the implementation of the legislation vary based on the approach taken to implement the legislation (while achieving the same results)? Which approach was most efficient?

What are the major sources of inefficiencies? What steps could be taken to improve the efficiency of the Directive? Are there missing tools and/or actions to implement the Directive more efficiently?

Coherence

How well does the legislation fit with and complement other EU policies (e.g. air pollution) and their objectives (e.g. environmental, social or economic)?

To what extent are objectives and achievements coherent with the Europe 2020 strategy and Europe 2030 policy goals?

How does the legislation interact with other EU/ national/ international initiatives which have similar objectives (e.g. actions in the field of environment, single market, climate action)?

EU Added Value

What has been the EU added value of the legislation?

To what extent do the issues addressed by the intervention continue to require action at EU level?

4. METHOD

The evaluation was carried out between September 2015 and May 2016. The evaluation was supported by a study⁵ carried out by an external contractor in which all of the above

⁵ Study 'Evaluation of Directive 1999/94/EC ("the car labelling Directive")', Ricardo Energy & Environment, Final report, Study contract no. 340201/2015/710777/SER/CLIMA.C.2, Unless referenced explicitly

evaluation questions were assessed and answered individually. Stakeholders' views were collected through an online public consultation, interviews, an electronic survey of national authorities responsible for the implementation of the Directive and a workshop. The process and methods followed by the external contractor are explained in detail in the study report published alongside this Staff Working Document. The work of the external contractor was followed and regularly reviewed by the Commission services (for more details see Annex 1).

The reference period for the evaluation was from 2001 (transposition year) until 2015. The scope of the evaluation was all 28 EU Member States, taking into account the wider international context. The evaluation took into account the outcomes and conclusions of previous studies carried out on the implementation of the car labelling Directive.⁶

A key methodological challenge was the absence of quantitative data per label class at sufficient resolution on average CO₂ emissions from new passenger cars and passenger car sales before and after the adoption of the Directive. Such data would have helped a quantitative assessment of the impact of the car label on consumer responses and average CO₂ emissions. Furthermore, a number of other policy measures have been put in place at EU and national level (e.g. CO₂ standards for cars, fiscal incentives and traffic facilities for consumers buying new passenger cars) during the evaluation period, making the identification of the specific impact of the Directive more difficult.

As a result, a more qualitative approach had to be used for the evaluation. It is mainly based on an analysis of the implementation of the Directive in 10 case study countries⁷ assessing the extent to which its main mechanisms for achieving the expected results (i.e. raising consumer awareness and influencing their vehicle purchase decisions towards more fuel efficient cars) could be observed. Input from the stakeholder consultation and desk research was used to support this analysis. Cross-case comparisons were used to assess whether specific outputs and results observed – or not observed – are linked to the specific approach followed in a Member States or whether they are more generally applicable.

5. IMPLEMENTATION STATE OF PLAY (RESULTS)

otherwise, this study is the source of information of the findings presented in this Staff Working Document

⁶ *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*, ADAC, March 2005, available on http://ec.europa.eu/clima/documentation/transport/vehicles/docs/final_report.pdf

Study on consumer information on fuel economy and CO₂ emissions of new passenger cars, Ecologic, May 2010, available on: <http://www.europarl.europa.eu/activities/committees/studies/download.do?language=en&file=31259>

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, AEA Technology, December 2011, available on: http://ec.europa.eu/clima/policies/transport/vehicles/labelling/docs/final_report_2012_en.pdf

⁷ Austria, Czech Republic, Denmark, France, Germany, Italy, Netherlands, Spain, Poland and United Kingdom. Priority was given to Member States with the largest number of new car registrations while ensuring a suitable geographical balance as well as coverage of the different ways that the Directive has been implemented, particularly in relation to the type of label adopted.

This section summarises the state of implementation of the Directive and its enforcement.⁸

5.1. Implementation

Only three of the then 15 EU Member States transposed the Directive by the deadline of 18 January 2001, whereas 10 Member States had transposed the Directive by the end of 2001. In Germany and Italy was the transposition delayed by more than 2 years. Seventeen Member States have introduced amendments to the national legislation since its initial transposition. The changes concern presentation requirements and the delivery channels through which information can be received.

Since 2001 the Commission has launched in total 18 infringement proceedings relating to the Directive, in most cases for non-communication of the transposing measures to the Commission (Article 12) by the date specified in the Directive. Two Member States (BE, LU) did also not comply with their reporting obligations⁹, while in three cases (IT, BE, ES) the Commission initiated procedures for improper application of the Directive's requirements relating to the promotional literature. These proceedings are all closed.

All Member States have transposed the Directive into national legislation meeting the minimum requirements of the Directive. However, a number of Member States have gone beyond the Directive by adding further mandatory or voluntary requirements as regards the information tools, mainly in relation to the label. The following sections describe in more detail the Directive's requirements for each information tool and to what extent some Member States went beyond these requirements in their implementation.

5.1.1. Label

The Directive states that a label should be attached or displayed next to each new passenger at the point of sale in a clearly visible manner. The Directive prescribes a standardised label format of A4 size with the following mandatory content:

- reference to the model and fuel type of a car,
- the numerical value of the official fuel consumption and the official specific emissions of CO₂,
- specific text on the availability of the guide on fuel consumption and CO₂ emissions,
- specific text on other factors that affect fuel consumption, including driver behaviour, and that CO₂ is the main GHG responsible for global warming.

Whilst most Member States have only introduced the minimum requirements under the Directive, a number have gone further and introduced additional requirements concerning the format and/or content of the label.

⁸ Unless otherwise stated, the information provided in this section is based on the following report: *'Evaluation of Directive 1999/94/EC ("the car labelling Directive")'*, Ricardo, Final report, Study contract no. 340201/2015/710777/SER/CLIMA.C.2, link

⁹ Article 9 stipulated that each Member State shall transmit to the Commission, by 31 December 2003, a report on the effectiveness of the provisions of this Directive, covering the period from 18 January 2001 until 31 December 2002.

In terms of label format, 14 Member States¹⁰ use a colour-coded label design of which 11 Member States copy to some extent the EU energy label format, using a colour-coded scale to indicate CO₂ performance of cars. However, among these 11 Member States there is significant variation in terms of the number of categories used. While most (7/11) Member States use 7 categories in the form of the A to G scale, other Member States use more (up to 13 categories).

Most (11 out of 14) Member States using a colour-coded label design use an absolute classification approach where all vehicles on the market are compared against each other based on their absolute distance-specific fuel consumption [l/100 km; km/l] or CO₂ emissions values [g CO₂/km]. Three Member States (Germany, Spain, and Netherlands) have adopted a relative classification approach rating vehicles in comparison to a weighted average of other vehicles within a certain vehicle category (i.e. the 'best in class' approach), although each of these Member States use a different weighting method. In the remaining Member States, there is no classification of vehicles. In some Member States car classification schemes may be further differentiated by fuel used.

