

Fit to Drive

6th International Traffic Expert Congress

Barcelona from 26th – 27th April 2012



Welcome

DRUID - Driving under the Influence of Drugs, Alcohol and Medicines

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1. The DRUID-Project and its objectives

2. Main results

- **Problem situation**
- **Countermeasures**

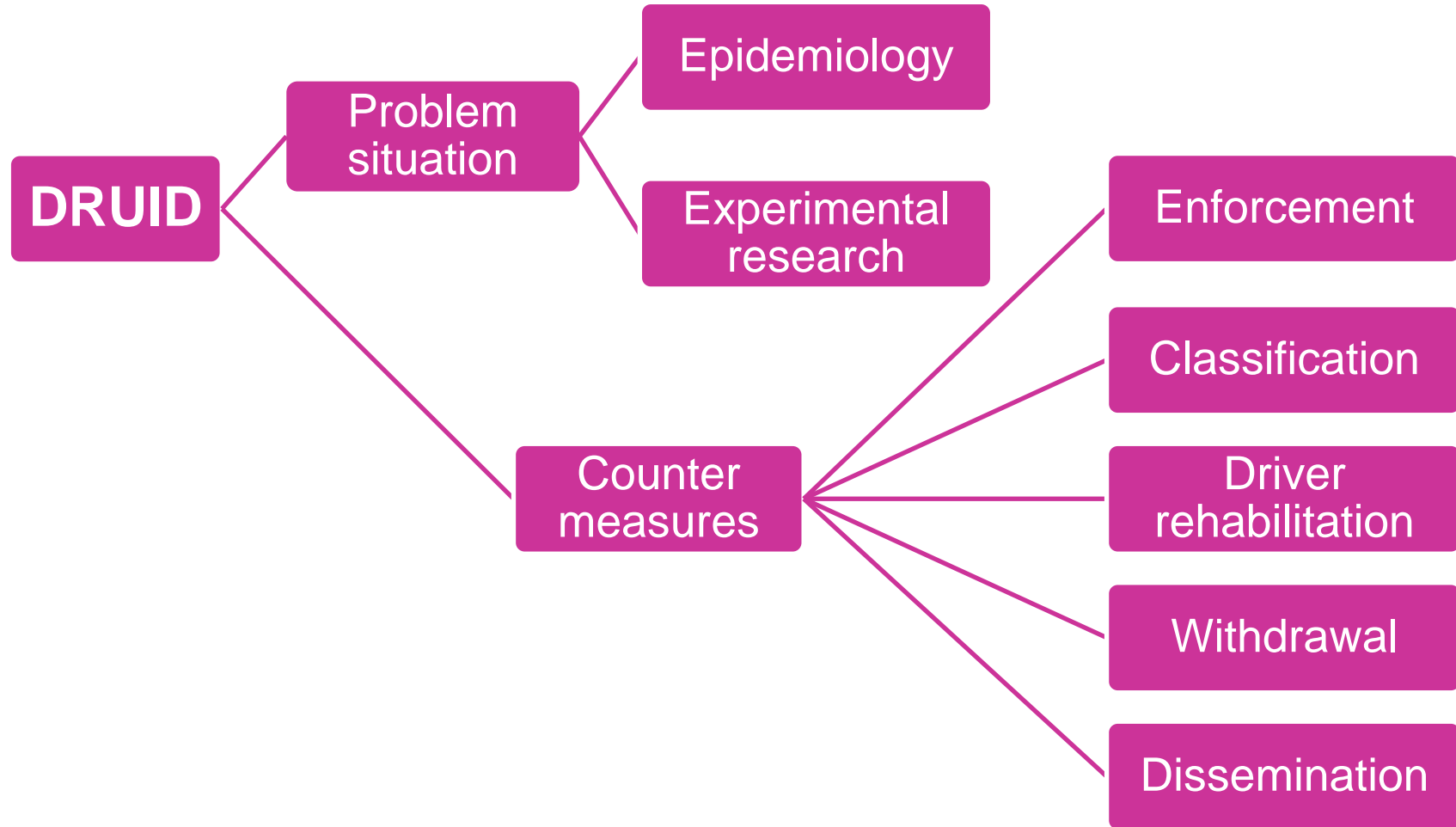
3. Recommendations



Some Facts

- 6th EU Framework Program project
- Start: 15.10.2006
- Duration: five years
- EU contribution: 19 Mio. €
- 37 partners
- 17 EU Member States and Norway
- Seven Work Packages
- Co-ordinator: BAST, Germany







