

ACEA's CO₂

COMMITMENT

02



ASSOCIATION
DES CONSTRUCTEURS
EUROPÉENS
D'AUTOMOBILES

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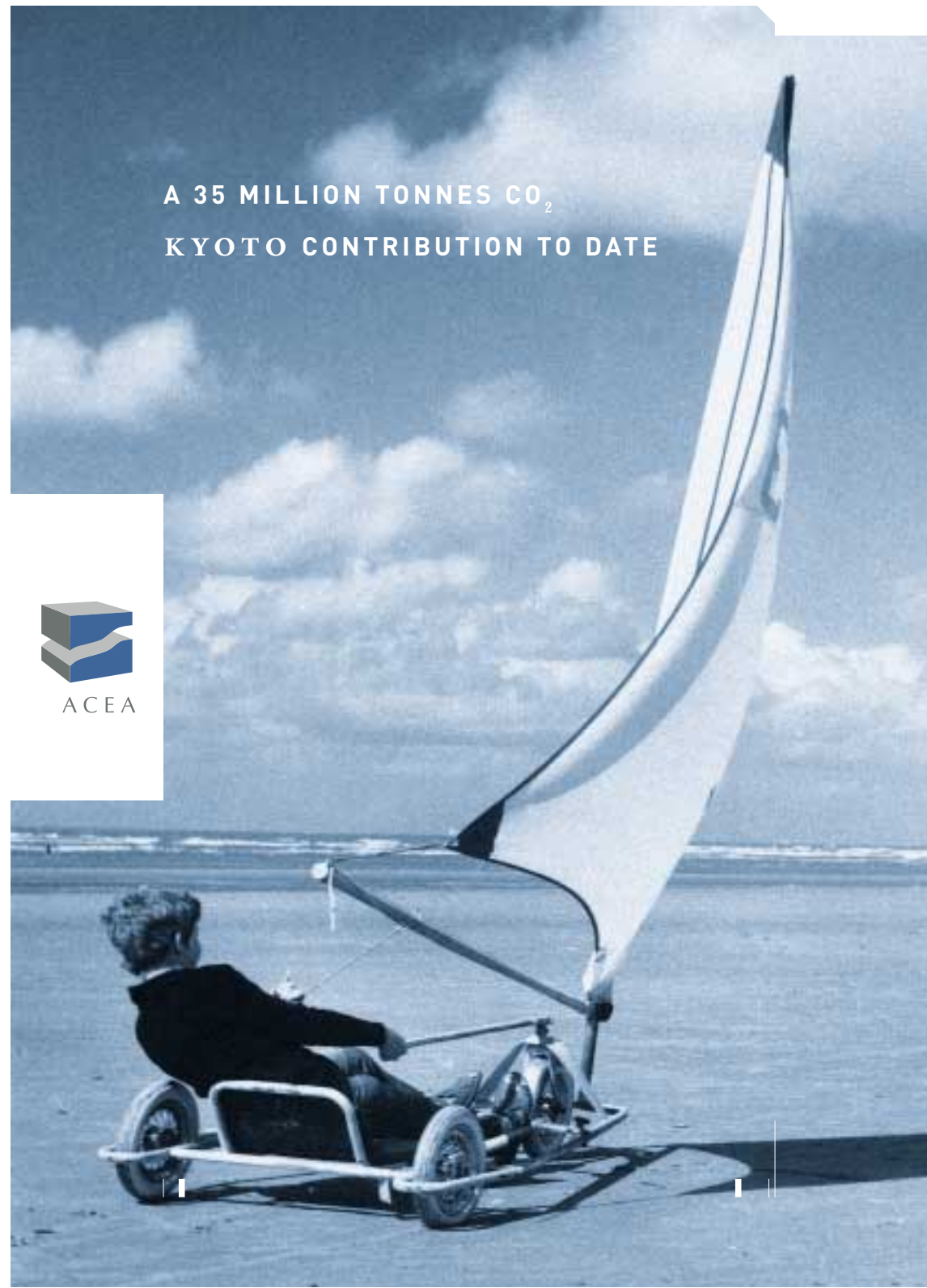
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A 35 MILLION TONNES CO₂
KYOTO CONTRIBUTION TO DATE







F O R E W O R D



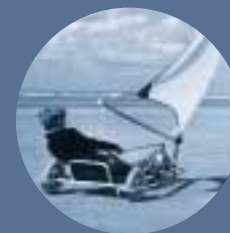
The European car industry shares public concern over global climate change risks, and is making a massive contribution to the European Union's strategy for reducing greenhouse gas emissions.

Already achieved reductions from ACEA, have contributed almost 35 million tonnes CO₂ to the 2010 EU emission reduction required to meet Kyoto Protocol targets.

ACEA's 1998 CO₂ Commitment, and our encouraging reduction performance over recent years, demonstrates the seriousness with which the European industry takes its environmental responsibilities.

Even so, our Commitment remains extremely ambitious, both technically and economically.

We are fully aware there is need to accelerate ACEA's annual CO₂ reduction rate during its remaining period, and manufacturers will continue to gear resources towards achieving the collective Commitment.



SUMMARY

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	1	ACEA COMMITMENT
	2	COMMISSION RECOMMENDATION (1999/125/EC)

In July 1998 ACEA made a voluntary Commitment (*See attachment 1*) to reduce new car CO₂ emissions. The European industry's central commitment was to achieve a new car fleet average CO₂ target of **140 g/km by 2008** – which represents a 25% reduction from 1995. ACEA's commitments are detailed in **FIGURE 1**.

FIGURE 1 ACEA's CO₂ Commitment**ACEA committed to:**

- 1 | bring to the market individual car models with CO₂ emissions of 120 g/km or less by 2000;
- 2 | **achieve an average CO₂ emission figure of 140 g/km by 2008 for its new cars sold in the EU – a 25% reduction compared to 1995;**
- 3 | an estimated target range of 165–170 gCO₂/km in 2003 – a 9-11% reduction compared to 1995;
- 4 | review in 2003 the potential for additional improvements with a view to moving the new car fleet average further towards 120 gCO₂/km by 2012;
- 5 | a joint ACEA/Commission monitoring of all the relevant factors related to the commitments.

