Project No. TREN-05-FP6TR-S07.61320-518404-DRUID

DRUID
Driving under the Influence of Drugs, Alcohol and Medicines

Integrated Project
1.6. Sustainable Development, Global Change and Ecosystem
1.6.2: Sustainable Surface Transport

6th Framework Programme
Deliverable 5.2.4

Validation of Existing Driver Rehabilitation Measures

Due date of deliverable: 15.10.2007
Actual submission date: 03.06.2009

Start date of project: 15.10.2006
Duration: 48 months
Organisation name of lead contractor for this deliverable: Austrian Road Safety Board
Revision 1.0

Project co-funded by the European Commission within the Sixth Framework Programme (2002-2006)		
Dissemination Level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

6th Framework Programme
Deliverable 5.2.4

Validation of Existing Driver Rehabilitation Measures

Status: Restricted to other programme participants (including the Commission Services)

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Date: 03rd June 2009

Project Funded by the European Commission under the Transport RTD Programme
of the 6th Framework Program

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List of Abbreviations

ANDREA	Analysis of Driver rehabilitation programmes
AT or A	Austria
AUS	Australia
BAC	Blood alcohol concentration
BASt	Bundesanstalt für Straßenwesen (Federal Highway Research Institute), DE
BE	Belgium
BIVT	Belgian Institute for Traffic Therapy
BIVV	Belgisch Instituut voor de Verkeersveiligheid, vzw (Belgian Road Safety Institute), BE
CA	Canada
CERTH	Centre for Research and Technology Hellas
CH	Switzerland
DDR	Drink driver rehabilitation
DE	Germany; equivalent to GE
DG TREN	General Department for Traffic and Energy
DIN	Deutsche Industrienorm (German Industrial Norm)
DfT	Department for Transport at TRL
DR	Driver Rehabilitation
DRET	Driver rehabilitation evaluation tool
DUI	Driving under influence of alcohol
DUID	Driving under influence of (illicit) drugs
DWI	Driving while impaired/intoxicated
e.g.	exempli gratia (Latin): for example
EC	European Commission
EEC	European Economic Community
EL	Greece
EN	European Norm
ES	Spain
et al.	et alii (Latin): and others
EU	European Union
EUR	Euro
FI or FIN	Finland
FR	France
HIT	Hellenic Institute of Transport
HU	Hungary
i.e.	id est (Latin): that is
IBSR	Institut Belge pour la Sécurité Routière, asbl (Belgian Road Safety Institute), BE
IE	Ireland
IFT	Institut für Therapieforschung (Institute for Therapy Research), DE
INRETS	Institut National de Recherche sur les Transports et leur Sécurité (National Institute for Transport and Safety Research), FR
ISO	Common short name for the International Organization for Standardization
IT	Italy
KfV	Kuratorium für Verkehrssicherheit (Austrian Road Safety Board), AT
LU	Luxembourg
MA	Medical assessment, DE
MPA	Medical psychological assessment, DE
n or N	Number
NGO	Non governmental organisation
NL	the Netherlands
p.	page
PL	Poland
PQ	Provider Questionnaire
PT	Portugal
QM	Quality management
RH	Rehabilitation

SE	Sweden
TTM	Transtheoretical Model of Change
UK	United Kingdom
USA or US	United States of America
vs.	versus
WP	Work Package

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Executive Summary

Research aims and contents

Work Package 5 (WP5) of the integrated EU research project DRUID (Driving under the Influence of Drugs, Alcohol and Medicines) deals with rehabilitation of substance impaired drivers. The overall aim of WP5 is to update and increase knowledge on intervention measures for drivers under the influence of alcohol (DUI) and illicit drugs (DUID) in order to come up with a proposal on adequate rehabilitation schemes for the entire group of DUI/DUID offenders.

The research activities in WP5 have been carried out in two steps. In WP5 task 1 (WP5.1) a comprehensive overview on the state of the art is provided. In WP5 task 2 (WP5.2) good practice issues on driver rehabilitation (DR) for DUI and DUID offenders are investigated, resulting in recommendation on how to carry out DR in Europe in future.

The research activities in WP5.1 are already finalized and the outcomes are documented in Deliverable D 5.1.1 (State of the Art on Driver Rehabilitation: Literature Analysis & Provider Survey; Boets et al., 2008).

In WP5.2 the following investigations have been finished as well:

1. In-depth analysis on reasons for recidivism & Analysis of change process and components in driver rehabilitation courses, documented in deliverable D 5.2.1 (*Good Practice: In-depth Analysis on Recidivism Reasons & Analysis of Change Process and Components in Driver Rehabilitation Courses*; Bukasa et al., 2008)
2. Development of an integrated evaluation instrument for DR measures, documented in deliverable D 5.2.2 (*Development of an integrated evaluation instrument for Driver Rehabilitation Measures;* Bukasa et al., 2008)
3. Analysis of existing quality management systems established along with DR schemes, documented in deliverable D 5.2.3 (*Quality Management Systems established along with Driver Rehabilitation Schemes;* Klipp et al., 2008).

The deliverable at hand (WP5.2.4) is the result of the last research activities in WP5.2 and closes the work package's actions. It focuses on validation of existing DR schemes and aims at providing an overview on to which degree European DR programmes meet the standards established in the course of the WP5 research. Moreover, it provides good practice proposals based on the entire WP5 research.

Six partners of WP5 were involved:

- Austrian Road Safety Board (KfV), Austria
- Belgian Road Safety Institute (IBSR/BIVV), Belgium
- Centre for Research and Technology Hellas (CERTH-HIT), Greece
- Federal Highway Research Institute (BASt), Germany
- Institut für Therapieforschung (IFT), Germany
- National Institute for Transport and Safety Research (INRETS), France.

Research structure

The activities carried out in 5.2.4 are structured as follows:

1. Validation of existing DR schemes by conducting a compatibility assessment study
2. Summary of the research carried out in WP5 so far
3. Recommendations on DR in Europe based on the entire WP5 research outcomes.

Methodology

The compatibility assessment study has been carried out by means of DRET (Driver Rehabilitation Evaluation Tool) developed in 5.2.2 mainly for this purpose, yet adapted to the specific assessment needs (DRET-Val). DRET serves as standard or good practice against which existing European DR programmes were compared. The assessments were carried out on a quantitative base by the WP5 research team.

The summary of the WP5 research results reached so far were based on the executive summaries of the corresponding deliverables 5.1.1, 5.2.1, 5.2.2 and 5.2.3.

The implications and recommendations were based on the main outcomes of the entire WP5 research.

Results

In total, 90 DR programmes from 12 countries (Austria, Belgium, France, Germany, Hungary, Italy, Netherlands, Poland, Portugal, Sweden, United Kingdom and Switzerland) were included, thereby n=55 for DUI offenders, n=21 for DUID offenders and n=14 for mixed offender groups (alcohol and drug offenders or both mixed with general traffic offenders). This set of DR programmes for substance impaired drivers provides a comprehensive picture on actual existing DR programmes in Europe, although it does not claim to be fully representative. Out of the assessed 23 DR contents, important for successful DR interventions, 9 were completely fulfilled and further 9 at least partly by the assessed European DR programmes. Only 5 DR relevant topics showed a low compliance with the compared DRUID WP5 standard, namely existence of a national quality management (QM) body, definition of operative tasks of QM body, multidisciplinary approach in case of prior driver assessment, objective, valid, reliable tools in driver assessment and evaluation of DR programmes. An additional comparison of DR programmes for DUI and DUID offenders revealed some differences in the fulfilment of the legal frame conditions as well as DR content related requirements. Thereby, except the evaluation requirement, DUID programmes comply better with the WP5 standard than the programmes for the DUI offenders.

Recommendations

The European Commission should support the implementation of DR for non-dependent DUI/DUID offenders in all Member States. It is proposed to come up with a basic statement on DR in the EU Road Safety Act as a starting point, stating that DR for non-dependent DUI/DUID offenders should be an integrated part of a comprehensive countermeasure system in Europe.

In a next working step, European guidelines for legally regulated driver rehabilitation should be established. Thereby, the following recommendations should be taken into account:

- Implementation of DR interventions for DUI and DUID non-addicted offenders;
- Addiction treatment for offenders addicted to alcohol or drugs;
- Information exchange between the area of addiction and DR;
- Traffic safety/driving license/intoxicated driving related modules in addiction treatment;
- Legal regulation of DR participation;
- Formal criteria to assign DUI/DUID offenders directly to DR or to driver assessment;
- Driver assessment necessary in case of suspicion of addiction or high recidivism risk;
- Driver assessment carried out by means of a multidisciplinary approach using scientifically proven measuring tools;
- Evaluation studies on a regular basis, above all for DUID programmes;
- Quality management (QM) body with an independent, authoritative position to execute the operative QM tasks in DR on national level.

1 Introduction

1.1 Importance of research documented in this deliverable

Work Package 5 (WP5) of the integrated EU research project DRUID (Driving under the Influence of Drugs, Alcohol and Medicines) deals with driver rehabilitation (DR) for drink-driving (DUI) and drug-driving (DUID) offenders. It aims at increasing and actualizing knowledge on DR procedures and measures for DUI/DUID offenders in general. Furthermore, it intends to identify good practices on this issue in particular, leading to recommendations for Europe-wide intervention measures for these problem groups of drivers.

The deliverable at hand is the last one of WP5 and documents the final research phase in Task 5.2. At first, it investigates to which degree existing European DR programmes fulfil criteria resulting from the WP5 research carried out so far. Then the implications of the entire WP5 research regarding good practice of DR measures for DUI/DUID offenders in Europe are outlined.

All WP5 partners were involved in the research activities:

- Austrian Road Safety Board (KfV), Austria;
- Belgian Road Safety Institute (IBSR/BIVV), Belgium;
- Centre for Research and Technology Hellas (CERTH-HIT), Greece;
- Federal Highway Research Institute (BASt), Germany;
- Institut für Therapieforschung (IFT), Germany;
- National Institute for Transport and Safety Research (INRETS), France.

1.2 Research activities in WP 5.2.4

Annex I of the DRUID Core Contract describes the research activities in Task 5.2.4 as follows:

Validation of existing RH (meaning driver rehabilitation/DR) schemes. By means of the integrated evaluation instrument RH schemes, applied in Member States, will be validated. The results of this validation will show, i) which of the existing RH schemes can meet the requirements of successful intervention, ii) which actions have to be taken in order to improve existing RH schemes and in general iii) which RH schemes should be proposed/imposed to the specific group of DUI in order to regain and maintain his/her mobility without being a major risk in traffic. Additionally, recommendations will be included taking the procedural, content related and quality management aspects into account in order to provide an adequate, effective, uniform and high quality application of the specific RH measure.

In order to cover the above-mentioned issues, the following main activities were carried out:

- Compatibility assessment of existing European DR programmes for DUI and DUID offenders; the vast information on these programmes was submitted by European DR providers in the frame of the provider questionnaire survey carried out in Task 5.1 (see deliverable D 5.1.1). The instrument for this assessment was developed in Task 5.2 (see deliverable D 5.2.2).
- Summary of the main WP5 research activities and results as a base for final conclusions and recommendations regarding driver rehabilitation of DUI and DUID offenders in Europe.

1.3 Structure of WP 5.2.4

Deliverable D 5.2.4 consists of two main parts:

- Part I comprises the compatibility assessment study.
- Part II covers the implications and recommendations based on the entire WP5 research.

2 Compatibility assessment of existing European DR programmes

The aim of this study is to provide information to what degree driver rehabilitation (DR) programmes for drink-driving (DUI) and drug-driving (DUID) offenders currently in use in Europe are in line with the conditions and requirements identified as good practice in the frame of the WP5 research. In general, this process of checking if something satisfies certain criteria is defined as validation (Wikipedia, 2008). The compatibility analysis carried out in WP5.2.4 refers to this broader understanding. It differs from the definition in psychology and the human factors context where validation means the process of assessing the degree to which a test or another instrument of measurement does indeed measure what it purports to measure (e.g. Reber according to Hopkin, 1993, p.11).

2.1 Development of concept

A concept formerly designed and used in the EU-Project RiPCORD (Road Infrastructure Safety Protection – Core-Research and Development for Road Safety in Europe; Nadler & Lutschounig, 2006) was found to be relevant for the realization of the WP5 compatibility assessment. RiPCORD carried out a comparison of a so-called common understanding approach regarding RSI (road safety inspection) with current practice of RSI in European countries. For this purpose, the research team set up several content related criteria. In the next step, the realities on RSI in 10 Member States were evaluated against these criteria (summarized as common understanding approach). The comparison was done by the research team whereby 4 answering categories were distinguished (i. RSI in use comparable to the common approach, ii. country definition covers 40-80% of common approach, iii. country definition covers less than 40% and iv. no information available). The results were displayed in a written and graphical format.

