

Current practice of roadside drug testing in Europe and in some other regions

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Overview

- Introduction: prevalence of drug use and of DUI in the EU
- Recommendations from the DRUID study
- The evolution of our legislation in Belgium
- Legislation on roadside drug testing in EU countries, 3 examples
- Number of police checks & convictions for drugged driving
- Roadside testing on social media (Twitter)
- Does enforcement reduce crashes?
- Conclusions

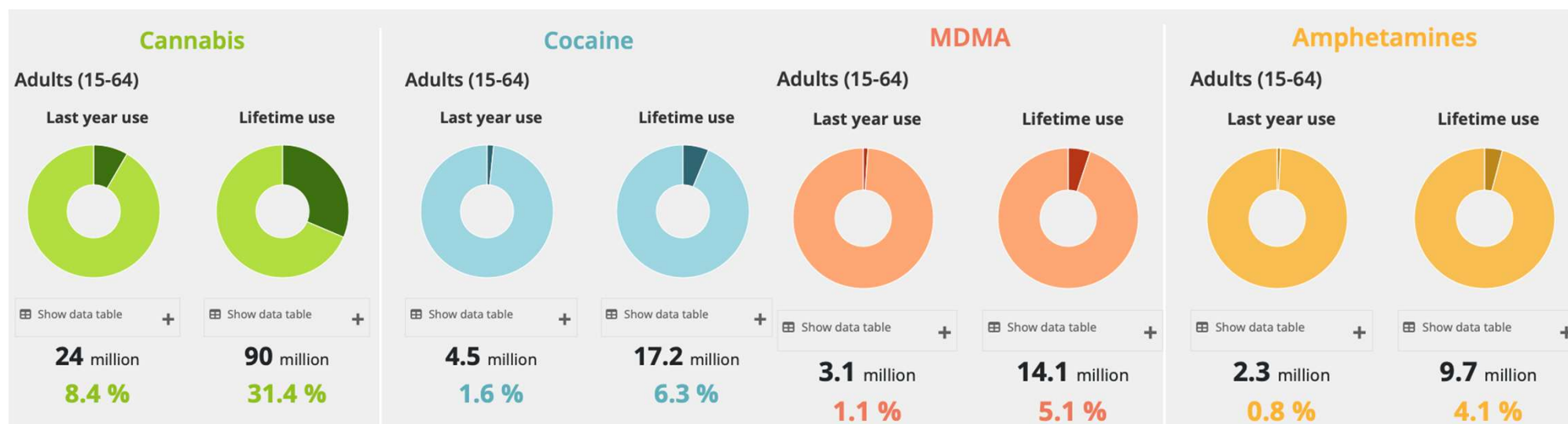
Introduction: why drugtesting at the roadside?

- The **theory of classical deterrence** suggests that if punishment for a crime is perceived as **certain, swift, and severe**, people will be less likely to engage in the crime
- The **primary general deterrent factor** when it comes to drug-driving is the **perceived risk of detection**
- An EU survey carried out in 2018 shows that amongst the general driving population, only **14%** think that they are **likely to be checked by the police for the use of illegal drugs**
- This compares to **23% for alcohol** checks
- It is crucial therefore that enforcement is carried out properly and visibly

Mills et al. Journal of Safety Research, Volume 80, 2022, Pages 362-370

ETSC report 2022. How Traffic Law Enforcement Can Contribute to Safer Roads

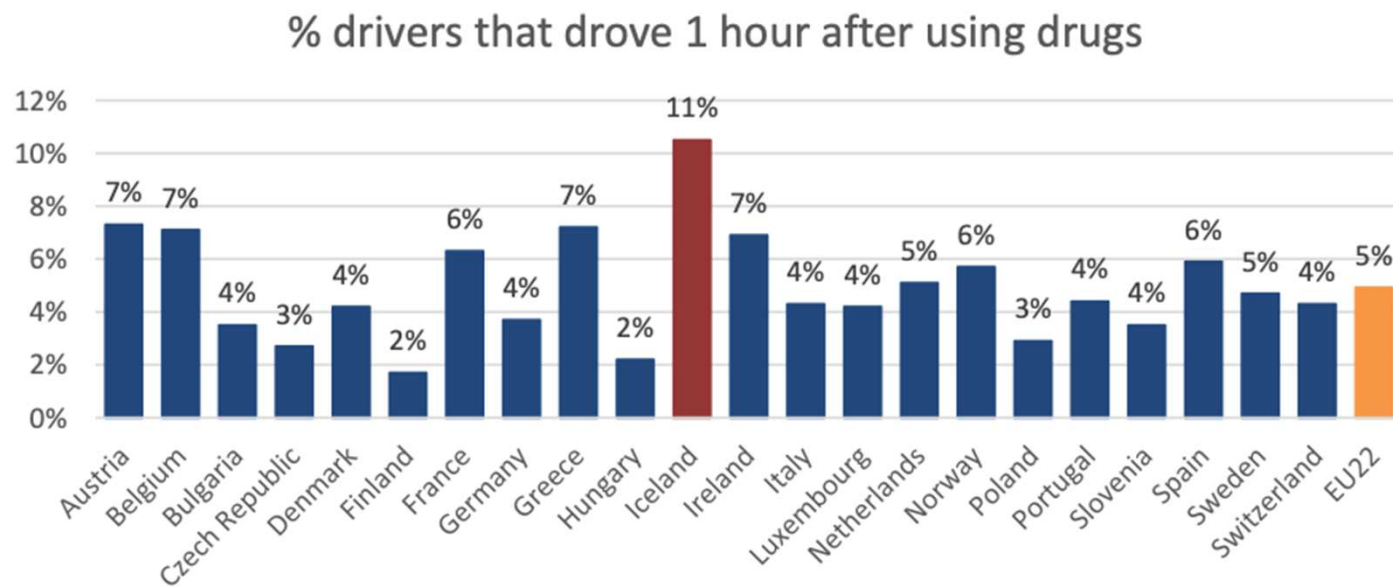
Drug use in the EU



https://www.euda.europa.eu/publications/european-drug-report/2025/drug-situation-in-europe-up-to-2025_en#edr25-commentary-at-a-glance

