5

10.2.e

Van: 10.2.e
Verzonden: donderdag 18 maart 2010 14:30
Aan: 10.2.e
CC:
Onderwerp: Grenswaarden in verkeer

Urgentie: Hoog

Bijlagen: Verslag art 8 WVW 8 mrt '10.doc; Advies grenswaarden 18 maart 2010.doc

Beste allen,

Bijgevoegd:
- het verslag van de bijeenkomst van maandag 8 maart j.l.
- een tweede concept van het "Advies grenswaarden voor drugs"


Verslag art 8 WVW 8 mrt '10.d...


Advies ıswaarden 18 maart

Zo mogelijk uiterlijk dinsdag 23 maart 12.00 uur opmerkingen/aanvullingen t.a.v. 10.2.e 10.2.e **@nfi.minjus.nl** ivm mijn afwezigheid week 12.

Het beoogde vervolgtraject is dan:
- donderdag 25 maart 10.2.e stuurt een nieuwe, de beoogde laatste versie van het advies rond met daarin de opmerkingen/aanvullingen verwerkt.
- uiterlijk maandag 29 maart voor 12.00 uur: laatste opmerkingen en/of akkoord t.a.v 10.2.e aanpassing van het rapport door 10.2.e en verzending t.a.v. Minjus.

Op donderdag 1 april a.s. vergadert de interdepartementale werkgroep over dit onderwerp en het zou mooi zijn als het advies dan afgerond is.
Nog ter herinnering, declaraties voor beide bijeenkomsten kunnen ingestuurd worden t.a.v.
10.2.e

Bij voorbaat dank voor de te nemen moeite!
10.2.e

Nederlands Forensisch Instituut
Laan van Ypenburg 6
2497 GB Den Haag
10.2.e

10.2.e

18

Van: 10.2.e
Verzonden: maandag 22 februari 2010 8:55
Aan: 10.2.e
CC: 10.2.e
Onderwerp: RE: Stukken bijeenkomst grenswaarden d.d. 8 maart a.s
Bijlagen: 10.2.e cannabis_DAD_2006_proof.pdf

Hallo 10.2.e

11.1

Groet, 10.2.e

From: 10.2.e @nfi.minjus.nl]
Sent: vrijdag 19 februari 2010 15:04
To: 10.2.e
Cc: 10.2.e
Subject: Stukken bijeenkomst grenswaarden d.d. 8 maart a.s

Beste allen,

Bijgevoegd:
- het verslag van de bijeenkomst van maandag j.l.
- een eerste concept/voorzet "Advies grenswaarden voor drugs"
- het verslag van het Algemeen Overleg met de vaste commissie voor Verkeer en Waterstaat op 16 december 2009 over de introductie van de speekseltester in de Wegenverkeerswet 1994 en de afweging om al dan niet grenswaarden te hanteren (ter info, volgens afspraak).

<<Verslag art 8 WVW 15 febr.doc>> <<Advies grenswaarden februari 2008.doc>> <<29398 Hand II speekseltester in WVW94.pdf>>

Voorgestelde agenda maandag 8 maart 2010:

12.30-13.00 ontvangst met lunch op NFI
13.00-13.10 opening en welkom
13.10-13.30 verslag d.d. 15 februari 2010
13.30-15.30 bespreking van en discussie over het eerste concept "Advies grenswaarden voor drugs"
15.30-15.45 samenvatting
15.45-16.00 afspraken voor eventueel vervolg

11.1

Buiten reikwijdte verzoek

10.2.e **nfi.minjus.nl**)

Buiten reikwijdte verzoek

Dank vast voor de te nemen moeite!
Met vriendelijke groet,

10.2.e

Nederlands Forensisch Instituut
Laan van Ypenburg 6
2497 GB Den Haag

10.2.e

20

10.2.e

Van: 10.2.e
Verzonden: vrijdag 19 februari 2010 15:04
Aan: 10.2.e
CC:
Onderwerp: Stukken bijeenkomst grenswaarden d.d. 8 maart a.s

Bijlagen: Verslag art 8 WVW 15 febr.doc; Advies grenswaarden februari 2008.doc; 29398 Hand II speekseltester in WVW94.pdf

Beste allen,

Bijgevoegd:
- het verslag van de bijeenkomst van maandag j.l.
- een eerste concept/voorzet "Advies grenswaarden voor drugs"
- het verslag van het Algemeen Overleg met de vaste commissie voor Verkeer en Waterstaat op 16 december 2009 over de introductie van de speekseltester in de Wegenverkeerswet 1994 en de afweging om al dan niet grenswaarden te hanteren (ter info, volgens afspraak).

Verslag art 8 WVW 15 febr.doc ... | Advies nswaarden februari | 29398 Hand II speekseltester i...

Voorgestelde agenda maandag 8 maart 2010:

12.30-13.00 ontvangst met lunch op NFI
13.00-13.10 opening en welkom
13.10-13.30 verslag d.d. 15 februari 2010
13.30-15.30 bespreking van en discussie over het eerste concept "Advies grenswaarden voor drugs"
15.30-15.45 samenvatting
15.45-16.00 afspraken voor eventueel vervolg

11.1

Dank vast voor de te nemen moeite!
Met vriendelijke groet,

10.2.e
Nederlands Forensisch Instituut
Laan van Ypenburg 6
2497 GB Den Haag
10.2.e

10.2.e

10.2.e

23

Van: 10.2.e
Verzonden: maandag 15 februari 2010 8:57
Aan: 10.2.e
Onderwerp: RE: Discussie grenswaarden in verkeer

Beste 10.2.e

Buiten reikwijdte

3

Misschien handig om de agenda vooraf nog even door te spreken? 10.2.e en een administratief medewerker notuleren.

13.00 - 13.10 welkom door 10.2.e
13.10 - 13.30 introductie met doel vd bijeenkomst/procedure
13.30 - 15.15 discussie grenswaarden (inclusief koffiebreak)
15.15 - 15.30 afronding, samenvatting discussie grenswaarden en afspraken mbt vervolg
15.30 - 15.45 brainstormrondje gedragstesten en afspraken voor vervolg (wie is betrokken, verdeling taken, tijdslijn)
15.45 - 16.00 brainstormrondje speekseltesters en afspraken voor vervolg (wie is betrokken, verdeling taken, tijdslijn)

Kun je je hierin vinden?

Groet,
10.2.e

Van: 10.2.e
Verzonden: maandag 15 februari 2010 7:40
Aan: 10.2.e
Onderwerp: RE: Discussie grenswaarden in verkeer

11.1

Tot straks....

Met vrgt
10.2.e

Van: 10.2.e
Verzonden: vrijdag 29 januari 2010 14:05
Aan: 10.2.e
CC: 10.2.e
Onderwerp: Discussie grenswaarden in verkeer

Beste allen,

Bijgevoegd:

15-2-2010

- Discussiestuk grenswaarden voor drugs ter bespreking d.d. 15 februari a.s.

11.1

Daarbij ter informatie het rapport "Driving under the Influence of Alcohol and Drugs:A Survey on Zero Tolerance, Saliva Testing and Sanctions" door Wolf-Rudiger Nickel en Han de Gier.

De stukken graag vertrouwelijk behandelen.

<<Discussiestuk januari 2010.doc>> 11.1 <<Zero tolerance and salvia testing_incl appendix.pdf>>

Graag tot 15 februari,
Met vriendelijke groet,

10.2.e

Nederlands Forensisch Instituut
Laan van Ypenburg 6
2497 GB Den Haag
10.2.e
10.2.e
10.2.e

Van: 10.2.e
Verzonden: dinsdag 12 januari 2010 14:53
Aan: 10.2.e

CC: 10.2.e
Onderwerp: Discussie grenswaarden in verkeer
Urgentie: Hoog

Geachte collega,

Dank voor de snelle en positieve reacties op de uitnodiging voor de discussie grenswaarden in het verkeer!

