



ECODRIVING

Short-duration training for licensed drivers
and integration into driving education for
learner drivers

Experiences and results from the
ECOWILL project

Publishable final report of the project

ECOWILL

ECODriving – Widespread Implementation for Learner Drivers and Licensed Drivers

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1 Introduction

The subject matter of the ECOWILL project is the sustainable and energy efficient use of motorised vehicles (particularly cars) which is often referred to as 'ecodriving'. Driving a car plays an important role in nearly all societies, and it acts as a status symbol and is often connected with a feeling of freedom and life style. The car is used in areas where other forms of transport are often not a good option, or owning a car is the only opportunity of staying mobile and connected with the outside world. Unfortunately the steady increase in the usage of cars has led to ever increasing traffic congestion and to negative impacts on our environmental and societal life.

1.1 Why eco-driving?

Ecodriving is an efficient way of driving and saving money while still allowing a high degree of flexibility and individuality. Ecodrivers not only save money – but drive more safely, look after their cars and tend to enjoy driving more than ordinary drivers as the techniques reduce stress.



The main obstacles deterring people from eco-driving is the low level of knowledge about this concept within today's society or that they may suspect that eco-driving means slower driving with less fun. Most drivers will already have established their own driving style, preferences and prejudices with which they feel comfortable. In many cases these may be at odds with the principles of eco-driving. This is particularly the case for people that learned to drive in vehicles decades ago, whose driving style may have been well-suited to older vehicles but is not optimised for modern vehicles and engines. Furthermore, many drivers assume incorrectly that eco-driving is easy to put into practice without appropriate practical training and that they are following the eco-driving rules anyway.

1.2 Benefits of eco-driving

Ecodriving offers numerous benefits: It not only saves fuel and money, but it also improves road safety and the quality of the local and global environment.

The most important personal and immediate benefit of eco-driving is the saving of fuel costs. Experience shows that eco-driving can help drivers save as much as 15 % of their regular fuel costs, thus typically saving approximately € 500 in a year. Ecodriving reduces the emission of greenhouse gases as well as local air pollution by reducing fuel consumption. Therefore, if eco-driving becomes the norm rather than the exception, it has the potential to significantly reduce emissions from road transport.



Ecodriving reduces not only fuel costs, but also costs for maintenance and costs for repairing cars after accidents. Ecodrivers cause less wear and tear on car parts (tyres, brakes and engine) and are less prone to accidents.

Passengers of eco-drivers enjoy a more comfortable experience due to a smoother driving style (smooth use of the accelerator, steering, transmission and brakes). Benefits for both drivers and passengers also include increased safety on the roads and less noise generated.

All the benefits mentioned can be achieved in equal or reduced travel time. Experience shows that eco-drivers do not take longer to reach their destination, but are often even faster. This is mostly due to accelerating traffic flow and thus avoiding stops.

Ecodriving represents a driving culture which suits modern engines and makes best use of advanced vehicle technologies.

2 The ECOWILL project

ECOWILL stands for “ECOdriving – Widespread Implementation for Learner Drivers and Licensed Drivers”. The project was supported by the Intelligent Energy Europe Programme of the European Commission and was carried out from 2010 to 2013.

2.1 Partners

The project consortium comprises 15 expert organisations including 13 national organisations representing the 13 partner countries as well as two multinational partners:

The ECOWILL Consortium

- Austrian Energy Agency (AEA), Austria
- Energy Saving Trust (EST), UK
- Motiva Oy, Finland
- VVCR Europe, The Netherlands
- Centre for Renewable Energy Sources and Saving (CRES), Greece
- The Polish National Energy Conservation Agency (KAPE), Poland
- The Energy Efficiency Center (SEVEN), Czech Republic
- Geonardo Ltd., Hungaria
- COWI Lietuva, Lithuania
- Energy Institute Hrvoje Pozar (EIHP), Croatia
- Consorzio TRAIN (TRANsport INnovation), Italy

- RACC (Reial Automobile Club de Catalunya) Foundation, Spain
- German Road Safety Council (DVR), Germany
- European Driving School Association (EFA)
- Federation Internationale de L'automobile – European Bureau (FIA)

2.2 ECOWILL Advisory Board

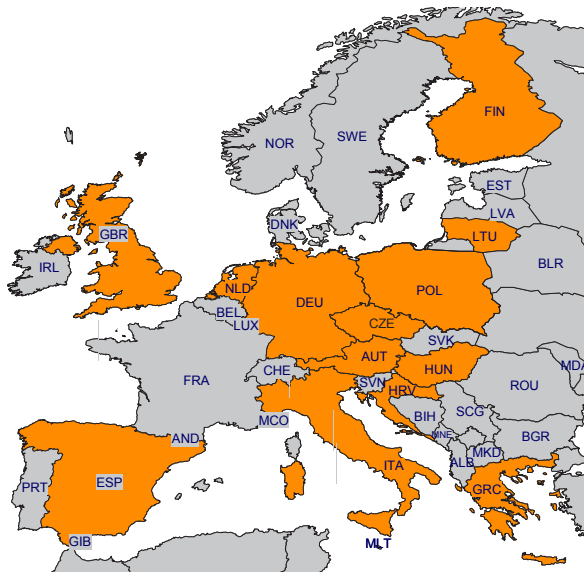
The ECOWILL Advisory Board (EAB), which consisted of seven members each highly experienced in establishing ecodriving structures, assisted and advised the project consortium. The EAB greatly contributed to ECOWILL's activities and helped put ecodriving higher on the European map (and beyond). The seven EAB members were:

- NL Agency, The Netherlands
- Quality Alliance Eco-Drive (QAED), Switzerland
- National Association of Swedish Driving Schools (STR), Sweden
- Ford of Europe
- European Automobile Manufacturers' Association (ACEA)
- LeasePlan Corporation
- International commission for driver testing authorities (CIECA)



The project consortium and members of the ECOWILL Advisory Board

The ECOWILL partner countries



2.3 Initial situation

Ecodriving training courses in the past have proven to work well for companies, especially for truck and bus drivers, as fleet managers can easily see that ecodriving courses have a very short pay-back-period. However, many ecodriving initiatives around the world experienced problems in interesting private drivers in ecodriving training. Studies show that people are generally more interested in technical innovations than in changing their behaviour.