ACEA's Commitment was recognised by the European Commission in a **Recommendation** of February 1999 (*See attachment 2*), and welcomed by all 15 EU environment ministers. A **chronology** of key dates is detailed in **FIGURE 2**.

The then EU Environment Commissioner (Ritt Bjerregaard) said :
“*I am proud that the European automotive industry takes its environmental responsibilities seriously and has taken up the challenge of climate change. By committing itself to a substantial improvement in the fuel-efficiency of passenger cars ACEA is delivering a major contribution to the EU's overall greenhouse gas objectives. ACEA is setting an example of the new partnership that we have to forge with industry if we are to achieve our climate change objectives.*”

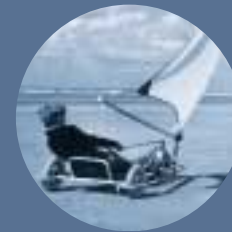
FIGURE 3 sets-out a **scorecard** summarising ACEA's achievements to date with respect to the Commitment (see also "Highlights" below).

FIGURE 2 ACEA's CO ₂ Commitment: key date chronology	
DECEMBER 1995	Commission adopts a Community car CO ₂ reduction strategy in Communication to Council & EP – an agreement with auto industry proposed.
JUNE 1996	Adoption of Community Strategy by Council – Commission asked to begin discussions with industry on CO ₂ reducing agreement.
JULY 1998	ACEA submits its Commitment to Commission (SEE FIG. 1).
JULY 1998	Commission finds Commitment satisfactory & seeks views in Communication to Council & EP.
OCTOBER 1998	Council supports Commission's intention to conclude environmental agreement with ACEA.
FEBRUARY 1999	Official publication of Commission Recommendation to ACEA as its part of the Environmental Agreement.
DECEMBER 1999	Text on details of the Joint Monitoring System concluded between Commission services and ACEA.
JULY 2000	First Joint Monitoring Report on ACEA Commitment (covering 1995-1999) by ACEA & Commission – thereby ensuring public accountability & transparency. ACEA CO ₂ emissions in 1999 = 174 g/km (down from 185 g/km in 1995).
AUGUST 2000	Decision 1753/2000/EC (the so-called "Monitoring" Decision) came into force – covering Member State CO ₂ data collection.
OCTOBER 2000	Commission Communication to Council & EP on Community car CO ₂ reduction strategy, to which joint monitoring reports annexed.
BY END 2000	ACEA achieves first of its commitments (SEE FIG. 1 – "some members of ACEA will introduce in the EU market models emitting 120 gCO ₂ /km or less"): with launch of 20+ such models.
JULY 2001	Second Joint Monitoring Report on ACEA Commitment (covering mainly 2000) by ACEA & Commission – thereby ensuring public accountability & transparency. ACEA CO ₂ emissions in 2000 = 169 g/km.
NOVEMBER 2001	Commission Communication to Council & EP on Community car CO ₂ reduction strategy, to which joint monitoring reports annexed.
JULY 2002	Third Joint Monitoring Report (covering mainly 2001) – thereby ensuring public accountability & transparency. ACEA CO ₂ emissions in 2001 = 164 g/km.

FIGURE 3 ACEA's CO ₂ Commitment: a scorecard of achievements		
ACEA COMMITMENTS	STATUS	ACHIEVEMENTS
1/ 120 gCO ₂ /km or less models by 2000	Achieved	<ul style="list-style-type: none"> ▶ in 2000, more than 20 models brought to market of 120 g/km or less ▶ in 2001, sales of 120 g/km or less cars doubled to over 306,500 units
2/ 140 g/km fleet average by 2008	On-going delivery	<ul style="list-style-type: none"> ▶ 164 g/km new car average achieved in 2001. ▶ in 2001, 140 g/km or below sales rose by almost 40%; such cars accounted for 23% of sales
3/ 165-170 g/km range in 2003	Achieved	<ul style="list-style-type: none"> ▶ 164 g/km new car average achieved in 2001
4/ Additional Reduction by 2012 Review	On-going research	<ul style="list-style-type: none"> ▶ R&D programme underway into longer-term breakthrough technologies
5/ Joint Monitoring research	Achieved (in part)	<ul style="list-style-type: none"> ▶ undertaken for 1995-2001 (to be undertaken for 2002-2008 as figures become available)

The Commitment is a **collective undertaking** by ACEA, supported by all its car manufacturing member companies. (SEE FIG. 4). US imports by Ford and GM are covered by ACEA's Commitment (as are all EU imports by European manufacturers). And, although Chrysler was not included in the original Commitment – with the subsequent formation of DaimlerChrysler – ACEA has included all EU car sales of this group within its Commitment.

In 2001 these manufacturers sold 12.5 million new cars in the EU market, which represented 87% of total EU passenger car sales. In the EU, 1.2 million people are employed in jobs directly related to vehicle manufacturing (mainly ACEA companies). Adding jobs indirectly related to the industry, automotive manufacturers generate employment for over 12 million European citizens. The industry accounts for over 9% of the value added in the overall EU manufacturing sector.



