

# New governance or symbolic policy? – Evaluation and recommendations for the agreement between the European Commission and the automobile industry

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## Abstract

In 1998, the European Commission proposed a strategy to reduce CO<sub>2</sub> emissions from passenger cars. Main elements of this three-parsed strategy are the voluntary agreements between the Commission and the automobile industries from Europe (ACEA), Japan (JAMA) and Korea (KAMA). The aim is an average CO<sub>2</sub>-reduction by 25 % for all new registered passenger cars from 1995 to 2008 (ACEA) respectively 2009 (JAMA and KAMA). This figure equals an average emission objective of 140 g CO<sub>2</sub>/km. Until today, the average CO<sub>2</sub> emissions have decreased from 186 g CO<sub>2</sub>/km to 163 g CO<sub>2</sub>/km in 2004. It is likely that industry will not meet its target.

This paper is looking at the voluntary agreement with the European car industry (ACEA) more closely. The aim is to analyse the policy implementation processes by identifying the cause-impact-relationship and explaining the key factors of success and failure. The analysis follows the 'policy theory based evaluation' approach.

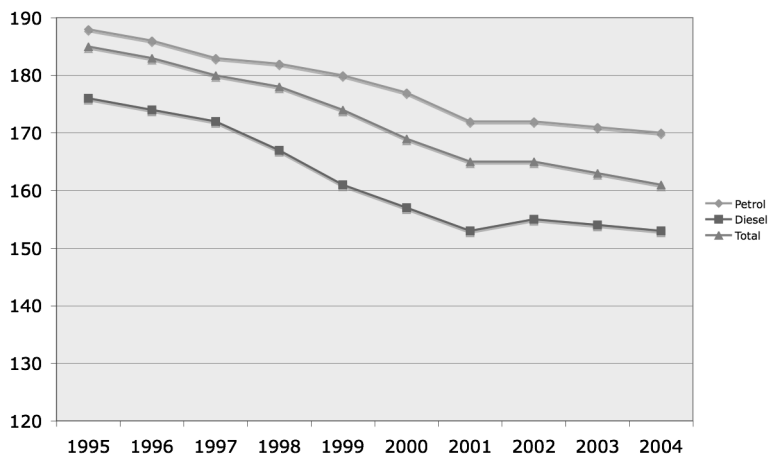
Main critiques of the policy process focus on the target of the agreement. The CO<sub>2</sub> reduction target of new passenger cars by 25 % was set up without conducting a feasibility study beforehand. In order to meet the Kyoto objective more ambitious targets would have been necessary. Moreover, the agreements target is linked to technology diffusion, but the ongoing increase in weight and power of passenger cars has offset a lot of potential in reducing CO<sub>2</sub> emissions. The mechanisms of public pressure and peer pressure among companies, based on an

elaborated monitoring procedure, do, as single driving-forces not seem to be sufficient. Thus, alternative measures have to be introduced in order to fulfil the 2008 target. However, the agreement with the car manufacturers certainly makes actors sensible and the annual monitoring reports keep this topic on the European Agenda.

## Background

The aim of this paper is to analyse the policy implementation processes of the voluntary ACEA agreement by identifying and explaining the cause-impact-relationship. It presents results from a recent case study carried out within the AID-EE Project (Active Implementation of the Directive for Energy Efficiency) funded by the European Commission (to be published in 2007). The analysis follows the 'policy theory based evaluation' approach. The general principle is that a likely theory is drawn up on how the policy instrument should achieve its targeted effect in terms of energy efficiency improvement or energy savings. The focus of policy theory based evaluation is to gain insights of cause-impact relationships. It has been applied and tested mainly in the United States (for a literature review see Harmelink/Joosen, 2005). For this case study, stakeholder interviews were the main source on the implicit assumptions on the performance of the instrument.