Before the Ecowill project, ecodriving training courses typically lasted one full day or half day. This frequently appeared to be too time-consuming both for private drivers as well as for fleet managers. The ECOWILL short duration training courses were compiled to reduce the amount of time needed for the training to only one hour per driver, while still providing considerable effects.

Regarding driver education, there were (and still are) big differences in the EU as to how ecodriving is incorporated into the driving school curricula and the driver tests. In some of the participating countries ecodriving was part of the driver test and thus of driving lessons. The way in which ecodriving was

taught and examined, however, differed a lot. In other countries no attention was paid at all to ecodriving in either driving lessons or driving tests.

2.4 Main Objectives

The ECOWILL project focused on the following main aspects:

- Establishment of minimum standards for contents and establishment of ecodriving training courses and train-the-trainer seminars
- Development and roll-out of ecodriving short-duration training for licensed drivers
- Integration of ecodriving into driving lessons and driving tests for learner drivers and quality control and harmonisation of driver education and testing procedures with reference to ecodriving
- Qualification and certification of driving instructors for providing ecodriving lessons to learner drivers as well as short-duration ecodriving courses
- Establishment of an ecodriving infrastructure which will keep the approach alive after the end of the project.

The following conclusions and challenges were identified in the preparatory phase of the project:

- Ecodriving knowledge has to be updated and standardised
- Ecodriving has to be mandatory part of the practical examination
- Ecodriving knowledge has to be harmonised between instructors and examiners
- Guidance for a systematic implementation in teaching and testing were required
- Didactical methods of conveying specific content to learner drivers was missing
- Ecodriving has to be put back on the priority list of political stakeholders (on a European and national level)

3 ECOWILL standards

After a comprehensive preparatory phase, a European ecodriving standard was compiled. This standard regarded both ecodriving lessons directed at learner drivers (“level 1”) and conducting short duration training for licensed drivers (“level 2”). It includes content as well as didactics. The standards were integrated into handbooks for train-the-trainer seminars, again both for educating learner drivers and conducting short duration training for licensed drivers. The handbooks are available for free download at <http://www.ecodrive.org/en/downloads/>.

The initial train-the-trainer seminar in each of the participating partner countries was led by German partner DVR for at least 12 driving instructors. Subsequently, these driving instructors served as master trainers to train further driving instructors in their countries. The ECOWILL train-the-trainer seminars lasted two days for level 1 and one further day for level 2.

Within the ECOWILL project, 700 driving instructors have been qualified and certified to be ECOWILL trainers in the participating countries. Train-the-trainer seminars corresponding with the ECOWILL standards will continue in many countries after the end of the project.

Contact details of all driving instructors who were certified as ECOWILL trainers to give short-duration ecodriving lessons to licensed drivers are available at www.ecodrive.org/trainers.

3.1 The Golden and Silver Rules of Ecodriving

There are many smart and safe driving techniques which can lead to significant fuel savings.



One major achievement of ECOWILL, which might well be used in other projects dealing with ecodriving, is the definition of updated ‘Golden Rules of ecodriving’, including the five most important ecodriving tips and some detailed information aimed

at experts such as driving instructors. Furthermore, several ‘Silver Rules of Ecodriving’, including further important ecodriving tips, have been defined. All tips have been updated following a broad discussion among project partners, the ECOWILL Advisory Board and other experts in the field of ecodriving and are in line with the latest engine technology and findings of recent studies on ecodriving techniques.

3.1.1 The Golden Rules of Ecodriving

1. Greater Anticipation

- Anticipate **situations** and other road users as far ahead as possible.
- Maintain a greater distance between vehicles in order to avoid unnecessary acceleration and braking and make maximum use of the vehicle's momentum

2. Maintain a steady speed at low RPM

- Drive smoothly, using the highest possible gear at low RPM

3. Shift up early

- Shift to higher gear by approximately 2,000 RPM

4. Check tyre pressures frequently, at least once a month and before driving at high speed

5. Remember all ancillary loads add to fuel consumption

- Electrical equipment and in particular, air conditioning adds significantly to fuel consumption, so use it sparingly.
- Avoid carrying dead weight and adding unnecessarily to aerodynamic drag e.g. by opening windows at high speed or carrying roof boxes when not in use.

Detailed explanations regarding these ecodriving techniques which are addressed at experts in the field of driving (e.g. driving instructors) are available at http://www.ecodrive.org/en/what_is_ecodriving-/the_golden_rules_of_ecodriving/.

Following the guideline “Safety First”, Ecodriving enables a highly fuel-efficient, smart and relaxed driving style without any loss of time.



3.1.2 Further Eco-driving tips – ‘Silver Rules’ of Eco-driving

1. Fuel-saving starts with choosing a low-emission car

Choose a fuel-efficient model with reduced CO₂-emissions. Diesel vehicles should always be equipped with particulate filters. A fuel consumption display helps you to save fuel. Cruise control and an automatic gearbox can decrease fuel consumption.