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• Controls: Roadside survey

- Drivers of personal vehicles
- Stratified sample
- Checked at random
- **N = 50 000**

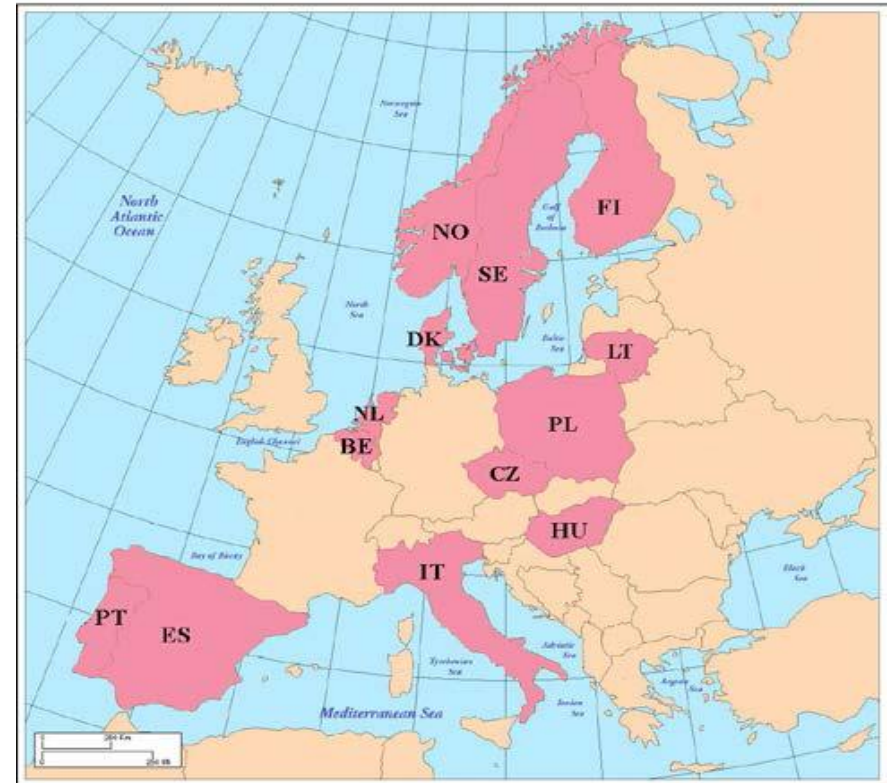
• Cases I: injured drivers

- Drivers of personal vehicles
- Seriously injured (MAIS \geq 2)
- **N = 2 600**

• Cases II: killed drivers

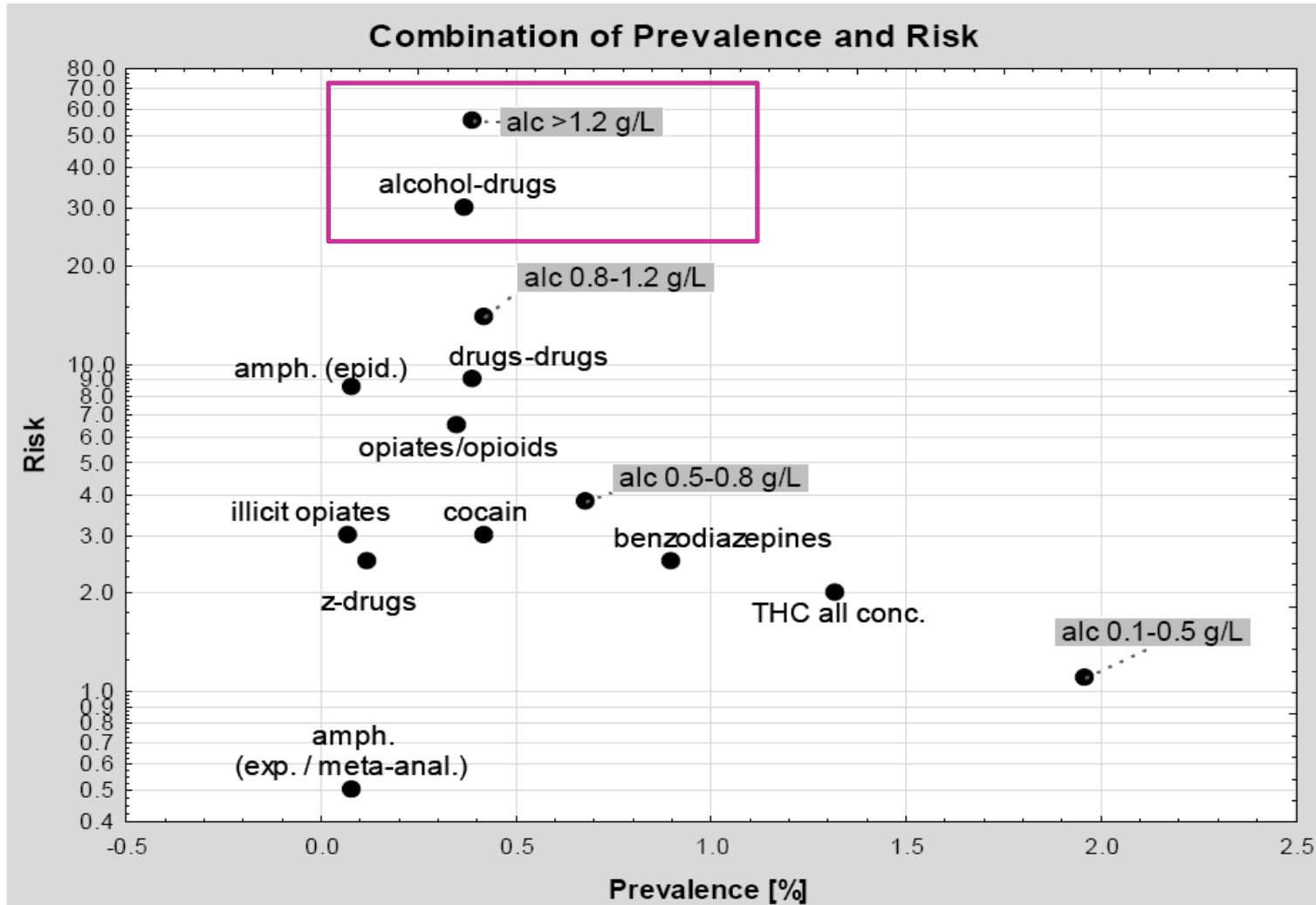
- Drivers of personal vehicles
- Killed in traffic
- **N = 1 000**

EUROPE



Produced by the Cartographic Research Lab
University of Alabama

conducted in 13 countries according to a
standardized procedure



•(D1.3.1, p. 116)



- 13 **driving tests** according to a standardized procedure (road tracking scenario; alcohol 0.5g/L as reference for the impairment)
- Reviews and **meta-analyses** on the impact of alcohol, illicit drugs and medicines on driving
- Development of a **methodological framework** for integration of results of different study types



