



BRSI

**Drinking and driving: learning from good practices
abroad**

Drinking and driving: learning from good practices abroad

Research report nr.

D/2015/0779/56

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Responsible publisher: Karin Genoe

Publisher: Belgian Road Safety Institute – Knowledge Centre Road Safety

Date of publication: 22-7-2015

Please refer to this document as follows: Meesmann, U. & Rossi, M. (2015) Drinking and driving: learning from good practices abroad. Brussels, Belgium: Belgian Road Safety Institute – Knowledge Centre Road Safety

This report includes a summary in English, French and Dutch.

TABLE OF CONTENTS

Acknowledgments	3
Executive Summary	4
Résumé (Alcool au volant : apprendre des bonnes pratiques menées à l'étranger)	7
Samenvatting (Rijden onder invloed: leren van goede praktijken in het buitenland)	11
1 Introduction	15
2 Methodology	16
2.1 Relevant previous European research projects	16
2.2 Selection of well performing countries	16
2.3 Selection of the national DUI experts	17
2.4 Expert survey	17
3 Country approaches	19
3.1 Sweden	19
3.2 Finland	22
3.3 Poland	24
3.4 Estonia	27
3.5 The Netherlands	29
3.6 Ireland	32
3.7 Greece	35
3.8 Belgium	37
3.9 Overview of national descriptive data on country approaches	40
4 Countermeasure approaches	41
4.1 General alcohol consumption and alcohol availability	41
4.2 Acceptability of drunk driving and social norm	42
4.3 Legal alcohol limit	42
4.4 Enforcement	43
4.5 Penalties	45
4.6 Driver rehabilitation and alcohol interlock systems	46
4.7 Education and awareness rising campaigns	47
5 Recommendations	48
5.1 Compliance with DRUID recommendations	48
5.2 Experts recommendations on successful countermeasures	49
5.3 Conclusion and recommendations for Belgium	50
List of tables and figures	51
References	52
Annex	55

ACKNOWLEDGMENTS

The authors and the Belgian Road Safety Institute wish to thank the following persons and organizations for their much appreciated contribution to this study:

- The following colleagues and organizations for participating in this study and providing us with their national expertise on countering drunk driving:
 - Sweden: Åsa Forsman, Anna Vadeby (Swedish National Road and Transport Research Institute - VTI), Liza Jakobsson (The Swedish Transport Administration) & Anders Hedåberg (The Swedish Transport Agency)
 - Finland: Juha Valtonen (Finnish Road Safety Council) & Ilkka Nummelin (Finnish Insurers' Centre)
 - Poland: Ilona Buttler (Polish Motor Transport Institute)
 - Estonia: Veiko Kommusaar (Estonian Police and Border Guard Board) & Lauri Lugna (Estonian Road Administration)
 - The Netherlands: Sjoerd Houwing & Henk Stipdonk (Institute for Road Safety Research - SWOV)
 - Ireland: Velma Burns & Sharon Heffernan (Irish Road Safety Authority)
 - Greece: George Yannis & Alexandra Laiou (National Technical University of Athens).
- Emmanuelle Dupont who was the internal reviewer within the knowledge centre of BRSI.
- Ludo Kluppels and Myriam Adriaensen who were the internal reviewers from the department PAIR (Public Affairs, Innovation and Regulatory) within the BRSI
- Wouter Van den Berghe, who supervised the research activities and who was responsible for final quality control.
- Other colleagues who contributed to this study, in particular Nina Nuyttens (additional input on Belgium accident statistics), Annelies Schoeters (update of Eurostat information), Ria de Geyter (layout) and Benoit Godart (translation of summary from Dutch to French).

The sole responsibility for the content of this report lies, however, with the authors.

EXECUTIVE SUMMARY

Goal and methodology

The motivation for this study was the observation that Belgium has a severe problem with drunk driving, which is apparently worse than in most other European countries. We asked ourselves the questions: “what can we learn from countries that at this point score much better”.

Therefore, an exploratory study was designed to gain insight into how other countries have been successful in preventing driving under the influence of alcohol. The information is based on an expert survey in a number of well performing countries and starts from previous recommendations of the DRUID project (Schulze et al., 2012). Furthermore, quantitative data from previous EU projects (e.g. DRUID, SARTRE4) were included in the analysis. For the study we selected four countries with a (very) low prevalence of driving under the influence of alcohol (Sweden, Finland, Poland and Estonia), two countries with a striking improvement of their DUI situation in the last decade (Greece and Ireland) and the best performing neighbouring country of Belgium (Netherlands). For these countries, the measures against driving under the influence of alcohol were explored and compared.

Key results

The main results regarding prevalence, social acceptability and measures against drunk driving are summarized below.

The table gives an overview of descriptive variables regarding driving under the influence of alcohol in the seven selected countries and in Belgium. The countries are ranked according to their performance in the field of driving under the influence of alcohol above the legal limit (DUI).

Table: DUI prevalence and other descriptive characteristics

Country	DUI	Legal alcohol limit 2012	Support for lower legal alcohol limit	Alcohol consume per year	Perceived DUI friends	Experience alcohol. checks	Subjective alcohol check probability
	2010	2012	2010	2008	2010	2010	2010
	% ever	BAC ¹ g/L	% no alcohol at all/less alcohol	L pure alcohol per capita (≥15)	% agree very/fairly ²	% ever	% ever
Sweden	1.5 (1)	0.2	76.5	10.0 (5)	2.7 (1)	56.9 (4)	80.0 (7)
Finland	2.1 (2)	0.5	65.9	13.1 (13)	4.6 (3)	68.1 (2)	87.3 (1)
Poland	2.3 (3)	0.2	96.2	14.4 (14)	14.1 (7)	42.4 (9)	54.5 (17)
Estonia	3.7 (4)	0.2	69.2	17.2 (19)	19.3 (11)	69.1 (1)	68.9 (15)
Netherlands	6.6 (6)	0.5	66.2	9.8 (4)	31.8 (16)	44.4 (7)	71.2 (14)
Ireland	9.0 (7)	0.5	77.1	14.9 (15)	7.7 (5)	34.7 (12)	72.1 (12)
Greece	14.5 (11)	0.5	41.6	11.0 (7)	21.8 (12)	39.6 (10)	81.4 (6)
Belgium	26.5 (17)	0.5	47.4	10.4 (6)	41.9 (19)	32.7 (14)	74.5 (8)
European SARTRE4	14,9	n.a.	59,8	12,1	19,5	41,1	72,6

BAC¹: blood alcohol concentration; in brackets: rank in comparison with 19 European countries from SARTRE4 (2010); % agree very/fairly² with the statement that “most of your friends would drink and drive a car”; European SARTRE4 average³: is based on a comparison of 19 European countries that participated in the survey SARTRE4; More information can be found in the report.

Source: *Cestac & Delhomme (Eds.), 2012; WHO, 2014a, ETSC, 2012; infographics: BIVV*

DUI prevalence

With respect to DUI Sweden, Finland, Poland and Estonia are the four best performing countries in the SARTRE4 comparison of 19 European countries. In a comparison of the relative position of the countries within the SARTRE 3 and 4 measurements in 2002 and 2010 Greece and Ireland show a

remarkable improvement of their DUI situation. Nevertheless, Greece still has a relatively high DUI prevalence (just below the average of the 19 European countries). The best performing neighbouring country of Belgium in the SARTRE4 measurement were the Netherlands.

Other descriptive characteristics

Striking additional features of countries with a very low DUI prevalence (Sweden, Finland, Poland and Estonia) were:

- ▶ low *legal alcohol limit* with a BAC of 0.2 g / L (except Finland);
- ▶ low prevalence of perceived DUI among *friends* (social norm), especially in Scandinavian countries (Sweden and Finland); in the former Eastern bloc countries (Poland and Estonia) the perceived DUI among friends is around the average of the 19 SARTRE4 countries;
- ▶ High level of *experience alcohol checks*;
- ▶ High level of *perceived likelihood of being checked for alcohol* (subjective alcohol check probability) Scandinavian countries but not in earlier Eastern Bloc countries.

The *annual national consumption of alcohol* does not appear to be directly linked to the prevalence of drunk driving. It is noteworthy that some very good performing countries also have very high alcohol consumption.

Social acceptability of driving under the influence of alcohol (DUI)

According to the national experts drunk driving is totally unacceptable in Sweden, Finland, Poland and Ireland, unacceptable in Estonia and slightly acceptable in Greece. According to the Belgian national attitude measurement drunk-driving is unacceptable (84%) among most drivers, but only totally unacceptable among 56% of the drivers.

Availability of alcohol

In most countries alcohol is freely available from 18 years on. In Sweden and Finland the accessibility of alcohol is restricted. Alcohol can be served from 18 years on, drinks with a low alcohol concentration (Sweden up to 3.5 vol. %; Finland up to 4.7 vol. %) can be sold in regular shops also from 18 years on, but stronger alcohol can only be sold from 20 years on in particular alcohol stores. In the Netherlands the selling of alcohol is restricted in gas stations along the highway.

Legal alcohol limit

Most well performing countries have an alcohol limit of 0.2 g/L (Sweden, Estonia and Poland). In all other countries the general alcohol limit is set at BAC 0.5 g/L with often a lower legal limit (BAC 0.2 g/L) for specified driver groups. These are novice drivers in most cases (the Netherlands, Ireland, and Greece), but also professional drivers (Ireland, Greece, Belgium) and in Greece also motorized two (three) -wheelers.

Enforcement

All selected countries within this study have continuous drunk driving enforcement throughout the whole year with increased drunk driving enforcement during special period(s) of the year, such as Christmas, midsummer or other national holidays. Each country communicates to the public about these intensified enforcement-periods in one way or the other. In almost all of these countries alcohol checks are mandatory for drivers involved in accidents resulting in injury. Only in Greece and the Netherlands this measure is only partially put into practice.

Penalties

In comparison with Belgium do most selected countries have more severe sanctions on alcohol traffic offences. Poland appeared to have the most severe sanctions, in which DUI offences with a BAC of 0.2/0.5 g/L can already be sentenced with a fine, a driving ban between 6 months and 3 years and additional imprisonment of 5-30 days.

Driver rehabilitation and alcohol interlock systems

Most of the well performing countries (Sweden, Estonia, the Netherlands and partly in Finland) offer driver rehabilitation programmes to DUI offenders. Moreover, Sweden, Finland, the Netherlands provide alcohol interlock programmes. These programmes are combined with counselling and close monitoring in most cases. In none of the countries alcohol interlocks are mandatory for specific driver groups (e.g. professional drivers). Only in Finland: vehicles in school transport have to be equipped with alcohol interlocks, but this only if the municipality orders and pays for the transport.

Education and awareness rising campaigns

In all selected countries the theme "*alcohol and driving*" is addressed in driving education and partly in school education. Furthermore, most countries conduct systematic awareness rising campaigns or communicate in another ways systematically about the risks of alcohol in traffic. In most countries the road safety campaigning/risk communication is a multidisciplinary approach, developed in collaboration with actors from different policy areas such as road safety, health and education.

Key recommendations

All countries with low DUI prevalence are using a comprehensive countermeasure system which consists of different elements such as legislation, enforcement and/or education. Based on the analysis of good practices we identified the following possibilities to improve the DUI situation in BE:

- ▶ further increase the enforcement activities (alcohol checks), especially concerning the systematic alcohol checks in case of accident resulting in injury;
- ▶ keep on combining the preventive (random checks) and repressive (selective checks) approaches;
- ▶ further increase the public visibility of the police controls to reinforce the general deterrent effect (in other words: increasing the perceived likelihood to get checked for alcohol);
- ▶ expand how DUI is sanctioned (e.g. penalty combined with close monitoring of alcohol use in case of recidivists)
- ▶ keep the time gap between the offence and sanctioning as short as possible in order to increase the deterring effect of the sanction;
- ▶ lower the alcohol limit for young and/or novice drivers (usually less than 2 years of driving experience).
- ▶ expand the driver rehabilitation programmes for alcohol traffic offenders (e.g. mandatory driver rehabilitation programmes for specific target groups, implementation of a driver rehabilitation program in case of a provisional driver licence withdrawal, spread programmes over a longer period and treat non-addicts and addicts in separate programmes);
- ▶ expand the alcohol interlock programmes combined with counselling and close monitoring (e.g. mandatory programmes for recidivists);
- ▶ keep on addressing the topic "*don't drink and drive*" in education, sensitisation and campaigns aiming at reducing the social acceptability of DUI;
- ▶ further intensify the cooperation between various sectors and different policy areas (e.g. education, health, enforcement); including both federal and regional policy levels, as certain policy areas are regionalized.

RESUME (ALCOOL AU VOLANT : APPRENDRE DES BONNES PRATIQUES MENEES A L'ETRANGER)

But et méthodologie

La motivation sous-jacente de cette étude était de constater que le problème de la conduite sous l'influence de l'alcool subsiste en Belgique et ce plus que dans beaucoup d'autres pays d'Europe. (Riguelle, 2014 ; Houwing et al., 2011) ? De cela, nous avons formulé la question de ce que l'on peut apprendre de ces pays afin d'obtenir un meilleur score en la matière.

Cette étude est une étude exploratoire veillant à mieux comprendre en quoi les autres pays ont été plus efficaces dans la lutte contre la conduite sous l'influence de l'alcool. L'information est basée sur un questionnaire des experts nationaux et vient conforter les recommandations précédemment émises dans le projet du DRUID (Schulze et al., 2012). Plus loin, des données quantitatives de projets antérieurs (ex : DRUID, SARTRE 4) ont été reprises dans l'analyse. Pour cette étude, 4 pays connaissant une (très) faible prévalence de la conduite sous l'influence de l'alcool ont été choisis (la Suède, la Finlande, la Pologne et l'Estonie), 2 pays ayant connu une amélioration considérable en la matière au cours de la dernière décennie (la Grèce et l'Irlande) et le pays voisin de la Belgique ayant les meilleurs résultats concernant l'alcool au volant, à savoir les Pays-Bas. Les mesures pour lutter contre la conduite sous l'influence de l'alcool ont été étudiées et comparées entre elles.

Principaux résultats

Les principaux résultats relatifs à la prévalence, à l'acceptabilité sociale et aux mesures pour lutter contre l'alcool au volant sont brièvement présentés dans les lignes qui suivent.

Le tableau ci-après montre un aperçu des variables descriptives concernant la conduite sous l'influence de l'alcool dans les sept pays sélectionnés et la Belgique. Les pays sont classés suivant leurs résultats pour ce qui est de la conduite sous l'influence de l'alcool au-dessus de la limite légale autorisée (CSI).

Table : La prévention de la CSI et autres caractéristiques descriptives.

Pays	CSI	Taux d'alcool légal	Support pour une limite d'alcool plus basse.	Consommation annuelle d'alcool au niveau national	CSI perçue par les amis.	Risque objectif de se faire contrôler	Risque subjectif de se faire contrôler
	2010	2012	2010	2008	2010	2010	2010
	% au moins une fois	CAS ¹ g/L	% pas d'alcool pendant la	l d'alcool pur par tête (≥15)	% tout à fait d'accord/plutôt	% au moins une fois	% au moins une fois
Suède	1,5 (1)	0,2	76,5	9,2 (5)	2,7 (1)	56,9 (4)	80,0 (7)
Finlande	2,1 (2)	0,5	65,9	12,3 (13)	4,6 (3)	68,1 (2)	87,3 (1)
Pologne	2,3 (3)	0,2	96,2	12,5 (14)	14,1 (7)	42,4 (9)	54,5 (17)
Estonie	3,7 (4)	0,2	69,2	17,2 (19)	19,3 (11)	69,1 (1)	68,9 (15)
Pays-Bas	6,6 (6)	0,5	66,2	9,9 (4)	31,8 (16)	44,4 (7)	71,2 (14)
Irlande	9,0 (7)	0,5	77,1	11,9 (15)	7,7 (5)	34,7 (12)	72,1 (12)
Grèce	14,5 (11)	0,5	41,6	10,3 (7)	21,8 (12)	39,6 (10)	81,4 (6)
Belgique	26,5 (17)	0,5	47,4	11 (6)	41,9 (19)	32,7 (14)	74,5 (8)
Moyenne européenne	14,9	n.a.	59,8	12,1	19,5	41,1	72,6

BAC¹: Concentration de l'alcool dans le sang; Entre parenthèses le rang en comparaison avec les 19 pays d'Europe de SARTRE 4 (2010); % tout à fait d'accord/plutôt d'accord² avec l'affirmation: "La plupart de tes amis conduisent sous influence d'alcool"; Moyenne Européenne³: repose sur une comparaison de 19 pays européens qui ont participé à l'étude SARTRE 4. Plus d'information se trouve dans le rapport.

Source: Cestac & Delhomme (Eds.), 2012; WHO, 2014a, ETSC, 2012; infographie: IBSR

Prévention de la CSI

Sur les 19 pays européens comparés dans l'étude SARTRE4, la Suède, la Finlande, la Pologne et l'Estonie enregistrent les 4 meilleurs résultats en termes de conduite sous l'influence de l'alcool. Selon une comparaison opérée entre 2002 et 2010 (SARTRE 3 et 4), la situation en matière de conduite sous l'influence de l'alcool s'est considérablement améliorée en Grèce et Irlande. Malgré cela, la Grèce présente une prévalence relativement élevée de la conduite sous l'influence de l'alcool (juste en-deçà de la moyenne des 19 pays européens étudiés). D'après l'étude de SARTRE 4, de tous les pays voisins de la Belgique, le meilleur résultat en la matière va aux Pays-Bas.

Autres caractéristiques descriptives

Voici d'autres caractéristiques frappantes des pays avec une prévalence très faible de CSI (Suède, Finlande, Pologne et Estonie):

- ▶ Faible *limite d'alcool légale* avec une CAS de 0,2 g/L (à l'exception de la Finlande);
- ▶ Faible *prévalence perçue de CSI des amis* essentiellement dans les pays scandinaves (Suède et Pologne); dans les anciens pays du bloc de l'Est (Pologne et Estonie), la CSI des amis est proche de la moyenne enregistrée dans les 19 SARTRE4 pays;
- ▶ Risque *objectif élevé de se faire contrôler*;
- ▶ Risque *subjectif élevé de se faire contrôler* dans les pays scandinaves mais pas dans les anciens pays du bloc de l'Est.

La *consommation annuelle d'alcool au niveau national* ne semble pas être directement liée à la prévalence de la CSI. Il ressort que certains pays qui ont de bons résultats, connaissent quand même une consommation d'alcool très élevée.

Acceptabilité sociale CSI

Selon les experts nationaux, la CSI est absolument inacceptable en Suède, en Finlande, en Pologne et en Irlande, inacceptable en Estonie et plutôt acceptable en Grèce. La CSI est également inacceptable pour la plupart des conducteurs belges (84%) mais seul un peu plus de la moitié (59%) trouve que l'alcool au volant est absolument inacceptable.

Disponibilité de l'alcool

L'alcool s'achète assez facilement dans la plupart des pays dès l'âge de 18 ans. La vente est uniquement limitée en Suède et en Finlande. En Suède, il ne peut être acheté qu'au restaurant à partir de 18 ans. Les boissons ayant une faible concentration d'alcool (Suède jusqu'à 3,5 vol % et en Finlande jusqu'à 4,7 vol %) peuvent être achetées dans les supermarchés à partir de 18 ans, mais les alcools plus forts sont vendus dans les magasins spécialisés pour alcool à condition d'être âgé d'au minimum 20 ans et d'avoir une licence. La vente d'alcool dans les stations-services est par ailleurs limitée le long des autoroutes néerlandaises.

Taux d'alcool légal

La plupart des pays obtenant de bons résultats au niveau de la conduite sous l'influence de l'alcool ont un taux d'alcool autorisé de 0,2 g/L (Suède, Estonie et Pologne). Dans tous les autres pays, la limite d'alcool générale est fixée à 0,5 g/L. Dans les pays avec une limite fixée à 0,5 g/L, à l'exception de la Finlande, une limite plus basse du taux d'alcool (0,2 g/L) est en vigueur pour les conducteurs débutants et la Grèce et l'Irlande en imposent une également pour les conducteurs professionnels (comme en Belgique). En outre, en Grèce, le seuil limite d'alcoolémie de 0,2 g/L s'applique également aux deux et trois-roues.

Politique criminelle

Tous les 7 pays sélectionnés effectuent des contrôles continus en matière de conduite sous l'influence de l'alcool, avec des actions renforcées au cours de certaines périodes comme Noël, les vacances nationales, au milieu de l'été, etc. Lorsqu'il est question de contrôles renforcés, tous les pays communiquent d'une manière ou d'une autre à un large public. Dans tous les pays, les conducteurs impliqués dans des accidents corporels, sont obligatoirement soumis à un test d'alcoolémie. Cette mesure n'est que partiellement appliquée dans la pratique en Grèce et aux Pays-Bas.

Montant de la peine

En comparaison de la Belgique, le montant de la peine en cas de CSI est plus élevé dans la plupart des pays sélectionnés. La Pologne semble avoir les sanctions les plus sévères. Là, une infraction pour conduite sous influence d'alcool avec une concentration d'alcool dans le sang entre 0,2 et 0,5 g/l peut être sanctionnée par une amende, une déchéance du droit de conduire entre 6 mois et 3 ans et une peine de prison supplémentaire allant de 5 à 30 jours.

Réhabilitation du conducteur

Dans la majorité des pays obtenant de très bons résultats (Suède, Estonie, Pays-Bas et Finlande en partie), des programmes de réhabilitation sont prévus pour les conducteurs contrôlés en état d'ivresse. Par ailleurs, un programme "éthylotest antidémarrage" est proposé en Suède, en Finlande et aux Pays-Bas. En règle générale, ces programmes sont combinés à une réhabilitation/un traitement ainsi qu'à un suivi régulier. Pour le moment, aucun pays n'utilise d'éthylotest antidémarrage comme appareil obligatoire pour certains groupes de conducteurs (ex. conducteurs professionnels). Uniquement en Finlande, les véhicules assurant le transport scolaire doivent être équipés d'un éthylotest antidémarrage, et cela seulement si la commune a ordonné et payé le transport.

Education et campagnes

Dans tous les pays sélectionnés, le thème de "l'alcool au volant" est abordé dans la formation à la conduite et partiellement aussi à l'école. De plus, la plupart des pays mènent systématiquement des campagnes contre la conduite sous l'influence de l'alcool ou informent de manière diverse des risques liés à l'alcool au volant. L'approche au niveau de la sensibilisation est souvent multidisciplinaire. Elle est menée en coopération avec différents secteurs tels que la sécurité routière, la santé et l'éducation.