De datum is geworden: **maandag 15 februari a.s.**

Locatie: NFI, Laan van Ypenburg 6, 2497 GB Den Haag, routebeschrijving is als bijlage bijgevoegd.

Programma:
12.30-13.00 ontvangst met lunch
13.00-16.00 discussie

Een discussiestuk met daarin de context, vraagstelling en een aanzet voor discussie zal naar verwachting eind januari rondgestuurd worden.

Nederlands Forensisch Instituut
Ministerie van Justitie

10.2.e

25

Van: 10.2.e
Verzonden: maandag 25 januari 2010 12:46
Aan: 10.2.e
Onderwerp: RE: Discussie grenswaarden in verkeer
Bijlagen: 3

Beste 10.2.e

Buiten reikwijdte verzoek

Groeten,
10.2.e

10.2.e

From: 10.2.e
Sent: Tuesday, January 12, 2010 2:53 PM
To: 10.2.e
Cc: 10.2.e
Subject: Discussie grenswaarden in verkeer
Importance: High

Geachte collega,

Dank voor de snelle en positieve reacties op de uitnodiging voor de discussie grenswaarden in het verkeer!

De datum is geworden: **maandag 15 februari a.s.**

Locatie: NFI, Laan van Ypenburg 6, 2497 GB Den Haag, routebeschrijving is als bijlage bijgevoegd.

Programma:
12.30-13.00 ontvangst met lunch
13.00-16.00 discussie

Een discussiestuk met daarin de context, vraagstelling en een aanzet voor discussie zal naar verwachting eind januari rondgestuurd worden.

Deelnemers (in willekeurige volgorde):
10.2.e
10.2.e 10.2-e

15-2-2010

10.2.e

10.2.e

10.2.e

10.2.e

10.2.e

10.2.e

Als er nog vragen zijn hoor ik het graag!
Met vriendelijke groet,

10.2.e

Nederlands Forensisch Instituut
Laan van Ypenburg 6
2497 GB Den Haag
10.2.e
10.2.e
10.2.e

<<RoutebeschrijvingNFI.pdf>>

26

Discussiebijeenkomst ivm voorgenomen wetswijziging art 8 WVW
15 februari 2010 NFI

Agenda

13.00 - 13.10	Welkom door 10.2.e
13.10 - 13.30	Introductie
13.30 - 15.15	Discussie grenswaarden
15.15 - 15.30	Afronding, samenvatting discussie grenswaarden en afspraken mbt vervolg
15.30 - 15.45	Brainstormrondje gedragstesten en afspraken voor vervolg (wie is betrokken, verdeling taken, tijdslijn)
15.45 - 16.00	Brainstormrondje speekseltesters en afspraken voor vervolg (wie is betrokken, verdeling taken, tijdslijn)

11.1

11.1

11.1

28

Driving under the Influence of Alcohol and Drugs:

A Survey on Zero Tolerance, Saliva Testing and Sanctions

Wolf-Rüdiger Nickel

Han de Gier

October 2009

Content

Executive Summary	**3**
List of abbreviations	**5**
List of tables	**6**
1 Overview of topic	**7**
2 Research Questions	**8**
3 Method	**10**
4 Results	**11**
4.1 Returned questionnaires	**11**
4.2 Quantity and quality of information	**12**
4.3 Answers	**12**
4.3.1 Part I of the questionnaire (Limit Values)	**12**
4.3.2 Part II of the questionnaire: Saliva testing	**18**
4.3.3 Part III of the questionnaire - criminal/administrative charges	**22**
4.3.3.1 Maximum punishment for alcohol, drug and medicine use	**23**
4.3.3.2 Sanctions for combined use of alcohol, drugs and medicines	**26**
4.3.3.3 Zero tolerance legislation	**27**
4.3.3.4 Legislation and reasoning on rejection of zero tolerance	**28**
4.4 Résumé	**30**
5 Discussion and Conclusions	**33**
6 References	**34**
Appendix	**34 sqq**
1 Questionnaire	**30**
2 Tables	**50**
3 Returned questionnaires	**89**
4 Literature/references provided by respondents	**90**

Executive Summary

The Ministry of Justice and the Ministry of Transport, Public Works and Water Management of the Netherlands assigned the authors of this study to conduct research on the reasoning for legislation and enforcement of driving under the influence of drugs in various countries.

The questions to be asked have been discussed in detail in order to develop a questionnaire based on these questions. Completed questionnaires were checked for clarity of responses; in some cases clarity was established by additional questions and interviews respectively. The countries to be included in the survey (Australia, Belgium, Finland, Germany, Norway, Portugal, Spain, Sweden) were selected on existing background information on their respective legislative approaches (zero tolerance, impairment, or a combination of both) to drug driving.

The research was conducted from August 3 to October 30, 2009. As a consequence of the relatively short period of time for collecting the required information it was decided to keep closely to the questions and refrain from a more detailed overview of research conducted in the area of drugs and driving.

The survey based on a response rate of 100% yields answers to all questions asked. Detailed and complex information was retrieved on limit values for driving under the influence of alcohol, on whether there are specific BAC limits for high risk subgroups of drivers and more severe consequences for those groups when convicted. Countries applying threshold values or analytical cut-offs for psychotropic drugs provided the values either documented in their legislation or in other valid documents. A number of respondents delivered extensive lists of research literature either on research conducted in their countries or used as reference for national legislation.

As many countries worldwide use saliva testing as a means to establish either evidence on driving under the influence of drugs or to initiate more evidential proof, the question on the police and prosecuting procedures was focused. It can be demonstrated that there are quite heterogeneous approaches and procedures. The reason for this heterogeneity may be traced down to yet unsolved toxicological problems. On the other hand, none of the respondents of legislations applying saliva testing has reported major problems.

An overview of the three existing approaches to drug driving – zero tolerance laws, impairment approach, two-tiered systems – showed that legislative development in a number of countries has finally produced a zero tolerance approach. For some countries, however, respondents judge their zero tolerance approach as being "practically zero tolerance" because their approach allows the use of prescribed medicines if there are no symptoms of impairment. By definition this is, however, actually a two-tier approach to combat drug driving.

Finally, with respect to criminal and administrative sanctions and charges there seems to be a tendency to penalize according to higher risk although sanctions may differ substantially for individual offenses.

About the Authors

Dipl.-Psych. MSc **Wolf-Rüdiger Nickel** has a long standing record of evaluation research and development of driver rehabilitation with numerous publications. He was the director of the Medical-Psychological Institutes in Hannover and Munich (Germany), is a Member of the Executive Board of the German Society for Traffic Psychology (DGVP) and is currently President of the International Council on Alcohol, Drugs and Traffic Safety (ICADTS).

Prof. Dr. **Han de Gier** is teaching at the Department of Pharmacotherapy and Pharmaceutical Care of the University of Groningen (The Netherlands). He has published and edited numerous research articles and books on drugs, driving and traffic safety. He is a Member of the Executive Board of the International Council on Alcohol, Drugs and Traffic Safety (ICADTS), the ICADTS Foundation and past president of ICADTS.