For the WP5.2 compatibility assessment, the following concept was fixed:

- The existing DR programmes show the current practice in European countries regarding DR, the results of this inquiry are documented in the provider survey (see deliverable D 5.1.1).
- The (future) European good practice in DR is specified in the corresponding criteria listed in DRET (Driver Rehabilitation Evaluation Tool, developed in WP5.2.2). The criteria are based on the entire WP5 research.
- By means of DRET, the compliance of the existing DR programmes with this European good practice/WP5 standard is assessed.

2.2 Methodology

2.2.1 Modification of DRET for compatibility assessment (DRET/Val)

In order to use DRET (Driver Rehabilitation Evaluation Tool) as assessment instrument some modifications were necessary.

Exclusion of DRET items:

- DRET items 23, 24, 25, 26 were eliminated due to methodological reasons (the DR providers considered these items as the most relevant success factors, and thus they could not be included in the compliance assessment).

- DRET item 14 on separation of DUI and DUID offenders was also eliminated, because in the compatibility assessment DR programmes for mixed offender groups were considered as well.

Adaptation of DRET evaluation scheme:

- The answering scheme of DRET (four categories: “yes”, “partly yes”, “no”, don’t know”) was changed to five assessment categories (”completely fulfilled”, “partly fulfilled”, “not fulfilled”, “insufficient information”, “not applicable”). The category ‘insufficient information’ refers to the case where an existing DR programme provides discrepant or not sufficient information to judge its compatibility with a DRET item. The category ‘not applicable’ was introduced for those existing DR programmes which do not require prior driver assessment.

The adapted DRET instrument, labelled DRET/Val, consists of 23 items in total. Thereby items no. 1 to no.11 refer to legal frame conditions of DR on national level (DRET/Val-L) and items no.12 to no. 23 refer to DR programme specific topics (DRET/Val-P).

2.2.2 Coding scheme for compatibility assessment

For the conduction of the compatibility assessment, the following coding scheme was applied (see Table 1). For example, if an existing DR programme fulfils a DRET/Val content/item entirely – referring to the WP5 research standard – then a “2” is coded.

Table 1: Coding scheme for fulfilment of evaluation contents in DRET/Val

DRET/Val assessment category	Code
completely fulfilled	2
partly fulfilled	1
not fulfilled	0
not applicable	7
insufficient information	9

Additionally, some further coding rules for the decision between the categories “completely fulfilled” and “partly fulfilled” in some DRET/Val items were fixed (see Table 2)

Table 2: Specific coding rules in DRET/Val

DRET/Val item	Special coding rule
Specific DR requirements:	
Availability of target groups specific programmes	1 is also coded if only DUI, but no DUID programmes are available in a country.
Regulation of participation	1 is also coded in case that formal criteria on national level exist but that programme participation is voluntary (i.e. the offender can refuse to participate although the court proposed this).
Driver assessment prior to DR:	
Implementation of multidisciplinary approach	7 ("not applicable") is coded if a DR provider stated in the provider survey that no prior driver assessment is carried out for assigning offenders to the specific DR programme.
Application of objective, reliable, valid tools	7 ("not applicable") is coded if a DR provider stated in the provider survey that no prior driver assessment is carried out for assigning offenders to the specific DR programme.
DR programme operation:	
Availability of exceptional rules for entering	1 is coded if the criterion only refers to a single aspect specified in the column "DRUID WP5 research outcomes" (e.g. communication problems only).
Definition of criteria for successful course completion and for exclusion	1 is coded if obligations and rights are defined, but the participants do not sign any participation contract.
Programme contents:	
Principle DR approach	2 is coded if the approach of the DR programme is defined regardless the contents.
Programme evaluation:	
Evaluation of DR programme	2 is coded if an evaluation is carried on a regular base, e.g. participant feedback studies. 1 is coded if an evaluation was carried out only once.
Type of evaluation criteria	2 is coded if recidivism was used as evaluation criterion. 1 is coded if other criteria than recidivism were used; 1 is also coded if an evaluated DR programme of another country is overtaken but adapted and no documented own evaluation is carried out. 7 ("not applicable") is coded if a DR programme had just started and the number of participants is still too small for an evaluation study (e.g. a DR programme for DUID offenders). 9 ("insufficient information") is coded in case of contradictory information or if an evaluation of a DR programme was indicated but without any references.

2.2.3 Data input and analysis

Two data input sheets for the compatibility assessment results were prepared in a master sheet. One data input sheet refers to DRET/Val-L, i.e. the legal frame conditions of existing DR programmes, the other refers to DRET/Val-P, i.e. the programme specific requirements (see master sheet in the annex). Besides, the country where the DR programme is applied, its legal embedding and the target group of the DR programme (DUI/DUID/mixed) were indicated.

According to the coding rules (2 for completely fulfilled, 1 for partly fulfilled, 0 for not fulfilled, 7 for not applicable and 9 for insufficient information) the results were inserted in the corresponding assessment sheet.

Data analysis was carried out by means of descriptive statistics (frequencies, absolute numbers, percentages, and chi square) using Microsoft Excel and SPSS version 14.

2.3 Conduction of compatibility assessment

A two-step procedure was realized:

- Firstly, WP5 partners carried out the compatibility assessment of the DR programmes individually (division of work, see Table 3): Each assessor evaluated to what extent the DR programmes comply with the WP5 research standards/criteria laid down in DRET/Val-L and DRET/Val-P by using the coding scheme.

- Secondly, an additional 'joint' assessment of all DR programmes by the entire WP5 assessor team was carried out: As some assessment discrepancies occurred during the first step of individual assessment, this second step was necessary in order to assure consistent and uniform evaluations. Moreover, a few obvious erroneous answers given in the provider questionnaire on DR programme content were identified and corrected (e.g. all programmes according to the DDR scheme in the United Kingdom are legally regulated but two UK providers answered "no" in the referring question of the provider survey).

Table 3: First assessment step - division of work

Assessing WP5 partner	DR programmes to be assessed per country
BASt	DE, UK
KfV	AT, IT, HU, PL
IBSR	BE, NL, SE, CH
INRETS	FR, PT

The time frame and steps of the entire compatibility assessment are summarized in Table 4.

Table 4: Timetable of compatibility assessment

Time frame	Task
11th – 12th August 08, WP5 meeting, Berlin	Agreement on validation concept, i.e. compatibility assessment, definition of variables for the compatibility assessment, agreement on data processing and assessment procedure, division of work, time schedule for compatibility assessment.
12th – 31st August 08	Establishment of DRET/Val and data input sheets.
1st - 19th September 08	First step of compatibility assessment carried out by the WP5 partners individually, preparation of results.
22nd – 23rd September 08, WP5 meeting, Marseille	Presentation and discussion of first step assessment results, concretising of resp. agreement on certain coding rules, conduction of second step of joint compatibility assessment.
Till 30th September 08	Data analyses of second step assessment results.

Time frame	Task
1st October 08, WP5 meeting, Bergisch-Gladbach	Presentation and discussion of outcomes, final corrections, agreement on documentation of outcomes.
Till 15th October 08	Final analysis of compatibility assessment.

2.4 Results

2.4.1 Descriptive information on assessed DR programmes

Descriptive information on European DR programmes considered in the compatibility assessment are shown in Table 5. In total, 90 DR programmes from 12 countries (Austria, Belgium, France, Germany, Hungary, Italy, Netherlands, Poland, Portugal, Sweden, United Kingdom and Switzerland) were included.
Thereby, the number of programmes per country varies considerably: Austria, Germany and United Kingdom with 15 to 28 programmes, Belgium, France, Hungary and Portugal with 3 to 8 ones and Italy, Netherlands, Poland, Sweden and Switzerland with only DR programme.
Most of the DR programmes target at DUI offenders (n=55) and much less (n=21) at DUID offenders, but several programmes (n=14) work with mixed offender groups (alcohol and drug offenders or both mixed with general traffic offenders).

Table 5: Descriptive data on assessed DR programmes

Country	DR programmes per country	Thereof number of DR programmes for		
		DUI	DUID	Mixed (DUI, DUID, others)
Austria	22	14	8	-
Belgium	6	2	1	3
France	8	2	-	6
Germany	28	13*	11*	4*
Hungary	3	3	-	-
Italy	1	1	-	-
Netherlands	1	1	-	-
Poland	1	1	-	-
Portugal	3	2	1	-
Sweden	1	-	-	1
United Kingdom	15	15	-	-
Switzerland	1	1	-	-
	90	**55**	**21**	**14**

* Only programmes of accredited providers were part of the study

Regarding the representativeness of the DR programmes included in the compatibility assessment the following has to be emphasized: In the frame of the DR provider survey a rather complete sample of organisations/institutes which conduct DUI/DUID DR programmes and which fulfil at least one of the inclusion criteria (nationwide service, authorized institution, evaluated programme, having conducted DUI/DUID programmes at least since one year) was aimed at. Thereby country experts in the field of

road safety as well as road safety experts and scientists were systematically included in the information gathering process (see deliverable D 5.1.1). Yet, the WP5 research team was faced with certain restrictions: While in several countries, all or almost all DR providers were covered and their programmes documented (e.g. Austria, Belgium, Hungary, Italy, the Netherlands, Poland, Portugal, and Germany), this was not the case in some other countries. E.g. in France, Sweden and UK the total number of providers is unknown and thus presumably only a subset of DR programmes was included. Nevertheless, the n=90 DR programmes considered in the compatibility assessment provide a comprehensive picture on actual existing DR programmes in Europe, although they do not claim to be fully representative.

2.4.2 Assessed DR programmes – fulfilment of legal framework conditions

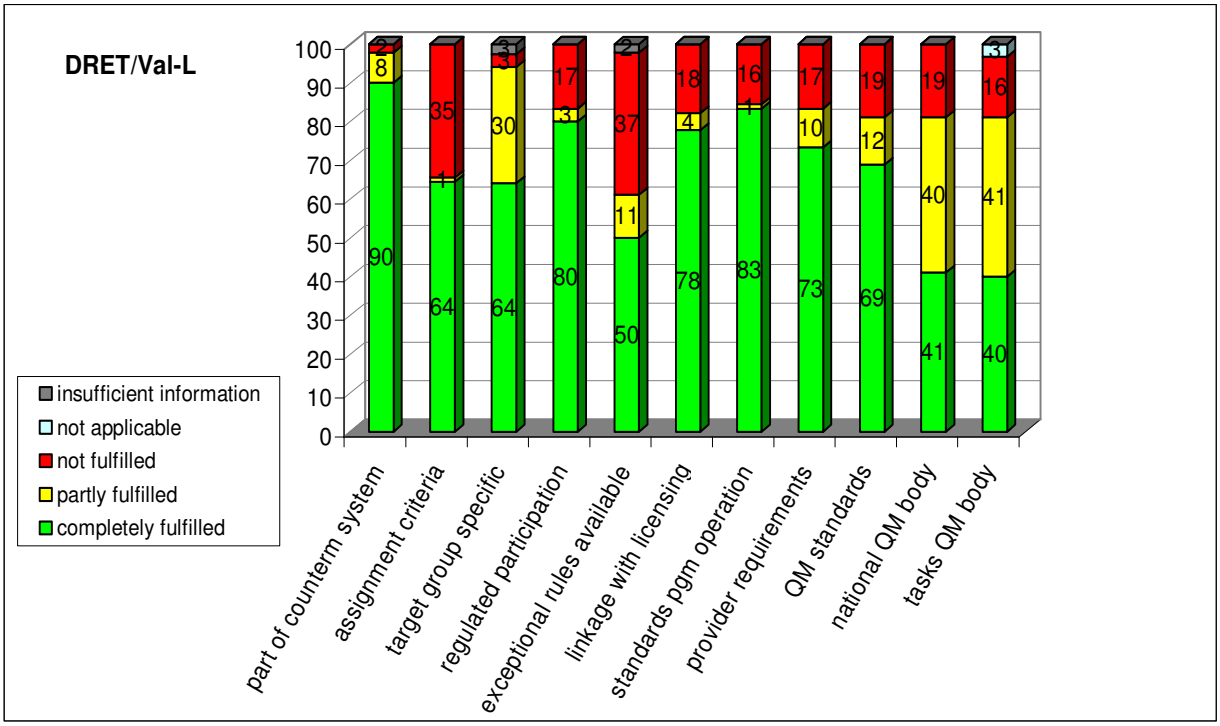
The results on the legal frame conditions of the assessed DR intervention programmes for DUI and DUID offenders referring to DRET/Val-L are summarized in Table 6 and visualized in Figure 1.