Principales recommandations

Dans tous les pays avec une faible prévalence de la CSI, un vaste système de mesures est appliqué pour lutter contre l'alcool au volant; il se compose de divers éléments comme la législation, la politique criminelle, la réhabilitation la sensibilisation et/ou l'éducation. Les pistes de réflexion suivantes visant à améliorer la politique en matière de CSI en Belgique peuvent être déduites des recommandations d'experts internationaux:

- ▶ accroissement de l'activité en matière de politique criminelle spécialement concernant les contrôles d'alcool systématiques après un accidents avec dommages corporels.
- ▶ Continuer à combiner des approches préventives (tests non sélectifs) et punitives (tests sélectifs).
- ▶ hausse de la communication au public des contrôles de police afin de renforcer l'effet général dissuasif (en d'autres termes : renforcer la probabilité perçue d'être contrôlé pour l'alcool).
- ▶ communiquer comment la CSI est sanctionnée (par exemple : amende combinée avec une surveillance de la consommation d'alcool chez les récidivistes).
- ▶ Garder un laps de temps aussi court que possible entre l'infraction et le jugement et ceci afin d'intensifier l'effet dissuasif de la sanction.
- ▶ Diminution de la limite autorisée du taux d'alcool pour les jeunes conducteurs et/ou conducteurs peu expérimentés (habituellement avec moins de 2 ans d'expérience).
- ▶ intensification des programmes de réhabilitation pour les contrevenants en matière d'alcool (ex : programmes de réhabilitation à la conduite obligatoires pour certains groupes cibles, implémentation d'un programme de réhabilitation à la conduite pour un conducteur provisoire, retraits de permis, programmes étalés sur une plus longue période et prévoir des programmes différents pour les dépendants et les non-dépendants à l'alcool).
- ▶ développement de programmes d'éthylotest antidémarrage avec suivi et accompagnement (ex : programmes obligatoires pour les récidivistes)
- ▶ Continuer à délivrer le message : « ne pas boire et conduire » dans l'éducation, sensibilisation, et campagnes visant à réduire l'acceptation sociale de la CSI.

- ▶ intensification de la collaboration entre les différents domaines politiques (ex : éducation, santé, politique criminelle) ; incluant le niveau politique fédéral et régional puisque certaines zone politiques ont été régionalisées.

SAMENVATTING (RIJDEN ONDER IHNVLOED: LEREN VAN GOEDE PRAKTIJKEN IN HET BUITENLAND)

Doel en methodologie

De onderliggende motivatie voor dit onderzoek was de vaststelling dat België, meer dan veel andere Europese landen, een ernstig probleem blijft hebben met rijden onder invloed van alcohol. Van daaruit formuleerden we de vraag wat er te leren kan zijn van landen die op dit punt veel beter scoren.

Daarom werd een verkennend onderzoek opgezet om meer inzicht te verwerven in hoe andere landen succesvol zijn geweest in het tegengaan van rijden onder invloed van alcohol. De informatie is gebaseerd op een bevraging van nationale experts en bouwt voort op de eerdere aanbevelingen van het DRUID-project (Schulze et al., 2012). Verder werden kwantitatieve gegevens uit eerdere EU-projecten (e.g. DRUID, SARTRE4) in de analyse opgenomen. Voor het onderzoek werden vier landen gekozen die een (zeer) lage prevalentie van rijden onder invloed van alcohol kennen (Zweden, Finland, Polen en Estland), twee landen die een opvallende verbetering vertoonden in het laatste decennium (Griekenland en Ierland) en het best presterende buurland van België (Nederland). Voor deze landen werden de maatregelen tegen rijden onder invloed van alcohol onderzocht en met elkaar vergeleken.

Belangrijkste resultaten

De belangrijkste resultaten m.b.t. prevalentie, sociale aanvaardbaarheid en maatregelen tegen alcohol achter het stuur worden hieronder kort weergegeven.

De tabel geeft een overzicht van beschrijvende variabelen m.b.t. rijden onder invloed van alcohol in de zeven geselecteerde landen en in België. De landen zijn gesorteerd naargelang hun prestatie op het gebied van rijden onder invloed van alcohol boven de wettelijke limiet (ROI).

Tabel: Het voorkomen van ROI en andere beschrijvende kenmerken

Land	ROI	Wettelijke alcohol limiet	Ondersteuning voor lagere wettelijke alcohol limiet	Jaarlijks nationaal alcoholgebruik	Gepercipieerd ROI van vrienden	Objectieve pakkans	Subjectieve pakkans
	2010	2012	2010	2008	2010	2010	2010
	% ooit	BAC ¹ g/L	% helemaal geen alcohol tijdens het	l pure alcohol per capita (≥15)	% zeer of tamelijk me	% ooit	% ooit
Zweden	1,5 (1)	0,2	76,5	9,2 (5)	2,7 (1)	56,9 (4)	80,0 (7)
Finland	2,1 (2)	0,5	65,9	12,3 (13)	4,6 (3)	68,1 (2)	87,3 (1)
Polen	2,3 (3)	0,2	96,2	12,5 (14)	14,1 (7)	42,4 (9)	54,5 (17)
Estland	3,7 (4)	0,2	69,2	17,2 (19)	19,3 (11)	69,1 (1)	68,9 (15)
Nederland	6,6 (6)	0,5	66,2	9,9 (4)	31,8 (16)	44,4 (7)	71,2 (14)
Ierland	9,0 (7)	0,5	77,1	11,9 (15)	7,7 (5)	34,7 (12)	72,1 (12)
Griekenland	14,5 (11)	0,5	41,6	10,3 (7)	21,8 (12)	39,6 (10)	81,4 (6)
België	26,5 (17)	0,5	47,4	11 (6)	41,9 (19)	32,7 (14)	74,5 (8)
Europese SARTRE4	14,9	n.a.	59,8	12,1	19,5	41,1	72,6

BAC¹: Bloed alcohol concentratie; Tussen haakjes rang in vergelijking met 19 Europese landen uit SARTRE4 (2010); % zeer/tamelijk mee eens² met de uitspraak dat “de meeste van uw vrienden wel eens onder invloed van alcohol rijden”; Europese gemiddelde³: is gebaseerd op een vergelijking van 19 Europese landen die aan de SARTRE4-survey deelgenomen hebben; meer informatie is te vinden in het rapport.

Bron: Cestac & Delhomme (Eds.), 2012; WHO, 2014a, ETSC, 2012; infografie: BIVV

Het voorkomen van ROI

Zweden, Finland, Polen en Estland zijn in de SARTRE4-vergelijking van in totaal 19 Europese landen de 4 best presterende landen m.b.t. ROI. In een vergelijking tussen 2002 en 2010 (SARTRE3 en 4) op basis van de relatieve positie van de landen kon vastgesteld worden dat de situatie op vlak van ROI in Griekenland en Ierland duidelijk verbeterd is. Desondanks toont Griekenland een relatief hoge prevalentie van ROI (net onder het gemiddelde van de 19 Europese landen). Het best presterende buurland van België in de SARTRE4-meting was Nederland.

Andere beschrijvende kenmerken

Opvallende bijkomende kenmerken van de landen met een zeer lage prevalentie van ROI (Zweden, Finland, Polen en Estland) zijn:

- ▶ lage *wettelijke alcohol limiet* met een BAC van 0,2 g/L (met uitzondering van Finland);
- ▶ lage *gepercipieerde prevalentie van ROI van vrienden* (sociale norm) vooral in Scandinavische landen (Zweden en Finland); in de vroegere Oostbloklanden (Polen en Estland) ligt het ROI van vrienden rond het gemiddelde van de 19 SARTRE4 landen;
- ▶ hoge *objectieve pakkans*;
- ▶ hoge *subjectieve pakkans* in Scandinavische landen maar niet in de vroegere Oostblok landen.

Het *jaarlijkse nationale alcoholgebruik* lijkt niet rechtstreeks met het voorkomen van ROI verbonden te zijn. Het valt op dat een aantal zeer goed presterende landen toch ook een zeer hoog alcoholverbruik kennen.

Sociale aanvaardbaarheid van rijden onder invloed van alcohol (ROI)

ROI is volgens de nationale experts volstrekt onaanvaardbaar in Zweden, Finland, Polen en Ierland, onaanvaardbaar in Estland en tot op zekere hoogte aanvaardbaar in Griekenland. De meeste Belgische bestuurders vinden ook dat ROI onaanvaardbaar is (84%), maar toch slechts voor iets meer dan de helft (59%) volstrekt onaanvaardbaar.

Beschikbaarheid van alcohol

In de meeste landen is alcohol vrij verkoopbaar vanaf 18 jaar. Enkel in Zweden en Finland is de verkoop beperkt. Alcohol kan op restaurant geserveerd worden vanaf 18 jaar. Drank met een lage alcoholconcentratie (SE tot 3,5 vol.%. FI tot 4,7 vol.%) mag in de reguliere winkels verkocht worden vanaf 18 jaar, maar sterkere alcohol mag alleen vanaf 20 jaar in alcoholwinkels met speciale licentie verkocht worden. In Nederland is de verkoop van alcohol in tankstations langs de snelweg beperkt.

Wettelijke alcohollimiet

De meeste zeer goed presterende landen hebben een alcohol-limiet van 0,2 g/L (Zweden, Estland en Polen). In alle andere landen ligt de algemene alcohollimiet op 0,5 g/L. Deze landen met een 0,5 promillegrens voorzien alle, met de uitzondering van Finland, een lagere alcohollimiet (0,2 g/L) voor beginnende bestuurders en Griekenland en Ierland ook voor professionele bestuurders (zoals in België). Verder geldt in Griekenland de alcohollimiet van 0,2 g/L ook voor gemotoriseerde twee- en driewielers.

Handhaving

Alle zeven geselecteerde landen controleren continu op het rijden onder invloed van alcohol, met verhoogde controles in bepaalde periodes van het jaar zoals bv. Kerstmis, nationale vakantie, midzomer, etc. Over de verhoogde controleactiviteit werd in alle landen op de ene of andere manier naar het brede publiek gecommuniceerd. In bijna alle landen worden bestuurders die betrokken zijn in ongevallen met lichamelijke schade, verplicht om een alcoholtest te ondergaan. Enkel in Griekenland en Nederland is deze maatregel tot op heden slechts gedeeltelijk omgezet in de praktijk.

Strafmaat

In vergelijking met België ligt in de meeste geselecteerde landen de strafmaat voor ROI hoger. Polen blijkt de strengste sancties te hebben. Hier kan een alcoholovertreding met een BAC tussen 0.2 en 0.5g/L al gesanctioneerd worden met een boete, rijverbod tussen 6 maanden en 3 jaar en een bijkomende gevangenisstraf van 5 tot 30 dagen.

Rehabilitatie van de bestuurder en alcoholslot programma

In de meeste zeer goed presterende landen (Zweden, Estland, Nederland en gedeeltelijk ook in Finland) zijn rehabilitatieprogramma's¹ voorzien voor bestuurders die betrapt werden op ROI. Bovendien wordt in Sweden, Finland en Nederland een alcoholslotprogramma aangeboden. Deze programma's zijn in de regel gecombineerd met rehabilitatie/behandeling en nauwe opvolging. Geen enkel land gebruikt tot heden alcoholsloten als verplichte technische standaardapparatuur voor bepaalde bestuurdersgroepen (bv. professionele bestuurders). Enkel in Finland moeten voertuigen voor schoolvervoer met alcoholsloten uitgerust zijn indien de gemeente het vervoer bestelt en betaalt.

Educatie en campagnes

In alle geselecteerde landen wordt het thema "drinken en rijden" in de rijopleiding, en deels ook in het onderwijs, behandeld. Verder voeren de meeste landen systematisch campagnes tegen rijden onder invloed van alcohol, of informeren ze op andere manieren systematisch over de risico's van alcohol achter het stuur. De sensibilisatieaanpak is in de meeste landen multidisciplinair, in samenwerking met actoren uit verschillende beleidsdomeinen zoals verkeersveiligheid, gezondheid en educatie.

Belangrijkste aanbevelingen

In alle landen met een laag voorkomen van ROI werd een uitgebreid systeem van maatregelen toegepast om alcohol achter het stuur tegen te gaan, bestaande uit verschillende elementen, zoals wetgeving, handhaving, rehabilitatie, sensibilisatie en/of educatie. De volgende denkpistes voor een verbetering van het beleid rond ROI in België kunnen uit de aanbevelingen van de internationale experts en het DRUID-project afgeleid worden:

- ▶ verdere verhoging van de handhavingsactiviteiten (alcoholcontroles), in het bijzonder met betrekking tot de systematische alcohol controles in geval van een ongeval met letsel;
- ▶ blijven combineren van de preventieve (aselectieve controles) en repressieve (selectieve controles) benaderingen;
- ▶ verdere verhoging van de publieke zichtbaarheid van de politie controles om de algemene preventieve werking ervan te versterken (met andere woorden: de gepercipieerde kans om gecontroleerd te worden verhogen).
- ▶ uitbreiden hoe DUI wordt gesanctioneerd (bv. straf gecombineerd met nauwgezette controle van het gebruik van alcohol in het geval van recidivisten)
- ▶ tijd kort houden tussen de overtreding en sanctionering zo kort mogelijk om de afschrikwekkende werking van de sanctie te verhogen;
- ▶ verlaging van de alcohollimiet voor jonge en/of onervaren bestuurders (gewoonlijk minder dan 2 jaar rijervaring);
- ▶ intensivering van rehabilitatieprogramma's voor alcoholovertreders (bijvoorbeeld verplichte rehabilitatieprogramma's voor specifieke doelgroepen, invoeren van rehabilitatieprogramma's in het geval voorlopige intrekking van het rijbewijs, programma's verspieden over een langere periode en de behandeling van niet-verslaafde en verslaafde alcoholovertreders in afzonderlijke programma's);
- ▶ uitbouw van alcoholslotprogramma's met begeleiding en nauwgezette opvolging (bv. verplichte programma voor recidivisten);
- ▶ het thema "*don't drink and drive*" blijven aanspreken in het onderwijs, sensibilisering en campagnes gericht op het verminderen van de maatschappelijke aanvaardbaarheid van rijden onder invloed van alcohol;

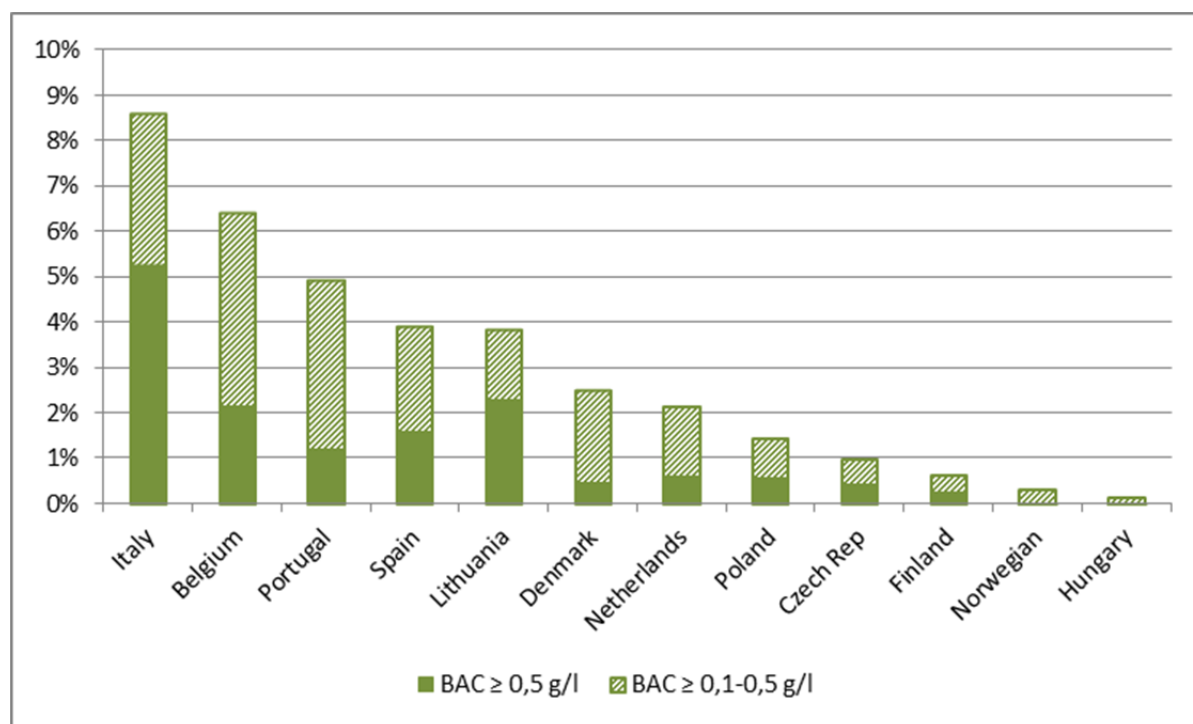
¹ programma's die als doel hebben om rijden en alcoholgebruik te scheiden, daardoor recidive vermijden en hen opnieuw als een volwaardige bestuurder te integreren in het verkeer.

- ▶ de samenwerking tussen de verschillende sectoren en verschillende beleidsdomeinen (bijvoorbeeld onderwijs, gezondheidszorg, handhaving) verder te intensiveren; zowel op federaal als regionaal beleidsniveau, omdat bepaalde beleidsdomeinen geregionaliseerd zijn.

1 INTRODUCTION

The underlying motivation for this study was the observation that Belgium has a severe problem with drunk driving, which is apparently worse than in most other European countries (see Figure 1; Houwing et al., 2011; Isalberti et al., 2011). Figure 1 shows the results of the DRUID² road side survey in which 13 European countries participated. Belgium displays one of the highest prevalence rates for driving under the influence of alcohol (DUI) within this survey. 6.4% of the Belgium car drivers tested positive for alcohol, among which 2.2 positive for an alcohol concentration above the Belgium legal limit of BAC3 0.5 g/L (not taking into account combined use with drugs and or medicines).

Figure 1: Observed driving under the influence of alcohol among car drivers (DRUID road side survey; data 2010)



Source: Houwing et al., 2011; infographics BRSI

The SARTRE4⁴ survey, which included information on self-reported drunk driving behaviour, confirmed these findings for Belgium (see Figure 2 next chapter). Within this study 26.5% of Belgium drivers stated that they had driven a car while being maybe over the legal limit for drinking and driving within the last month. This again, is way above the average of the 19 participating SARTRE4 which was 15% of drivers admitting DUI. Furthermore, the Belgian national roadside surveys which monitor the DUI situation since 2003 cannot identify any significant improvement up to 2012⁵. Since 2003, the percentage of positive drivers (BAC ≥ 0.5 g/L) fluctuates between 2 and 3% (Riguelle, 2014).

The overall objective of the present study was to gain insight into good national practices against drunk driving and try to understand why some countries perform better than Belgium

² EC project on *Driving under the Influence of Drugs, Alcohol and Medicines*; coordinated by BAST; homepage: <http://www.druid-project.eu>

³ Blood alcohol concentration

⁴ Fourth edition of EC project on *Social Attitudes to Road Traffic Risk in Europe*; coordinated by IFSTTAR; homepage: <http://www.attitudes-roadsafety.eu>

⁵ The results of the 2015 survey are not yet available

2 METHODOLOGY

The explorative study is based on literature and an expert survey in a number of well performing countries. It starts from previous results of the DRUID (Schulze et al., 2012) and SARTRE (Cestac & Delhomme (Eds.), 2012) projects. Furthermore, other quantitative results from e.g. the EC project DaCoTA and previous BRSI investigations such as e.g. Meesmann et al., 2015 were taken into account.

2.1 Relevant previous European research projects

In Europe, DRUID was the most extensive research project on *Driving under the Influence of Drugs, Alcohol and Medicines*. It was financed by the European Commission, and coordinated by the BASt (Germany). A total of 36 institutes from 18 European countries participated in this study, between 2006 and 2011. The final report of the project (Schulze et al., 2012) includes an overview of recommendations countering drunk driving which was used as a baseline to develop the survey of the present study (for more information on DRUID also see: <http://www.druid-project.eu>; Schulze et al., 2012).

SARTRE4 deals with *Social Attitudes to Road Traffic Risk in Europe*. This research project was also financed by the European Commission and was coordinated by IFSTTAR (France). 19 countries participated in the fourth edition of this survey in 2010. In the study 21,280 road users, among which 12,507 car drivers, were interviewed face to face based on a common protocol. The SARTRE4 data on car drivers were used within the present study to define well performing countries with respect to drunk driving. Furthermore, other SARTRE4 data were used to indicate country differences in our comparison (for more information on SARTRE4 also see: <http://www.attitudes-roadsafety.eu>; Cestac & Delhomme (Eds.), 2012).

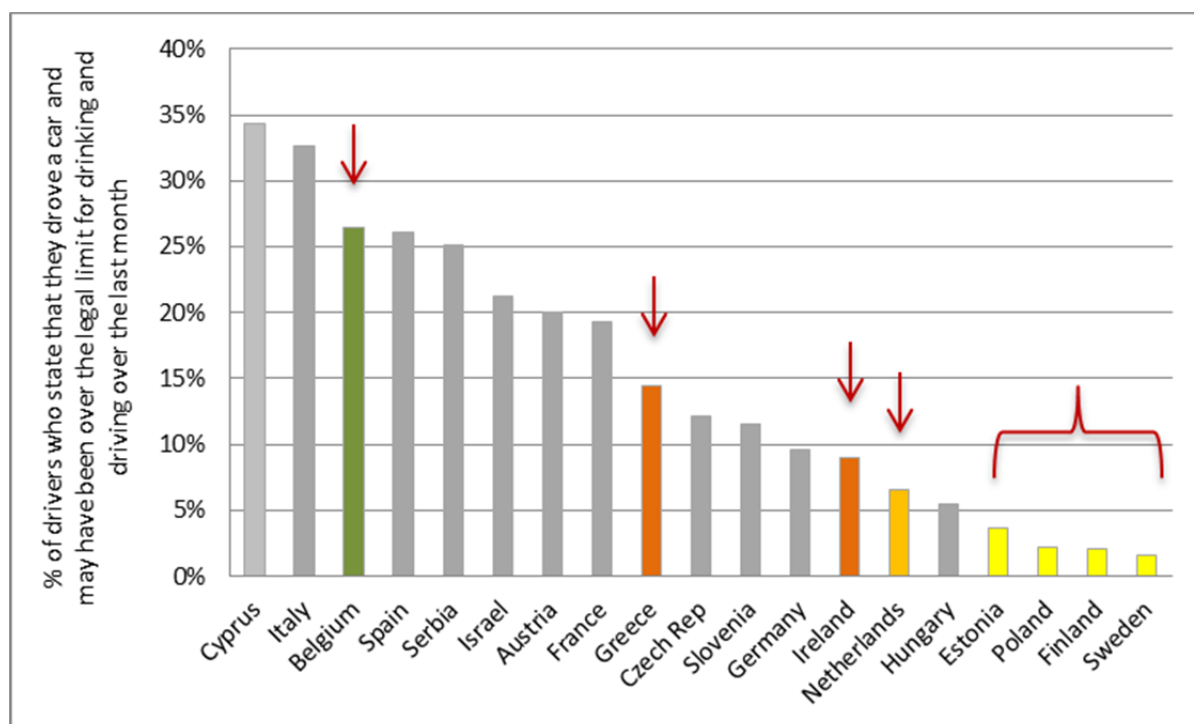
2.2 Selection of well performing countries

We decided to use SARTRE4 data on self-reported DUI behaviour to evaluate the performance of countries instead of the observed drunk driving behaviour in the DRUID project. This choice may appear strange at first sight, since there is a common agreement in the literature that measurements based on observed behavioural data are more valid than measurements based on self-reported behaviour, as it is unknown whether the respondents' answers reflect their actual behaviour. However, we conducted a preliminary analysis to examine the extent to which the level of DUI reported by the respondents in the SARTRE-4 survey (in this case driving with a small amount of alcohol) was correlated with the observed DUI prevalence ($BAC \geq 0.1$ g/L; Houwing et al., 2011) in eight countries that also participated in DRUID: Belgium, Finland, Hungary, Italy, Netherlands, Poland, Spain and the Czech Republic. The data from both sources show a high correlation (Pearson correlation 0.921**; Meesmann et al., 2015). Other reasons to select the SARTRE4 data on self-reported drunk driving behaviour were that data on Sweden were lacking in DRUID. Sweden is considered to be one of the best performing countries on this topic and we did not want to exclude this country from our comparison. Furthermore, the SARTRE project provides the possibility to do a tentative comparison of the evolution between 2003 and 2010.