Highlights of acea's CO₂ reduction performance to date

FIGURE 4 ACEA car companies



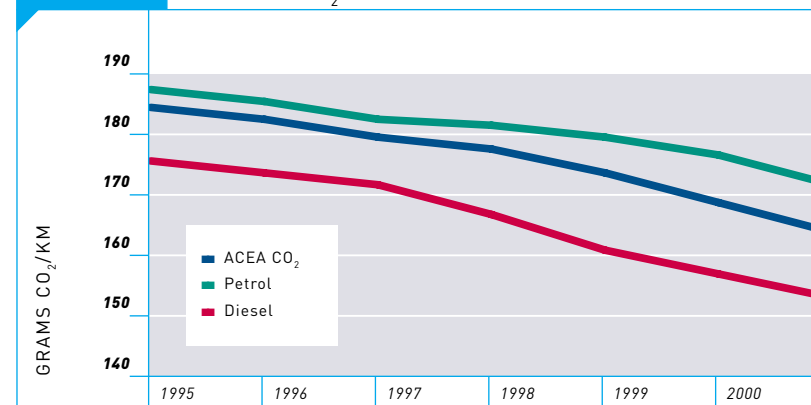
Both the European Commission and the industry recognise that certain external factors could impact on ACEA's ability to honour its Commitment. The commitments are therefore based on a number of **assumptions or items to be monitored**; these include:

- the full market availability of **enabling fuels** with sufficient quality to enable the application of technologies needed for the industry to achieve its commitments;
- ensuring a "level-playing field" exists and **competition is not distorted** so as to ensure the European industry is not put at a competitive disadvantage in world markets by its CO₂ commitments in Europe;
- the **promotion of car CO₂ efficient technologies**, along with an unhampered diffusion of such technologies into the EU market (i.e. no hampering by restrictive fiscal or other policies);
- the impact on CO₂ emissions of **new regulatory measures**.

Should any of these assumptions not be met, or the monitoring of other factors relevant to the Commitment show a detrimental impact on European industry, the Commission and ACEA will review the situation. In particular, a review will occur "if the impacts of (the) Commitment on the European automotive industry, particularly its employment situation and its global competitive environment are detrimental". Indeed specifically stated aims of the Commitment are "at **preserving the diversity of product offerings** of the European car manufacturers and at **maintaining their competitiveness, as well as their financial performance and employment**". Such provisions also, implicitly, ensure that CO₂ reduction policy does not lead to **market distortions**, or to the market positions of manufacturers being influenced beyond free competition.

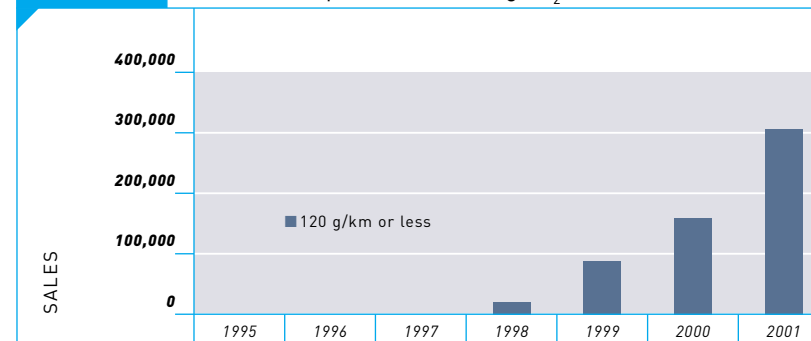
- In 2001 ACEA's new car fleet average CO₂ emissions in the EU were down to **164 g/km**. A cut of **11.4%** on 1995 has been achieved, with ACEA maintaining an unbroken downward trend (SEE FIGURE 5). This encouraging performance shows that the European car industry is delivering the CO₂ reductions it has committed to achieve.

FIGURE 5 ACEA's CO₂ Reduction



- In 2000 ACEA met the first of its CO₂ commitments: "some members of ACEA will introduce in the EU market models emitting 120 g CO₂/km or less". Its manufacturers brought to market more than **20 models** that achieved 120 g/km or less, and sales of such cars totalled almost 160,000 units in 2000.
- In 2001 ACEA built on its Year 2000 achievement of this first commitment, with almost a doubling of its sales of **120 g/km or less cars** to over **306,000 units**. (SEE FIGURE 6).

FIGURE 6 ACEA's Expansion of 120 gCO₂/km or less Car Sales



- Since making the Commitment, ACEA manufacturers have introduced a wide range of **technical and product developments** to reduce CO₂ emissions. Technologies have been commercialised on a very large scale, and the enhanced fuel efficiency combined with other attractive product attributes has proved a particularly “interesting package”. Technical advance highlights are detailed in **FIGURE 7**.

FIGURE 7

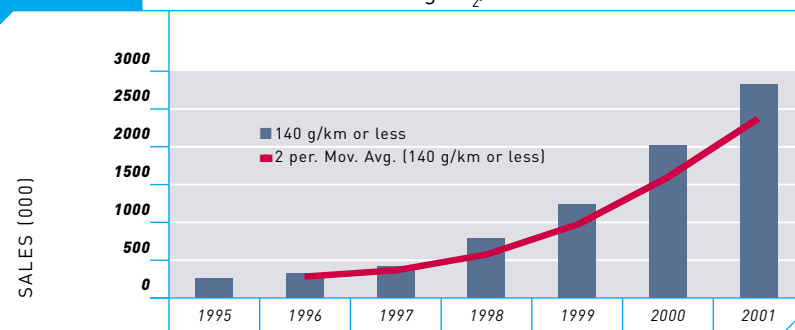
ACEA's new CO₂-reducing technical and product developments

- Direct injection diesel engines successful introduction since 1998. Followed by launch of a new generation of technically-advanced diesels, notably incorporating highly efficient unit injector and common rail technology. Some gasoline direct injection models launched.
- 2001 saw the introduction of: 2-step variable valve lift, fully variable valve lift, fully variable intake manifold, 2nd generation of common rail injection (high pressure), application of advanced diesel technology to small cars, 6-speed automatic gearbox, etc.
- Increased application has also occurred of: continuous variable transmission (CVT), robotised gearboxes, 6-gear manual boxes, electric power steering, route guidance systems, etc..
- Introductions of technically-advanced new models to expand market coverage (including “120 gCO₂/km or less” models – **SEE FIGURE 6**).
- On-going development of alternative-fuelled vehicles (AFVs); manufacturer offerings have included: LPG Bi-fuel, CNG/Biogas Bi-fuel, and alcohol flex-fuel vehicles, as well as series production of dedicated LPG and CNG/Biogas vehicles. 2001 saw launch of a new generation of bio-fuelled vehicles. Certain ACEA manufacturers have also introduced electric or innovative concept vehicles onto the EU market. (Note: the CO₂ figures contained in this document only relate to petrol and diesel cars; no CO₂ benefits from ACEA sales of AFVs are included).