Table 6: Results on legal framework conditions

DRET/ Val-P item no	DRET/Val-L content	Completely fulfilled	Partly fulfilled	Not fulfilled	Not applicable	Insufficient information
		n (%)	n (%)	n (%)	n (%)	n (%)
1	Part of comprehensive countermeasure system for DUI/DUID	81 (90%)	7 (8%)	2 (2%)	0	0
2	Definition of formal criteria for assignment to DR or to prior driver assessment	58 (64%)	1 (1%)	31 (35%)	0	0
3	Availability of target group specific programmes	57 (64%)	27 (30%)	3 (3%)	0	(3%)
4	Legal regulation of DR participation	72 (80%)	3 (3%)	15 (17%)	0	0
5	Availability of exceptional rules for programme participation	45 (50%)	10 (11%)	33 (37%)	0	(2%)
6	Linkage of DR with licensing procedure	70 (78%)	4 (4%)	16 (18%)	0	0
7	Regulation of standards for programme operation	75 (83%)	1 (1%)	14 (16%)	0	0
8	Definition of DR provider requirements	66 (73%)	9 (10%)	15 (17%)	0	0
9	Definition of national quality management standards	62 (69%)	11 (12%)	17 (19%)	0	0
10	Existence of a national QM body	37 (41%)	36 (40%)	17 (19%)	0	0

DRET/ Val-P	DRET/Val-L content	Completely fulfilled	Partly fulfilled	Not fulfilled	Not applicable	Insufficient information
11	Definition of operative tasks of QM body	36 (40%)	37 (41%)	14 (16%)	(3%)	0

Figure 1: Overview on assessment outcomes regarding legal frame conditions (n=90; each bar represents a DRET/Val-L item, results in %)



High compliance of the assessed DR programmes with the WP5 standard specified in DRET/Val-L (=above 75% completely fulfilled) is given for the following contents (DRET/Val-L items 1, 4, 6, 7):

- Integration into a comprehensive countermeasures system for DUI/DUID offenders;
- Regulation of programme participation;
- Linkage with licensing;
- Regulation of standards for programme operation.

Medium compliance of the assessed DR programmes with the WP5 standard (=50% - 75% completely fulfilled) results for the following contents (DRET/Val-L items 2, 3, 5, 8, 9):

- Definition of formal criteria for assignment to DR programme or to prior driver assessment;
- Availability of target group specific programmes;
- Availability of exceptional rules for programme participation;
- Definition of DR provider requirements;
- Definition of national quality management (QM) standards.

Low compliance of the assessed DR programmes with the WP5 standard (=below 50% completely fulfilled) is found for the following contents (DRET/Val-items 10, 11):

- Existence of a national QM body;
- Definition of operative tasks of QM body.

2.4.3 Assessed DR programmes – fulfilment of programme specific requirements

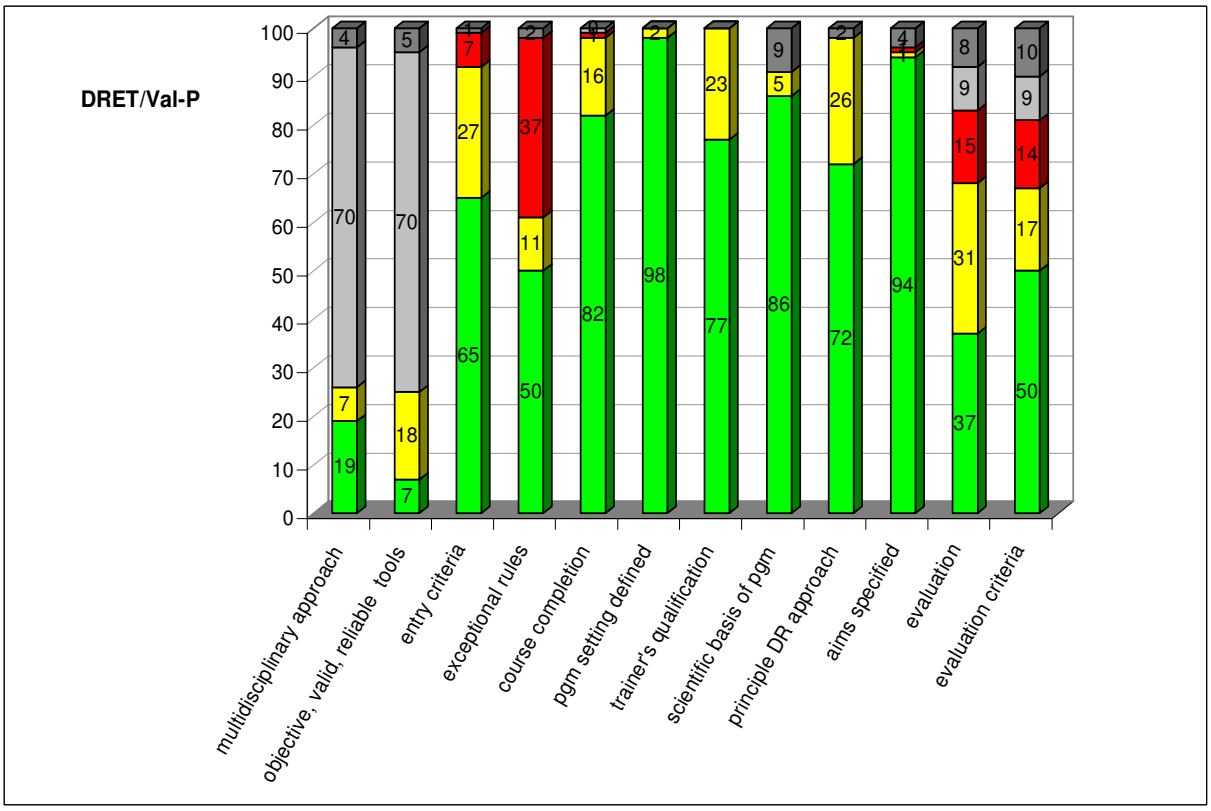
The outcomes of the assessed DR programmes regarding the fulfilment of content related requirements referring to DRET/Val-P are displayed in Table 7 and visualized in Figure 2.

Table 7: Results on DR programme specific requirements (n=90)

DRET/ Val-P item no	DRET/Val-P content	Completely fulfilled	Partly fulfilled	Not fulfilled	Not applicable	Insufficient information
		n (%)	n (%)	n (%)	n (%)	n (%)
12	Prior driver assessment: multidisciplinary approach	17 (19%)	6 (7%)	0	63 (70%)	4 (4%)
13	Prior driver assessment: objective, valid, reliable assessment tools	6 (7%)	16 (18%)	0	63 (70%)	5 (5%)
14	Existence of entry criteria for programme participation	59 (65%)	24 (27%)	6 (7%)	0	1 (1%)
15	Availability of exceptional rules for entering DR programme	45 (50%)	10 (11%)	33 (37%)	0	2 (2%)
16	Definition of criteria for successful course completion/exclusion	74 (82%)	14 (16%)	1 (1%)	1 (1%)	0
17	Definition of programme setting	88 (98%)	2 (2%)	0	0	0
18	Definition of trainers' qualification	69 (77%)	21 (23%)	0	0	0
19	Programme development on scientific basis	77 (86%)	5 (5%)	0	0	8 (9%)
20	Principle DR approach	65 (72%)	23 (26%)	0	0	2 (2%)
21	Specification of aims	85 (94%)	1 (1%)	1 (1%)	0	3 (3%)
22	Evaluation of DR programme	33 (37%)	28 (31%)	14 (15%)	8 (9%)	7 (8%)

DRET/ Val-P	DRET/Val-P content	Completely fulfilled	Partly fulfilled	Not fulfilled	Not applicable	Insufficient information
23	Type of evaluation criteria	45 (50%)	15 (17%)	13 (14%)	8 (9%)	9 (10%)

Figure 2: Overview on results regarding programme specific requirements (n=90; each bar represents a DRET/Val-P item, results in %)



High compliance of the assessed DR programmes with the WP5 standard (=above 75% completely fulfilled) is given for the following topics (DRET/Val-P items 16, 17, 18, 19, 21):

- Definition of programme setting;
- Definition of criteria for successful course completion and for exclusion;
- Definition of trainer's qualification, meaning that only specially qualified trainers, mostly psychologists with further education, are leading the courses;
- Programme development on a scientific basis;
- Specification of aims.

Medium compliance of the assessed DR programmes with the WP5 standard (=50% - 75% completely fulfilled) results for the following contents (DRET/Val-P items 14, 20, 23):

- Existence of entry criteria for programme participation;
- Availability of exceptional rules for programme participation;
- Principal DR approach, meaning that it is predominantly a psychological/therapeutic one with educative elements;

- Type of evaluation criteria, meaning outcome evaluations resp. recidivism studies.

Low compliance of the assessed DR programmes with the WP5 standard (=below 50% completely fulfilled) is found for the following contents (DRET/Val-P items 12, 13, 22):

- Prior driver assessment - multidisciplinary approach;
- Prior driver assessment - objective, reliable and valid assessment tools;
- Evaluations of DR programme, meaning studies on a regular basis.

2.4.4 Differences between DR programmes for DUI and DUID offenders

Differences between DR programmes for DUI offenders (n=55) and DUID offenders (n=21) regarding the compliance with the European good practice (WP5) standard were analysed additionally. The outcomes regarding the legal frame conditions (DRET/VAL-L items) are shown in Figure 3 and regarding programme specific requirements (DRET/Val-P items) in Figure 4. In these Figures only the category “completely fulfilled” is displayed.

Figure 3: Comparison of DR programmes for DUI and DUID offenders – overview fulfilment of legal frame conditions (n=76; each bar represents a DRET/Val-L item, results in %)

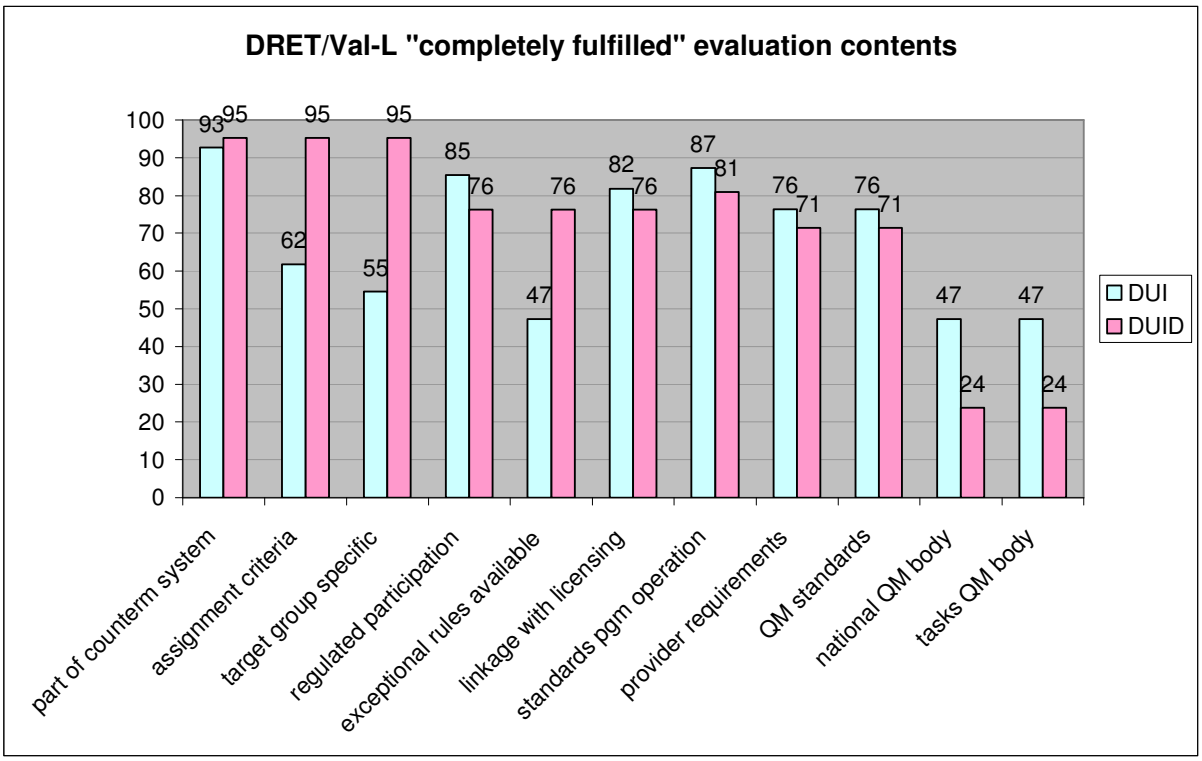
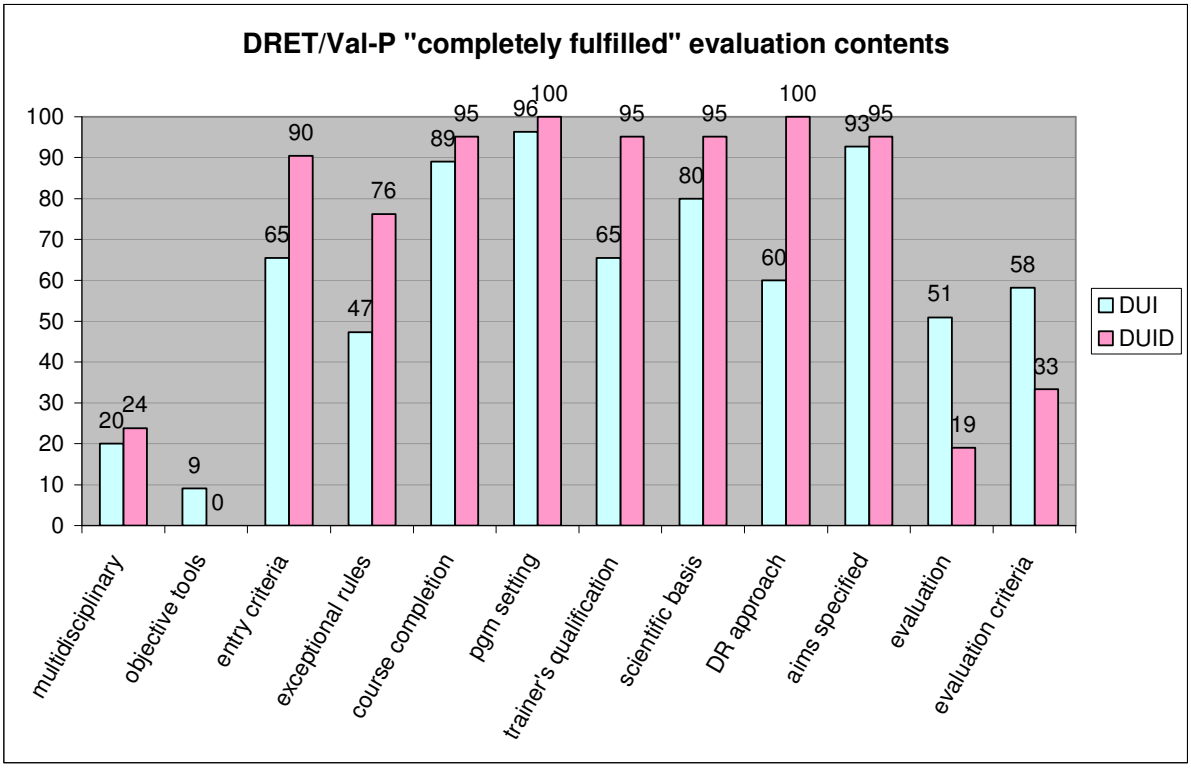


