

FEDERAL RESEARCH PROGRAMME ON DRUGS

ALAMA - nightlife

UNDERSTANDING THE DYNAMICS AND CONSEQUENCES
OF YOUNG ADULT SUBSTANCE USE PATHWAYS: A
Longitudinal And Momentary Analysis in the European
nightclub scene

ALAMA is part of the European Research Area Network (ERANID) (2016-2019) funded by the European Union under the 7th Framework Programme

SUMMARY

On behalf of the research teams

Dr. Margriet van Laar (NL) Prof. Dr. Valerie Curran (UK)

Dr. Johanna Gripenberg (SE)

Dr. Tina van Havere (BE)



ALAMA - nightlife

UNDERSTANDING THE DYNAMICS AND CONSEQUENCES OF YOUNG ADULT SUBSTANCE USE PATHWAYS: A Longitudinal And Momentary Analysis in the European nightclub scene

Contract - DR/00/076

ALAMA is part of the European Research Area Network (ERANID) (2016-2019) funded by the European Union under the 7th Framework Programme

SUMMARY

PROMOTORS: Dr. MARGRIET VAN LAAR (NL – Trimbos Institute Utrecht)

Prof. Dr. VALERIE CURRAN (UK – Clinical Psychopharmacology Unit,

London)

Dr. JOHANNA GRIPENBERG (SE – STAD, Stockholm)

Dr. TINA VAN HAVERE (BE – Ghent University of Applied Sciences and Art)

AUTHORS: BERT HAUSPIE (Ghent University of Applied Sciences and Art Ghent)

NICKY DIRKX (Ghent University of Applied Sciences and Art Ghent)

JOCHEN SCHROOTEN (VAD - Brussel)

JON WALDRON (Clinical Psychopharmacology Unit, London)
MERYEM GRABSKI (Clinical Psychopharmacology Unit, London)
TOM FREEMAN (Clinical Psychopharmacology Unit, London)

RUBEN VAN BEEK (Trimbos Institute Utrecht)
MATTHIJS BLANKERS (Trimbos Institute Utrecht)
MARLOES KLEINJAN (Trimbos Institute Utrecht)
PEGGY VAN DER POL (Trimbos Institute Utrecht)

SABRINA MOLINARO (Institute of Clinical Physioogy, Pisa)

CARLO ROSSI (Institute of Clinical Physioogy, Pisa)

dr. SARA ROLANDO (Eclectica, Turin) dr. ENRICO PETRILLI (Eclectica, Turin) KRISTIN FELTMANN (SE – STAD, Stockholm) TOBIAS ELGAN (SE – STAD, Stockholm)











Published in 2020 by the Belgian Science Policy Office (BELSPO) WTCIII Simon Bolivarlaan 30 Boulevard Simon Bolivar 30 B-1000 Brussels Belgium

Tel: +32 (0)2 238 34 11 - Fax: +32 (0)2 230 59 12

http://www.belspo.be http://www.belspo.be/drugs

Contact person: Aziz Naji Tel: +32 (0)2 238 35 72

Neither the Belgian Science Policy Office nor any person acting on behalf of the Belgian Science Policy Office is responsible for the use which might be made of the following information. The authors are responsible for the content.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without indicating the reference :

ALAMA - consortium. UNDERSTANDING THE DYNAMICS AND CONSEQUENCES OF YOUNG ADULT SUBSTANCE USE PATHWAYS: a Longitudinal And Momentary Analysis in the European nightclub scene: Summary. Brussels: Belgian Science Policy Office 2020 – 18 p. (Federal Research Programme on Drugs)

OVERVIEW OF ALL WP'S	5
1. Introduction	5
Background	5
Objectives and work packages	5
The ALAMA Consortium	6
ELECTRONIC MUSIC SCENE SURVEY (EMSS) (WP2) Background & Methods	7 7
Sample size and initial findings	7
3. ECOLOGICAL MOMENTARY ASSESSMENT OF SUBSTANCE USE AMONG ECSTASY USERS: PREDICTORS, PATTERNS AND	
SEQUELAE (WP 4)	
Background	9
Research questions	9
Methods	9
Preliminary results	10
4. INSIGHT INTO THE RELIABILITY OF SELF-REPORT OF SUBSTANCE USE IN NIGHTLIFE POPULATIONS: A BREATH SAMPLING STU	
(WP5)	
Background	11
Methods	11
Preliminary results	11
Concluding remarks	12
5. CONTEXTUAL ANALYSIS OF THE NIGHTLIFE SCENE IN FIVE EU COUNTRIES (WP6)	
WP 6: ANALYSIS & DESCRIPTION OF THE NIGHTLIFE CULTURE IN FIVE EUROPEAN COUNTRIE	
INTRODUCTION	
SUMMARY ON PART I	
CONCLUSIONS ON FAIRT II	. 10