- Technical advances by manufacturers have resulted in a strong upward trend in fuel-efficient car sales. Over **2.8 million** ACEA cars were sold in 2001 with CO₂ levels of **140 g/km or less** (**SEE FIGURE 8**), a growth of almost 40% on 2000 (and up by over 970% on 1995).

FIGURE 8

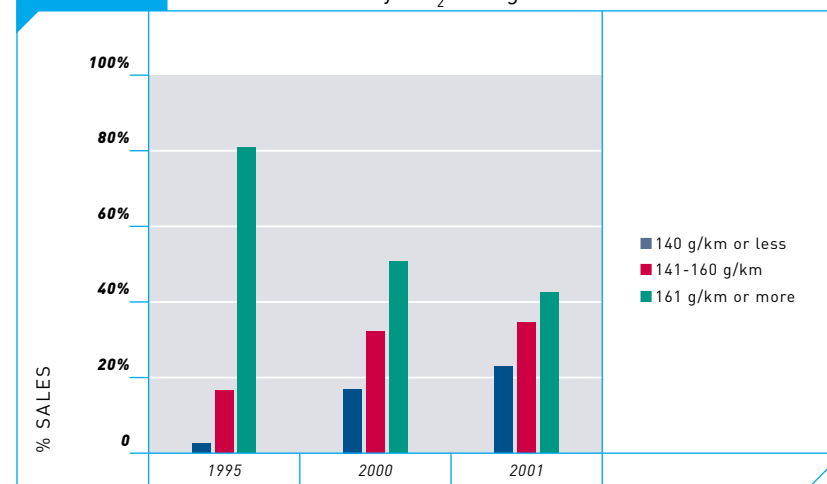
ACEA's Sales of 140 gCO₂/km & less Cars



- **140 g/km or less cars accounted for 23% of sales in 2001** – up from 17% in 2000, and 2.6% in 1995 (**SEE FIGURE 9**).

FIGURE 9

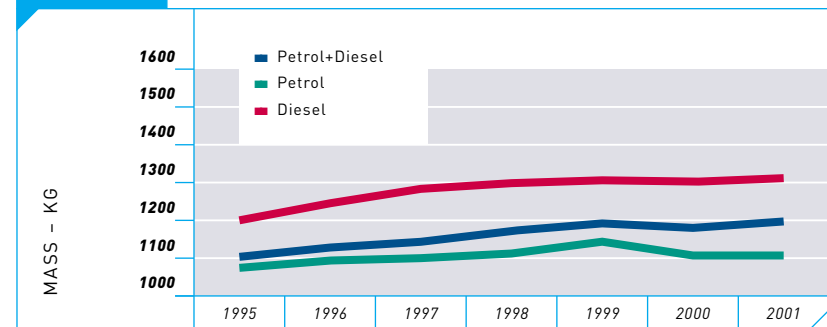
ACEA's Sales by CO₂ Categories



- To support fuel-efficiency enhancement efforts, manufacturers have sought to **moderate growth in key physical car characteristics**, like weight and engine size. In fact, since 1999 there has been virtually no increase in vehicle mass (**SEE FIGURE 10**); similarly the engine capacity of petrol cars and diesel cars has remained almost static. Broad stability in car mass has been achieved despite new automotive regulations, introduced between 1995 and 2001, adding some 25 kg of weight.

FIGURE 10

ACEA's Car Mass

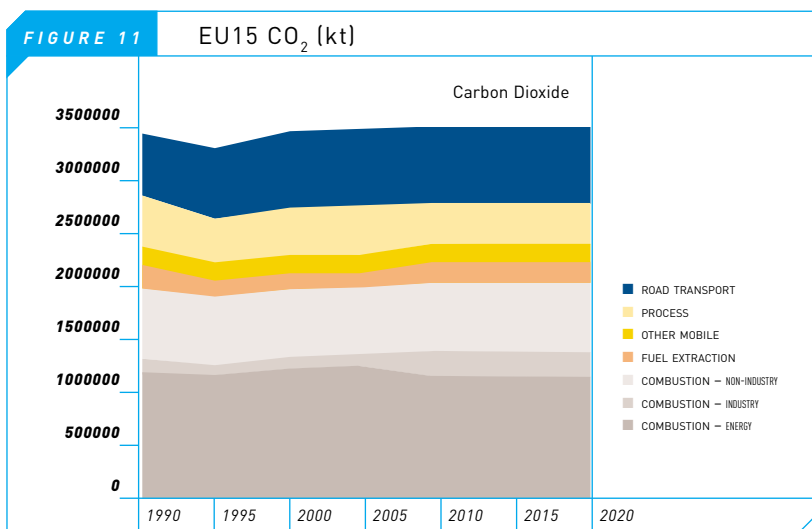


- To ensure public accountability and transparency, ACEA and the European Commission have completed **three annual joint monitoring** reports on the implementation of the Commitment, and these accompany Commission Communications to the European Parliament and the Council of Ministers on implementing the Community's car CO₂ reduction strategy. The reports have concluded that ACEA's CO₂ performance is “*in line with their Commitment*”.