2. Avoid short car trips

Avoid short car trips as cold engines need much more fuel per mile. Cold engines need much more fuel per mile than warm engines and cause equivalently more CO₂. On short trips the engine does not reach its optimum operating temperature, increasing wear and reducing durability.

3. Don’t start the engine until there is actually an opportunity to start driving.

Drive off immediately after starting the engine; do not warm up the engine. Idling wastes fuel and the engine warms up more quickly when you are moving.

4. Turn off the engine at stops

Turn off the engine if stationary for a significant time. For most modern engines the ‘break even’ period – at which the fuel saved by turning off exceeds the fuel used to re-start the engine – is around 20 seconds.

5. Use low friction oils and low energy tyres

Make use of the EU-labelling system.

6. Close windows when driving at higher speeds

Open windows increase dynamic drag and consume extra fuel.

7. Check your car regularly and have it serviced

Make sure your car is regularly serviced (according to the manufacturer’s schedule) to maintain engine efficiency.

8. Consider alternative means of transport (cycling, walking, public transport, car sharing, car pooling, park & ride)

Around 25% of all car trips are less than 2 kilometres and 50% of car trips are less than 5 kilometres in length. Choosing to cycle or walk does not only have positive effects on the environment but also on your health and budget. The use of public transport also helps you to save money and to avoid stress and exhaust gases. Consider setting up a car pool with friends/colleagues or try car sharing in order to save fuel and costs.



Please note:

In order to really change driving behaviour and save fuel in the long term, it is a good start to try to follow the Eco-driving tips listed above. However, ecodriving cannot be demonstrated effectively when drivers just try to follow some tips listed, but in order to achieve considerable effects, drivers should also attend an ecodriving training given by a qualified driving instructor. Such training must consist of a theoretical part but also include practical driving on public roads.

4 Short-duration training

Ecodriving short-duration training as established within the ECOWILL project is an intensive one-on-one training in driving techniques and habits aimed at instilling fuel-conscious driver behaviour and lasting usually one hour.

4.1 Target Group

Short-duration ecodriving training is appropriate for all drivers of cars and vans up to 3.5 tonnes Gross Vehicle Weight. The training is effective for high or low mileage drivers, private individuals or company drivers, and newly qualified or highly experienced drivers. Drivers of heavier vehicles should seek specialist heavy-duty vehicle ecodriving training.



Picture: M. Praschl

4.2 Objectives of ECOWILL short-duration ecodriving training

The objectives of short-duration ecodriving training are:

- To convey the three core ecodriving tips (i.e. the first three 'Golden Rules of Ecodriving'. These are the tips that have the greatest impact on fuel consumption.
- To provide drivers with first-hand experience of ecodriving in real world traffic.
- To give drivers an enjoyable and positive experience as this will make them more likely to apply the tips in their normal driving.
- To promote a safe and efficient driving style in a time and cost-effective way.
- The training may also motivate drivers to opt for longer, more in-depth ecodriving training.

4.3 The coaching method

One important component of short-duration training – which distinguishes it from other training concepts – is the use of the coaching method. An ECOWILL trainer is educated to act as a coach for the driver, supporting him in achieving an excellent performance in safe, economical and environmentally friendly driving.

Short-duration ecodriving training does not provide sufficient time for a coach to try to convey all that he knows on the subject. Moreover, the coach's role is not just to impart information but to understand the trainee's interests and objectives and to assess what motivates the individual. In order to change behavioural patterns that have been internalised over years, the coach will try to take account of a driver's social and cultural preconceptions. Overcoming specific objections and deep-rooted concerns of the driver is the key to ensuring that a driver really believes ecodriving is realistic and practical. If a coach can achieve this, the driver will be far more likely to adopt the techniques in day-to-day driving.

The coach becomes an ally and a motivator helping the driver to improve his skills and competences and to achieve his goals.

If we can lay the foundations for self-motivated change in a driver's behaviour and appreciation of the benefits of ecodriving then the driver is likely to continue practicing the techniques and will perhaps even seek more in-depth training. The short-duration training will therefore have been a success.

4.4 Structure of short-duration ecodriving training

For ECOWILL short-duration training, each trainee drives two laps of an identical route on public roads, the first in his normal driving style and the second whilst being coached and adopting ecodriving techniques. Fuel consumption is measured for both laps so the trainee can see the improvement for himself. Discussion and two-way feedback is an integral part of the training, so the training should include a brief 'warm up' discussion before the driving begins and feedback sessions after both laps.

The duration of ECOWILL short-duration training per driver varied in the participating countries from 45

minutes to two hours, which were the limits agreed early on in the project. Most partners opted for around one hour per person.

4.5 Marketing for short duration training

In all countries the training followed the format that had been developed by the project and conveyed to trainers through a series of train-the-trainer seminars. All the training was delivered by ECOWILL certified trainers that had attended one of these seminars. The knowledge and time that went in to developing the highly-effective format of ECOWILL short-duration training, and the fact that the training was standardised across all partner countries, were two of the project's main strengths.

The thirteen national partners ran some excellent, creative marketing campaigns to promote ECOWILL SDT in their countries. These campaigns were diverse in their nature, as was the delivery of the training. This diversity allows for some interesting comparisons which are presented in the report "D 6.2/3 Marketing & Delivery of ECOWILL Short-Duration Training", available at <http://www.ecodrive.org/en/downloads/>.



