

IRU Academy ECO-driving Train-the-Trainer Course Outline

Duration

The Train-the-Trainer programme has been developed to improve the methods, knowledge and skills of trainers who train professional truck drivers. It is a 3-day training programme for a maximum of 3 trainers.

Summary

The objective of this training programme is to brief trainers on the latest ECO-driving behaviour theory and practices and to train them on the implementation of ECO-driving teaching methodology and techniques. It combines theoretical classroom sessions with practical eco-driving exercises on public roads. This course will equip trainers with background information, knowledge, methods and tools to establish and deliver high quality ECO-driving training. During this course, information, teaching references and resources will be presented and reviewed, and trainers will be continually challenged to contribute their know-how through interactive exercises and activities.

Location and facilities

The TTT course will be delivered at the customer premises with the following available facilities:

- Classroom
- Projector / flipchart
- Internet connection

It is important to take into account that during the selection of the training location, a reference route for the practical driving sessions needs to be defined and tested.

Training vehicle requirements

There are many types of heavy goods vehicles / tractors and semi-trailers suitable for ECO-driving training delivery. A heavy goods vehicle ought to provide sufficient cabin space and all required safety features and specifically safety belts. The vehicle's gross weight has to be minimum 10t and the vehicle has to be at least half loaded. The eco-driving techniques acquired during the TTT course are designed to be applied on different types of vehicles. As most transport companies have different types of vehicles (different brands, different gear types, different tyres, etc.) in their fleet, the role of the ECO-driving instructor is to transfer knowledge that can be applied to any truck belonging to the transport company or training centre. Optimal use of the gear box is one of the main topics of the training programme. If the customer has semi-automatic vehicles in his fleet, it is worthwhile having one of these available for training. It is

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possible for drivers to make significant savings even if they are driving trucks with automatic gear boxes. The availability of training vehicles should be discussed with the customer beforehand. It is very important to use customers' vehicles for the training sessions in order to maximise the training output.

As the EETS training tool uses Canbus related signals, the training vehicle needs to have a CAN Bus system (normally found on all vehicles manufactured as from year 2002). In some cases, an interface may need to be installed to enable a connection between EETS (ECO-driving Training System) and the vehicle. Connection of EETS to the vehicle CAN-bus system ought to be provided and pre-tested.

TTT Preparation and requirements

Well-organised preparation will contribute towards the TTT and EDP (1-day driver training) courses being provided in a safe, efficient and effective manner. During the preparation, the EETS training system needs to be installed on the training vehicle. The instructor needs to select the reference route which will be marked on a map. The reference route should be tested several times in order to provide proper measurements. The duration of the reference route should be between 45 and 60 minutes.

TTT course content

The 3-day Train-the-Trainer course covers 5 main subjects, as listed below:

1. Optimum use of technologies available on vehicles:
 - a. Interactive theory and practical driving hints; and
 - b. Technology available on the vehicle.
2. Driving behaviour:
 - a. Anticipation and goals for driver education;
 - b. Observation and anticipation techniques; and
 - c. Eco-driving principles, road safety and environmental impact.
3. Driver training:
 - a. Theoretical overview of different driving styles;
 - b. Identification of driving style by the driver (self-assessment);
 - c. First drive;
 - d. Analysis of driver's driving style (by analysing individual EETS trip report);
 - e. Second drive;
 - f. Best practices (ECO-driving 10 Top Tips); and
 - g. The ECO-driving trainer as a coach.
4. Use of the training and monitoring tool EETS:
 - a. Functions, operations and installation on the vehicle: theory and practice; and
 - b. Data analysis exercises of recorded training trips.
5. Trainers' monitoring and evaluation capabilities:
 - a. Delivery of the EDP course;
 - b. Review, feedback and corrective actions;
 - c. Self-evaluation using specific documents and methods

Target Audience

This TTT course targets existing and potential trainers active in road transport training centres and transport companies. Upon successful completion, trainers will be certified to provide training to drivers undertaking the ECO-driving EDP course.

Programme

DAY1-Do it! (EDP)	PLAN / PHASE	CONTENT
	Welcome 20 mins.	Welcome, administrative matters, ice-breaker Presentation of the 3-day training agenda: Day 1 – Do it! (EDP) Day 2 – Change it! Day 3 – Become an instructor!
	Introduction 35 mins.	Introduction of the instructor and participants. Presentation of the 1 st day training agenda – Do it! Drive ECO: <ul style="list-style-type: none"> • Discuss objectives and expectations • Introduction to the EETS methodology
	First drive 140 mins.	Each trainee will drive a reference trip of about 45 minutes. This drive serves as a test to take objective measurements (with EETS) of the trainees' driving abilities.
	Lunch	
	Feedback 30 mins.	Analysis of trainees' behaviour: <ul style="list-style-type: none"> • Individual analyses of drivers' results based on the output of the recorded trip • Comparison of drivers' perception with the recorded data
	Theory 90 mins.	Interactive presentation and theory of ECO-driving. The following subjects will be addressed: <ul style="list-style-type: none"> ✓ Vehicle technology – does the driver know the vehicle? ✓ Kinematic chain – does the driver demonstrate an eco-driving behaviour? ✓ Anticipation ✓ Observation techniques ✓ Efficiency and environmental impact
	Coffee break	
	Demo 50 mins.	Demonstration by your instructor of the ECO-driving style over the same reference trip.
	Summary 30 mins.	Conclusion of the first day: <ul style="list-style-type: none"> • Knowledge of the ECO-driving principles • Evaluation of driving behaviour • Overview of tasks and challenges for the next two days
	Homework: functionalities of the EETS by use of the EETS Manual	

