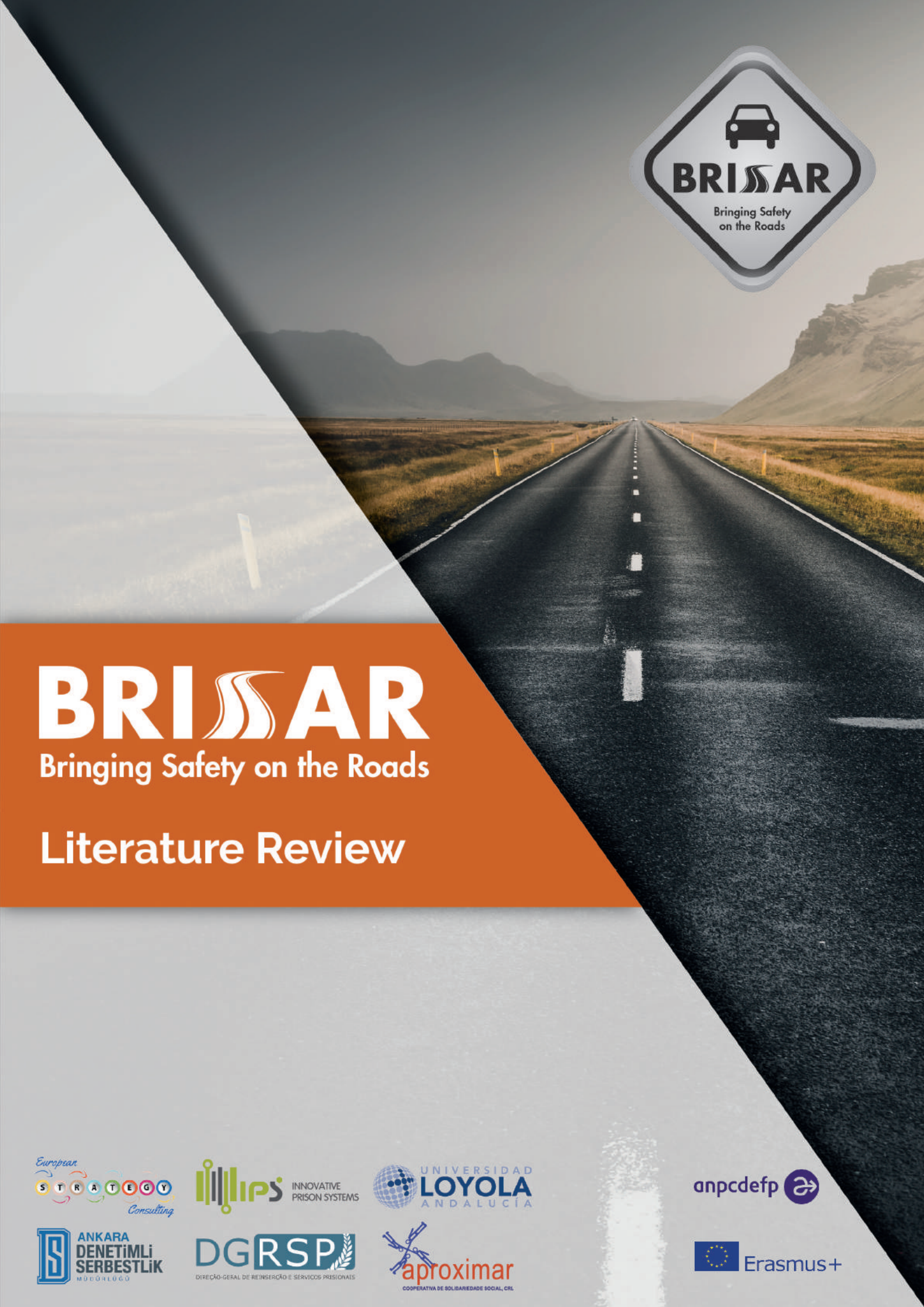

BRISAR

Bringing Safety on the Roads

Literature Review

European STRATEGY Consulting

INNOVATIVE PRISON SYSTEMS

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About the project

Bringing Safety of the Road

Bringing Safety on the Road (BriSaR) is an ERASMUS + project that aims at enhancing the road safety in European Union by reducing the recidivism among those sentenced for road offences such as: drink driving, speeding, driving without license, driving an unregistered vehicle etc.

The project is implemented by a consortium made by European Strategies Consulting/Romania, Prison and Probation Services/Portugal, Universidad Loyola Andalucia/Spain, Innovative Prison Systems and Aproximar/ Portugal and Ankara Probation Service/Turkey.

The main activities of the project are: to conduct a literature review, to draft and pilot a new road safety program and to train staff in delivering this program.

The main idea of the project is to develop and pilot a rehabilitation program for road offenders that can work in different socio-cultural contexts.

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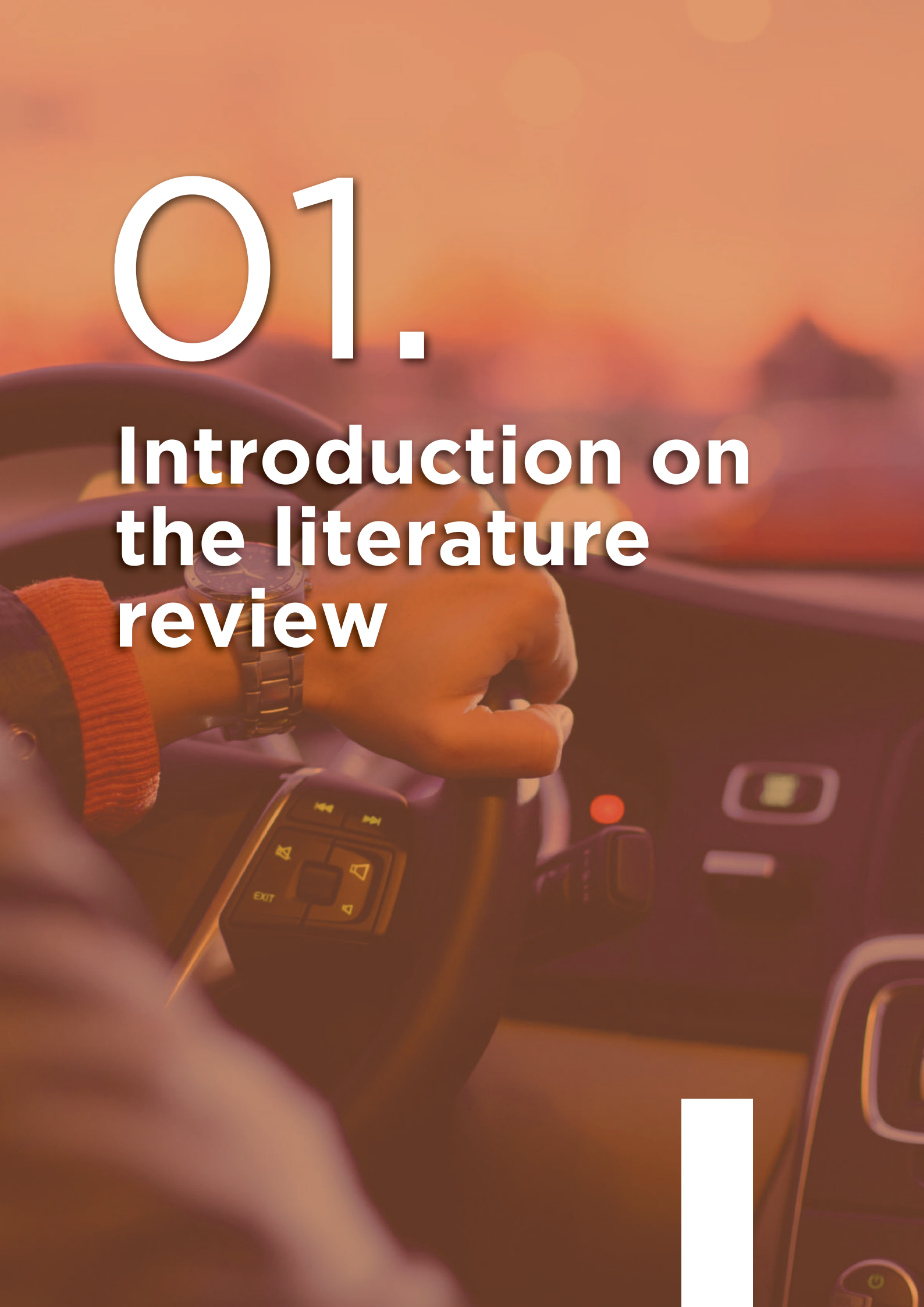
CONTENT



01.