By far the most popular marketing message used by partners was the financial benefits of reduced fuel consumption. Several partners commented on how the current difficult economic climate has put renewed focus on cost savings in their country and that this helped inform their decision to focus on cost savings. The next most popular messages were the safety benefits and the concept of ecodriving as a better or more modern way of driving. The idea behind promoting ecodriving as better or more modern driving is to position it as an aspirational product that people will *want* to do, rather than something they feel they *ought* to do. It is interesting

to note that none of the thirteen partners led their campaigns with environmental messages. However, the environmental benefit was a popular additional message, featuring in nine of the thirteen national campaigns. Reduced driver stress and ecodriving as a better or more modern way of driving were the next most popular messages.

4.6 Results

Overall, 10,624 ECOWILL short duration training courses were conducted in the thirteen partner countries, which slightly exceeds the project's target numbers.

The participating drivers were very satisfied with the training courses: 98% found that the training was useful for them, 92% expected to be able to drive more energy-efficient in the future and 95% said that they will recommend the training to their friends and colleagues.

However, demand for training was lower than expected and some partners found that unsubsidised training was hard to sell. Ten of the thirteen partners think there is no significant market for selling unsubsidised short-duration training to private drivers in their country. One partner, Greece, thinks there is a large market potential in this area and two partners, Germany and Poland, think there is the potential for smaller or niche markets. Regarding unsubsidised short-duration training for fleet drivers the situation is more positive, with three partners seeing large potential and four seeing smaller or niche market potential. Six partners see no significant market for fleet drivers in their country.

To sum it up, the newly developed concept of short duration training failed to achieve the goal of considerably increasing the demand for ecodriving training (see chapter 8 for more details).

Reduction in fuel consumption

For the ECOWILL short-duration training, the average reduction in fuel consumption seen on the day of training varied from 9.2% to 18.0% among partners, resulting in a weighted mean effect of 14.0% in all 13 ECOWILL countries. This figure refers to the fuel reduction recorded for the second lap compared to the first lap. The long term effect of the training for daily driving is estimated, based on experiences of other initiatives, to be around 7.5%.

5 Ecodriving education for learner drivers

5.1 Blueprint for the harmonisation of driver education and driving testing

As a second main activity, in addition to the short-duration training concept for licensed drivers, ECOWILL focused on the (further) integration of ecodriving into curricula for driver education and driving tests. An expert work group led by EFA (European Driving School Association) and CIECA (the umbrella organisation for bodies responsible for driving tests) was established. As one key output, this group prepared a blueprint for the harmonisation of driver education and driver testing.



The blueprint represents a comprehensive state-of-the-art document which precisely shows how to implement ecodriving aspects into the curricula for driver education and examination. The blueprint addresses both the theoretical and practical parts and provides, among other things, a definition of the capabilities which learner drivers should achieve, the establishment and procedure of specific lessons and guiding questions to be used by driving instructors. In general, the most important step for including ecodriving in learner driver's education is to include all relevant techniques from the very first lesson without overstraining the learners. The educational part is accompanied by guidelines for testing the applicant's competence, which can be used by driving examiners.

The blueprint is highly relevant to all stakeholders in the field and served as the basis for national activities as described in chapter 9. It is available for free download in the document "D 7.4 Blueprint for a Harmonised Ecodriving Curriculum for Driving School Education and Driver License Testing", available at <http://www.ecodrive.org/en/downloads/>.

5.2 Initiative for amendment to the European Directive on driving license standards

One of the project's biggest successes was the initiative to approach the European Commission and recommend amendments to the European Directive 2006/126/EC on driving license standards for category B. The proposal, which was submitted by CIECA on behalf of the ECOWILL consortium, aimed at making ecodriving a compulsory testing element for all driver licence categories, including category B which was excluded before. The recommendation was successfully included in the new Commission Directive 2012/36/EU of 19th November 2012 (amending Directive 2006/126/EC) of the European Parliament and of the Council on driving licences and put into force on January 31st 2013, thus making ecodriving a mandatory element of the practical examination of category B in all European countries. In more specific terms, this means that all EU member states are required to integrate ecodriving in the category B driving test ("marking of the test of skills and behaviour"). By the end of the year 2013, each member state has to report to the Commission how they have fulfilled the requirements of the new directive, i.e. the text of the national enabling legislation which gives the directive legal force in the country.

As a result of the ECOWILL initiative, all EU member states are required to integrate ecodriving in the category B driving test by the end of the year 2013.

This is a success far beyond the expectations at the start of the project and will have a really big impact on driver education and driving examination in all 28 EU-countries.

Further amendments to the European Directive which were proposed to the European Commission by the ECOWILL consortium are currently being discussed. These amendments aim at integrating specific ecodriving skills and energy efficient driving behaviour as described in the ECOWILL project into both the theoretical and the practical parts of the driving test. The final decision regarding the implementation of the further proposed amendments is expected to take place at the end of 2013.

6 Dissemination activities

Various dissemination activities took place within the ECOWILL project. The project website (www.ecodrive.org) was continuously updated with national activities, documents and dissemination material for the general public. The website was visited by approx. 3,000 – 4,000 unique visitors per month.



The ECOWILL website www.ecodrive.org

The ECOWILL project was presented at 28 international events. Additionally, 70 presentations at national conferences took place. Furthermore, ECOWILL was presented in 40 articles in national media or websites (excluding numerous newsletter articles in partners' newsletters). 12 articles were published in international media. ECOWILL was also included in some TV/radio coverage, reaching in total over 4.8 million persons through communication activities.

Examples for the participation at international high-level conferences and events are given below.

➤ AMI Auto Mobil International in Leipzig, 1-10 June 2012

In the context of this motor show, nearly 1,100 private drivers participated in ECOWILL short-duration training.

