

# ecoDriver Subproject smart feedback for green driving

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**vti**

FINDING A BETTER WAY

Co-financed by



*ecoDriver*

[www.ecodriver-project.eu](http://www.ecodriver-project.eu)

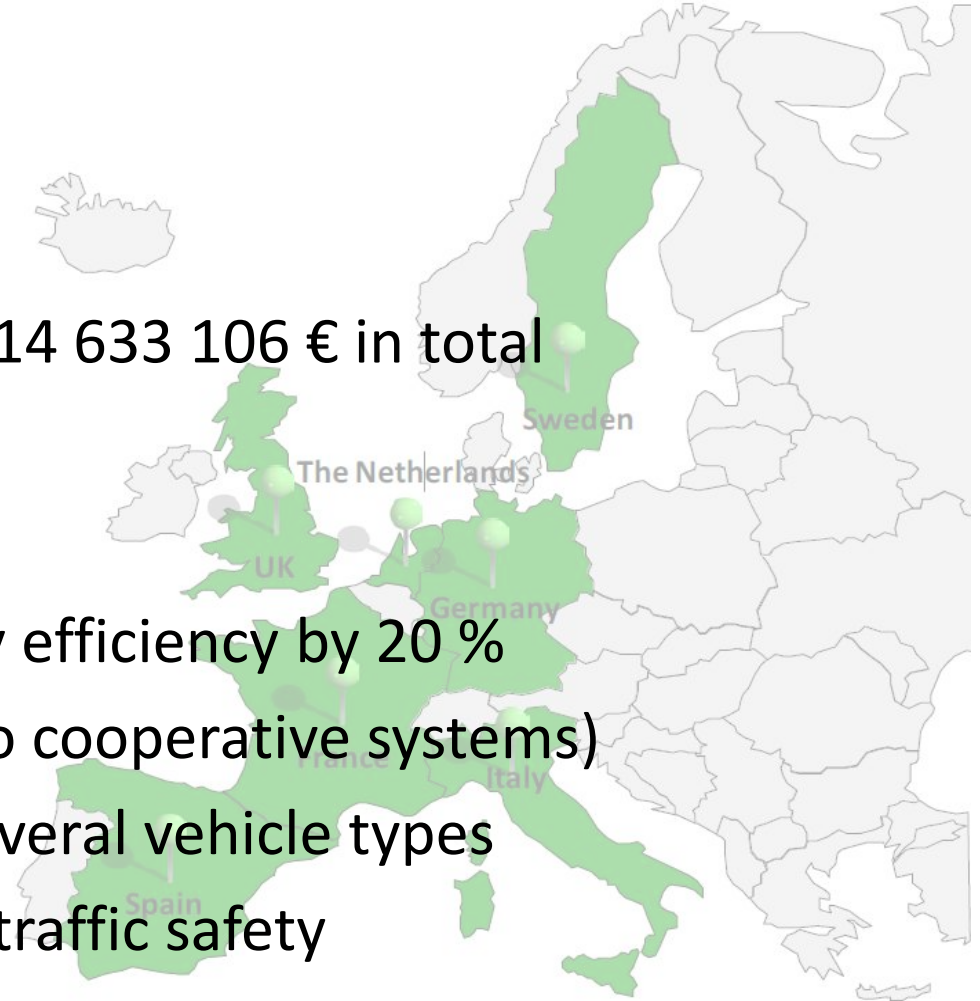
# Overview

## EU Project

- 12 partners
- 4 years (2011-2015)
- 10 700 000 € from EU; 14 633 106 € in total

## Focus

- improvement in energy efficiency by 20 %
- autonomous means (no cooperative systems)
- several powertrains, several vehicle types
- no negative impact on traffic safety



# VTI Contribution within subproject (2 yrs)

## Simulator Study

- evaluate intermittent vs continuous eco driving support
- contribute with these results to finalised system design

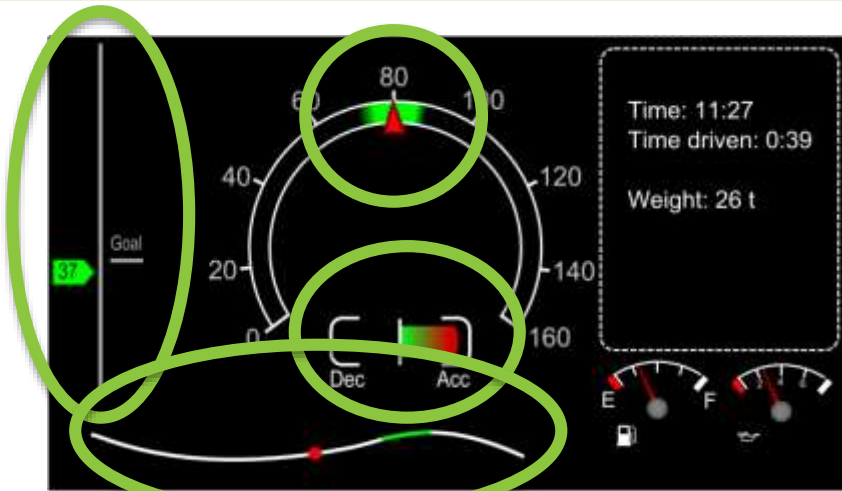
## Preparations/Demonstration Field Study

- integrate the finalised solution in the field test car
- equip field test car with an advanced data acquisition system
- demonstrate the field test car

# Simulator Study

- 👣 **truck simulator (high fidelity with linear motion)**
- 👣 **25 participants (professional truck drivers)**
- 👣 **mean age 40 years ( $\pm$  11.9 years)**
- 👣 **4 x ca. 15 minutes of driving (village, rural road, motorway)**
  - no eco driving support system
  - eco driving support system with continuous display
  - eco driving support system with intermittent display
  - self selected display
- 👣 **high quality glance direction data**
- 👣 **extensive interview after driving**

# Eco driving support systems



goal set by fleet management  
recommended speed zone  
acceleration indicator  
hill climb support



speed warning system  
recommended pedal action  
performance feedback

# Some pictures from the simulator



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# Some results

## **intermittent system appears to be better in terms of glance behaviour**

- generally shorter and less frequent glances
- concentration around periods with display active
- glance behaviour adapted to traffic situation

## **drivers are very positive towards the system**

- customisation important
- intermittent and continuous features equally attractive

## **two manuscripts submitted (one revised)**

# Field study

## **the final prototype of the ecoDriver system will be tested in the field**

- 12 drivers, doing 10 drives of about 1.5 h each
- advanced glance behaviour registration
- data logging of driving behaviour, etc.

## **within subproject**

- planning of experiment
- equipment of vehicle
- testing and demonstration



# Field study so far

👣 equipped vehicle with log instrumentation



👣 piloted equipment

👣 ran first baseline test with 12 participants

# Still to do

## **Field Study**

- install ecoDriver application (not yet received from partners)
- run the remaining 9 trials (until September 2014)

## **Project in general**

- analyse all data for emissions, acceptance and traffic safety
- scale up to European level (including microsimulation and CBA)

# For more information about

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