good for the environment,
good for europe

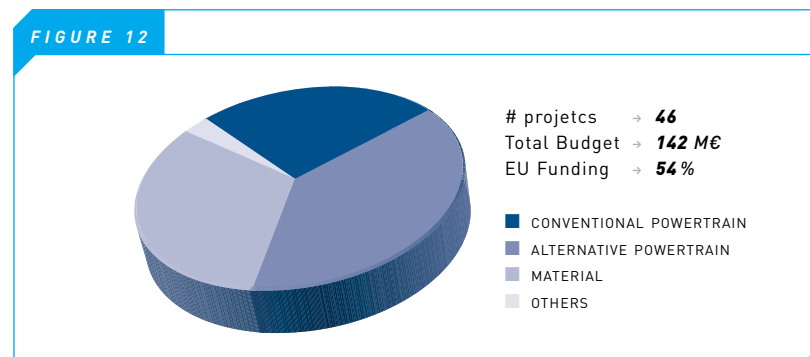
- ACEA's Commitment is at the heart of the Community's overall strategy on CO₂ emissions from cars, and achieving the central target will provide a very substantial contribution to EU emission reductions of greenhouse gases needed to comply with the **Kyoto commitment**. Council Conclusions state: "It is estimated that the 140 g/km will make a contribution of 15% towards fulfilling the greenhouse gas reduction objective assigned to the Community as a whole by the Kyoto Protocol."
- The Commitment is delivering CO₂ reductions **quicker** than via other means, and avoids the need to draft a CO₂ automotive regulation that would be difficult, and would take a long-time, to formulate and introduce. The ACEA Commitment has already made a massive contribution to EU's efforts to address climate change. On the basis of the ECCP's estimate of a 81 Mt CO₂ reduction due to all car industry commitments, it can be calculated that already achieved reductions from ACEA, have contributed almost 35 million tonnes CO₂ to the 2010 EU emission reduction required to meet Kyoto Protocol targets.
- The Commitment will also cut the increase in **road CO₂ emissions, leading to a stabilisation road transport's share of EU CO₂** by 2004-2005 – in spite of the expected traffic growth. Official Auto-Oil II simulations are shown in **FIGURE 11**.



SOURCE Auto Oil II Emission Base Case data (Version 5)

- The ACEA Commitment is good for **European technological advance**. It ensures that right across the European automotive sector, CO₂ reduction remains a high priority in R&D expenditures, as well as in product and process planning and development. Achievement of technological breakthroughs is seen as key to CO₂ abatement. The vast majority of this R&D effort is being undertaken independently, by each of the ACEA manufacturers freely pursuing their own policies and initiatives in this highly competitive area. In addition, ACEA's Commitment presented its sister body, EUCAR, with the opportunity to launch in 1998 a collaborative, pre-competitive research programme – **CO₂perate** – to develop & demonstrate longer-term CO₂ reducing new (breakthrough) technologies and systems. It seeks to use "Framework Programme" funding to launch collaborative projects between manufacturers, suppliers, research institutes and universities. This programme reflects the research interests of the participating companies, and serves to illustrate key areas of R&D activity. Three major areas of R&D can be identified:
 - ▶ **Conventional Powertrain** (based on conventional fuels);
 - ▶ **Alternative Powertrain** (hybrid ICE/electric, fuel cells and hydrogen combustion engines respectively); and
 - ▶ **Material** (mainly high strength, low weight material for body and powertrain).

FIGURE 12 shows a programme status for **CO₂perate**.



- The European auto industry is, of course, a major wealth-creator throughout the EU economy, and has to establish its product plans many years in advance. Within the planning process, a **stable vision** with regard to such a pivotal component as CO₂, is an absolutely essential ingredient. Further, as previously mentioned, the Commitment aims to provide the **flexibility** needed to preserve the rich diversity of product offering within Europe's car industry and maintaining its competitiveness, financial performance and employment – for the benefit of customers and the European economy.
- ACEA's ground-breaking Commitment is a "flagship", that places ACEA at forefront of a **new policy option**. It brings together the Commission and ACEA into a new partnership based on mutual trust, and shows a **new way to address environmental issues**. Further it demonstrates the seriousness with which the European auto sector takes its environmental responsibilities. ACEA manufacturers have, in fact, sought to build on the platform of CO₂ reduction provided by the Commitment with initiatives in areas such as eco-driving, telematics and servicing. ACEA has also sought to gain support for a "joint endeavour" aimed at promoting an ethos of CO₂ saving across all stakeholders in the EU; such a programme should also include: incentives for fleet renewal, infrastructure optimisation/improvements, and better integrated land use and transport planning.



PART

IV

The task ahead

Reduction-rate Acceleration

Latest figures show that ACEA's CO₂ performance is consistent with the achievement of the 2003 indicative target range, 165 g/km-170 g/km. However the future task to meet the 140 g/km central commitment by 2008 will not be easy. **Since 1995 ACEA has lowered its new car CO₂ emissions by about 1.9% a year; however, in order to meet the central target ACEA must increase its annual average reduction rate to about 2.1% during the remaining period of the Commitment.**

ACEA's Commitment foresaw that *“the reduction in CO₂ emissions will not be linear; the pace will notably depend on the timing of availability of the enabling fuels on the market as well as on the lead-times for new technologies and products and their market penetrations. The reduction profile is therefore expected to be relatively slow initially and to gather pace later.”*

In fact, ACEA's recent CO₂ reduction performance has exceeded expectations: technologies have been commercialised on a very large scale, and the enhanced fuel efficiency combined with other attractive product attributes has proved a particularly “interesting package”. In particular, since 1998 direct injection diesel engines have been successfully introduced, followed by the launch of a new generation of technically-advanced diesels, notably incorporating highly efficient unit injector and common rail technology. Even more recently, advanced diesel technology has also been applied to small cars.

In the period to 2008, ACEA is fully aware that future product developments may not be as well received by the market as introductions over recent years – for example, in monitoring reports ACEA has expressed cost, market acceptability and other uncertainties associated with gasoline direct injection technology.