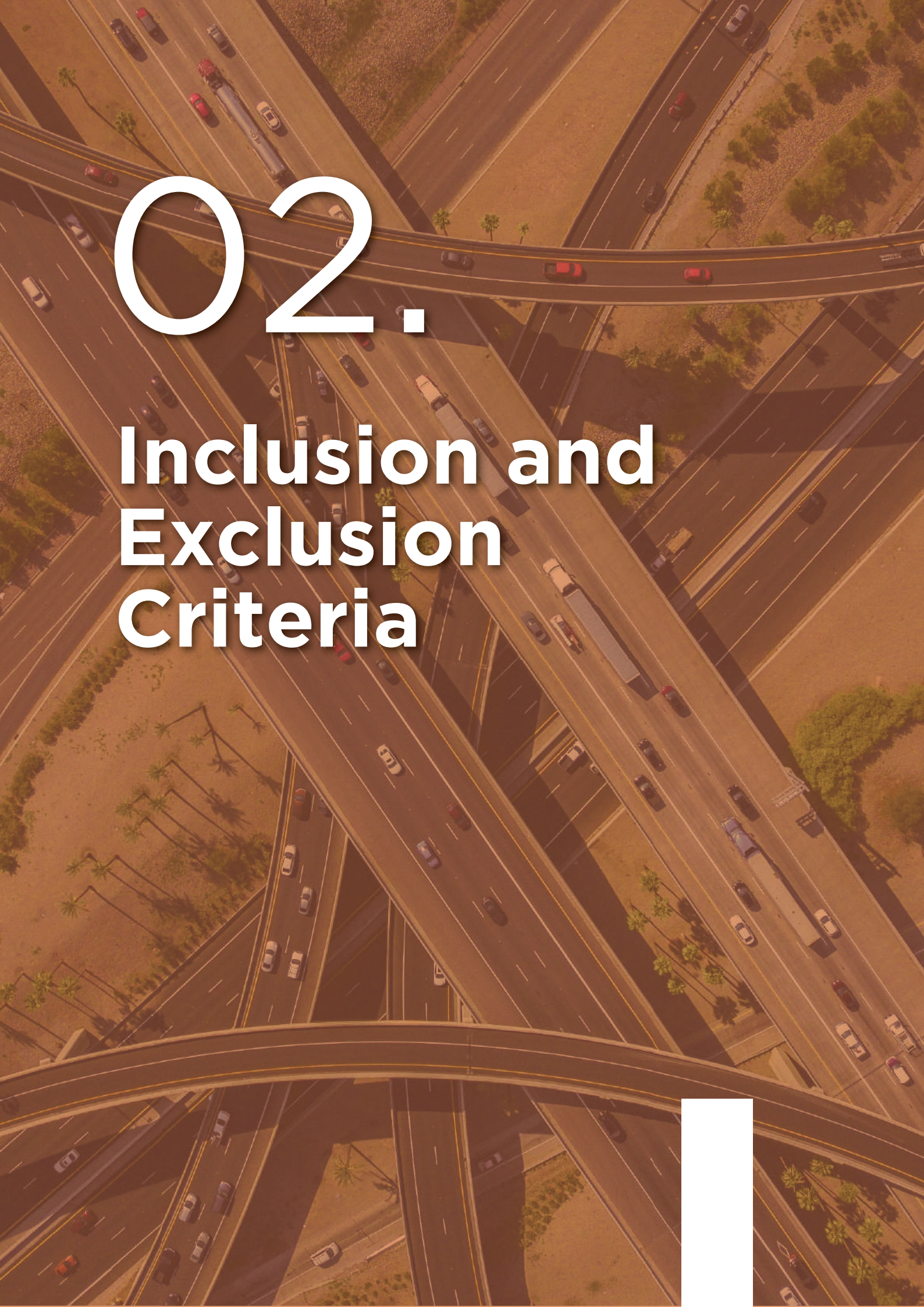
Introduction on the literature review

Introduction on the literature review

The purpose of this literature review is to know what works with road safety offenders in order to prevent reoffending. The goal is to develop a treatment program for offenders that committed a road safety offence.

This literature review focuses on the research articles, reports and papers on evaluation of road safety treatment programs: what works with road safety offenders in order to avoid reoffending?

The groups that are in the focus of this literature review are drinking and drug abuser drivers, and dangerous and others unsafe driving behaviors (driving without license, at high speed etc.)..



02.

Inclusion and Exclusion Criteria

Inclusion and Exclusion Criteria

The following inclusion criteria were used for the selection of the relevant papers for this review:

- Treatment programs (Road Safety programs).
- Treatment programs that have been evaluated.
- Scholar articles about the subject: theories, good practices in treating Road Safety offenders and evaluations of treatment programs of Road Safety.
- Papers published after 2005.
- Papers that evaluate programs only for adult offenders (over 18).
- Programs that are targeting convicted offenders.
- Papers published in peer reviewed scientific journals.
- Full text articles.
- Treatment Programs on Road Safety which have been evaluated, in order to see what works. Articles or monographs that review or stress on the what works with these groups of offenders are also important.

The following exclusion criteria were used for the selection of the relevant papers for this review:

- Papers published before 2005.
- Papers that are focusing on juvenile.

03.