List of Abbreviations

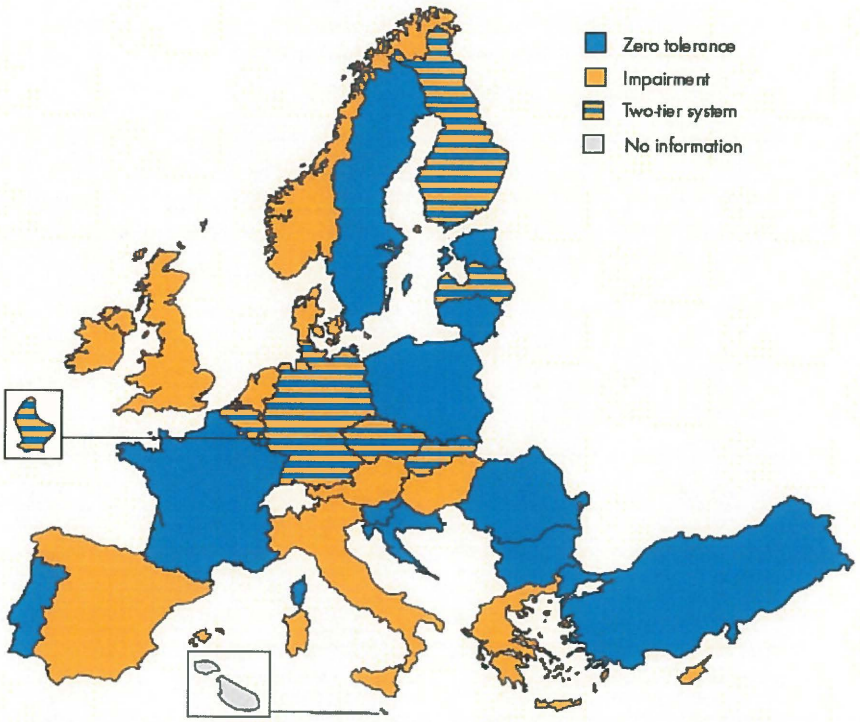
AUS	Australia
A$	Australian Dollar
B	Blood
BAC	Blood Alcohol Concentration
BASt	Bundesanstalt für Straßenwesen
CARRS-Q	Centre for Accident Research and Road Safety – Queensland
DE	Germany
DRUID	**Dr**iving **u**nder the **I**nfluence of **D**rugs ,Alcohol and Medicines
DUI	Driving under the influence (of any substance)
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
FIN	Finland
g/L	Grams per litre
GC/MS	Gas chromatography-mass spectrometry
LC-MS	Liquid chromatography-mass spectrometry
LOD	Limit of Detection (definition see p. 95)
LOQ	Limit of Quantitation (definition see p. 95)
ng/ml	Nanograms per millilitre
P	Plasma
QLD	Queensland
ROSITA	**Ro**ad**s**i**d**e **T**esting **A**ssessment
S	Sweden
Sa	Saliva
Se	Serum

List of Tables and Figures

Table/Picture	Content	Page
Picture 1	Overview of approaches to drug driving in Europe	7
Table 1	Approaches to drug driving in European countries (adapted from EMCDDA, 2009)	8
Table 2	Countries and contacts selected for the survey	11
Table 3	Limit values for alcohol	12
Table 4	More severe consequence for specific subgroups and/or circumstances	13
Table 5	Limit values (analytical cut-offs) for drugs	14
Table 6	Analytical cut-offs (ng/ml) in countries applying limit values	15
Table 7	Epidemiological and experimental research conducted in selected countries	16
Table 8	Research impact on country's legislation	17
Table 9	Saliva testing in the selected countries	19
Table 10	Procedures in case of a drug positive result in saliva testing	20
Table 11	Named type of drug for saliva testing	21
Table 12	Assessment of prescribed medicines	22
Table 13a	Maximum sanctions / punishment (Alcohol)	23
Table 13b	Maximum sanctions / punishment (Drugs)	24
Table 13c	Maximum sanctions / punishment (Medicines)	25
Table 14	Sanctions for combined use of alcohol, drugs and medicines	26
Table 15	Zero tolerance legislation and reasoning	27
Table 16	Reasoning on lack of zero tolerance legislation	28
Table 17	Comparison of Approaches to Drug Driving	29

1 Overview of Topic

Most European countries take one of two approaches to define 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 (Figure 1).



Source: European Legal Database on Drugs

Picture 1: Overview of approaches – zero tolerance, impairment, two-tier – to drug driving in Europe (and Turkey)- (EMCDDA, 2009)

The European Monitoring Center for Drugs and Drug Addiction (EMCDDA) has published an overview of approaches to drug driving in European countries including the status of the offence and the type of sanctions for driving under the influence of drugs (Appendix 3). A reduced and adapted version of this overview is shown in Table 1.

Table 1: Approaches to drug driving in European countries (adapted from EMCDDA, 2009)

Country	Zero Tolerance	Impairment	Two-tier approach[1)]
Austria		X	
Belgium	X	X	Zero tolerance for 7 named substances
Czech Republic		X	
Cyprus		X	
Denmark		X	
Germany	X	X	Zero tolerance for 7 named substances
Estonia	X		
Finland	X	X	(X) [2)]
France	X		
Greece		X	
Hungary		X	
Ireland		X	
Italy		X	
Lithuania	X		
Luxembourg		X	
Netherlands		X	
Poland	X		
Slovakia	X		
Slovenia	X		
Spain		X	
Sweden	X [3)]		
United Kingdom		X	
All	**10**	**15**	**3**

[1)] Two-tier approach: prohibiting impairment by any drug but also identifying certain substances for zero tolerance
[2)] the combination of zero tolerance with impairment is in fact the two-tier approach
[3)] Sweden: except for substances with medical prescription

2 Research questions

The Director General Mobility (Ministerie van Verkeer en Waterstraat), Drs. S. Riedstra, assigned "research on drugs" in a letter of August 3rd, 2009 to the author (Nickel) by stating "I hereby confirm that you are assigned to conduct research on behalf of the Ministry of Transport, Public Works and Water Management of the Netherlands on the reasoning for legislation and enforcement of drug driving in various countries." The research questions were added as attachment:

1. Limit values
1.1 Which countries have limit values in their traffic law for alcohol, drugs and medicine? What are these limit values and what are they based on.
1.2 Has their been research conducted considering the concentration of a used drug/or medicine and the influence on the driving ability? If so what are the results of this research?

2. Saliva testers
2. 1 What counties use saliva testers for detection of drugs? What countries use them for detection as a first indication (pre selection device) and what countries use saliva testers as legal evidence?
2.2 What is the motivation for using saliva testers as a pre selection device and to use saliva as evidence or blood as evidence?
2.3 In the countries that use saliva testers, has it been prescribed in legislation for which drugs they can be used?
2.4 In these mentioned countries, how are other drugs being detected that cannot be detected by a saliva tester? By coordination test for example?
2.5 In the countries that use saliva testers, how is the detection done of usage of medicines by a driver?

3. Criminal/Administrative charges
3.1 Is there a distinction in the maximum punishment between alcohol, drugs and medicines in other countries?. Again this should be addressed to certain countries not any possible.
3.2 Is the maximum criminal/administrative charge of combined use of drugs and alcohol, and or medicines higher or lower than the criminal/administrative charge for single use of alcohol, drugs and medicines? If so to what degree and what is the motivation.

The research questions were supplemented by two questions on the reasoning for the adoption or rejection of zero tolerance legislation ("3.3 Reasoning for adoption of zero tolerance legislation" and "3.4 Reasoning for rejection of zero tolerance legislation" and transformed into a questionnaire (Appendix 1). The questionnaire contains three parts:

Part 1: Limit values
Part 2: Saliva testing
Part 3: Criminal/administrative charges and sanctions

Part 1 of the questionnaire was subdivided into the following sections:

1.1 Alcohol
1.2 Illicit drugs

1.3 Medicines
1.4 Research on concentration of drugs/medicine

Part 2 was subdivided into the following sections

2.1 Roadside saliva testing/Laboratory saliva testing
2.2 Testing procedure
2.3 Specification of drugs for saliva testing

Finally, part 3 was subdivided into four sections:

3.1 Maximum punishment
3.2 Combined use of alcohol, drugs and/or medicines
3.3 Reasoning for adoption of zero tolerance legislation
3.4 Reasoning for rejection of zero tolerance legislation

3 Method

The questionnaire was designed according to the required information. It was gratefully checked for comprehensiveness with respect to the research questions by Prof. Alain Verstraete (University of Gent, Belgium). Introductory remarks were added in order to describe the topics to be covered in the questionnaire and to explain the background of the survey. Contact details of the first author of this report were added at the beginning and at the end of the questionnaire. Finally respondents were asked to give their main contact details and office hours in case further questions arise. The final questionnaire (Appendix 1) was sent to contact persons with expert knowledge in the field of drugs and driving in the countries listed in Table 2. Except for Portugal and Spain – which were added because of their specific drug driving legislation - the countries had been selected by the Ministry of Transport on the background of previous information on their specific legislations.