Overview of all WP's

1. INTRODUCTION

Background

It is widely known that drug use is abundant in the nightlife scene, costing —in extreme cases- young adult lives. These fatalities, as well as and non-fatal health incidents and other adverse consequences, are potentially preventable. Due to the upsurge in the European nightlife economy, the increase in illicit substance use and rapidly changing drug markets (high potency drugs, New Psychoactive Substances), a comprehensive and up-to-date understanding of young adult's patterns of use, transitions over time and short and long term consequences — both 'in the moment' and over time — is crucial for optimally informing preventive and legal policies.

The ALAMA nightlife study, part of the European Research Area Network on Illicit Drugs (ERANID), aimed to provide this knowledge by investigating longitudinal and momentary pathways of drug use and their consequences among young adults attending electronic dance events in five European countries (Belgium, Italy, the Netherlands, Sweden, United Kingdom).

Objectives and work packages

The general objective of ALAMA is to gain insight into drug use and nightlife participation in the European nightclub scene, to investigate how drug use patterns change over time as well as their short and long term consequences. With a number of complementary and innovative methodologies a unique and rich data set with a European scope has been generated, reflecting different cultures and drug markets to address a wide range of practice and policy based questions. Different methodological approaches were used.

Specific objectives and study elements addressing these objectives are given in the figure below:

Specific objectives

- To map patterns of substance use of young adults who regularly attend electronic dance events (WP2)
- To investigate changes in substance use and associated factors (WP2)
- To investigate short term predictors, consequences of ecstasy use, other substances and going out in general ("Ecological Momentary Assessment) (WP4)
- 4. To verify self-reported substance use (WP5)
- To comparison of five countries in terms of drug policy, culture, and nightlife (WP6)

Electronic Music Scene Survey
(EMSS) (all countries)
Longitudinal online survey with 1 year follow up.

Nightlife meter (UK, NL)
Daily surveys to be answered with a smartphone app over a five week period.

Breath analysis (SE, IT)
Verification of self-reported drug use

Contextual analysis of nightlife (all countries)

Content analysis websites & interviews

These study elements are represented in different work packages (WP). The overall project was coordinated by the Dutch team (WP 1). The EMSS was part of WP2, with the UK team in the lead, leader and all other countries participating and contributing to the survey. WP3 (not described in this report) was excluded from the final project; for practical purposes the numbering for successive WPs was not adjusted. The EMA study was part of WP4 conducted only in the Netherlands and UK, with the Dutch team as WP leader. The breath analysis study was part of WP5, conducted in Sweden and Belgium, with Sweden as WP leader. The contextual analysis of the nightlife scene was conducted by the Belgian and Italian team (with the Belgian team as WP leader) with contributions from all other countries.

The ALAMA Consortium

The project was conducted by collaborative teams in each of the five participating European countries.

- <u>The Netherlands</u>: Margriet van Laar (PI), Ruben van Beek, Matthijs Blankers, Marloes Kleinjan,
 Peggy van der Pol
- United Kingdom: Valerie Curran (co-PI), Jon Waldron, Meryem Grabski, Tom Freeman
- <u>Belgium</u>: Tina van Havere (co-Pl), Jochen Schrooten, Bert Hauspie, Nicky Dirkx
- <u>Italy:</u> Sabrina Molinaro (co-PI), Sara Rolando, Enrico Petrilli, Carla Rossi
- Sweden: Johanna Gripenberg (co-PI), Kristin Feltmann, Tobias Elgán



2. ELECTRONIC MUSIC SCENE SURVEY (EMSS) (WP2)



The UK was work package 2 leader; and all countries contributed and participated in the baseline and follow-up survey.

Background & Methods

Work package 2 was a longitudinal online survey of young adults regularly attending nightclubs, festivals & parties in Belgium, Italy, the Netherlands, Sweden and the UK (for content covered see Table 1). In order to take part participants had to be 18-34 years old, attend a minimum of 6 nightlife events in past 12 months, and be resident in one of the participating countries. Baseline data were collected between May and November 2017 and 12-month follow up data between May and November 2018. Baseline participants were recruited online and offline (at clubs and festivals in Belgium, the UK, the Netherlands and Italy). A shorter questionnaire version of the survey was filled in by 3529 eligible volunteers during offline baseline data collection.

