



## Responding to drug driving in Europe

Many of the accidents and deaths that occur on European roads are caused by drivers whose performance is impaired by a psychoactive substance. Alcohol alone is estimated to account for up to 10 000 road deaths a year in the European Union, one quarter of all road deaths. No comparable figures are available for road accidents related to illicit drugs and psychoactive medicines, though these have been receiving increasing attention over the past decade.

Studies on the effects of psychoactive substances on driving performance suggest that while both illicit and therapeutic drugs can affect driving, the effects and their extent can vary greatly from substance to substance. The latest research suggests that cannabis can reduce performance

and benzodiazepines are generally impairing; of the opioids, heroin can impair severely, methadone less so, and buprenorphine even less. The data for stimulant drugs such as cocaine, amphetamines and ecstasy are more mixed, but suggest that high doses are associated with impairment. Yet, an objective measure for impairment for each drug, similar to the blood alcohol concentration, remains elusive.

The complex issue of drug driving is currently being investigated by DRUID, a major EU project that began in 2006 and will continue until 2010. DRUID aims to provide a solid basis for harmonised, EU-wide regulations for driving under the influence of alcohol, drugs and medicine.

Until then, this policy briefing summarises the key issues facing policymakers and describes developments across Europe that may assist decision-making on the topic.

**Reducing the loss of life caused by driving under the influence of psychoactive substances requires measures that are based on a scientific understanding of this complex phenomenon. The challenge to legislators is to design sound and effective laws that can be enforced, and that give a clear message to the public.**

**Wolfgang Götz,  
EMCDDA Director**

### Definition

**Driving under the influence:** Depending on the country's laws, this may refer to a driver who has: a measured reduction of cognitive or psychomotor skills, impulsivity; or more than a defined amount of drug in the blood, expected to produce such effects at that level; or any trace of drugs in the blood.

### Key issues at a glance

1. Reports of drug driving incidents often receive much media attention. But, few countries have reliable statistics on the prevalence of driving under the influence of drugs.
2. Obtaining sound scientific evidence on behavioural effects, prevalence and accident risk is difficult with the available data. Many of the studies have small samples and it is often difficult to generalise from their results.
3. Reflecting the scientific debate about the precise effects of the substances, the legal definition of the offence of driving under the influence of drugs differs among EU Member States.
4. Various psychoactive medicines, which might or might not be legally prescribed and consumed, can impair driving skills.
5. Currently, police experience considerable difficulty with the accurate and rapid identification of drug driving at the roadside.
6. The effectiveness of information campaigns to prevent drug driving is open to question. Key audiences may not be hearing the message, or they may be ignoring it.

## 1. Extent of drug driving is not studied in many European countries

Studies on drug prevalence in drivers published between 1999 and 2007 provide data for only 13 of the 27 EU Member States and Norway.

Random roadside surveys of drivers, which can give a representative picture of the entire driving population, are available for three EU Member States and Norway. Other surveys provide data on drug use among specific subsets of drivers. While some studies considered only drivers involved in fatal accidents, others looked at sample groups of injured drivers, killed drivers, drivers involved in accidents, and drivers suspected of driving under the influence of alcohol or drugs. However, the results of these various studies are not scientifically comparable.

Generally, cannabis is the most common illicit substance detected, and benzodiazepines are the most commonly reported psychoactive medicines. Overall, the evidence points to much higher prevalences of both illicit and prescription drugs, often in combination with alcohol, among drivers involved in accidents or suspected of driving under the influence of drugs or alcohol.

The overall scarcity of information continues despite a recommendation made in 2002 by the European Commission's expert working group on drugs, medicines and driving that all drivers involved in a fatal accident should be tested for alcohol and drug use.

## 2. Barriers to building up scientific evidence

More than 30 studies on the prevalence of drugs among drivers have been carried out across Europe since 1999. However, these studies have used various methods and sampled different groups of drivers, making it difficult to draw overall conclusions.

The number of people sampled has ranged from under 50 to over 10 000, with more than one third of the studies reporting on fewer than 500 individuals.

National legislation or policies may also limit the scope and comparability of prevalence studies. For example, random roadside tests for drugs are not permitted in most countries. In some countries, tests are only carried out for illicit drugs, and the prevalence of psychoactive medicines cannot be ascertained.

A positive test for alcohol may override any requirement for drug testing, with resource limitations and prosecution requirements taking priority over any need for comprehensive data gathering. This has been the case in Denmark, Estonia, Ireland and Portugal. The French SAM study, one of the most extensive studies in recent years on the subject, was made possible by a change to the national Road Code obliging the police, in defined circumstances, to test all drivers for drugs.