Figure 4: Comparison of DR programme for DUI and DUID offenders – overview on fulfilment of programme specific requirements (n=76; each bar represents a DRET/Val-P item, results in %)



The comparison reveals significant differences in the following aspects:

Legal frame conditions (DRET/Val-L items 2, 3, 5)

- Definition of formal criteria in order to assign offenders directly to a DR programme or to driver assessment prior to DR is more often given in DR programmes for DUID offenders compared to those for DUI offenders (95% vs. 62% completely fulfilled; Chi-Square=8,253; df=1; p=0.004).
- Target group specific programmes are more often available for DUID offenders than for DUI offenders (95% vs. 55% completely fulfilled; Chi-Square=12.656, df=3; p=0.005).
- Exceptional rules for programme participation are more often available for DR programmes for DUID offenders (76% vs. 47% completely fulfilled; Chi-Square=11.673; df=3; p=0.009).

Programme specific requirements (DRET/Val-P items 15, 18, 20, 22, 23)

- Exceptional rules for entering a DR programme are more often given in programmes for DUID offenders compared to those for DUI offenders (76% vs. 47% completely fulfilled; Chi-Square=11.673; df=3; p=0.009).
- The qualification of the trainers is more often defined in the sense, that it is a specially trained psychologist in programmes for DUID offenders than in those for DUI offenders (95% vs. 65% completely fulfilled; Chi-Square=6.952; df=1;p=0.008).
- The principle DR approach is more often a psychological-therapeutic one with educative elements in programmes for DUID offenders compared to those for DUI offenders (100% vs. 60% completely fulfilled; Chi-Square=11.822; df=2; p=0.003).

- Programme evaluation on a regular base is less often carried out in case of programmes for DUID offenders than in those for DUI offenders (19% vs. 51% completely fulfilled; Chi-Square=27.674; df=4; p=0.000).
- Evaluation type/criterion in DR programmes for DUID offenders is less often recidivism compared to those for DUI offenders (33% vs. 58% completely fulfilled; ChiSquare=20.170; df=4; p=0.000).

2.5 Discussion and conclusion of compatibility assessment outcomes

The conduction of the compatibility assessment included a rather large number of DR programmes from DR providers of 12 European countries, which carry out DR measures at present. They provide a comprehensive picture on actual existing DR programmes in Europe, although they do not claim to be fully representative.

Due to the considerable variation in the number of DR programmes between the countries, an analysis on national level was not carried out (the more programmes exist in a country, the harder it gets to completely fulfil the requirements). Additionally, if a country only has one programme (like Netherlands; see table 5) it does not automatically mean that this is the "best" situation as e.g. not all target groups are covered. Countries with a very comprehensive and sophisticated DR system and a lot of different measures on different levels (e.g. Germany) would be disadvantaged and depicted as if it would have more deficits.

The outcomes of the compatibility assessment taking all DR programmes into account are summarized in Table 8.

Table 8: Overview on compliance of assessed DR programmes with WP5 standard

Assessment contents (23 in total)	EU best practice/WP5 standard		
	high compliance	medium compliance	low compliance
Legal frame conditions of DR on national level			
Part of comprehensive countermeasure system for DUI/DUID	X		
Definition of formal criteria for assignm. to DR/prior driver assessm.		X	
Availability of target group specific programmes		X	
Regulation of DR participation	X		
Availability of exceptional rules for programme participation		X	
Linkage of DR with licensing procedure	X		
Regulation of standards for programme operation	X		
Definition of DR provider requirements		X	
Definition of national QM standards		X	
Existence of national QM body			X
Definition of operative tasks of QM body			X
DR programme specific requirements			
Prior driver assessment: multidisciplinary approach*)			X
Prior driver assessment: objective, valid, reliable assessment tools*)			X
Existence of entry criteria for programme participation		X	

Assessment contents (23 in total)	EU best practice/WP5 standard		
Availability of exceptional rules for entering DR programme		X	
Definition of criteria for successful course completion/exclusion	X		
Definition of programme setting	X		
Definition of trainers' qualification	X		
Programme development on scientific basis	X		
Principle DR approach		X	
Specification of aims	X		
Evaluation of DR programme			X
Type of evaluation criteria		X	
Overall sum	**9**	**9**	**5**

*) only evaluated in case of prior driver assessment before DR course participation

Out of the 23 contents, which are important for successful DR interventions, 9 are completely and 9 are at least partly fulfilled by the assessed European DR programmes.

Only 5 DR relevant topics show a low compliance with the compared DRUID WP5 standard, one refers to driver assessment, which in general is not the main way to enter a DR programme but only in about one third of the cases. This can be deduced from the fact that 70% of the corresponding assessments on this issue refer to the "not applicable" category regarding the multidisciplinary approach and the application of objective tools (see Table 7 and Figure 2). The outcomes show that the conduction of the assessment shows a lack of multi-disciplinarity and scientific standards of the measurement instruments. The other problem area refers to quality management. Often a national quality management body, which has defined operative tasks to carry out quality management in DR, does not exist. The third problem area is the scientific evaluation of the DR programmes, meaning that the corresponding studies are not carried out on a regular base and thus cannot trigger programme improvements.

Regarding differences between DR programmes for DUI and DUID offenders it was found that programmes for DUID offenders are more clearly defined regarding target group specificity, criteria for participation and/or prior driver assessment compared to the DUI interventions and exceptional rules for programme entering. Moreover, the principle DR approach is definitively a psychological-therapeutic one whereby the trainers are specially trained psychologist. Regarding scientific evaluation the results are the other way round: The programmes for DUI offenders are more often evaluated on a regular base with the most prominent traffic safety criterion 'recidivism' as criterion compared to the DUID interventions. Yet, the lack of evaluation studies on DR programmes targeting at DUID offenders might also be due to the fact that they are only for a rather short period in operation.

Although the analysis revealed that the assessed DR programmes - regardless the type of programme (DUI, DUID, mixed target groups) - meet the requirements of successful interventions in the majority of relevant aspects at least partly and in some aspects completely, the gap of programme implementation between those for DUI and DUID offenders is still considerably big. In many European countries (8 of 12; see Table 5), DR interventions are only available for DUI but not for DUID offenders at present. Additionally, the large variation in the number of DR programmes between countries (between 1 and 28; see Table 5) might not only be due to data collection restrictions in DRUID WP5. It might rather indicate differences in practice and structure of national implementation. The most important action to be taken in order to improve this situation would be a Europe wide implementation

strategy and plan regarding DR measures for both, DUI and DUID offenders, taking into account the key elements of successful interventions provided by the WP5 research.

3 Entire WP5 research and implications

Firstly, the WP5 research activities and main findings are summarized based on the corresponding deliverables, except the compatibility assessment, which is documented in chapter 2 of the deliverable at hand. This overview should ease the understanding of the final recommendations, which will follow.

3.1 Summary of WP5 activities and results

3.1.1 Deliverable D 5.1.1 - State of the art: Literature review and provider survey (Boets et al., 2008)

3.1.1.1 Research aims and contents

The research activities in WP5.1 on the state of the art in driver rehabilitation (DR) aim at providing updated comprehensive knowledge on all issues, which are important to file recommendations on best practices of DR. These topics comprise the identification of different types of drink-driving (DUI) and drug-driving (DUID) offenders, options for assessment including different available approaches, current rehabilitation programmes in- and outside Europe, their scientific evidence regarding traffic safety criteria and research on addiction treatment. With focus on the European situation, actual information from DR providers is specially considered.

3.1.1.2 Methodology

The conduction of the research is carried out in two main parts:

- Part I: Literature analysis on DR
- Part II: European DR provider survey.

Parts I and II are complementary. The literature analysis delivers important information from the scientific community and experts dealing with DR. In addition, the provider survey presents the actual situation on a day-to-day basis in this field.

Part I: Literature analysis on DR

The literature review is mainly based on publications in national and international scientific journals. These include primary studies as well as systematic reviews and meta-analyses. The methodology of each chapter and the search strategies for each topic are documented and attached in the annex of the deliverable. Furthermore, information of field experts in- and outside the DRUID WP5 team and thus unpublished literature is included. The report of the analysis covers four areas and hence, consists of the following chapters:

1. Identification of different types of DUI/DUID offenders
2. Review of existing DUI/DUID assessment procedures
3. Review of existing DUI/DUID rehabilitation measures
4. Review of addiction treatment and options for dependent DUI/DUID offenders.

Part II: European DR provider survey

The investigation on DR measures implemented and applied in Europe at present is done by means of a questionnaire survey. The questionnaire has been developed by the WP5 research team and has

been sent to those organizations that provide DR services in their countries. It covers three areas, thus resulting in three questionnaire forms:

- Form A – Organisational issues
- Form B – Programme information
- Form C – Prior driver assessment or diagnostic screening.

The report of the results of the provider survey is structured according to these topics.

Part III: Overall results, discussion and conclusions

In the last step the main outcomes of Part I and Part II are collated, discussed and evaluated, and preliminary decision criteria on DR are elaborated.

3.1.1.3 Results of Part I: Literature analysis on DR

Identification of different types of DUI/DUID offenders

Although the entire group of DUI/DUID offenders seems to be heterogeneous, the following characteristics of DUI/DUID offenders are identified:

- Socio-demographic variables: male gender; young age; lower educational or professional level; lower socio-economic status; single or separated marital status.
- Traffic related variables: prior traffic offence records.
- Consumption habits: heavy to problematic substance use (major risk factors); first offenders are often moderate drinkers; co-morbidity of substance use problems with other clinical disorders.
- Personality traits: e.g. sensation seeking or aggression; general risky life style; low self-control, poor coping styles.
- Decision making processes: deviant attitudes; poor knowledge; low risk perceptions; influence of the social surrounding, group norms and expectations.

Identified characteristics of the high risk group of DUI/DUID recidivists were:

- Socio-demographic variables: male gender; young age; lower educational level.
- Traffic related variables: the higher the amount of prior records, the higher the recidivism risk.