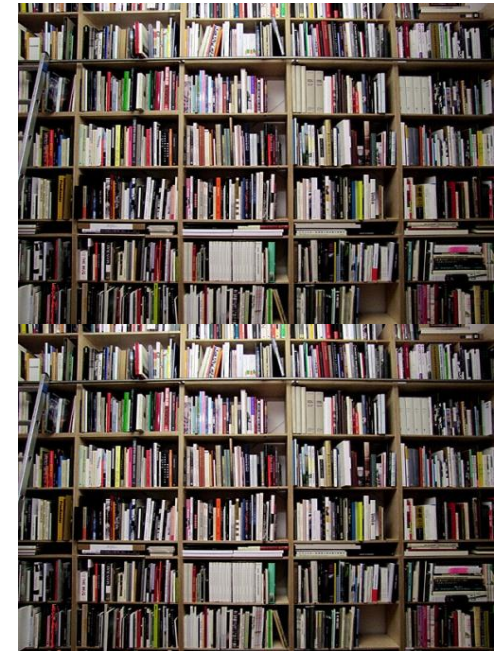
- MDMA, dexamphetamine
- No impairment was caused by the drug consumption itself.
- Sleep deprivation alone caused impairments comparable to the effect of 0.8g/L BAC.
- Concomitant alcohol use or sleep deprivation caused impairment.
- Users of stimulating drugs were not aware of post-acute fatigue effects.



•(D1.2.1)



- **Amphetamines, MDMA, cocaine**
 - more findings on improvements than on impairments
 - more research on post-acute effects
- **THC**
 - comparable impairment as BAC of 0.5 g/L in a concentration of 3.8 ng/mL in serum*
- **Medicines**
 - Impairment depending on active agent, habituation, dosage
 - Most studies done in healthy volunteers



•(*oral administration / 21 studies; 3.8 ng/ml when smoking / 78 studies) •(D1.1.2b)






- Usability test: 8 of 13 devices have been qualified as promising in the practical evaluation
- Analytical evaluation: Only 3 of 8 devices had sensitivity and specificity > 80%
- Cost-benefit analysis :
 - Drug-driving enforcement is beneficial particularly for countries that currently have a low enforcement level.
 - Drug-driving enforcement should not go at cost of alcohol enforcement.



- Incorporation of all relevant medicines available in Europe:
 - more than 3000 medicines reviewed
 - more than 1500 medicines classified
- Fact sheets for all medicines of the group N-nervous system (ATC-Code) for physicians including information on:
 - Undesired influence on driving performance
 - Physicians advises to patients
- Definition of an algorithm for classification of the new substances entering the market



- Labelling system / Pictograms

Category	
I	<p>•Your risk in traffic</p>  <p>©DRUID</p>
II	<p>•Your risk in traffic</p>  <p>©DRUID</p>
III	<p>•Your risk in traffic</p>  <p>©DRUID</p>



- **Driver rehabilitation (DR)**
- The analysis of DUI/DUID rehabilitation procedures shows that in Europe no uniformity exists regarding the application and implementation of DUI/DUID rehabilitation.
- Interventions receive positive participant feedback and lead to individual changes.
- Driver Rehabilitation (DR) measures should be an integrated part of a comprehensive countermeasure system, thereby participation in DR measures should be legally regulated.
- DR participation should be mandatory for young drivers and persistent offenders since these groups are associated with high recidivism risk.



- **Effectiveness of driving license withdrawal:**
- Among the alcohol offenders the combination of conditional withdrawal and treatment shows the best results in relation to the recidivism rate
- Rehabilitative measures cannot be regarded as a substitution for licence withdrawal, but as an accompanying measure
- Punishment certainty is the main general deterrent factor.
- Punishment celerity is the secondary deterrent factor.





- **Recommendations:**

- Practices of driving license withdrawal should be harmonized across Europe.
- After the detection of impaired driving, an immediate reaction is important, e.g. licence suspension or preliminary withdrawal by the police
- Driver rehabilitation should be an integrated part of driving license withdrawal.
- Conditional withdrawal supports re-integration process and has to be combined with close monitoring.
- Zero alcohol limits for young, novice and professional drivers should be promoted.