New international guidance for standardisation of study designs have been drawn up with the assistance of the EMCDDA and the European Commission's DG Transport. It takes into account differences between countries' legislation and testing policies, providing over a hundred recommendations subdivided into the areas of behaviour, epidemiology, and toxicology.

## 3. Where to draw the line — or lines?

Most European countries take one of two approaches to defining the offence of driving under the influence of drugs. Eleven countries only penalise impaired driving, whether caused by illicit drugs or medicines. Eleven other countries have adopted a 'zero-tolerance' policy, penalising any driving after drug-taking. In seven countries, these two approaches are combined in a tiered response to drug driving offenders.

Some 'zero-tolerance' countries make no distinction between psychoactive

medicines and illicit drugs, others do. In Finland and Sweden, new zero-tolerance laws for illicit drugs were passed following the experience that the offence of impaired driving was extremely difficult to prove. In Cyprus, this problem is addressed by prosecuting such drivers for illegal consumption of drugs. However, Belgium and the United Kingdom specifically prohibit use of a test result for drug driving as evidence for any other offence.

Evidence of drug-taking may be detected in different biological samples, including blood, urine, saliva, sweat and even hair. Blood is the ideal matrix for legal proof of impairment, but roadside screening by oral fluid (saliva) is desirable for convenience. Threshold levels for the drugs may be set at the lower limit of detection, or at levels where impairment may be expected to start. However, while some drugs, including cannabis and opioids, appear to have a dose-dependent impairing effect, others such as amphetamines do not. Tolerance and interactions with alcohol or other drugs complicate calculations further. In France, drivers found combining drugs with alcohol receive a higher penalty.

## 4. Responding to psychoactive medicines

Psychoactive medicines, such as painkillers (opioids), sedatives (benzodiazepines), antidepressants and antihistamines can have sometimes considerable effects on the capabilities of drivers. Results from studies suggest that drivers may be using these drugs either for medical reasons following prescription, or misusing them, sometimes together with illicit substances. Concern is also growing about the possible impact of the increasing numbers of drug users receiving opioid substitution treatment.

Most countries' laws penalise impairment from any drug, whether illicit or medicinal. In France, Austria and Portugal, some impairing psychoactive medicines such as benzodiazepines are not covered by the drug driving law, though they may be

covered by a general offence such as dangerous driving. In contrast, laws in the Czech Republic, Estonia, Poland, Slovenia and Slovakia penalise driving with any trace of a substance, even if medicinal. Seven countries (Belgium, Czech Republic, Germany, Latvia, Luxembourg, Slovakia, Finland) have adopted a two-stage system that penalises any trace of an illicit substance with a non-criminal or lower-level criminal fine, but more severely penalises impairment by any substance. In Latvia, impairment by a medicinal substance will incur a lower fine than any trace of an illicit substance. In Finland and Sweden, drivers found with medicines may be exempted from charge if they can provide a medical prescription, though they may still be charged if their driving was judged impaired.

## 5. Testing for drug driving

After stopping a driver, the police officer may need to perform an initial screening for drug use, by analysing behaviour or biological samples. In February 2002, the European Commission expert working

group on drugs, medicines and driving recommended that police involved in traffic control receive mandatory training in recognising the signs of impairment due to drugs. These tests may include, for example, examination of the size of the pupils, coordination tests, behavioural tests, reactions and manner of speaking. Yet by 2007, only four EU countries (Belgium, Portugal, Sweden, United Kingdom) reported obligatory training in this area for traffic police, while 11 reported some ad hoc training. Furthermore, the tests are not the same in each country.

Oral fluid (saliva) might be acceptable for roadside screening of drivers – urine is not appropriate to indicate impairment. The reliability of devices for roadside saliva testing, however, has yet to be confirmed. Of the nine on-site saliva-testing devices evaluated by the EU's Rosita-2 project between 2003 and 2005, not one could be recommended for roadside screening of drivers. The limitations of the devices might be compensated to some extent by modifying the testing protocol. Since

2004, a system in Victoria, Australia uses two saliva tests in series at the roadside to achieve a low false positive rate; prosecution will be based on the results of a subsequent laboratory confirmation of the second sample. In the EU, while France uses roadside saliva tests, prosecution is based on the results of a blood test.