In 1998, the ACEA agreement has been concluded dealing with the environmental problem of CO<sub>2</sub> emissions from passenger cars. It is part of the EU strategy 'Reducing CO<sub>2</sub> emissions from light-duty vehicles' and thereby closely related to the European Climate Change Programme (ECCP). Apart from the technology commitment of the European Automobile Manu-



Source: Wuppertal Institute based on COM/2006/463 final

Figure 1: CO<sub>2</sub> emission of ACEA's new passenger cars (EU 15)

facturers Association (ACEA) it includes two other pillars: Improvements of consumer information on the fuel-economy of passenger cars and market-orientated measures to influence motorists' choice towards more fuel-efficient passenger cars. With this three-parsed strategy the European Commission aims at reducing CO<sub>2</sub> emissions from passenger cars to 120 g/km in 2012. The aim of the ACEA agreement is to achieve an average reduction of CO<sub>2</sub> emissions from new passenger cars of 25 percent by 2008 compared to 1995. ACEA's target corresponds to an average reduction from 185 g CO<sub>2</sub> /km to 140 g CO<sub>2</sub> /km. The additional 20 g/km reduction should be achieved by fuel consumption labelling of cars and fiscal measures. In a working paper of the European Commission from 1998 the impact of the ACEA agreement was calculated as 85 Mio t CO<sub>2</sub> per annum to the overall CO<sub>2</sub> reduction by 2010 (SEC/1998/1047). In a later study for the Commission, it was concluded that the ACEA agreement reduces annual CO<sub>2</sub> emissions by about 80 Mt in 2008-2012 (Blok et al, 2001).

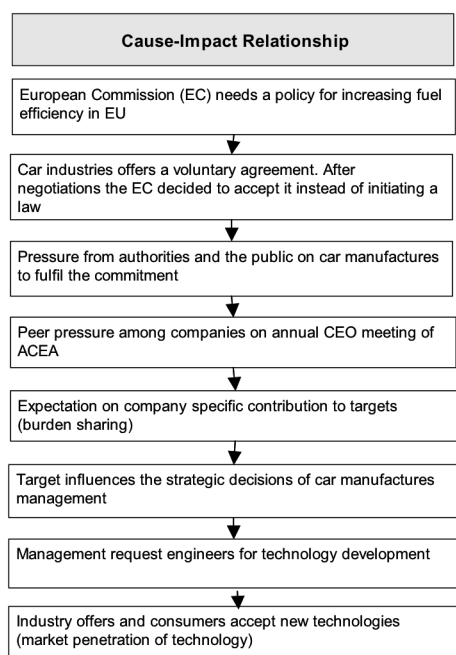
### Analysis of the cause-impact relationship

Due to the ongoing process and recent negotiation between the European Commission and the automobile industry detailed information is sometimes limited. Nevertheless, it was possible to describe and analyse the cause-impact-relationship of the way the 'voluntary agreement' works<sup>1</sup>. In fact, the agreed targets, which should be reached mainly by technological developments (1999/125/EC), turn out to be very similar to an emission limit even if there is more flexibility. The 'logic' or 'functioning' of the instrument is graphically described in figure 2. In general, four steps in this flowchart can be characterized as key-points for the performance and the cause-impact-relationship: Establishment of Agreement and Targets, Pressure to fulfil targets, Technology development and supply and Consumer acceptance.

1. As a civil-law contract between public and private actors is not applicable on European level, ACEA published a self-commitment (ACEA 1998). In response to that commitment, the European Commission agreed on a Communication (1999/125/EC) stating that the targets are accepted and no other measures would be taken.