Sample size and initial findings

8045 participants completed the baseline survey. The average age at baseline was 24, and the sample was predominantly male (70%). At baseline 25.5% of participants resided in the UK, 26.4% in the Netherlands, 16.7% in Belgium, 17.2% in Sweden and 14.2% in Italy. With regard to the most widely used substances, past 12 months alcohol use was indicated by 96.1% of baseline completers,

past 12 months cannabis use was indicated by 62.3%, past 12 months use of ecstasy by 53.7% and past 12 months use of cocaine by 36.4%.

2897 participant completed the follow-up survey (36.0% response rate). At follow-up 26.0% of participants resided in the UK, 24.9% in the Netherlands, 16.5% in Belgium, 17.0% in Sweden and 15.6% in Italy. Past 12 months alcohol use was indicated by 95.9% of follow-up completers, past 12 months cannabis use was indicated by 64.1%, past 12 months use of ecstasy by 52.2% and past 12 months use of cocaine by 38.6%.

Initial empirical findings suggest that online sampling can be successfully used to recruit a population that is representative of young European adults attending nightclubs and festivals (planned publication 1; see below). An analysis of changes in prevalence, frequency and uptake of 20 substances across all countries shows the greatest increase in ketamine use and the greatest decrease in 4FA use (planned publication 3). An analysis of ketamine users matched on other substance use with non-ketamine users indicates an increased risk of mental health and substance use problems in ketamine users (planned publication 4) Six distinct profiles of polydrug use have also been identified at baseline, each exhibiting differing patterns of wellbeing and problematic alcohol and drug use (planned publication 5). Furthermore, polydrug use profiles have been found to differentially endorse harm reduction behaviours, which in turn have been associated with positive and negative experiences following drug use (planned publication 6).

Box 1. Areas covered in EMSS

- **Demographics**: Recruitment source; age; gender; country of residence; area code; sexuality; relationship status; urbanicity; education; mother's education.
- **Nightlife engagement**: N events in last 12 months; genre preference; motivations for going out; lifetime and past 12 month venue attendance and frequency (nightclubs, festivals, illegal raves, pubs, house parties); age of first attendance; age of last attendance; most regular attendance period.
- Drug use: Lifetime and past 12 month drug use and frequency (licit drugs, illicit 'traditional' drugs, NPS); age of first use; age of last use; heaviest use period; where used most often; amount of ecstasy used; motivations for and intentions to future change at baseline; actual change and influences on change at follow-up; problematic alcohol and drug use (AUDIT-C; DUDIT).
- Risks and experiences: risk perception; positive and negative experiences following drug use at
 events; social acceptability of drug use; perception of how positive or negative impact of drug
 use; mood (WHO-5); depression (PHQ2); anxiety (GAD2).
- *Harm reduction*: Whether or not employ various harm reduction strategies before, during and after use.

3. ECOLOGICAL MOMENTARY ASSESSMENT OF SUBSTANCE USE AMONG ECSTASY USERS: PREDICTORS, PATTERNS AND SEQUELAE (WP 4)

This WP focused on ecstasy users in the Netherlands and UK, where this is the most commonly used 'party drug'. The Dutch team was leader of this work package.

Background

The drugs markets changed: the average MDMA dose in ecstasy tablets has increased in the past decade, which has been associated with an in increase in (severity of) ecstasy-related health emergencies, and a range of new (psychoactive) substances with unknown risk profiles emerged in the past decade. Moreover, ecstasy users are notably poly-substance users, which may potentiate the health risks and consequences of ecstasy itself and circumstances of use, like the dance scene environment.

Ecological Momentary Assessments (EMA) is a generic term for a variety of research methods that are characterized by repeated measurements assessing people's current states or behaviours in their natural environments at strategically selected moments in time. One of the major advantages of EMA is that it results in more ecologically valid measures, as data are collected in real-world environments, and reduces biases relying on retrospective recall. EMA therefore provides an excellent opportunity to detail short-term drug intake patterns and sequences during weekend days, and to link drug use during weekends to individual and/or contextual factors shortly before, during or the days/week after intake (such as mood, functioning, alcohol use). This method has only applied once (in 2006) as a pilot study in a small sample of ecstasy users, and not specifically in relation to nightlife behaviour.

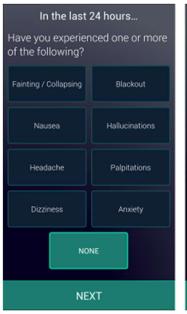
Research questions

- 1. Which substances are typically combined with ecstasy and in what order are they taken during weekend days?
- 2. What are the effects of ecstasy (and other substance) use during the weekend on mood, concentration and daily functioning on subsequent week days?
- 3. Which factors (mood, social environment, planned behaviour) predict substance use during the weekend?