Concerning additional information on the label, Member States have introduced the following requirements (in decreasing order of number of Member States):

- fuel consumption for different drive cycles; (7 Member States)
- running costs, i.e. annual fuel costs based on average mileage; (6)
- national taxation and other financial penalties/rewards; in some Member States the classification bands on the label are aligned with fiscal thresholds in Member States in case of CO₂-based car taxation; (5)
- air pollutant emissions; (2)
- indication of electricity consumption (in case of hybrid or electric cars); (2)
- indication of non-CO₂ / fuel economy related information, e.g. EuroNCAP¹¹ safety rating (1), noise levels (3);

Moreover, two Member States (Denmark and Spain) have introduced a label for light commercial vehicles and another two Member States (Finland and United Kingdom), on a voluntary basis, for second-hand vehicles.

5.1.2. Guide on fuel economy

The Directive requires that Member States produce a guide listing all new passenger car models available for purchase within a Member State and their official specific CO₂ emissions and fuel consumption. The guide should include a listing of the 10 most fuel-efficient new passenger car models ranked in order of increasing emissions, and additional information regarding the impact of regular maintenance of a vehicle and driving behaviour on emissions. It should also include an explanation of the effects of GHG emissions, climate

¹⁰ AT, BE, BG, DE, DK, EE, ES, FI, FR, IE, NL, PT, SI, UK,

¹¹ The European New Car Assessment Programme has created the five-star safety rating system to help consumers compare vehicles: <http://www.euroncap.com/en>.

change, and a reference to the average CO₂ target for cars. The guide has to be available at all points of sale free of charge and should be portable and compact. The Member States are required to update it at least once per year.

The guide is still available in hard copy, although all Member States make them available online too. In 2015 nearly half of the Member States¹² have created fully searchable online databases that allow users to more easily find the vehicles they are searching and allow for detailed comparison of vehicles.

In addition, some guides present other relevant information regarding current legislation affecting car owners such as taxation, information regarding vehicles with alternative powertrains or those able to run on alternative fuels, monetary examples illustrating potential savings due to increased fuel efficiency, or information on air pollutants.

5.1.3. Poster

The points of sale should also display a poster (or an electronic display) showing the official CO₂ emissions and fuel consumption of car models offered for sale or lease. The Directive specifies its minimum size and how the information should be presented, i.e. grouping models separately by fuel type and ranking them within each group in the order of increasing CO₂ emissions. The poster should also include a reference to the guide available free of charge at each point of sale, and should contain specific text regarding the other factors that influence car's CO₂ emissions and fuel economy, as well as an information that CO₂ is the main GHG responsible for global warming. The poster should be updated at least once every six months or in case of an electronic display once every three months.

Only two Member States went beyond the Directive's requirements, e.g. by requiring more frequent updates or showing the date of publication or update.

5.1.4. Promotional material

The Directive also requires printed promotional material such as promotional brochures, advertisements in the printed media and posters, to contain the official fuel consumption and official specific CO₂ emissions data. According to the criteria set out in Annex IV of the Directive this information '*should 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*', and the data should be provided for all car models to which the promotional material refers.

Only a few Member States followed the Commission Recommendation 2003/217/EC to require provision of mandatory information when vehicles are offered for sale or lease by electronic means. One Member State requires that the colour-coded band (an arrow) from the label, which indicates CO₂ emissions, is displayed in promotional material in addition to the text. This also covers internet advertising.

A number of voluntary measures have been implemented in relation to the promotional material such as a advertising code that specifies the minimum size of letters and of space to be used for the information on fuel consumption and CO₂ emissions (BE, NL) as well as a

¹² AT, BE, DK, EE, FR, FI, DE, PL, NL, ES, SE, UK

pre-publication screening process for promotional materials and guidance on the interpretation of the legal requirements (UK).

5.2. Enforcement

In terms of enforcement of the Directive, the information available suggests that only a few countries have regular enforcement activities organised, including visits in showrooms and reviewing promotional material. Overall there appears to be relatively low levels of non-compliance with the Directive, although it is important to note that compliance has been assessed on a regular basis in only a few Member States. Where compliance has been assessed more regularly, it appears to have improved over time.

The limited data available throughout the period suggest that compliance rates with the requirements concerning the label, poster, and guide are rather high (80%-90%) in the majority of the Member States for which data are available; although with a few variations. The most common area of non-compliance seems to be related to promotional material, the main issue being the clarity and prominence of the information provided. On the latter, some stakeholders (environmental NGOs) highlighted the difficulties with enforcement of requirements concerning the promotional material due to the general wording of the provision in the Directive and in most national legislation.

6. ANSWERS TO THE EVALUATION QUESTIONS

In this section the answers to all evaluation questions, as outlined in section 3, are presented per theme.

6.1. Relevance

The evaluation shows that the objectives of the car labelling Directive continue to respond to the needs in the EU and hence remains relevant. Climate change and the need to reduce greenhouse gas emissions were key drivers for the adoption of the car labelling Directive. Since then, climate change has become even more important and is an EU policy priority and one of the 10 priorities of the European Commission. There is still a need to reduce greenhouse gas emissions from all sources and from road transport in particular. There remains therefore a need to make information on fuel economy and CO₂ emissions available to consumers in order to support them in making an informed decision on which car to purchase, taking account of fuel consumption and CO₂ emissions. The large majority of interviewed stakeholders representing industry (automotive and advertising sector), consumer and environmental NGOs was of the opinion that there is indeed a need to raise consumer awareness in terms of the CO₂ performance and fuel consumption of new cars. Moreover, consumers can benefit economically from reduced fuel consumption.

At the same time the evaluation found a number of issues that have been limiting the relevance of the Directive. Since it was adopted, developments such as the growing gap between real world and test cycle emissions as well as the increasing number of alternatively-fuelled cars on the market and the absence of labelling requirements for these vehicles, have led to concerns about the accuracy and relevance of the information that the Directive requires to be communicated to consumers. In particular the gap between real world and test cycle emissions leads to confusion for consumers and may undermine trust in the label.

In response to ongoing air quality problems in many urban areas, about 30% of respondents to the public consultation (encompassing consumers, public authorities, environmental and

transport NGOs and European industry or business associations) called for the inclusion of information on air pollutant emissions on the label.

However, other stakeholders (including industry associations, a public authority, a consumer NGO and a vehicle manufacturer) thought that there was a risk that the label would be less clear if more information of this type was added and that air pollution was already addressed by other legislation. However, robust information on air pollutants that could be used for labelling purposes will only be available with the introduction of real-driving emission tests in 2017.

Finally, the internet has become a key source of information for new car buyers¹³ and is currently not explicitly referred to in the Directive, although this could have enhanced the Directive's relevance. The importance of including relevant information on the internet was highlighted by various stakeholders, particularly those representing consumers and national organisations.

The evaluation did not identify any relevant economic issues having an added value that are not covered by the existing legislation.

6.2. Effectiveness

In order to be effective in fulfilling its objectives, the Directive needs to influence the actions and behaviours of consumers, manufacturers and public authorities.