Figure 2 shows the percentage of drivers who state that they may have been over the legal limit for drinking and driving at least once over the last months (SARTRE4). Eight countries were selected for the present analysis (see red errors in Figure 2). Four countries due to their low drunk driving prevalence (marked in yellow: Sweden, Finland, Poland and Estonia), the best performing neighbouring country of Belgium (marked in orange: the Netherlands); two countries because of a striking improvement of their DUI situation between 2002 and 2010⁶ (marked in red: Greece and Ireland) and Belgium (marked in green).

⁶ Defined by comparing the DUI prevalence rank of countries which participated in SARTRE3 (2002-3) and SARTRE4 (2010)

Figure 2: Self-reported DUI among car drivers (SARTRE4; data 2010)



Source: SARTRE4, infographics BRSI

2.3 Selection of the national DUI experts

The national experts on countering drunk driving were from organizations which are members of FERSI (Forum of European Road Safety Research Institutes⁷), ETSC (European Transport Safety Council⁸) and/or IRTAD (International Traffic Safety Data and Analysis Group⁹). The representatives in these networks were asked to point out a national expert, who would be willing to answer a number of questions concerning the national approach to counter drunk driving.

2.4 Expert survey

We sent two questionnaires to the national experts between October and November 2014. The objective of the first questionnaire was to get a general overview of the national drunk driving situation and countermeasures used (Annex 1). The second questionnaire included more detailed questions on countermeasure approaches. The topics addressed in the surveys were:

- ▶ DUI prevalence and other national descriptive data
- ▶ general alcohol consumption and alcohol availability
- ▶ acceptability of drunk driving and social norm
- ▶ legal alcohol limit
- ▶ enforcement
- ▶ penalties
- ▶ driver rehabilitation and alcohol interlock systems
- ▶ education and awareness-raising campaigns.

⁷FERSI homepage: <http://www.feresi.org/>

⁸ETSC homepage: <http://etsc.eu/>

⁹IRTAD homepage: <http://www.internationaltransportforum.org/Irtadpublic/index.html>

Furthermore, we asked the experts about their practical experience with the DRUID recommendations and if they can point out any specific measure which helped in their country to counter DUI (Annex 2).

Information from the experts was gathered until January 2015. In the analysis of the expert input we aimed at identifying measures which could be exploited further in Belgium to improve our DUI situation.

3 COUNTRY APPROACHES

The following overviews on the national approaches against DUI are mainly based on the input of the national experts and SARTRE4 data.

3.1 Sweden

Basic characteristics of Sweden compared to the European average



Basic data	Sweden	European average (EU-28)
Total population	9.644.864 inhabitants (2014)	18.100.875 inhabitants (2014)
Population composition	17% children (0-14 years), 63% adults (15-64 years), 20% elderly (65 years and over) (2014)	16% children, 66% adults, 19% elderly (2014)
Population density	23 inhabitants/km ² (2012)	116 inhabitants km ² (2012)
Population living in densely populated areas	40% (2013)	42% (2013)
Gross Domestic Product per capita	€44 400 (2014)	€27 300 (2014)
Special characteristics:	The northern part of Sweden (about 60% of the country) is sparsely populated.	

Source: Eurostat; DaCoTA, 2012

General alcohol consumption and alcohol availability

In Sweden the estimated annual alcohol consumption¹⁰ (2008) is clearly below the European average (SE: 10.0 L pure alcohol per capita (≥ 15); European average: 12.1 L; WHO, 2014a)¹¹. Sweden has a long tradition in sobriety work and the accessibility of alcohol is restricted. Serving alcohol is allowed in restaurants, discos or bars from 18 years on. Drinks with an alcohol concentration up to 3.5 vol. % can be sold in regular shops from 18 years on, but stronger alcohol only in particular alcohol stores (so called: Systembolaget) from 20 years on.

Legal alcohol limit

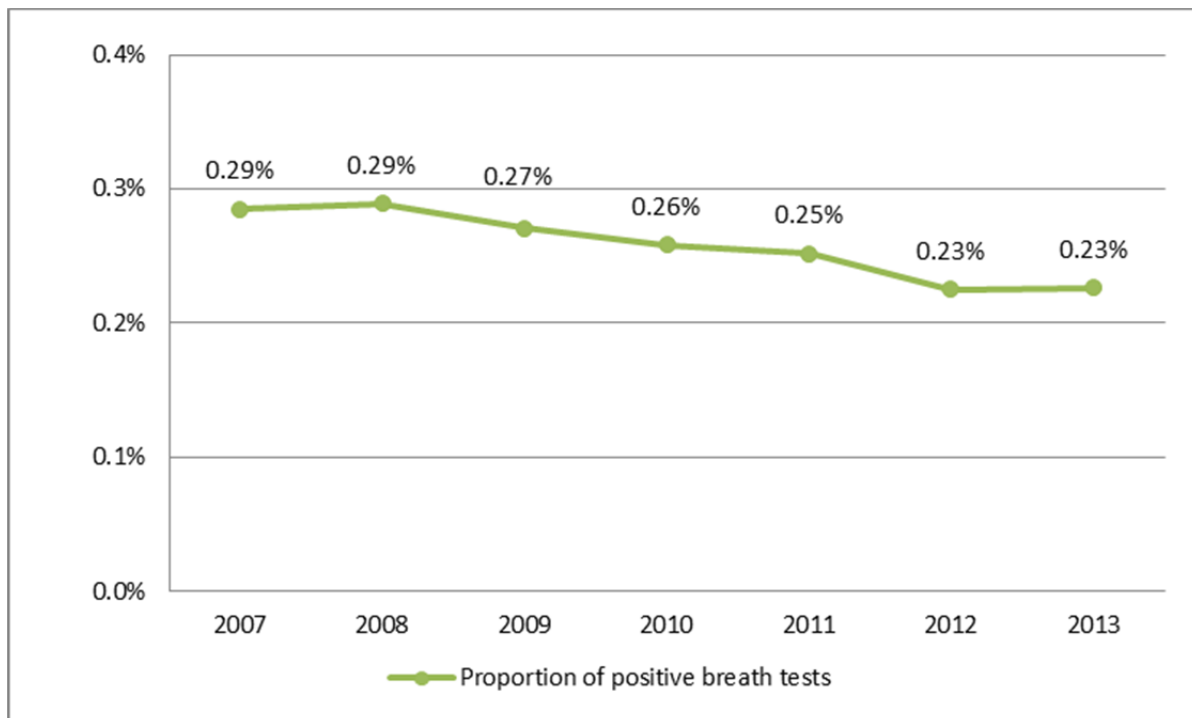
The legal alcohol limit in Sweden is 0.2 g/L (BAC) since 1990 already. No further lower alcohol limits have been specified for any specific driver group. Although this legal limit is already very low, still 76.5% of Swedish drivers support an even lower limit (European SARTRE4 average: 59.8%). More than half of the Swedish drivers think that car drivers should not drink any alcohol at all when they drive (65.4%). Only 1.2% of the drivers think that the alcohol limit of BAC 0.2 g/L is too low.

DUI performance and monitoring

Sweden is the best performing country in the SARTRE4 comparison on self-reported drunk driving. Only 1.53% of the car drivers state that they may have been over the legal limit for drinking and driving at least once over the last months (European SARTRE4 average: 14.9%). Time trends in drunk driving are based on police data (Figure 3).

¹⁰ Total (recorded + unrecorded) adult (15+ years) per capita consumption, projected estimates for 2008

¹¹ Note that according to national sources, provided by the country expert, the annual alcohol consumption in Sweden was 9.8 L pure alcohol per capita (≥ 15) in 2008.

Figure 3: Proportion of positive breath tests based on police data in Sweden (2007-2013)

Source: data provided by the national expert

Between 2007 and 2013 a small but steady decrease of the proportion of positive breath tests can be observed (2007: 0.29%; 2013: 0.23%; national sources). Since we do not have information on possible changes in control strategy (e.g. shift from selective to a-selective testing), the possibility that the decrease in registered drunk driving offences might have been caused by a possible shift in strategy, cannot be excluded.

Acceptability of drunk driving and social norm

According to the national expert drunk driving is totally unacceptable in Sweden. For most people it is a “cultural code” not to drink and drive; only few people try to calculate how much they are allowed to drink. The SARTRE4 results support this finding and further show that Sweden is the country in which least of the drivers think most of their friends would drink and drive a car. Only 2.7% of the car drivers agree with this statement (European SARTRE4 average: 19.5%).

Enforcement

In Sweden more drivers than in most other European countries report alcohol checks within the last three years (SE: 56.9 %; European SARTRE4 average 41.1%) and the perceived likelihood of getting caught for drunk driving is also clearly above the European average (SE: 80%; European SARTRE4 average: 72.6%). According to the national expert alcohol checks are common practice by the Swedish police, but strictly speaking not mandatory by law.

Penalties

All DUI-offences in Sweden are handled by the prosecutor. The prosecutor can decide that minor DUI-offences can be settled without involving the court and the person is then given a fine. The fine varies, depending on the income of the convicted person. If the DUI-offence isn't minor and/or the person is not willing to admit the crime, the process goes on to a court. The court presiding can end with a fine, probation or imprisonment for up to two years. The “normal” imprisonment time is however one to two months. According to the national expert the duration of licence withdrawal in case of a first DUI offence is normally 1 or 2 years. Most drivers (92%) are supporting more severe penalties for DUI offences (European SARTRE3 average 88%).

Driver rehabilitation and alcohol ignition interlock

Sweden offers driver rehabilitation and alcohol ignition interlock program to DUI offenders. Driver rehabilitation is often part of a probation sentence but Sweden also has a voluntary program called SMADIT (Joint action against alcohol and drugs in traffic). SMADIT is collaboration between the police, the social services and the dependency care and treatment services. The aim of SMADIT is to quickly offer treatment to suspected drunk and drug drivers if they need help to overcome their addiction. They can enter the program as soon as they are suspected and do not need to wait for the sentence. Moreover, a person that is suspected or convicted of drunk driving can apply to the Swedish Transport Agency to take part in the alcohol interlock program, instead of getting their license revoked. The alcohol interlock program will normally run for as long period of time as the persons driving license would be revoked if they hadn't entered the program (one or two years, depending on BAC and recidivism). The program is therefore not mandatory, but still has a relatively high number of participants. The alcohol interlock program is constructed in such a way that a person's alcohol interlock logs are monitored. The participant must also deliver a medical certificate, including blood samples regarding alcohol consumption, during the time the alcohol interlock is used when they apply for re-granting their driving license. The alcohol interlock program in Sweden is not combined with rehabilitation or treatment only if it is combined with the voluntary program (SMADIT), but this is a parallel program.

Fitness to drive assessment of DUI offenders

All DUI offenders that are recidivists, who have an alcohol addiction or who are convicted for DUI with a high BAC (>1.0 g/L) have to deliver a medical certificate, including blood samples regarding alcohol consumption, in order to get a new driving license.

Road user education, risk communication and public campaigns

Sweden has compulsory road safety education and similar driving licence thresholds (e.g. age limits to obtain a driving licence) as most other countries. The topic "alcohol and driving" is addressed in driver education and partly in school education. Furthermore, it is one of the main themes in Swedish road safety risk communication which is developed in cooperation with different sectors. Sweden has a cohesive strategy for alcohol, narcotic drugs, doping and tobacco (ANDT) policy (for more information on this policy also see: WHO, 2011; DaCoTA, 2012; national sources).

Successful countermeasures in Sweden

The national expert emphasised the success of the following three countermeasures in Sweden: (1) Voluntary program for suspected drunk drivers (SMADIT) which aims at quickly offering treatment to overcome addiction; the program requires a close collaboration between police, social services and the addiction treatment services; (2) alcohol interlock program; and (3) prevention activity for teaching young people in schools and sport clubs.

3.2 Finland

Basic characteristics of Finland compared to the European average



Basic data	Finland	European average (EU-28)
Total population	5.451.270 inhabitants (2014)	18.100.875 inhabitants (2014)
Population composition	16% children (0-14 years), 64% adults (15-64 years), 19% elderly (65 years and over) (2014)	16% children, 66% adults, 19% elderly (2014)
Population density	18 inhabitants/km ² (2012)	116 inhabitants km ² (2012)
Population living in densely populated areas	36% (2013)	42% (2013)
Gross Domestic Product per capita	€37 600 (2014)	€27 300 (2014)
Special characteristics:	Most roads and cities of Finland are located in the southern part.	

Source: Eurostat; DaCoTA, 2012

General alcohol consumption and alcohol availability

The estimated annual alcohol consumption¹² (2008) in Finland is above the European average (FI: 13.1 L pure alcohol per capita (≥ 15); European average: 12.1 L; WHO, 2014a). Note that according to national sources provided by the country experts the annual alcohol consumption was lower (12.5 L pure alcohol per capita (≥ 15) in 2008) and decreases meanwhile to 11.2 L in 2014. The accessibility of alcohol is restricted. Serving alcohol is allowed from 18 years on. In shops the selling of drinks with a low alcohol concentration (< 4.7 vol. %) is allowed from 18 years on. Stronger alcohol can only be bought from 20 years on in specialized shops. Off-licence sales of alcohol are only allowed on weekdays between 9:00 and 21.00 o'clock.

Legal alcohol limit

Finland has a general legal alcohol limit of BAC 0.5 g/L for drunk driving, which is similar to most other European countries. No further lower alcohol limit has been specified for any specific driver group as such kind of legislation would be considered an act of discrimination. In Finland 43.3% of the drivers think that car drivers should not drink any alcohol at all when they drive. In total 65.9% supports a stricter legal limit (European SARTRE4 average: 59.8%), 34.0% are content with the current alcohol limit and only 0.2% thinks that it should be higher.

DUI performance and monitoring

With 2.11% drivers admitting DUI within the last month Finland is the second best performing country in the SARTRE4 comparison (European SARTRE4 average: 14.9%). Finland has a very sophisticated monitoring system on drunk driving. The expert provided annual DUI prevalence data from 1988 until 2013 (Figure 4). These data are based on systematic random roadside breath testing on a national level. The prevalence data decreased in this period from 0.24% (1988) to 0.14% (2013) positive drivers. The lowest value was reached in 2012 with 0.11% positive drivers (national sources).

¹² Total (recorded + unrecorded) adult (15+ years) per capita consumption, projected estimates for 2008

Figure 4: Results of systematic random roadside breath testing in nationwide study in Finland (1988-2013)



Source: Police and THL; data provided by the national expert

Acceptability of drunk driving and social norm

According to the national expert drunk driving is totally unacceptable in Finland. The threshold to inform the police if one would see someone else starting to drunk drive is very low even if the drunk driver is a member of one's own family. 71% of the respondents within the Liikenneturva survey answered that it is very likely or sure that they would call the police. This strong social pressure against drunk driving is also confirmed by the SARTRE4 findings. Only 4.6% of the Finnish drivers think that most of their friends would drink and drive a car (European SARTRE4 average: 19.5%). This variable gives us an idea about the perceived social norm on drunk driving.

Enforcement

The percentage of drivers who report that they have been checked for alcohol within the last three years is in Finland with 68.1% the second highest enforcement rate within the SARTRE4 comparison of 19 European countries (European SARTRE4 average 41.1%) and highest for the perceived likelihood of getting caught for drunk driving (FI: 87.3; European SARTRE4 average 72.6%). Also in Finland alcohol checks in case of accidents resulting in injury are mandatory.

Penalties

The minimum and maximum duration of licence withdrawal in case of a first DUI offence is 1 month up to 5 years. Furthermore, penalties concerning DUI (criminal offences) are always combined with other sanctions which are at least fines but can also be imprisonment. The support for more severe penalties for DUI offences in Finland is very high (94%; European SARTRE3 average 88%).

Driver rehabilitation and alcohol ignition interlock

Voluntary driver rehabilitation and alcohol ignition interlock programmes are provided in Finland but not on a systematic base. Alcohol ignition interlock systems on a voluntary base are an alternative for a driving ban, but in practice this option is not used very often. Indeed, the typical driving bans are rather short and therefore it is not very tempting to pay about 1500-2000 EUR to avoid a driving ban of usually from three to six months. Finland is the only country in which alcohol ignition interlocks are mandatory in vehicles in the context of school/kindergarten transport but only if the municipality orders and pays the transport.

Fitness to drive assessment of DUI offenders

All DUI offenders who have been caught twice over a time frame of three years are required to provide a statement from a medical doctor who is specialist in alcohol and drugs addiction, psychiatrists etc. and who excludes a diagnosis of addiction. Furthermore, all doctors also have the legal responsibility to inform police about patients who are no longer fit to drive (medical minimum criteria for a driving licence; see also: European directive 91/439/EEC). But in practice, it would seem that these mechanisms are not working the way they were intended. For example, in case alcohol addiction is reported, the follow-up work is charging the health care system heavily. Partly because of this the threshold to diagnose an alcohol addiction is high.

Road user education, risk communication and public campaigns

Road safety education, driving licence thresholds and public campaigns are similar in Finland to the majority of the European countries. The topic “alcohol and driving” is addressed in driver education and also in school education. Moreover, it is one of the main themes in Finnish road safety campaigning/risk communication, which was developed in cooperation with different sectors. In most cases the perception of the public campaigns is evaluated on a regular base (DaCoTA, 2012; national sources).

Successful countermeasures in Finland

According to the national expert a wide range of measures and a comprehensive approach is important: “Rather than a specific measure it is more important how well the mixture of different measures is working against DUI. DUI can be related to a very wide range of problems and individual situations - so also the toolbox for this must include wide range of measures”.

3.3 Poland

Basic characteristics of Poland compared to the European average



Basic data	Poland	European average (EU-28)
Total population	38.017.856 inhabitants (2014)	18.100.875 inhabitants (2014)
Population composition	15% children (0-14 years), 70% adults (15-64 years), 15% elderly (65 years and over) (2014)	16% children, 66% adults, 19% elderly (2014)
Population density	122 inhabitants/km ² (2012)	116 inhabitants km ² (2012)
Population living in densely populated areas	33% (2013)	42% (2013)
Gross Domestic Product per capita	€10 700 (2014)	€27 300 (2014)
Special characteristics:	The motorway network is developing dynamically. The Polish road network also contains 32% of unpaved roads.	

Source: Eurostat; DaCoTA, 2012

General alcohol consumption and alcohol availability

Poland's estimated annual alcohol consumption¹⁵ for 2008 is 14.4 L pure alcohol per capita (≥ 15). This is clearly above the European average of 12.1 L (WHO, 2014a). According to the national expert the consumption has been rising along with increasingly easier physical and economic accessibility of alcohol in the recent decade. According to the State Agency for Prevention of Alcohol Related Problems, alcohol is easily accessible in Poland both in economic and physical terms. It can be served and sold to people

¹⁵ Total (recorded + unrecorded) adult (15+ years) per capita consumption, projected estimates for 2008

from 18 years on. In 2001, the statistical Pole¹⁴ was able to buy 88 bottles of vodka and 179 in 2013. A similar trend has been observed for all alcoholic beverages. According to the Agency, alcohol prices increase slower than people's incomes making alcohol easily available. Physical availability is increasing as well; today there is a shop selling alcohol per every 266 people (2013). With the current density of the network and number of shops, buying alcohol in Poland is not a problem. One cause for concern in Poland is that a small group of people (approximately 7%) are responsible for 46% of all of Poland's alcohol consumption. Despite this increasing alcohol availability and alcohol consumption in the population, Poland has maintained the decline in the number of drink-driving accidents.

Legal alcohol limit

Since the 1960s the BAC limit in Poland has been BAC 0.2 g/L for all road users. No further lower alcohol limit has been specified for any specific driver group. Almost all Polish drivers think that car drivers should not drink any alcohol at all when driving and in total 96.2% supports an even stricter alcohol limit than 0.2 g/L BAC. This result is clearly above the European SARTRE4 average of 59.8%.

DUI performance and monitoring

Poland does not have a stable system for monitoring drink driving. While some data on alcohol prevalence may be found in the European projects DRUID and SARTRE and several Polish public surveys, they are all one-off in character and difficult to compare. In SARTRE 4 Poland was the third best performing country with 2.25% of the car drivers stating that they may have been over the legal limit for drinking and driving at least once over the last months (European SARTRE4 average: 14.9%), in DRUID random roadside checks revealed 1.5% of drink drive offenders, but the recent national surveys seem to suggest that alcohol prevalence among Polish drivers may be higher than that defined in the DRUID and SARTRE4 surveys. In the Polish part of SARTRE4 survey 3.4% of the car drivers admitted they had been drinking and driving within the last year, 1.8% of motorcyclists and 4.9% of cyclists. To get an idea of the problem in Poland, trend estimates are usually made based on road accidents involving drunken road users (alcohol checks are mandatory in case of accidents resulting in injury) and police sobriety check records.

Acceptability of drunk driving and social norm

According to public surveys, drunk driving is totally unacceptable in Poland. Within the SARTRE4 survey for example, 91.5% of the Polish drivers were of the opinion that car drivers should not be allowed to drink any alcohol when they drive ("*Less alcohol than at present*": 4.7% and "*As much alcohol as at present*": 3.2%). These results of SARTRE4 are consistent with Polish public opinion surveys. Furthermore, SARTRE4 can give us an indication of the perceived social norm on drunk driving in Poland. In this study 14.1% of the drivers stated that they think that most of their friends would drink and drive a car. This is rank 7 in comparison with 19 European countries (European SARTRE4 average: 19.5%).

Enforcement

For years the police's priority was to reduce drink driving, but the Polish police tested drivers' sobriety if a police officer suspected a case of DUI. Since around 2008, there have been more and more screening checks where a big numbers of drivers are controlled randomly. With screening devices becoming more prevalent, sobriety checks increased significantly. In 2009 there were 2.3 million sobriety checks and in 2014 more than 15 million. The increasing number of checks is also reflected in public surveys. In SARTRE3 (2002) 78.3% of the drivers said that they had not had a sobriety check in the last 3 years, in SARTRE4 (2010) – 57.5% and in the National Road Safety Council survey (2014) it was 47%. According to the SARTRE4 survey the enforcement rate in Poland is similar to the European average. In Poland 42.4% of the drivers report alcohol checks within the last 3 years (European SARTRE4 average: 41.1%). Nevertheless, the perceived likelihood of getting caught for drunk driving in Poland is clearly below the European average (PL: 54.5%; European SARTRE4 average 72.6%). In most other countries this percentage is higher (only exception: Italy 53.2% and Hungary 46.3%).