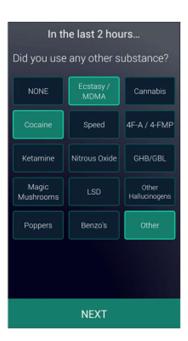
Methods

A smartphone app ("Nightlife Meter") was developed to collect detailed data on substance use, mood and functioning, during a five-week Ecological Momentary Assessment (EMA) study. Daily surveys to be completed by participants on their mobile phones included brief questions on mood, (e.g. relaxed, happy, stressed, bored); substance use (>14 substances), and sleep duration/quality and ability to concentrate. On Friday- and Saturday evening, every two hours between 22 pm and 4 am, participants received prompt messages to answer brief questions on mood, alcohol or other substance use, and their environment (location, kind of activity, company, temperature, sound and light level). Moreover, in order to find out whether participants planned their substance use, or rather used in response to situational factors, they were additionally asked on Thursdays whether they planning to use alcohol or other substances in the weekend that followed. Finally, every Saturday and Sunday around 1pm participants were asked to indicate whether they had experienced

negative side effects of your (possible) substance use the prior evening. At the start of five week assessment period, participants completed a detailed baseline questionnaire.







Preliminary results

The EMA data collection occurred in 2018 in three waves of five weeks between July 26 and October 2 (Netherlands) and between August 16 and October 26 (UK). A total of 285 ecstasy users (164 in the Netherlands 143 in the UK) participated in this study. The mean age was 25 years in both countries; 55% of the UK sample and 58% of the Dutch sample was male.

The data set is huge and challenging. Data cleaning and analysing is still ongoing. A pilot study testing the Nightlife Meter gives a snapshot of data collected during some weekends for one subject. Figure 1 (left panel) shows that this subject experienced a 'typical' alcohol weekend day (Sunday April 1) followed by two 'drug' weekends.

Figure 1. Example of a weekend assessment of substance use in one subject (ecstasy user). Substances consumed on different weekend days (left panel) and temporal patterns of use on two weekend days (right panel).

Date and Time	Substance use	Negative effects
Sunday 1 April	13 glasses alcohol	Nausea; Head ache; Dizziness; Blackout
Saturday 7 April	1 glass alcohol; GHB/GBL; Ecstasy / MDMA	Nausea
Sunday 8 April	Amphetamine; GHB/GBL	Head ache; Nausea
Saturday 14 April	None	None
Sunday15 April	Ecstasy / MDMA; Amphetamine; Ketamine; GHB/GBL	Hallucinations

Date and time	Drug intake last 2 hours	
Weekend 2		
Saturday 7 April 15:04	1/2 ecstasy tablet	
Saturday 7 April 17:04	GHB + amphetamine	
Saturday 7 April 19:02	½ ecstasy tablet + amphetamine	
Saturday 7 April 21:01	amphetamine	
Weekend 3		
Saturday 14 April 22:00	amphetamine	
Sunday 15 April 00:05	amphetamine	
Sunday 15 April 02:02	½ ecstasy tablet + GHB	
Sunday 15 April 04:11	½ ecstasy tablet + GHB + amphetamine	

We have collected a huge data set, which is now being analysed to answer and report on the 3 research questions mentioned before. The outcomes will be described in successive papers (number 2-4), as listed in section 6 (Dissemination and publications).

In addition, data from the EMSS baseline survey was used to draw up different substance profiles among regular ecstasy users and their intent to change their substance use behavior (see section 6, publication number 1 of the Dutch team). For this purpose, latent class analysis was applied to data from 1077 participants from the UK and 1178 from the Netherlands aged 18-34 who attended six or more EDM events and used ecstasy on at least three occasions in the past year. The results showed that in spite of differences in the prevalence of use of various substances, three types of users could be identified in both countries: Low polydrug use (LPU), moderate polydrug use (MPU), and high polydrug use (HPU) types. About half of all users or more reported the intention to decrease (but not stop) their substance use, with highest rates among the groups using more different substances (e.g. HPU:UK: 61%; NL: 67%). These findings suggest that poly substance users may be open to interventions aiming to moderate use to ultimately reduce health risks.

4. INSIGHT INTO THE RELIABILITY OF SELF-REPORT OF SUBSTANCE USE IN NIGHTLIFE POPULATIONS: A BREATH SAMPLING STUDY (WP5)

This study was conducted in Sweden (WP leader) and Belgium.

Background

The prevalence of substance use is often studied using self-report data. However, the reliability of self-reported illicit drug use can be uncertain due to under- or over-reporting. In the present study, self-reported substance use was compared with biological samples among nightlife populations in Sweden and Belgium, representing different nightlife cultures and drug policies.