As regards effects on consumer behaviour, the awareness of the information on fuel economy and CO₂ emissions has been improving steadily since the Directive was implemented and is now medium-to-high (>75%) in many countries. The label is generally the most widely recognised information tool whereas the other tools (poster, printed guide and promotional material) are typically considered less important. Consumer surveys show a gradual and continuous growth in consumer awareness of the label after its introduction, e.g. from 36% (2006) to 49% (2009) in the UK¹⁴ and from 25% (2012) to 57% (2015) in Germany¹⁵.

There is, however, less evidence on the effectiveness of the Directive in terms of its ultimate impact on new car CO₂ emissions. This is due to the fact that sufficiently detailed data from before and after the implementation of the Directive are not available in most cases to allow for a quantitative assessment. Furthermore, various factors other than labelling have driven changes in the CO₂ performance of new passenger cars in recent years, most importantly CO₂ performance standards for new passenger cars and changes in national fiscal incentives for consumers buying new passenger cars. These changes were often implemented at the same time as the introduction of new car labelling requirements or thereafter.

Except for France where evidence suggests that the label as such has contributed to a certain extent to lower CO₂ emission of new cars¹⁶, it was not possible to identify evidence of any

¹³ E.g. Netpop Research (2011): The Role of the Internet in New Automobile Purchases, Global Analysis.

¹⁴ LowCVP Car Buyer Survey (2010): Improved environmental information for consumers. Research conducted by Ecolane & Sustain on behalf of the Low Carbon Vehicle Partnership.

¹⁵ Dena (2015): Umfrage: Pkw-Label ist Autokäufern wichtiger denn je, http://www.pkw-label.de/uploads/media/151216_Auswertung_Umfrage.pdf.

¹⁶ D'Haultfoeuille, Durrmeyer, and Février (2015): Disentangling Sources of Vehicle Emissions Reduction in France: 2003-2008, http://www.crest.fr/ckfinder/userfiles/files/Pageperso/xdhaultfoeuille/ddf_trends_03_15.pdf. Based on an econometric analysis the study finds for the period 2003-2008 that 2.24g/km of CO₂ emission

substantial impact on new car CO₂ emissions in the other countries that have been analysed in more detail for the purpose of this evaluation.

However, even if the actual impact of the Directive in terms of CO₂ emission reduction cannot be quantified, it is clear that the impact is influenced by the approach taken which includes the reaction of the different parties and factors such as the design of the label, the classification and the extent to which the label is combined with fiscal measures as is further explained below:

- The use of a label design that is similar to the EU energy label with a colour coding is well understood by consumers and enhances consumer awareness on fuel consumption and CO₂ emissions, thus increasing the effectiveness of the Directive. In Germany, consumer awareness on the label more than doubled after the introduction of a label based on the EU energy label format in 2011 and among these consumers the label is considered as "rather important" or "important" in their new car purchase decision¹⁷.
- As for the label classes used, evidence gathered concerning the EU energy label as currently in place¹⁸ indicates that the additional classes for more fuel efficient vehicles (e.g. A+++ , A++ and A+), do not increase the effectiveness of the label, as they tend to confuse consumers and do not encourage the purchase of the most efficient products on the market¹⁹.
- Concerning the classification scheme used, it appears that consumers find absolute scaling transparent and easy to understand. By contrast, some studies have shown that relative scaling, as currently implemented in some Member States, would confuse consumers and decreases the effectiveness of the label.²⁰ However, the comparison between the effectiveness of different classification approaches is complex and requires further analysis.
- In terms of the additional information provided in the label, the indication of running costs (i.e. average annual fuel costs) seems to increase the effectiveness of the Directive as higher fuel efficiency cars tend to have lower running costs. Costs are among the most important criteria when purchasing a new car, but consumers tend to underestimate cost savings from more fuel efficient vehicles.²¹
- Coupling car labelling with fiscal measures increases its effectiveness in terms of influencing new car purchase decisions. In France the downward trend in CO₂

reductions from new cars (14% of the total decrease in that period) could be attributed to the car labelling Directive alone.

¹⁷ Dena (2015): Umfrage: Pkw-Label ist Autokäufern wichtiger denn je, http://www.pkw-label.de/uploads/media/151216_Auswertung_Umfrage.pdf.

¹⁸ In July 2015 the Commission proposed a revision of the EU energy label (COM2015) 341 final). It proposes to remove these classes and to introduce a classification using letters from A to G which has shown to be most effective for consumers.

¹⁹ Ecofys (2014): Final technical report, Evaluation of the Energy Labelling Directive and specific aspects of the Ecodesign Directive, ENER/C3/2012-523.

²⁰ Codagnone et al, 2013. Testing CO₂/Car labelling options and consumer information, http://ec.europa.eu/clima/policies/transport/vehicles/labelling/docs/report_car_labelling_en.pdf

²¹ LowCVP Car Buyer Survey (2010): Improved environmental information for consumers. Research conducted by Ecolane & Sustain on behalf of the Low Carbon Vehicle Partnership.

emissions was accelerated with the introduction of a vehicle taxation system ('bonus-malus' scheme) that was linked to the label classes.²²

As for the guide, there appears to be broad agreement among stakeholders that the interest in the printed format of the guide has significantly decreased. Member States that have introduced a searchable online database report increasing consumer interest. In the UK there were 3.5 million unique visits to the online version of the guide compared to 5,000 printed guides that were distributed in the same period. Online tools facilitate the direct comparison of different cars and enables regular updates. Almost all stakeholder representatives (including automotive sector and advertising industry, consumer and environmental NGOs) supported the view that the focus should be on the media that is mostly used by consumers, the printed guide and the poster were found to be rather ineffective and redundant by most stakeholders.

Regarding promotional material, there is no concrete evidence for approaches that increase or decrease its effectiveness; however, good practice seen in some countries where steps have been taken to introduce voluntary advertising codes of conduct may help to limit misleading claims and therefore reduce confusion among consumers.

In terms of the effectiveness of the Directive in encouraging manufacturers to take steps to reduce the fuel consumption of new cars, the available evidence suggests that the Directive has the potential to trigger a marginal supply side response. However, there is no empirical evidence of a strong effect on the supply of more efficient vehicles. This is supported by stakeholder views that consider the Directive to be less effective in this regard. .

Concerning public authorities, the diversity of label designs demonstrates that Member States have used the flexibility permitted in the Directive but this does not appear to have resulted into greater effectiveness.

With regards to the impact of the Directive's scope, , the current focus on *new* passenger cars may limit its effectiveness as the majority of consumers purchase a used car. In the EU the used car market is 2-3 times greater than the new car market. While fuel efficiency is a more important element in 'used car' purchasing decisions compared to purchasing decisions for new cars²³, the used car markets is considerably more complex with many individual transactions among individuals. Moreover, fuel consumption and CO₂ emission values change over a vehicle's lifetime which may require adjusted values for used vehicles. As for light commercial vehicles which are not covered by the scope of the Directive, the market share is considerably lower (around 11% of new passenger car registrations). While there were positive indications on the scheme's effectiveness in Denmark, it was also noted that buyers of light commercial vehicles are usually more aware of fuel consumption even in the absence of a labelling scheme.

