PROJECT

DRUID

Driving Under the Influence of Drugs, Alcohol and Medicine

Funding: European (6th RTD Framework Programme)
Duration: Oct 2006 - Oct 2011
Status: Complete with results
Total project cost: €23,812,601
EU contribution: €18,932,265

Call for proposal: FP6-2004-TREN-3
CORDIS RCN: 86365

Background & policy context:

The short-term strategic objective of the European Commission is to halve the number of road fatalities by 2010 and the medium-term objective is to reduce the number of persons killed or seriously injured in road accidents by 75% by 2025.

One of the major causes of road accidents is impaired driving due to the consumption of psychoactive substances such as alcohol, drugs and certain medicines. While significant progress has been made in driver education and training, our knowledge about the effects of psychoactive substances on road safety is limited. Most efforts have concentrated on drink-driving, and although this remains a problem which requires further efforts, substantial progress has been made in reducing drink-driving in the EU in recent years.

On the other hand, knowledge of the issue of drugs and medicines is limited. Societal changes have led to driving impairment due to drugs and medicines being as widespread as drink-driving, for example with the increase in illegal drug use among younger people in particular, as well as an aging society with increasing need for medicines which, while legal, can often affect driving aptitude.

Objectives:

The objective of DRUID was to give scientific support to EU Transport Policy to reach road safety targets by establishing guidelines and measures to combat impaired driving.

The project aimed to provide the following:

- reference studies on the impact on fitness to drive for alcohol, illicit drugs and medicines, giving information on the real degree of impairment caused by each substance and their actual impact on road safety;
- recommendations for the definition of analytical and risk thresholds;
- analysis of the prevalence of alcohol and other psychoactive substances in accidents and in general driving, including setting up a database;
- evaluation of good practice for detection and training measures for road traffic police allowing legal monitoring of drivers;
- a classification system of medicines affecting driving ability, recommendations for its implementation and a framework to position medicines according to a labelling system;
- evaluation of the efficiency of prevention, penalisation and rehabilitation strategies, considering the difficulties of appropriate evaluation strategies for combines substance use; recommendations on good practice;
- a definition of strategies for driving bans, combining road safety objectives with mobility needs;
- a definition of the responsibility of health care professionals for patients consuming psychoactive substances and their impact on road safety, including drawing up of guidelines and making information available and applicable for all European countries.

Methodology:
DRUID activities were implemented in seven scientific Work packages. A description of the problem situation of driving under the influence of psychoactive substance (DUI/DUID) was generated in WP1 and WP2 based on experimental and epidemiological studies, whereas the remaining five Work Packages focused on countermeasures to combat DUI/DUID.

The major work contents of the scientific Work packages were:

- Data on prevalence of psychoactive substances in the general driving population was collected in roadside surveys conducted in 13 European countries according to a uniform study design. For this purpose samples of body fluids of approximately 50 000 randomly selected drivers have been analysed (WP2).
- Risk estimates for driving under influence of psychoactive substances have been derived from the case-control study in which data of the roadside surveys was linked to the data of approximately 4 500 drivers seriously injured or killed in an accident (WP2).
- Characteristics of drivers tending to drive under the influence of psychoactive substances were identified (WP2).
- A description of the current state of research on the impact of alcohol, illicit drugs and medicines on driving was given based on meta-analyses and reviews (WP1).
- 13 driving tests were conducted according to a uniform study design to close knowledge gaps on the impact of major illicit drugs and medicines on driving performance (WP1).
- Oral fluid screening devices and checklists for identifying clinical signs of impairment have been evaluated (WP3).
- A cost-benefit analysis of increased anti-drug enforcement through traffic police was done (WP3).
- A four level classification and labelling system for medicines regarding their influence on driving performance was created (WP4).
- The most comprehensive database on European rehabilitation schemes and measures as well as on quality assurance measures for rehabilitation programs was established (WP5).
- A compilation of practices of driving license withdrawal in Europe and recommendations concerning best practice for withdrawal/ licensing strategies was made (WP6).
- Guidelines for health care professionals on prescribing and dispensing medicines were developed taking their impact on driving performance into account (WP7).
- Recommendations on how to disseminate the DRUID results to different target groups, i.a. general public, young drivers, patients, health care professionals, policy m

Parent Programmes:
FP6-SUSTDEV-2 - Sustainable Surface Transport

Institute type: Public institution
Institute name: European Commission
Funding type: Public (EU)