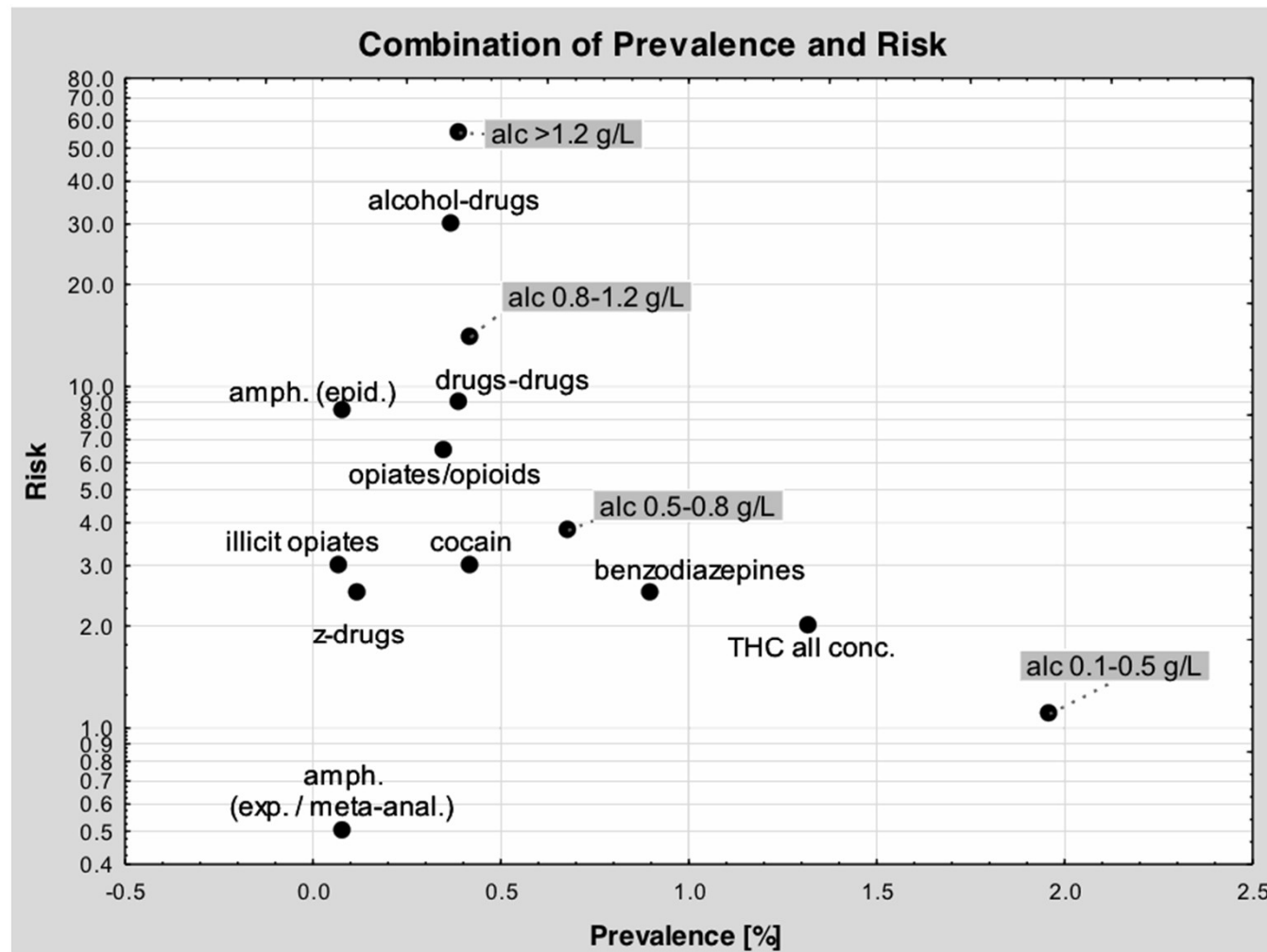
DUI in the EU

- Amongst European drivers, 21% reported they had driven after drinking alcohol, 13% with a BAC over the legal limit, 15% after taking medicines that may affect driving ability, and **5% within 1 hour after taking drugs** other than medication (ESRA3 study)