1. In 1996 negotiations between ACEA and the European Commission begun. Different voluntary approaches were already in force at national level (e.g. Germany, France, Sweden) and ACEA offered a EU-wide CO<sub>2</sub> reduction to 167 g CO<sub>2</sub> /km until 2008, which was rejected by the European Parliament as too low. The Parliament aimed at a much more ambitious target of 90 g/km. Hence, the '140 g target' has to be understood as a compromise between industry and the EU. The voluntary agreement is a sector-target and has to be commonly reached. There are no binding company specific targets defining a share of burden.
2. The agreement can be understood as a 'new mode of governance', referring to targets and soft cause-impact relations (Heritier, 2000). This refers to the fact that peer pressure among companies and pressure by the public lead to the same results than control by a public authority. Thus, the voluntary agreement is based on the assumption that companies fear to be blamed for missing out on the targets. A well-structured monitoring procedure is essential to assure the companies efforts in reducing emissions.
3. With the agreement companies have committed themselves to technology development and the supply of these technologies to the market. R&D investments are a good indicator for efforts in implementation. Moreover, intensified marketing activities on energy-efficient technologies not only support the degree of familiarity of the consumer, but also enhance competition between the manufacturers. Although an exchange of knowledge and technologies between companies would speed up the opening of new technologies it seems unlikely to happen as competition rules between the participating companies.
4. After new technologies are supplied by the industry and entered the market a substantial consequence has to be the acceptance on the demand side. The numbers of energy-efficient cars the customers buy and their use of these cars is of utmost importance for the success of the EU strategy.

On the basis of the cause-impact relationship indicators for measuring success and failure has been developed. E.g. the



Source: own flowchart

Figure 2: Assumed functioning of the ACEA Agreement

R&D investments of car industry are a good indicator for technology development. In this way, success and fail factors were described in order to come to recommendations. The following paragraphs summarize the learning experience from this analysis.

### Are the agreed targets sufficient?

Companies of ACEA have reduced CO<sub>2</sub> emissions of new passenger cars from 185 g CO<sub>2</sub>/km (1995) to 161 g CO<sub>2</sub>/km (2004) (COM/2006/463:10) and fulfilled interim targets. Today, there are serious doubts that the ACEA agreement with its 140 g target will be reached. The European Commission has repeatedly stated that it will formally regulate the industry if it fails to meet the 2008 target. Although the voluntary agreement has to be understood as key driving force for the companies to reduce the overall emissions, the CO<sub>2</sub>-reduction was not achieved by technological measures like higher efficient engines only. Instead, the sustained increase in the share of diesel cars, which show higher fuel efficiency than petrol cars, has significantly contributed to today's achieved progress.

The assumed failure of the agreement shows that targets went beyond business-as-usual. However, the targets of the ACEA agreement could have been more ambitious. A feasibility study by a public authority would have provided valuable information on the ambitiousness of the aspired target before the agreement started. The competitiveness of the automobile sector causes marketing trends that favour developments of cars in terms of speed, power and security, which enforce the sale of bigger and heavier cars. Thus, this trend works against a substantial CO<sub>2</sub> emission reduction. Limits in power and weight as well as speed limits would be needed to lower the negative influences of recent market developments. Hence, voluntary approaches that focus on such targets do not seem to be feasible in a highly competitive market. In conclusion, it would be good

to improve the achievements of targets by specifying different objectives for the car segments. Thereby it could be taken into account that efficiency measures are more cost-efficient for middle and upper class vehicles.

### Do the different steps of the cause-impact relationship lead to the assumed effects?

While targets are slightly ambitious, the peer pressure does not seem to be working. There is neither official nor an internal burden sharing between the different car companies. Hence, it must be assumed that all companies must hit the target. Due to the different market segments those companies, which produce smaller cars, perform better than upper class car producer. In 2006 the NGO Transport & Environment commissioned a study what level the different companies achieved in order to increase the pressure from the public (T&E 2006). However, it was probably too late for taking effective measures and technology development. Finally, customers did not tend to buy the more effective cars, which also could be related to no effective marketing campaigns of more energy efficient cars. Hence, the main critique about the agreement is that there was no burden sharing and the pressure for companies was not strong enough. The threat of introducing a regulation was not strong enough.

One reason for that could be that the organization. ACEA does not act as an intermediate participant able to manage the implementation process. There were no direct interactions between ACEA and the companies about the fulfilment of targets. Experiences from the Netherlands show that voluntary agreements are especially successful in the case of learning and cooperative innovation processes (Dalkmann/Bongardt 2005). As the automotive sector is highly competitive, one can assume that companies tend to be careful in exchanging information on new technical innovations. Thus, a public authority could function as mediating actor providing information, measures and incentives without insulting competitiveness rules. Such an agency could not only develop public expertise in technology issues but also be involved in monitoring of companies performance. Examples for taking this role are the International Energy Agency or the European Environmental Agency. If companies would not perform in line with the targets it is than possible to react in an early stage and avoid free riding.