Only a few unintended impacts of the Directive were identified. From the positive side, there has been a proliferation of car labelling schemes globally, which suggests that the approach

²² D'Haultfoeuille, Durrmeyer, and Février (2015): Disentangling Sources of Vehicle Emissions Reduction in France: 2003-2008, http://www.crest.fr/ckfinder/userfiles/files/Pageperso/xdhaultfoeuille/ddf_trends_03_15.pdf.

²³ Transport & Mobility Leuven (2016): Data gathering and analysis to improve the understanding of 2nd hand car and LDV markets and implications for the cost effectiveness and social equity of LDV CO₂ regulations. Final Report, link

in the EU was seen as an example to follow. On the negative side, the requirement for printed guides, which are not considered to be effective, is arguably a waste of resources.

6.3. Efficiency

Overall implementation costs appear to be rather minor²⁴. Costs for authorities vary considerably and relate mainly to monitoring and enforcement (between €10,000-100,000 per Member State that carries out monitoring and enforcement), collection and provision of information for the guides (between €7,000 and €80,000 per Member State), maintenance of online databases (between €40,000 and €240,000 per Member State that has established an online database), and the printing of guides (between €30,000 and €60,000 per Member State). Costs for industry relate mainly to the printing of the labels, estimated in the range of €200,000 – 400,000 per year for the EU-28. This is in line with findings for other sectors that have labelling requirements²⁵ –

The cost variations found related to the decision as to whether or not physically print the guide on fuel economy and the approach taken to monitoring and enforcement. No other significant national implementation aspects that affect the overall costs were identified.

Only the German car dealers pointed to costly litigation action due to lack of clarity over the positioning and minimum font size required for the information in promotional materials, but this was not indicated as a problem by representatives from other Member States.²⁶

Considering the benefits resulting from the implementation of the Directive in the form of fuel and CO₂ savings, the available data do not allow for a quantification. Data concerning average CO₂ emissions and vehicle sales per label class covering the period prior to the adoption of the Directive were not available at sufficient resolution in order to quantify the potential benefits. However, even small average fuel and CO₂ savings per vehicle as a result of an effective car labelling scheme can result in considerable benefits to consumers and society in terms of lower fuel expenditure and reduced carbon emissions over a vehicle's lifetime. As the implementation costs of the Directive are minor, they would likely be outweighed by such benefits.

The evaluation found inefficiencies related to the printed guide and posters, as they are ineffective (see 6.2), while leading to costs, but it did not reveal any other major sources of inefficiencies.

6.4. Coherence

The evaluation found that the objectives of the car labelling Directive are fully coherent with the EU long-term strategic framework, reflecting commitments in the 2030 climate and energy policy framework and the Energy Union Package to reduce emissions from greenhouse gases. The Directive is also coherent with other relevant EU policies such as the CO₂ standards for new passenger cars, the Renewable Energy Directive, EU energy and tyre labelling legislation and the Clean Vehicle Directive. The analysis also found that the

²⁴ These estimates are based on the case studies carried out for the purpose of this evaluation.

²⁵ For example, the Impact Assessment underlying the recast of the Energy Labelling Directive in 2010 found that for manufacturers, the administrative burden is limited to printing of the label and the strip, whereas the rest of the activities will take place as part of normal business.

²⁶ Representatives of German car dealers responding to the public consultation claim that the total fines against them have added up to €4 million since the year 2006. ..

Directive was coherent with legislation regulating other elements of the environmental performance of cars (e.g. air pollutant emissions).

Issues of incoherence also identified are generally a result of new policies adopted after the adoption of the car labelling Directive. . EU legislation that promotes the use of alternative fuels and energy sources for transport²⁷ was only adopted after the car labelling Directive which does not include specific requirements on how to provide information for cars that use electricity and hydrogen as energy sources. Even though the proportion of alternatively-fuelled cars on the market remains relatively small, various stakeholders mentioned that the lack of explicit consideration in the Directive of the information needs for cars with alternative powertrains is becoming an issue.

More coherence could also have been achieved if the car label would have followed the EU energy label design as is the case in a number of Member States. Various studies have shown that EU consumers are in general fairly familiar with the EU energy label design and have trust in it, as mentioned in section 6.2.

6.5. EU Added Value

The EU added value of the car labelling Directive is confirmed by the available evidence. The evaluation suggests that in the absence of the car labelling Directive only a few Member States would have introduced car labelling schemes. At the time of the adoption of the Directive only two Member States (UK, SE) had already introduced legislation requiring the provision of information on fuel consumption and a few more Member States (AT, FI, DE, DK, NL) had introduced some voluntary initiatives concerning the provision of information to consumers.

Furthermore, considering the relative delay in the transposition of the Directive in some Member States and the fact that many of them have opted for introducing only the minimum requirements , it can be assumed that only a small number of Member States would have introduced relevant national legislation. It is safe to conclude that the adoption of the Directive has led to a much broader adoption of car labelling schemes across the whole of the EU, ensuring that a minimum level of information on fuel efficiency and CO₂ emissions is available to all consumers across the EU.

Representatives of national authorities also suggested that a national approach would most probably face greater difficulties in terms of practical implementation. Manufacturers may oppose national schemes because it could be seen as a competitive disadvantage to markets without a labelling scheme in place. As a result only part of the EU consumers would benefit from the minimum level of information secured through the implementation of the Directive across the EU and enable them to choose a more fuel efficient car.

The majority of stakeholders that contributed to the evaluation agreed that there is still a need for EU level action . This can enhance the effectiveness of the Directive *inter alia* by helping consumers' recognition and understanding of the label and increase efficiency as it helps reducing administrative and compliance costs. .

7. CONCLUSIONS

²⁷ Such as the Renewable Energy Directive (2009/28/EC), the Fuel Quality Directive (98/70/EC as amended by 2009/30/EC) and the Alternative Fuels Infrastructure Directive (2014/94/EU)

Based on the findings of the evaluation, it can be concluded that the specific objectives of the car labelling Directive have been met to a certain extent. (see 6.1). The evaluation provides evidence that consumer awareness on fuel consumption and CO₂ emissions has increased since the implementation of the Directive and that car labelling is considered useful by some consumers during their new car purchase decision. It is however less clear to what extent car labelling has influenced the outcome of the purchase decision and ultimately contributed to an actual reduction of CO₂ emissions.

There is some evidence that the labels, in particular if based on the EU energy label and if linked to fiscal incentives (as was the case in France), led to the purchase of more efficient vehicles. Therefore the initiative's assumption that providing information relating to the fuel economy and CO₂ emissions of new passenger cars to consumers would influence consumer choice in favour of more fuel efficient/less CO₂ emitting cars needs to take account of the importance of an appropriate format/design to deliver the information and the role of financial incentives in car purchase decisions. There is only limited evidence (see 6.3) that manufacturers may have been encouraged to offer more fuel-efficient cars.