Returned questionnaires were checked for comprehensiveness and clarity of the provided information. If either the criteria of comprehensiveness and/or clarity were not met to the desirable extent, additional contact was established with the respondents who were asked to answer additional questions for the purpose of clarity. This was mainly achieved through further correspondence and telephone.

The information and data provided in the questionnaires was then transformed into tables.

The survey was conducted within the time period of September 1 to October 30, 2009.

Table 2: Countries and contact persons selected for the survey

Country	Name
Australia by States	Prof. Mary Sheehan, Centre for Accident Research and Road Safety - Queensland (CARRS-Q)
Queensland	Dr. Gavan Palk, Centre for Accident Research and Road Safety - Queensland (CARRS-Q)
Victoria	Dr. Philip Swann, Swinburne University of Technology, Senior Research Fellow in the Faculty of Medicine at Melbourne University.
Belgium	Karel Hofman, Attaché, FOD Mobiliteit en Vervoer, Directie Verkeersveiligheid, Dienst Verkeersreglementering,
Finland	Pirjo Lillsunde, PhD Adjunct Professor, Head of Laboratory, National Institute for Health and Welfare, Alcohol and Drug Analytics, Helsinki
Germany	Rüdiger May, Ulrike Buhrke BMVBS, Bonn Martina Albrecht, Bundesanstalt für Straßenwesen (BASt)
Norway	Prof. Asbjørg Christophersen Division of Forensic Toxicology and Drug Abuse Norwegian Institute of Public Health, Oslo
Portugal	Mario Dias Director do Serviço de Toxicologia Forense Lisbon
Sweden	Lars Englund, MD, PhD, Chief Medical Officer Traffic Medicine Advisory Board,Driving License Unit Road Traffic Division Swedish Transport Agency
Spain	Prof. Manuel Lopez-Rivadulla Catedrático de Toxicología Servicio de Toxicología Forense, Instituto Universitario de Medicina Legal, Universidad de Santiago de Compostela.

4 Results

4.1 Returned questionnaires

Due to the limited time available for the design and dissemination of the questionnaire the contact persons had been asked to return their responses until October 5th the latest. This deadline could not be kept by some of the respondents due to other assignments, sickness or holidays. In addition some of the contact details showed to be misleading or wrong; in two cases questionnaires sent via email were spam-filtered and originally did not reach the addressee. Furthermore, questionnaire fatigue had to be overcome in some cases. However, by October 30 all questionnaires finally had been returned thus generating a response rate of 100%.

4.2 Quantity and quality of information

Whenever a questionnaire had been returned incomplete, thus lacking information, the respondent was addressed again in order to establish comprehensiveness. In some cases comprehensiveness was achieved by additional telephone interviews. In other cases comprehensiveness was not fully established. The quality of information varied to some degree. Responses differed mainly with respect to the amount of additional information that had not been asked for specifically but helped understand the information. On the other hand it was not the purpose of the survey to achieve a representative overview.

4.3 Answers

In the following paragraphs the received information is ordered by research questions.

4.3.1 Part I of the questionnaire (Limit Values)

Table 3 summarizes the information on legal limit values for alcohol:

Table 3: Limit values for alcohol

Country	Limit values for alcohol (g/L)
Australia Queensland Victoria	0.00 (age< 25) minors and professional drivers 1.5 (majors) limits depend on age and driving experience and normal limit is 0.05 BAC 0.2 for various groups
Belgium	0.5
Finland	0.5 0.5 g/l in blood, 0,22 mg/l breath alcohol; severe drunken driving :BAC 1.2 g/l and breath 0,53 mg/l
Germany	0.5 Different limits for various groups (e.g. minors)
Norway	0.5
Portugal	0.5
Spain	0.5
Sweden	0.2

Legal limit values for alcohol are 0.5 g/l in most European countries of the survey, except Sweden (0.2 g/l). In Australia there is no uniform national limit value as the states have the right to differentiate. There are lower limits for minors (novice drivers) and professional drivers. Limits in Queensland depend on age and driving experience although the "normal" limit is claimed to be 0.5 g/l. In Germany a zero limit for novice drivers is applied.

The information is given in table 4 summarizing the responses to question 1.1.1: ***Are there other BAC thresholds or more severe consequences under the following circumstances?***

For this purpose various driver subgroups and specific circumstances were defined:

Young drivers
Novice drivers
Professional drivers
Repeat offenders / recidivists
Making an unsafe manoeuvre
Involvement in an accident
Other (e.g. Dangerous goods and passenger transport)

Table 4: More severe consequence for specific subgroups and/or circumstances

Country	Yes/No	More severe consequences						
		young	novice	prof.	repeat	unsafe	accident	other
Australia Queensland	X				X	X	X	
Australia Victoria	X	X						
Belgium	X	1	1	1	X	X	X	X
Finland	No	-	-	-	-	-	-	-
Germany	X		X					X
Norway	No							
Portugal	X				X	X	X	
Spain	X							X
Sweden	No							

1 under negotiation

In Norway and Sweden different BAC thresholds for specific groups of drivers are not applied. All other countries differentiate BAC thresholds to varying degrees. As some countries apply highly differentiated and extensive regulations for subgroups or circumstances, they are only given in the Appendix (2, tables). It is, however, obvious that nearly all countries (except Norway and Sweden) have sophistically defined individual BAC levels according to the relative risk posed by those groups. The approach of Sweden and Norway with a uniform (low) limit may as a consequence lead to higher public acceptance. This, however, has not been part of the questions asked.

Questions 1.2 and 1.2.2 of the questionnaire clearly focused on drugs and driving.

Table 5 summarizes the information on limit values for drugs (questions 1.2 and 1.2.1 : ***Are limit values [analytical cut-offs] for drugs applied?***)

Table 5: Limit values (analytical cut-offs) for drugs

Country	**Limit values (analytical cut-offs) for drugs are applied**			
	Yes	**No**	**Comment**	**1.2.1 Where mentioned?**
Australia by States				
Queensland		X	The limit is zero for illicit drugs	No answer
Victoria	X			Road Safety Acts and Regulations [1)]
Belgium	X			Moniteur Belge-30.03.1999-Belgisch Staatsblad http://www.wegcode.be/wet.php?wet=42
Finland	X			Not (yet) legislated, applied by the laboratory
Germany	X			Publication of "limit values commission"
Norway		X	impairment law - If illicit drugs are detect-ed drivers may be sentenced according to the narcotic use law	
Portugal	X			analytical cut-offs are not included in legislation
Spain		X		
Sweden		X	zero legislation for illicit drugs and also illicit use of medicinal narcotic drugs if used without prescription	

[1)] legislation based on both Impairment legislation using psychomotor tests and oral fluid legislation

Limit values for drugs are applied in the state of Victoria (Australia), Belgium, Finland, Germany and Portugal. The only countries of those selected for this survey having legislated limit values and published them in legislative documents are Victoria (Australia) and Belgium. In Germany, Portugal and Finland limit values have been ruled by different types of limit-values commissions; the values are published in documents which have become mandatory for laboratories although not documented in the law. For detailed additional information (AUS, DE, FIN, S) see Appendix p. 62 and valuable information on p. 92 (Swann 2009).