¹⁴ This applies to the number of bottles of vodka which in theory one can buy for Poland's average monthly salary

Penalties

In contrast to the low perceived likelihood of getting caught for drunken driving, Poland has the most severe sanctions amongst the countries included in this study. There are two legal categories in Poland: condition after alcohol consumption and condition of insobriety. And so:

- ▶ persons are considered in a condition after alcohol consumption when alcohol concentration in their system amounts to or leads to: BAC of 0.2 to 0.5 g/L of alcohol or breath alcohol content of 0.1 mg to 0.25 mg of alcohol per 1 dm³. Driving after alcohol consumption is considered a traffic violation.
- ▶ persons are considered in a condition of insobriety when alcohol concentration in their system amounts to or leads to: BAC above 0.5 g/L of alcohol or breath alcohol content above 0.25 mg of alcohol per 1 dm³. Driving in a condition of insobriety is considered a crime and courts are required to impose more severe penalties.

Driving after consumption of alcohol in Poland (0.2-0.5g/L BAC) is subject to a fine of up to PLN 5 000, a driving ban for six months to three years, 10 penalty points and a custodial sentence of up to 30 days. In May 2015 Poland toughened its penalties for driving when in a condition of insobriety. Offenders face: a fine measured in daily rates relative to the person's income, imprisonment of up to two years, driving ban (for all types of vehicles or specific vehicles) from 3 to 15 years (previously from 1 year to 10 years), contribution towards the Victims Fund of at least PLN 5 000. Reoffenders face imprisonment from 3 months to 5 years, a lifetime driving ban and contribution towards the Victims Fund of at least PLN 10 000. Additionally, under the new regulations offenders may ask for their disqualification to be replaced by an alcohol ignition interlock driving license. This is available to offenders after at least half the disqualification period, and if they had a lifetime disqualification, they can apply for lifting the ban after at least 10 years. The decision is taken by the court. Poles are in favour of these harsh penalties for drunk-driving and 87% of the Polish drivers support even higher penalties (European SARTRE3 average 88%). In 2014 this support was 91% (NRSC survey).

Driver rehabilitation and alcohol ignition interlock

Driver rehabilitation programmes have just been introduced in Poland. Since the 1st of January 2015 a new law took effect under which all DUI drivers will have to take a rehabilitation course on alcohol problems. They must complete the course to be able to claim their driving license back. Under Polish regulations alcohol ignition interlocks (introduced in May 2015) are not part of a rehabilitation programme, they are designed to make the driving ban more bearable.

Fitness to drive assessment of DUI offenders

In Poland a medical check is required before applying for a driving license, as part of periodical driver tests and after you have been stopped for DUI. Those caught in a condition after alcohol consumption (0.2-0.5 g/L BAC) and in a condition of insobriety (>0.5 g/L BAC) must also undergo mandatory psychological testing. In all cases the medical doctor or/and psychologist has to exclude a diagnosis of addiction or alcohol abuse.

Road user education, risk communication and public campaigns

As in most other selected countries, drunk driving is the main topic in road safety campaigning/risk communication in Poland. Campaigns are carried out by government agencies, local authorities and NGOs have these campaigns have good recognition in Poland (a PBS survey in 2011 showed that 57% of the respondents had seen a drink driving campaign in the recent year) and the public accepts them. Drink driving also has a lot of coverage in the press, television and radio. The effectiveness of the campaigns is hardly ever analysed, and attitudes towards DUI are tested via public opinion surveys (international and national public survey).

The topic "*alcohol and driving*" is addressed in driver education and in programmes delivered by transport companies, but not in school education. Schools have general programmes on the dangers of alcohol.

Successful countermeasures in Poland

The national expert points out the lack of research on the effectiveness of countermeasures in Poland. According to her, the success depends on many years of consistent efforts of state agencies and NGOs, a

clear theme that everyone understands (in Poland – No alcohol in road traffic), the number of bodies and organizations involved, collaboration across different levels and effective road police efforts.

3.4 Estonia

Basic characteristics of Estonia compared to the European average



Basic data	Estonia	European average (EU-28)
Total population	1.315.819 inhabitants (2014)	18.100.875 inhabitants (2014)
Population composition	16% children (0-14) 66% adults (15-64) 18% elderly (65 and over) (2014)	16% children, 66% adults, 19% elderly (2014)
Population density	31 inhabitants/km ² (2012)	116 inhabitants km ² (2012)
Population living in densely populated areas	42% (2013)	42% (2013)
Gross Domestic Product per capita	€14 800 (2014)	€27 300 (2014)
Special characteristics:	Growth of transit freight traffic is one of the expected developments in Estonia, because of the well-accessible harbours.	

Source: Eurostat; DaCoTA, 2012

General alcohol consumption and alcohol availability

In comparison with the 19 other European SARTRE4 countries Estonia has the highest estimate for annual alcohol consumption¹⁵ with 17.2 L pure alcohol per capita (≥ 15) (European average: 12.1 L; WHO, 2014a). Note that in more recent data the Estonian alcohol consumption seems to have strongly decreased. Within the latest WHO report on alcohol and health (2014b), the mean alcohol consumption between 2008 and 2010 is estimated to be only 10.3 L pure alcohol per year. According to the Estonian Institute, Estonian residents consumed 10.2 L of pure alcohol in 2011. Alcohol is easily accessible in Estonia. It can be served and sold to people from 18 years on. Off-licence sales of alcohol are not allowed between 22:00 and 10:00 o'clock in the morning.

Legal alcohol limit

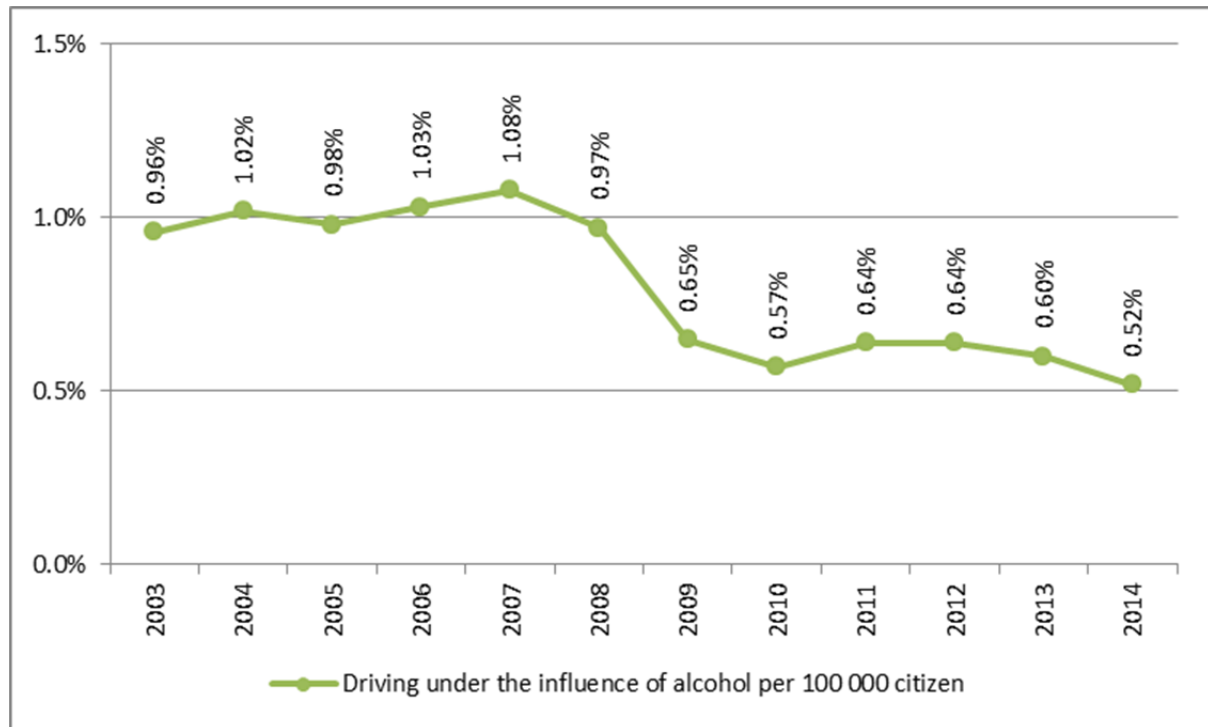
Estonia has a general alcohol limit of BAC 0.2 g/L. No further lower alcohol limit has been specified for any specific driver group. Most drivers (64.4%) think that car drivers should not drink any alcohol at all when they drive. Although the legal alcohol limit is already very low, 69.2% of the drivers support an even lower legal limit (European SARTRE4 average: 59.8%), 16.6% are content with the current limit and almost no drivers (0.5%) think the limit should be higher.

DUI performance and monitoring

Estonia has rank 4 with respect to self-reported DUI prevalence in the SARTRE4 comparison (3.69% DUI drivers; European SARTRE4 average: 14.9%). Time trends on the DUI situation are monitored through enforcement statistics. The national expert provided two different sources. Data based on crime and misdemeanour proceedings show a slight decrease of the recorded DUI cases from 1.0% (2003) to 0.5% (2014; see Figure 5). The same trend can be seen based on police data among inspected traffic (2012: 1.7% drunk drivers; 2013: 1.3% drunk drivers). Furthermore, the national expert mentioned that Estonia increased the number of random controls within the last year. We cannot eliminate the possibility that the decrease in registered drunk driving offences might have been caused by this shift from selective- to a-selective alcohol checks.

¹⁵ Total (recorded + unrecorded) adult (15+ years) per capita consumption, projected estimates for 2008

Figure 5: DUI prevalence in Estonia based on crime and misdemeanour processing data (2003-2014)



Source: data provided by the national expert

Acceptability of drunk driving and social norm

According to the national expert drunk driving is unacceptable in Estonia, but no national data on this issue exists. Based on the SARTRE4 survey, we see that the perceived social norm on drunk driving in Estonia corresponds to the European average, with 19.3% of the drivers stating that they think that most of their friends would drink and drive a car. This is rank 11 in comparison with 19 European countries (European SARTRE4 average: 19.5%).

Enforcement

Within the SARTRE4 comparison of 19 European countries Estonia has the highest percentage of drivers reporting alcohol checks within the last 3 years (EE: 69.1%; European SARTRE4 average: 41.1%). However, with respect to the perceived likelihood of getting caught for drunk driving, Estonia has rank 15 of the 19 countries (EE: 68.9; European SARTRE4 average: 72.6%). Only Poland, Israel and Italy score worse than Estonia on this aspect. In Estonia, alcohol checks are mandatory in case of accidents resulting in injury.

Penalties

According to the national expert the minimum and maximum duration of licence withdrawal in case of a first DUI offence is in most cases 3 to 9 months. Furthermore, DUI offences with an alcohol concentration of more than 1.5 g/L BAC are considered a criminal offence and can be punished by pecuniary punishment or up to 3 years' imprisonment. The support for more severe penalties for DUI offences is lower in Estonia than the European average (EE: 81% European SARTE3 average 88%).

Driver rehabilitation and alcohol ignition interlock

In Estonia DUI offenders with a BAC of >1.5 g/L are punished as criminals and sent to prison. After being released on parole they are required to undergo a rehabilitation program. Furthermore, novice drivers (usually less than 2 years of driving experience) who were caught drunk driving have to pass training programmes to regain their driving licence. So far, no alcohol ignition interlock programmes are provided on a systematic base in Estonia, but it is permitted to voluntarily install these systems in a car (see also: ETSC, 2015).

Fitness to drive assessment of DUI offenders

A regulation on fitness to drive assessment of DUI offenders is not yet available in Estonia, but the establishment of such a regulation is currently being discussed.

Road user education, risk communication and public campaigns

Traffic education is compulsory in Estonia and addresses elements of “Don’t drink and drive” education. Furthermore this topic is addressed in school education and is one of the main themes in Estonian road safety campaigning/risk communication. The latter is developed in cooperation with different sectors. According to the national expert, the campaigns are evaluated on a regular base (DaCoTA, 2012; national sources).

Successful countermeasures in Estonia

The national expert emphasised the following three countermeasures: (1) the increase of random and selective alcohol checks: all drivers stopped by the police are checked for alcohol; these random alcohol checks have strongly increased within the last years. All drivers involved in traffic accident will be subjected to breathalyser checks and, if necessary, to additional tests for drugs. All drivers who are involved in accidents with human casualties are tested for alcohol; (2) the implementation of driver rehabilitation programmes and (3) the public support to counter drunk driving.

3.5 The Netherlands

Basic characteristics of the Netherlands compared to the European average



Basic data	Netherlands	European average (EU-28)
Total population	16.829.289 inhabitants (2014)	18.100.875 inhabitants (2014)
Population composition	17% children (0-14 years), 66% adults (15-64 years), 17% elderly (65 years and over) (2014)	16% children, 66% adults, 19% elderly (2014)
Population density	497 inhabitants/km ² (2012)	116 inhabitants km ² (2012)
Population living in densely populated areas	47% (2013)	42% (2013)
Gross Domestic Product per capita	€39 300 (2014)	€27 300 (2014)
Special characteristics:	The Dutch landscape is flat, and cycling is a common way of transport.	

Bron: Eurostat; DaCoTA, 2012

General alcohol consumption and alcohol availability

The estimated annual alcohol consumption¹⁶ in the Netherlands is clearly below European average (range 4 from 19 countries; NL: 9.8 L pure alcohol per capita (≥ 15); European average: 12.1 L; WHO, 2014a). Alcohol is easily accessible in the Netherlands and can be served and sold to people from 18 years on. Since 2000, it is forbidden to sell alcohol at gas stations in the Netherlands. The sale of alcohol is allowed in restaurants and supermarkets which are located alongside the road. No effects are known of this measure. The Netherlands are the only country in the present study with a specific road safety regulation for the sale of alcohol along highways (see also discussion on the effect of this measure based on German study in chapter 4.1 on *alcohol availability*).

¹⁶ Total (recorded + unrecorded) adult (15+ years) per capita consumption, projected estimates for 2008

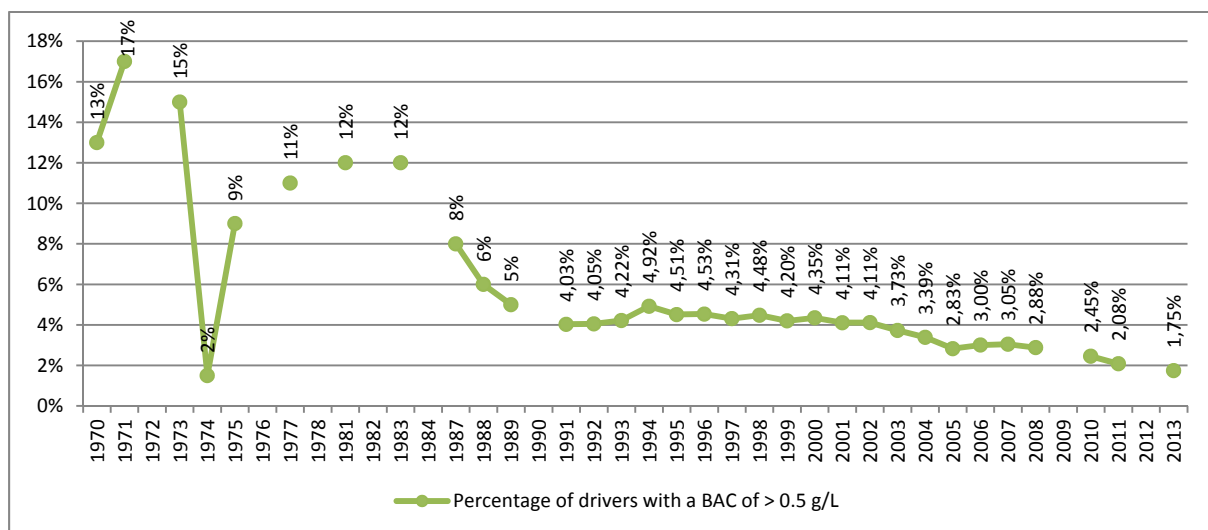
Legal alcohol limit

The Netherlands have a general legal alcohol limit of BAC 0.5 g/L for drunk driving with a lower alcohol limit of BAC 0.2 g/L for novice drivers. The support for a lower legal alcohol limit among Dutch drivers (66.2%) is a little bit higher than the European SARTRE4 average (59.8%). In this study 32.6% of the drivers is content with the current alcohol limit and only 1.2% thinks that the legal limit should be higher, 53.6% thinks that car drivers should not drink any alcohol at all when they drive.

DUI performance and monitoring

In the Netherlands; 6.61% of the car drivers admit drunken driving within the last month (European SARTRE4 average: 14.9%). This puts the Netherlands on rank 6 of the 19 participating countries. Time trends on drunk driving are monitored by an annual¹⁷ observational study conducted during weekend-nights since 1970. Drunk driving (BAC ≥ 0.5 g/L) decreased with more than 80% in the past 40 years from around 15% in the early seventies to 1.8% in 2013 (Figure 6; Ministerie van Infrastructuur & Milieu Nederland, 2014). In 1974 the legal alcohol limit of 0.5 g/L was introduced in the Netherlands. In the first period after the introduction drivers were expecting a police officer behind every tree. Thus the percentage of observed drunk driving in weekend-nights (BAC ≥ 0.5 g/L) decreased to 2% in this year. However, the enforcement level was very low and as a result the share of drink drivers in weekend nights increased again to approximately 12% in the early eighties, but this was still 3% lower than the share before the introduction of the legal limit. Through the introduction of the breathalyser-tests in the eighties police was able to strongly increase the number of alcohol tests. The percentage of drunk drivers at weekend-night strongly decreased in this period to approximately 4%. In 2006, a lower legal limit for novice drivers as introduced in the Netherlands and in 2011 the first alcohol ignition interlock program. Meanwhile the prevalence of DUI at weekend-nights has dropped to 1.8% (2013).

Figure 6: Evolution of driving under the influence of alcohol on weekend-nights (%) 1970-2013



Source: data provided by the national expert

Acceptability of drunk driving and social norm

According to the national expert, drunk driving is unacceptable in the Netherlands. The social acceptability of drunk driving seems to have decreased over the past 15 years, probably due to a mix of enforcement, legal measures, and campaigns. The expert thinks that this reduction is related to a combination of different measures such as legal and educational measures (the so called EMA and LEMA courses; for more information see section below on driver rehabilitation in the Netherlands), increased enforcement and campaigns (e.g. the Bob campaign). No data could be provided by the expert on this issue. Regardless of the low drunk driving prevalence in the Netherlands the SARTRE4 study shows that in Netherlands 31.8 % of the drivers think that most of their friends would drink and drive a car. This is way above European SARTRE4 average (19.5%).

¹⁷ meanwhile every two years

Enforcement

In the Netherlands the percentage of drivers who report that they have been checked for alcohol within the last three years is above the European average (NL: 44.4%; European SARTRE4 average: 41.1%). On the other hand, the perceived likelihood of getting caught for drunk driving is below the European average (NL: 71.2%; European SARTRE4 average 72.6%). According to the national expert alcohol checks are not structurally applied in all accidents resulting in injury.

Penalties

A driving ban is requested by the public prosecutor and imposed by the courts (judicial), from BAC 1.3 g/L (0.62 mg/L UAL) on for novice drivers and from BAC 1.5 (0.71 mg/L UAL) on for other drivers. The duration of the driving ban may vary from 6 to 27 months. In case of a fatal accident caused by reckless driving with a BAC above 1.3 g/L (0.62 mg/L UAL), the licence can be suspended for a period up to 5 years. The minimum period of licence withdrawal in case of DUI offence (0.71 mg/L UAL) is 6 to 27 months in the Netherlands compared to 0 to 6 months in Belgium, for example (Kærup et al., 2009; Bukasa, et al. 2011). The support for higher penalties for drunken driving offences in drivers is very high among Dutch (NL: 95%; European SARTRE3 average 88%).

Driver rehabilitation and alcohol ignition interlock

In the Netherlands, Driver programmes are provided for DUI offenders. The expert pointed out the EMA and LEMA courses, which stands for “*educational Measure Alcohol*” and “*light educational Measure Alcohol*”. EMA courses are mandatory three day courses on the risks of drinking and driving. DUI offenders with a BAC of 1.0-1.8 g/L, as well as novice drivers or persons who have previously attended an EMA course with a BAC of 0.8-1.3 g/L are obliged to follow this course. In case of refusal the driving licence will be revoked. The LEMA courses are also mandatory courses on drunk driving but shorter than the EMA courses (two times 3.5 hours). They are focussing on novice drivers who were caught drunk driving with a BAC of 0.5-0.8 g/L or other DUI offenders with a BAC of 0.8-1.0 g/L. As from December 2011 Alcohol ignition interlock programmes were mandatory via an administrative procedure in the Netherlands. However, in March 2014, the Supreme Court and Council of State (*Hoge Raad en Raad van State*) decided to suspend the execution of this regulation. The main reasons for this were that the alcohol interlock program was regarded more as a punishment with high costs than as an educational measure and that there were no possibilities to take the personal situation of the offender into account. Currently the decision has been postponed, but the Dutch Ministers of Justice and of Transport already expressed their preference for placing the alcohol interlock program under criminal law. Previous started alcohol ignition interlock programmes are being continued, but no new obligations can be enforced at the moment (Trimbos, 2015abc; personal communication with national expert). The Dutch minister of Justice has announced that it will probably take one or two years before the alcohol interlock program will be active again in its new form.

Fitness to drive assessment of DUI offenders

The Netherlands have a sophisticated fitness to drive assessment procedure. DUI offenders are systematically evaluated by the CBR¹⁸ (Central office for fitness to drive assessments) to eliminate addiction and other consumption related disorders which have an influence of the fitness to drive (see also: cbr, 2013).

Road user education, risk communication and public campaigns

The Netherlands established principles of ‘lifelong road safety education’. The topic “*alcohol and driving*” is addressed in driving education as well as in school education. Furthermore, it is one of the main themes in Dutch road safety campaigning/risk communication. The campaigns are usually evaluated. The campaign “bobsport” for example, was evaluated based on a pre-post measurement including a reference group (DaCoTA, 2012; national sources).

¹⁸ Centraal Bureau Rijvaardigheidsbewijzen: homepage <https://www.cbr.nl/>

Successful countermeasures in the Netherlands

The national expert emphasised four successful countermeasures in the Netherlands: (1) the introduction of legal regulations, (2) the increase of enforcement, (3) lower legal limit for the novice drivers, and (4) the introduction of the alcohol interlock program (which is currently put on hold though).

3.6 Ireland

Basic characteristics of Ireland compared to the European average



Basic data	Ireland	European average (EU-28)
Total population	4.605.501 inhabitants (2014)	18.100.875 inhabitants (2014)
Population composition	22% children (0-14 years), 65% adults (15-64 years), 13% elderly (65 years and over) (2014)	16% children, 66% adults, 19% elderly (2014)
Population density	67 inhabitants/km ² (2012)	116 inhabitants km ² (2012)
Population living in densely populated areas	35% (2013)	42% (2013)
Gross Domestic Product per capita	€40 200 (2014)	€27 300 (2014)
Special characteristics:	In 2004, Ireland moved over to the metric system, but especially on the countryside, speed limit signs are sometimes still indicated in mile/h instead of km/h.	

