Roadside Drug Testing and Fast-moving automated ‘Alco Gates’

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Facts on the drug driving problem in Sweden

• Around 20 people in Sweden are killed every year in road traffic accidents caused by drivers under the influence of drugs.
• Data from the years 2005-2010 show that about seven percent of the drivers killed in traffic were affected by illegal drugs.
• Regarding traffic accidents where the liable driver survives but others are killed or injured, Sweden lacks comprehensive statistics.
• The prevalence of drug driving is affected by drug development in society as a whole.

Facts on the drug driving problem in Norway

• Traffic fatalities where the driver was alcohol and / or drug impaired: 2012 = 24 % (37 people), 2013 = 16 % (30 people)
• The use of cannabis, amphetamine and sedatives amongst arrested, intoxicated drivers has increased
• An estimated 126,000 car trips every day occur with impaired drivers (Alcohol: about 21 000, Drugs: about 28,000, Psychoactive medicines: about 77 000)

Facts on the drug driving problem in Europe

Results from the European DRUID-project:

• Alcohol is used by 3.48 % of the drivers, illicit drugs by 1.90 %, medicinal drugs by 1.36 %, drug-drug combinations by 0.39 % and alcohol-drug combinations by 0.37 %.
• For illicit drugs THC is the most frequently detected drug in traffic, followed by cocaine.
• Amphetamines and illicit opiates were less frequently detected.
• Illicit drugs were in general mainly detected among young male drivers, during all times of the day but mainly in the weekend.
• Medicinal drugs were in general mainly detected among older female drivers during daytime hours.

Roadside Drug Testing

Road Traffic without Drugs in the Nordic Countries

• a project designed to develop more effective action against drug driving

• managed by MA Norway and MHF Sweden
The project’s content

• A Scandinavian-Nordic project in cooperation between the temperance organizations, state authorities, research institutions and innovators with a goal to develop more effective methods and tools to detect drug impaired drivers.

• To enable the use of drug screening instruments in road traffic, we focus on
  – Development of effective screening instruments
  – Quality Assurance and Standardization
  – Public support from the public at large, social commentators and media
  – Continuous dialogue with the authorities and politicians
  – Adaptation of laws and regulations

• MA and MHF gathers the stakeholders in this technical, legal and political development.
Present situation in Norway

- Legal limits for twenty illegal drugs and medicines with an abuse potential were introduced by the Norwegian government in 2012. Norway is the first country to define both impairment-based legislative limits and limits for graded sanctions for drugs other than alcohol.

- The police has the legal right to test for drugs in roadside controls (Vegtrafikkloven § 22).

- Traffic police tested one quick screening device during summer 2013:
  - 143 testers were used. 79 gave a sustainable result, 64 did not.
  - The use of the device was immediately terminated.
  - Contract ends November 2014.
At present the police uses “signs and symptoms” and ANPR (Automatic Number Plate Recognition)
Present situation in Sweden

- The Swedish Road Traffic Offences Act was changed on July 1st 1999 and a zero-limit for narcotic substances in blood was introduced.
- A police officer may carry out an eye examination on a driver suspected of driving under the influence.
- Blood tests may be taken from an individual whom there is reasonable cause to suspect of committing an offence for which imprisonment is included in the scale of penalties, e.g. driving under the influence.
- Random roadside drug testing is still not allowed in Sweden.
- The Swedish police have carried out tests on drug testing instruments in 2013 and 2014.
- A committee within the Swedish Standards Institute has initiated a project with the aim to determine functional requirements on fast drug tests. MHF is involved in the work.
Legal Issues regarding Drug Testing in Europe

• The European Convention on the Protection of Human Rights guarantees the right to privacy, except:
  “in the interest of national security, public safety or the economic well-being of the country, for the prevention of disorder and crime, for the protection of health and morals, or for the protection of the rights and freedoms of others” (Article 8)

• To undertake an alcohol or drug test of a person can be seen as a physical violation and thereby an intervention in someone's personal life.

• The police must always be authorized by law to perform drug tests in road traffic.
Drug Test Methods Today and Tomorrow

Today, drug analysis of

- blood
- urine
- sweat
- hair
- saliva

The analysis often takes time and requires the involvement of qualified laboratory personnel.

Saliva analysis - the predominant method of on-site drug tests in road traffic today

Relevant requirements of methods and instruments used for road side detection of drugs

- specific measurement of the most common drugs
- quick preliminary on-site analysis
- possible to follow up with the evidential tests, such as in blood, urine, etc.
- legally acceptable method (non-invasive)
examples of equipment for saliva tests
Today’s on-site screening devices

- Inaccurate
- The process is too slow
- Difficult to gather enough saliva
- Difficult to detect THC in saliva
- Example: Estonia, BIOSENS system used for Roadside Testing of narcotics abuse
Alco Gates in Sweden
Background - Drink Driving in Sweden

• Sweden is the safest European country for road safety, with just 27 road deaths per million inhabitants in 2013.
• Drink driving remains one of the main road safety priorities.
• 24% of drivers killed on Swedish roads in 2012 were involved in an alcohol-related crash.
• The Swedish Transport Administration has set a target on drinking and driving for 2020 that 99.9% of drivers should be sober. In 2009 the proportion was estimated to be 99.7%.
• Ports have long been considered by the Swedish police, customs authorities and the coastguard as environments at high risk for drink driving.

The Alco Gate Trial

- The alco gate pilot project was carried out between August and December 2013 in the port of Gothenburg.
- The trial involved five different stakeholders: the Swedish Abstaining Motorists Association (MHF), the Coast Guard, the National Police Board, Swedish Customs and the Swedish Transport Administration.
- The alco gates exploit similar technology to alcohol interlocks in the installation of checkpoints for all trucks and buses entering Sweden via ferry.
- The alco gates have been constructed by MHF and are technically verified by the Swedish National Laboratory of Forensic Science - SKL
How Does an Alco Gate Work?
The Management Centre in Tibro
Film from Gothenburg harbour

http://www.youtube.com/watch?v=c3F0SB9G17Y&list=PLxxi1QIETYF6mBrsS87jbZyITV8ZecnNf&feature=share&index=2
Results: Before the Trial

Before the installation of the alco gate in the port, the results of the checks were as follows:

- During January–June 2013, Swedish Customs checked 1,900 drivers; The number of drivers found driving under the influence of alcohol was 20; This means that 1 out of 95 drivers checked was driving under the influence of alcohol.
Results: During the Trial Period

- From August to December 2013 in the port of Gothenburg a total of 8,745 drivers were checked at the alco gate, 10 of whom were reported for suspicion of drunk driving or aggravated drunk driving.
- This means that 1 out of 875 drivers checked was driving under the influence of alcohol.
- 1 out of 327 drivers of passenger cars who were checked was driving under the influence of alcohol.
- only 1 out of 2,150 truck drivers checked was driving under the influence of alcohol.
- No negative impact on the traffic flow was recorded. It takes only seconds to carry out the test detect the BAC level of the driver.
Continued activities

- A 6-lane alco gate is launched at the Port of Stockholm which will check all vehicles coming to Sweden from Russia and the Baltic states via ferries.
- The government will probably introduce alco gates permanently in all Swedish harbours.
The European Perspective

• The alco gate technology could also inspire other European countries to introduce automated alcohol testing at their borders.
• The organizations in NordAN can together with the European Transport Safety Council (ETSC) conduct crucial advocacy in this area.
Thanks for your attention!