### What are the Success and Fail Factors?

There are a number of factors regarding effective voluntary agreements, their establishment and successful implementation (Dalkmann/Bongardt 2005). While in general, a characteristic of voluntary agreements is a short decision making process, this is not true for the ACEA agreement. The decision-making process took several years and thus, wasn't much shorter than the process of introducing a regulation would have been. In the case of the ACEA agreement the pre-conditions for a successful implementation were heterogeneous. The targeted sector, the European automobile manufacturers, was a relatively small group, which made it much easier to agree on targets and measures than in fragmented industries. However, the competitiveness within this sector works against successful implementation.

Like in regulative policies, monitoring is essential not only to identify the performance of the target group but also to launch a public discussion on the subject. An extensive monitoring procedure was developed after the agreement came into force, which clearly supported its credibility. The publication of progress and information of the public is essential for controlling the effectiveness of this instrument. With regard to monitoring and reporting on progress achieved, the agreement shows a major deficit in any assumption of a baseline scenario. Even though there are defined targets, there is no information on how the efficiency of passenger cars would have developed without any policy intervention on the manufactures. Moreover, there is no figure on total CO<sub>2</sub> emissions from new (and old) passenger cars in the monitoring reports. The additional focus on absolute figures would help to evaluate the agreement against the Kyoto targets and show the impact of different policy instruments.

Furthermore, the success or failure of this policy instruments depends on the willingness and ability of the target group to launch measures. Characterized by its common target the agreement implies more flexibility for the industry than a regulation probably would have, which strengthened the manufactures interest in this voluntary approach. Investments in new technology development and the skills of engineers to design and realize higher energy efficient solutions for new passenger cars form the success of this voluntary agreement. It seems that this willingness was not given. Looking back, the automobile industry managed to avoid or 'capture' a regulation.

### Would alternative policy options provide better results?

The ACEA agreement is a possibility to reduce CO<sub>2</sub> emissions from new passenger cars. From a political feasibility perspective it is an important step in the direction of improving efficiency. The agreement certainly makes actors sensible for the topic CO<sub>2</sub> reduction and the annual monitoring reports keep this topic on the European Agenda. There is a good monitoring procedure and all key actors are involved in the agreement. So far, the implementation is lacking a technology approach. The so-called 'dieselisation' of the fleet provides the most important effects. Hence, additional policies on national level are needed to promote the diffusion of clean cars. This leads to a concluding view on the EU strategy on CO<sub>2</sub> emissions from light duty vehicles in general.

The main alternative policy option is to introduce emission limits. In the United States and in Japan efficiency standards were adopted as different approach to fuel efficiency. The US CAFE standards states that manufactures have to meet a passenger car standard of 27.5 miles-per-gallon (8.6 litres per 100 km) by 2011 to avoid a tax. Japan has differentiated taxes to promote uptake of the best vehicles under its "Top Runner" programme. The difference in tax rates between low and high emission vehicles does not seem to be big enough to influence consumer choice significantly (ECMT, 2005). Another option is the establishment of an Emission Trading Scheme that defines caps (i.e. limit for a car segment) but allows trading of reductions between all car manufacturers (IEEP, 2005; Kageson, 2005). This gives more flexibility to car manufactures but would certainly lead to higher administrative costs than limits.

In conclusion, voluntary agreements can be much more effective when combined with other policy instruments and decisions. It is certainly true that the fuel price has a major impact on the behaviour of consumers. Hence fuel taxes are important instruments. In addition, supportive measures on the demand side will be crucial for a total decline of CO<sub>2</sub> emission. Further incentives to use public transport or non-motorised modes are needed by improving spatial planning and increasing the quality of public transport. In general, the ACEA agreement should be integrated in a policy mix striving towards sustainable mobility. In this way, efficiency measures would succeed in total emission reduction.

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