As the benefits of the car labelling Directive could not be quantified, no firm conclusions on its efficiency can be drawn. Evidence indicates that the implementation costs are minor, so an effective car labelling scheme may result in lower fuel expenditure and reduced carbon emissions over a vehicle's lifetime and thus in net benefits to consumers and society.

The car labelling Directive is still relevant and coherent with the EU strategic long-term framework for climate and energy policies as well as other policies that aim to promote fuel efficiency of passenger cars and reduce the CO₂ emissions from transport (see 6.1 and 6.4).

However, the evaluation has identified the following issues, where the relevance, effectiveness, efficiency, and coherence could be improved::

- As the design and format of the label is not fully set in the Directive, several approaches are used by Member States. The well-known design of the EU Energy Label is used in half of the Member States and seems to increase the Directive's effectiveness. This is also true for the inclusion of some economic information including running costs and relevant taxes, as shown in experiences from some Member States. The absence of a common methodology also resulted in a variety of classification approaches (absolute, relative, no classification), which in some cases undermined consumer understanding. (see 6.2)
- There are no specific requirements for alternatively-fuelled vehicles which could provide consumers relevant and comparable information on such vehicles. (see 6.1 and 6.4)
- The printed guide and the poster are generally considered redundant as these have been overtaken by the internet as the main information source for buyers of new cars. (see 6.1)
- The requirements on the inclusion of information on fuel efficiency and CO₂ emissions in promotional material are generally considered insufficiently clear to ensure effective compliance enforcement (see 5.2).
- The limitation of the scope to new cars, while used cars represent a much larger share of the car market. (see 6.2)

- The absence of information on air pollutant emissions may have limited the Directive's effectiveness in view of the increasing attention to air pollution in urban areas. Robust information on air pollutant emissions for labelling purposes will only become available in 2017. (see 6.1 and Annex 3, point 3.2.5)

Finally, the discrepancy between real world and test cycle data has adversely affected the relevance and the effectiveness of the Directive. The introduction of the World-wide harmonized Light vehicles Test Procedure (WLTP) test cycle – to replace the current NEDC test procedure ('New European Driving Cycle') – will provide for more realistic test results and more robust information to consumers.

8. ANNEXES

Annex 1 – Procedural information

DG Climate Action (unit C.4 "Road transport") was the lead DG for the evaluation. An external study was commissioned in support of the evaluation. The contract for the external study was signed with Ricardo-AEA on 20 July 2015 with the Final Report to be completed by 15 April 2016 (Study contract no. 340201/2015/710777/SER/CLIMA.C.2).

An inter-service steering group (ISG) was established in March 2015 to assist in the preparation and execution of the evaluation to ensure the quality of the evaluation and coherence with other policies. The following DGs participated in the ISG: DG CLIMA, SG, DG MOVE, DG ENER, DG GROW, DG JUST, DG ENV.

The evaluation was launched before the adoption of the Better Regulation Package (19 May 2015) but it followed as much as possible the procedures foreseen in the Better Regulation Package. In a first step, the ISG was consulted by written procedure on the draft Terms of Reference for the external study and the draft Evaluation Roadmap. The Evaluation Roadmap was published in May 2015.²⁸ Subsequently the ISG monitored the progress of the evaluation, provided comments, ensured the quality and objectivity of the evaluation study and finally analysed the results in the context of the Staff Working Document.

The ISG discussed the quality assessment of the final report of the study and agreed on its overall conclusions.

The final study and the quality assessment can be found on DG CLIMA's webpages.²⁹

²⁸ http://ec.europa.eu/clima/policies/transport/vehicles/labelling/docs/evaluation_roadmap_car_labelling_en.pdf

²⁹ http://ec.europa.eu/clima/policies/transport/vehicles/index_en.htm

Annex 2 – Methods and analytical models used in preparing the evaluation

The methods and analytical models used in preparing the evaluation are described in detail in the Final Report of the external study commissioned in support of the evaluation.

The first part of the evaluation focused on collating and reviewing existing information. This involved identification and collection of data and other information from a range of sources, including:

- Quantitative datasets including data on vehicle sales/registrations, average CO₂ emissions from new cars as well as other supporting data required for the analysis;
- Existing literature including relevant studies and reports at the EU and national level as well as other relevant web-based sources;
- Primary data from stakeholders through the use of public online consultation, 26 in-depth interviews with stakeholders (representatives from vehicle manufacturers, components suppliers, national ministries/competent authorities, trade/dealer associations and NGOs) at the EU and national level and a survey of national authorities that focused on focusing on the implementation of the Directive.

In addition, an extensive analysis of existing studies, scientific publications, market research reports, web-based documents and other sources related to the implementation and its impacts of the car labelling Directive, as well as relevant fiscal measures, at the EU and national level was carried out. Input from the stakeholder interviews and the contributions to the public consultation were integrated in this analysis.

A total of 10 country-specific case studies were carried out for the following Member States: France, UK, Denmark, Germany, Spain, Netherlands, Austria, Czech Republic, Poland, and Italy. They were largely based on the data collected through the above-described research, complemented by additional desk research when needed. The case studies were selected on the basis of the following criteria:

- Priority was given to EU Member States with the largest number of new car registrations while ensuring a suitable geographical balance.
- Coverage of the different ways that the Directive has been implemented on the basis of information available at the start of the project, particularly in relation to the type of label adopted (label design, the use of absolute or relative scaling, the inclusion of additional information beyond the minimum required).

A methodological limitation of the evaluation was the absence of data concerning average CO₂ emissions and vehicle sales per label class covering the period prior to the adoption of the Directive at sufficient resolution. As a consequence it was not possible to perform an econometric analysis that could lead to a quantitative assessment of the impact of the car label on consumer responses or on average CO₂ emissions. The external contractor considered alternative options – such as the use of hedonic pricing models and difference-in-difference approaches comparing average CO₂ reduction rate of new registrations in countries

that have introduced labels compared to those that had not. However, in both cases the necessary data were not publicly available.

Annex 3 –Stakeholder consultation (synopsis report)

1. INTRODUCTION

Stakeholders' views have been an important element providing input to the evaluation of the car labelling Directive 1999/94/EC.

The stakeholder consultation activities organised during the evaluation collected views on the practical implementation of the Directive to date at national level, in order to understand how and why various aspects and mechanisms of the Directive have/have not led to expected results. It gathered information on the practical experience of affected and interested stakeholders regarding the costs and benefits associated with the Directive as well as the experience of consumers (awareness, usefulness, and impact on the purchase decision of new passenger cars).