The overall task therefore remains extremely demanding. Even so, European manufacturers are continuing to gear research and product & process development towards attaining the Commitment, and ACEA currently is confident that this will be achieved.

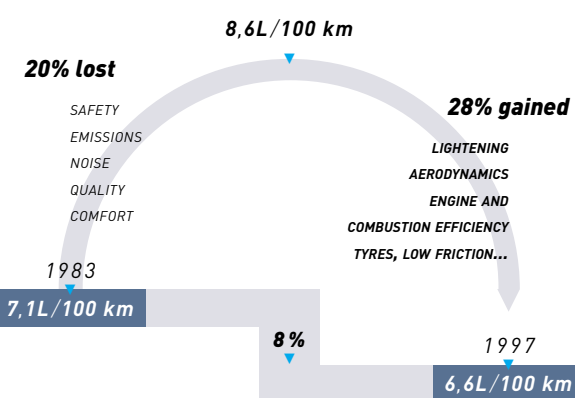
Competing Demands

Car manufacturers operate in a complex environment, and have to manage finite resources to meet a range of competing societal and customer demands, not just CO₂ abatement. Often, fuel efficiency gains are offset by “mutually exclusive” demands of regulations – say on safety, emissions, noise or recycling – and also by the demands of the customer. This is well illustrated by a glimpse at the past (SEE FIGURE 13).

FIGURE 13

What has happened to a medium-sized car in the past ?

...two steps forward, one step backwards



a “limited” 8% improvement in consumption which required a 28% improvement in fuel efficiency

Preliminary ACEA assessments suggest that, between 1995 and 2001, new automotive regulations have adversely affected CO₂ emissions by some 3%, and added approximately 25 kg to the mass of a typical car. For the future, ACEA is particularly concerned that the **End-of-Life (ELV) Directive** (2000/53/EC), that entered into force in 2000, will have adverse implications for future car fuel efficiency. This Directive will limit the use of certain light materials and technologies, and impose a significant financial burden on manufacturers. A very specific issue is the ELV Directive's material restriction provisions that are causing concern for certain electric vehicle programmes, and could restrict product availability.

In terms of the task ahead, it is essential that new policy initiatives, imposing mutually exclusive demands, are minimised, and that explicit recognition is paid to all such measures in CO₂ monitoring.

2003 Review

As stated in its Commitment, ACEA will undertake “a joint (i.e. with the Commission) Major Review in 2003, covering both ACEA and non-ACEA developments. This would incorporate the results of CO₂ emission reductions up to and including calendar year 2003, including comparison of that year's fleet average to the estimated target range”. ACEA would expect the Review to cover not only new automotive regulations (see above), but also issues such as: fuel quality uncertainties, technology hampering, distortion of competition and data quality. Overall, ACEA will stress that the economic situation of the European car industry needs to be strong and healthy to provide the opportunity to focus resources on its CO₂ reduction Commitment. This is particularly the case, as ACEA now needs to accelerate its rate of CO₂ reduction in the period to 2008 in order to meet the 140 g/km target.

ACEA will also address its Commitment which states: “in 2003, ACEA will review the potential for additional CO₂ reduction, with a view to moving further towards the Community's objective of 120 gCO₂/km by 2012”. For this review ACEA might need clarification on certain issues – for example on: **fuels** (fuel quality situation in EU & surrounding countries); **automotive regulations** (new regulatory requirements); **technology costs** (the extremely expensive CO₂ reduction costs for cars, at 200-300 E/t CO₂, relative to abatement cost estimates for the economy as a whole at 20-50 E/t CO₂; so cars are not the “least-cost” option).

ATTACHMENTS

21 16

- 1 ACEA COMMITMENT
- 2 COMMISSION RECOMMENDATION
(1999/125/EC)

ACEA'S CO₂ COMMITMENT

ACEA commitment on CO₂ emission reductions

*FROM NEW PASSENGER CARS IN THE FRAMEWORK
OF AN ENVIRONMENTAL AGREEMENT
BETWEEN THE EUROPEAN COMMISSION AND ACEA*

Introduction and principles

1/ This Commitment is based on an undertaking by ACEA itself and has the support of all its car manufacturing companies: BMW, Fiat, Ford of Europe, GM Europe, Daimler-Benz, Porsche, PSA Peugeot Citroen, Renault, Rolls-Royce, Volkswagen and Volvo, who have agreed to make every endeavour to contribute to the achievement of ACEA's goals.

This Commitment demonstrates ACEA's support for significant reductions in CO₂ emissions in line with the European Union's undertakings under the United Nations Framework Convention on Climate Change following the Kyoto Conference. At the same time it aims at preserving the diversity of the product offerings of the European car manufacturers and at maintaining their competitiveness, as well as their financial performance and employment.

2/ As long as its commitments (see below) are being honoured, ACEA is assuming that this Commitment provides complete and sufficient substitute for all new regulatory measures to limit fuel consumption or CO₂ emissions, and for any additional fiscal measures in pursuit of the CO₂ objectives of this Commitment. Any fiscal measures, including their added value to this Commitment, will be taken into account in the monitoring procedure and their potential effects will be assessed in good faith.

3/ The European automotive industry's CO₂ reduction commitments are very ambitious in the light of present and future technologies, and the industry is willing and prepared to commit substantial development efforts to implement the following commitments.

4/ Together with the European Commission, ACEA will ensure that the Commitment is implemented in a manner which complies with applicable competition rules.

ACEA Commitments

1/ Some members of ACEA will introduce in the EU market, not later than 2000, models emitting 120 gCO₂/km or less, measured according to Directive 93/116/EC (see Technical Annex, Point 1 Measuring Procedure).

2/ ACEA commits to achieve a target of 140 gCO₂/km by 2008, measured according to Directive 93/116/EC, on the average of the EU new car sales represented by ACEA classified as M1.

