

Green driving behaviour is one important step towards sustainable mobility.



Vehicle Environmental Engineering
Ford Europe
Dr. Wolfgang Hennig
D-50725 Cologne / Germany
Tel. +49 221 90 33751; Fax: +49 221 90 32760
e-mail: whennig1@ford.com

Ford Eco-Driving

The Clever Move

Greener Driving Behaviour - Towards Sustainable Mobility

Driving Behaviour significantly influences individual and collective fuel economy of vehicles running on the road. Many studies from various authors have already proven a strong **correlation** between **driving style** and **behaviour** on one hand and **fuel economy**, **CO₂** - and other **emissions** on the other. Besides advanced environmental technologies as the "hardware", **clever use of 'greener' vehicles** - as the "software" - is an important way to significantly improve the **environmental performance** of personal transport. Greener driving skills and behaviour enable every consumer to practically contribute to the guiding idea of **Sustainable Mobility**.

Ford Eco-Driving: Little Effort - High Impact

Ford systematically investigated the influence of **driving style** on fuel consumption and CO₂ per kilometer driven. Key result of the Ford studies: Some **25% savings** in terms of resources (fuel) and emission reduction (CO₂) can be achieved when comparing **Eco-Driving style** with "normal-average" driving behaviour. Greener Driving means drivers only have to make **small changes** to have a **high impact** on fuel economy without increasing journey time. Theoretically, based on 25% saving potential, for cars in Germany alone some **25 million tons CO₂** annual reduction is estimated.

Since 1998, Ford in Germany has jointly run a comprehensive test and training programme "**Ford Eco-Driving**" with the German Federation of Driving Instructor Associations and the German Road Safety Council. By 2004, some 7,000 randomly recruited participants tested this **real-world training course**, and extensive **consumer research** - including in-depth psychological interviews and questionnaires - revealed **excellent learning results** and also long-term information retention with **changed behaviour**.

Following these research results from all the partners involved, **Ford Eco-Driving** is so far the only industry-based drivers' eco-training course, founded on in-depth analysis of all relevant psychological, sociological and didactic details. The fine-tuning of Ford Eco-Driving resulted in **three major programmes** designed for various target groups: professional drivers/fleets private drivers. Additionally, **driving instructors** can be seen as a very promising target audience for Ford's train-the-trainer seminars due to their huge **multiplier status** teaching young drivers the "right way to drive". The objective is to **enhance consumers' influence** for a transformation towards **Sustainable Mobility**, complimented by a **new driving culture**.

Ford Motor Company

Ford Motor Company



Clever Move: Clean Driving Techniques



Eco-driving saves fuel and money, benefits the environment, and improves road safety.



Clever Move: Clean Driving Techniques

Anticipate Traffic Situations with cool driving behaviour by looking and thinking ahead

- Helps maintain a steady fuel-efficient speed
- Reduces the need for heavy braking and acceleration
- Enhances relaxed driving style
- Enables co-operative and safer driving style

Ride at low r.p.m. using the highest possible gear (at constant speed)

- Increases fuel economy
- Reduces emissions and noise
- Improves environmental performance / reduces impact of motoring.

Use vehicle's momentum to drive continuously

- Saves energy instead of unnecessary acceleration
- Supports a cooler and smarter driving style

Use auxiliary equipment selectively, like air-conditioning and windscreen heaters

- Optimises overall fuel economy without compromising safety or comfort

Switch off the engine whenever safe to do so (e.g., vehicle's loading & unloading, longer stops in stationary traffic)

- Avoids unnecessary energy consumption of an idle running engine

Check and adjust tire pressure regularly, according to loading and speed driven

- Safeguards optimum economy and additionally contributes to safety

Remove unnecessary cargo from the car to reduce weight.

- Improves fuel economy – less energy needed for acceleration.

Reduce aerodynamic drag whenever possible (loaded or unloaded roof & rear racks, open windows & sun roofs)

- Reduces fuel consumption, esp. at higher speeds – lowering air resistance

Environment

Greener Driving = Milestone of sustainable individual mobility

- Cleaner & more fuel-efficient motoring
- Saving natural resources / fuel
- Reducing CO₂-emissions
- Improving air quality
- Lowering noise level

Consumer

- Cost saving potential
- Advanced "Cool & Smart" driving skills
- Relaxed & safer way of motoring
- Personal contribution to preserving the environment
- Conscious use of individual mobility

Outlook & Challenges

- Long-term objective of a "New Driving Culture"
- Strategy to activate saving potential of 25%
- Multi-stakeholder involvement (Industries, Governments, NGOs ...)
- Governments to support awareness campaigns