Lead Organisation:

**Bundesanstalt Für Strassenwesen (Federal Highway Research Institute)**

**Address:**
Brüdenstrasse 53
51427 BERGISCH GLADBACH
Germany

**Organisation Website:**
http://www.bast.de

**EU Contribution:** €0

Partner Organisations:

**Maastricht University, Faculty Of Psychology**

**Address:**
Universiteitssingel 40
MAASTRICHT
Netherlands

**EU Contribution:** €0
<table>
<thead>
<tr>
<th>Organisation</th>
<th>Address</th>
<th>EU Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jefatura Central De Trafico</td>
<td>JOSEPHE VALCARCEL 28, 28027 MADRID, Spain</td>
<td>€0</td>
</tr>
<tr>
<td>University Of Groningen</td>
<td>Oude Boteringestraat 44, GRONINGEN, Netherlands</td>
<td>€0</td>
</tr>
<tr>
<td>Sipsivi Societa Italiana Di Psicologia Della Sicurezza Viaria</td>
<td>Via XXVIII Aprile n 7, CUNEO, Italy</td>
<td>€0</td>
</tr>
<tr>
<td>Centre Of Post-Graduated Studies In Legal Medicine Of The National Institute Of Legal Medicine Of Portugal</td>
<td>Largo da Se Nova, COIMBRA, Portugal</td>
<td>€0</td>
</tr>
<tr>
<td>Kuratorium Fur Verkehrssicherheit</td>
<td>Siebenbrunnengasse 21, VIENNA, Austria</td>
<td>€0</td>
</tr>
<tr>
<td>Institute Of Forensic Medicine, Ludwig - Maximilians University</td>
<td>Postfach 151023 Nubnauerstr, 26, MUNICH, Germany</td>
<td>€0</td>
</tr>
<tr>
<td>Norwegian Institute Of Public Health</td>
<td>Lovisenberggaten 6, OSLO</td>
<td>€0</td>
</tr>
<tr>
<td>Organisation</td>
<td>Address</td>
<td>EU Contribution</td>
</tr>
<tr>
<td>--------------</td>
<td>---------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Norway</td>
<td></td>
<td>€0</td>
</tr>
<tr>
<td>Motor Transport Institute</td>
<td>Jagiellonska Str. 80, WARSAW, Poland</td>
<td>€0</td>
</tr>
<tr>
<td>Mykolas Romeris University</td>
<td>S. Zukausko 12, VILNIUS, Lithuania</td>
<td>€0</td>
</tr>
<tr>
<td>Universite De Caen - Basse Normandie</td>
<td>Esplanade de la Paix, CAEN CEDEX, France</td>
<td>€0</td>
</tr>
<tr>
<td>Republika Slovenija, Ministrstvo Za Promet</td>
<td>Trzaska 19, LJUBLJANA, Slovenia</td>
<td>€0</td>
</tr>
<tr>
<td>Institute Of Forensic Research</td>
<td>Westerplatte 9, KRAKOW, Poland</td>
<td>€0</td>
</tr>
<tr>
<td>Statens Geotekniska Institut</td>
<td>Olaus Magnus Vag 35, 58193 Linkoping, Sweden</td>
<td>€0</td>
</tr>
</tbody>
</table>
Technical University Of Denmark