Review of existing DUI/DUID assessment procedures

The review on assessment procedures shows that DUI/DUID assessments are carried out to evaluate fitness to drive and to assign offenders to rehabilitation programs. The context determines the selection of tools and the whole procedure. In contrast to the assessment for rehabilitation assignment, the legal context of a fitness to drive assessment requires especially a high specificity and thus an integrated and comprehensive approach. Objective parameters like BAC or prior offences can serve as assignment criteria for more elaborate assessments or even directly for specific DR. In Europe DUI/DUID assessment is primarily carried out in the frame of the fitness to drive decision. It is mostly a multidisciplinary approach, covering medical, psychological and social aspects.

The comparison of different country approaches in- and outside Europe reveals that national guidelines on DUI/DUID assessment exist but that the country approaches vary widely regarding the criteria, procedure and the link of the assessment with further rehabilitation planning. The authors of the EU project ANDREA recommend a standardized screening/assessment procedure, before rehabilitation course participation, and so do the national guidelines of the USA and Canada. In Australia an assessment for alcohol dependence prior to DR is mentioned in the literature.

The literature analysis identifies a broad range of DUI/DUID assessment measures and tools. Many are not evaluated on the DUI/DUID population, as they were developed and applied for clinical diagnoses. Traffic psychological research led to the development of assessment tools which are fine-

tuned to the specific problems of DUI/DUID offenders, and which are often validated on this population.

Review of existing DUI/DUID rehabilitation measures

DR programmes for DUI offenders are based on a rather long-term tradition in development and practical application in Europe. They are also the base for the later on developed programmes for DUID offenders.

The analysis of different scopes of current DUI/DUID rehabilitation procedures in- and outside Europe shows that in Europe no uniformity regarding the implementation and application of DUI/DUID rehabilitation in the national contexts exists. In the five selected European countries (Austria, Belgium, France, Germany and Hungary) national regulations on different aspects of DUI/DUID rehabilitation are established. The USA and Canada have national guidelines for implementation into the legal system, although its realization differs largely between the states or territories. In Australia the situation is more diverse.

Regarding the DUI/DUID rehabilitation programme access the literature shows that countries in Europe use very different approaches, ranging from voluntary, over recommended, up to obligatory participation.

The review of DUI/DUID DR effectiveness identifies 61 studies on the topic. European standard group intervention programmes for DUI offenders show an average recidivism reduction rate of 45.5% (36 studies and 2 reviews) although a large variation of recidivism reduction rates was observed (15% - 71%). In general, the interventions received positive participant feedback and in addition to that, led to individual changes (such as enhanced knowledge and positive attitude). Only one study on DUID rehabilitation was identified by the literature search. Some methodological limitations of the studies were commonly recognized, e.g. lack of control groups and randomized case-control study designs, self selection bias, lack of control of other intervening variables and varying time periods.

Alcohol ignition interlock devices as structural interventions for DUI offenders are included in the literature review as well. Study results from in- and outside Europe show that they are feasible and practical devices that can control objectionable, unrequested behaviour as long as they are imposed, but achieve this without changing individual attitudes or behaviour in a longer term. In combination with strict medical supervision a long-term effect can be caused though, as the Swedish experiences reveal. Altogether, the results indicate that an ignition interlock use needs the offenders' motivation and readiness for change to be successful in a long-term. This should be supported at least by medical counselling or other psychological/psychotherapeutic interventions in order to result in a treatment process.

Review of addiction treatment and options for dependent DUI/DUID offenders

The main results of the literature review of addiction treatment and options for dependent DUI/DUID offenders can be summarized as follows:

- Alcohol and drug dependent drivers are, by EU legislation, not considered to be fit to drive (Directive 91/439/EEC).
- Psychosocial treatments of alcohol and drug dependent patients are well established interventions to support the maintenance of abstinence and to lower the amount and frequency of alcohol and drug consumption. No strategy could be identified to be superior in general. It is important to consider characteristics of the patient, predominant symptoms of the dependence, and also motivation aspects while matching patients and treatment approaches. A combination of different treatment strategies provides the advantage of simultaneously addressing different factors and levels of influence.

- In general, the relapse-rates of alcohol or drug dependent patients are high, even after successful completion of addiction therapy.
- Pharmacological treatment is, according to the existing literature, often used as an adjunctive approach to psychosocial therapy.
- The addiction-specific approach is a fundamental element within the rehabilitation of dependent DUI/DUID offenders.

3.1.1.4 Results of Part II: European DR provider survey

Description of sample

47 DR providers from 12 European countries (Austria, Belgium, France, Germany, Hungary, Italy, Netherlands, Poland, Portugal, Sweden, Switzerland, United Kingdom) participated in the survey. In total 87 DR programmes were documented, thereby 53 for DUI offenders, 21 for DUID offenders and 13 for mixed groups (DUI/DUID/other traffic offenders).

Realization of DR in Europe

All 12 European countries offer programmes for DUI offenders, in addition four Member States (Austria, Belgium, Germany, and Portugal) for DUID offenders. The vast majority of DR providers do not offer treatment programmes for substance dependent offenders. At least 1.431 persons, mainly psychologists with further education are working as trainers/course leaders. The participation fee for the DR courses is mostly paid by the offenders.

Half of the providers report to have a quality assurance system, yet mainly not according to international, national or European standards but to intra-organisational criteria (this issue was analyzed in detail in WP5.2, see summary of deliverable D 5.2.3).

Information on existing European DR programmes

Legal frame: Participation in DR programmes is mostly legally regulated, mainly by the licensing authorities and to a less degree also by courts. Thereby, participation is not always obligatory, about half of the programmes are voluntary ones. The consequences of participation are mostly linked to licensing (re-licensing, licence reinstatement, reduction of suspension periods, ongoing validity of licence), but also to a penalty point system, to an upcoming driver assessment or to criminal prosecution.

Programme concept, conduction and evaluation: The overwhelming number of programmes was developed within the providing organizations. The programmes are more or less specific as they mostly focus on DUI or DUID without further differentiations between additional subgroups. A mixture either between these two problem groups or with other traffic offender groups is less frequent.
Addiction and language problems are reported as the most frequent reasons for excluding offenders from a DR programme. The vast majority of programmes are principally designed as a group intervention, but the number of participants varies considerably. Moreover, nearly all programmes have exclusion criteria for participants either before or during the course. The reasons in the first case are above all addiction and communication problems, and in the latter case acute substance intoxication by alcohol or drugs. Rather big differences can be observed regarding the duration and intensity of intervention.
Regarding specific DR services, language is the most frequent considered aspect (about one third of the providers) while gender, age and cultural background are no important criteria. In general, exclusion criteria before and during course conduction exist.

The programmes' concepts are by far predominantly treatment (psychological/therapeutic), followed by the educational approach. According to the providers, the most important success factors are self-

observation and -reflection, discussion and confrontation, development of alternative, new behaviour and an open and trustworthy climate. In the second place are emotional experiencing and involvement, goal setting and commitment to stick to them as well as achievement of behavioural goals/self-control. Information is less important. Alcohol or drug screening is even of minor importance. Medical treatment or alcohol ignition interlocks are of nearly no importance.

Most of the documented programmes have already been evaluated, whereby participant feedback is the predominant approach. Content evaluation, process evaluation and outcome evaluation are less frequently conducted.

Prior driver assessment or diagnostic screening

Fifteen providers in seven countries indicated to apply driver assessment or diagnostic screening prior to the DR within their organisation. Seven providers in three countries report that such driver assessments are carried out outside their organisation. For both, DUI and DUID, the assessment approach is mainly psychological, most frequently carried out by psychologists, although medical examinations are conducted as well. Psychologists are the most frequent professional group involved.
Interviews are most frequently conducted to assign both groups, but especially DUI offenders, to rehabilitation. Objective measurements regarding substance use disorders (physical examination, external medical/therapeutic information, biological markers, screening tools of substance use and functional/performance testing) are applied in some organizations as well. Personality testing as well as practical driving tests are of nearly no importance in this scope.

3.1.1.5 Overall evaluation of outcomes of Part I and II

Literature analysis and provider survey give a comprehensive picture of the situation of DR for DUI and DUID offenders in Europe at present, whereby experiences and practices from other important parts of the world are also considered. In general, some uniform patterns can be identified, but there are also a lot of variations and differences. The latter do not only refer to the European situation, but also to the state of the art outside Europe.

Commonalities

European standard group interventions are not only the approach which proved empirical evidence on effectiveness regarding traffic safety (reduction of recidivism rate), they are also applied by the majority of providers in Europe. The common concept of the programmes is rather therapeutic than educational, although it includes both elements. A large consensus exists on which constitute successful methods and what the important programme aims are. The majority of the programmes have a scientific background, and the course leaders are mainly psychologists.
The vast majority of the programmes are legally regulated, and do not mix DUI and DUID offenders. Most of the DUI and DUID programmes do not further consider subgroups of offenders, although about a third does (essentially: repeat offenders, novice drivers). Substance use related criteria (specific BAC levels, types of illicit drugs) are the most often used determination criteria for the programmes' participation; recidivism and prior driver assessment are mentioned as well, in about a fifth of all programmes.
Regarding exclusion or entry criteria for DR, addicts are mostly not subject of either DR for DUI or DUID offenders. They need addiction treatment which differs from the common DR interventions.
During the conduction of courses, acute substance consumption is broadly determined as an exclusion criterion for further course participation.

Gaps and differences

There is actually a gap between DR programmes for DUI and DUID. This was above all confirmed by the literature analysis where only little information was available on the effectiveness of DUID

programmes. Nevertheless, based on the provider survey, about one third of the European countries provide not only DR for DUI but also for DUID. Thus, a considerable number of programmes for DUID offenders exist, although still far less compared to those for DUI offenders. Moreover, according to the providers, almost all of these programmes were evaluated.
Although participation to programmes is very often legally regulated, participation is just slightly more often obligatory than voluntary.

3.1.1.6 Resulting decision criteria

Taking all the state of the art results (literature analyses, including good practices in- and outside Europe, and the EU provider survey) into consideration, the DRUID WP5 team draws the following concrete conclusions regarding specific issues.

Implementation of DR in Europe:

- DR measures should be an integrated part of a comprehensive countermeasure system.
- Participation in DR measures should be legally regulated.
- DR measures should be provided for DUI as well as for DUID offenders, although the scientific evidence regarding the latter group still has to be improved.
- Regulations on DR participation should care for an early access of the offenders to specific measures in order to minimize the risk of problem escalation and secondary delinquency.
- As traffic safety is widely accepted as one of the major public health concerns DR should be connected to the health care system.
- To assure the best and most appropriate measure for all types of offenders, DR providers should be integrated into a knowledge network with addiction treatment providers and specialists.

Types of DUI/DUID:

- DUI/DUID offenders are a heterogeneous group and there is general agreement on the relevance of identifying various types of DUI/DUID offenders with regard to their different needs and opportunities for rehabilitation. Two groups, namely non-addicts and addicts should minimally be distinguished as they require different interventions or treatments.
- A pool of programmes should be offered matching with the specific offender needs in order to gain optimal effectiveness of rehabilitation. At least, interventions or programmes for four different types or groups should be available: DUI addicts and non-addicts, DUID addicts and non-addicts. The majority of the European programmes already differentiate between DUI and DUID offenders, and addiction is a very common exclusion criterion for the European DR programmes.
- The literature furthermore suggests that young drivers and recidivists may require different points to focus on in the DR. About one fifth of the current EU programmes take such aspects into consideration.
- Ideally DR services should be available for all DUI/DUID offender groups; e.g. special programmes/treatments for non-addicted recidivists. With regard to individual conditions, special services, e.g. conduction of programmes in different languages or exceptions from the normal procedure should be possible.
- Drivers in substitution treatment should be considered as a separate group in the frame of DR measures.

Assessment prior to DR:

- Driver assessment is necessary to identify addicts in order to assign them to adequate intervention.