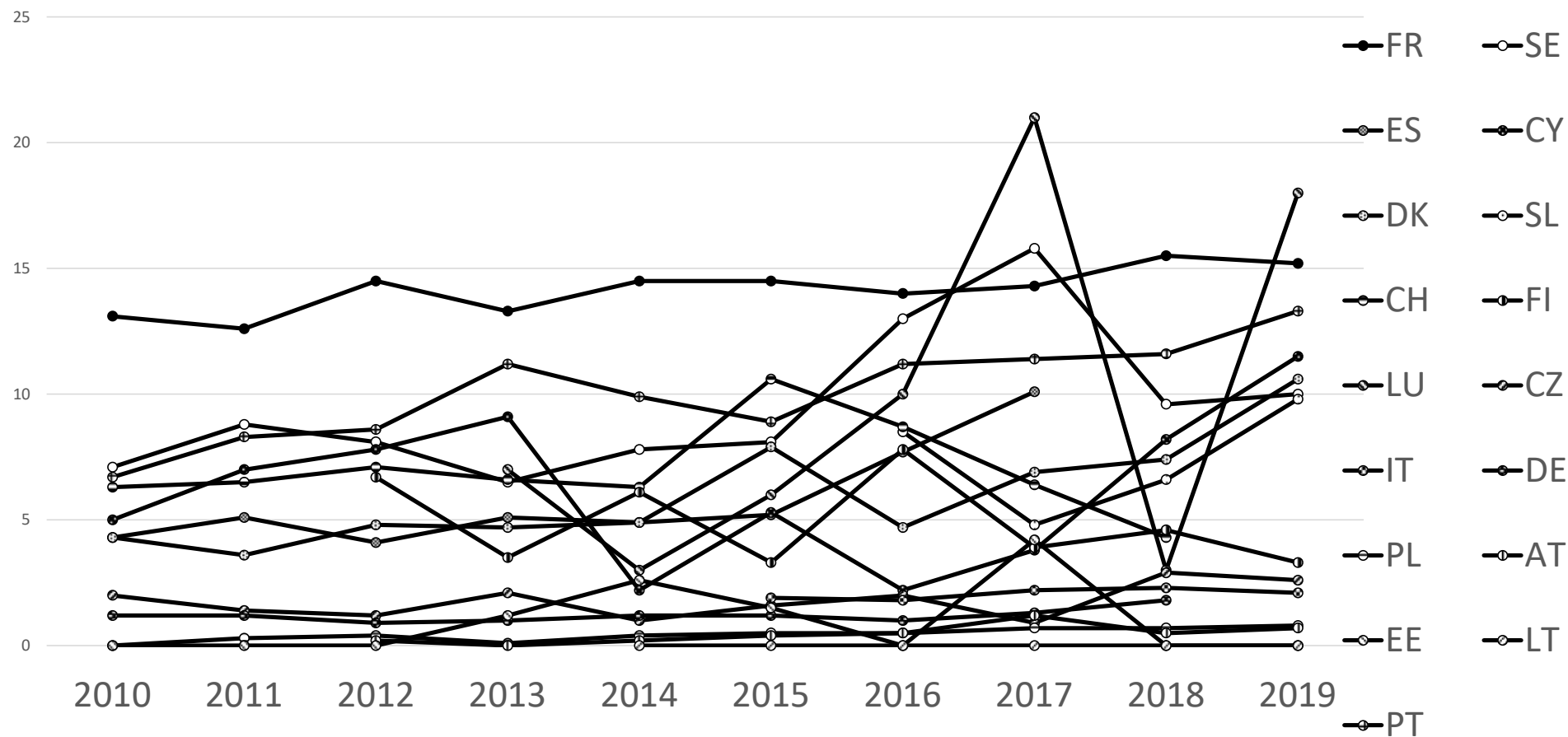


https://road-safety.transport.ec.europa.eu/system/files/2023-10/ERSO-SPI-alcohol_drugs_2023.pdf

DRUID (2006 – 2011): risk vs. prevalence



% drug-related deaths/total deaths in road accidents



Graph made based on data in Ecorys-IST report 2021

Druid recommendations: *Legal regulations I*



- European **agreement regarding the body fluid** (especially whole blood versus plasma) to be used for drug detection
- Regulations should be **based on scientific findings**; if epidemiological and experimental data are not sufficient, an expert team should determine cut-offs taking into account other findings (e.g. pharmacokinetic profiles)
- There should be **European harmonisation of drug analyses** (e.g. analytical cut-off limits; standardised analysing procedures).

<https://www.euda.europa.eu/publications/thematic-papers/druid>

https://www.bast.de/EN/Traffic_Safety/Subjects/Druid/Dissemination/downloads_and_links/Final_Report.pdf?__blob=publicationFile&v=1

Druid recommendations: *Legal regulations II*



- A **risk threshold should be introduced for THC**, equivalent to 0.5 g/L BAC, at 3.8 ng/mL serum, plus a value to take account of measurement errors and the confidence interval, and minus a value to take into account the metabolism between the stop/crash and sampling
- For all **other psychoactive drugs, a two-tier system is advised**: legal limits combined with an impairment approach. This system combines the advantages of the two legal regulations: a less severe sanction when drugs are present above the legal limit and a more severe sanction when the driver is also impaired

<https://www.euda.europa.eu/publications/thematic-papers/druid>

https://www.bast.de/EN/Traffic_Safety/Subjects/Druid/Dissemination/downloads_and_links/Final_Report.pdf?__blob=publicationFile&v=1