DAY 2- Change it!	PLAN / PHASE	CONTENT
	Welcome 20 mins.	Welcome, administrative matters, ice-breaker
	Introduction 15 mins.	Presentation of the 2 nd day training agenda – Change it! <ul style="list-style-type: none"> • Exchange of objectives and expectations • Questions, answers and summary of the first day
	Theory 20 mins.	Review of the ECO-driving theory: <ul style="list-style-type: none"> • Analysis of the output of the recorded instructor's demo trip from the first day • Interactive discussion on results achieved and applied eco-driving techniques
	Coffee break	
	Second drive 100 mins.	Change it! Each trainee will drive a second reference trip of about 45 minutes and will be actively coached by the instructor. ECO-driving principles shall be demonstrated to obtain the best possible results. Trainees will increase their level of independence while driving.
		Lunch
	Second drive 50 mins.	Change it! Trainees will continue with a second reference trip in order to have 2 registered training trips per participant.
	Data reporting 30 mins.	Synchronise EETS – theory and procedures on how to synchronise data from the recorded trips. Printing and handout of the EETS reports to every trainee.
	Summary 40 mins.	Analyse driving behaviour: <ul style="list-style-type: none"> • Individual overview and in-depth comparison of the results obtained during the two trips. Dependence between drive parameters and training objectives, theory and practice. Explanation of the major measurements and comment on how they are obtained. • Comparison with drivers' impressions • Selection of best practices and overview of behaviours improvement based on the individual trip reports
20 mins.	Reference trip – Discussion of the importance of a good training trip.	

DAY 3 - Become an instructor!	PLAN / PHASE	CONTENT
	Welcome 20 mins.	Welcome, administrative matters, ice-breaker Presentation of the objectives of Day 3 – Become an instructor!
	Introduction 15 mins.	Presentation of the 3 rd day training agenda – Become an instructor! <ul style="list-style-type: none"> • Exchange of objectives and expectations • Questions, answers and summary of the second day
	Pilot Coaching 150 mins.	Coaching of the trainees. Each trainee will: <ul style="list-style-type: none"> ✓ Install EETS on a vehicle ✓ Register as a trainer ✓ Select a vehicle ✓ Select a trainee and a reference trip ✓ Coach a colleague on ECO-driving principles whilst driving and recording with EETS.
	Lunch	
	Data reporting 30 mins.	Synchronise EETS and theory preparation. Each participant prepares the trip reports and evaluates driving behaviour based on recorded data.
	Pilot Training 120 mins.	Become an instructor! Each participant will conduct a training session, from theory presentation to final assessment by incorporating an analysis of the recorded trip results.
	Coffee break	
	Resources 15 mins.	Supporting tools: <ul style="list-style-type: none"> ✓ EETS manual ✓ EETS check list ✓ KDC help desk
	Summary 30 mins.	Evaluation and trainees' assessment TTT major review Key ECOeffect principles for success
	Evaluation 10 mins.	Training evaluation by the trainees
	Closing	Conclusion Certification ceremony Farewell

ECOeffect Instructor

After the 3-day Train-the-Trainer course, a trainee shall be able to:

1. Explain the ECO issues and the benefits of ECO-driving:
 - a. ECO issues – ecology, economy and road safety; and
 - b. Benefits of ECO-driving – long-term EDP effects accomplished using monitoring skills with the use of a database and ongoing trainee training.
2. Deliver a high quality 1-day EDP training course for drivers:
 - a. to conceptualise and formulate the key 'ECO-driving' messages;
 - b. to transfer the following skills to the drivers:
 - i. Anticipation
 - ii. Safe driving (with effective and economical use of energy)
 - iii. Observation techniques
 - c. to demonstrate the EDP driving skills independently; and

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- d. to connect and operate with the EETS as a training tool and analyse the recorded training data.
3. Report and monitor the effects of the 1-day EDP training course
 - a. Ability to train; and
 - b. Ability to observe.
4. Evaluate and assess eco-driving skills
 - a. Ability to analyse the driver's driving style (by analysing KPI's in EETS trip report).

Each participant will be evaluated after the training by the instructor. A trainee who successfully completes an ECO-driving Train-the-Trainer receives the IRU Academy ECO-driving Instructor Certificate.

Fees

EETS Software license (The EETS consists of the EETS software and a Kvaser Can-Interface with a connection cable. The connection cable is selected in function of the vehicle that it will be connected to).

1. First year: unlimited number of drivers can be trained under this license. The license however is linked to one specific Kvaser Can-Interface.
2. Installation of the EETS software on the customer's laptop computer is €200 per installation
3. Initial Software License (first year) is €1.750. For the following years:
 - a. Fixed annual fee: €1.000
 - b. Access fee is €25 per training delivered by CUSTOMER with the EETS
4. Support & Installation on vehicles:
 - a. Telephone or Online: €80/hour
 - b. On site: €800/day + travel expenses

	Price/Unit	Total year 1
Kvaser Can-Interface	€ 650	€ 650
EETS Cable (trucks)	€ 100	€ 100
Software installation	€ 200	€ 200
Squarell Device (*)	€ 350	€700
Total		€1.650

Contact

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