The information provided with respect to question **1.2.2** ***"If limit values are applied, please specify by marking the matrix (serum, plasma, whole blood, saliva) which is measured"*** is summarized in Table 6 only for those countries applying limit values:

Table 6: Analytical cut-offs (ng/ml) in countries applying limit values

	Analytical cut-offs (ng/ml) Measured in Se, P, B, Sa [1)]				
Substance	Victoria	Belgium	Finland	Germany	Portugal
THC	-	2 (P)	1 (Se)	1 (Se)	3 (B)
Amphetamine	-	50 (P)	6 (Se)	25 (Se)	5 (B)
MDMA (Ecstasy)	-	50 (P)	6,5 (Se)	25 (Se)	5 (B)
Morphine or 6-acetylmorphine	-	20 (P)	8 (Se)	10 (Se)	5 (B)
Cocaine	-	50 (P)	15 (Se)	10 (Se)	5 (B)
Benzoylecgonine	-	50 (P)	10 (Se)	75 (Se)	5 (B)
Methamphetamine	-	-	-	25 (Se)	5 (B)
6MAM; MBDB; 11-OH-THC	-	-	-	-	5 (B)

[1)] Se=serum; P=plasma; B=whole blood; Sa=saliva

As can be seen from Table 6 Belgium and Germany apply higher limit values for most of the substances than for example Portugal. As the values for serum and plasma are comparable, in Germany analytical cut-offs have only been defined for serum by the "limit-value commission" of the Ministry of Transport. In Portugal all blood samples are analysed only by the three labs of the National Institute of Legal Medicine, using the same methodology and the same analytical cut-offs corresponding to the LOQ (Limit of Quantitation).

Finally, as for alcohol and drugs, the question was also asked for medicines (Question 1.3).

None of the selected countries is applying cut-off values for either prescribed medicines or for illegally used medicinal drugs. The reasoning differs slightly from one country to another. Australia (Queensland) argues that the medicines must but be found to impair the driving. It can be argued that small amounts have not impaired the driving. This is difficult to argue in the event of an accident and legal drugs that could possibly impair driving are found in the blood. In Victoria legislation is based firstly on impairment using psychomotor testing than on LOQ limits of evidentiary equipment used in laboratories. A further comment from the Victorian respondent sheds some light on the underlying problem of limit values: "Abuse levels are detected by established proven psychomotor-tests as toxicologists cannot agree on impairment levels to the extent required for legislation". Cf. comment on p. 63, p. 92.

The comment of the Swedish respondent is explaining the procedure in Sweden: If a person is obviously unfit to drive and suspected by the police to be under the influence of drugs, blood samples may be taken. If these show legal narcotics that are explained by a doctor's prescription the driver has a responsibility himself to be in a condition fit to drive according to sickness, sleepiness, use of drugs etc. There are no specific levels indicated in legislation. Sometimes there are discussions about levels in blood compared to the dose prescribed, but the legal condition to be "fit enough" applies anyway.

In Spain, there may be a legislative initiative after the results of the DRUID project will have been published. The Spanish Directorate of Traffic is considering to propose drug limits to

parliament. For the time being the Spanish situation is a standby one. For illicit drugs the Spanish penal law establishes that anyone driving a motor vehicle or moped while under the influence of toxic drugs, narcotics, psychotropic substances or alcohol will be punished, but it is necessary that the police agent complete a form with the clinical symptoms of the driver being under the influence. The case will be evaluated in court; experience however shows that the possibilities to penalise are limited without the analytical data substantiating the type and degree of drug use.

In Belgium no roadside screening tests for medicines are available for the time being; as stated by the Belgian respondent, this is due to the intention to diminish cost.

The Norwegian impairment law rules that a driver without a prescription for the medicine detected may be prosecuted according to the narcotic use law. For illicit drugs a new law (low-concentration - - zero limit) has been proposed and will probably be decided by Parliament in 2010. If the driver has a prescription and the dosage is according to the prescription there will be no punishment. If using several medicinal drugs in combination the driver can be sentenced based on the impairment law. In Finland the laboratory is using analytical thresholds (depends on the laboratory).

The topic of research on concentration of drugs/medicines was subdivided into two separate questions: 1.4.1 (***Has there been research conducted in your country considering the concentration of a consumed drug and/or medicine and their impact on driving performance?***) and 1.5 (***Have any research results (national or international) had an impact on your country's legislation?).***

The information on conducted research is presented in Table 7:

Table 7: Epidemiological and experimental research conducted in selected countries

Country	Epidemiological research		Experimental research	
	Yes	No	Yes	No
Australia (QLD)	X		X	
Australia (Victoria)	X		X	
Belgium	X			
Sweden	X			
Finland	X		X	
Germany	X		X	
Spain	X			X
Portugal		X		X
Norway	X		X	

With the exception of Portugal for both epidemiological and experimental research and Spain for experimental research all countries in the survey have conducted research

considering the concentration of a consumed drug and/or medicine and their impact on driving performance. The respondents from Australia, Sweden, Spain, Germany, Belgium and Norway provided extensive lists of national research projects and literature (Appendix 4).

Table 8 summarizes the responses to Question 1.5 (***Have any research results (national or international) had an impact on your country's legislation?):***

Table 8: Research impact on country's legislation

	Research impact		
Country	Yes	No	Specification
Australia (QLD)	X		Specific random road side oral fluid for drug testing for drivers has been introduced in Queensland and other states of Australia
Australia (Victoria)	X		Resulted in Impairment legislation in 2000 and Random Roadside Oral Fluid legislation in 2004
Belgium	X		Rosita-2 project, Final Report, Ed: A.G. Verstraete, E. Raes, n° SUB-B27020B-E3-S07.18222-2002
Sweden		X	Not in recent years
Finland	X		On-site oral fluid tests are allowed for preliminary screening if drug driving are suspected (main problem is amphetamines in Finland and those can be detected by Drugwipe. It is missing cannabis and benzodiazepine-cases)
Germany	X		ROSITA in connection with the implementation of saliva testing; research on the effects of low concentrations of alcohol (differentiated by age and riving experience) had an impact on the zero BAC law for novice drivers
Spain		X	NOT YET, but participation in ROSITA and currently in DRUID, are fundamental for legislative changes
Portugal	X		Rosita 1; Rosita 2 and other technical documents from ICADTS and Pompidou Group
Norway		X	Will be important for setting limits for the new law

In Australia research specified in a list (Appendix 4) has resulted in random road side oral fluid drug testing for drivers in Queensland and other states. In Victoria the impairment

legislation in 2000 and Random Roadside Oral Fluid legislation in 2004 have been influenced by previous research.

Belgium, Germany, and Portugal name the ROSITA project as one of the main research having had an impact on legislation. Spain expects the influence of ROSITA and DRUID on legislation in the future. Despite a tremendous number of Norwegian research projects for many years in the past, influence on legislation has not been observed in the past but is expected in the future.

4.3.2 Part II of the questionnaire: Saliva testing

Concerning saliva testing as a means of detecting influence or establishing evidence, the EMCDDA summarizes the situation as follows:
"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 (or three, according to Swann, 2009) 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" (EMCDDA, 2009).