Procedure

Procedure

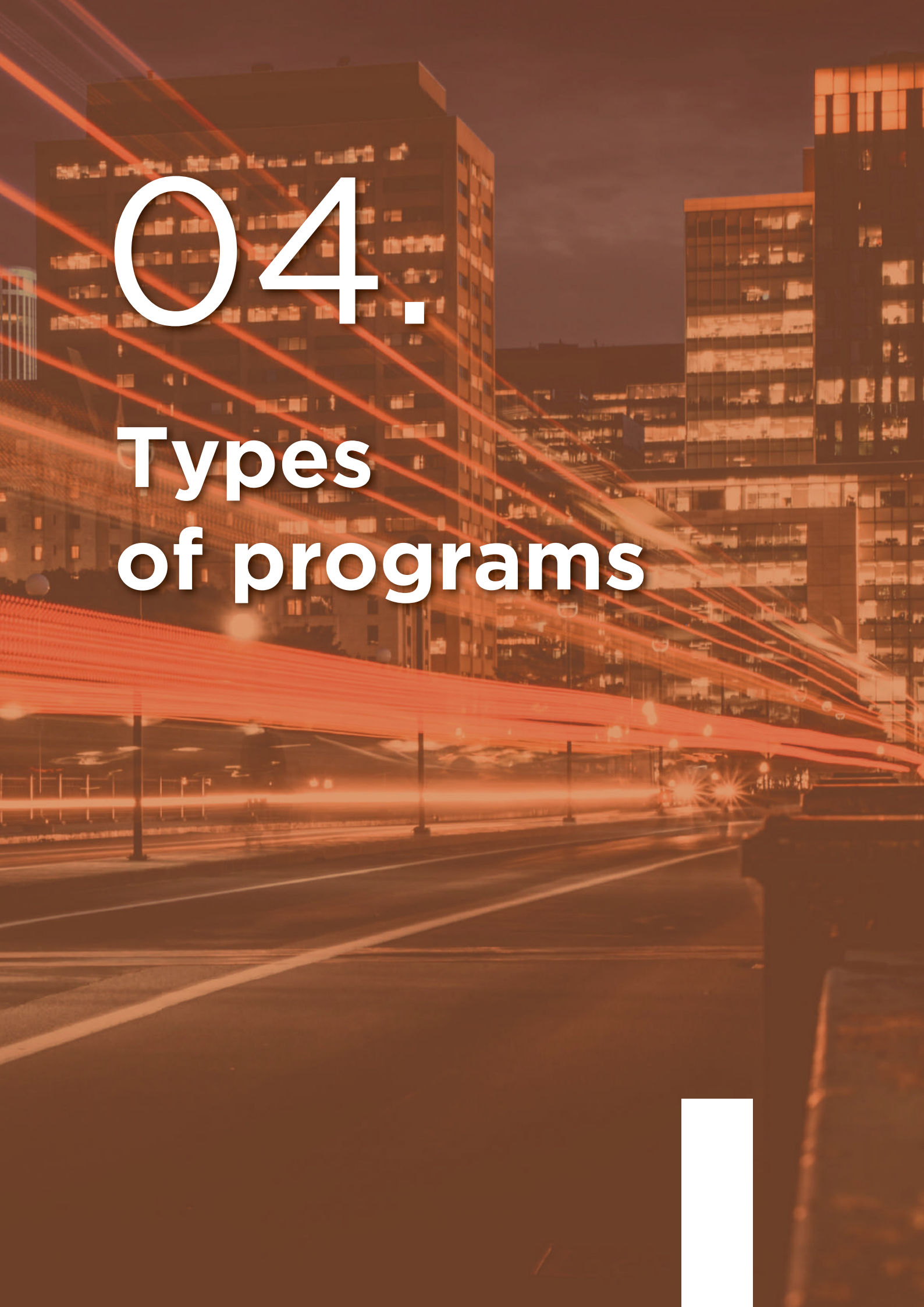
Different databases were investigated, such as: Google Scholar, SAGE, ProQuest, ISI Thomson, Francis and Taylor, PsyInfo etc. Apart from these databases, partners searched also professional and official websites that may include papers that comply with the criteria mentioned above (e.g. university, ministries, research institutes, European Commission etc.).

A list of keywords was used for searching in different databases: "road safety treatment programs", "drinking driving", "road safety offenders / offences", "driving without license" "driving under the influence (DUI)", "drunk driving", "rage driving", "dangerous driving behavior", "reckless driving".

All partners fill a form (Annex 1) regarding the methodological framework, paper abstract, conclusions of the program and learning points to develop the treatment program.

In order to develop the treatment program for offenders that committed a road safety offence, a set of questions were answered using evidence from the literature review covering all the important points that the new program should include.

1. What seem to be the most effective programs for driving offenders and why? (e.g. SSTOP, DOT)
2. What seems to be the theoretical framework(s) that is effective in working with this group? (e.g. cognitive behavioral theories)
3. What are the main sub-groups? (e.g. drunk-drivers, drivers while disqualified etc.)
4. What are the assessment tools used at the beginning of the program? (e.g. risk assessment, Spielberger State-Trait Anger Expression Inventory etc.)
5. What are the components of the most effective programs? (e.g. anger management, stress management, problem solving, cognitive restructuring, relapse prevention etc.).
6. How are the most effective programs delivered? (in groups, how many sessions, who deliver them etc.)
7. How is success measured? (e.g. relapse rate, recidivism, pre-post test etc.)



04.

Types of programs

Types of programs

4.1. Drink driving programs

Given the high prevalence of driving offences, efforts to rehabilitate and to change this behaviour have been made. Several programs have been implemented to reduce repeat offending among drunk driving offenders. These include intensive supervision programs, educational programming, treatment programming, and programs that are a combination of these methods.

SSTOP is a combined initiative in United States from 2010 and it is one-year voluntary program that aims to reduce recidivism among repeat offenders. Based on the assessment of participants a treatment is conducted according to their needs: grievance/family counseling, budgeting class etc. A case manager then monitors the participant's treatment and compliance to SSTOP program rules through monthly (or more frequent) appointments. It is the role of the case manager to advocate for their clients, provide resources to treatment services and community-based organizations, prepare reports for the court when required, and assure compliance to the program rules and assigned programming (Outagamie County, 2017). Unfortunately, there are not many details about the program components. The results indicate that participants of SSTOP had significantly fewer convictions, fewer subsequent sentences to incarceration, were sentenced to fewer days incarcerated in jail for subsequent offenses, and were less likely to receive another Operating While Intoxicated (OWI) conviction than those in the comparison group (Feiburger and Sheeran, 2019).

Also, the Intensive Supervision Programs (**ISP**) show a significant reduction in recidivism in the medium term and are an alternative to prison that would

make the cost to the state lower. The study conducted by Wiliszowski et al. (2010) are evaluated three intensive supervision programs (ISP) in US and compares DUI offenders with criminals of similar characteristics who have not participated in any program. All three ISPs that were evaluated indicated significant reductions in medium-term recidivism for ISP offenders up to 5 years. The evidence appears to strongly support that ISPs with the following common features can be very effective: (i) screening and assessment of offenders for the extent of their alcohol/substance abuse problem, (ii) relatively long-term, close monitoring and supervision of the offenders, especially for alcohol and other drug use or abuse, (iii) encouragement by officials to successfully complete the program requirements, (iv) the threat of jail for noncompliance.

ISPs are an alternative to jail, which is very costly. Offenders who remain out of jail can be employed and can contribute to society and the well-being of their families. In some ISPs, offenders who remain out of jail are paying some or all of the costs of their participation in the ISP. The monitoring of alcohol and other drug use by offenders to maintain abstinence appears to be a key component of these programs and has the potential to be very effective in reducing offender recidivism.

There are several documented ways to monitor alcohol use by offenders, as stated by Wiliszowski et al. (2010): (i) frequent contact by probation officers, the judge, or other officials (observation), (ii) surprise visits in the home and BAC testing (and sometimes drug testing via a urine sample), (iii) daily call-in with random testing (sometimes the offender must report for a test; sometimes not), (iv) electronic monitoring and home confinement with remote BAC testing, (v) use of the alcohol ignition interlock record of the offender, (vi) regularly scheduled testing.

Moreover, other intensive programmes, designed for driving offenders whose crimes were committed due to substance use or alcohol consumption, were developed and evaluated. Mills et al. (2008) described a standardised programme in New South Wales/Australia – **Sober Driver Programme (SDP)** – which combines an educational component and a cognitive behavioural therapy. The sessions aimed to address the consequences of drunk driving, the effect of alcohol on driving, the alternatives to drinking behaviour, and strategies to prevent recidivism and coping with stress. The authors evaluated the outcomes of the programme over a 2-year period and found that participants who completed the intervention were half as likely to re-offend compared with a control group.

In addition, Robertson, Gardner, Xu, & Costello (2009) also examine the effect of an education programme for driving offenders with alcoholic problems

in US – the **Mississippi Alcohol Safety Education Program** (MASEP). The four-week session programme included an educative component where information about the influence of drinking and driving, adding a motivational component that intended to motivate the behaviour's change. Particularly, group activities were delivered in order to promote individuals' awareness about their own actions, facilitating thus the implementation of a change. Similarly, with the results with the previous study described, participants who completed the programme also showed a lower probability of recidivism.