Druid recommendations: *Enforcement strategies*



- An increase in drug enforcement is **potentially cost-beneficial**, especially for countries that currently have a low level of enforcement. It may not, however, be beneficial if it is implemented at the expense of drink-driving enforcement
- The use of **only those screening devices that fulfil practical and analytical criteria** is advised
- **Training of police officers** (drug recognition expert programmes) to improve drug detection is required
- **Drug detection roadside actions should be developed**, taking into account pre-selection by time, place and target group (e.g. alcohol-impaired drivers) and national prevalence data

<https://www.euda.europa.eu/publications/thematic-papers/druid>

https://www.bast.de/EN/Traffic_Safety/Subjects/Druid/Dissemination/downloads_and_links/Final_Report.pdf?__blob=publicationFile&v=1

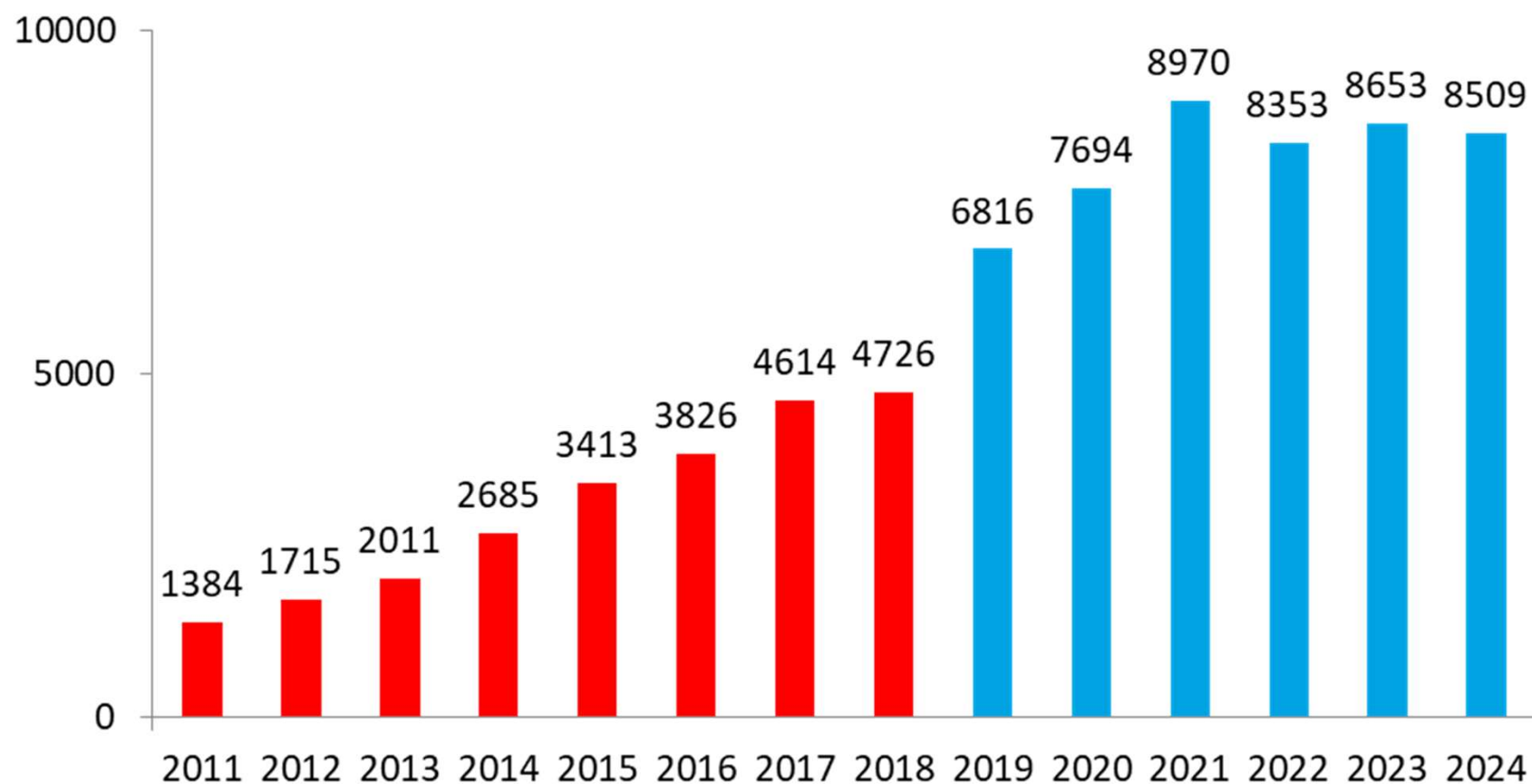
Evolution of the Belgian legislation

	Step	1999	2009	2019	2024
Step 1	Observation	Drug recognition test battery	Checklist	Checklist	Checklist + other signs
Step 2	Roadside screening	Urine	Oral fluid	Oral fluid	Oral fluid
Step 3	Confirmation	Blood	Blood	Oral fluid	Oral fluid

Aims of the modifications:

- Simpler procedure and deterrent effect
- Faster procedure at the roadside (higher efficiency)

Belgium: # of confirmation analysis NICC



Roadside drug testing in the EU(EUDA)

	n (EU + Norway)
Random stopping	23
Random testing	11
Roadside testing using oral fluid	19
Evidentiary testing using blood	22
Evidentiary testing using oral fluid	4



https://www.euda.europa.eu/publications/topic-overviews/legal-approaches-to-drugs-and-driving/html_en