The second part of the questionnaire is subdivided into four different sections dealing with saliva testing:

2.1 Is there any saliva testing (roadside or in the lab) being conducted in your country? (cf. Table 9 below)
2.2 What is the procedure in case of a drug positive result in saliva testing (roadside or in the lab?) (cf. Table 10 below)
2.3 Does legislation in your country name the type of drug for which saliva testing should be applied?
2.4 (only if your country is using saliva testing) How is the consumption of (prescribed) potentially driver impairing medicines assessed by the police in your country

Table 9 is depicting the situation relating to saliva testing, at the road side or in the lab as a first indication, legal evidence or to initiate blood and serum samples respectively.

Table 9: Saliva testing in the selected countries

	Saliva testing				
Country	Road side	Lab	First indication	Legal evidence	Initiate blood/serum
Belgium	**Yes**	-	**Yes**	-	-
Australia (QLD)	**Yes**	**Yes**	**roadside**	**Lab**	**roadside/lab**
Australia (Victoria)	**Yes**	**Yes**	**Yes**	**Yes**	-
Sweden	**No**	**No**	-	-	-
Germany	**Yes**	**Yes**	**Yes**	-	**Yes (Lab)**
Finland	**Yes**		**Yes (road)**		**Yes**
Portugal	**Yes**	-	**Yes**	**2)**	**Yes**
Spain	**Yes**	**Yes**	**Yes**	**Yes 1)**	-
Norway	-	**Yes 3)**	-	-	-

1)(Spain): Preliminary tests are carried out during the DRUID project, but there are administrative consequences

2) (Portugal): After a positive saliva test and according to legislation it is mandatory to collect a blood sample. Only a positive result in the blood test using confirmation techniques (GC/MS; LC-MS) is accepted as legal evidence. In case of injury (impossible to conduct saliva test) a blood sample is collected for screening / confirmation test. If the driver refuses the drug test this constitutes a 'crime of disobedience'.

3) (Norway): Only for research purposes. Two large random road side studies have been performed – collecting totally more than 20 000 saliva samples which have been analysed for approximately 30 compounds – including illegal drugs , medicines and alcohol.

According to the information provided by the respondents there is only one country – Victoria (Australia) that has implemented saliva tests as legal evidence in the legislation. In another Australian state (Queensland) saliva tests serve as a first indication of being under the influence of a drug whereas legal evidence has to be established by an additional laboratory analysis.

In European countries like Belgium and Germany roadside tests are conducted serving as a first indication to collect blood/serum samples in order to provide legal evidence. In Spain preliminary tests are carried out during the DRUID project; although research-related, results may have administrative consequences for the drivers detected driving under the influence. The result of a saliva test cannot be used as legal evidence in Portugal but serves as a first indication; legal evidence can only be established with a blood sample. In addition, a driver refusing to deliver a saliva sample is punished for disobedience. The Norwegian law does not allow saliva testing, except for scientific purposes.

The procedure in case of a drug positive result in saliva testing (roadside or in the lab) is summarized in Table 10.

Table 10: Procedures in case of a drug positive result in saliva testing

Country	By the police	By the prosecutor
Belgium	Drivers license will be taken for 12 hours plus extra saliva sample for laboratory confirmation (from October 2010 on)	If the positive result is confirmed by a saliva test or blood analyses in a lab, a court ordered fine of minimum 1100 euro and max 11000 euro and the loss of the permission to drive for at least 8 days to max 5 years is possible. In case of recidivism of drug driving (= a person who has lost total control due to drugs) the judge must convict to a loss of the permission to drive for at least 3 months and maximum for ever, and at least 1 month and max for ever respectively.
Australia (QLD)	If a driver/rider produced a positive saliva fluid sample the driver is advised that he has tested positive and that the saliva sample will be sent to a lab to test and /or he confirms the results. If the lab confirms the initial road side test then the driver will be given a notice or summoned to appear in court	The Prosecutor will present lab evidence in Court of the type of drug detected after the alleged drug driver has been summoned to court.
Australia (Victoria)	2 tests done at the roadside followed by laboratory evidential GCMS or LCMS test	legislation just requires a positive test at each stage for a conviction
Sweden	No roadside testing	No roadside testing
Germany	1) Reporting misdemeanor (administrative offence) to prosecutor; denying onward driving 2) report to prosecutor in case of criminal offense; driving license is confiscated	1) sanctioning according to administrative law 2) withdrawal of license; depending on circumstances (e.g. in connection with another criminal offense) arrest is possible
Finland	Police officer takes the person to blood sampling	sanctioning according to criminal law
Spain	The police forward saliva samples to lab and the driver is entitled to provide an additional blood sample (voluntary)	The lab forwards the results to the police and the judge (In Spain it is the judge and not the prosecutor who initiates a preliminary investigation)
Portugal	Systematic police control activities concerning driving under influence of psychoactive substances are related to weekday, daytime, specific locations and specific events. Breath and saliva tests can be conducted randomly, at the roadside and in case of suspicion. Blood test and impairment test must be conducted only in case of suspicion. In 2008 there were 26.153 persons detected driving under the influence of psychoactive substances. Police are providing regular training programs regarding the equipment in use or to be used for police officers. Deciding whether or not to report a driver detected for DUI to the administrative body is not at the discretion of the police officer.	The police in Portugal do not have the competence to confiscate the driving licence immediately at the roadside or to confiscate the vehicle at the roadside. On the other hand, the police have the competence to arrest the driver and take him into custody in any case if the driver is tested positive. If the driver is involved in an accident, he is always tested for alcohol and illicit drugs. If the driver is tested positive for alcohol, further procedure depends on the situation. If the driver does not provide a breath/blood/-sample, this constitutes a crime of disobedience.
Norway	Does not apply (no saliva testing)	-

The answers given in Table 10 are self-explanatory and do not require detailed comment.

Question 2.3 of the questionnaire ***"Does legislation in your country name the type of drug for which saliva testing should be applied?"*** was answered "yes" for four of the countries (Belgium, Victoria, Germany and Portugal). For countries with an affirmative answer additional questions were asked:

> How are drugs discovered which are not specifically referred to in legislation?
> [ ] the person cannot be sanctioned if another drug is present (and he was not impaired)
> [ ] by coordination test (carried out by a police officer)
> [ ] only by blood sample
> [ ] only by urine sample
> [ ] other (please specify

The responses are shown in Table 11:

Table 11: Named type of drug for saliva testing

Country	Drug type is named + specification/comments
Belgium	**Yes**; the person cannot be sanctioned if another drug is present (and he was not impaired)
AUS (QLD)	———
AUS(Vict.)	**Yes**; coordination test (carried out by a police officer)
Sweden	***No,*** *coordination test (carried out by a police officer); this is done to get a reason to take blood or urine samples;): In other words, although the type of drug is not named at all there are other means of testing (coordination test, blood sample, urine sample). On suspicion of drug use, after coordination test, blood or urine samples are taken. The most common reason to take a blood or urine sample is that the police knows the drug addicts in the community and finds reason to examine their cars and many times finds needles and other signs of drug use. It is also a crime using drugs at all so the reason to get a sample is sometimes only the suspicion of drug use, regardless of driving a car or not. But if drugs are found in some body fluid the drugged driving offense may also be present.*
Germany	**Yes**, but only in the administrative offenses law; no specification of drugs in criminal law
Finland	**No**, *not in legislation, but in guidelines of the Ministry of Interior: Coordination –test, blood sample. DRE; Clinical performance tests of physician + blood sample is taken.*
Spain	***No,*** *The same penalties will be imposed on anyone driving a motor vehicle or moped under the influence of toxic drugs, narcotics, psychotropic substances or alcohol. In any such case shall be sentenced to penalties that would result with an alcohol breath testing over 0.60 mg/l or with a blood alcohol concentration > 1.2 g/l*
Portugal	**Yes**; the person cannot be sanctioned if another drug is present (without signs of impairment); According to the Penal Code a driver could be sanctioned when positive in blood for any psychotropic substance, if he was involved in an accident with evidence of dangerous driving. Only illicit drugs are included in police control activity, although screening for the other psychotropic substances (e.g. medicines) by court decision would be possible.
Norway	***No,*** *only blood samples are taken*

More detailed information is provided in the table section of the Appendix 2.

