



THE PEP PARTNERSHIP ON ECODRIVING

Background, achievements and proposed next steps

June 2015

Advantages of EcoDriving

Emissions from transport contribute to an increase of CO₂ concentrations in the atmosphere and thus to global warming. Oil resources are highly stressed by the rising fuel consumption of increasing traffic and exhaust gases of the vehicles affect the health of the population. The number of traffic accidents is still high.



The fuel-saving modern style for driving vehicles, so called "EcoDriving", has great potential to make an important contribution to solve these problems:

- Saving of resources and climate protection: EcoDriving can contribute to a substantial reduction in fuel consumption, thus reduce exhaust gases and greenhouse gas emissions
- Reducing health risks: fewer emissions of harmful substances through EcoDriving
- Enhance traffic safety: EcoDriving reduces the risk of accidents

Results all over Europe prove that educated and trained drivers can easily reach fuel reductions of 5-10% for trucks and buses, even up to 20% for cars by practicing the energy efficient driving style. All this can be achieved without loss of time or driving comfort – on the contrary, average speed is some 5% higher !

Best Practice: EcoDriving at the Austrian National Postbus-Lines



An important result in this regard was the long term statistical evaluation of the fuel consumption of the entire bus fleet of the Austrian National Postbus-Lines. It confirmed:

- fuel savings of 6.5% annually, equal to a
- reduction of diesel fuel consumption of 2 Mio litres,
- cost savings of 3 Million EUR and
- CO₂ emission reduction of 5,000 tonnes

The Austrian EcoDriving Initiative

In 2004, the Mobility Department of the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management in cooperation with the Austrian Energy Agency (AEA) and the Federal Branch Association of Driving Schools started the EcoDriving program in Austria. The program is part of the “klimaaktiv mobil” program aiming to reduce greenhouse gas emissions in the transport sector. The EcoDriving initiative consists of the following elements:

EcoDriving Certification for driver trainers

An EcoDriving certification scheme has been developed and implemented. More than 1,100 trainers for passenger cars, trucks & buses and tractors have been educated and certified as EcoDriving Trainers. EcoDriving handbooks and teaching materials have been prepared for trainers to enable them to teach EcoDriving according to guidelines that guarantee the “klimaaktiv mobil” quality standard.



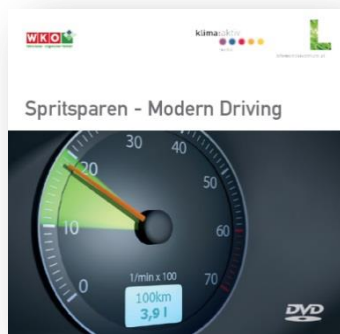
EcoDriving Handbooks for Trainers of drivers of passenger cars, trucks and buses and tractors

EcoDriving training for novice drivers

Every year 90,000 learner drivers complete a practical compact training in Austria. Measurements of fuel consumption during these trainings – before and after instruction – show an average reduction of 14%, thirty percent of the young drivers achieve fuel reductions of more than 20% over a test route of 20 km.

Co-operation with fleet operators to train company drivers

Professional drivers are also subject to EcoDriving trainings, either voluntarily or during their mandatory further education for the renewal of their driving licence.



EcoDriving education materials for drivers (DVD, brochures)

EcoDriving Competitions for drivers

To further motivate and spread the idea of EcoDriving among drivers, competitions of EcoDriving with passenger cars, trucks, buses and agricultural tractors are organised on a regular basis.

THE PEP PARTNERSHIP ON ECODRIVING

At the steering committee meeting of the THE PEP Member States in 2012 it was decided to initiate a partnership for promoting EcoDriving, supported by guidelines and tools to assist the development and implementation of EcoDriving at the national or local level.

Therefore, the new THE PEP partnership on EcoDriving follows up the decision and contributes to the goal 3 of the Amsterdam Declaration reducing emissions of transport-related greenhouse gases, air pollutants and noise by developing capacities to adopt a driving style (“EcoDriving”) that significantly contributes to achieve these goals.

Finally, at the THE PEP conference on 25th of February 2014 taking place in Vienna, the THE PEP partnership on EcoDriving was launched with a kick off workshop.

Scope and purpose

The partnership may address the following elements:

- Disseminate knowledge and best practices about the concept of EcoDriving and approaches to its implementation with cars, trucks and buses and agricultural tractors
- Exchange experiences among partners interested in the promotion of EcoDriving for professional and non-professional drivers;
- Provide opportunities for testing EcoDriving approaches, notably within the context of THE PEP relay/race events, other international and national conferences and events,
- Promote the establishment of technical twinning programs between interested partners;
- Promote the development of harmonized criteria for certification schemes and training materials for trainers and driving schools;
- Develop approaches to the assessment of the effectiveness of EcoDriving and the successful continuation of EcoDriving behaviour over time.