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1. Target groups
2. Legal regulations
3. Enforcement strategies
4. Rehabilitation measures
5. Withdrawal measures
6. Future needs of scientific investigations



	Alcohol	Drugs	Medicines
Target groups	<ul style="list-style-type: none"> • ♂ < 35 years • ♂ > 50 years • Addicts 	<ul style="list-style-type: none"> • ♂ < 35 years • alcohol + drugs • drugs + drugs • sleep deprivation 	<ul style="list-style-type: none"> • ♀ > 50 years • healthcare providers
Legal regulations	<ul style="list-style-type: none"> • BAC 0.5g/L ☺ • BAC < 0.5g/L: <ul style="list-style-type: none"> – novice and young drivers – combined consumption 	<ul style="list-style-type: none"> • same body fluids for analysis • DRUID cut-offs • THC 3-5ng/ml • two-tier system 	<ul style="list-style-type: none"> • no legal limits • information • labeling system
Enforcement	<ul style="list-style-type: none"> • focus on alcohol 	<ul style="list-style-type: none"> • not at cost of alcohol enforcement • more training in drug detection 	<ul style="list-style-type: none"> • focus on misuse and combined consumption



	Alcohol	Drugs	Medicines
Rehabilitation measures	<ul style="list-style-type: none"> • EU-wide harmonization 	<ul style="list-style-type: none"> • EU-wide harmonization 	<ul style="list-style-type: none"> • in case of misuse
Withdrawal	<ul style="list-style-type: none"> • EU-wide harmonization • 3-12 months • combination of conditional withdrawal and treatment • zero alcohol limits for young, novice and professional drivers 	<ul style="list-style-type: none"> • EU-wide harmonization • for regular consumers in combination <u>with</u> rehabilitation 	<ul style="list-style-type: none"> • in case of misuse
Future investigations	<ul style="list-style-type: none"> • evaluation of countermeasures • alternative empirical methods 	<ul style="list-style-type: none"> • Improvement of drug screening devices • dried-blood-spots 	<ul style="list-style-type: none"> • more research • standardization of assessment



www.druid-project.eu/chn_031/nn_107534/sid_649518C4ED19B11EB0F007CCACB200E3/nsc_true/Druid/EN/deliverables-list/deliverables-list-node.html?__nnn=tru

DRUID

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> [Homepage](#) > Deliverables

List of Public Deliverables

Deliverables will become accessible via hyperlink as soon as the European Commission releases them for publication.

Work Package 0 - Administration	
Deliverable Name	Lead Participant
Report on the Gender Action Plan	Federal Highway Research Institute, Germany

Work Package 1 - Experimental Studies	
Deliverable Name	Lead Participant
Theoretical framework for substance effects on safe driving (pdf 1571-KB)	Bayerische Julius-Maximilians-Universität Würzburg, Germany
Meta-analysis of empirical studies concerning the effects of alcohol on safe driving (pdf 1502-KB)	Bayerische Julius-Maximilians-Universität Würzburg, Germany
Meta-analysis of empirical studies concerning the effects of medicines and illegal drugs including pharmacokinetics of safe driving (pdf 9368-KB)	Bayerische Julius-Maximilians-Universität Würzburg, Germany
Psychomotor relevant performance after administration of opioids, narcoanalgesics and hallucinogens (pdf 1529-KB)	Norwegian Institute of Public Health, Norway
Effects of stimulant drugs on actual and simulated driving (pdf 1746-KB)	Maastricht University, Faculty of Psychology, Netherlands
Effects of medicinal drugs on actual and simulated driving (pdf 2191-KB)	Maastricht University, Faculty of Psychology, Netherlands
Driving under the influence of alcohol, illicit drugs and medicines. Risk estimations from different methodological approaches (pdf 2812-KB)	Federal Highway Research Institute, Germany
Evaluation of legal measures to combat DUI / DUID (pdf 1378-KB)	Ludwig-Maximilians-Universität, München

- 50 Deliverables available on www.druid-project.com

DRUID

Project No: TREN-05-FP6TR-007.61320-618404-DRUID

6th Framework Programme
Deliverable (D.1.8)

Final Report: Work performed, main results and recommendations

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Revision 1.0

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Dissemination Level		
PLU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

- Overview and recommendations
Final Report





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Thank you for your attention!

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