For countries applying saliva testing, question 2.4 (***How is the consumption of (prescribed) potentially driver impairing medicines assessed by the police in your country?)*** was asked.

The answers are given in Table 12

Table 12: Assessment of prescribed medicines

Country	Comment
Belgium	the person cannot be sanctioned if another drug is present (and was not impaired)
Australia (QLD)	There is no saliva based test for medicines. If a person's driving is believed to be unsafe due to medicines the law allows for a blood sample and analysis to be undertaken by medical practitioners personnel
Australia (Vict.)	psychomotor impairment legislation
Sweden	Not using saliva testing
Germany	Coordination test; quick test for morphine; police order to take blood sample by physician
Finland	DRE test similar type like in Germany
Spain	-
Portugal	Using (at random) roadside saliva testing
Norway	No saliva testing

The most common approaches are either impairment observed by coordination test or other symptoms of impairment.

4.3.3 Part III of the questionnaire - criminal/administrative charges

This part of the questionnaire was subdivided into the following sections:

1 Maximum punishment for alcohol, drug and medicine use
2 Sanctions for combined use of alcohol, drugs and medicines
3 Zero tolerance legislation
4 Reasoning for legislation

4.3.3.1 Maximum punishment for alcohol, drug and medicine use

The question 3.1.1 referring to maximum punishment was worded: ***"Is there a distinction in the maximum punishment after consumption of either alcohol, drugs or medicines before driving a motor vehicle?"*** The responses are summarized in table 13a (for alcohol related offenses), 13b (for drug related offenses) and 13c (for medicine related offenses):

Table 13a: Maximum sanctions / punishment (Alcohol)

Country	Maximum sanctions / punishment (**Alcohol**)			
	Demerit points	Driving ban	Fine	Prison
Belgium	*No demerit point system*	lifetime	11000 € for recidivism up to 27500 €	Only in case of recidivism: 2 years
Australia (QLD)	Low BAC (0.5 g/l or above 14 penalty points High BAC (1.5 g/l or above 1st 28 points 2nd 60 points 3rd 60 points	Low BAC: up to 12 months Average 1-9 months High BAC: up to 2 years 2 years or life	Low BAC maximum A$1,400.00 Average around A$800.00 Maximum A$2,800.00 High BAC: A$6,000.00 [2)]	Low BAC 0.5 g/l or above 3 months 1st 9 months 2nd 18 months 3rd at higher level part of punishment must include some imprisonment
Australia (Vic)	yes	yes	Depends on age level and previous convictions	yes
Sweden	≥ 0.2 g/l: yes ≥ 1.0 g/l maximum points	1 - 12 months 12 - 36 months	depends on income	up to 6 months up to 2 years
Germany	8 (licence withdrawal at 18 points)	Lifetime – depends on circumstances	Depends on income	Yes, depends on circumstances
Finland	no	1 month - 5 years, decided by court	normally 25-60 daily incomes	no
Portugal	no	From 1-2 months to 6 -12 months	250 or 500 1.250 or 2.500	Yes, up to 3 years
Spain	yes	driving disqualification for longer than 1 and up to 4 years	Depends on circumstances: from 300 to 600 €	BAC ≥ 1.2 g/l ≥0.5 g/l impairment
Norway	*No demerit point system*	up to 2 years for BAC > 0.5 g/l < 0.5 g/l : no driving ban	Up to one month salary	Yes, for BAC > 1.5 g/l depending on BAC

1) (Australia):
Exchange rate (Sept. 27, 2009):
1400 Australian Dollars = 828.05 Euro
800.00 Australian Dollars = 473.17 Euro
2800.00 Australian Dollars = 1656.10 Euro
6000.00 Australian Dollars = 3548.76 Euro

The sanctions and charges for alcohol related offenses differ substantially; countries with demerit/penalty points systems vary from low penalty points imposed to the maximum

amount (Australia and Sweden). Driving bans vary according to the measured blood alcohol content from 1 month up to a lifetime suspension. As fines in some countries (Victoria, Sweden, Germany) depend on the income of the perpetrator, the amount may even surmount that of the highest fines mentioned in Belgium (27.000 €). Fines also may depend on the circumstances of the offence or on previous convictions (Belgium, Australia, Spain). Imprisonment in most countries is obviously imposed according to the severity of the offense (depending on circumstances) or it is linked to previous convictions as for example in Belgium.

Table 13b summarizes the sanctions and charges for drug related offenses:

Table 13b: Maximum sanctions / punishment (Drugs)

Country	Maximum sanctions / punishment (**Drugs**)			
	Demerit points	Driving ban	Fine	Prison
Belgium	No system	lifetime	11.000 €; in case of recidivism up to 27.500	Only for recidivism: 2 years
Australia (QLD)	14 points	3 months	A$ 1.400.00	3 months imprisonment
Australia (Vic)	yes	yes	Depends on age level and previous convictions	yes
Sweden	-	12 months to 36 months	depends on income	6 months up to 2 years
Germany	8 points	Up to lifetime – depending on circumstances	depending on circumstances	Yes, depending on circumstances
Finland	-	1 month - 5 years, decided by court	normally 25-60 daily incomes	no
Portugal	no	2 months up to 24 months	500 – 2.500 €	Yes, up to 3 years
Spain	impairment only	-	yes	-
Norway	-	Up to 2 years	Up to one month salary	impairment degree; repeat offender

Sanctions and charges for drug related offenses may result in demerit/penalty points in Australia (both Queensland and Victoria) and Germany; in Spain points are imposed only if the driver/rider shows impairment. Driving bans vary from no ban at all (Spain) up to lifetime (Belgium and Germany). All countries report that fines may be imposed in varying amounts; the amounts are similar to those reported for alcohol related offenses. i.e. from 500 € (Portugal) up to 27.500 € (Belgium) and dependent on one month's salary (Norway). Imprisonment for drug related offenses is either dependent on previous convictions (recidivism), on circumstances of the offense or on the degree of impairment (Norway). The sentences range from 3 months up to 3 years.

Table 13c summarizes the sanctions and charges for medicine related offenses.

Table 13c: Maximum sanctions / punishment (medicines)

Country	Maximum sanctions / punishment (**Medicines**)			
	Demerit points	Driving ban	Fine	Prison
Belgium	-	-	-	-
Australia (QLD)	14 penalty points	3 months	A$1,400.00	3 months imprisonment
Australia (Vic)	yes	yes	Depends on age level and previous convictions	yes
Sweden	-	12 - 36 months	depends on income	6 months up to 2 years
Germany	8 points	Up to lifetime, depending on circumstances	depending on circumstances	Yes, depending on circumstances
Finland	-	1 month - 5 years, decided by court	normally 25-60 daily incomes	no
Portugal	no	no	no	Up to 3 years
Spain	no (not yet)	-	yes	-
Norway	-	-	-	-

Only two countries apply their demerit point systems to the use of medicines (both states in Australia, Germany). Spain is expecting legislation on the introduction of penalty points for this type of offense. Driving bans vary from none at all (Belgium, Portugal) to lifetime (Germany, depending on circumstances of the offense). The imposed fines range from none (Portugal) to 1,400 Australian dollars (828.05 €) or depend on income, age of the offender, previous history of convictions (Victoria). Whereas Spain, Belgium and Norway report no imprisonment, Australia (3 months), Sweden (up to 2 years), Germany (depending on circumstances of the offense) and Portugal (up to 3 years) may impose imprisonment in varying degrees.