However, despite the evidence that intensive interventions tend to result in a decrease of the recidivism rates, evidence from a study conducted by Vaucher et al. (2016) pointed out that shorter interventions (such as briefer lectures) appear to be more effective (even though such effect ceased in a long time period).

Other type of programmes that became more popular and proved to be beneficial are the alcohol interlock programmes, particularly designed for driving offenders with alcohol consumption disorders (Bjerre & Thorsson, 2007; Elder, et al., 2011; Houwing, 2016). These programmes are based on the use of a device that ensures that these offenders are sober before they drive. Essentially, they can continue driving but not without first complete a breath test (using a device) that indicates if they are sober. So far, the evidence has been reported the effectiveness of such intervention on changes in alcohol and dangerous driving habits (Bjerre & Thorsson, 2007). However, the data also has been shown that the effect does not seem to remain over a long period of time. Considering this, Elder et al. (2011) ascertained in their study that despite its effectiveness, the potential for these programmes to reduce driver offences tends to be limited to the time that interlock is in place. Thus, the authors underlined the need to combine interlocks programmes with interventions that address the factors that contribute to recidivism once the device is removed. The reported presents relevant considerations since it underlined the effectiveness of the supervision of offenders during the intervention. Considering these results, we presume that a programme that addresses/guarantees similar supervision of offenders' consumption behaviour, positive outcomes are more likely to occur (Houwing, 2016).

While ignition interlock interventions, were effective for the duration that they were in place, Miller et al.'s (2015) review indicated that, once removed, they had no impact on recidivism rates.

Freeman, Schonfeld & Edmonston (2006) developed and evaluated a distance education drunk driving rehabilitation programme. The programme, with a total of 11-week sessions of one and a half hours, was found to be an effective way to educate participants about their drinking and driving behaviours. Results showed that three-quarters of the sample were confident that they will not re-offend. In conclusion these evidences show that if these individuals are supported and educated accordingly, even if this support occurs through e-learning (known to be a cost-effective way to deliver intervention), the probability of re-offend again is lower.

A similar program in Australia, **The Steering Clear First Offender Drink Driving Program** (www.steeringclear.com.au) incorporates both motivational strategies, as well as CBT strategies in a tailored format, so the user is provided with relevant techniques to increase their level of motivation to change their drink driving behaviour as well as further screening and tasks to enable insight into personal levels of alcohol consumption. The design of both components of the intervention is based on operationalising the theoretical model of the Health Action Process Approach (HAPA). Specifically, it includes sections on plan building to change and strategies to maintain self-efficacy as well as action and coping plans to avoid future drink driving (Wilson, 2017). The 'Steering Clear' program is a five module (2 h) tailored intervention delivered online. It is theory based, provides important information related to driving and drinking and aims to maximise personal involvement and relevance by being avatar guided and highly interactive. The aim of the program is to allow first offenders to become aware of their own drink driving and associated alcohol-related behaviour in order to prevent reoffending. The program can be used via the Internet at home, mobile phone or tablet, and it is designed to target first-time convicted drink drivers with breath analysis content under 0.15 g/100 mL.

The key constructs of the module are: (i) drink driving risk perception (education: presentation of data on alcohol associated crash fatalities), (ii) Lack of knowledge-standard drinks, effects of alcohol, BAC levels (education, rehearsal, quizzes-recall of information), (iii) Consequences-personal, legal, social, family (behavioural discrepancies, social support), (iv) Decision making (Challenging decisions to drink drive- motivational interview based, goal setting), (v) Building plans and self-efficacy to plan (Plan building- HAPA based, problem solving, confidence exercises), (vi) Self-efficacy to avoid drink driving (mastery, action planning (HAPA based), vicarious learning (extended deterrence)), (vii) Risky substance use /alcohol

(screening, brief intervention; self-monitoring/tracking; education on risks, health consequences, cues for intoxication; tailored personalised advice).

The Steering Clear First Offender Drink Driving Program is a novel tailored online intervention that could be implemented on a large scale to reduce offences relating to driving and alcohol and to address alcohol use in a high-risk cohort that does not consistently receive intervention. Importantly, this pilot indicates that online interventions are dynamic and can enable rapid translation of research into evidence-based practice and provide individually tailored relevant behavior change strategies.

The pilot study demonstrated that the online program is technologically robust, and there were minimal difficulties in progression through the program modules. Usability and designs were rated as extremely good, which indicates that the program design suits the target group. Future directions include the option to tailor the program as an adjunctive tool to suit other offender groups, such as repeat offenders or those requiring an alcohol ignition interlock. Investigations into suitable programs to reduce others drug driving should be considered. The program should be studied longitudinally and on a larger scale to determine whether the current results are replicated. Digital technologies offer a cost-effective public health intervention, and their expansion into the field of traffic safety has significant potential for widespread benefit. This pilot study shows online intervention as an interesting option when trying to reduce DUI recidivism rates. As it is more affordable for the State, it could facilitate its implementation and cover a large percentage of those DUI offenders.

The treatment program entitled **TRIAD** is aimed at decreasing DUI repeat recidivism in US. The primary focus is on identifying and correcting cognitive distortions most repeat DUI offenders exhibit to support continuation of their criminal behavior. Individuals referred to TRIAD undergo an initial assessment by Tampa Crossroads staff to determine eligibility for participating in the treatment program (Moore, 2011). Clients were required to attend TRIAD two times weekly, consisting of a sixty-minute psychoeducational group and a sixty-minute individual counseling session. Clients also completed weekly homework assignments in a program handbook.

They submitted to weekly drug urinalysis screenings and breathalyzer tests, and performed court-ordered community service to promote societal integration and investment. Depending on individual treatment needs, progress, and test results, clients typically completed the program in three to five months. Participants qualified for the study if they had been convicted of DUI two or more times in their lifetime, were sentenced by the court to treatment as a result of a DUI. Sixty-three participants ranging in age from

twenty to sixty-one completed the TRIAD baseline measure.

Participants completed a series of self-report assessment measures at baseline (i.e., upon entry to the TRIAD program) and at post-test (i.e., immediately upon completing the program).

Twenty-four-item measure assesses lifetime consequences of drinking (Michigan Alcoholism Screening Test – MAST).
Twelve-item questionnaire was developed specifically for use with problem drinkers, with four items assessing each of the three stages of change: pre-contemplation, contemplation, and action.