- In a cost-effective approach DUI/DUID offenders should shortly after the offence be screened based on objective factors like the BAC or prior offences. Additional information regarding the substance use problem severity could be gathered by the use of short screening devices.
- DUI/DUID offenders identified as high-risk drivers should afterwards be assessed in a more elaborated procedure.
- A wide range of screening and assessment measures exist. Many are not evaluated on the DUI/DUID population, as they were developed and applied for clinical diagnoses. Traffic psychological assessment tools are very fine-tuned to the specific problems of DUI/DUID offenders and are often validated on this population.
- An in-depth psychological investigation of DUI/DUID offender characteristics can provide important information on underlying aspects of DUI/DUID, and thus help to identify specific rehabilitation needs.
- The aims of a fitness to drive assessment versus an assessment purely to assign to a DR differ. The consequences of the first are much more life-invasive because the permission to drive and thus an important part of the mobility is at stake. Therefore the needs for comprehensiveness, thoroughness, and an integrative approach are clearly stricter for fitness to drive assessments. As assignment to the not most adequate rehabilitation is less invasive or harming, formal assignment criteria, which can take into account risk factors for recidivism, can be a minimal or first step. Short screenings focussing on the most relevant needs (like addiction or not) could provide additional valuable information. In the most ideal situation though – for the most fine-tuned rehabilitation assignment – a link exists between the fitness to drive assessment, which is in general more elaborated, and the rehabilitation assignment. Looking at the current situation in Europe, about 30% of the providers indicate that some kind of assessment prior to the DR is performed within their organisation. Further investigation is required though to analyse the exact scope of these assessments/screenings. Formal assignment criteria are indicated in nearly all programmes (e.g. BAC).
- In general DUI/DUID assessment should be carried out close in time to the offence.

<u>Courses and treatments:</u>

- DR courses for offenders without substance use disorders can follow the good practice example of the European standard group interventions' concept.
- Psychological and therapeutic approaches with educative elements are the most promising ones.
- DUI, DUID and other traffic offenders should not be mixed in the courses.
- Offenders with a more severe problem behaviour, above all recidivists or heavy consumers with a substance use problem should be treated more intensely.
- Motivational aspects should be considered, e.g. course participation leading to a reduction of the suspension period.
- For clients using alcohol and drugs in a dependent way, addiction-specific approaches should be a constitutive element of treatment. This could be realized either by:
  a) allocation of alcohol or drug dependent DUI/DUID offenders to addiction treatments or
  b) integration of addiction specific treatment strategies in the DUI/DUID rehabilitation treatment of alcohol or drug dependent DUI/DUID offenders.

In general, the state of the art reveals that DR is an established intervention in about half of the European member states focussing on non-dependent DUI offenders. Thereby the necessary organisational and personal infrastructure as well as numerous programmes exists for carrying out this intervention on a day-to-day basis. Non-dependent DUID offenders can be integrated easily into this available structure. Dependent DUI/DUID offenders have to be referred to addiction treatment which is usually part of the health care system.

3.1.2 Deliverable D 5.2.1 - In-depth analysis on reasons for recidivism and analysis of change process and components in driver rehabilitation courses (Bukasa et al., 2008)

3.1.2.1 Research aims and contents

The research activities carried out in WP5.2.1 on good practice in driver rehabilitation (DR) aim at providing actual empirical data on content related issues of driver rehabilitation (DR) courses for drink-driving (DUI) and drug-driving (DUID) in order to increase the knowledge on basic mechanisms and influencing factors, which contribute to the success or can explain the non-success of this measure.

3.1.2.2 Methodology

The research consists of two main parts:

- Part I: In-depth analysis on recidivism reasons
- Part II: Analysis of change process and components in European driver rehabilitation courses.

Part I: In-depth analysis on recidivism reasons

This exploratory research following a case-control study design is carried out with a high-risk DUI offender sample in Austria. The driver assessment (DA) expertises of offenders with a BAC of 1.6‰ or more who had a subsequent DUI offence within the following five years despite having participated in a DR course after the first offence were compared with a matched DUI control group (same BAC range and consecutive DR course), who had no recidivism in this time period.

Part II: Analysis of change process and components in European driver rehabilitation courses

The second exploratory research following a prospective cohort design analyses the change process and components in driver rehabilitation courses by means of a questionnaire survey with DR course participants. Both DUI and DUID offenders are included and the study is carried out on European level. The questionnaire developed within the WP5 team is based on a theoretical framework, namely the TTM (Transtheoretical Model of Change from Prochaska & DiClemente), supplemented by the Diamond of Change (considering the key elements of change in DR courses, created by the WP5.2 research team). This allows a one-time data collection at the end of the DR intervention.
In this study, a subgroup analysis of DUI recidivists as well as an overall feedback on the DR courses by the DUI/DUID participants is included.

3.1.2.3 Results of Part I: In-depth analysis on recidivism reasons

Description of sample

A sample of n=303 recidivists and a matched control-group of n=303 non-recidivists were identified.
Group comparisons on univariate level reveal 20 significant differences between study and control group. On multivariate level, six of them show predictive value in a regression analysis additionally. Based on the entire results, the following risk profile of DUI offenders who might not profit from a DR course can be deduced:

- Having high BAC levels at the current offence or refusing the breath test;
- Having additional prior drink-driving or already several DUI offences (i.e. not the first one) and consequently having longer suspension periods of driving licence;

- Having an habitual drinking pattern in the past and in spite of past or current abstinence periods having an increased alcohol tolerance, thus having also felt less impaired at the actual DUI offence;
- Denying or not having any alcohol related health problems, being a smoker and being less aware of own health issues;
- Showing a more unrealistic self-perception and less self-reflection whereby alcohol related risks in traffic are underestimated;
- Not living in a partnership;
- Being assessed as having an enhanced re-offence risk by a qualified expert (traffic psychologist).

3.1.2.4 Results of Part II: Analysis of change process and components in European driver rehabilitation courses

Description of sample

Data from a total sample of n=7889 DR course participants were collected, thereof n=7339 from DUI and n=550 from DUID offenders. Nine Member States (Austria, Belgium, France, Germany, Great Britain, Hungary, Italy, the Netherlands, Poland) participated in the questionnaire survey. Thereby, all countries included DUI course participants. Only Germany – due to relevant numbers – was in the position to include DUID course participants as well.

The following main results were obtained:

TTM stages and processes

According to their assessments, both, DUI and DUID course participants can successfully complete all stages of change. In the 10 TTM scales (consciousness raising, dramatic relief, environmental re-evaluation, self re-evaluation, social liberation, self-liberation, stimulus control, counter conditioning, helping relations and reinforcement management) the results of the entire European DUI sample range from 1.39 to 1.92 and of the DUID sample from 1.58 to 1.93 (1=agree completely, 2=agree mostly, 3=disagree mostly, 4=disagree completely).

Thereby, the outcomes reveal that participation in a DR course especially brings about behavioural change processes (mean assessment score of 1.50 in the entire European DUI sample and of 1.69 in the DUID sample) compared to the realization of cognitive affective processes (mean assessment score of 1.69 in the entire European DUI sample and of 1.83 in the DUID sample).

Diamond of Change key elements

Based on the DUI and DUID offenders' assessments, all five key elements of the Diamond of Change highly contribute to change within DR courses, above all the participant-trainer relation, but also the other components, namely the individual, the methods, the contents and the participant-participant relation (mean assessments range from 1.37 to 1.67 in the entire European DUI offender sample and from 1.42 to 1.97 in the DUID sample).

Sub-group analysis of recidivists

Regarding recidivists the outcomes show that both subgroups, namely DUI course participants with a prior drink-driving offence and those with a prior DR course could profit from course participation as well. They pass the different TTM stages of change as successfully as non-recidivists whereby their results are even indicating a slightly stronger change in some aspects. This refers to getting insight into the problem behaviour on an emotional and rational level, how it affects oneself and the environment, being able to establish new behaviour and to keep it in, thereby using self-rewarding strategies.

Concerning the key elements of change all of them are important for the change process of recidivists as well, especially the trainer-participant relationship as this was the case for the entire DUI and the DUID sample in general. Besides, drivers with prior drink-driving offences emphasised stronger the influence of the individual as well as of the method on the change process compared to non recidivists.

In line with the results of the entire DUI group and the DUID participants, recidivists with prior drink driving convictions as well as recidivists who already participated once in a DR course (but reoffended) asses the overall DR course as having been good or very good, too.

Participant feedback on the overall DR course
Both target groups evaluate the entire DR course in a very positive way. About 95% of all European DUI offenders who participated in this study assess the DR course as good or very good. Only about 2% rate the course as bad or very bad (about 3% are missing data). The results for the DUID participants are similar: About 90% of the DUID offenders judge the entire DR course as good or very good. Only about 6% assess the intervention as bad or very bad (about 4% are missing data).

3.1.2.5 Overall evaluation of outcomes of Part I and II

The findings of both empirical in-depth studies on DR courses for DUI and DUID offenders resulted in the following practical implications:

- DUI recidivists differ in several aspects from non-recidivists which influence their readiness to change. This enhanced recidivism risk can be identified in the course of driver assessment.
- In principal, DR courses can be an adequate measure for recidivists as well as they can profit from a second course in the same extent than non-recidivists. Yet, their participation should be based on prior driver assessment.
- An assignment procedure for certain high risk recidivism groups (e.g. DUI drivers with a re-offence in a defined time period, DUI drivers with a very high BAC at the first offence) can clarify the adequate DR intervention. This can be done in the course of driver assessment.
- DR courses can target on DUI and DUID offenders. Yet, the matching of both target groups in one and the same DR intervention should be avoided as they do not only differ regarding the drug and its legality/illegality but also in relevant socio-demographic and offence related aspects.
- The psychological/psychotherapeutic/educative intervention concept, carried out in a group setting within this study and lead by a specially qualified trainer with psychological background seems to be adequate for DR courses.
- No gender specific DR courses are necessary as both males and females can profit from this intervention, although the vast majority of DR course participants are male. Specific courses according to further socio-demographic variables, e.g. age, do not seem necessary as well.
- DR courses can be applied throughout Europe as this measure was very positively evaluated across different Member States and due to the similar change effects obtained despite more or less differences of assignment and realization of this measure in single European countries.

3.1.3 Deliverable D 5.2.2 - Development of Driver Rehabilitation Evaluation Tool (DRET) (Bukasa et al., 2008)

3.1.3.1 Research aims and contents

The goal of the research in WP5.2.2 is the development of an integrated evaluation instrument for driver rehabilitation (DR) measures. This should be applied in WP5.2.4 for validation purposes of existing DR programmes for drink-driving (DUI) and drug-driving (DUID) offenders. The development

of the instrument considers the main WP5 research outcomes reached so far. Additionally, input from external experts is considered.

3.1.3.2 Methodology

A WP5 expert workshop with providers of DR services who participated in the provider survey and/or the analysis of change process and components in European driver rehabilitation courses (see deliverables 5.1.1 and 5.2.1) is carried out. Besides, a WP5 symposium in a Member State without DR experience yet is conducted. Both activities complement the process of information gathering on relevant DR issues.
The development of the evaluation instrument itself consists of three main phases: i.) composition of the first version of the instrument within the WP5 research team, ii.) cross-check by external experts from several disciplines relevant for or linked to DR, driver assessment and/or road safety and iii.) establishment of the final tool by the WP5 research team.

3.1.3.3 Results

The developed evaluation instrument is named DRET - Driver Rehabilitation Evaluation Tool. It consists of 28 contents/items in total. Thereby 11 items focus on legal framework conditions of national DR systems (DRET-L) and 17 items on programme specific requirements (DRET-P). Regarding each DRET content/item the relevant WP5 research outcomes are outlined shortly. By means of a categorical answering mode supported by a colour system with four alternatives (yes/green, partly yes/yellow, no/red, don't know/grey) the single DRET contents can be evaluated against the DRUID WP5 standard represented by the research findings. In principle, answering could be done either in an electronic or paper-pencil mode.

3.1.3.4 Conclusions

With DRET an instrument is available which integrates all relevant findings in DR into an evaluation tool. It does not only consider current scientific or theoretical issues but also practical aspects such as (legal) frame conditions, assignment procedure and operation of DR. Additionally, it integrates the input of experts from several European Member States. The evaluation/answering mode has a user friendly design.
DRET can be used by several target groups who directly or indirectly have to deal with DR issues and/or who are interested to evaluate (national) DR system or single DR programme(s). Thus it is a research product with a broader range of application and not restricted to be used within the WP5 research team in order to validate existing DR schemes. Moreover, on the longer run, DRET can be the starting point of a European networking and documentation process of DR measures.

3.1.4 Deliverable D 5.2.3 - Analysis of existing quality management systems established along with DR schemes (Klipp et al., 2008)

3.1.4.1 Research aims and contents

The topic quality management (QM) in driver rehabilitation (DR) is defined as one major sub-task of the WP 5 task 5.2 "good practice" and aims at analyzing existing QM systems established along with DR schemes. The research focuses on several aspects of QM, lasting from the QM-relevant issues of the applied DR programmes over the processes of allocating and assigning drivers to DR measures up to the legal frame conditions, governmental monitoring and supervision. In addition, a summary of QM approaches in addiction treatment is presented. By taking all the mentioned issues into account, general criteria for uniform quality standards and evaluation of QM systems are defined in the end.

3.1.4.2 Methodology

The methodology includes above all:

- Literature search in scientific databases, inte rnet search for official documents (e.g. national standards etc.)
- In-depth data collection on QM issues in DR by means of a specific developed questionnaire
- Country reports regarding QM in DR from 10 selected European countries
- Decision tree for QM.

