

# Eco-Drive® Simulator Facts & Figures

## Eco-Drive® can also be learned on the drive simulator.

To supplement the evaluation of Eco-Drive® highway courses made in 2000, a study of the Eco-Drive® simulator training was commissioned in early 2001. The present research was motivated by the question as to whether the less complicated simulator training would enable the number of eco-drivers in Switzerland to be increased more efficiently.

## Evaluation of simulator training – positive result!

The Veltheim Driving Center organized Eco-Drive® courses in February/March 2001 in which practical training was given on the drive simulator only. These courses were assessed at the request of the Quality Alliance Eco-Drive® and with the support of SwissEnergy, Swiss Federal Office of Energy SFOE.

With some minor alterations, the test route and questionnaire were identical to those used in the evaluation of the Eco-Drive® road courses. The particulars of 80 persons were recorded for this evaluation.

It was found that the impact is broadly similar to that of conventional courses in which practical training takes place on the highway:

- Eco drivers who have received their practical training on the drive simulator use just as little fuel as persons who have successfully completed traditional Eco-Drive® courses,

- but with a slightly higher average speed.
- As far as drive comfort is concerned (longitudinal and transverse acceleration), eco-drivers who have been trained on the simulator do less well than eco-drivers who have attended traditional courses. This is due in particular to the fact that a simulator can only convey the real sensation of driving to a limited degree.

More persons can be trained in Eco-Drive® much more quickly on the drive simulator. Because the training journeys are not made in a real vehicle, fuel can also be saved. In addition, there is no need for a test track. These facts and the clear fuel consumption and speed measurement results suggest that the practical part of the Eco-Drive® training can increasingly also be conducted on the simulator in future. However, one advantage of simulator training is that course participants generally felt that the drive simulator was a good way of learning economical driving techniques.

### Quality Alliance Eco-Drive®

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## Facts & Figures

### Eco-Drive® – the safe and environmentally friendly driving style

Eco-Drive® is a proven driving style for motorised road traffic that is safe, comfortable, economical, environmentally friendly and fuel-saving. Promoted and implemented by SwissEnergy, Eco-Drive® can actually significantly reduce fuel consumption and pollution. Eco-Drive® can therefore play an important role in realising the targets SwissEnergy has set. The technique is taught in courses offered by different organisations (ASTAG, TCS and Veltheim Driving Center).

### Quality Alliance Eco-Drive® sets standards and assures quality

Established in 1999, Quality Alliance Eco-Drive® was launched by "SwissEnergy" to promote and ensure wide-spread implementation of the Eco-Drive® technique. The alliance is supported by a broad coalition of course providers, transport associations and government agencies and is working in particular toward the development of training standards. The goal is to make Eco-Drive® a quality label – and the driving style of choice for all road users. Another declared aim is to establish the Eco-Drive® technique as an integral part of the driving test throughout Switzerland.

### Evaluation confirms the quality of Eco-Drive® highway courses

Since 1993, some 15 700 persons have received instruction on Eco-Drive® courses. Thanks to these Eco drivers, approximately 1.9 million litres of petrol can be saved per year.

In the spring of 2000, the Federal Office for Energy SFOE commissioned a study to evaluate the effectiveness and sustainability of Eco-Drive® highway courses. Former course participants were surveyed and two groups of 75 people, with and without course training, took part in accompanied test drives. The results show clear and statistically significant differences.

- *Eco drivers use 10 to 15 per cent less fuel than people without course experience – even at a slightly higher average speed.*
- *Eco-Drive® influences positively the ride comfort and vehicle wear and tear.* Eco drivers achieved significantly better measurable values than persons without course experience.
- *Eco drivers remain Eco drivers.* Even if course attendance was two or more years ago, fuel consumption is significantly lower than among people without course experience. The learnt technique is retained on a sustained basis.
- *Theoretical knowledge of basic Eco-Drive® rules alone is insufficient.* Practical experience is essential to master the technique: a clear indication of the benefits of Eco-Drive® training.

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