

PROJECT

## TELEFOT

# TeleFOT - Field Operational Tests of Aftermarket and Nomadic Devices in Vehicles

**Funding:** European (7th RTD Framework Programme)

**Duration:** Jun 2008 - Nov 2012

**Status:** Complete with results

**Total project cost:** €14,141,286

**EU contribution:** €9,703,001



**Call for proposal:** FP7-ICT-2007-2

[CORDIS RCN : 87679](#)

### Background & policy context:

TeleFOT was a Large Scale Collaborative Project under the Seventh Framework Programme, co-funded by the European Commission, DG Information Society and Media and within the strategic objective 'ICT for Cooperative Systems'.

### Objectives:

The objectives of the TeleFOT project were to assess the impacts of functions provided by after-market and nomadic devices in vehicles and raise wide awareness of their traffic safety potential. These devices can provide different types of driver support functions, however, there is limited information with regard to their safety and other impacts.

### Methodology:

The functions to be tested covered two broad areas and promoted:

1. Safe driving
2. Economic and fuel efficient driving

More specifically, these were Speed information, Traffic information, Road weather information and 'Green driving' support. The impacts were assessed on levels ranging from usability, behaviour and incidents, safety, Green Driving and efficiency, to the impacts on the transport system. Attention was also given to possible negative impacts, as smartphones in particular, are not originally designed for vehicle use and navigators may have problems with the fixing and positioning in the cockpit. The project also aimed at speeding up the penetration of systems able to 'see' beyond drivers' field of vision in conditions where good situation awareness is needed. TeleFOT provided opportunities to test the impacts of similar functions that future cooperative systems will provide after their development challenges have been overcome in the coming years.

In fact, aftermarket and nomadic devices will provide an alternative to some important cooperative driving and ADAS functions for many years to come. The concept comprised of creating three European test communities: Northern, Central and Southern. About 3000 drivers participated in the tests and the project had strong national support and no resources were needed for setting up the testing infrastructures. Business models were also studied. It was necessary to have test communities spanning from North to South, as traffic behaviour and reactions to safety measures in Europe are very different.

### Parent Programmes:

[FP7-ICT - Information and Communication Technologies](#)