In Finland medical assessment is mandatory if the driver is considered to be a problem user. The driving licence can be retrieved earlier if the driver adheres to use an alcolock when driving (the goal being to reduce risk of combined use).

4.3.3.2 Sanctions for combined use of alcohol, drugs and medicines

This section summarizes the responses to question 3.2 of the questionnaire "***In case of any combination in the consumption of alcohol, drugs and medicines, is there a different administrative/criminal charge as compared to single use of any of those substances?"***

The details are given in Table 14:

Table 14: Sanctions for combined use of alcohol, drugs and medicines

Country	Yes	No	To what extent may charges be raised? Reasoning behind that?
Belgium		X	the person will be convicted for both driving under influence of drugs and of alcohol. It concerns two different infractions, so the max. fine is the sum of the max. fines as shown in tables 13a and 13b
Australia by States			
Queensland		X	
Victoria		X	
Sweden		X	
Germany	X		Depends on circumstances in the in individual case
Finland		X	
Portugal		X	All is under zero tolerance legislation. In fact legislation does not mention different administrative/criminal charges for more than one substance
Spain		X	
Norway	X		Depends on the degree of impairment. Low alcohol +illegal drugs and /or medicines can give maximum penalty (see tables 13a – 13c) Based on the degree of impairment – more dangerous in the traffic

There are no raised sanctions and charges for the combined use of alcohol, drugs and medicines in Belgium, both Australian states, Sweden, Portugal and Spain. In Belgium, however, charges for single infractions are added so that practically the charge for combined use will be higher than the charge for single use. In Germany the charge depends on the circumstances of the offense in the individual case. In Norway the degree of individual impairment may result in a higher sanction, reasoning that the degree of impairment is raising the risk in traffic.

4.3.3.3 Zero tolerance legislation

Question 3.3.1 of the questionnaire asked in this section was aimed at an overview of zero tolerance legislation in the selected countries and the reasoning behind this legislation. Table 15 summarizes the information for those countries that have adopted a zero tolerance legislation:

Table 15: Zero tolerance legislation and reasoning

Country	Year	Reasoning
Belgium	1999	the cut-off values in Belgian legislation represent the lowest measurable amount of the substance or metabolite respectively. Therefore this legislation does not differ from a zero tolerance legislation. Any zero tolerance legislation must be based on measurement: if the measure shows the slightest amount of a substance, an offender will be prosecuted for a breach of the law
Australia		
Queensland	1991; 1995	Zero alcohol tolerance for probationary/provisional and heavy transport drivers was introduced in 1991 / for all professional drivers in 1995. Random Roadside saliva Drug testing was introduced in 2007. Prior to 2007 a driver could be directed to supply a blood sample for the purposes of testing for the presence of a drug (medically prescribed or illicit). However, it had to be proven that the presence of the drug impaired the driving..
Victoria	2004	Studies found high prevalence levels of illicit drugs in drivers killed and odds ratios studies found the use of these drugs by drivers were a high driving risk and zero is used because you cannot have legal levels for illicit drugs
Sweden	1999	Through this decision it is possible to convict a person also without proof of being influenced by effects of the drug
Finland	2003	Driving under influence of psychotropic substances is a criminal offence. It took lot of time in court, and many of the illicit drugs and driving cases remained unpunished, because it was difficult to show that driving was impaired. Impairment law is still valid: the driver is not allowed to be impaired by any substance
Portugal	1998	1) results of ROSITA project 2) public acceptance in general was good because the substances included in legislation for police control are only illicit drugs. If medicines had been included in police controls it would be different. However, because use of psychotropic substances is a criminal offence, if there is evidence of dangerous behavior and /or driving, courts in many cases assume a correlation between the concentration in blood and the level of impairment.

Five countries in this survey (Belgium, both states in Australia, Sweden, Portugal) have chosen the zero tolerance approach. The Australian argument in favour of zero tolerance states that "studies found high prevalence levels of illicit drugs in drivers killed and odds ratios studies found the use of these drugs by drivers were a high driving risk and zero is used because one cannot have legal levels for illicit drugs". The Portuguese argumentation is citing the ROSITA study as the research background of legislation.

4.3.3.4 Legislation and reasoning on rejection of zero tolerance

The three countries without a zero tolerance legislation were asked whether there was and in the affirmative case which was the reasoning behind that. Table 16 shows the results:

Table 16: Reasoning on lack of zero tolerance legislation

Country	Reasoning
Germany	The law on zero tolerance was not implemented due to decision of the constitutional court. Citation from decision of constitutional court: „The presence of ... substances in the blood of a driver does not justify by itself the assumption of unfitness to drive. Further strong evidence is regularly necessary – the reduction of vision as a consequence of drug-induced fixed pupil does not suffice."
Spain	In Spain results obtained with DRUID will establish regulatory rules and laws on drug use. Zero tolerance could be a possibility
Norway	Impairment legislation, past, current and future research required

Interestingly German legislation had passed a zero tolerance law which, however, did not enter into force due to a decision of the Constitutional Court. This may be slightly paradigmatic for other countries as well, although detailed information was not provided. The court argued that "the presence of substances in the blood ... does not justify the assumption of unfitness to drive." Further strong evidence would be needed. Thus, Germany has adopted the two-tier approach (combining impairment with zero tolerance for specified substances). A similar lively and wide-ranging discussion was conducted before the implementation of BAC limit values. Although research has clearly established and substantiated the impairing impact of drugs on driving, it has not yet been possible to establish scientifically based uniform limit values for drugs as is shown by the variety of cut-off values for drugs in Chapter 1.

Spain as well as Norway have decided to adopt an impairment legislation because they see a need for further research before possibly adopting another approach. Spain explicitly refers to the EU-project DRUID (driving under the influence of drugs and alcohol) which is currently conducted (including Norway and Spain); this project is expected to deliver relevant results by the end of 2010.

4.3.3.4 Comparison of approaches to drug driving

Table 17 summarizes advantages and disadvantages of the three different approaches to drug driving compiled and concluded from questionnaire responses.

Table 17: Comparison of Approaches to Drug Driving

Approach	Advantages [1)]	Disadvantages
Zero tolerance	• Limit values do not have to be defined • Impairment test procedures are not necessary, prosecution possible without proof of impairment • Public acceptance may be established • Enforcement easy to handle	• Presence of substances in blood /serum/plasma does not justify the assumption of unfitness to drive unless further strong evidence is established • Drivers showing no impairment at all may be punished • Drivers using prescribed medicines may be punished without being impaired
Impairment	• Evidence of impaired driving is obvious in many cases (e.g. accident) • Impairment symptoms and measures may be defined, taught and trained (e.g. to the police) • Drivers using prescribed medicines without impairment remain unpunished	• Evidential power of ("soft") impairment measures depends on a variety of factors • Degrees of impairment difficult to evidence • Approach is complex, manpower- and cost- intensive • Even best training of police offers will not result in objective description of impairment
Two-tier system [2)]	• Zero tolerance only for certain substances (excluding licitly used medicinal drugs) • Impairment suspicion sufficient • Use of prescribed medicines at driver's responsibility • Any indication of impairment may result in further evidential analysis (saliva, blood, serum) • Nearly all impaired drivers under the influence will be detected and punishable • Individual justice may be granted	• Complex and costly procedures

[1)] advantages and disadvantages compiled and concluded from questionnaire responses

[2)] two-tier system: prohibiting impairment by any drug but also identifying certain substances for zero tolerance

Table 17 is listing the most frequently used reasoning for or against a specified approach to combat drug driving. As could be demonstrated with the information gathered through questionnaire and interviews legislative development in a number of countries has finally produced a zero tolerance approach; for some countries respondents judge their approach as being "practically zero tolerance". For some countries, however, respondents judge their zero tolerance approach as being "practically zero tolerance" because their approach allows