3.1.4.3 Results

The analyses and reports show that the variety and level of implementation of QM systems and elements are different in the 10 countries, which were subjects to this analysis. The degrees of implementation range from voluntary applied QM e lements in certain programmes (e.g. requirement of regular attendance at advanced trainings for staff carrying out the programme like in Italy) over QM systems on provider level (e.g. documentation of procedures for data handling/recording or even ISO certifications like in Sweden or the Netherlands) over to sophisticated national standards for the delivery of programmes (authorization and accreditation requirements for programmes and providers like in Germany or U.K). Table 9 contains an overview of the QM elements applied in DR in the different countries.

QM systems assure that a specific quality of a product (or service) can be reproduced according to determined, checkable regulations or standards. This means that in case a certain quality of a product, or in this case outcome of a service, is defined specifically, standards set for the delivery of the service may guarantee that the highest probability to reach the specified product quality/service outcome is given – basically assumed that the production/service process is delivered in compliance with the standards. From this point of view, the definition of and compliance with QM standards for DR measures is most important if the expected outcome aims high (e.g. restoration of the fitness to drive or cessation of deviant and dangerous behaviours) and successful participation leads to immediate legal consequences; i.e. the client is considered as safely re-integrated into the community or road traffic after participation. This means that QM systems are essential to support the DR measures working in the expected direction.

Regular and continuous evaluation studies are a core element of QM systems. They serve as a direct target-performance comparison and are a minimum condition for all programmes. Participant feedbacks can always provide useful information about customer satisfaction and achieved changes; thus they trigger programme improvements. For courses with legal consequences, evaluations regarding recidivism criteria are necessarily recommended, as these may prove the outcome quality (effectiveness) and hence verify the DR measure with its consequences.

Due to the fact that studies focussing on the impacts of QM in addiction treatment and healthcare revealed that it may take long until the impact of an established QM system becomes clearly obvious, the earliest point in time should be taken to establish European standards or recommendations for QM in DR schemes.

3.1.4.4 Conclusions

The research activities revealed that QM systems in DR schemes are necessary to create transparency of procedures by fixing rules and instructions (standards) for carrying out DR services. The compliance with the standards is a medium to create confidence and a necessary condition for the trust of all sides: legislators, authorities, individuals and the public.

The establishment of QM systems in DR comprises different levels of implementation: a European, a national, a provider and a programme level. The following criteria are essential to adhere in order to implement a comprehensive QM system:

I. European level (European body for QM issues):

- Normative function according to EU legislation/regulations/guidelines;
- Controlling & coordination of national accreditation bodies.

II. Country level (national body for authorization/accreditation of programmes & providers):

- Operating function, checking compliance with QM regulations and standards;
- Controlling/auditing unit in the national DR field;
- Independent from national providers;
- Working on behalf of the government, embedded in a national administrative frame;
- Responsible for accreditation/authorization of new providers & re-accreditation/ reauthorization;
- Responsible for authorization of programmes;
- Standards for programme evaluation;
- Regulatory authority for customer complaints;
- Standards/regulations for offender management.

III. Provider level:

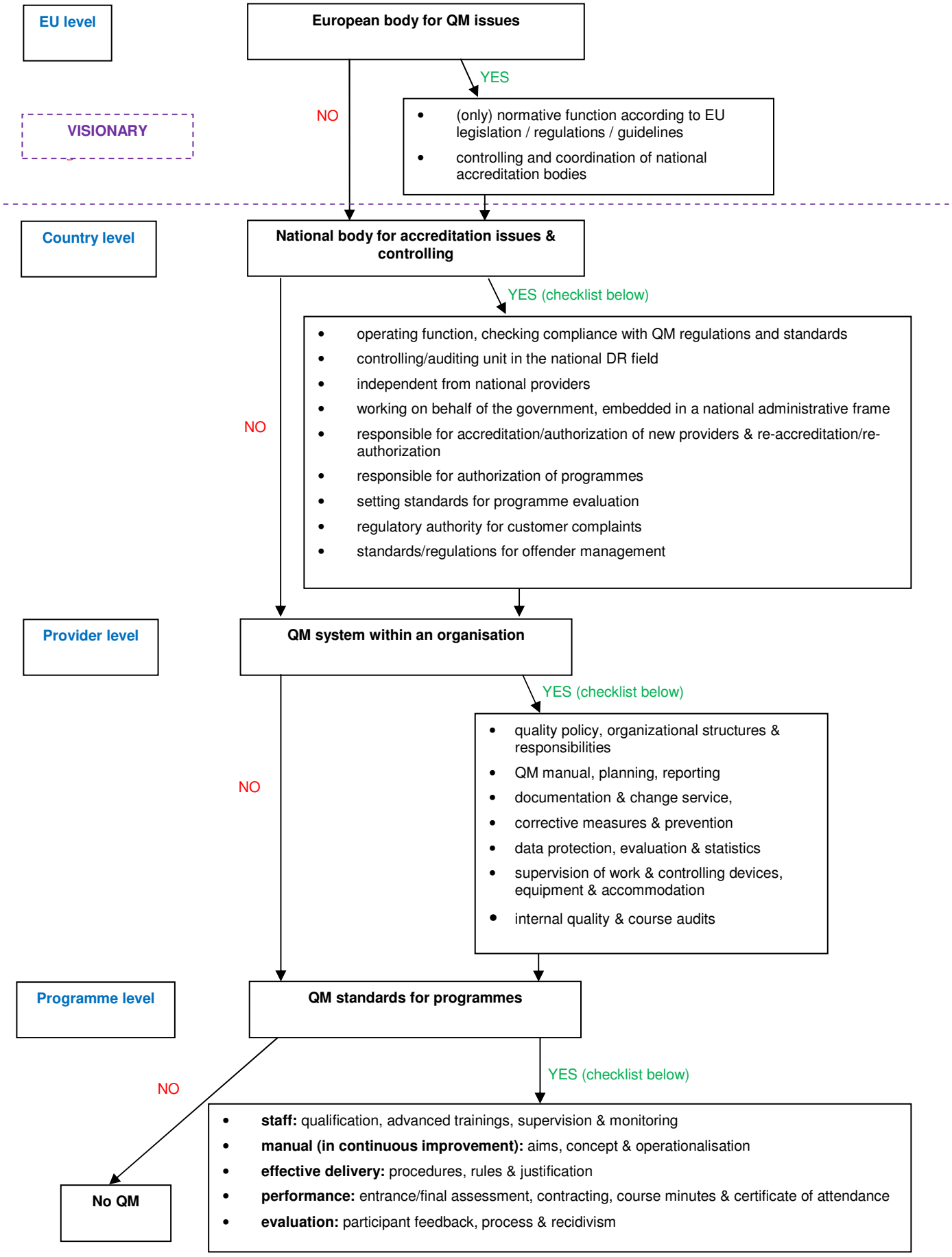
- Quality policy, organizational structures & responsibilities;
- QM manual, planning, reporting;
- Documentation & change service;
- Corrective measures & prevention;
- Data protection, evaluation & statistics;
- Supervision of work & controlling devices, equipment & accommodation;
- Internal quality & course audits.

IV. Programme level (QM standards may be set on national or provider level; provider is responsible for programme delivery according to the standards):

- Staff: qualification, advanced trainings, supervision & monitoring;
- Manual (in continuous improvement): aims, concept & operationalisation;
- Effective delivery: procedures, rules & justification;
- Performance: entrance/final assessment, contracting, course minutes & certificate of attendance;
- Evaluation: participant feedback, process & recidivism evaluation.

The following decision-tree in Figure 4 may serve as an evaluation tool for already established resp. newly introducing QM systems.

Figure 5: Decision tree for the establishment and evaluation of QM systems in DR (Klipp & Escrihuela-Branz, 2008 in Klipp et al., 2008, p. 126)



For the establishment of a new or evaluation of an already existing QM system, the criteria and requirements are to be checked for their presence on each level. If all conditions are met, the QM system is comprehensive and optimal; if most of them are given, the QM system seems sufficient, but improvable. If only a few requirements are met, the QM system shows basic needs for improvement.

In Table 9, a country overview of established QM elements is given.

Table 9: Matrix for country overview of established QM elements

	AT	BE	FR	GE	HU	IT	NL	SE	CH	UK
1. Country level										
• checking QM regulations & standards		X		X	X		X	X		X
• accreditation/authorization of new providers	X	X		X	X		X	X		X
• reaccreditation/reauthorisation		X		X	X		X	X		X
• authorization of programmes	X	X		X	X		X	X		X
• standards for programme evaluation	X			X			X	X		X
• costumer complaints regulation				X			X	X		X
• regulations for offender management										X
2. Provider level										
• quality policy & organisational standards	X	X	X	X	X		X	X	X*	X
• QM commissioner / manager	X*			X	X		X	X		X
• QM-manual, planning, reporting	X*			X	X		X	X		X
• documentation & change service		X		X			X	X		X
• corrective measures & prevention				X	X		X	X		X
• data protection	X	X	X	X	X	X	X	X		
• evaluation & statistics	X	X		X	X		X	X		X
• supervision of work	X	X		X	X		X	X		X
• controlling device	X			X	X			X		
• equipment & facilities	X	X*		X	X		X	X		X
• internal quality & course audits	X*		X	X	X		X	X	X*	X
3. Programme level										
• qualification of staff	X	X*	X	X	X	X	X	X	X*	X*
• advanced training of staff	X	X*		X	X	X*	X	X	X*	X
• supervision & monitoring of staff	X	X*		X	X		X	X	X*	X
• manual including aims & operationalisation	X	X		X			X	X	X*	X
• determination of procedures	X	X	X	X			X	X	X	X
• course rules	X	X	X	X	X	X	X	X		X
• entrance / final assessment				X		X	X			X
• contracting	X	X		X						X
• course minutes	X*			X			X		X*	
• certificate of attendance	X	X	X	X	X	X	X			X
• participant feedback	X*	X	X	X	X	X	X	X		X

	AT	BE	FR	GE	HU	IT	NL	SE	CH	UK
• process evaluation			X	X	X		X	X		X
• recidivism studies & evaluation	X*	X	X	X		X*	X	X		X

*voluntary QM element, application depends on provider or type of programme

3.2 Recommendations

3.2.1 Different types of DUI/DUID offenders

In general, DUI/DUID offenders are a heterogeneous group and the general rule is that the intensity of intervention should increase with the severity of the problem behaviour. According to the state of the art two main groups, namely non-addicts and addicts (including drivers in substitution therapy) have to be distinguished. Their risk of relapse (also in traffic) differs significantly based on the severity of the substance use problem and related difficulties.

Thus, at least two levels of intervention have to be provided as well: Less intense rehabilitative measures for non-dependent offenders and an intense treatment for dependent offenders. Attitudinal and behavioural trainings for intoxicated drivers, summarized under the term driver rehabilitation (DR) are measures, which refer to the lower intervention level while addiction therapy refers to the intense one. Additionally, as DUI and DUID offenders show differences in main sample characteristics they should not be mixed in intervention programmes.

This results in the following rehabilitation options/needs for the different offender types:

Table 10: Rehabilitation options/needs for the different offender types

	DUI offenders	DUID offenders
Non addicts	DR alcohol programme	DR drug programme
Addicts	Addiction treatment alcohol	Addiction treatment drugs

Alcohol ignition interlock programmes can be an additional option for DUI offenders but they cannot substitute treatment, as they are only effective as long as they are installed.

3.2.2 Linkage between DR interventions and addiction treatment

In most of the Member States, addiction therapy and DR measures are structurally and content-related separate fields. Addiction treatment is a public health issue in European countries and the corresponding clinics are part of the national health care system in general. There are usually no direct links to DR providers, which carry out their services for the traffic or licensing sector. Yet, a certain overlap regarding the treatment resp. DR of DUI/DUID dependent and non-dependent offenders exists due to the fact that the development of addiction is a gradual, phased process. Additionally, although addicts show the highest recidivism risk (e.g. abstinence rates vary between 33% to 60% one year after alcohol related addiction treatment) and the majority keeps their driving licenses while in treatment, they are not specifically sensitized about traffic safety issues.

Thus, in order to close this gap and to advance driver rehabilitation for the entire group of DUI/DUID drivers it is recommended to establish an information exchange between experts from the area of addiction treatment and DR interventions, so that both sides can profit from each others' experiences.

Moreover, some traffic safety/driving license/intoxicated driving related modules should be integrated in addiction treatment.

3.2.3 Assignment to driver rehabilitation

The way to enter DR as well as the binding character of participation (obligatory vs. voluntary) varies considerably between Member States at present. Thus the following recommendations can be given:

Participation in DR should be legally regulated and obligatory in order to systematically bring high-risk offenders to driver rehabilitation.