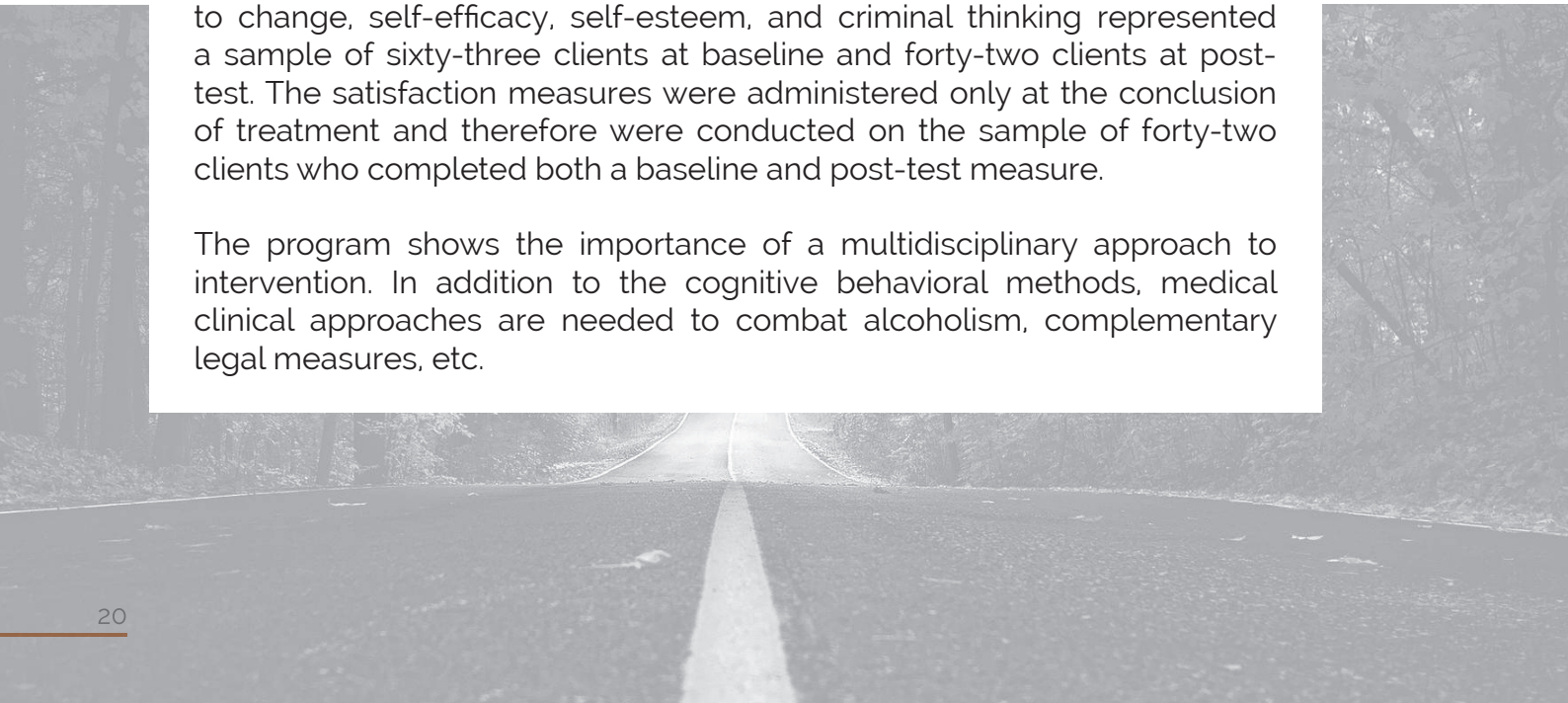
General self-efficacy scale - twelve-item scale assesses general self-efficacy and has three subscales: initiative, effort, and persistence. Agreement with each statement is rated on a four-point scale ranging from (1) not at all true to (4) exactly true, with higher summed totals indicating higher self-efficacy.

Rosenberg self-esteem scale. Agreement with each statement is rated on a five-point scale ranging from (0) strongly disagree to (4) strongly agree. Items are summed with higher totals indicating higher self-esteem.

The questionnaire is comprised of eight scales with two domains. The first domain, cognitive distortions, consists of four scales measuring self-centeredness, blaming others, minimizing/mislabeling, and assuming the worst. The second domain, behavioral referents, consists of opposition-defiance, physical aggression, lying, and stealing. Agreement with each statement is rated on a six-point scale ranging from (1) agree strongly to (6) disagree strongly.

Analyses describing treatment features and arrest history represented sixty-two of the sixty-three clients as data were not available for one client. The remaining analyses describing problem drinking behavior, readiness to change, self-efficacy, self-esteem, and criminal thinking represented a sample of sixty-three clients at baseline and forty-two clients at post-test. The satisfaction measures were administered only at the conclusion of treatment and therefore were conducted on the sample of forty-two clients who completed both a baseline and post-test measure.

The program shows the importance of a multidisciplinary approach to intervention. In addition to the cognitive behavioral methods, medical clinical approaches are needed to combat alcoholism, complementary legal measures, etc.



The measurement of the efficiency of the intervention does not have to be exclusively from the social science sphere. Magistrates, law enforcement agencies and especially the general public need tangible evidence that such a project actually contributes to the rehabilitation of clients.

Miller, Curtis, Sonderlund, Day, and Droste (2015) conducted an international systematic review of the effectiveness of interventions for men and women convicted of DUI. They concluded that while multicomponent programs which addressed a range of issues pertinent to this type of offending, including alcohol or substance misuse, were found to be effective, **victim impact panels** (VIPs), a popular intervention in the US, demonstrated no impact on recidivism.

VIPs are often court-mandated, and aim to deter people from DUI, by exposing them to the consequences of this type of crime by hearing from people who had been injured or lost loved ones as a result of a DUI offense. The review identified four evaluations of VIPs that were at least Level 3 on the MSMS, all of which were from the US. While two small-scale studies indicated a small but significant positive impact on recidivism rates, the two higher quality studies (one of which utilized a sample of over 5,000 in the treatment and matched comparison groups), demonstrated no impact on official recidivism.

The data presented above is demonstrated also by Crew and Johnson (2010) that conducted a study to see if victim impact programs (VIP) have a real impact to reduce recidivism rates in DUI offenders. This study shows the possibility that VIP are not effective in reducing recidivism rates. In victim impact panels, persons convicted of driving while intoxicated are confronted by survivors of accidents caused by drunk drivers. The objective is to reduce the number of subsequent convictions by increasing empathy with victims and increasing awareness of the seriousness of the consequences of drinking and driving. Participation in a victim impact course was not found to consistently reduce reoffending in a sample of persons convicted of operating a motor vehicle while intoxicated. More specifically, program participants were just as likely to reoffend as non-participants and sometimes more likely.
In Schulze (2012) study, to help predict the potential success of a drink-driving rehabilitation course (DRUID), some 600 drivers were analysed: 300 (matched control group) who had not reoffended following such a course, against 300 who had reoffended. Based on this, the project deduced that drink-driving offenders with the following risk profile might not benefit from a driver rehabilitation course:

- those having high BAC levels at the current offence or refusing the breath test;

- those having prior drink-driving offences (i.e. the current one is not the first) and consequently having longer periods of driving licence suspension;
- those having a habitual drinking pattern in the past and, in spite of past or current periods of abstinence, having increased alcohol tolerance, therefore having felt less impaired at the time of the drink-driving offence;
- those who deny having any alcohol-related health problems, are smokers and are less aware of their own health status;
- those demonstrating an unrealistic self-perception and less self-reflection, whereby alcohol related risks in traffic are underestimated;
- those not living in a partnership;
-those having been assessed as having an increased risk of reoffending by a qualified expert (traffic psychologist).

According to Schulze (2012), driver rehabilitation should be harmonized, for example by applying common European standard and using recommendations on good practice for rehabilitation measures, driver assessment and rehabilitation should be legally regulated and based on defined criteria, drink-drivers should be treated as a separate group from drug-drivers.

As long as the magistrates do not understand the importance of the interventions, its technical aspects will not be part of the solution. The first step: professional education; second step: public education; step three: mass media education.

Avoiding punishment has a considerable influence on the offending patterns of recidivist drink drivers. Further examination into the impact that punishment avoidance has on active offenders, as well as contributing factors such as alcohol consumption, can only facilitate the development of countermeasures designed to effectively reduce drink driving behaviour. It may simply be that some offenders are incorrigible and as a result do not heed the threat of sanctions, but rather, may respond to different stimuli not yet recognised and tested. If this is the case then innovative policies, enforcement practices and post-conviction intervention programs are needed if the drinking and driving sequence is to be broken for this population of habitual offenders.