In order to ensure that all affected and interested stakeholders are represented during the stakeholder consultation, at the initial stages of the evaluation a consultation strategy was developed, which included a mapping of stakeholders to identify relevant stakeholder groups which can be summarised as follows:

	Stakeholder group
<i>Affected by the Directive:</i>	Vehicle manufacturers; Dealers, traders; Publishers, advertising industry; Consumers
<i>Responsible for enforcement:</i>	National competent authorities
<i>Stated interest in the policy:</i>	EU/national industry associations representing manufacturers, dealers/traders, publishers and advertising industry; Environmental and consumer NGOs

2. CONSULTATION METHODS

As planned in the stakeholder consultation strategy, the stakeholder consultation carried out for the evaluation consisted of targeted structured interviews with stakeholders, an open public on-line consultation and a stakeholder workshop to validate preliminary evaluation results.

The following consultation methods were used to collect stakeholders' views:

- An **online public consultation** was organised with the support of an external contractor. It took place between 19 October 2015 and 15 January 2016. It was expected to provide the greatest possible reach of affected organisations as well as individual consumers. The majority of the questions presented a ‘multiple choice’ approach, requesting opinions on a graduated scale, representing the level of agreement with a specific statement or indication of the importance of a specific element of the Directive. In addition, a number of open questions were included to

allow stakeholders to better clarify their opinion on a set of policy options or on the whole consultation. In total, 179 responses were received from 67 citizens/consumers³⁰ across 11 Member States and 114 organisations³¹ (EU wide and from 12 Member States) representing a wide range of stakeholders (business associations, consumer and environmental NGOs, national and local authorities). Seven organisations (one NGO, six advertising and publishing organisations)³² also submitted position papers to complement their responses to the consultation questionnaire. Responses were received from various categories of stakeholders as identified during the stakeholder mapping exercise (see above). All responses where the respondent agreed to its publication and a summary report of the online consultation are available at the consultation website.³³

One key issue that has been taken into consideration in the analysis of the input from the public consultation was that the high share of responses from a specific group: vehicles dealers/traders from Germany – both as organisations (55 responses) but also, in some cases, as consumers (see above). No reasons could be identified as to why few responses were submitted by citizens.

- **Interviews with key stakeholders at the EU and national level** were carried out to provide a more in-depth understanding of the implementation of the Directive and of the practical experience of affected stakeholders as well as to collect data on benefits and costs that are not available through desk research. Many of the EU level stakeholders also engaged directly with the member organisations or companies in order to inform their inputs. At the EU level, 10 interviews were completed with representatives of industry, consumers, publishers/advertisers and NGOs. At national level, targeted interviews included one national authority and at least one representative from industry or consumers (2 in total from each Member State). The national interviews focused on the 10 Member States that were selected as case studies for the evaluation (AT, CZ, DE, DK, FR, IT, ES, NL, PL, UK). These Member States were selected because they cover the largest number of new car registrations while ensuring a suitable geographical balance. Moreover these Member States represent different ways on how the Directive has been implemented, particularly in relation to the type of label adopted. Table 1 summarises the completed interview programme. The interviews were carried out by an external contractor.

Table 1: Interview programme

Type of Stakeholder	Completed
<i>EU level</i>	
Advertising and publishing organisations	3
Consumer organisations and vehicle users	3
Industry - Associations	3

³⁰ While it has not been possible to clearly establish, on the basis of the information provided (email addresses) it appears that more than 50% of responses came from German consumers with direct links to a vehicle dealers.

³¹ The actual number of responses submitted was 112. However, in two cases, stakeholders requested that a specific response should be considered as representing two separate organisations.

³² AER (Association européenne des radios), DUH (Deutsche Umwelthilfe), egta (the association of television and radio sales houses), EPC (European Publishers Council), VPRT (Verband Privater Rundfunk und Telemedien e.V.), ZAW (Zentralverband der deutschen Werbewirtschaft e.V.).

³³ http://ec.europa.eu/clima/consultations/articles/0027_en.htm

Type of Stakeholder	Completed
NGOs	1
<i>National level</i>	
National authorities	8
Industry - Associations	4
Consumer organisations and vehicle users	4
Total	26

- In order to obtain a more complete picture of the implementation of the Directive across the whole of the EU-28, an electronic **survey of national authorities** responsible for the implementation of the Directive was also conducted by an external contractor. Authorities were contacted by email and asked to respond to a brief questionnaire focusing on the implementation of the Directive, enforcement activities and levels of compliance recorded. In total, eight authorities (BE, EE, FI, IE, LT, RO, SE and SK) submitted their responses.
- A **stakeholder workshop** was organised towards the end of the evaluation (17/3/2016) with 41 participants representing in a balanced manner the automotive and advertising/publishing sectors (associations and individual firms), consumers and environmental NGOs and national authorities. The objective of the workshop was to present and validate the preliminary findings of the evaluation. The workshop was chaired by DG CLIMA. At the workshop no new or major issues were raised by stakeholders.

3. ANALYSIS OF THE CONSULTATION INPUT

The analysis of the inputs to the consultation is presented along the key evaluation topics, i.e. relevance, effectiveness, efficiency as well as EU added value and coherence. The analysis is not exhaustive of all points raised by stakeholders. It focuses on the most important issues raised and summarises the views expressed. In general, the responses received during the different stakeholder consultation activities were broadly consistent and pointed to the same issues.

3.1. Relevance

One key issue considered as part of the stakeholder consultation was the relevance of the Directive. The large majority of interviewed stakeholders representing industry (automotive and advertising sector), consumer and environmental NGOs was of the opinion that there is indeed a need to raise consumer awareness in terms of the CO₂ performance and fuel consumption of new cars. However, at the same time, almost all of them pointed out consumers nowadays have access to multiple sources of information – notably the internet. This means that the focus of the Directive on print media is considered outdated by many stakeholders .

Another issue raised by stakeholders in the context of the Directive's relevance was the divergence between official fuel consumption and CO₂ emission values as communicated on the label and those experienced by consumers on the road. It was argued that this may mislead consumers when deciding which car to purchase. Individual consumers expressed the view that this undermines trust in the car label. In interviews, consumer and environmental

NGOs argued that information for labelling purposes should have been based on real emissions and fuel efficiency data.

3.2. Effectiveness

3.2.1. Consumer awareness and impact on car purchase decisions

In terms of consumer awareness that car labelling information is available, the input from the stakeholders – including consumers and other stakeholders – was positive. The responses to the public consultation suggested that consumers are generally aware that information about the CO₂ performance and fuel consumption of new cars is available. The few consumer responses to the public consultation suggest a medium-to-high level of awareness of the different elements of the Directive (i.e. label, guide, poster, or promotional material), with the highest awareness observed for the label and promotional material, while the lowest awareness was observed for the guide. While consumers who are aware of the label may have been more inclined to respond to the public consultation, this is supported by estimates from authorities and consumer associations which state that the level of recognition of the label among consumers may be between 75% and 100%.

In terms of the impact on consumers' car purchase decisions, only a small share of consumer respondents claimed that the information influenced their purchase decision. Amongst representatives of organisations, no more than 15% of a total of 112 responding organisations stated that any of the information tools is effective. In both groups the label was considered as the most effective among all respondents, while the guide was considered to be the least effective.