➤ FIA Conference Week in Prague, Czech Republic, 26-29 June 2012

This conference attracted some 250 representatives from automobile clubs coming from more than 75 different nations. Beside a presentation on the ECOWILL project, short-duration training was offered to delegates.

WHERE THERE'S A WILL, THERE'S AN ECO WAY:

FIA Conference Week sets out on the road to budget-conscious environmental friendliness with week-long ECOWILL demonstrations

Snapshot from the 'FIA Conference Week 2012 Newsletter', 27.6.12

➤ International Transport Forum in Leipzig, Germany, 2-3 May 2012

At this event, some high-ranking ministry representatives from Germany as well as FIA president Jean Todt took part in ECOWILL training.



YouTube Video featuring Jean Todt receiving an ECOWILL certificate

➤ EU Road Safety Day in Nicosia, Cyprus, 25 July 2012

This conference was organised by the EU commission and the Cypriot government in the context of the Cypriot presidency of the EU. The participation of ECOWILL highlighted the safety aspect of ecodriving. An ECOWILL driving simulator was provided for the conference.



Cypriot World Rally Championship driver Spyros Pavlides testing the ecodriving simulator

7 Impact after the end of the action

One major outcome of ECOWILL is that a great many structures have been established and initiatives have begun which will continue after the end of the project period.

One example is that there are 700 ECOWILL trainers qualified who will keep on including ECOWILL contents in their driving lessons and are mostly highly motivated to promote ecodriving further. Many of the ECOWILL trainers will continue offering short-duration training to private drivers. Another example is that in several countries ecodriving initiatives have started which did not exist before the project and are

expected to continue after the end of the project. In the countries in which ecodriving initiatives were already running at the beginning of the project, partners managed to integrate ECOWILL know-how and findings into existing structures. In those countries, where very few ecodriving activities existed at the beginning of the project, the basis was laid for ecodriving to be on the agenda in the future. Overall, the successful amendment of the European directive on driving license standards will have major impact on driver education and driving testing in all 28 EU-countries.

8 Lessons learnt

The three main lessons learnt during the action were

1. ECOWILL short-duration training is hard to sell at market price.

One of the key findings of the project is that it is difficult to market and sell ecodriving training unless it is free, whether to fleet or private drivers. A huge amount of effort and enthusiasm went in to making thirteen diverse and impressive marketing campaigns, and the project met its overall training target, but no partners have yet found the sort of interest or reported gathering momentum that seems likely to see thousands of trainees transform into hundreds of thousands. Indeed several partners reported that they didn't think any of their marketing activities were very successful. Even those partners that are relatively optimistic about future training plans estimate sales of only a few thousand drivers per year.

The difficulty in marketing and selling ECOWILL SDT is no reflection on the model of ecodriving training developed by the project. Indeed all thirteen partners report that trainer feedback on the format of the training was largely or entirely positive and feedback from drivers has also been overwhelmingly positive. More fundamentally it appears to be difficult to persuade large numbers of people to pay for stand-alone ecodriving training. This experience mirrors that of other organisations, including both the AA and the Institute of Advanced Motorists in the UK.

2. In order to be taught in driving schools, ecodriving has to be mandatory part of the practical driving test.

Ecodriving knowledge needs to be harmonised between instructors and examiners and a guidance for a systematic implementation in teaching and testing is required (i.e. the ECOWILL Blueprint).

Subsequently, all driving instructors in the country need to be educated, focusing both on ecodriving contents and didactical methods to convey specific content to learner drivers.

3. The consortium experienced that ecodriving is not on the top priority list of important (political) stakeholders anymore. The majority of projects and activities aiming at reducing fuel consumption of driving deal with technical aspects and focus on improvements of vehicle efficiency. This means that the very important issue of driving behaviour and how to influence it by applying an efficient driving style is neglected.

However, it is very important to continue taking the behavioural side of ecodriving into account. For example, you can drive the most efficient car in a very inefficient way, resulting in no fuel savings at all.

ECOWILL prepared and implemented methods to establish long-term changes in driving behaviour, both for learner and licensed drivers. The ECOWILL consortium is convinced that ecodriving behaviour and the correct use of technologies and tools have to be a central issue on the political agenda, especially at European level.

9 National activities

AUSTRIA

Initial ecodriving situation in the country

The well-established Austrian ecodriving initiative (www.spritspar.at) was launched in 2004 by the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management. The Austrian Energy Agency is responsible for the programme management and started, in cooperation with the Federal Branch Association of Driving Schools and the Austrian Automobile Club ÖAMTC, to define ecodriving rules and develop training programs.



Focal points of the initiative so far have been the following activities:

- Ecodriving certificate for driving instructors – more than 1,000 trainers for passenger cars, trucks & buses and tractors have already been educated and certified as ecodriving trainers.
- Ecodriving championships for drivers were organised for the categories passenger cars, buses and also tractors.
- Training for fleet drivers – in total about 20,000 drivers participated in an ecodriving -training.



- Ecodriving training for novice drivers – since 2008 Austrian novice drivers have been obliged to participate in an ecodriving lesson at the driving school (90,000 learner drivers annually).

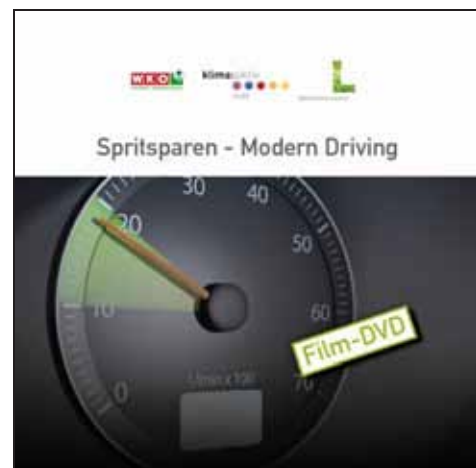
ECOWILL activities in Austria

The activities within the ECOWILL project in Austria focused on build-up of further Know-how for driving instructors, training of driving examiners and the market roll out of short duration ecodriving training.