Source: Eurostat; DaCoTA, 2012

General alcohol consumption and alcohol availability

With 14.9 L pure alcohol per capita (≥ 15) the estimated annual alcohol consumption¹⁹ in Ireland is clearly above the European average (European average: 12.1 L; WHO, 2014a). Alcohol can be served and sold to people from 18 years on. Off-licence sales of alcohol are only permitted between 10.30 am and 10.00 pm on weekdays and 12.30 pm to 10.00 pm on Sundays. In Ireland, alcohol and pubs are part of the culture. There is a greater tradition of drinking outside the home in compared to some countries. However, since the recession, there has been a move towards in-home rather than out-of-home drinking. As well as being among the highest alcohol consumers in Europe people in Ireland engage in drinking patterns that are excessive and problematic such as heavy and binge drinking which became the norm for a substantial number of people (Mongan et al., 2007). The 2007 study in 25 EU member states revealed that in 2006, 89% of Irish respondents had consumed five or more drinks on one occasion (in the previous 12 months), this compares to 69% of all EU respondents.

Legal alcohol limit

In October 2011, the drink drive limit was reduced from BAC 0.8 g/L to 0.5 g/L for all drivers and to 0.2 g/L for learner and novice drivers (for a period of two years after they pass the driving test) and professional drivers (bus, truck and taxi drivers). The SARTRE4 questions concerning the acceptability of the current legal system refers to the year 2010, and thus to the previous legal limit of BAC 0.8 g/L. At that time, 77.1% of the drivers had the opinion that the legal limit for alcohol should be lower (European SARTRE4 average: 59.8%), 17.7 % were content with the limit and 5.2% think that it should be higher. In the same study, 67.1% of the drivers thought that car drivers should not drink any alcohol at all when they drive. Furthermore, a national survey in 2012 of over 1,000 drivers showed that 84% approved of the

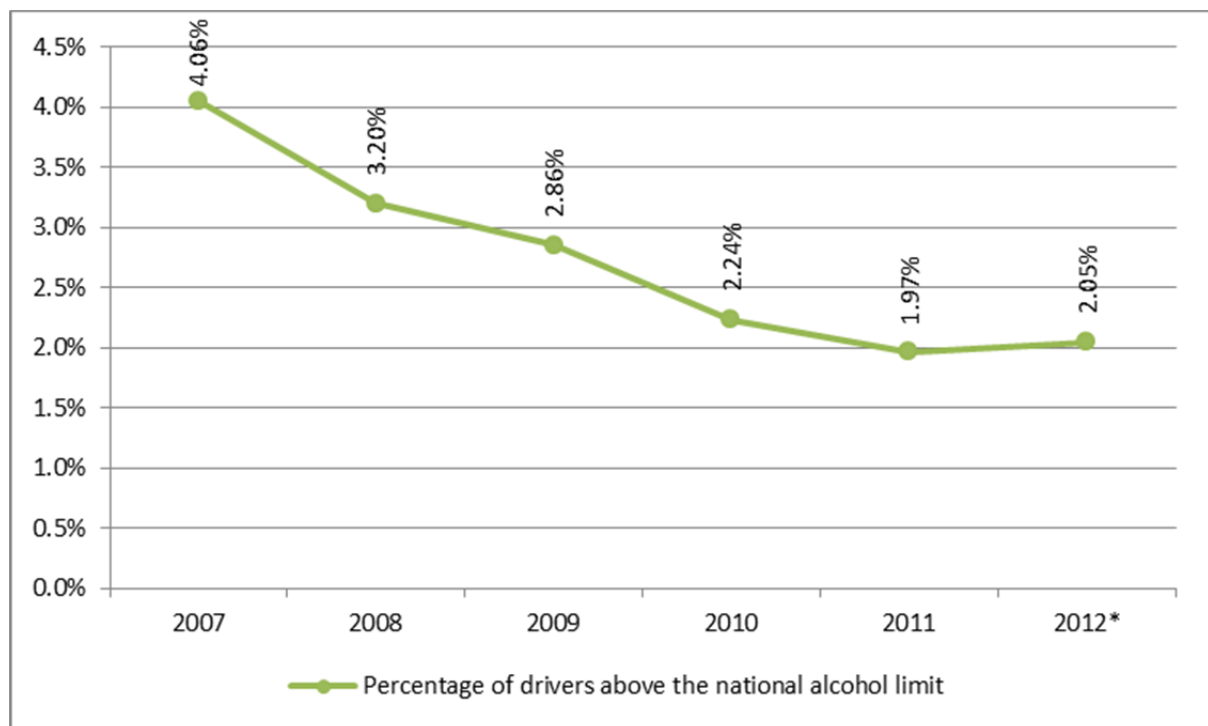
¹⁹ Total (recorded + unrecorded) adult (15+ years) per capita consumption, projected estimates for 2008

reduction in the legal limit for BAC for regular drivers to 0.5 g/L (BAC), and 87% approved of the reduction in BAC to 0.2 g/L for learner and professional drivers.

DUI performance and monitoring

Ireland has rank 7 with respect to self-reported DUI prevalence in the SARTRE4 comparison (9.02% DUI drivers; European SARTRE4 average: 14.9%) and showed a striking improvement of their DUI situation in comparison with the results of SARTRE3 (2002-3). Time trends in Ireland are monitored through the results of Mandatory alcohol testing (MAT) checkpoints administered by An Garda Síochána (Irish Police; see for more information on the MAT checks the subchapter enforcement below). Since the introduction of these random alcohol checks in 2006, there has been a steady decline in the number of people arrested for DUI (2007: 4.1% of all tested drivers at MAT checkpoints; 2011: 2.0%; see also Figure 7). Interestingly, the percentage of drunk drivers caught in 2012 - which refers to the lower legal limit of BAC 0.5 g/L since October 2011 - has only slightly increased in comparison with 2011 (2012: 2.1% (30 Nov)). According to recent estimations based on MAT results, the number of arrests for DUI has since then further declined. The number of those apprehended in 2007 was 19,848, compared to the end of year 2013 which has been estimated at 7,962.

Figure 7: DUI incidents as a result of MAT checkpoints administered by An Garda Síochána (Irish Police) (2007-2012)



* data 2012 up to 30th of November

Source: data provided by the national expert

Acceptability of drunk driving and social norm

According to the national expert drunk driving is widely viewed as unacceptable by the general public in Ireland (see also high approval of lower legal alcohol limit in previous section). The expert points out that the introduction of MAT, as previously mentioned has had a major impact on the social unacceptability of drunk driving. This introduced a major cultural shift in Ireland. Moreover, the SARTRE4 survey shows that Ireland has one of the lowest percentages of drivers thinking that most of their friends would drink and drive a car (IE: 7.7%). Only Sweden, Hungary, Finland and the Czech Republic perform better than Ireland in this aspect (European SARTRE4 average: 19.5%).

Enforcement

Ireland seems to have a rather low enforcement rate. Within the SARTRE4 survey, 34.7% of car drivers reported alcohol checks within in the last 3 years which is clearly below the average (41.1%) of all 19 participating countries within this study. On the other hand, the perceived likelihood of getting caught for drunk driving is almost at European SARTRE4 average of 72.6%, as 72.1% of car drivers think that it is likely they will be checked for alcohol on a typical car journey. Since the introduction of MAT checkpoints in Ireland, the number of alcohol checks increased steadily. MAT means random breath testing. The Road Traffic Act 2006 allows the Garda (in certain circumstances) to breathalyse the drivers of vehicles without suspecting that the driver had consumed alcohol. This procedure can however only be applied at checkpoints which have been authorised by a Garda Inspector. In case of accidents resulting in injury alcohol checks are mandatory in Ireland.

Penalties

In Ireland the minimum duration of licence withdrawal in case of a first DUI offence is 3 months. No maximum duration is specified as this at the discretion of the judge. The support for more severe penalties for DUI offences in Ireland is slightly above the European average (IE: 91%; European SARTRE3 average 88%).

Driver rehabilitation and alcohol ignition interlock

In Ireland no driver rehabilitation or alcohol ignition interlock programs are currently provided for DUI offenders. However, there is an Action in the Government Road Safety Strategy 2013-2020 to legislate for, subject to legal advice, for the introduction of driver rehabilitation courses as a court based sentencing options. The Road Safety Authority is in the process of assessing feasibility of the introduction of drink drive rehabilitation courses for DUI offenders (see also ETSC, 2015).

Fitness to drive assessment of DUI offenders

According to the national expert, no fitness to drive assessment are carried out to differentiate non-addicted and addicted DUI offenders or identify other problematic alcohol consumption patterns.

Road user education, risk communication and public campaigns

Most driving licence thresholds (age limits) are lower in Ireland than in other European countries. The age limit for driving a passenger car is 17 years (in most European countries 18 years) and that of buses, coaches, lorries and trucks is 18 years, whereas in most European countries this is 21 years. The topic “alcohol and driving” is addressed in school- as well as in driver education. Moreover, it is one of the major themes in Ireland’s road safety campaigning/risk communication. The Road Safety Authority also works in co-operation with stakeholders such as the national police force and the alcohol industry body drinkaware.ie to prevent drink driving. The campaigns are usually evaluated based on pre-post attitudinal research and DUI detection figures²⁰ (DaCoTA, 2012; national sources).

Successful countermeasures in Ireland

The national expert mainly emphasised the introduction of Mandatory Alcohol Testing (MAT) in 2006 as successful countermeasure in Ireland. This change required strong political support and public engagement. A reduction in alcohol related fatal crashes was observed after this alteration (RSA, 2011).

²⁰ Police data

3.7 Greece

Basic characteristics of Greece compared to the European average



Basic data	Greece	European average (EU-28)
Total population	10.903.704 inhabitants (2014)	18.100.875 inhabitants (2014)
Population composition	15% children (0-14 years), 65% adults (15-64 years), 21% elderly (65 years and over) (2014)	16% children, 66% adults, 19% elderly (2014)
Population density	85 inhabitants/km ² (2012)	116 inhabitants km ² (2012)
Population living in densely populated areas	42% (2013)	42% (2013)
Gross Domestic Product per capita	€16 300 (2014)	€27 300 (2014)
Special characteristics:	Greece has a mountainous mainland and a large complex of islands	

Source: Eurostat; DaCoTA, 2012

General alcohol consumption and alcohol availability

In Greece the estimated annual alcohol consumption²¹ (2008) is slightly below European average (EL: 11.0 L pure alcohol per capita (≥ 15); European average: 12.6 L; WHO, 2014a). Alcohol is easily accessible and can be served and sold to people from 18 years on. According to the national expert, the overall alcohol consumption has probably decreased during the last years, partly due to the financial crisis. However, young people seem to start drinking alcohol at an earlier age than they used to do.

Legal alcohol limit

Greece has a 0.2 alcohol limit for novice drivers, professional drivers, and powered two (three)-wheelers. For all other drivers, the general alcohol limit is BAC 0.5 g/L. These regulations were introduced in 1999. The support for a lower legal limit is rather low among Greek drivers (EL: 41.6%; European SARTRE4 average: 59.8%). Same for the percentage of drivers who think drivers should not drink any alcohol at all (EL: 30.8%; European SARTRE4 average: 46.6%); 9.3% of the Greek drivers thinks that the alcohol limit should be higher.

DUI performance and monitoring

With 14.5% of drivers who report drunk driving within the last month, Greece has ranked 11 among the 19 participating countries in the SARTRE4 survey (European SARTRE4 average: 14.9%). In comparison with the earlier findings in SARTRE3 (2003) Greece showed a clear improvement of its DUI situation. According to the national expert, no national prevalence statistics on driving under the influence of alcohol (DUI) in the general driving population exists in Greece.

Acceptability of drunk driving and social norm

According to the national expert drunk driving is slightly acceptable in Greece and this has not changed significantly within the last 15 years. The expert was not able to provide us data on this, but the SARTRE4 survey can give us an idea about the perceived social norm on drunk driving. In Greece 21.8% of drivers state that they think that most of their friends would drink and drive a car which corresponds to rank 12 out of 19 European countries (European SARTRE4 average: 19.5%).

²¹ Total (recorded + unrecorded) adult (15+ years) per capita consumption, projected estimates for 2008

Enforcement

In Greece, 39.6% of the car drivers reports alcohol checks within the last three years (European SARTRE4 average 41.1%). Alcohol checks are not always mandatory in case of accidents resulting in injury. In Greece the percentage of car drivers who think that it is likely to get caught for drunk driving is clearly above the European average (EL: 81.4%; European SARTRE4 average: 72.6%). According to the national expert, the Greek Traffic Police intensified drunk driving enforcement since 1998. In particular, during the period 1998–2002, an increase of 250% in DUI infringements was registered as a result of the increase of related controls, whilst the number of road accidents with casualties and the related fatalities presented an important decrease of around 30%. Although other reasons may have also led to this significant improvement, the intensification of enforcement (together with an increase of congestion) may be considered as a main factor. In the following years, the Traffic Police continued to occasionally implement intensified roadside controls on drink-driving. Therefore, a significant number of drivers in Greece have experienced alcohol checks. In addition, drivers in Greece, being aware of the occasionally intensified roadside controls, tend to expect such controls. This has probably led to an increase of the subjective alcohol control probability in Greece.

Penalties

The minimum and maximum duration of licence withdrawal in case of a first DUI offence in Greece is between 0 and 6 months depending on the alcohol concentration (BAC: 0.5-0.8g/L: no driving licence withdrawal; BAC: 0.8-1.1g/L: 3 month; BAC: > 1.1g/L: 6 months + imprisonment of at least 2 months and vehicle immobilisation). Most drivers (90%) support more severe penalties for drunk driving (European SARTRE3 average 88%).

Driver rehabilitation and alcohol ignition interlock

Driver rehabilitation or alcohol ignition interlock programmes are not provided for DUI offenders in Greece.

Fitness to drive assessment of DUI offenders

According to the national expert, no fitness to drive assessment are carried out to differentiate non-addicted and addicted DUI offenders or identify other problematic consumption patterns.

Road user education, risk communication, and public campaigns

Traffic and road safety education is not compulsory, but is included in Civil and Social Education courses. The road safety topic drunk driving is included. Within the DaCoTA (2012) fact sheet on Greece it is stated that drunk driving is one of the main themes in Greece road safety campaigning. However, according to more recent information from the national expert, DUI campaigns are only occasionally carried out by the Traffic Police or by NGOs involved in road safety. Therefore, the level of awareness of the impact of DUI on road safety can be assumed to be rather low among drivers in Greece. The campaigns are usually not evaluated in Greece.

Successful countermeasures in Greece

The national expert emphasised that the intensification of police enforcement on drunk driving helped to decrease the number of road accidents with casualties and the related fatalities in Greece. Of course, the effect of this countermeasure depends on the level of enforcement already applied at the moment of its introduction (see also Veisten et al., 2010).

3.8 Belgium

Basic characteristics of Belgium compared to the European average



Basic data	Belgium	European average (EU-28)
Total population	11.203.992 inhabitants (2014)	18.100.875 inhabitants (2014)
Population composition	17% children (0-14 years), 65% adults (15-64 years), 18% elderly (65 years and over) (2014)	16% children, 66% adults, 19% elderly (2014)
Population density	367 inhabitants/km ² (2012)	116 inhabitants km ² (2012)
Population living in densely populated areas	53% (2013)	42% (2013)
Gross Domestic Product per capita	€36 000 (2014)	€27 300 (2014)
Special characteristics:	Belgium is an important international transport node.	

Source: Eurostat; DaCoTA, 2012

General alcohol consumption and alcohol availability

The estimated annual alcohol consumption²² in Belgium is below the European average (BE: 10.4 L pure alcohol per capita (≥15); European average: 12.1 L; WHO, 2014a). In Belgium, beer and wine can be sold and served to people of 16 years and older. Stronger alcohol is freely accessible from 18 years on.

Legal alcohol limit

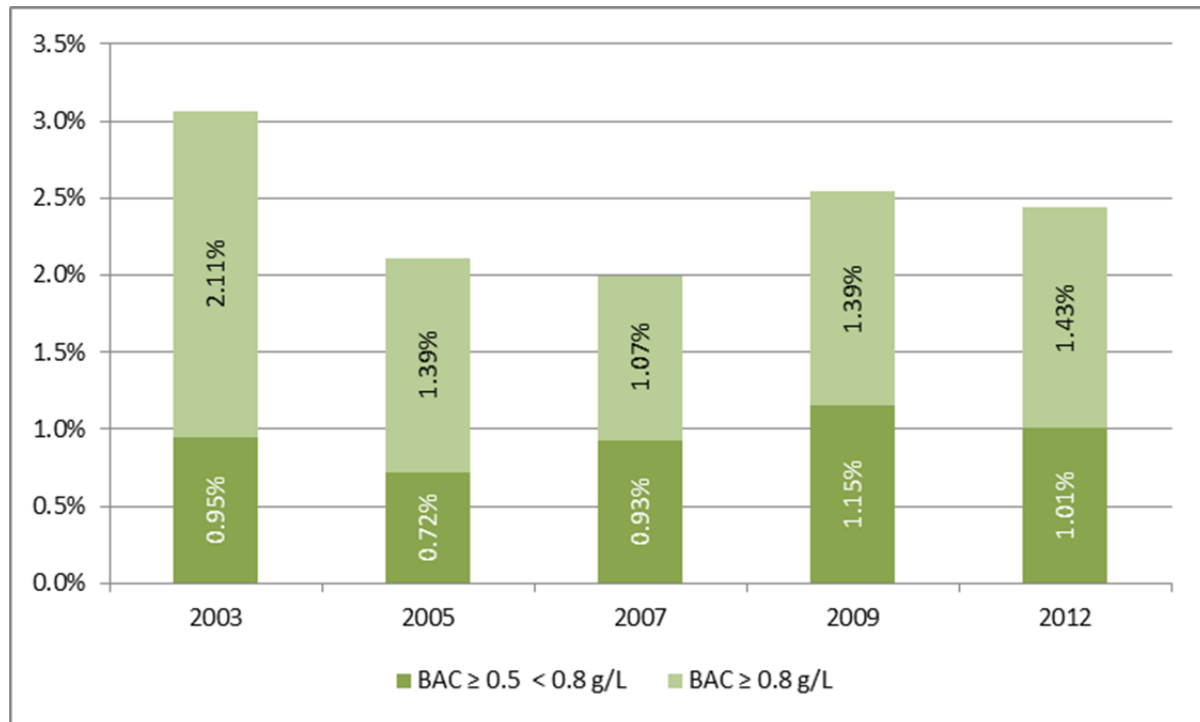
The Belgian legal alcohol limit (BAC 0.5 g/L; UAL 0.22 mg/L) is similar to regulations in most other European countries, except for novice drivers, where the limit in most other European countries is 0.2 g/L (BAC). Since 2015 Belgium has a lower alcohol limit of 0.2 g/L (BAC; 0.08 mg/L UAL) for professional drivers. Many Belgian drivers are satisfied with the current legal alcohol limit (43.2%). The support for a lower legal limit in Belgium is estimated on the basis of the SARTRE4 survey (47.4%) is below the European average (59.8%). The same holds for the percentage of Belgian drivers who think that car drivers should not drink any alcohol at all when they drive (BE: 32.8%; European SARTRE4 average: 46.6%); 9.4% of the drivers support a higher legal alcohol limit. The national attitude survey, which is conducted by BRSI every three years, indicates a higher support for stricter alcohol rules in traffic than the SARTRE4 survey. This survey shows a steady increase of the percentage of drivers supporting stricter alcohol rules in traffic (2006: 62%; 2009: 67%; 2012: 78%; Meesmann & Boets, 2014a).

DUI performance and monitoring

With a figure of 26.48% Belgian car drivers have one of the highest DUI prevalence in the SARTRE4 comparison of self-reported drunk driving (European SARTRE4 average: 14.9%). Since 2003, BRSI monitors the Belgian drunk driving situation based on national road side studies and attitude surveys (Figure 8). These studies show that the situation has hardly evolved since the beginning of the measurements, and that the percentage of observed drivers with a BAC ≥0.5 g/L fluctuates between 2 and 3% since 2003 (Riguelle, 2014; see also introduction of this report).

²² Total (recorded + unrecorded) adult (15+ years) per capita consumption, projected estimates for 2008

Figure 8: Results of the Belgian national road side survey on driving under the influence of alcohol (2003-2012)



Source: Rignelle, 2014

Acceptability of drunk driving and social norm

Every three years, BRSI conducts a national attitude survey among Belgian car drivers. The last measurement in 2012 shows that most drivers think that drunk driving is unacceptable (84%), but only 56% of these drivers considered it totally unacceptable. Compared to the previous measurement in 2009, this perception has barely changed (Meesmann & Boets, 2014b). In the SARTRE4 comparison with respect to the perceived social norm on drunk driving, Belgium has the highest percentage of drivers stating that most of their friends would drink and drive a car among all 19 participating countries (BE: 41.9%; European SARTRE4 average: 19.5%).

Enforcement

In comparison with the 19 participating SARTRE4 countries, the enforcement rate is rather low in Belgium, with 32.7% of the car drivers reporting alcohol checks within the last 3 years (European SARTRE4 average: 41.1%). The perceived likelihood of getting caught for drunk driving in Belgium is however slightly above the European average (BE: 74.5%; European SARTRE4 average: 72.6%). Recent data from the federal police show that the number of alcohol checks strongly increased in recent years (2008: 125.250 alcohol checks; 2014: 258.414 alcohol checks). Within the Belgian law, alcohol tests are not mandatory in case of an accident resulting in injury, but the directive of the Board of General Prosecutors states that every driver of a motor vehicle that is stopped for any (traffic) control, as well as any driver involved in a traffic accident (whether it is a traffic accident involving death or injury or with purely material damage) must undergo an alcohol control, even if there is no evidence of alcohol consumption. This also applies to the persons accompanying a driver with the purpose of training (COL8/2006 – revised on 3/11/2014). Belgian accident statistics clearly show that not all drivers involved in accidents resulting in injury are tested for DUI. The percentage of tested road users involved in such accidents, increased from 35.2% in 2005 to 65.1% in 2013, but still, these numbers show that the mentioned directive is not systematically applied in practice yet (Figure 11). With respect to car drivers we know that in 2013, 71.4% of the car drivers involved in accidents resulting in injury was tested on alcohol (Table 2; for more information see discussion in chapter 4.4. *Enforcement*).