The interviews with stakeholders provided a similar picture. A few organisations (including a transport NGO, a national automotive association, a national consumer NGO and one national authority) were rather positive indicating that there is some evidence of impact of labelling on consumers' purchasing decision. However, a much larger number of stakeholders (including authorities, industry and consumer representatives at national and EU level) were more sceptical. Many of them stated that people nowadays decide before reaching the show room and not wait for the information in the show room to decide. Furthermore, most stakeholders (including authorities, industry and consumer representatives at national and EU level) pointed to the much greater role of tax/financial incentives in influencing car purchase decision-making.

3.2.2. Impact on the supply of fuel efficient vehicles

Most respondents to the public consultation stated that the Directive has been ineffective at encouraging manufacturers to introduce more fuel efficient cars. Only a few of the 67 consumers that responded to the public consultation considered the Directive to have been 'very effective' or 'effective' in terms of encouraging manufacturers to introduce more fuel efficient cars, while around a quarter believe that it has led to increased consumer choice of more fuel efficient cars. Similarly negative were the views of representatives of organisations. Among industry representatives (automotive supplier, industry or business association or vehicle manufacturer), very few (two authorities and some environmental NGOs) believe that the Directive has effectively encouraged manufacturers to introduce more fuel efficient cars, whereas most consider it as 'very ineffective' or 'ineffective'.

Among the stakeholders interviewed, industry representatives in NL and DK provided supportive comments on the role of car labelling in promoting more fuel efficient vehicles in

the market. According to a Dutch industry association there is a possible impact of the label since dealers want to have a green image and they may therefore try to convince manufacturers to provide greener versions of their vehicles. Most other stakeholders did not share such evidence. One EU advertising association argued that it is competition and not the label that have played a role in stimulating the supply of such vehicles.

With regards to the possible impact on the price of more efficient cars, only a few had specific views. Among consumers, around one third of respondents to the consultation stated that the Directive has led to an increase of the prices of more fuel efficient vehicles and another third that it had no price impact. Other consumers were unsure of its impact on prices. Representatives of organisations and the majority of industry representatives stated that there has been no impact on the price of more fuel efficient cars.

3.2.3. Relative versus absolute classification

The effectiveness of different classification systems (relative versus absolute distance as regards specific fuel use and CO₂ emissions) was also addressed by a number of stakeholders. Among respondents to the online consultation, several stakeholders (including two consumer NGOs, a transport NGO, two industry organisations and individual automotive manufacturers) questioned the effectiveness of relative classification systems suggesting that it can be misleading for consumers. Similar views were expressed by most consumer and environmental NGOs interviewed. They pointed to the fact that the system leads in some cases to small cars being classified worse than larger and less fuel efficient vehicles and hence mislead consumers and provide the wrong incentives to car manufacturers.

However, there were also views expressed in favour of the relative label, notably in countries where a relative approach has been followed. A German industry association argued that the relative labelling system, as implemented in Germany, is more effective since consumers tend first to select a vehicle category/segment that fits their needs followed by the selection of a specific model based – among other criteria – on fuel consumption. This was also the view of a number of German vehicle dealers but also of a Dutch consumer NGO. It was also argued that the relative approach has the additional advantage of incentivising research and technical development for both small cars and larger vehicles.

A few other stakeholders (including an environmental NGOs and automotive sector representatives) did not express specific preferences indicating that both have their advantages and disadvantages. But they suggested that a harmonised approach across the EU should be promoted to ensure comparability across Member States and avoid confusion of consumers.

3.2.4. Additional information requirements by Member States

As a result of minimum requirements in the Directive without specification on the graphic design of the label, a number of Member States have designed their own labels, mainly building on the design of the EU energy efficiency label, and some Member States included additional information requirements in their labelling schemes. The questionnaire for the online consultation therefore asked whether one or several of the following additional elements was required at Member State level and what their effectiveness were: running costs, taxes, air pollution, noise, safety, eco-scores, lifecycle CO₂ emissions, labelling of second-hand cars, labelling of light commercial vehicles and provision of information through electronic media. However, for each element over 50% of respondents to the consultation were not aware whether such information is provided.

Three elements stood out due to their higher than average ratings for effectiveness and lower than average ratings for ineffectiveness; these were running costs, taxes and safety information. Running costs and taxes were considered particularly effective and important to be displayed by both industry organisations and NGOs across the EU. This is also in line with the views expressed during most of the interviews that tax incentives are an important driver of consumer decision-making.

A consumer NGO expressed the view that labelling for used cars and the provision of information through electronic media (internet, television, cinema and radio) to be effective at influencing consumers' car purchase decisions. This was more generally a point raised during some of the interviews. Almost all stakeholder representatives (including automotive sector and advertising industry, consumer and environmental NGOs) supported the view that the focus should be on the media that is mostly used by consumers including consumers. While not unanimously supported, there was support for the point made by German dealers concerning the need to remove requirements related to the provision of information through printed media and to focus more on the provision of information through the internet as the main source of information.

Another issue of concern was the coverage of alternatively fuelled vehicles. Automotive sector representatives at EU level indicated that information requirements on alternatively fuelled vehicles – including electric and fuel cell vehicles – should be specified to make them more comparable with petrol and diesel cars. Among consumers that responded to the consultation, a Dutch consumer mentioned that energy labels for electric cars are difficult to compare to conventional cars. Representatives of the gas fuelled vehicles sector pointed out that currently the information provided does not make the advantages related to the use of such fuels – in terms of pollutant emissions and reduced carbon footprint - visible to consumers. However, the fact that vehicles with alternative powertrains still represent a small share of the total market was also pointed out by a transport NGO.

3.2.5. Inclusion of air pollutants information

The online questionnaire specifically asked respondents whether the Directive would have been more effective if information on air pollutant emissions was included. Almost a quarter of consumer respondents to the public consultation stated that the Directive would have been more effective if information on air pollutants was included. For organisations this figure was slightly higher, namely 33%.³⁴

Among representatives of organisations, that input provided on this topic shows that both viewpoints are supported by diverse groups of stakeholders. Respondents in favour of including such information encompass public authorities, environmental and transport NGOs and European industry or business associations. Among those organisations it was claimed that data on air pollutants emissions (specifically NO_x and PM) is of great interest for consumers, given the very high levels of pollution experienced in many European cities and following the recent problems related to the air pollutant emission of diesel vehicles. However, it was also indicated that this information would only be effective if it is representative of real driving emissions.

³⁴ The figure was affected by the large number of German vehicle traders/dealers responding 'no'. 4% of German traders/dealers responded 'yes', compared to 33% of organisations in the remainder of the sample.