Several one-day training seminars were organised for Austrian ecodriving trainers to become a certified ECOWILL trainers. The feedback from participants was very positive and the short duration training concept was confirmed to have good market potential. In total 48 driving instructors were certified.



To support driving instructors at their daily work, a DVD explaining the ecodriving rules was produced and distributed to the Austrian driving schools.



To promote the training concept of short duration training, a folder for fleet drivers was produced. The Austrian ECOWILL partner AEA also tried to create a new market by targeting experienced drivers who serve as accompanying persons for the practical training of learner drivers (mainly the parents of the learner drivers). For this new target group a folder was produced too. However, the actual demand for short duration training was lower than expected in Austria, as in total 260 drivers participated in short duration training. A number of future projects, especially training for fleet drivers, are already on track though.



Ecodriving training for Austrian examiners

The ECOWILL project provided the opportunity to approach a new target group: eco-driving training for driving examiners. In cooperation with the federal province of Lower Austria, a pilot training for 24 examiners was started in 2012. The feedback from the examiners was very positive and they also confirmed that eco-driving can be well integrated in the education of learner drivers.



Based on the positive experiences from this pilot training, a further initiative was started: In cooperation with the Ministry for transport, the auditors of Austrian examiners were invited to take part in an eco-driving seminar. The training started in April 2013 in all Austrian provinces. By summer 2013, nearly all 48 Austrian auditors will have completed this further education.

First eco-driving training in Russia ever

In cooperation with THE PEP – the Transport, Health and Environment Pan-European Programme of the UNECE – the Austrian partner AEA presented the potential of eco-driving to political representatives from all over the world: Within a conference in Moscow in June 2012, AEA presented not only the ECOWILL project but organised the first ever eco-driving training in Russia, led by an Austrian ECOWILL master trainer.



Project partner



AUSTRIAN ENERGY AGENCY

Austrian Energy Agency

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The Austrian Energy Agency was founded in 1977 as a non-profit-making scientific association. Its General Assembly comprises some of the most distinguished representatives of the Austrian Energy Sector.

Main purpose and goal of the Austrian Energy Agency is to develop, support and implement measures that aim at a sustainable supply and use of energy.

UNITED KINGDOM

Initial ecodriving situation in the country

The UK was moderately experienced with ecodriving before the ECOWILL project, having participated in the earlier ECODRIVEN project and having previously had two national ecodriving programmes, SAFED and Smarter Driving. There was a reasonable level of awareness of the subject among fleet professionals, but among private individuals and others awareness levels were low.

Forging common links in a diverse industry

From the outset EST recognised that ECOWILL provided an excellent opportunity to bring together key stakeholders from what in the UK is a fairly disparate industry. The train-the-trainer seminars (TTT) in particular were an effective way to foster good dialogue and a healthy exchange of ideas. For example the first TTT seminar in the UK involved independent trainers, trainers from driving schools, the head of key driving instructor trade association, the UK's Deputy Chief Examiner, and in-house trainers from a car manufacturer and a fire & rescue service.



Most trainers joining the TTT seminars arrived with broadly similar understandings of the benefits of ecodriving but with a surprising diversity of opinion about some of the techniques and about the best ways to teach ecodriving. A mark of the success of the TTT seminars was the extent to which most trainers bought in to the ideas presented at these seminars and moved towards a consensus.

In total more than 100 driving instructors were trained to deliver ECOWILL training in the UK. These instructors trained more than 3,800 drivers during the lifetime of the project and are expected to continue to train thousands of drivers after it ends.

Testing a model for commercial, unsubsidised ecodriving training

As ECOWILL progressed it became increasingly apparent in the UK, and elsewhere, that public funding is not going to be available in the foreseeable future to subsidise ecodriving training for genuinely large volumes of drivers: Subsidised programmes might train thousands or even tens of thousands of drivers, but training hundreds of thousands or millions of drivers would require a business model that could be commercially viable without subsidies.



EST therefore decided to design and implement a 'Consumer Pilot Programme' to test just such a commercial model. The programme ran from October 2011 to April 2012 in two locations, Crawley and the Medway towns. ADIs from these two areas were recruited and trained at ECOWILL 'train-the-trainer' workshops and were then allowed to use both the ECOWILL brand and EST's own brand to promote and sell ECOWILL training to private individuals and to small organisations. The training was unsubsidised and ADIs were allowed to set their own prices, but EST supported the programme with high profile and successful PR campaigns and direct marketing to EST's existing contacts in the areas. EST also set up an automated online system that produced certificates for trainees. The main principle was that all of EST's involvement was low cost and, had this pilot been rolled out to a national programme, their costs could have been covered either by a small annual subscription fee per ADI or by modest Government funding.

Unfortunately this pilot produced low number of trainees: The ADIs liked the model and the training

and were generally keen to be involved, but after 6 months they had only trained an average of between two and three drivers each so reluctantly EST concluded that this model was not viable.