Considering all of this, empirical evidence has been proved that intervention programmes for these offenders usually result in positive and desirable outcomes. Evidence shows that these individuals should participate in actions that address their complex criminogenic needs in order to diminish their likelihood to re-offend. Intervention strategies should focus on motivating DUI offenders to engage in rehabilitative programs. Most offenders lack problem awareness and do not interpret their offence as a result of a misuse of alcohol. Increased problem awareness goes with

an increased probability of counselling, but this problem awareness is not essential for participation. Changes in the strategic procedure, e.g. a pro-active approach with early counselling instead of late assessment, could be starting points to optimize processes in health promotion of drunk drivers. After the initiation of a treatment process cognitive and behavioral changes follow as a virtually certain consequence, almost independent of the program's length or content.

4.2. Dangerous behaviour and other complex programs

Apart from drink driving programs, programme developers have elaborated more complex programmes that cover not only drink driving but also other types of dangerous behaviours, such as speeding, driving an unregistered vehicle etc.

Currently, there are many programmes that have been developed targeting a wider group of offenders. One example of such intervention is the **SAVE programme**, developed in Australia, that aims to develop skills to promote safer driving behaviour (see https://www.savetrafficoffenderprogram.com/). This programme is composed by six main modules: (i) legal system – which describes the legal framework related with driving offences; (ii) traffic and highway patrol – which explains the road rules; (iii) rescue – which describes the role of rescue teams in the accident situations; (iv) driving under the influence – which elucidates about the effect of alcohol and drugs on the driving behaviour; (v) roads, vehicle, and insurance – which covers the explanations about insurances; and (vi) real casualties – which emphasises the consequences that could result from the risky driving behaviours.

Another programme designed to reduce traffic offences (either drink or drug-related, speeding, and other safety-related crimes) is the **TOIP Programme** (Traffic Offenders Intervention Programme) in New South Wales / Australia. The TOIP sought to give offenders skills that are required to develop safer driving behaviours, and in order to provide such acknowledges, the course programme covered topics such as: (i) dangerous road use and road safety; (ii) drunk and drug driving; (iii) emergency services; (iv) legal consequences;

(v) impact of traffic offences (effect on road trauma victims); and (vi) ways to improve drivers' behaviour. Indeed, an effort to make the offenders thinking about the consequences of their behaviour has been perceived in most of the programmes, since there's a tendency to include a component that seeks to increase such awareness.

In accordance, although it is not a real correctional programme, the **DIP** (Driver Intervention Programme), developed by Wundersitz and Hutchinson (2006) in South Australia covered five main components: (i) risk-taking behaviour, (ii) social norms and behaviour rationalisations; (iii) lifestyle issues; (iv) consequences of crashing; and (v) reinforcement of vulnerability. Theoretically, it seems to be important to enhance the offenders' perceptions about the need to change, making them understand the seriousness of their behaviours, as well as, the advantage of obeying the rules.

The **Saving Lives Program** in Germany (Klipp, 2007) is based on the Transtheoretical Model of Change (TTM; Prochaska & DiClemente, 1984). A check-up questionnaire was designed to measure the offenders' motivation for change soon after the offence (t1) and one year later (t2). In addition to that the offenders were asked if they participated in a treatment or counselling program during this one-year period. The items of the check-up questionnaire were formulated as open questions, reflecting three scales: (a) denial of the problem (11 items), (b) cognitive engagement (5 items) and (c) initiation of behavioral changes (5 items)

This study aimed to (1) measure the client's motivation for change soon after the offence, (2) analyze how this motivation is connected to the entry into rehabilitation programs and (3) identify the changes that were actually made through the participation in a program. The results reveal that most offenders can be considered as "precontemplators" without an appropriate problem awareness. Increased problem awareness goes with an increased probability of participation in a rehabilitative program, but it is not essential for participation. Participation in counselling or treatment programs leads to significant cognitive, motivational and behavioral changes.

Anger can be another important component of road safety programs. The **Driving Anger Expression Inventory (DAX)** was constructed to assess how drivers show their anger while driving (Deffenbacher, Lynch, Oetting, & Swaim, 2002). It has four subscales. First, verbal aggressive expression (e.g., "I swear at the other driver aloud"); second, personal physical aggressive expression, that is, using one's body to show anger (e.g., "I give the other driver the finger"); third, use of the vehicle to express anger (e.g., "I try to cut in front of the other driver"); and four, adaptive/constructive expression (e.g., "I try to think of positive solutions to deal with the situation"). Psychometric analyses of the scale showed that the Turkish-adapted DAX has the same factor structure and, like the original DAX, consists of 4 subscales and 1 index (Eşiyok et al. 2007). The analyses revealed that male drivers between 21 and 30 years old reported more physically aggressive expression and that they used their vehicle to express anger, whereas female drivers reported more adaptive/constructive expression. Furthermore, it was found that drivers who were university graduates expressed their anger verbally when driving, while drivers who were primary and secondary school graduates expressed anger physically. Regression analyses showed that traffic violation penalty, police presence, discourteous or disrespectful behavior to other drivers, and driving slowly were predictive variables for total aggressive expression (verbal, physical aggressive expression, and using of the vehicle to express anger).

The current study revealed that the Turkish version of DAX might be a valid and reliable scale to measure forms of anger expression related to driving and important signs related to coping with driving-related anger were identified. Furthermore, it can be suggested that DAX could be used as an assessment instrument for driver selection, and it can be used during the psycho-technical assessment procedure. DAX scale can be used as a part of the session or like follow –up after the finalization of the programme.

05.

Conclusions

Conclusions

Based on this previous research and good practices, one could discern some learning. First, remedial programmes should occupy a central place in the sentence of offenders who committed crimes on-road (Canada Health, 2004). Interventions that are theoretically based – particularly based on Cognitive Behavioural Therapy (CBT) – seemed to be more effective (Cairney, Styles, & Imberger, 2009; Clark et al., 2015 & Mills et al., 2008; Wundersitz & Hutchinson, 2006). Cognitions and behaviours seem to play an important role in the rehabilitation process and thus, they should be addressed within the intervention. A study conducted by Elliot, Thomson, Robertson, Stephenson, & Wicks (2013) showed that cognitions mediated the individual intentions to perform a behaviour, and similarly, change in intention seemed to mediate the future behaviour, indicating a relationship between the constructs. In addition, programs should target the specific characteristics of this group of offenders, considering their risk behaviours and their age (Clark et al., 2015), as well as their penal situation (Canada Health, 2004). In this sense, it has been postulated that, for example, mandatory courses are more suitable for driving offenders who do not have a diagnosed alcohol problem and for those who represent lower risk, since that, for those who have substance use disorders or represent higher levels of risk, therapy would be more appropriate (Canada Health, 2004; Houwing, 2016). Also, Nelson, Belkin, LaPlante, Bosworth, & Shaffer (2015) underlined the high prevalence of mental disorders in these offenders, emphasising their higher vulnerability to recidivism. Because of that, the authors preconised that therapy could be an important dimension of their rehabilitation. Furthermore, related to the methods of intervention, it is well-reported that actions that combine different types of methods are better for the promotion of individuals engagement (which is known to be more effective) (Canada Health, 2004; Nelson, et al., 2015).