Work program and proposed Activities

On the basis of the lessons learned a proposal for a work program is being made:

- Formation of the EcoDriving Task Force of the THE PEP Member States, its scope and purpose
- Identification of program goals and activities on EcoDriving in the THE PEP Member States
- Support the development of national/regional EcoDriving programs, including twinning programs
- Review and identification of training materials on EcoDriving for light and heavy duty vehicles
- Development of suitable training programs for driver education for cars, trucks and busses
- Assessment and guidelines for developing EcoDriving programs

- Integration of EcoDriving into national regulations for driver training and education

Achievements and milestones

- Decision of THE PEP Steering Committee meeting to establish the THE PEP partnership on EcoDriving, Geneva, Switzerland (November 2012)
- EcoDriving demonstrations conducted on the occasion of THE PEP Workshop on Sustainable Development of Urban Transport, Moscow, Russian Federation (June 2012)
- Presentation of EcoDriving concept and approaches at the THE PEP Workshop on Green and Health-Friendly Sustainable Mobility, Almaty, Kazakhstan (September 2013);
- Launch of the THE PEP partnership on EcoDriving at the klimaaktiv mobil Conference on 25 February in Vienna, Austria
- EcoDriving demonstrations provided at the klimaaktiv mobil Conference on 26 February in Vienna, Austria
- EcoDriving partnership pilot training: Kazakhstan – Austria
 - EcoDriving training for driving teachers 1 - 2 April 2014 in Almaty, Kazakhstan
 - EcoDriving training for bus drivers 3 April 2014 in Almaty, Kazakhstan
 - EcoDriving Workshop 4 April 2014 Almaty, Kazakhstan
- EcoDriving partnership pilot training: Russia – Austria
 - EcoDriving training for bus drivers 21 – 23 September 2014 in Kaliningrad, Russia
 - EcoDriving Workshop 22 September 2014 Kaliningrad, Russia



International klimaaktiv mobil Conference 2014 in Vienna, Austria

Conclusions and Recommendations from the pilot trainings and workshops in Almaty and Kaliningrad

The following general conclusions can be drawn from the **EcoDriving basics training**:

- The EcoDriving training concept (combination of technical information provision, the application of the coaching method, communication techniques and practices) is applicable to the traffic conditions in Almaty and Kaliningrad metropolitan area
- Training results show that the fuel consumption during the training was significantly lower than before:
Almaty/category passenger cars: on average -22% fuel consumption with the DAEWOO and -6% with the Honda CRV in comparison to the default value of the monitoring device before the training.
- EcoDriving in highly congested traffic situations requires specific know-how and skills of trainers and drivers to cope with and to benefit from the advantages of EcoDriving
- The personal advantages of EcoDriving have been recognised and understood by the trained drivers
- Fuel consumption monitoring devices are of crucial importance for the success of EcoDriving as they provide the necessary real-time feed-back information to the driver!
- The provision of technical information to the driver about the vehicles is essential, as the drivers need to know all functions of the control panel in the cockpit.



Pilot EcoDriving training and workshop in Almaty, Kazakhstan

Specific conclusions can be drawn from the **EcoDriving training for buses**:

- The EcoDriving training concept (combination of technical information provision, the application of the coaching method, communication techniques and practices) can successfully be applied to bus drivers and also works under the traffic conditions in the Almaty and Kaliningrad metropolitan area
- Training results show that the fuel consumption during the training was significantly lower than before:
Kaliningrad/category bus: The average fuel consumption of both days was 9.5 l/100 km compared to 13.6 l/100 km measured before the training started, resulting in an overall a reduction of about 30%.
- Provision of technical information about vehicles is essential, as the drivers need to be familiar with all functions of the control panel in the cockpit.
- EcoDriving for buses in highly congested traffic situations requires specific know-how and skills of trainers and drivers to effectively apply EcoDriving.
- Approaching and leaving the bus stop bay/area needs to be trained specifically as there is a big potential for fuel saving.
- Spending more time on explaining and practicing the coaching method is required, as the participants needed time to familiarise with it.
- Participants showed a lot of interest in new developments regarding fuel saving, e.g. new truck designs and requested more information on these subjects.



Pilot EcoDriving training and workshop in Kaliningrad, Russia

Recommendations for national EcoDriving programs

Based on the information gathered and impressions gained at the EcoDriving trainings, the following recommendations and possible next steps were suggested:

- To spread knowledge and practical know-how on EcoDriving, the establishment of a national EcoDriving expert team will be needed
- Develop a strategy for the promotion of the EcoDriving rules, principles and technical background
- Summarise qualification criteria for trainers and driving schools for general certification
- Transfer of know-how and exchange of experiences with other institutions and countries
- Record the results of each EcoDriving training for further analyses and as reference point
- Carry out trainings under real driving conditions and develop supplements of EcoDriving guidelines and tips
- EcoDriving needs a fuel consumption device and comprehensive knowledge of the technical devices in the cockpit. A manual for the drivers explaining the devices in the cockpit should be prepared and made available.

These tasks might be implemented by a national task force, consisting of EcoDriving experts. These experts should develop a framework for the program, especially adapted to the situation in the specific country, and lead the EcoDriving promotion. It should also act as a platform for other stakeholders who are interested in the EcoDriving program and for know-how exchange with other institutions. This organisation would also be the responsible for the certification scheme of EcoDriving trainers.

Partnership Workshop

The pilot trainings and workshops build a good basis for THE PEP partnership on EcoDriving. The pilot training and the knowledge gained from the partnership with Russia was even rewarded with the **2nd place at the ECOMM Best International Policy Transfer Award** with the statement that “the project produced very clear results”.

Anyway it became evident that a number of tasks are needed to support the implementation of national EcoDriving initiatives in the member states. Therefore it is suggested to hold a workshop to discuss the experience from the pilot trainings and for setting next steps with the THE PEP member states. Suggested time for the workshop is autumn 2015!

Main topics for the workshop are:

- Experiences & results from the pilot trainings in Almaty & Kaliningrad
- Review of training materials on EcoDriving for light and heavy duty vehicles and need for national adaptations
- Recommendations for launching national programs, stakeholders and partners needed
- Certification scheme for trainers
- Guidelines for EcoDriving training monitoring and assessment

All THE PEP member states will be invited to join the THE PEP partnership on EcoDriving workshop!