**Institute type:** Public institution

**Institute name:** European Commission

**Funding type:** Public (EU)

## Lead Organisation:

### Teknologian Tutkimuskeskus Vtt

**Address:**

TEKNIIKANTIE 21  
02150 ESPOO  
Finland

**Organisation Website:**

<http://www.vtt.fi>

**EU Contribution:** €1,715,035

## Partner Organisations:

### Magneti Marelli Sistemi Elettronici S.p.a.

**Address:**

VIALE ALDO BORLETTI 61/63  
20011 CORBETTA  
Italy

**EU Contribution:** €0

### Blom, Sistemas Geoespaciales, S.I.U.

**Address:**

Calle Alcala 492  
28027 Madrid  
Spain

**EU Contribution:** €76,500

### Vaegverket

**Address:**

ROEDA VAEGEN 1  
781 87 BORLAENGE  
Sweden

**EU Contribution:** €50,262

### Mira Limited

**Address:**

WATLING STREET  
NUNEATON WARWICKSHIRE  
CV10 0TU  
United Kingdom

**Organisation Website:**

<http://www.mira.co.uk>

**EU Contribution:** €358,125

### Broadbit Hungary Fejlesztő Es Tanácsadó Kft

**Address:**

Kolozsvár Utca  
Budapest  
1028

Hungary

**EU Contribution:** €258,150

**Orange France**

**Address:**

Avenue Nelson Mandela 1  
94745 arcueil cedex  
France

**EU Contribution:** €0

**Ethniko Kentro Erevnas Kai Technologikis Anaptyxis**

**Address:**

Charilaou Thermi Road  
57001 Thermi Thessaloniki  
Greece

**Organisation Website:**

<http://www.certh.gr>

**EU Contribution:** €353,250

**Mediamobile Nordic Oy**

**Address:**

Jamsankatu  
520 Helsinki  
Finland

**EU Contribution:** €44,759

**Fundacion Cidaut**

**Address:**

PLAZA VICENTE ALEIXANDRE CAMPOS 2 PQ TECNOLOGICO DE BOECILLO 209  
47151 VALLADOLID  
Spain

**Organisation Website:**

<http://www.cidaut.es>

**EU Contribution:** €555,100

**Centro Ricerche Fiat - Societa Consortile Per Azioni**

**Address:**

Strada Torino, 50  
10043 ORBASSANO (TO)  
Italy

**Organisation Website:**

<http://www.crf.it>

**EU Contribution:** €339,360

**Rheinisch-Westfaelische Technische Hochschule Aachen**

**Address:**

Templergraben  
52062 Aachen

Germany

**Organisation Website:**

<http://www.rwth-aachen.de>

**EU Contribution:** €426,800

**Universite De Technologie De Belfort - Montbeliard**

**Address:**

RUE DU CHATEAU 10  
90400 SEVENANS  
France

**Organisation Website:**

<http://www.utbm.fr>

**EU Contribution:** €216,000

**Elektrobit Oyj**

**Address:**

Automaatitietie  
90460 Oulunsalo  
Finland

**EU Contribution:** €0

**Trafikverket**

**Address:**

RodaVagen 1  
781 89 BORLANGE  
Sweden

**Organisation Website:**

<http://www.trafikverket.se>

**EU Contribution:** €246,423

**Telefonica Investigacion Y Desarrollo Sa**

**Address:**

Ronda De La Comunicacion S/n Distrito C Edificio Oeste I  
28050 Madrid  
Spain

**EU Contribution:** €190,165

**Meta System S.p.a**

**Address:**

Via Majakovskij 10 Bcde  
42100 Reggio Emilia  
Italy

**EU Contribution:** €135,000

**Emtele Oy**

**Address:**

Helakallionkatu  
33580 Tampere

Finland

**Organisation Website:**

<http://www.emtele.com>

**EU Contribution:** €375,480

**Electronic Trafic Sa**

**Address:**

Calle Tres Forques 147  
46014 Valencia  
Spain

**EU Contribution:** €325,486

**Rucker Lypsa SI**

**Address:**

Carretera Del Prat Poligono I Parcela 65 B  
8940 Cornella  
Spain

**EU Contribution:** €96,312

**Allgemeiner Deutscher Automobil - Club E. V. (Adac E.v.)**

**Address:**

Am Westpark 8  
81373 MUNCHEN  
Germany

**EU Contribution:** €168,500

**Loughborough University**

**Address:**

Ashby Road  
Loughborough  
LE11 3TU  
United Kingdom

**Organisation Website:**

<http://www.lboro.ac.uk>

**EU Contribution:** €1,230,900

**Here Global B.v.**

**Address:**

KENNEDYPLEIN 222  
5611 ZT EINDHOVEN  
Netherlands

**EU Contribution:** €137,200

**Institute Of Communication And Computer Systems**

**Address:**

Patission  
10682 Athens  
Greece

**Organisation Website:**

<http://www.iccs.gr>

**EU Contribution:** €665,804

**Universita Degli Studi Di Modena E Reggio Emilia****Address:**

VIA UNIVERSITA 4  
41121 MODENA  
Italy

**Organisation Website:**

<http://www.unimore.it>

**EU Contribution:** €461,360

**Cgi Suomi Oy****Address:**

Garverigranden 2  
380 Helsinki  
Finland

**EU Contribution:** €67,808

**Magneti Marelli S.p.a.****Address:**

VIALE ALDO BORLETTI 61/63  
20011 MILANO  
Italy

**EU Contribution:** €178,419

**Chalmers Tekniska Hoegskola Ab****Address:**

-  
41296 GOTHENBURG  
Sweden

**Organisation Website:**

<http://www.chalmers.se>

**EU Contribution:** €1,013,408

**Destia Oy****Address:**

Kumpulantie 11  
520 Helsinki  
Finland

**EU Contribution:** €17,395

**Technologies:**

Safety systems  
Evidence-based research for road safety

**Development phase:** Validation

**Key Results:**

TeleFOT constituted the largest pan-European field trial of functions provided by in-vehicle aftermarket and nomadic devices that has been conducted to date. During its lifetime, the project has utilised and further developed the methodology of Field Operational Tests to assess the impacts of functions provided by these devices in several domains including safety, efficiency, environment, mobility and user uptake. Some of the issues addressed within the FOTs included whether the functions cause distraction, improve traffic efficiency, increase travel speeds and help the driver to avoid congestion.

Mobility implications:

- Although the absolute impacts of driver support functions that aftermarket and nomadic devices provide are not high, they are positive in various dimensions of personal mobility.

Efficiency implications:

- Navigation support and traffic information is of primary importance for improving traffic efficiency
- Speed information /alerts provide longitudinal control but overall their effects seem to be secondary
- Green driving appears to have a conflicting effect to traffic efficiency
  - Increases travelling time
  - Decreases time spent with dangerously small headways (when paired with Advanced Driver Assistance Systems)
- The implementation of traffic information is positive from the perspective of the driver, however, the macroscopic effect for other road users and road operators requires further studying with various penetration rates to holistically assess traffic efficiency
- Actual, long-term impacts will be assessed within this decade, both within Europe and world-wide, as their exponential penetration is apparently inevitable
- The future innovative devices will most likely integrate more complex functions and will lead the way to hyper systems and the deployment of enhanced co-operative systems

Environmental impact:

Navigation support, traffic information, speed limit information / speed alert could not be proved as being beneficial for the environment with the available data. Additionally, no negative influences of these functions could be recognised

Safety implications:

In general, only very small changes in indicators for safety were observed and so it cannot be concluded that the functions have a significant impact on safety.

## Strategy targets

- An efficient and integrated mobility system
- Innovating for the future: technology and behaviour

Documents:

 [Project presentation \(Project presentation\)](#)

**STRIA Roadmaps:** Cooperative, connected and automated transport

**Transport mode:** Road transport

**Transport sectors:** Passenger transport

**Transport policies:** Environmental/Emissions aspects, Societal/Economic issues

**Geo-spatial type:** Other