However, other organisations (including German and Dutch industry associations, a German public authority, a consumer NGO and a vehicle manufacturer) were not in favour of the inclusion of air pollutants information arguing that this information is already covered by the Euro standards and that air pollution data might add too detailed information that could make labels too complex. Others pointed to studies that suggest that environmental information is still of low relative importance when it comes to vehicle purchase. One consumer NGO proposed that further analysis is needed to determine the extent to which consumers are interested in this information.

3.3. Efficiency

3.3.1. Costs

Overall, most representatives of organisations reported that their organisation had incurred costs as a consequence of the implementation of the Directive. Reported costs were related to producing, printing, distributing, maintaining and updating information required by the Directive³⁵. Half of the respondents from organisation reported costs of information collection and record-keeping. Other reported costs related to the monitoring compliance for public authorities (local/regional/national).

Some specific estimates on costs for compliance with the Directive were provided by German vehicle dealers that referred to the costs of printing of the labels as well as for staff to ensure that labels are in compliance with requirements and for replacement of labels when there are updates. Estimates varied between a few extra staff hours per year to up to €50,000 Euros per dealer per year. In terms of advertising costs there were references to increased costs per advertisement (additional €40-50) for larger advertisement space. However, other stakeholders (e.g. NL and DK automotive sector) considered that the costs for dealers are no more than €1,000 per year – mainly covering the printing of the label plus some – rather small – costs for access or collection of the relevant information.

Estimates of costs for national authorities were provided by representatives of authorities that participated in the public consultation, the interviews and the MS survey that focused on the monitoring/enforcement activities (RO, NL, LT, IE, DK, BE, FI) and the interviews. There was large variation among Member States due to differences in the national enforcement activities, the frequency to update the information and the availability of an online database.

Costs for collection of information/data to include in the guide were estimated around €72,000 in France and €80,000 in the Netherlands. Additional annual costs of €172,000 were reported in France for other aspects including the printing of the guide but also the running of the relevant website and other promotional activities. Website maintenance costs were also provided by some authorities, ranging from €6,000 in Austria (only contribution to costs), €40,000 in Spain and €240,000 in Germany. In terms of monitoring/enforcement costs Among the respondents to the MS survey, reported monitoring/enforcement costs were in most cases in the range of €10,000-100,000 (DK, IE, BE, RO, ES). Other national authorities indicated that the costs for them are negligible (AT, LT, and IE) since no regular enforcement activities take place.

³⁵ This was primarily costs for vehicle traders and dealers. 95% of them mentioned costs of producing, printing, distributing, maintaining and updating information required by the Directive (labels, guides, posters etc.), compared to 54% for the other organisations.

Representatives of other organisations made also reference to specific costs or negative impacts of the Directive as follows:

- Advertising/publishing organisations referred to indirect costs faced by newspapers and magazine publishers in the form of lost revenues from printed advertising since advertising becomes more expensive in comparison to other media where similar requirements do not apply.
- German dealers reported confusion surrounding the rules for car dealers on how to present information on the internet and in print media; this led to numerous litigation actions increasing the burden on these businesses. As reported (by one EU and one German association) the total fines imposed for this specific reason since 2006 were around €4 million.

Considering possible cost savings, more than half of respondents to the consultation (representing organisations) thought that the cost of producing, printing, distributing, maintaining and updating information required by the Directive could have been reduced. Specific comments provided on potential cost savings were as follows:

- Many respondents, including French and Dutch national authorities, a transport NGO, a car manufacturer and several industry organisations, agreed that having harmonised label definitions across Europe could lower administrative costs.
- Reference was also made to the possible development of a single comprehensive European database storing all fuel consumption and CO₂ data which would reduce the costs of information collection and record-keeping.
- It was also suggested that printing costs could be reduced by providing information in a digital format. As highlighted by a Dutch industry association, the requirement to produce printed guides and posters has resulted in a waste of paper and resources, as consumers are often not interested in printed versions of this information. In that respect, an EU-wide industry association suggested the development of an EU-wide platform where manufacturers can upload the relevant data used by retailers to produce labels.

3.3.2. Benefits

Concerning the specific benefits associated with the implementation of the Directive, respondents to the public consultation were asked to indicate if there are fuel cost or time savings associated with the Directive. Nearly all respondents to the public consultation reported no benefits for their organisation or the organisations they represent. Only very few organisations made reference to fuel cost savings and time savings as a result of having easy access to information on fuel efficiency and CO₂ emissions. Among consumers, a few respondents noted that there are potential fuel cost savings and made reference to time savings while looking for fuel consumption information.

Two environmental NGOs argued that the Directive has raised consumer awareness on the link between CO₂ emissions, fuel consumption, running costs and taxes, while a Dutch industry representative stated that it has supported sustainable company car policies in that company cars had to meet certain label categories. A transport NGO also added that the implementation of the Directive has allowed the development of fuel efficiency databases in countries outside the EU (who import vehicles from the EU).

3.4. EU added value and coherence

The majority of representatives of organisations that responded to the consultation either strongly agreed or slightly agreed to the continued need for EU legislation to provide relevant information to consumers. A specific group - German traders/dealers - provided a more negative response, most of which disagreed to the need for EU legislation and reflected the earlier point made that in the age of the internet consumers do not really rely on the information provided on a printed label.

The absence of detailed requirements in the Directive was an issue raised by a large share of stakeholders, albeit with differences in terms of its role in the overall effectiveness. Some consumer NGOs, car manufacturers and national authorities stated that the differences in the label systems designed in each Member State has led to confusion and ambiguity and do not facilitate cross-border comparison. Others – including national authorities and environmental NGOs - were supportive of the current level of flexibility that allows Member States to set more or less demanding standard for the different label categories and it is also easier to link the labelling scheme to national taxation.

Some industry representatives, consumer and transport NGOs expressed the view that it would be more appropriate to move to a more harmonised approach which could mean moving to an alternative regulatory instrument (Regulation instead of Directive). However, in this context, the need for retaining a certain level of flexibility to reflect differences in tax regimes or running costs was also highlighted, by both environmental NGOs and national authorities.

Most stakeholders agreed on the need to use reliable information for labelling purposes so that consumers can trust in the information. In this context stakeholders pointed to the need to ensure a smooth transition from the New European Driving Cycle (NEDC) to the World-wide harmonized Light vehicles Test Procedure (WLTP) which will provide for more representative fuel consumption and CO₂ emission values. Some stakeholders representing vehicle manufacturers or public authorities expressed some concern about a possible lack of coherence of the transition for the purpose of monitoring compliance with CO₂ emission performance standards and car labelling. According to their views, the use of WLTP values should be aligned for labelling and CO₂ emission performance standards purposes in order to avoid confusion and ambiguity in emissions data.

4. USE OF THE STAKEHOLDER INPUT FOR THE EVALUATION

Stakeholder input received during the stakeholder consultation was an important tool to address limitations in access to quantitative data for the evaluation. The results from the analysis of the stakeholder input have been used when answering the individual evaluation questions as a complementary source that may or may not corroborate the findings from other sources. Statements or positions brought forward by certain stakeholders have been clearly highlighted as such.