This target will mainly be achieved by technological developments affecting different car characteristics and market changes linked to these developments. In particular, ACEA will aim at a high share - to the point of 90 % - of new cars sold being equipped with CO₂ efficient direct injection gasoline and diesel technologies.

Compliance with this target translates for the European automobile industry into an average CO₂ reduction of 25% for newly registered cars, compared to 1995.

3/ In 2003, ACEA will review the potential for additional CO₂ reduction, with a view to moving further towards the Community's objective of 120 gCO₂/km by 2012.

4/ For 2003, ACEA considers an estimated target range of 165-170 gCO₂/km to be appropriate.

This translates into a reduction of 9-11 % compared to the reference year 1995. (See Technical Annex, point 3: Review in 2003 / Estimated Target Range).

5/ To assess compliance with these commitments, there will be a joint ACEA /Commission monitoring of all the relevant factors with regard to these commitments.

ACEA's commitments are based on the following:

A/ Availability of enabling fuels

Given the outstanding importance of improved fuels for CO₂ reductions ACEA assumes the full market availability of fuels with a sufficient quality to enable the application of technologies needed for the industry to achieve its CO₂ commitments during the life-time of this Commitment (see Technical Annex, Point 2 Fuel Specifications).

B/ Distortion of competition

In order to ensure a level-playing field:

- non-ACEA member car manufacturers will be committed to equivalent CO₂ reduction efforts for their sales in the EU, in line with the Council Conclusions of 25.6.1996;
- the Community will use its best efforts to continue to seek that other car manufacturing countries, notably Japan, USA and Korea, will undertake equivalent car CO₂ reduction efforts, in line with the Kyoto Protocol spirit ensuring that the European automobile industry is not put at a competitive disadvantage in world markets by CO₂ reduction commitments in Europe.

c/ Promotion of car CO₂-efficient technologies

European car manufacturers have high expectations for certain technologies, in particular those associated with direct injected gasoline and diesel engines, which are two of the most promising routes to achieve the central commitment of 140 gCO₂/km in 2008. This commitment is based on the assumption of an unhampered diffusion of car CO₂ efficient technologies into the market via competition amongst ACEA members and other market participants which is expected to result in market mix changes. Therefore it is fundamental that any measures which might hamper the diffusion process of either of the CO₂ efficient technologies will be taken into consideration in the monitoring procedure.

d/ Acceptance of innovations

The acceptance by the Commission of innovative concepts for vehicles replacing conventional cars in short haul traffic and of cars not producing fossil CO₂ as well as a share of cars using alternative fuels or propulsion systems as contributing factors to comply with the Commitment.

Monitoring

The joint ACEA / Commission monitoring procedure should cover:

- 1/** The development of CO₂ emissions based on the collective achievement of reductions on the average EU fleet of new car sales represented by ACEA and according to the above commitments.
- 2/** The development of the CO₂ emissions of non-ACEA car manufacturers for their sales in the EU.
- 3/** Any developments regarding the underlying factors upon which ACEA's Commitment is based.
- 4/** The impact on CO₂ emissions of new regulatory measures.
- 5/** The development of new breakthrough technologies (e.g. natural gas, hydrogen, fuel cells, electric drive), which might be available for production in the next decades, and the impact of the Community's 5th R&D framework programme, which is expected to foster research in this area.
- 6/** The development and the promotion of other measures deemed to reduce fuel consumption, i.e. telematics and optimisation of the infrastructure reducing congestion; driver education for fuel efficient behaviour; driver information on fuel efficiency.
- 7/** The impacts on the financial performance, competitiveness and the employment within the European automotive industry associated with this Commitment.

The Commission's official reports on the monitoring results will not refer to individual companies' achievements, to avoid competition being distorted. ACEA is willing to provide the necessary data to achieve the objectives of the monitoring.

On the basis of the outcome of the monitoring, or if the impacts of this Commitment on the European automotive industry, particularly its employment situation and its global competitive environment, are detrimental, ACEA and the Commission will review the situation and make any necessary adjustments in good faith.

Technical annex to the ACEA commitment on CO₂ emission reductions from new passenger cars

1/ Measuring Procedure

ACEA's proposals have been established according to Directive 93/116/EC, which has been fully implemented as from 1.1.1997, and will be applicable for the coming years. The implementation of this new measuring procedure has led to an artificial average increase of 9% of the CO₂ emission figures, compared to the previously used directive, whereas the CO₂ emissions from cars in the real world have not changed.

2/ Fuels Specifications

Characteristics of the fuels are key factors in car CO₂ emission reductions:

- A/** to achieve further emission reduction together with lowered CO₂ emissions the fuel efficient lean burn technology will be combined with special exhaust gas after-treatment devices capable to reduce NO_x under lean burn conditions. But those systems are only working with fuels meeting specific requirements, in particular a low sulphur content;
- B/** low sulphur fuels ease the NO_x/CO₂ trade-off in favour of CO₂ emission reductions;
- C/** low aromatics in gasoline and a high cetane number in diesel lead to CO₂ emission reduction too.

ACEA acknowledges the outcome of the conciliation procedure between the Council and the European Parliament on 29.6.1998 and upholds its 140 gCO₂/km commitment by 2008. However, ACEA is expecting that fuels of the following better quality might be available in the market due to technical reasons, commercial competition as well as possible national policies:

- A/** Some gasoline (e.g. Super-Plus, 98 octane as agreed in Germany) and some diesel plus with a maximum sulphur content of 30 ppm are provided in 2000 on the whole EU market in a sufficient volume and geographical cover.
- B/** In 2005 full availability of fuels on the whole EU market which satisfy the following:
 - gasoline with a maximum sulphur content of 30 ppm and of a maximum aromatic content of 30%;
 - diesel with a maximum sulphur content of 30 ppm and a cetane number of minimum 58.

Any problems which might arise with respect to fuel quality will be considered in the monitoring procedure.