However as a pilot project it was a useful informative exercise. ECOWILL provided the opportunity to test this model of unsubsidised training and run the project well, so the results were meaningful and have gone on to shape policy both at EST and more broadly in the UK. EST now believes clearly that there is no significant market for unsubsidised 'stand-alone' ecodriving training but that other solutions must be found such as putting a greater emphasis on ecodriving in the driving test; combining ecodriving with other driver training; or by embedding ecodriving in to formal company policies. For example, in April 2013 EST had discussions with two large organisations – a local authority and a construction company – both of which are considering incorporating ECOWILL training into their mandatory training for new employees.



National ecodriving programme upgrades to ECOWILL training format

In October 2012 the UK's national Smarter Driving programme re-trained the 60+ instructors that deliver the programme and subsequently adopted the ECOWILL training format for all its training. This involved some significant changes both to the content and the delivery of training: The emphasis on a coaching style led to the inclusion of periods of time with the engine off for the driver and the trainer to talk, and for drivers being encouraged to help define their individual training goals. In terms of content, the main changes were introducing trainers to the concept of the Goals for Driver Education (GDE) Matrix and a greater emphasis on the safety benefits of ecodriving. The sharing of international evidence

for the long term fuel savings and safety benefits of short-duration training also proved very beneficial.

Feedback from both trainers and trainees to the adoption of the ECOWILL training format has been positive. Trainers particularly like the emphasis on the coaching ethos and several have also commented on how they are adopting more of a coaching style in their other (non ecodriving) training.

ECOWILL promotes constructive dialogue between policy makers

ECOWILL WP7 provided EST with the opportunity to hold good, constructive discussions with the Driving Standards Agency (the UK driver licencing authority) and the Department for Transport about ecodriving and the driving test, particularly in the context of the forthcoming amendments to Directive 2006/126/EC.

Much of the focus of these discussions was the extent to which ecodriving faults are already likely also to be revealed as safety faults, and whether and how ecodriving can be assessed objectively. These discussions were informed greatly by experience of ECOWILL partners from other counties.

The broad conclusion is that the UK already fully complies with Directive 2006/126/EC and there are no immediate plans for amending the UK position but this dialogue, which would not have happened without ECOWILL, has been constructive and has helped to promote and inform the debate about ecodriving among key UK stakeholders.

Project partner



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The Energy Saving Trust gives impartial, accurate and independent advice to households, communities and organisations on how to reduce carbon emissions, reduce fuel bills, and use water more sustainably.

FINLAND

Initial ecodriving situation in the country

In Finland ecodriving training started back in the 1990's in context of a state-funded programme. At that time two ecodriving training concepts were worked out by Motiva and its co-operation partners:

- 'EcoDriving' was for passenger car and van drivers
- 'KEY' (Environmental Programme for Transport Companies) was for bus and truck drivers.

In the beginning, two-day 'train-the-trainer' seminars were arranged annually in order to improve and maintain the skills of the ecodriving trainers. As a result, about 1,000 driving instructors (class B) were trained and a network of approx. 100 ecodriving driving schools was founded. The 'EcoDriving' training concept was used both for training of learner drivers and licenced drivers.

Public funding, however, decreased in the 2000's, and the two brands eventually divided into several training networks, each having marketing activities of their own. In the 2000's ecodriving for licensed drivers was promoted in two EU projects (TREATISE, ECODRIVEN) and in one national marketing campaign, but no continuous national development or umbrella marketing was going on any more. Consequently, at the time ECOWILL started, no ecodriving programme was running in Finland.

Strong groundwork for building up ECOWILL infrastructure

In Finland, the main focus of the ECOWILL project was as follows

- utilisation of the existing ecodriving trainer network for building up an ECOWILL network
- the main target group was fleet operators, especially company car drivers, whereas private car drivers were informed only through media (articles and press releases)
- marketing was mainly based on existing communication channels of Motiva and its co-operation partners as well as presentations in seminars

The experience from former projects had shown that it is extremely difficult to get private car owners interested in ecodriving training – even if it is offered them for free! Therefore, it was decided to offer free

training only to 'gatekeepers', i.e. persons who are key decision makers in promoting ecodriving training in their organisations. Moreover, free training was offered to key MPs and civil servants dealing with driver training matters on a national level. The idea here was that they experience the benefits of ECOWILL short-duration training personally, especially the balance between traffic safety and fuel economy.

The main conclusion of the project is that ECOWILL short-duration training is a good product and there are motivated and skilful trainers, but for some reasons ecodriving training is very difficult to market. A positive attitude will not always convert into the decision to purchase training.

The difficult economic situation was a major problem during ECOWILL, as organisations typically invested less in training of personnel. In the near future, increasing demand for ecodriving may still come from quality management programmes and environmental programmes. Probably the best way to promote ecodriving training for organisations is to integrate training in existing processes such as company car procurement, an environmental programme and work safety. Ecodriving training as standard procedure could also help to avoid problems which are due to changes of key personnel of organisations.

ECOWILL Finland in numbers

- Four ECOWILL train-the-trainer seminars
- A nationwide network of 32 certified ECOWILL trainers
- In total 284 driver trainings during the project (263 without subsidies).

Building up the ECOWILL trainer network

One of the easiest ECOWILL tasks in Finland was to build up the certified ECOWILL trainer network. Thanks to long ecodriving history, it was not difficult to find committed and skilful trainers from all over Finland. In addition to a train-the-trainer seminar for master trainers (led by German partner DVR), three additional seminars were arranged in order to build up a nationwide certified ECOWILL trainer network. These seminars also provided an excellent

opportunity to discuss and share ecodriving experiences with other professionals. ECOWILL short-duration training was found to be a useful additional product to the existing product category, a one-hour long training is rather close to the existing training courses.