How roadside testing works in Belgium

- **Initial Observation (checklist):** Police officers first **observe external signs**, which may include dilated pupils, erratic behaviour, or a dry mouth, suggesting recent drug use. Can be initiated during routine traffic stops or following an accident
- **Roadside Saliva Test:** If reasonable suspicion based on observations (3 ticks), a rapid saliva test is administered. This test quickly screens for common illicit drugs like amphetamines, cannabis, cocaine, MDMA & opiates
- **Evidentiary testing:** A positive rapid test leads to a **second saliva sample** being taken for **laboratory** analysis, providing the necessary legal evidence for prosecution. In exceptional cases, a blood test may be requested instead
- **Penalties:** 12-h driving ban, fine €1,600 to €16,000 & driving disqualification

How roadside testing works in Victoria (AUS)

- **Roadside Drug Test (RDT):** Any Victoria Police officer can conduct a **random saliva test**. A small pad is placed on the driver's tongue for a few seconds to collect a saliva sample. The sample is analysed at the roadside, which takes a few minutes. This rapid test screens for **THC (cannabis), methamphetamines, and MDMA**
- **Laboratory Confirmation:** If the initial test is positive, the driver is required to provide a **second saliva sample**. This second sample is then sent to a **laboratory** for a confirmation test. Only after a positive lab result can charges be laid.
- **Penalties (first Offence):** An on-the-spot fine (600 AUD, € 336), a minimum six-month licence suspension, and mandatory attendance at a drug driver behaviour change program
- **Driving While Impaired:** If police suspect drug-related impairment not detected by the saliva test (e.g., from prescription drugs), a Standard Impairment Test involving physical assessments can be requested. This may lead to a blood or urine test

How roadside testing works in the UK

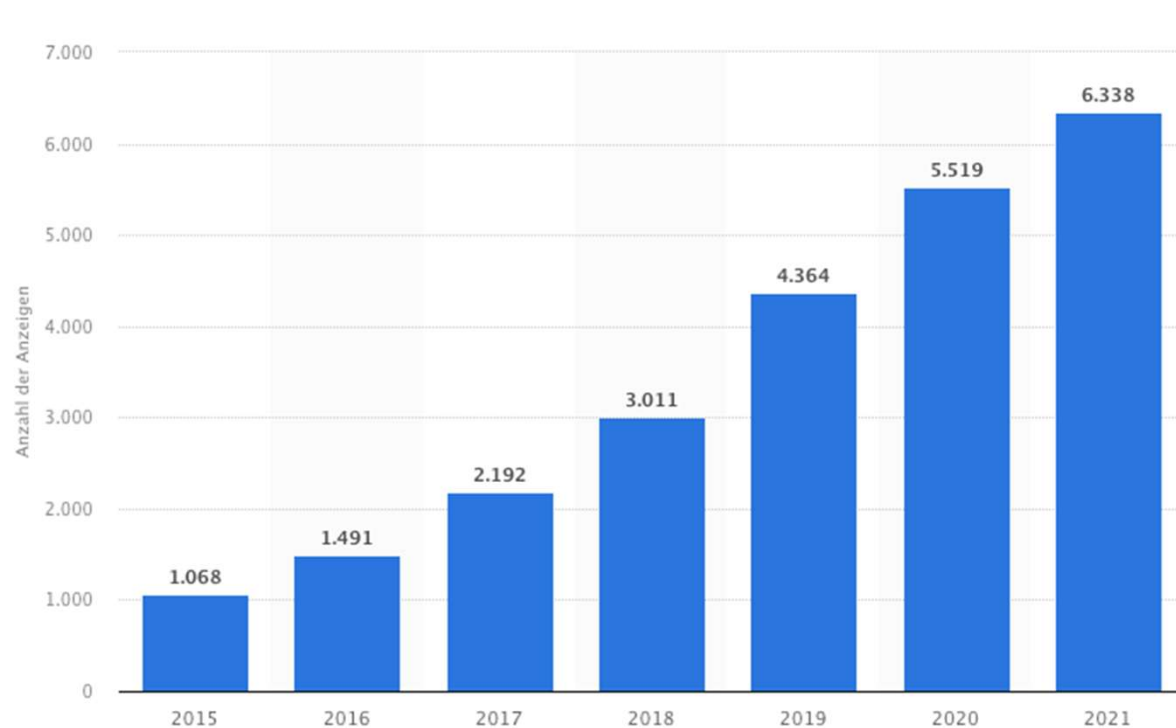
- Since March 2015, UK police have been able to conduct roadside oral fluid tests using "drugalyzers"
- **Primary test:** Officers can test for **cannabis** and **cocaine** at the roadside using a saliva swab
- **Secondary test:** If a driver fails the roadside test or if an officer suspects impairment from other substances, the driver will be taken to a police station for a **blood** test. This more accurate and comprehensive test can detect a wider range of substances, including legal and illegal drugs
- **Penalties:** a minimum 1-year driving ban, an unlimited fine, up to 6 months in prison, a criminal record

Roadside drug testing numbers and positives in Australia and Europe

Country (population)	# of tests/year	% positive
Australia (27.5)	500,683	10,5%
France (68.7)	777,000 - 800,000	16%
Spain (49.3)	101,927	52%
Belgium (11.8)	77,020	
Netherlands (18.1)		11,000 cases in the first 5 months of 2025
UK (69.3)		42% positives

Austria: offences for driving under the influence of drugs in Austria until 2021: x 6 in 6 years