## 6. Are prevention campaigns effective?

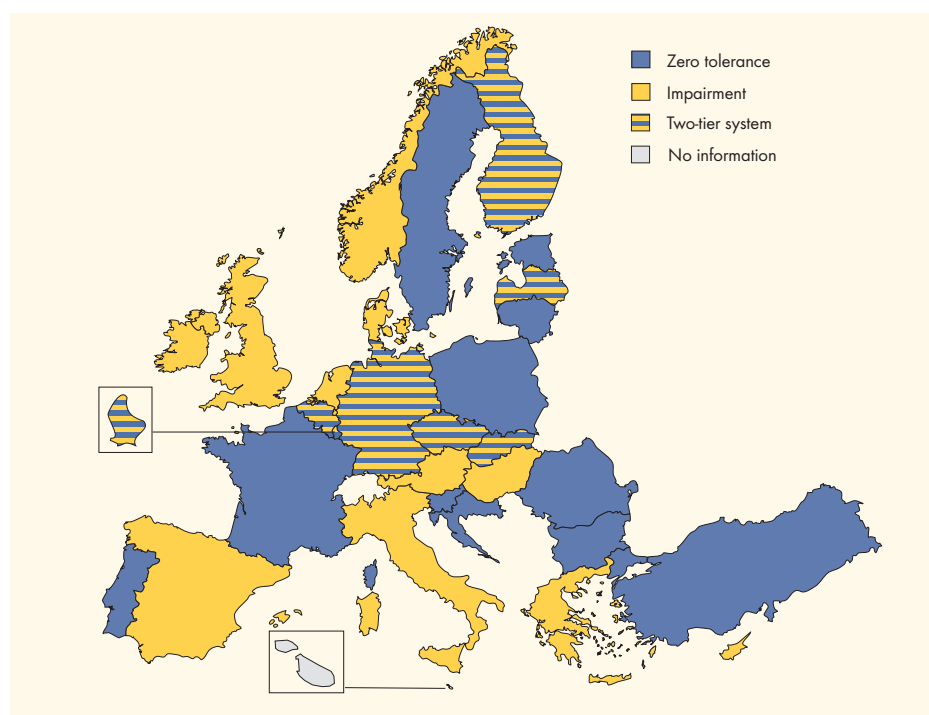
Surveys carried out in some countries have revealed a lack of awareness about the influence of illicit drugs on driving ability. They also show that many drivers are unaware of the effects of combining drugs and alcohol. Among older drivers, awareness is often lacking of the effects of psychoactive medicines on driving performance. Furthermore, many drivers may be ignorant of laws prohibiting driving under the influence of such medicines.

Prevention campaigns targeting drug driving have been carried out in several EU Member States. These generally take the form of mass media campaigns, often including information on drugs within a wider campaign focussing on alcohol.

General messages that reach young users of cannabis, however, are unlikely to be listened to, or even noticed, by older users of psychoactive medicines, and vice versa. Similarly, both groups may feel that warnings about alcohol do not apply to them. Prevention programmes are more likely to succeed if they are tailored to their target group.

Providing clear information to patients taking psychoactive medicines may prevent them from driving while adversely affected. For this, most countries rely on the patient information leaflet inside the packaging, for example advising caution if the patient feels sleepy. Yet the patient's subjective senses are not always reliable or accurate. The use of a clear symbol or pictogram on the outer packaging of medicines that may affect driving ability is currently reported by only five countries.

**Drug driving in EU Member States may be defined as impairment caused by drugs or having any trace of drugs in the blood ('zero tolerance'), and some countries combine both definitions in a two-tier system**



Source: European Legal Database on Drugs

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## Responding to drug driving in Europe: Conclusions and policy considerations

1. Surveys on the prevalence of drugs in drivers need to be conducted in all EU Member States. Testing all drivers involved in a fatal accident for drug and alcohol use would provide an important source of information for monitoring the problem.
2. New guidelines on study design are available that take into account the variety of legal and practical constraints in different countries. They aim to improve comparability among studies and may facilitate exchange of best practice.
3. Policymakers should consider the latest scientific information available when designing legal responses. The level at which a driver will be deemed in breach of the law should be clear for all stakeholders and the public.
4. National laws and their enforcement need to strike a balance between concerns about ensuring road safety and the therapeutic needs of individuals.
5. Legal frameworks require review, as even with the limitations of existing testing methodology, more effective procedures are possible. And, new options are likely to become available.
6. Prevention campaigns should target specific risk groups and substances; be based on scientific evidence; and rigorously evaluated for impact on behaviour and attitudes.

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