Penalties

Penalties for DUI-offences are depending on the alcohol concentration and the circumstances of the offence. In case of a BAC below 1.1 g/L (0.49 mg/L UAL) without dangerous driving and being involved in an accident, the usual penalty is a fine, given by the police and varies between 100 and 550 euro. Furthermore, a temporary withdrawal of the drivers' license between 2 and 6 hours is mandatory. In case of a higher BAC or a BAC below 1.1 g/L combined with dangerous driving and/or an accident, the prosecutor can immediately withdraw the license for 15 days and the offender will be prosecuted in court. Only in special circumstances this immediate withdrawal can be extended twice by a period of three months. This decision has to be taken by court and not by the prosecutor on his own. If the alcohol concentration is between BAC 1.1 and 1.5 g/L (0.49 and 0.66 UAL), the prosecutor also has the possibility to propose a fine of 600 euro instead of prosecution. Drunk-driving offences with a BAC above 1.5 g/L or with involvement in an accident are sentenced by court. The judge can sentence the offender with a penalty between 1.200 and 12.000 euro and a withdrawal period between 1 month and 5 years. Furthermore, the judge can decide to make the right to drive dependent on a fitness to drive assessment at the end of the withdrawal period. In case of drunkenness, recidivism and an accident with injuries, this assessment is compulsory. In these last two cases, the possible fine is situated between 2.400 and 30.000 euro and the withdrawal can be extended to 5 years. Most Belgian drivers support more severe penalties on drunk driving, but compared to the other countries participating in SARTRE3 this support is lower (BE: 82%; European SARTRE 3 average 88%). More recent numbers can be found in the Belgian attitude survey. In this study 10% of the drivers state that they think that the punishment for alcohol traffic offences is too strict. This percentage has not changed much within the last years (2006: 8%; 2009: 11%; 2012: 10%; Meesmann & Boets, 2014a).

Driver rehabilitation and alcohol ignition interlock

Both driver improvement courses for alcohol offenders and alcohol ignition interlock programmes do exist in Belgium. BRSI organizes driver improvement courses for alcohol-, drug- and other traffic offences such as speeding or traffic aggression. In 2013, BRSI started the first alcohol ignition interlock program in Belgium. It is an alternative measure for a driving ban and is combined with close monitoring and counselling. So far, this program is only applied in very few cases (e.g. in 2014: 10 cases).

Fitness to drive assessment of DUI offenders

DUI offenders can be obliged to follow a fitness to drive assessment in order to differentiate between non-addicted and addicted DUI offenders or identify other problematic consumption patterns. In certain cases (see also section on penalties in Belgium) this fitness to drive assessment is compulsory. In case the medical and psychological assessment have proven that the person does not comply to the medical minimum criteria to drive (see also "*Appendix 6 of the Royal Decree dated 23 March 1998 concerning the driving licence*" which is the Belgian implementation of the European Directive 91/439/EEC) the person is no longer allowed to hold a driving licence.

Road user education, risk communication and public campaigns

Road safety education at schools and driving licence thresholds (here: age limits) are similar to most other European countries. Belgium differs with respect to the driving licence education in which lessons with professional instructors or driving licence schools are not mandatory, except after multiple failures in driving examinations. BRSI has a long tradition in road safety campaigning and campaign evaluation (e.g. Bob campaign; coordinator of the EU research project on campaigns and awareness-raising strategies in traffic safety (CAST; homepage: <http://www.cast-eu.org/>). Drunk driving is one of the main themes in road safety campaigning and BRSI campaigns have been systematically evaluated based on pre-post or post measurements. Since 2015, public campaigns on most areas are the responsibility of the regions, but they continue to be supported by BRSI.

Countermeasures in Belgium

The countermeasures adopted in Belgium have already been mentioned and include the traditional array of specification of legal limits, enforcement, dedicated campaigns and rehabilitation programmes. The 'Bob' concept – when you go out, the person who will drive will be 'Bob' and will not drink - introduced 20 years ago by BRSI, is gaining ground increasingly in many other European countries and has broad support in the population (see also EC project EuroBob, BRSI (Eds.), 2007). In Belgium, the Bob-

concept was recently expanded to a verb form: “to bob”, i.e. to think and prepare yourself in advance about how to get home safely after a party or event where alcohol will be served.

3.9 Overview of national descriptive data on country approaches

Table 1 gives an overview of national descriptive data which have just been mentioned in the country approaches. Most of the variables are derived from the SARTRE4 project (Cestac & Delhomme (Eds.), 2012). The data on the annual alcohol consumption come from the WHO (2014a) and the information on the legal alcohol limit from ETSC (2012). All data with the exception of the BAC limit refers to the year 2010. In brackets we indicate the country rank compared to the other 18 European SARTRE4 countries.

Table 1: Overview of selected national variables of 19 European countries

Country	DUI	Legal alcohol limit 2012	Support for lower legal alcohol limit	Alcohol consume per year	Perceived DUI friends	Experience alcohol checks	Subjective alcohol check probability
	2010	2012	2010	2008	2010	2010	2010
	% ever	BAC g/L	% no alcohol at all/less alcohol	L pure alcohol per capita (≥15)	% agree very/fairly	% ever	% ever
Sweden	1.5 (1)	0.2	76.5	10.0 (5)	2.7 (1)	56.9 (4)	80.0 (7)
Finland	2.1 (2)	0.5	65.9	13.1 (13)	4.6 (3)	68.1 (2)	87.3 (1)
Poland	2.3 (3)	0.2	96.2	14.4 (14)	14.1 (7)	42.4 (9)	54.5 (17)
Estonia	3.7 (4)	0.2	69.2	17.2 (19)	19.3 (11)	69.1 (1)	68.9 (15)
Hungary	5.5 (5)	0	89.7*	16.1 (17)	4.5 (2)	32.6 (15)	46.3 (19)
Netherlands	6.6 (6)	0.5	66.2	9.8 (4)	31.8 (16)	44.4 (7)	71.2 (14)
Ireland	9.0 (7)	0.5	77.1	14.9 (15)	7.7 (5)	34.7 (12)	72.1 (12)
Germany	9.6 (8)	0.5	62.4	12.1 (9)	12.5 (6)	23.5 (17)	73.1 (10)
Slovenia	11.5 (9)	0.2	63.3	14.9 (16)	15.0 (8)	34.6 (13)	86.2 (3)
Czech Rep	12.2 (10)	0	78,4*	16.5 (18)	6.9 (4)	57.8 (3)	86.8 (2)
Greece	14.5 (11)	0.5	41.6	11.0 (7)	21.8 (12)	39.6 (10)	81.4 (6)
France	19.3 (12)	0.5	62.1	12.5 (12)	24.8 (14)	32.6 (16)	72.1 (11)
Austria	20.0 (13)	0.5	53.8	12.4 (11)	17.0 (10)	37.7 (11)	71.5 (13)
Israel	21.2 (14)	0.5	58.0	2.5 (1)	16.0 (9)	21.4 (18)	61.8 (16)
Serbia	25.1 (15)	0.3	59.3	12.2 (10)	38.4 (17)	42.4 (8)	82.6 (5)
Spain	26.1 (16)	0.5	49.0	11.8 (8)	22.6 (13)	49.5 (6)	83.0 (4)
Belgium	26.5 (17)	0.5	47.4	10.4 (6)	41.9 (19)	32.7 (14)	74.5 (8)
Italy	32.7 (18)	0.5	46.0	9.7 (3)	41.5 (18)	9.5 (19)	53.2 (18)
Cyprus	34.4 (19)	0.5	52.8	8.8 (2)	28.3 (15)	51.3 (5)	73.5 (9)
Total mean	14.9	NA	59.8	12.1	19.5	41.1	72.6

The following variables are derived from the SARTRE4 study: *DUI (driving under the influence of alcohol above the legal limit)*: Over the last month, how often did you drive a car, when you may have been over the legal limit for drinking and driving? never – rarely – sometimes – often - very often - always => % >never; *Support for lower legal limit*: Do you think that car drivers should be allowed to drink...? no alcohol at all - less alcohol than at present - as much alcohol as at present - more alcohol than at present - as much as they want => % no alcohol at all + less alcohol than at present; *Perceived DUI friends*: Please tell me in each case how much you agree - Most of your friends would drink and drive a car? very – fairly - not much - not at all => % very + fairly; *Experience alcohol checks*: In the past 3 years, how many times were you checked for alcohol while driving a car? never - only once - more than once => %>never; *Subjective alcohol check probability*: On a typical car journey, how likely is it that you will be checked for alcohol? never – rarely – sometimes –often - very often-always=> % >never; * refers in this case to “no alcohol at all and/or as much alcohol”

Source: Cestac & Delhomme (Eds.), 2012; WHO, 2014a, ETSC, 2012; infographics: BIVV

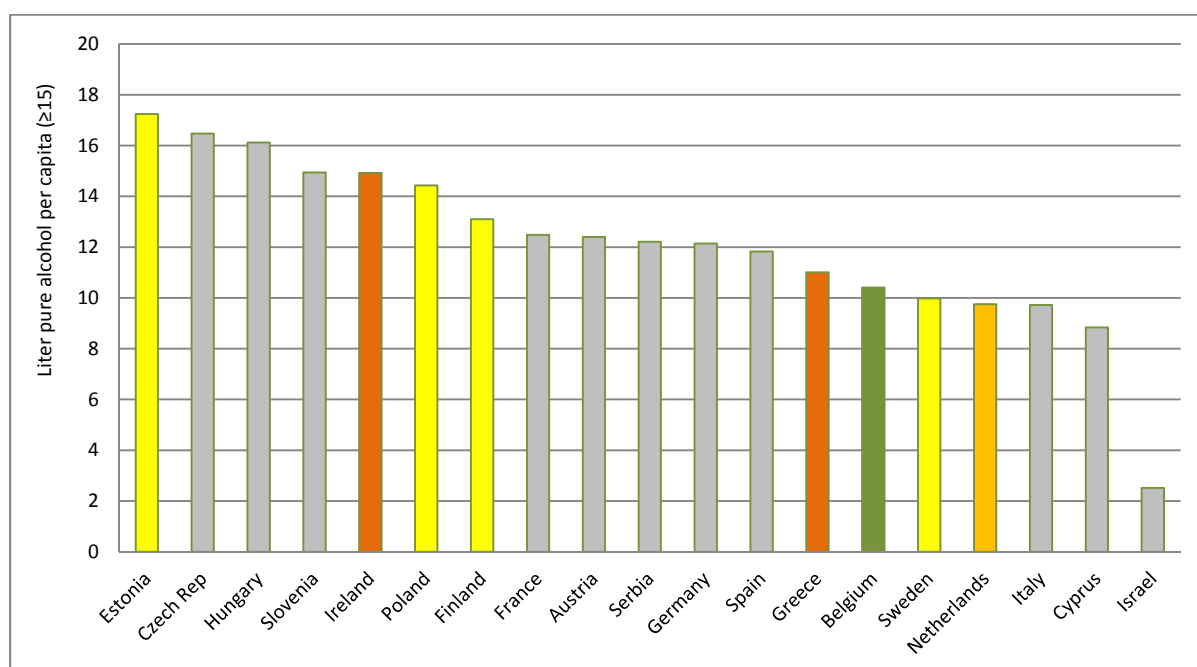
4 COUNTERMEASURE APPROACHES

In this chapter different countermeasures are discussed on a topic level. Main source for this discussion is the information presented in the previous chapter on country approaches. Similarities and differences with Belgium are pointed out.

4.1 General alcohol consumption and alcohol availability

The annual national consumption of alcohol does not appear to be directly linked to the prevalence of drunk driving. Figure 9 shows the annual national alcohol consumption of the 19 countries which participated in SARTRE4 (WHO, 2014a: data from 2008). It is noteworthy that most of the very well performing countries (marked in yellow) have rather high numbers of alcohol consumption. Estonia for example, shows the highest national alcohol consumption in this comparison and still has the third lowest DUI prevalence²³. Poland and Finland also show high numbers of general alcohol consumption despite their low drunk driving prevalence. Furthermore, the Polish expert pointed out that despite the increased alcohol consumption in the general population, the number of drunk driving accidents has further decreased in Poland. Belgium shows a high DUI prevalence in spite of a rather low estimated annual alcohol consumption, which is below the European average of 12.1 L.

Figure 9: Annual national alcohol consumption (WHO; data 2008)



In most countries alcohol is freely available from 18 years on. In Sweden and Finland, the accessibility of alcohol is restricted. Alcohol can be served from 18 years on, drinks with a low alcohol concentration (Sweden up to 3.5 vol. %; Finland up to 4.7 vol. %) can be sold in regular shops also from 18 years on, but stronger alcohol can only be sold from 20 years on in particular alcohol stores. In the Netherlands the selling of alcohol in petrol stations along the highway is restricted. No effects are known of this specific measure. In March 2010, the German federal state Baden-Wuerttemberg banned the sale of alcoholic beverages between 10 pm and 5 am in off-premise outlets such as kiosks, supermarkets and gas stations. A study on the effect of this measure on binge drinking (Marcus and Siedler, 2013) based on hospital data found that the share of alcohol related inpatient hospital stays decreased for 16-19 year olds by 7%-10% after the introduction of this measure.

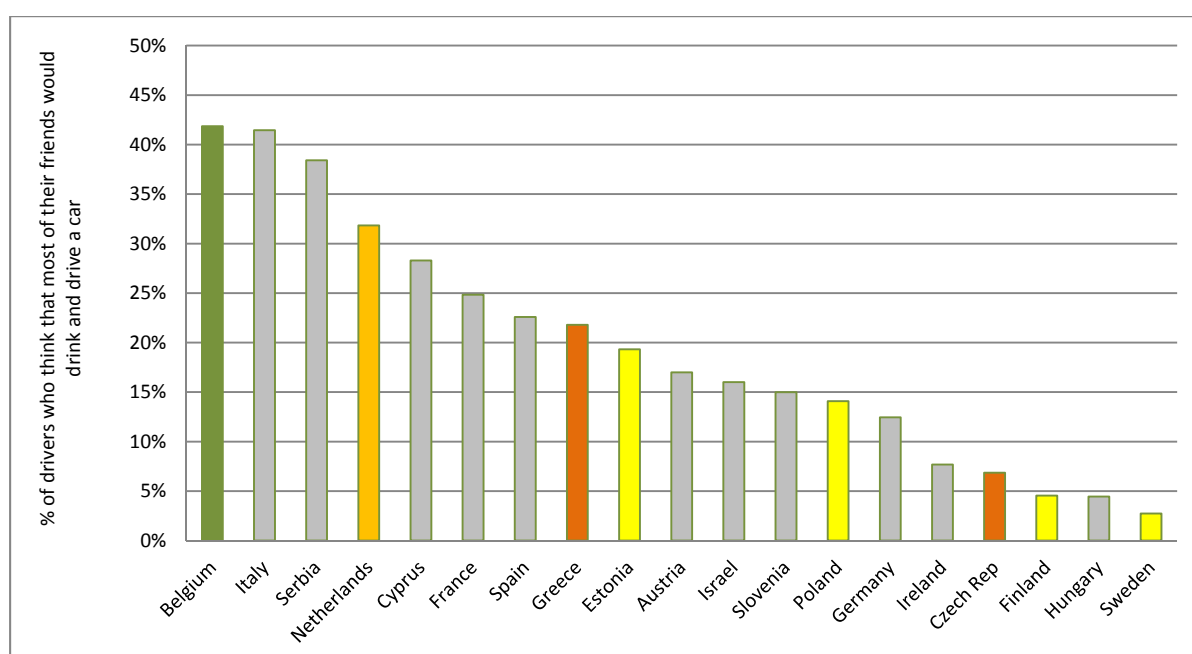
²³ Note that in more recent data the Estonian alcohol consumption seems to have strongly decreased (see also country information on Estonia for more details).

4.2 Acceptability of drunk driving and social norm

In most well performing countries drunk driving is less acceptable than in Belgium. According to the national experts, drunk driving is totally unacceptable in Sweden, Finland, Poland and Ireland, unacceptable in Estonia and slightly acceptable in Greece. According to the Belgian national attitude measurement drunk-driving is unacceptable (84%) among most drivers, but only totally unacceptable among 56% of the drivers (Meesmann & Boets, 2014b). Thus in this respect Belgium can be situated on the level of Estonia.

Furthermore, the SARTRE4 survey illustrates that Belgium has a severe problem with the perceived social norm on drunk driving (Figure 10). In comparison with the other 18 countries, Belgium shows the highest percentage of drivers stating that most of their friends would drink and drive a car (BE: 41.9%; European SARTRE4 average: 19.5%). The Scandinavian countries (Sweden and Finland) perform very well with respect to the social norm on drunk driving. In the Eastern countries (Poland and Estonia) the percentage of drivers thinking that most of their friend drink and drive is similar to the European average.

Figure 10: Social norm – DUI friends (SARTRE4; data 2010)



4.3 Legal alcohol limit

Regarding the legal alcohol limit, our comparison shows that most well performing countries have an alcohol limit of 0.2 g/L. Those were: Sweden, Estonia and Poland, the only exception being Finland. It is noteworthy that all these countries are also characterized by a very long tradition of a strict alcohol policy. In Sweden, the alcohol limit was decreased from a BAC of 0.8 to 0.5 g/L already in the early nineties. In Poland, and other East European countries, the low alcohol limit goes back to the sixties and the very strict road safety alcohol policy of the former Eastern Bloc. Therefore, it is difficult to state to what extent the low DUI prevalence in these countries is caused by the introduction of the low legal alcohol limit or rather by the long tradition of a strict DUI policy (see also discussion in Meesmann et al., 2013).

In all other countries, the general alcohol limit is set at BAC 0.5 g/L, with often a lower legal limit (BAC 0.2 g/L) for specified driver groups. These are in most cases novice drivers (the Netherlands, Ireland, and Greece), but also professional drivers (Ireland, Greece, Belgium) and in Greece also motorized two (three) - wheelers. In Finland no specific alcohol limits are installed for specific driver groups, as this kind of legislation would be considered an act of discrimination.

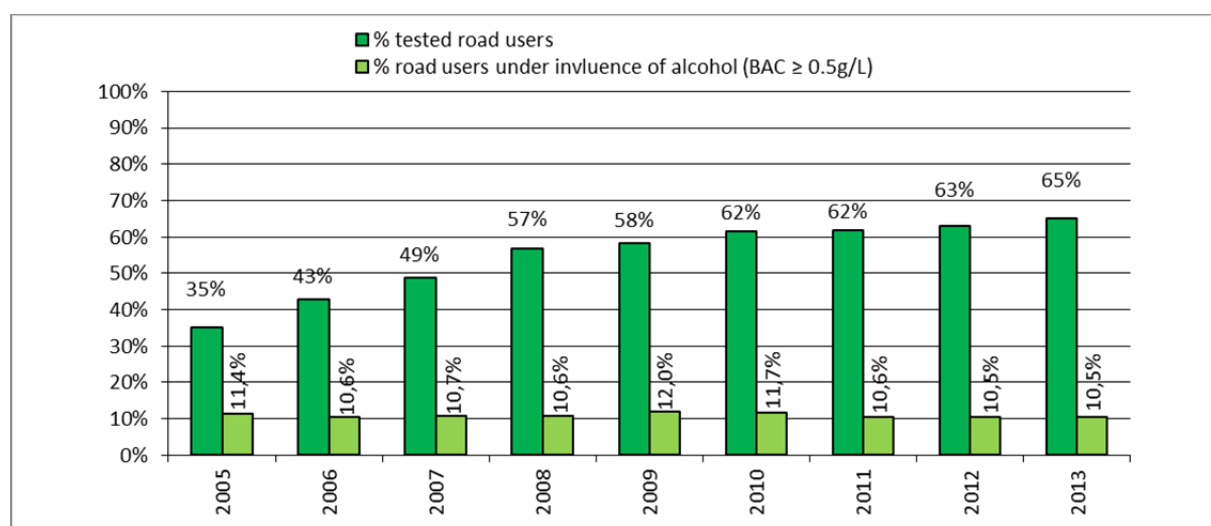
The Belgian legal alcohol limit (BAC 0.5 g/L) is similar to regulations in most other European countries, except for novice drivers, where the limit in most other European countries is 0.2 g/L (BAC). Dupant & Van Cutsem (2014) concluded that 18 of 29 EU countries (including Norway and Switzerland) apply a limit of 0.0-0.2 g/L BAC for novice drivers. Furthermore, Spain has a limit of 0.3 g/L BAC for novice

drivers. As summarized in the BRSI publications “Lower alcohol limit for novice drivers and for drivers of large vehicles: 0.2 ‰” (Dupont et al., 2010) and “Risks for young drivers in traffic” (Dupont, 2012), young drivers have a general increased accident risk compared to other drivers, combined with an even higher increase in case of alcohol consumption. Unexperienced drivers are more vulnerable for the impairing effect of alcohol on their driving ability, which is not yet sufficiently automated. These are two main reasons why many European countries introduced a lower legal alcohol limit for young or novice drivers.

4.4 Enforcement

All countries covered by this study have continuous drunk driving enforcement throughout the whole year, with increased drunk driving enforcement during special period(s) of the year, such as Christmas, midsummer or other national holidays. Each country communicates to the public about these intensified enforcement-periods in one way or another. In most countries, with the exception of Greece and the Netherlands, alcohol checks are mandatory or common police practice for drivers involved in accidents resulting in injury. In Sweden this not mandatory by law but common practice by the police. This corresponds to one of the DRUID recommendations. In Belgium the directive of the Board of General Prosecutors (COL8/2006 – revised on 3/11/2014) states that each driver who has been stopped by the police has to be checked for alcohol but Belgian accident statistics clearly show that for example not all drivers involved in accidents resulting in injury are tested for DUI.

Figure 11: Evolution of the number of tested road users for alcohol in accidents resulting in injury (Belgium)



Source: Statistics Belgium / Infographics: BRSI

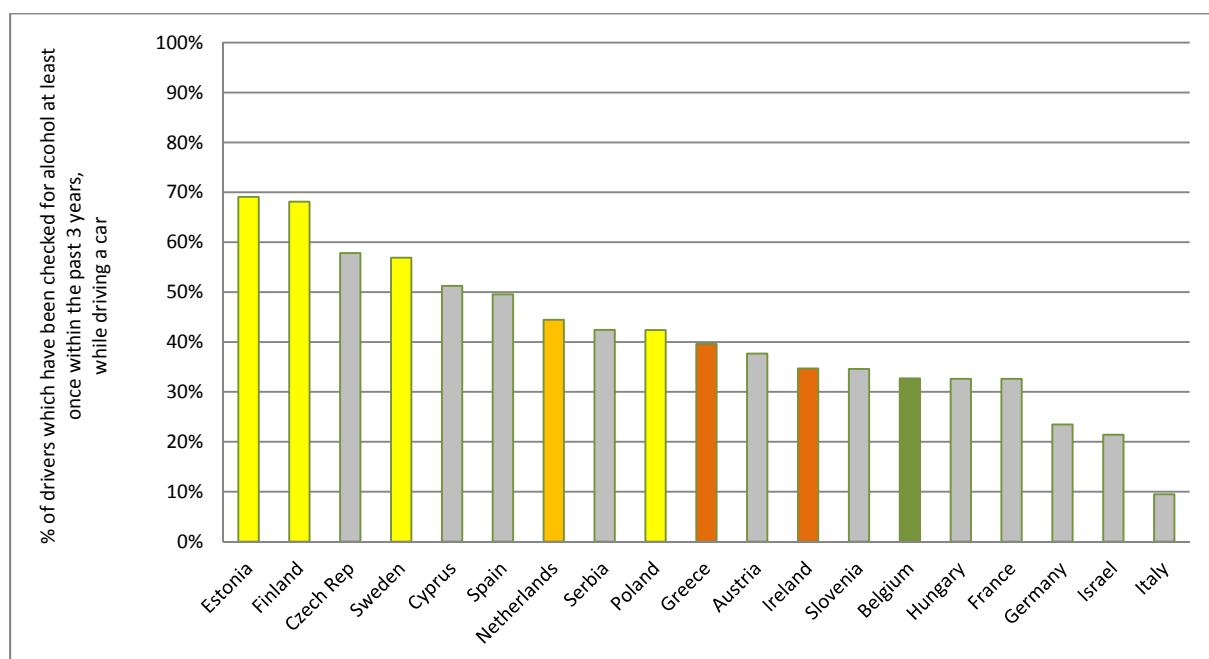
Figure 11 shows that the percentage of tested road users involved in such accidents strongly increased in recent years (2005: 35.2%; 2013: 65.1%), but that it is still not close to 100%. Table 2 gives an overview of the number of tested road users per road user type. In 2013, 71.4% of the Belgium car drivers involved in accidents resulting in injury was tested on alcohol. Together with drivers of vans this group showed the highest percentage of drunk driving (car drivers: 12%; van drivers: 11.5%). The lowest percentage of drunk driving was registered among bus- (0.7%) and truck drivers (1.2%). These two groups also showed a very high test-percentage of tested drivers in accidents resulting in injury (bus drivers: 71.4% same as car drivers; truck drivers: 80%).