Roadside oral fluid tests since 2017



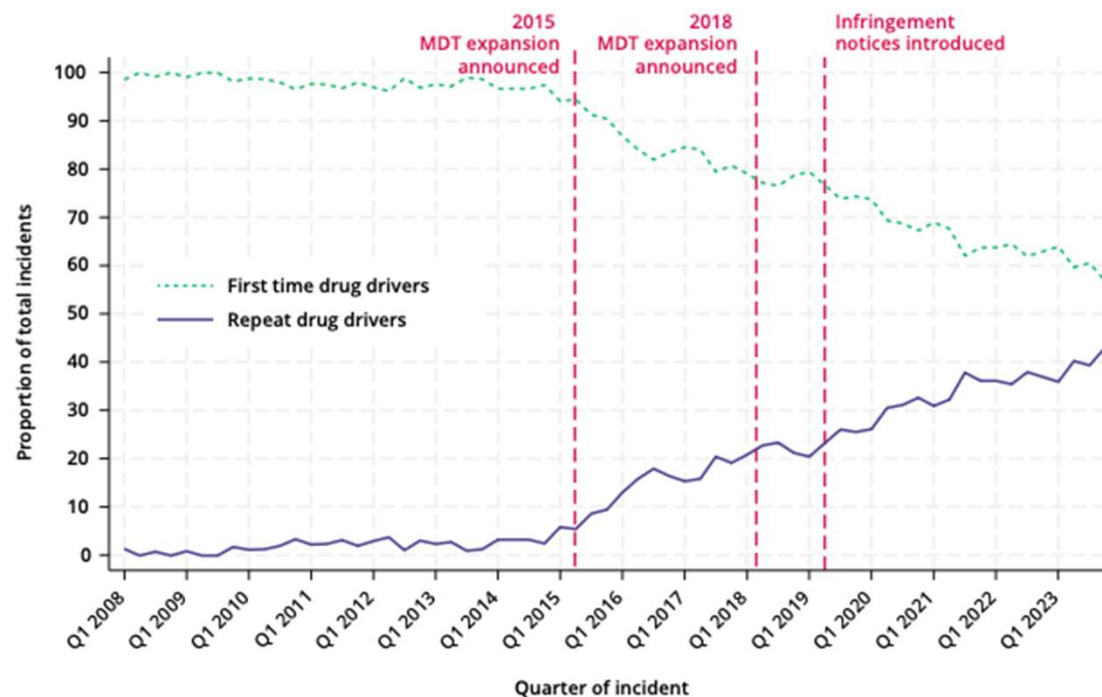
<https://de.statista.com/statistik/daten/studie/1099068/umfrage/anzeigen-wegen-fahren-unter-drogeneinfluss-in-oesterreich/>

Are Current Drug Driving Enforcement Strategies Achieving the Desired Effect?

- Examined how illicit drug users perceived roadside drug testing (RDT) in Queensland
- 52 illicit drug users were interviewed
- Exposure to RDT and apprehension certainty were low
- Participants also reported mixed experiences with testing accuracy
- Participants reported engaging in punishment avoidance behaviours that aimed to evade police exposure and suspicion, and to mask the presence of drugs in their saliva
- The majority of (cannabis) users agreed that RDT approaches were discriminatory and unjust, due to the zero-tolerance policy, the testing of presence over impairment, and the lack of policing towards other drugs

First-time offenders vs. recidivists

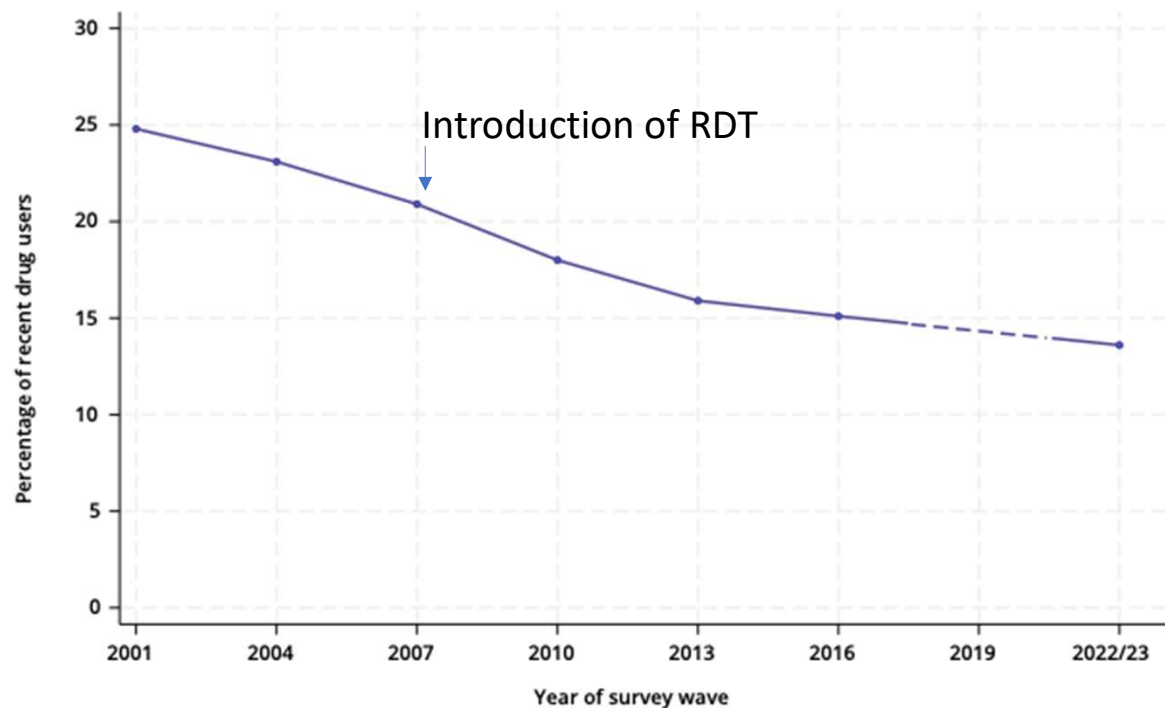
Figure 7. Proportion of quarterly drug driving incidents by whether a first time or repeat drug driving offence, NSW, 2008–2023