3 / Review in 2003 / Estimated Target Range

ACEA is willing to contribute to a periodic monitoring of its commitments, jointly undertaken by ACEA and the Commission, which it sees as the main tool to examine the evolution during the period of the Commitment. This should include a joint "Major Review" in 2003, covering both ACEA and non-ACEA developments. This would incorporate the results of CO₂ emission reductions up to and including calendar year 2003, including comparison of that year's fleet average to the estimated target range.

The reduction in CO₂ emissions will not be linear; the pace will notably depend on the timing of availability of the enabling fuels on the market as well as on the lead-times for new technologies and products and their market penetration. The reduction profile is therefore expected to be relatively slow initially and to gather pace later.

Given all the uncertainties and the lead-time necessary for introducing new technologies and models, ACEA considers an appropriate estimated target for 2003 to be within the range of 165-170 gCO₂/km. This is a reduction of 9-11 % compared to the 1995 reference year.

ACEA provides this estimated target range for 2003 on the following basis:

- A/** it does not constitute a commitment of any sort by ACEA;
- B/** the provisions set out under "Monitoring" are fully implemented and any necessary adjustment to the 2008 commitment or the 2003 estimate are made in good faith;
- C/** in particular, fuels of sufficient quality are available - such that fuels issues do not constrain the application of technologies needed to improve fuel efficiency *(SEE POINT 2 ABOVE: Fuels specifications)*.

Commission recommendation of 5 february 1999

ATTACHMENTS

2

*ON THE REDUCTION OF CO₂ EMISSIONS FROM PASSENGER CARS
(NOTIFIED UNDER DOCUMENT NUMBER C(1999) 107)
(TEXT WITH EEA RELEVANCE)
(1999/125/EC)*

The Commission of the European Communities,

Having regard to the Treaty establishing the European Community, and in particular Article 155, second indent, thereof,

Whereas the Commission has proposed a Community strategy to reduce CO₂ emissions from passenger cars and improve fuel economy¹;

Whereas the Council (environment), in its conclusions of 25 June 1996, has invited the Commission to undertake the necessary steps to implement the main elements of this strategy;

Whereas an environmental agreement with the automobile industry is one of the main elements of the Community strategy; whereas both the Commission and the Council believe that such agreement should commit the automobile industry to making the major contribution to the achievement of the overall objective of the strategy to attain a CO₂ emission target of 120 g/km CO₂ on average for newly-registered passenger cars by 2005, and at the latest 2010;

Whereas the European Automobile Manufacturers Association (ACEA), with the support of its member companies manufacturing passenger cars, has adopted a commitment on CO₂ emissions reductions from new passenger cars (hereinafter referred to as the Commitment);

Whereas the Commission is satisfied with the undertakings given by ACEA in its Commitment;

Whereas the Commission acknowledges the assumptions underlying the Commitment and will review the situation together with ACEA and agree to any necessary adjustments to the Commitment in good faith in the event that the assumptions are not borne out;

Whereas the Commitment is based on the requirements of Directive 98/70/EC of the European Parliament and of the Council², although ACEA expects that the market average fuel quality will be better than these legislative requirements;

Whereas the Commission and ACEA agree to jointly monitor the undertakings to the Commitment, the assumptions underlying them as well as certain other developments;

Whereas the Commitment includes the clause that no additional fiscal measures are needed to help ACEA to achieve its CO₂ objectives; whereas the Commitment does not question the right of the Community or its Member States to exercise their prerogatives in the field of fiscal policy as laid down in the strategy; whereas the effect of fiscal measures will be assessed in the context of the monitoring of the Commitment;

Whereas the Commission intends to present a legislative proposal on CO₂ emissions from passenger cars, should ACEA fail to achieve the CO₂ emission objective for 2008 in its Commitment or not make sufficient progress towards this objective (as measured in particular against the estimated target range for 2003 in the Commitment), and should the Commission not be satisfied that such failure is due to factors for which ACEA cannot be held accountable;

Whereas the Commission intends to commit passenger car manufacturers not belonging to ACEA to undertake CO₂ emission reduction efforts which are equivalent to the Commitment for their sales in the Community;

Hereby recommends:

ARTICLE 1

1/ The members of the European Automobile Manufacturers Association (ACEA) should, mainly by technological developments and market changes linked to these developments, collectively achieve a CO₂ emission target of 140 g/km CO₂, as measured according to Commission Directive 93/116/EEC¹, for the average of their new cars sold in the Community (category M1 as defined in Annex I to Council Directive 70/156/EEC)² by 2008. Innovative concepts for vehicles replacing conventional cars and passenger cars not producing CO₂ emissions or using alternative fuels will be counted towards the achievement of this CO₂ emission target even if they are not included in category M1 or are not currently covered by Directive 93/116/EEC.

During monitoring of the Commitment, the ACEA should cooperate with the Commission in identifying the effect of market changes which are not linked to technological development.

2/ The ACEA should evaluate in 2003 the potential for additional fuel-efficiency improvements with a view to moving further towards the objective of 120 g/km CO₂ by 2012.

3/ Individual members of the ACEA should place on the market in the Community models emitting 120 g/km CO₂ or less, as measured according to Directive 93/116/EEC, by the year 2000.

4/ The members of the ACEA should make every effort to achieve collectively an intermediate CO₂ emission target in the range of 165 – 170 g/km CO₂, as measured according to Directive 93/116/EEC, by 2003.

5/ The ACEA should cooperate with the Commission in the monitoring of its Commitment.

ARTICLE 2

This Recommendation is addressed to the European Automobile Manufacturers Association (ACEA).

Done at Brussels, 5 February 1999.

FOR THE COMMISSION

Ritt BJERREGAARD

Member of the Commission

¹ COM(95) 689 final of 20 December 1995.

² OJ L 350, 28.12.1998, p. 58.

³ OJ L 329, 30. 12. 1993, p. 39.

⁴ OJ L 42, 23. 2. 1970, p. 1.