The assignment procedure should be defined and formal criteria fixed which lead directly to DR participation. Driver assessment prior to DR as a decision tool - in order to select the adequate intervention/treatment - should be carried out above all in case of suspicion of alcohol and/or drug addiction. Additionally, the WP5 in-depth analysis on recidivism reasons reveals that the risk of re-offending is connected to a high BAC-level (above 1.6‰), re-offending within five years, and refusal of alcohol test. These results should be used as assignment criteria to driver assessment.

Regarding DUID offenders, driver assessment should always be carried out, until the threshold values question is not solved. In general, analogous criteria as for DUI offenders should be applied (e.g. refusal of drug test).

Yet, based on the WP5 compatibility analysis, which identified driver assessment as problem area, the assessment approach and according tools have to comply with the required scientific standards as can be concluded from the WP5 compatibility assessment.

3.2.4 Content-related requirements of DR

DR interventions carried out in many Member States at present are mostly group courses with a limited number of participants (between 6 to12); single interventions are carried out only in exceptional cases. The main approach is a psychological-therapeutic one with educative elements lead by a specially qualified course leader or psychologist respectively.

Evaluation studies of DR courses mainly carried out for DUI offenders show that this kind of intervention leads to a significant reduction of recidivism rates, namely 45.5% in average. Additional research results show that important attitudinal and behavioural changes can be achieved regarding the problem behaviour, which led to the offence and that DR courses are highly accepted and positively evaluated by the DUI/DUID offenders themselves. These results can be confirmed by the empirical WP5 research with 7.889 DR participants from 9 European countries. At the same time the assessment of compliance of the existing European DR programmes with the WP5 standard reveal the need to evaluate the programmes on a regular base, especially those for DUID offenders.

Thus, European standard group interventions can be recommended as good practice for non-addicted DUI/DUID offenders. Single DR interventions should be provided for offenders in/with special conditions. Thereby, all applied programmes have to be evaluated regularly regarding their effectiveness for traffic safety.

3.2.5 Quality related requirements of DR

In order to provide the necessary quality of this measure regarding competency of the DR providers and trainers, operation, and positive effects on traffic safety several Member States have implemented quality assurance along with DR measures. Yet, there are big differences regarding this issue at present. The compatibility assessment carried out in WP5 identified QM as an area where improvements are needed as well.

QM requirements should be established on a legal base in order to provide uniform QM standards, optimally on European level in order to provide uniform Europe wide QM standards. A (national) quality management body should be installed which has an independent, authoritative position to execute the operative QM tasks in DR. In general, the WP5 research provides instructions for the implementation of QM systems on European, national and DR provider level.

3.2.6 European initiative

The WP5 research strongly supports that DR is a measure to prevent people from impaired driving and restore their mobility in a safe way. It fits to the overall goal of mobility of European citizens without endangering traffic safety. Thus, the European Commission should support the implementation of DR for non-dependent DUI/DUID offenders in all Member States. It is proposed to come up with a basic statement on DR in the EU Road Safety Act as a starting point, stating that DR for non-dependent DUI/DUID offenders should be an integrated part of a comprehensive countermeasure system in Europe.

In a next working step, European guidelines for legally regulated driver rehabilitation should be established. They should take the relevant issues specified in the WP5 research and summarized in DRET (Driver Rehabilitation Evaluation Tool) into account.

These European initiatives would support the application of adequate, effective, uniform and high quality driver rehabilitation measures for DUI/DUID offenders in the Member States, above all in countries, which newly implement this measure on national level.

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Annex

1 DRET/Val

DRET/Val

Driver Rehabilitation Evaluation Tool Validation

Working instrument

EU Project DRUID

Work Package 5: Rehabilitation

DRET/Val - Driver Rehabilitation Evaluation Tool/Validation

In DRET-P each DR programme has to be evaluated separately !

Coding scheme

The following codes have to be inserted in the excel sheet according to degree of fulfilment:

2 item completely fulfilled
1 item partly fulfilled
0 item not fulfilled
7 item not applicable for this DR programme
9 insufficient information

DRET/Val - L

Driver Rehabilitation Evaluation Tool – Legal implementation on national level

Coding	Evaluation Content	DRUID WP5 Research Outcomes
GENERAL DR REQUIREMENTS		
	DR measures are part of a comprehensive countermeasure system for DUI/DUID	Besides the DR system itself this implies for instance: • Regulations for measures of detection and prosecution of DUI/DUID offenders exist (e.g. mandatory roadside breath/drug tests or other evidentiary methods). • Central registry system of traffic offenders - including DUI/ DUID - is installed in the country and supports that high risk offenders are detected. • DR is an additional measure to other sanctions (e.g. driving license withdrawal) but does not replace them.
	Definition of formal criteria in order to assign offenders directly to a DR programme or to driver assessment prior to DR	• In most of the DR programmes the substance and/or the amount of intoxication (e.g. BAC-level) during the offence determine course participation. • Recidivism is the second frequent assignment reason to DR. • Driver assessment is necessary to identify DUI/DUID addicts in order to assign them to adequate intervention including offenders in substitution therapy. • Driver assessment should at least be carried out in the following cases: o Offenders with a BAC of 1.6‰ and more; o Re-offending within five years; o Refusal of alcohol/drug test.
	Availability of target group specific programmes	• DUI/DUID offenders are a heterogeneous group and several types were identified. Two groups should at least be distinguished, namely DUI and DUID offenders as they require different interventions. • The majority of the European programmes already differentiate between DUI and DUID offenders and general traffic offenders. • Addiction is a very common exclusion criterion for the European DR programmes as addicts require specific treatment.

SPECIFIC DR REQUIREMENTS		
	Regulation of DR participation	• Participation in DR is mostly legally regulated, mainly by the licensing authorities and to a less degree also by courts. • Thereby, participation is not always obligatory, about half of the programmes are voluntary ones.
	Availability of exceptional rules for programme participation	• Exceptions from the normal DR procedure due to individual conditions are specified. • Special services are mostly offered due to communication problems (operation of programme in different languages or in a single setting, e.g. with an interpreter).
	Linkage of DR with licensing procedure	• Consequences of DR participation are mostly linked to licensing but also to a penalty point system, to an upcoming driver assessment or to criminal prosecution. • Examples for linkage are: o DR programmes are combined with licence disqualification periods; o DR participation is a precondition for re-licensing; o DR participation supplements other licensing actions; o DR participation is an accompanying measure to licence suspension; o DR participation is an accompanying measure for licence prolongation.
	Regulation of standards for programme operation	• Regulations for time frame of programme operation exist (at least total duration, number of sessions and/or units, duration of sessions/units). • Regulations for successful course completion exist (at least no alcohol or drug intoxication, co-operation, attendance of all sessions). • Regulations for non-completion exist.
	Definition of DR provider requirements	• Qualification criteria for authorizing providers are laid down (at least appropriate DR programme(s), necessary staff and infrastructure). • Procedure of acquiring, maintaining and losing DR authorization is defined.

	Definition of national quality management standards	This refers to obligations for DR providers regarding: • Management and staff related elements (e.g. standards of documentation, data protection, trainer qualification); • DR operation and programme(s) (e.g. availability of breath tests for assessing intoxication during course, scientific background of programme, evaluation studies).
	Existence of a national quality management body	• A national QM body is necessary to assure a specified service quality in DR. • The QM body should have an authoritative position to execute the operative tasks. • The QM body should be independent from DR providers.
	Definition of operative tasks of quality management body	QM body should be responsible for: • Authorisation of DR providers and programmes & maintenance; • Examination of DR providers internal quality in regular time intervals; • Verification in case of suspicion of quality violations according to a defined procedure; • Imposition of consequences and improvements in case of verified lack of quality.

DRET/Val – P

Driver Rehabilitation Evaluation Tool – Programme level

DRIVER ASSESSMENT prior to DR (only to be evaluated if applicable)

Coding	Evaluation Content	DRUID WP5 Research Outcomes
	Implementation of a multidisciplinary approach	In case of additional driver assessment prior to DR the following issues have to be taken into account: • For DUI and DUID offenders, the assessment approach is mainly psychological; medical examinations are conducted as well. • The medical examination of offenders essentially focuses on substance use disorders within a fitness to drive evaluation. • The psychological examination can provide essential information with regard to the psychological and social aspects related to the problem behaviour.
	Application of objective, valid and reliable assessment tools	• A wide range of screening and assessment measures exist which provide information about the problem severity and consumption pattern. • Traffic psychological assessment tools are very fine-tuned to the specific problems of DUI/DUID offenders and are often validated on this population. • Objective measurements regarding substance use disorders that can be applied are e.g. biological markers, screening tools of substance use and functional/performance testing.

DRET/Val – P

Driver Rehabilitation Evaluation Tool – Programme level

Coding	Evaluation Content	DRUID WP5 Research Outcomes
DR PROGRAMME OPERATION		
	Existence of entry criteria for programme participation	• Programme access is mostly defined by formal criteria: the substance and/or the amount of intoxication (e.g. BAC-level) during the offence; recidivism is the second frequent assignment reason to DR. • Participation is based on driver assessment outcomes. • Non addiction of DR participants should be provided.
	Availability of exceptional rules for entering DR programme	Special DR services should be provided at least for the following DUI/DUID non-addict offenders: • In case of language deficits (e.g. operation in native language); • In case of special conditions (e.g. operation in a single intervention).
	Definition of criteria for successful course completion and for exclusion	• Detailed conditions for successful completion are defined. • Obligations and rights of course participants include o Sobriety; o Non use of drug(s); o Punctuality; o Active participation; o Attendance in all sessions; o Confidentiality. • Agreement to these obligations, rights and consequences in case of non-compliance are ensured in a participant-provider contract.
	Definition of programme setting	• Group intervention is the most common DR approach. It can be used for a wide range of substance impaired offenders. A lot of appropriate concepts for group interventions exist. The number of participants is limited (preferable 6-10 for group dynamic reasons). • Single interventions can be an appropriate DR approach for specific problem constellations although equivalent concepts like for group interventions are rare.
	Definition of trainers' qualification	• In two-thirds of the European DR programmes, trainers' qualification is legally regulated. • Minimum standards should at least be defined on provider level

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		• Currently, most of the trainers are psychologists with further education.
PROGRAMME CONTENTS		
	Programme development on a scientific basis	Scientific standards of DR programme development include above all: • Literature analysis regarding problem behaviour and rehabilitation concept; • Explanation of the theoretical concept for attitudinal and behavioural change; • Aim(s), contents and intervention steps; • Specification of target group(s); • Documentation of the programme in a manual.
	Principle DR approach	• Psychological and therapeutic DR approaches with educative elements are the most promising ones. • The concept of European DR standard group interventions has proven to be effective for offenders without substance use disorders.
	Specification of aims	The aims of the DR programme are clearly defined and include the following as a minimum: • Attitude and behavioural change to avoid re-offending (e.g. modification of substance consumption patterns); • Strategies to avoid re-offending (e.g. development of alternative/new behaviour); • Problem awareness regarding substance impaired driving; • Basic knowledge (e.g. legal consequences, impairment effects of substances).
PROGRAMME EVALUATION		
	Evaluation on the DR programme	• Regular evaluation studies are a core element to steer service quality. • The evaluation results should be available for the scientific community and the general public. • Evaluation results trigger programme improvements.
	Type of evaluation criteria	• The most important road safety outcome criterion is recidivism rate. An average reduction rate of 45.5% was observed for European standard DR group intervention programmes. • Overall participant feedback provides useful information about client satisfaction and achieved

		changes. • Further outcome and process evaluation criteria can be related to content, method, trainer-participant relation, participant-participant relation, individual change.

2 Excel template

Master sheet for DRET/Val-L evaluation contents

Table 11: Master sheet for DRET/Val-L

DRET/Val- L			Part of comprehensive countermeasure	Definition of formal criteria on natisonal level	Availability of target groups specific pgms	Participation legally regulated	Definition of exceptional rules	Linkage with licensing procedure	Definition of standards for programme operation	Definition of provider requirements	Definition of national QM standards	Existence of national QM body	Definition of operation tasks on QM body
Programme	**Country**	**offender group(s)**											

Master sheet for DRET/Val-P evaluation contents

Table 12: Master sheet for DRET/Val-P

DRET/Val - P				Implementation of a multidisciplinary approach	Application of objective … tools	Existence of entry criteria	Exceptional rules for entering	Existence of exclusion criteria during course	Definition of programme setting	Definition of trainer's qualification	Pgm developed on scientific basis	Definition of principle DR approach	Specification of aims	Evaluation on the DR programme	Type of evaluation criteria
Programme	**COUNTRY**	**offender group(s)**	**legally embedded**												