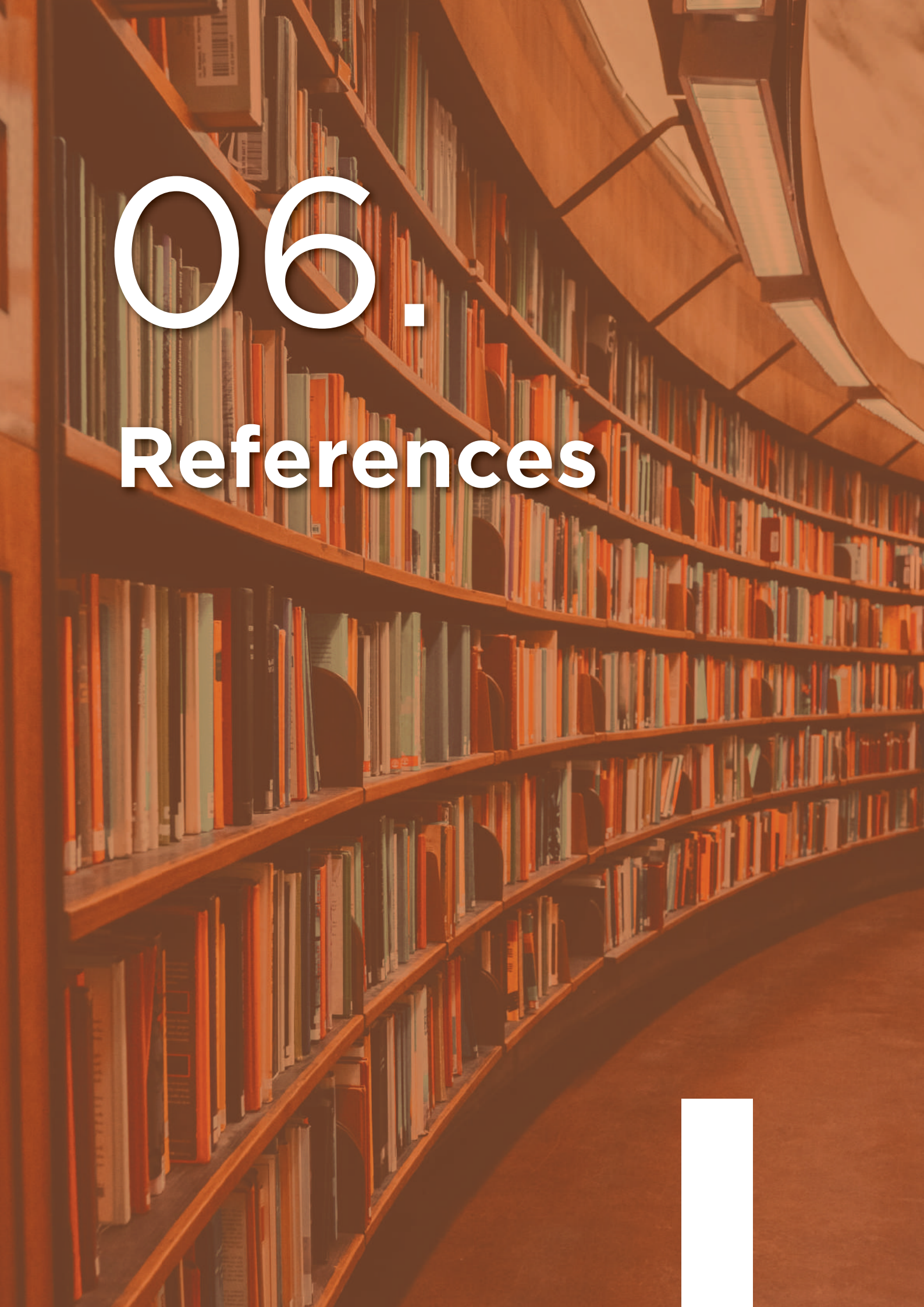
According to Edwards (2006) cognitive behavioral intervention strategies should: 1. Be based on scientific learning principles, 2. Be focused on how the client thinks or acts, 3. Obviously and directly relate to the clients problems, 4. Utilize a systematic approach and be relatively short term, 5. Represent a blend of active exercises, homework, tasks and active skill development, and 6. Have outcome research conducted.

There are a number of cognitive behavioral models available, notably: 1. Reasoning and Rehabilitation (R&R), 2. Thinking for a Change, and 3. Moral Reconation Therapy (MRT).

Another important aspect that should be considered is the constitution of the intervention group. Previous evidence showed that the size of the group is recommended to be 10 to 12 participants in order to be interaction-oriented (Canada Health, 2004). The same authors referred the importance of the adequate length of the programmes, mentioning that it should be delivered in sessions, involving at least six group sessions (if the group was considered as high-risk). During these sessions, the participants should be encouraged to discuss their difficulties and the more challenging issues associated with the change. Moreover, programmes should be conducted by professional facilitators who received counselling in order to enhance and support the involvement of individuals (Canada Health, 2004; Clark et al., 2015; Wundersitz & Hutchinson, 2006), and the content of interventions should be structured to ensure the theoretical objectives (Clark et al., 2015). The establishment of goals will support the process of change since it will make such process clearer (Cairney et al., 2009). In addition to this, participants should make a commitment to perform the behaviour and should perceive a normative pressure to change (Cairney et al., 2009). Finally, mandatory clinical follow-up should always be required in order to evaluate the success of the programmes for these individuals (Canada Health, 2004). Indeed, it is important to follow offenders, over a long period, since many times some interventions only appear to be efficient during the time they are being applied (presenting less long-term efficacy) (Lapham, Kapitula, McMillan, 2006).

DUI offenders are a heterogeneous group (Miller et al., 2015, Nochajski et al. 2016). Therefore, conceptual models that focus on only one or two characteristics of DUI offenders are unlikely to account satisfactorily for DUI relapse. Instead, multifactorial models of relapse are needed to help explain the complex interplay of legal, social, and psychological factors that have been found in the literature to predict relapse among offenders. The empirical literature has revealed a number of factors that are predictive of DUI relapse, yet many of the individual predictors identified have not been used to develop models to describe and explain relapse among DUI offenders. Personal characteristics of DUI offenders will likely be found to predict relapse for certain subgroups of offenders. Recognizing this heterogeneity within the offender population will facilitate the identification of subgroups of offenders at high-risk for relapse and which should be targeted by prevention and intervention programs. In addition, studies that match offenders to different types of treatment may have benefit.

There is considerable heterogeneity among interventions reviewed here that have not demonstrated an impact on reoffending. However, applying insights from criminology, behavioral science, and social psychology, they arguably share common themes, which can serve as red flags to designers or commissioners of services aiming to reduce reoffending (Barnett et al., 2018). Services or interventions that do not appear to reduce reoffending, or that make it more likely that people will reoffend: (i) Do not build skills that can help people to behave differently in the future, (ii) Reinforce a criminal identity, (iii) do not target those factors that research has demonstrated to have a link to reoffending, (iv) develop only extrinsic motivation, (v) are poorly implemented.



06.
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07.

Annexes

Annexes

Annex 1
Summary of Papers

Form (to fill out in English)

Author, year, title, journal, editorial, country… (in APA style)	
Research or Program (research question, research design, sampling, instruments, target group etc.)	
Abstract	
Conclusion(s) of the program / report or paper (max 500 words)	
Learning points to develop our treatment program on Road Safety (why we have chosen this document, why is relevant for our program and what this document add to our program)	
Suggestions for the program development stage	

ⓘ All the relevant papers will be deposited in the Dropbox for further reading: https://www.dropbox.com/sh/ro69wauuyrn39aj/AACrtGIsJ1RO1Id0PXnjsjDba?dl=0

Annex 2
Evaluation tools

Driving Anger Expression Inventory

Directions: Everyone feels angry or furious from time to time when driving, but people differ in the ways that they react when they are angry while driving. A number of statements are listed below which people have used to describe their reactions when they feel angry or furious. Read each statement and then fill in the bubble to the right of the statement indicating how often you generally react or behave in the manner described when you are angry or furious while driving (almost never, sometimes, often, almost always). There are no right or wrong answers. Do not spend too much time on any one statement.