Address:
Anker Engelundsvej 1
2800 KGS. LYNGBY
Denmark

Organisation Website:
http://www.dtu.dk
EU Contribution: €0

Universidad De Valladolid

Address:
Plaza Santa Cruz 8
47002 Valladolid
Spain

Organisation Website:
http://www.uva.es
EU Contribution: €0

Centre Regional De Pharmacovigilance

Address:
Postbox
GRENOBLE
France
EU Contribution: €0

Universitatsklinikum Heidelberg

Address:
Im Neuenheimer Feld 672
HEIDELBERG
Germany
EU Contribution: €0

University Of Copenhagen

Address:
Norregade 10
COPENHAGEN
Denmark
EU Contribution: €0

Ift Institut Fur Therapieforschung

Address:
Parzivalstr. 25
MUNICH
Germany
EU Contribution: €0

Transportoekonomisk Institutt Stiftelsen Norsk Senter For Samferdselsforskning
<table>
<thead>
<tr>
<th>Organization</th>
<th>Address</th>
<th>EU Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRENSESVINGEN 7</td>
<td>0661 OSLO Norway</td>
<td>€0</td>
</tr>
<tr>
<td>Korps Landelijke Politiediensten</td>
<td>Hoofdstraat 54 DRIEBERGEN Netherlands</td>
<td>€0</td>
</tr>
<tr>
<td>U.o.c. Tossicologia Forense E Antidoping - Azienda Ospedaliera - Universita Di Padova</td>
<td>Via G. Fallopio n. 50 PADOVA Italy</td>
<td>€0</td>
</tr>
<tr>
<td>National Public Health Institute</td>
<td>Mannerheimintie 166 HELSINKI Finland</td>
<td>€0</td>
</tr>
<tr>
<td>Business Unit Of Tno Built Environment And Geosciences</td>
<td>Van Mourik Broekmanweg 6 2628 XE DELFT Netherlands</td>
<td>€0</td>
</tr>
<tr>
<td>Organisation Website:</td>
<td><a href="http://refit.bouw.tno.nl/">http://refit.bouw.tno.nl/</a></td>
<td></td>
</tr>
<tr>
<td>University Of Szeged</td>
<td>Dugonicster 13 SZEGED Hungary</td>
<td>€0</td>
</tr>
<tr>
<td>University Of Groningen</td>
<td>Oude Boteringestraat 44 GRONINGEN Netherlands</td>
<td>€0</td>
</tr>
<tr>
<td>Organisation</td>
<td>Address</td>
<td>EU Contribution</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>-----------------</td>
</tr>
</tbody>
</table>
| Institut National De La Recherche Sur Les Transports Et Leur Securite | 2 Avenue du General Malleret Joinville  
94114 ARCUEIL  
France                            | €0                                           |
| Centrum Dopravniho Vyzkumu V.v.i.                    | Lisenska 33a  
636 00 BRNO  
Czech Republic                          | €0                                           |
| Bayerische Julius-Maximilians Universitaet Wuerzburg | Sanderring 2  
WUERZBURG  
Germany                                | €0                                           |
| Universiteit Gent                                    | Sint Pietersniewstraat 25  
9000 Gent  
Belgium                                   | €0                                           |
| Institut Belge Pour La Sécurité Routière             | Chaussée de Haecht, 1405  
BRUXELLES  
Belgium                               | €0                                           |
| Swov Institute For Road Safety Research              | DUINDOORN 32  
2260 AR LEIDSCHENDAM  
Netherlands                           |                 |
EU Contribution: €0

**Centre For Research And Technology-Hellas**

**Address:**
6th km. CHARILAOU-THERMI ROAD
361 THERMI-THESSALONIKI
Greece

**Organisation Website:**
http://www.certh.gr; http://www.cperi.certh.gr

EU Contribution: €0

**Tuv Rheinland Consulting Gmbh**

**Address:**
Am Grauen Stein
51105 Koeln
Germany

**Organisation Website:**
http://www.forschungsmanagement.de; http://www.tuvpt.de

EU Contribution: €0

**Key Results:**

DRUID was the largest European research project in the domain of road safety in terms of geographic coverage (18 European countries), budget (€ 23.5 Million) and number of partners (37 partners). It brought together the best European expertise in the area of road safety.

The main results achieved by DRUID at a glance:

- Methodological framework for integrating results of experimental and epidemiological studies
- International database of samples collected Europe-wide from 50 000 drivers and 3 000 injured drivers using uniform study design
- Recommendations concerning the practical use of oral fluid screening devices and Cost-Benefit Analysis of increased enforcement applying such devices
- European consensus on 4-level-classification system for medicines (more than 600 medicines reviewed and classified)
- Overview of European rehabilitation schemes, including recidivism reasons analysis, quality assurance measures and recommendations concerning best practices
- Recommendations for improving medical guidelines (assessing fitness to drive for patients using psychotropic medicines)

DRUID’s final results were presented at the Final Conference in September 2011 at Cologne. All articles, abstracts, presentations and and reports from the project are found on the project website [https://www.bast.de/Druid/EN/deliverales-list/deliverables-list-node.html](https://www.bast.de/Druid/EN/deliverales-list/deliverables-list-node.html) under section 'Deliverables'.

Documents:
- [DRUID – review and perspective (Project presentation)](https://www.bast.de/Druid/EN/deliverales-list/deliverables-list-node.html)

**STRIA Roadmaps:** Other specified

**Transport mode:** Road transport

**Transport sectors:** Passenger transport, Freight transport

**Transport policies:** Safety/Security

**Geo-spatial type:** Network corridors