Table 2: Number of tested road users for alcohol in accidents resulting in injury according to road user type (Belgium, data 2013)

Road user type	Road users under influence of alcohol	Tested road users	Total number of road users	% road users under influence of alcohol (BAC \geq 0.5 g/L)	% tested road users
Pedestrians	91	1093	4605	8,3%	23,7%
Cyclists	229	3972	8783	5,8%	45,2%
Moped riders	270	2735	4161	9,9%	65,7%
Motor cyclists	125	2062	3382	6,1%	61,0%
Passenger cars	4262	35449	49680	12,0%	71,4%
Vans	337	2934	3904	11,5%	75,1%
Trucks	23	1967	2459	1,2%	80,0%
Buses/coaches	4	497	696	0,7%	71,4%
Others	23	531	860	4,3%	61,8%
Unknown	14	92	352	15,5%	26,2%
Total	5378	51332	78882	10,5%	65,1%

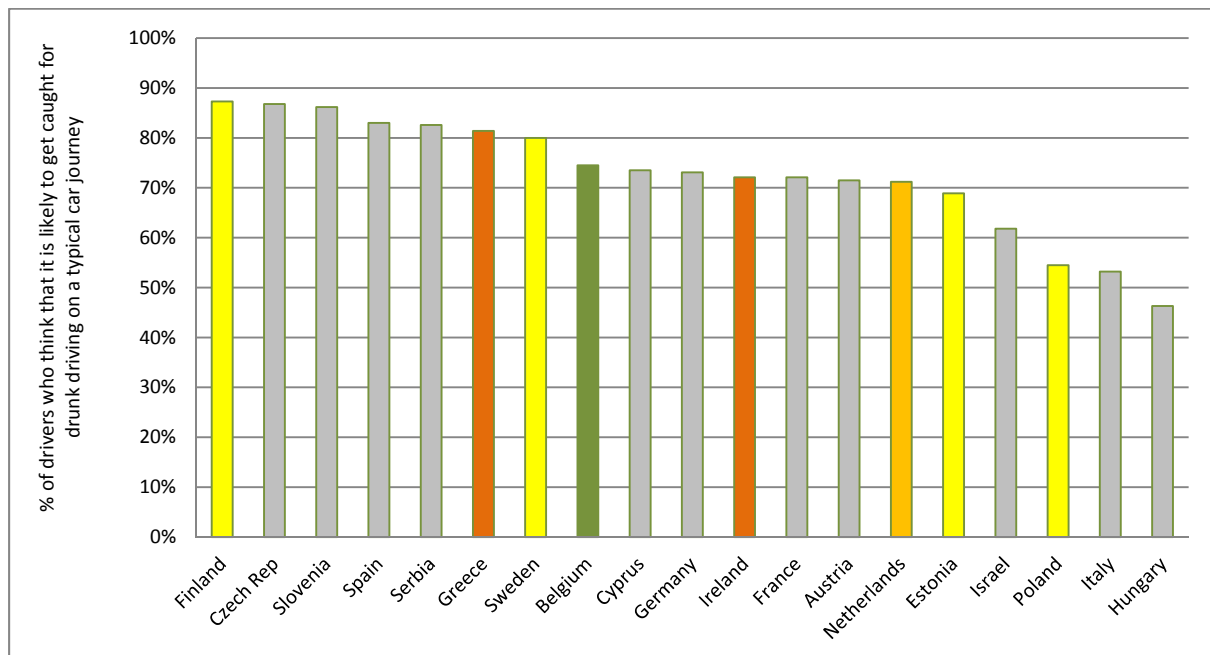
Source: Statistics Belgium / Infographics: BRSI

The SARTRE4 results show clearly that there is a strong link between reported alcohol checks and drunk-driving. Figure 12 shows the percentage of drivers who state that they have been checked for alcohol at least once within the last 3 years. Almost all the very well performing countries (marked in yellow) show a high level of drivers reporting alcohol checks within the last 3 years. But we also see exceptions to this correlation. In Germany for example, drivers report less alcohol checks than in Belgium but nevertheless also less drunk-driving. Another exception is Poland, which shows a medium level of alcohol checks but anyhow a very low drunk-driving prevalence (see also discussion in next paragraph). The severe sanctions for DUI in Poland might contribute to the deterring effect.

Figure 12: Alcohol checks (SARTRE4; data 2010)

With respect to the perceived likelihood of being checked for alcohol on a typical car journey, the situation in Estonia merits attention. Despite the very good performance of this country on reported alcohol checks (rank 1 out of 19 countries), it only reaches rank 15 out of 19 SARTRE4 countries on the perceived likelihood of getting checked (Figure 13). These results thus clearly show that high levels of enforcement are not necessarily associated with an increased perceived likelihood of getting checked for alcohol, so to say Estonia and Poland, both have very severe sanction for DUI. This might contribute to the deterring effect of the controls, even if the perceived likelihood and actual chance of getting checked is rather low.

Figure 13: Perceived likelihood of being checked for alcohol (SARTRE4; data 2010)



Vanlaar (2008) differentiates between two alcohol check strategies. The first is the preventive approach attempting to influence the subjective (perceived) likelihood of getting caught. In other words, this strategy aims at making as many people as possible aware that police officers are enforcing drinking and driving laws, and that drinking drivers will most likely be caught. Targeting high traffic count road sites with high visibility road checks is a priority in this approach because it serves to increase awareness of the enforcement activity. The second strategy is a repressive approach, which seeks to increase the objective likelihood of getting caught and therefore involves targeting times and places where the highest number of drinking drivers is to be expected. The aim is to apprehend as many drinking drivers as possible.

With respect to alcohol checks Goldenbeld and Hway-Liem (1994) suggested combining preventive and repressive approaches. According to such a strategy, the preventive approach would largely be applied at high traffic count road sites earlier at night when a lot of people are on the road. The repressive approach would be adopted later at night, close to places where a high number of drinking drivers can be expected, such as areas near to drinking establishments (Vanlaar, 2008; see also: Meesmann et al., 2015). The DRUID project emphasises the importance of random alcohol checks to enhance the effect of general deterrence (Schulze et al., 2012). The experts of most selected countries state that their countries apply a combined enforcement strategy including random as well as selective police controls, just as Belgium (see e.g. BRSI thematic report on enforcement from Adriaensen & Kluppels (2015)).

4.5 Penalties

Penalties are very difficult to compare between countries, as they always have to be understood within the specific national regulatory and legal framework. For instance, a comparison of fines has always to be considered in relation to the actual economic possibilities of the offenders within a country. This applies of course also for income differences within the country. The Swedish and the Polish expert was the only

national expert reporting that fines for DUI offences vary depending on the income of the convicted person²⁴.

Table 3 gives an overview of the expert inputs on the minimum and maximum duration of licence withdrawal in case of a first DUI offence. For more detailed information on the national penalties for DUI, see the descriptions in the previous chapters.

Table 3: Minimum and maximum duration of licence withdrawal in case of a first DUI offence

Country	Duration of the driving licence withdrawal	
	minimum	maximum
Sweden	12 months ²⁵	3 years + max 2 years imprisonment ²⁶
Finland	1 months	5 years + imprisonment (possible)
Poland	6 months	10 years + max 12 years imprisonment in case of an accident
Estonia	3 months	9 months + max 3 years imprisonment in case of BAC>1.5 g/L
The Netherlands	0 months	5 years
Ireland	3 months	No max, this is at the discretion of the Judge
Greece	3 months	6 months + at least 2 months imprisonment in case of BAC>1.1 g/L
Belgium	0 months	5 years

Based on the detailed input of the national experts, as described in the previous chapter, we conclude that in most well performing countries the sentencing of DUI offences is more stringent than in Belgium. Poland appeared to have the most severe sanctions, in which DUI offences with a BAC of 0.2/0.5 g/L can be sentenced with a fine, a driving ban between 6 months and 3 years and additional imprisonment of 5-30 days. The DRUID recommendation on driving licence withdrawal is 3-12 months. Furthermore, DRUID recommended keeping the gap between the offence and sanctioning as short as possible, because it increases the deterring effect of the sanction. Based on a review of the literature, SWOV (2013) concluded that for relatively severe penalties, such as penalties for drunk driving or penalties imposed by a judge, there is little evidence that an increase in penalty severity might have positive effects on behaviour (e.g. Briscoe, 2004; Wagenaar et al., 2007; Moffat & Poynton, 2007). Possible explanations for this are e.g.: (1) the drunk drivers' addiction to alcohol, which inhibits them from reducing the alcohol use and makes them persist in the violation behaviour; (2) the low perceived likelihood of being caught for alcohol (if the offenders are caught once, they do not conclude that the detection level is high, because often they have not been detected for years preceding this first apprehension); (3) the gambler's fallacy, leading to the assumption that once checked for alcohol one has had a fair share of bad luck and would not be checked again soon (Piquero and Pogarsky, 2002). As people differ in their motivations and their ability to change their traffic behaviour structurally, some types of penalty and treatment have better effect than others for different groups of offenders. The SWOV (2013) concluded that for repeat drunk-driving offenders, there is evidence showing that regular monitoring of alcohol use and fast and light penalties lead to a decrease in recidivism.

4.6 Driver rehabilitation and alcohol interlock systems

Most of the well performing countries (Sweden, Finland, Poland, Estonia and the Netherlands) offer driver rehabilitation programmes to DUI offenders as is also done in Belgium. Moreover, Sweden, Finland, Poland, the Netherlands and Belgium provide alcohol interlock programmes. These programmes are combined with counselling and close monitoring in most cases, as recommended by DRUID. In none of these countries alcohol interlocks are mandatory for specific driver groups. Only in Finland: vehicles in school transport should be equipped with alcohol interlocks, but only if the municipality orders and pays the transport.

²⁴ Please note, that in our questionnaires we mainly focussed on the duration of driving licence withdrawal as tentative comparable measure for penalties. Thus, it might be that other countries also apply such a system without the expert mentioning it.

²⁵ In a previous section the expert stated that minor offences can also be sentenced by a fine. In most cases the duration of driving licence withdrawal is 1 to 2 years.

²⁶ According to the national expert however, the "normal" imprisonment time is one to two months.

There are different opinions on whether rehabilitation and alcohol ignition interlock programmes should be voluntarily or mandatory. Based on the input of the national experts, we observed that Scandinavian countries are emphasizing the voluntary approach more, whereas in e.g. Estonia driver rehabilitations are mandatory to regain the driving licence. Within the DRUID investigation among rehabilitation providers in 12 European countries, it turned out that voluntary and mandatory assignment was distributed equally among the existing programmes (Boets et al., 2008). Studies on the effect of alcohol ignition interlock systems show that the conditions for participation, i.e. voluntary versus mandatory, do not have an impact on the effectiveness of the programme (e.g. Beirness et al., 2003). Nevertheless, voluntary programmes list participation rates between 3% (e.g. Nebraska, according to Stanton in TIRF, 2005) and 11% (e.g. Sweden, according to Bjerre, 2005) of eligible DUI offenders, whereas mandatory programmes reach up to 90% (e.g. Indiana, according to Sheridan in TIRF, 2005). In most selected countries which provide alcohol ignition interlock programmes the participation rates are very low (as is the case in Belgium). They are mainly an alternative to a driving ban and as the Finnish expert pointed out: “if the periods of driving licence withdrawal are rather short, it is not very tempting to pay a high cost for installing an interlock system to avoid this ban”. With respect to driver rehabilitation, DRUID recommends mandatory assignment for high-risk offenders, repeat offenders and young (novice) drivers that committed a drunk driving offence (Bukasa et al., 2008).

4.7 Education and awareness rising campaigns

In all selected countries, the theme "*alcohol and driving*" is addressed in driving education and partly in school education. Furthermore, most countries conduct systematic awareness rising campaigns or communicate in another ways systematically about the risks of alcohol in traffic. In most countries the road safety campaigning/risk communication is a multidisciplinary approach, developed in cooperation with various sectors such as road safety, health and education. These awareness rising actions are evaluated in most countries (Finland, Estonia, Netherlands, Ireland and Belgium), but only the experts from The Netherlands, Ireland and Belgium mention specific pre-post evolution designs which are necessary to measure direct impact of a campaigns. Some of these evaluations might be limited to campaign recognition or perception instead of impact evaluations (e.g. Finland, Poland).

5 RECOMMENDATIONS

Within this chapter we focus on the implementation of the DRUID recommendations on countering DUI and the expert recommendations on successful measures in their countries. We conclude with possibilities to improve the DUI situation in Belgium.

5.1 Compliance with DRUID recommendations

The DRUID project concluded with a list of recommendations on countering drunk driving. This list is published in the final DRUID report (Schulze et al., 2012) and also summarized in an EMCDDA thematic report (EMCDDA, 2012). We used this list as a baseline to develop the survey of the present study. Table 4 gives an overview of the national implementation of the DRUID recommendations based on the descriptive information provided by the national experts. In case the listed countermeasure is not included in the final list of DRUID recommendations it is marked with an *. With respect to Belgium the information was provided by the authors of this report. The details on the specific countermeasures have already been presented in chapter 3 on *country approaches*.

Table 4: Overview of the national implementation of recommended measures countering DUI

COUNTERMEASURE RECOMMENDATION	IS THIS RECOMMENDATION (ALREADY) APPLIED IN YOUR COUNTRY?			
	Yes	Partly	No	Don't know; no or unclear answer
Legal regulation				
General legal alcohol limit of BAC 0.5 g/L	FI, NL, IE, EL, BE (<i>SE, PL, EE have BAC 0.2 g/L</i>)			
General legal alcohol limit of BAC 0.2 g/L*	SE, PL, EE		FI, NL, IE, EL, BE	
Lower legal alcohol limit for specific target groups (e.g. young drivers, professional drivers) of BAC 0.2 g/L or lower	NL, IE, EL (<i>SE, PL, EE have already general BAC 0.2 g/L</i>)	BE (<i>only for truck drivers</i>)	FI	
Prohibition of selling alcohol along the highway*		NL (<i>SE, FI have general restriction on alcohol sales</i>)	PL, IE, EL, BE	EE
Enforcement				
Aiming at a high level of perceived risk of detection to increase deterrent effect (subjective alcohol check probability)	SE, FI, PL, EE, IE, EL	NL, BE		
Carry out random ¹ alcohol checks to enhance the effect of general deterrence	SE, FI, PL, EE, NL, EL, BE	IE (<i>random controls on fixed control location</i>)		
Carry out selective alcohol checks (e.g. in time, place, or based on driver characteristics)*	SE, FI, PL, EE, IE, EL, BE	NL		
Mandatory alcohol testing for drivers involved in accidents resulting in injury	SE (<i>not mandatory by law but common practice by the police</i>), FI, PL, EE, IE	EL, NL, BE (<i>mandatory but not always applied in practice</i>)		
Sanctions / penalties				
Immediate withdrawal/suspension of the driving licence in case of DUI offence	FI, PL, EE	SE, EL, NL, BE	IE	
The withdrawal duration should be between 3 and 12 months.	SE (<i>actually 12-24 months</i>), FI, EE	NL, EL, BE	PL (<i>actually longer</i>)	IE
Driver rehabilitation should be an integrated part of driving licence withdrawal.	PL, EE	NL	SE, FI (<i>always on voluntary basis</i>), EL, BE	IE (<i>in preparation</i>)
Conditional withdrawal should always be combined with rehabilitation measures and close monitoring.		EE	SE, FI (<i>always on voluntary basis</i>), PL, EL, BE	IE (<i>in preparation</i>), NL
Driver Rehabilitation				
Driver assessment and rehabilitation should be legally regulated and based on defined offence and/or offender criteria.	PL, EE, NL	SE, BE	FI, EL, IE	
Non-addicts and addicts should be treated in separate programmes as they require different interventions or treatments.	EE	SE, NL	FI, PL, EL, IE, BE	
Multiple offenders and offenders with a BAC \geq 1.6 g/L should undergo an examination to preclude addiction (fitness to drive assessment).	SE, EE	FI, NL, BE	EL, IE	PL (<i>n.a. multiple offenders get lifetime driving ban</i>)

Engineering / technology				
Require alcohol ignition interlock for conflicted DUI offenders as alternative for driving ban*	SE, FI, PL, NL, BE	EE (<i>voluntary use</i>)	EL	IE (<i>law in preparation</i>)
Alcohol ignition interlock programmes should be combined with rehabilitation/treatment and close monitoring.	NL, BE	FI (always voluntary basis)	SE (<i>only if it's combined with voluntary program SMADIT</i>), PL, EL	EE, IE
Standard alcohol ignition interlocks should be mandatory for specified target groups (e.g. bus or truck drivers, novice drivers, etc.).*		FI, NL	SE, PL, BE	EE, IE, EL
Education / campaigns				
Include "Don't drink and drive" elements in school education*	FI, EE, IE, NL	SE, EL, BE	PL	
Include "Don't drink and drive" elements in driver education*	SE, FI, PL, EE, IE, NL	BE (<i>lessens in driving schools are not mandatory</i>)		EL
Carry out awareness raising campaigns on DUI*	FI, PL, EE, IE, NL, BE	EL	SE (<i>but, has: systematic risk communication en risk education</i>)	
Campaigns should be evaluated on a regular base*	EE, IE, NL, BE	FI	EL, PL, SE	
Collaboration with other disciplines (e.g. health, enforcement, social marketing) to develop prevention strategy*	SE, PL, EE, IE	FI, NL, EL, BE		

* Additional recommendation not included in the final recommendation list of DRUID

† Random= random selection of control-locations and of drivers tested

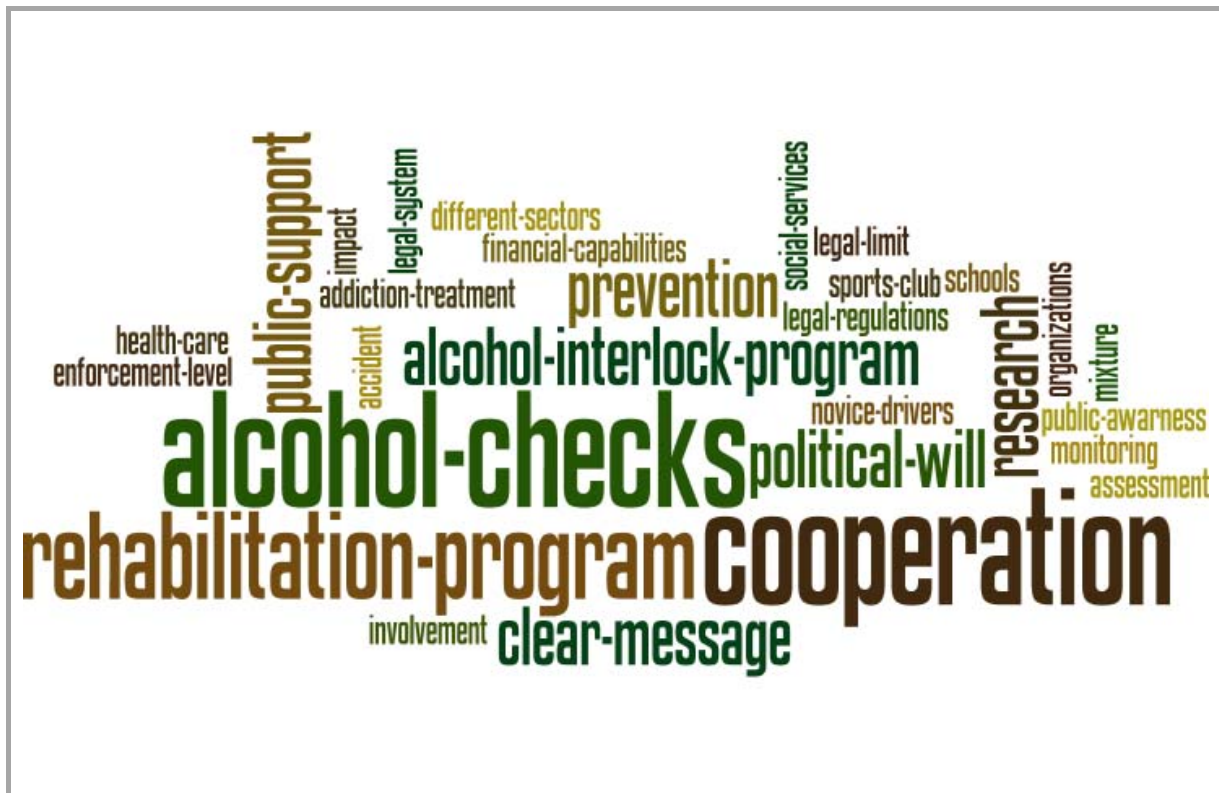
SE: Sweden; FI: Finland; PL: Poland; EE: Estonia; IE: Ireland; NL: the Netherlands; EL: Greece; BE: Belgium

In general, one can observe that most DRUID recommendations are implemented in the selected countries. Several countries have even stricter legal regulations or sanctions on DUI compared to the minimum recommendations of the DRUID consortium. The main difference with the DRUID recommendations is observed with respect to the opinions on driver rehabilitation and alcohol ignition interlocks. These measures are not yet implemented on a systematic base in certain countries or, as for example in the Scandinavian countries; they are successfully implemented but mainly on a voluntary base.

5.2 Experts recommendations on successful countermeasures

At the end of the questionnaire we asked the experts if they can point out any countermeasure which has been especially successful in their country to combat DUI. Figure 14 provides an of these measures under the form of a word cloud.

Figure 14: Word cloud on the successful measures listed by the national experts



Most experts pointed out the effect of alcohol checks, cooperation among different sectors and driver rehabilitation programmes, but also other topics were mentioned such as e.g. political will, public support, prevention, clear message alcohol interlock systems and research. More details on the answers of the experts to this question have already been presented in the previous chapter *country approaches*.