Teperski et al. Trends in drug driving charges, roadside drug testing and drug use in NSW, 2008-2023

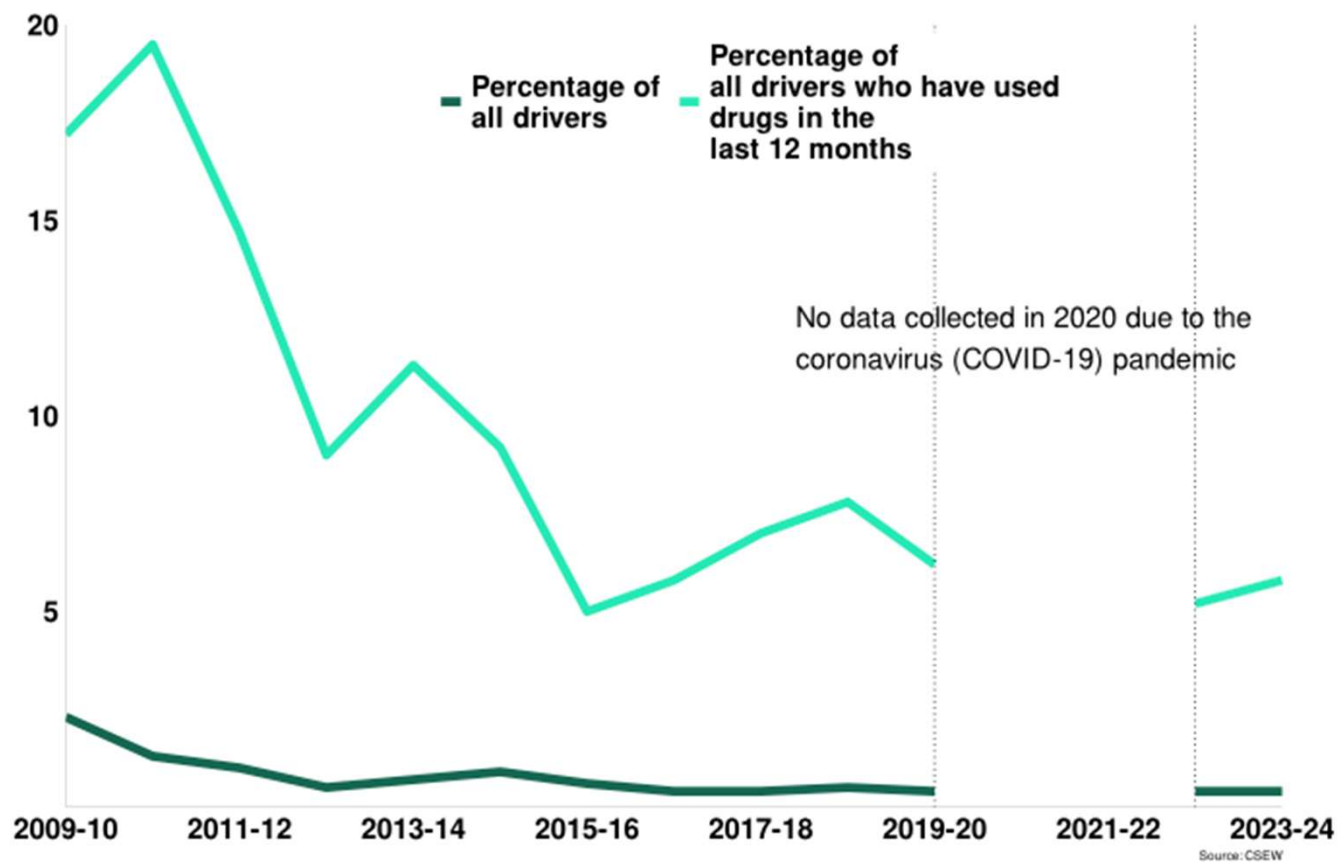
Self-reported DUI in New South Wales

Figure 10. Proportion of recent drug drivers who self-reported driving under the influence of an illicit substance in the prior 12 months by year of survey, Australia, National Drug Strategy Household Survey



Teperski et al. Trends in drug driving charges, roadside drug testing and drug use in NSW, 2008-2023

% who have driven whilst thought to be affected by or under the influence of illegal drugs



Crime Survey for England and Wales: self-reported driver behaviour, year ending March 2024

Effects of roadside drug tests

- **Detections go up** when testing is expanded. Where programs have scaled up (e.g., New South Wales, Australia), drug-driving charges rose sharply as test numbers rose, and positive rates fluctuated with how/where police tested—evidence that more testing mainly finds more offenders rather than cleanly proving fewer people are drug-driving overall
- **General deterrence: limited/uncertain**. Among high-risk drug-using groups in Australia (2007–2013), self-reported drug-driving fell over time, but experiencing RDT personally did not predict less drug-driving
- **Crash/harms** impact: evidence is sparse. Unlike alcohol RBT (which clearly reduces crashes), reviews note a lack of rigorous, crash-based evaluations for drug RDT. Systematic reviews say impacts on morbidity/mortality remain uncertain
- **Technology limits** muddy prevalence trends. Oral-fluid screens miss some recent cannabis use and vary by drug, which can blunt deterrence (drivers learn perceived “windows”) and complicate prevalence measurement.