Picture: Kimmo Haimi

Success story2: Free training for 'gatekeepers'

Usually, organisations have dedicated persons in charge of fleet matters, including driver training. Therefore, training of even hundreds of drivers does not necessarily need approval from the individual drivers, as is the case with private car drivers. Fleet managers are normally willing to promote ecodriving training, if they are convinced about its benefits. Free training for such key decision makers, 'gate keepers', was found to be a useful way to market ecodriving, as they could experience for themselves how to reduce fuel consumption and to improve traffic safety. Feedback from these training was positive, and in some cases decisions to train company car drivers have already been made – which indeed was the goal.



Mr. Arto Satonen, The Chairmen of the Transport and Communications Committee did take part in the free training of 'gatekeepers'.

ECOWILL – a stepping stone towards permanent ecodriving promotion in Finland

During ECOWILL it became very clear that instead of individual projects, the promotion of ecodriving is more effective on a continuous, on-going basis. In between some projects, there is very often an idling phase, which may slow down or even stop the promotion of activities owing to lack of funding. As a result of discussions between the Finnish Driving School Association and Motiva Oy, a co-operation plan has been worked out. This plan includes annual two-day Train-the-trainer seminars as well as the provision of regular information for trainers (e-mails, newsletters, etc.). This will help to keep ECOWILL achievements in use after the project. Moreover, marketing of ecodriving training has been integrated in the national Mobility Management programme.



Mr. Skimpy and Mr. Splurge – the same initial situation, but a completely different view about smart driving (figures from the 'Smart Choices for Driving' brochure). Copyright: Harri Tarkka

Project partner

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Motiva-concern is a state-owned expert company promoting efficient and sustainable use of energy and materials. Its services are utilised by the public administration, businesses, communities, and consumers.

NETHERLANDS

Initial ecodriving situation in the country

The well-established initiative regarding ecodriving in the Netherlands (called 'Het Nieuwe Rijden') started to gain publicity in 2000 with TV-commercials. In the Netherlands, ecodriving is supported by the government through the working programme 'Clean and Economical'. Also different parties from different industries worked together in the "Het Nieuwe Rijden network". VVCR Europe is the inventor of the driving training 'Het Nieuwe Rijden'. The first steps to develop this training were taken back in 1995.



Implementation and execution of ECOWILL short-duration training in the Netherlands

The main target audience in the Netherlands were fleet drivers. Large organisations were particularly targeted simply as a means of trying to secure large bookings. Most of the training was in cooperation with existing national lease companies and other large organisations because in the Netherlands it is easier to reach drivers via their employers. The messages that was brought to potential clients were: (1) safety, (2) sustainability, (3) reduced fuel consumption and emissions, (4) fewer accidents and decrease in damages, and (5) reduction in insurance premiums.

To encourage the lease companies and large organisations, a leaflet was developed which was aimed at fleet managers, purchase managers, HR managers and safety, health and environment managers. This leaflet deliberately gave little detail on the content of the training but it tried to sell the idea that a short, easy to organise and on the road training would be the best solution. The leaflet was developed in two languages so it could also be used for international businesses and of course in order to create more word of mouth promotion of short-duration training.

The short-duration training was also promoted via partner organisations, like Veilig Verkeer Nederland

(VVN), Fleetsupport, Ecomobiel and leasing companies.

The general experience and the lessons learned are that it proved to be difficult to sell short-duration training as a stand-alone product. Most clients wanted an integrated approach with a combination of safety (and longer) training, assessments, online modules and monitoring and communication.

In order to keep on promoting and implementing ECOWILL short-duration training after the project has ended, the intention is to make use of a more customised approach depending on the needs of the client/customer and make it part of a total solution.

After the end of the project it is estimated that there will be approximately 3.000 – 5.000 ECOWILL training (including where ECOWILL training is combined with other training) per year for the next few years.

Establishing a cooperation with important stakeholders

Through the implementation process described above, cooperation with key stakeholders in the Netherlands was established, including TERBERG Leasing (TERBERG Greenlease), LEASEPLAN (GreenPlan), LEASE UNLIMITED (Lease Green Unlimited) and Fleet Support (EcoSave plan).

Establishing a close cooperation with LeasePlan

Due to the close cooperation with the important stakeholder LeasePlan, ECOWILL principles and 'Golden/Silver Rules of Ecodriving' have been implemented in LeasePlan's (inter)nationally developed SAFE & ECO program and 'SafePlan'. The roll out of SafePlan will take place in at least 31 countries worldwide in cooperation with LeasePlan.



Establishing a close cooperation with PostNL

Another success story is the roll out of short-duration training for all PostNL drivers (approximately 1000 drivers). This project started in March 2012 and is expected to be finished by the end of 2013.



Participation at Ecomobiel 2012

In October 2012, the participation of VVCR at the Ecomobiel exhibition proved to be very successful because of various reasons:

- The opportunity to give a presentation to decision makers regarding the effectiveness of short-duration training
- The opportunity to organise press conferences for the signing of contracts with important stakeholders like IVDM (an organisation who applies for sustainable mobility) for the education of Dutch examiners and instructors (together with the driving school association BOVAG and CBR, an organisation responsible for driving examination) and the execution of short-duration training for all PostNL employees.



Integration of ecodriving as pass/fail criteria into driving school education and driving examination

Cooperation has been established between CBR/BOVAG/VVCR and IVDM for the successful integration of ecodriving pass/fail criteria into driving school education/driving test. The project has started and the first presentations have been given to the management of CBR. The planning of the education of examiners and driving instructors has also started.

This will be a combined education of 585 examiners and about 10,000 driving instructors. This success is partly due to support of EFA and CIECA.