5.3 Conclusion and recommendations for Belgium

The aim of the present study was to understand how and why certain countries have been successful in countering DUI and to identify measures that could be transferable to Belgium. Based on the analysis we can draw the following conclusions.

All countries with low DUI prevalence are using a comprehensive countermeasure system which consists of different elements such as legislation, enforcement, rehabilitation, sensitisation and/or education. Clearly our study supports the idea that, rather than a specific measure, it is the combination of a set of different, well-chosen measures that could be most effective in decreasing DUI. On individual level, DUI can be related to a very wide range of problems and individual situations - so the toolbox for this must also include a wide range of measures. On the national level, the effect of a measure depends on its interplay with existing measures and the cultural context. Most DRUID recommendations on countering DUI are implemented in the systems of well performing countries. Based on the recommendations of the international experts and the DRUID consortium, we identified the following possibilities to improve the DUI situation in Belgium:

- ▶ further increase the enforcement activities (alcohol checks), especially concerning the systematic alcohol checks in case of accident resulting in injury;
- ▶ keep on combining the preventive (random checks) and repressive (selective checks) approaches;
- ▶ further increase the public visibility of the police controls to reinforce the general deterrent effect (in other words: increasing the perceived likelihood to get checked for alcohol);
- ▶ expand how DUI is sanctioned (e.g. penalty combined with close monitoring of alcohol use in case of recidivists)
- ▶ keep the time gap between the offence and sanctioning as short as possible in order to increase the deterring effect of the sanction;
- ▶ lower the alcohol limit for young and/or novice drivers (usually less than 2 years of driving experience).
- ▶ expand the driver rehabilitation programmes for alcohol traffic offenders (e.g. mandatory driver rehabilitation programmes for specific target groups, implementation of a driver rehabilitation program in case of a provisional driver licence withdrawal, spread programmes over a longer period and treat non-addicts and addicts in separate programmes);
- ▶ expand the alcohol interlock programmes combined with counselling and close monitoring (e.g. mandatory programmes for recidivists);
- ▶ keep on addressing the topic “*don’t drink and drive*” in education, sensitisation and campaigns aiming at reducing the social acceptability of DUI;
- ▶ further intensify the cooperation between various sectors and different policy areas (e.g. education, health, enforcement); including both federal and regional policy levels, as certain policy areas are regionalized.

LIST OF TABLES AND FIGURES

Table 1: Overview of selected national variables of 19 European countries.....	40
Table 2: Number of tested road users for alcohol in accidents resulting in injury according to road user type (Belgium, data 2013).....	44
Table 3: Minimum and maximum duration of licence withdrawal in case of a first DUI offence	46
Table 4: Overview of the national implementation of recommended measures countering DUI	48
Figure 1: Observed driving under the influence of alcohol among car drivers (DRUID road side survey; data 2010).....	15
Figure 2: Self-reported DUI among car drivers (SARTRE4; data 2010)	17
Figure 3: Proportion of positive breath tests based on police data in Sweden (2007-2013).....	20
Figure 4: Results of systematic random roadside breath testing in nationwide study in Finland (1988-2013)	23
Figure 5: DUI prevalence in Estonia based on crime and misdemeanour processing data (2003-2014).....	28
Figure 6: Evolution of driving under the influence of alcohol on weekend-nights (%) 1970-2013	30
Figure 7: DUI incidents as a result of MAT checkpoints administered by An Garda Síochána (Irish Police) (2007-1012).....	33
Figure 8: Results of the Belgian national road side survey on driving under the influence of alcohol (2003-2012)	38
Figure 9: Annual national alcohol consumption (WHO; data 2008)	41
Figure 10: Social norm – DUI friends (SARTRE4; data 2010)	42
Figure 11: Evolution of the number of tested road users for alcohol in accidents resulting in injury (Belgium).....	43
Figure 12: Alcohol checks (SARTRE4; data 2010).....	44
Figure 13: Perceived likelihood of being checked for alcohol (SARTRE4; data 2010)	45
Figure 14: Word cloud on the successful measures listed by the national experts	49

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ANNEX**Annex 1: Questionnaire I.****DUI SITUATION**

1. Can you please provide us with your most recent national prevalence statistics on driving under the influence of alcohol (DUI) in the general driving population, if possible in relation to the last 10 years.

We are in the first place interested in DUI prevalence data in the general driving population based on observed behaviour (random road side checks) or, if this not available, based on self-reported behaviour (surveys). We are less interested in prevalence data based on accident statistics or traffic violations registered by the police. In case the information is limited to a specific driver population (e.g. car drivers only), location/road type or time period, please specify this. To illustrate what we mean we include as example a description of the Belgium national road side survey at the end of this mail.

- ▶ Please shortly indicate what exactly is measured and describe relevant methodological aspect to understand the numbers (see example Belgium).
- ▶ Can you provide us with a reference to the information given above?

2. If you do not have any national data on the evolution of DUI in your country, do you have any other information on the evaluation of the DUI situation in your country? If yes, please shortly describe:

DUI COUNTERMASURES IN YOUR COUNTRY

3. Which countermeasures are used within your country to deter DUI? Please indicate the importance of this countermeasure in your national approach.

COUNTERMEASURES	Not at all important	Rather not important	Less important	Neutral	Rather important	Important	Very important
	1	2	3	4	5	6	7
Legal regulation							
General legal alcohol limit							
Lower legal alcohol limit for specific target groups (e.g. young drivers, professional drivers)							
lower legal alcohol limit in case of combined consumption (e.g. alcohol + drugs)							
Enforcement							
Random* police checks							
Selective police checks (e.g. in time, place, or based on driver characteristics)							
Mandatory alcohol testing for drivers involved in accidents resulting in injury							
Driver Rehabilitation							
Driver Rehabilitation/improvement courses for DUI offenders							
Psycho-medical examination of DUI offenders							
Alcohol interlock							
Sanctions							
Fines							
Licence withdrawal							
Conditional licence withdrawal							
Demerit point system							
Education							
Education - schools							
Education – driving licence							
Awareness rising campaigns on DUI							
Others, please specify							

*random= random selection of control locations and of drivers tested

4. Can you point out any countermeasure which has been especially successful in your country to combat DUI?

Yes No

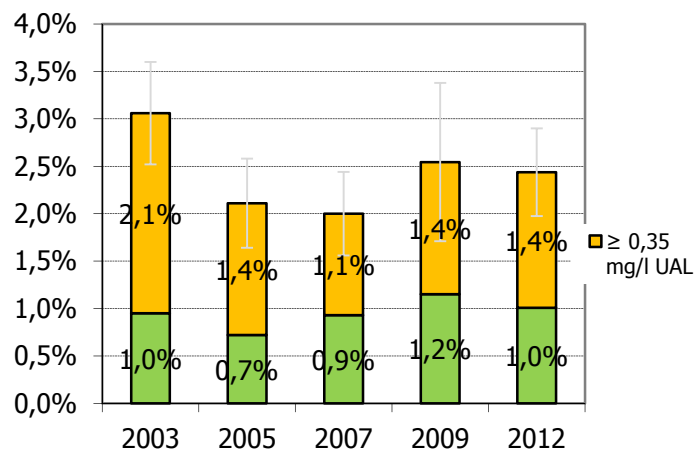
- If yes, can you please give a short description of this measure? In case you would like to point out several measures please give a short description of each measure.

5. We will come back to this measure(s) in our next questionnaire, but if you have a publication, in which this successful measure is described or *evaluated*, please forward it to us.

Thank you very much for this first input!

e.g. DUI situation in Belgium

Figure: Evolution of the prevalence of driving under the influence of alcohol based on BRSI road side survey (2003-2012)



Source: Riguelle, F. (2014). *Drinken we te veel als we rijden? Nationale gedragsmeting "Rijden onder invloed van alcohol" 2012 (Do we drink too much while we drive? National behavioral measurement "Driving under the influence of alcohol" 2012)*. Brussel, België: Belgisch Instituut voor de Verkeersveiligheid – Kenniscentrum Verkeersveiligheid.

- Short description: DUI prevalence among car/van drivers on Belgian roads based on random alcohol checks carried out by the police following defined research guidelines by the Belgium road safety Instituted (BRSI). Random in this case means random selection of control locations and of drivers tested. Three annual measurement of the national DUI situation carried out by the BRSI.
- Time period: October and November 2012
- Population: car and van drivers on Belgian roads
- Total sample size: 12152 drivers who have been checked for alcohol at 478 different locations
- Selection procedure of the alcohol checks: random selection of locations of checks within the jurisdiction of participating police forces; random assignment of time slots to each checkpoint (day of the week, night of the week, at weekends during the day or at weekends during the night); non-selective police checks (meaning random selections without applying screening criteria as e.g. sex, age, car model, music being played in the car, etc.).
- Weighting in the analysis: period of the week, location of the checkpoint (region) and traffic volume.
- Representativeness of the sample: the sample is representative for Belgian car and van drivers.
- Alcohol checks: breathalyser test
- Driving under the influence of alcohol here defined as positive alcohol test: result of a breathalyser test with alcohol concentration of at least 0.22 mg/L Exhaled alveolar air (equivalent to a BAC 0.5 g/L).

Annex 2: Questionnaire II.

GENERAL**1. DUI performance of your country**

Table 1 gives an overview of selected variables related to drunk driving. This table is based on data of the SARTRE4 project (<http://www.attitudes-roadsafety.eu/>) and additional national information from other sources. In the first part of the table we listed the country values and in the second part the national ranking with respect to these selected variables (for more information on this table see: <http://ibsr.be/frontend/files/userfiles/files/SoPaROI%20FR.pdf>)

Table 1: Overview of selected national variables of 19 European countries

Country	COUNTRY VALUE						COUNTRY RANK				
	BAC limit 2012	DUI	Alcohol consume per year 2008	Drink drive friends	Experience alcohol. checks	Subjective alcohol check probability	DUI	Alcohol consume per year 2008	Drink drive friends	Experience alcohol. checks	Subjective alcohol check probability
	BAC g/L	% >never	L pure alcohol per capita (≥15)	% agree very/ fairly	% >never	% >never	1=best score and 19=worst score				
Sweden	0.2	1.5	10.0	2.7	56.9	80.0	1	5	1	4	7
Finland	0.5	2.1	13.1	4.6	68.1	87.3	2	13	3	2	1
Poland	0.2	2.3	14.4	14.1	42.4	54.5	3	14	7	9	17
Estonia	0.2	3.7	17.2	19.3	69.1	68.9	4	19	11	1	15
Hungary	0	5.5	16.1	4.5	32.6	46.3	5	17	2	15	19
Netherlands	0.5	6.6	9.8	31.8	44.4	71.2	6	4	16	7	14
Ireland	0.5	9.0	14.9	7.7	34.7	72.1	7	15	5	12	12
Germany	0.5	9.6	12.1	12.5	23.5	73.1	8	9	6	17	10
Slovenia	0.2	11.5	14.9	15.0	34.6	86.2	9	16	8	13	3
Czech Rep	0	12.2	16.5	6.9	57.8	86.8	10	18	4	3	2
Greece	0.5	14.5	11.0	21.8	39.6	81.4	11	7	12	10	6
France	0.5	19.3	12.5	24.8	32.6	72.1	12	12	14	16	11
Austria	0.5	20.0	12.4	17.0	37.7	71.5	13	11	10	11	13
Israel	0.5	21.2	2.5	16.0	21.4	61.8	14	1	9	18	16
Serbia	0.3	25.1	12.2	38.4	42.4	82.6	15	10	17	8	5
Spain	0.5	26.1	11.8	22.6	49.5	83.0	16	8	13	6	4
Belgium	0.5	26.5	10.4	41.9	32.7	74.5	17	6	19	14	8
Italy	0.5	32.7	9.7	41.5	9.5	53.2	18	3	18	19	18
Cyprus	0.5	34.4	8.8	28.3	51.3	73.5	19	2	15	5	9
Total mean	NA	14.9	12.1	19.5	41.1	72.6	NA	NA	NA	NA	NA

The following variables are derived from the SARTRE4 study:

DUI (driving under the influence of alcohol above the legal limit): Over the last month, how often did you drive a car, when you may have been over the legal limit for drinking and driving? never-rarely-sometimes-often-very often-always => % >never;

Drunk driving friends: I'm going to read some statements to you concerning drinking and driving a car. Please tell me in each case how much you agree - Most of your friends would drink and drive a car? very -fairly-not much-not at all => % very + fairly,

Experience alcohol checks: In the past 3 years, how many times were you checked for alcohol while driving a car? never-only once-more than once => %>never;

Subjective alcohol check probability: On a typical car journey, how likely is it that you will be checked for alcohol? never-rarely- sometimes-often-very often-always=> % >never.

Source: SARTRE, 2012; WHO, 2014; ETSC, 2012 IN: Meesmann et al., 2013

1.1. Would you like to comment on your national results of these selected variables?

Yes No

If yes, please do:

1.2. Why do you think your country performs better than other countries with respect to drunk driving (DUI)?

1.3. Why do you think your country doesn't perform as well as some other countries with respect to drunk driving (DUI)?

2. Social acceptability of drunk driving

2.1. Is driving a car with an alcohol concentration above the legal limit rather socially acceptable or rather unacceptable in your country?

	Totally unacceptable	Unacceptable	Slightly unacceptable	Neutral	Slightly acceptable	Acceptable	Perfectly Acceptable	Don't know
Drunk driving above the legal limit								

Do you have data on this issue?

Yes No Don't know

If yes, can you give us more information on this data?

2.2 Can generational differences with respect to the acceptability of driving with an alcohol concentration above the legal limit be observed in your country?

Yes No Don't know

If yes, please briefly describe the difference:

2.3 Is driving a car after having drunk a small amount of alcohol, below the legal limit, socially rather acceptable or rather unacceptable in your country?

	Totally unacceptable	Unacceptable	Slightly unacceptable	Neutral	Slightly acceptable	Acceptable	Perfectly Acceptable	Don't know
Drunk driving below the legal limit								

2.4 Has the social unacceptability of drunk driving (above the legal limit) significantly increased within about the last 15 years?

Yes No Don't know

If yes, please briefly describe this change:

2.5 Can you point out measures which worked in your country to increase the social unacceptability of drunk driving or which may have contributed to it?

Yes No Don't know

If yes, please specify:

3. General alcohol consumption patterns in your country

3.1 Could you please give us an indication of how frequently alcohol is used by adults in general in your country, in the following situations?

Drink alcohol at...	(Almost) never	Occasionally/Sometimes	Often	(Almost) always	Uncertain/don't know
Lunch					
Dinner					
Business lunch					
Evening out					

Do you have data on this issue?

Yes No Partly Don't know

If yes/partly, can you give us more information on this data?

3.2 In Table 1 we already mentioned the average alcohol consume per capita in your country (WHO, 2014). Have you observed any significant change of the alcohol consumption pattern in your country within about the last 15 years (e.g. people drink less, drink more at home and less in public, current youngsters drink less or start to drink earlier...)?

Yes No Don't know

If yes, please briefly describe this change:

3.3 Can you point out measures which worked in your country to decrease the general alcohol consume or which may have contributed to it?

Yes No Don't know

If yes, please specify:

4. Availability of alcohol

4.1 What are your national age limits with respect to selling and serving alcohol?

4.2 How would you describe the accessibility/availability of alcohol in your country (e.g. easily available in most shops and supermarkets, limited availability to certain places or times, etc.)?

4.3 Can alcohol be sold in gas stations/shops/restaurants along the highway?

Yes No Partly Don't know

If yes/partly, please specify:

DUI COUNTERMEASURES

5. Legal regulation

5.1 In table 1 we already mentioned your current national legal alcohol limit (ETSC, 2012). Is information still correct?

Yes No Don't know

If no, please correct it:

5.2 Has this general national legal alcohol limit changed within about the last 20 years?

Yes No Don't know

If yes,

- What was the previous legal alcohol limit and when was it changed?
- How has the DUI prevalence evolved since the introduction of the new alcohol limit? Please, describe:

5.3 Does your country have different legal alcohol limits for specific target groups (e.g. novice drivers, professional drivers)?

Yes No Don't know

If yes,

- please specify the target group(s) and legal BAC²⁷ limit(s):
 - Novice drivers BAC:
 - Professional drivers BAC:
 - Others please specify:

²⁷ Blood alcohol concentration

5.4 Would you like to describe other relevant aspects of your national 'drinking and driving'-legislation?

Yes No

If yes, please do:

6. Enforcement

How are police checks on alcohol organised in your country? Please answer the following questions.

6.1 Continuous drunk driving enforcement: throughout the whole year?

Yes No Don't know

6.2 Increased drunk driving enforcement during (a) special period(s) of the year (e.g. New Year)?

Yes No Don't know

If yes,

- please specify the period(s):
- Does your country communicate about these alcohol checks to the general public (e.g. press, campaigns, etc.)?

Yes No Don't know

If yes, please specify:

7. Sanctions

7.1. Which sanction(s) can follow on a DUI offence in your country? Can you please give a brief description?

7.2 In which cases is the driving licence withdrawn? Please specify your national regulation with respect to driving licence withdrawal:

7.3 What is the min and max duration of licence withdrawal in case of a **first** DUI offence?

Min:

Max:

7.4 What is the min and max duration of licence withdrawal in case of a **repeated** DUI offence?

Min:

Max:

8. Driver Rehabilitation / fitness to drive assessment

8.1 Are driver rehabilitation programmes as measure for DUI offenders provided in your country?

Yes No Don't know

If yes, is the participation on driver rehabilitation legally regulated on base of defined criteria (e.g. mandatory in case of, administrative or court decision, etc.)?

Yes No Partly Don't know

If yes/partly, please specify the criteria:

8.2 Does your country carry out fitness to drive assessment to differentiate non-addicted and addicted DUI offenders or identify other problematic consumption patterns?

Yes No Partly Don't know

If yes/partly, are criteria defined in your country, which systematically lead certain DUI offender groups to fitness to drive assessment (e.g. multiple offenders/recidivists, offences with a BAC \geq 1.6 g/L)?

Yes No Don't know

If yes, can you please specify the criteria?

9. Engineering / Technology

9.1 Are alcohol ignition interlock programmes as measure for DUI offenders provided in your country?

Yes No Don't know

If yes, can you please specify the regulations with respect to this measure (target group(s); mandatory vs. voluntarily, combined with counselling, strict monitoring, etc.)?

9.2 Are standard alcohol ignition interlocks obligatory for specified target groups? (e.g. professional drivers)

Yes No Don't know

If yes, please specify the target group(s):

10. Education / campaigns

10.1 Does your country systematically carry out DUI **campaigns**?

Yes No Don't know

If yes,

- Can you enumerate some?
- Can you please briefly describe the main focus of your campaigns?
 - Target group:
 - Type of campaign (e.g. fear appeal, positive message):
 - Main approach (mainly addressing e.g. risks, social inacceptability, social responsibility, etc.):
- Does your country evaluate these campaign(s)?

Yes No Don't know

If yes, with which method (e.g. survey, behavioural observation study; post or pre-post measurement)?

10.2 Is your national "don't drink and drive"-education approach a multidisciplinary approach developed in cooperation with different sectors (roads safety, health, education....)

Yes No Don't know

If yes, with which other sectors do you collaborate? Can you briefly describe this collaboration?

RECOMMENDATIONS**11. Recommendations on countering DUI**

The prescribed countermeasures in the following questions are mainly based on the results of the DRUID project (<http://www.druid-project.eu>). In case they are not from the DRUID project they are marked with an *.

11.1 Please indicate whether this recommendation is applied in your country or not and whether you agree or disagree with it. This might seem as a repetition of some earlier questions, but it helps us to get clear overview of the situation.

Table 2: Selected recommendations on DUI countermeasures

COUNTERMEASURE RECOMMENDATION	IS THIS RECOMMENDATION (ALREADY) BEING APPLIED IN YOUR COUNTRY?				DO YOU AGREE WITH THIS RECOMMENDATION?						
	Yes	No	Partly	Don't know	Strongly disagree	Disagree	Rather disagree	Neutral	Rather agree	Agree	Strongly agree
Legal regulation	1	2	3	4	1	2	3	4	5	6	7
General legal alcohol limit of BAC 0.5 g/L											
General legal alcohol limit of BAC 0.2 g/L*											
Lower legal alcohol limit for specific target groups (e.g. young drivers, professional drivers) of BAC 0.2 g/L or lower											
Prohibition of selling alcohol along the highway*											
Enforcement	1	2	3	4	1	2	3	4	5	6	7
Aiming at a high level of perceived risk of detection to increase deterrent effect (subjective alcohol check probability)											
Carry out random ¹ alcohol checks to enhance the effect of general deterrence											
Carry out selective alcohol checks (e.g. in time, place, or based on driver characteristics)*											
Mandatory alcohol testing for drivers involved in accidents resulting in injury											
Sanctions	1	2	3	4	1	2	3	4	5	6	7
Immediate withdrawal/suspension of the driving licence in case of DUI offence											
The withdrawal duration should be between 3 and 12 months.											
Driver rehabilitation should be an integrated part of driving licence withdrawal.											
Conditional withdrawal should always be combined with rehabilitation measures and close monitoring.											
Driver Rehabilitation	1	2	3	4	1	2	3	4	5	6	7
Driver assessment and rehabilitation should be legally regulated and based on defined offence and/or offender criteria.											
Non-addicts and addicts should be treated in separate programmes as they require different interventions or treatments.											
Multiple offenders and offenders with a BAC \geq 1.6 g/L should undergo an examination to preclude addiction (fitness to drive assessment).											
Engineering / Technology	1	2	3	4	1	2	3	4	5	6	7
Alcohol ignition interlock programmes should be combined with rehabilitation/treatment and close monitoring.											
Standard alcohol ignition interlocks should be mandatory for specified target groups (e.g. bus or truck drivers, novice drivers, etc.)*											
Education / campaigns	1	2	3	4	1	2	3	4	5	6	7
Include "Don't drink and drive" elements in school education*											
Include "Don't drink and drive" elements in driver education*											
Carry out awareness raising campaigns on DUI*											

Evaluation of the campaign:											
Campaigns should be evaluated on a regular base*											
Collaboration with other disciplines (e.g. health, enforcement, social marketing) to develop prevention strategy*											

* Additional recommendation not included in the final recommendation list of DRUID

¹ Random= random selection of control-locations *and* of drivers tested;

11.2 In case you do not agree with a certain recommendation, can you please briefly motivate your answer?

12. Your earlier recommendation - Successful countermeasure(s)

In the first phase of our investigation you pointed out the following successful countermeasures:

(Include text from their previous answer)

12.1 Would you like to add something to this earlier comment? If yes, please do:

12.2 To which extent do you think this countermeasure recommendation is applicable to other countries, such as Belgium?

12.3 Do you think that the success of this recommended countermeasure is depending on certain preconditions?

Yes No Don't know

If yes, please specify the conditions:

12.4. Do you think there are relevant issues with respect to DUI countermeasures in your country that were not mentioned in this questionnaire? If yes, please specify:

Thank you very much for your input!

With kind regards,

Uta Meesmann & Myriam Rossi



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