1. I give the other driver the finger.
2. I drive right up on the other driver's bumper.
3. I drive a little faster than I was.
4. I try to cut in front of the other driver.
5. I call the other driver names aloud.
6. I make negative comments about the other driver
7. I follow right behind the other driver for a long time.
8. I try to get out of the car and tell the other driver off.
9. I yell questions like "Where did you get your license?"
10. I roll down the window to help communicate my anger.
11. I glare at the other driver.
12. I shake my fist at the other driver.
13. I stick my tongue out at the other driver.
14. I call the other driver names under my breath.
15. I speed up to frustrate the other driver.
16. I purposely block the other driver from doing what he/she wants to do.
17. I bump the other driver's bumper with mine.
18. I go crazy behind the wheel.
19. I leave my brights on in the other driver's rear view mirror.
20. I try to force the other driver to the side of the road.
21. I try to scare the other driver.
22. I do to other drivers what they did to me.
23. I pay even closer attention to being a safe driver.
24. I think about things that distract me from thinking about the other driver.
25. I think things through before I respond.
26. I try to think of positive solutions to deal with the situation.
27. I drive a lot faster than I was.
28. I swear at the other driver aloud.

29. I tell myself its not worth getting all mad about.
30. I decide not to stoop to their level.
31. I swear at the other driver under my breath.
32. I turn on the radio or music to calm down.
33. I flash my lights at the other driver.
34. I make hostile gestures other than giving the finger.
35. I try to think of positive things to do.
36. I tell myself it's not worth getting involved in.
37. I shake my head at the other driver.
38. I yell at the other driver.
39. I make negative comments about the other driver under my breath.
40. I give the other driver a dirty look.
41. I try to get out of the car and have a physical fight with the other driver.
42. I just try to accept that there are bad drivers on the road.
43. I think things like "Where did you get your license?"
44. I do things like take deep breaths to calm down.
45. I just try and accept that there are frustrating situations while driving.
46. I slow down to frustrate the other driver.
47. I think about things that distract me from the frustration on the road.
48. I tell myself to ignore it.
49. I pay even closer attention to other's driving to avoid accidents.

Scales involved in the Driving Anger Expression Inventory (DAX):

(1) 12-item Verbally Aggressive Expression (= .88) Items generally involve overt and covert verbal aggression with some nonverbal behaviors such as glares—Items 5, 6, 9, 11, 14, 28, 31, 37, 38, 39, 40, and 43

(2) 11-item Physically Aggressive Expression (= .84) Items generally involve physically aggressive displays or behavior, but not where the person is using the car as an instrument of intimidation, aggression, and frustration—Items 1, 8, 10, 12, 13, 17, 18, 20, 21, 34, and 41

(3) 11-item Using the Vehicle for Aggressive Expression (= .86) Items generally involve using the vehicle or one's driving behavior to frustrate, intimidate, or express displeasure with the another driver—Items 2, 3, 4, 7, 15, 16, 19, 22, 27, 33, and 46

(4) 15-item Adaptive/Constructive Expression (= .90) Items generally involve cognitive and behavioral strategies for safe driving, problem-solving, distraction and cognitively reframing the situation—Items 23, 24, 25, 26, 29, 30, 32, 35, 36, 42, 44, 45, 47, 48, and 49

MICHIGAN ALCOHOLISM SCREENING TEST (MAST)
YES NO Points

0. Do you enjoy drinking now and then?
* 1. Do you feel you are a normal drinker? ("normal" - drink as much or less than most other people) ___ ___ (2)
2. Have you ever awakened the morning after some drinking the night before and found that you could not remember a part of the evening? ___ ___ (2)
3. Does your wife, husband, a parent, or other near relative ever worry or complain about your drinking? ___ ___ (1)
* 4. Can you stop drinking without a struggle after one or two drinks? ___ ___ (2)
5. Do you ever feel guilty about your drinking? ___ ___ (1)
* 6. Do friends or relatives think you are a normal drinker? ___ ___ (2)
* 7. Are you able to stop drinking when you want to? ___ ___ (2)
8. Have you ever attended a meeting of Alcoholics Anonymous (AA)? ___ ___ (5)
9. Have you gotten into physical fights when drinking? ___ ___ (1)
10. Has you drinking ever created problems between you and your wife, husband, a parent, or other relative? ___ ___ (2)
11. Has your wife, husband (or other family members) ever gone to anyone for help about your drinking? ___ ___ (2)
12. Have you ever lost friends because of your drinking? ___ ___ (2)
13. Have you ever gotten into trouble at work or school because of drinking? ___ ___ (2)
14. Have you ever lost a job because of drinking? ___ ___ (2)
15. Have you ever neglected your obligations, your family, or your work for two or more days in a row because you were drinking? ___ ___ (2)
16. Do you drink before noon fairly often? ___ ___ (1)
17. Have you ever been told you have liver trouble? Cirrhosis? ___ ___ (2)
** 18. After heavy drinking have you ever had Delirium Tremens (D.T.s) or severe shaking, or heard voices, or seen things that are really not there? ___ ___ (2)
19. Have you ever gone to anyone for help about your drinking? ___ ___ (5)
20. Have you ever been in a hospital because of drinking? ___ ___ (5)
21. Have you ever been a patient in a psychiatric hospital or on a psychiatric ward of a general hospital where drinking was part of the problem that resulted in hospitalization? ___ ___ (2)

22. Have you ever been seen at a psychiatric or mental health clinic or gone to any doctor, social worker, or clergyman for help with any emotional problem, where drinking was part of the problem? ___ ___ (2)
*** 23. Have you ever been arrested for drunk driving, driving while intoxicated, or driving under the influence of alcoholic beverages?
(If YES, How many times?___) ___ ___ (2)
*** 24. Have you ever been arrested, or taken into custody even for a few hours, because of other drunk behavior?
(If YES, How many times?___) ___ ___ (2)
* Alcoholic response is negative
** 5 points for Delirium Tremens
*** 2 points for each arrest

SCORING
Add up the points for every question you answered with YES, for Q23 and Q24 multiply the number of times by points

0 - 3 No apparent problem
4 Early or middle problem drinker
5 or more Problem drinker (Alcoholic)

Programs using the above scoring system find it very sensitive at the five point level an it tends to find more people alcoholic than anticipated. However, it is a screening test and should be sensitive at its lower levels.

General Self-Efficacy Scale (GSE)

Not at all true/ Hardly true/ Moderately true/ Exactly true

1. I can always manage to solve difficult problems if I try hard enough
2. If someone opposes me, I can find the means and ways to get what I want.
3. It is easy for me to stick to my aims and accomplish my goals.
4. I am confident that I could deal efficiently with unexpected events.
5. Thanks to my resourcefulness, I know how to handle unforeseen situations.
6. I can solve most problems if I invest the necessary effort.
7. I can remain calm when facing difficulties because I can rely on my coping abilities.
8. When I am confronted with a problem, I can usually find several solutions.
9. If I am in trouble, I can usually think of a solution
10. I can usually handle whatever comes my way.

ROSENBERG SELF-ESTEEM SCALE

Instructions

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement (Strongly Agree/ Agree/ Disagree/ Strongly Disagree)

1. On the whole, I am satisfied with myself.
2. At times I think I am no good at all.
3. I feel that I have a number of good qualities.
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of.
6. I certainly feel useless at times.
7. I feel that I'm a person of worth, at least on an equal plane with others.
8. I wish I could have more respect for myself.
9. All in all, I am inclined to feel that I am a failure.
10. I take a positive attitude toward myself.

Scoring: Items 2, 5, 6, 8, 9 are reverse scored. Give "Strongly Disagree" 1 point, "Disagree" 2 points, "Agree" 3 points, and "Strongly Agree" 4 points. Sum scores for all ten items. Keep scores on a continuous scale. Higher scores indicate higher self-esteem.

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