What seems to work best

- **High-visibility, high-volume, truly random operations** (to raise perceived certainty of detection), not only targeted stops;
- **Swift, certain sanctions** for positives;
- **Public communication** so drivers know they're likely to be tested; and
- **Complementary measures** (graduated sanctions/rehab for repeat offenders, and drug-driving education), because testing alone hasn't shown robust reductions in drug-driving prevalence.



Policía Foral - Foruzaingoa @policiaforal_na · Aug 1

Finde, fiestas de San Adrián:

- 9 incautaciones de droga
- 8 vehículos inmovilizados por + en alcohol o drogas
- 3 delitos contra la SV (2 por alcohol, 1 por conducir sin permiso y + en alcohol y drogas).

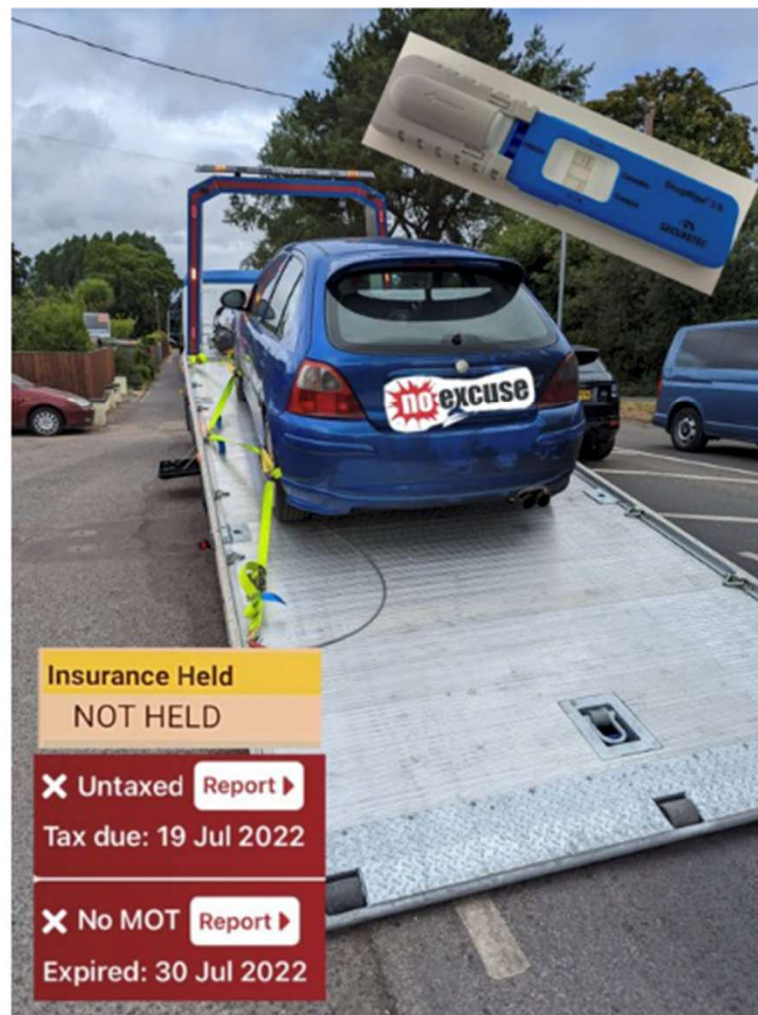
#PatrullaTafalla

[Translate Tweet](#)



Devon and Cornwall Police - No Excuse @DC_NoExcuse... · Aug 3

Dawlish: Vehicle stopped for having no insurance, no MOT and no tax. Driver then failed the roadside drug wipe for cannabis. Driver arrested and vehicle seized. #NoExcuse





Devon and Cornwall Police - No Excuse ✓ @DC_NoExcuse · Aug 3 ...

Vehicle stopped in [#Torquay](#). Driver told Police that he hadn't taken any drugs for months, but admitted to previously using cannabis to 'help him sleep'. Driver forgot to mention his cocaine use. 🤔 Another drug driver in Custody... [#NoExcuse](#)



1 3 40



City Police Officers ✓ @CityPoliceCops · Aug 4 ...

Another lovely day ✓
Another drug driver in custody ✓
863CP & 939CP

[#Fatal5](#) [#notworththerisk](#) @DrugWipeUK



2 2 74

Conclusions

- 8% of European adults (aged 15–64) have used drugs in the last year
- 5% of drivers have driven within 1 hour of taking recreational drugs
- Roadside drug testing is widespread in Europe
- Most EU countries use preliminary saliva tests
- No official EU-wide statistics, fragmented data
- Increase in the number of checks and in convictions
- Little evaluation of effectiveness of legislation and enforcement