Methods

Microparticles in the participants' breath were collected through a validated filter-device and analysed in a laboratory for the presence of 69 different substances. Through comparison between self-reported data on substance use during the past 48 hours and the results from breath tests, the reliability of self-reported data can be estimated and compared between the two countries.







Preliminary results

Visitors at two Belgian and one Swedish electronic dance music festival were invited to participate anonymously in a study on alcohol and substance use. After completing a questionnaire on alcohol and substance use habits, as well as on substance use during the last 48 hours, participants were asked to sample their breath into a validated filter-device for analysis of different substances at a later time-point. Nearly all participants agreed to being tested. In total, samples were collected from 328 participants in Belgium and 769 participants in Sweden. In both countries the median age was 21 years. A higher percentage of participants were male in Belgium compared to Sweden (71% to 56%).

The median breath alcohol concentration was higher in Sweden (0.076%) than Belgium (0.033%). Self-reported life-time substance use was more common among Belgian participants compared to Swedish participants. The most frequently used substances used were similar between the countries (in order of falling frequency): Belgium: cannabis, ecstasy, cocaine and amphetamine; Sweden: cannabis, cocaine, ecstasy and amphetamine. Whereas, 4% of the Swedish participants reported having used an illicit drug during the last 48 hours, the same figure was 54% among Belgian participants. The breath samples have so far only partly been analyzed. Preliminary results, based on the samples so far analyzed (n=373), should be interpreted with great caution but reveals both under- and over-reporting. For example, over- and underreporting could be seen for amphetamine, cocaine and ketamine use. Heroin use was underreported in all cases tested positive. The samples tested positive for heroin were in many cases also positive for noscapine, an impurity typical for "street heroin". Overreporting occurred mainly with cannabis probably because the detection window using exhaled breath is just a few hours.

Concluding remarks

In general, four aspects should be considered regarding the results. First, the large difference in self-reporting between the countries could reflect both real differences in substance use but may also reflect a difference in the acceptance and willingness to report substance use, despite being an anonymous assessment. Second, significant over- and under-reporting could be related to the fact that substances are purchased from illegal, unreliable sources and may therefore contain other substances than the anticipated one. Third, the detection window of approximately 48 hours may not be reliable and might differ for different substances. Fourth, there might be issues with recall bias particularly bearing in mind that substance use and not least poly-substance use affects memory function.

5. CONTEXTUAL ANALYSIS OF THE NIGHTLIFE SCENE IN FIVE EU COUNTRIES (WP6)

This work package was conducted by Belgium (WP leader) and Italy, with the participation and contribution of all countries. See further, the second part of this summary. Since this was the WP of Belgium, this WP is summarized more in detail.

WP 6: Analysis & description of the nightlife culture in five European countries

INTRODUCTION

To better understand the different contexts of the nightlife settings under study in the participating European countries¹ involved in the ALAMA nightlife project, nightlife cultures are described, analyzed and finally compared in this work package through an ad hoc web-based mixed-methods comparative study, divided into two main parts. The aim is to build a context overview which assists in determining possible recruitment channels for the other work packages and which helps to interpret various study components in light of contextual differences between the countries. This information is pivotal to understand the differences and similarities that are found in the other work packages.

The first part consists of a content analysis, including a descriptive and content analysis. Therefor we make use of the global online electronic music magazine and community platform www.residentadvisor.net in the first place, which is used as the main information source for this purpose. To be as least biased in the recruitment phase, we proposed in the original proposal to use this common channel which is available in all participating countries. Secondly a Facebook analysis will be conducted, analyzing the Facebook pages of different clubs in the electronic dance music scene. In the second part interviews with nightlife experts will be executed in every country involved. The results from the content analysis will be submitted towards them – in other words: the analysis on Resident Advisor and Facebook through the eyes of the nightlife experts.

Underneath a summary and conclusion will be presented from WP6

SUMMARY ON PART I

Departing from lists of 'top clubs' mentioned on the online community platform 'Resident Advisor', 56 clubs situated in the techno- and house scene were selected – situated in one of the five European countries involved in the ALAMA-nightlife project. All these clubs set up a Facebook page to communicate about several topics with their audience. As it was the main objective to study the nightlife culture in five European countries – or more specifically the club culture in the different European countries involved – the different aspects that were communicated by partygoers (clubbers) and organizers (club owners) on the Facebook pages of the different clubs were explored and analyzed. The data generated a very large range of topics from all countries, except for Sweden where fewer communication occurred through Facebook. Also important to take into account is the fact that a majority of the British clubs did not allow reviews on their Facebook page. However, also

¹ The Netherlands, United Kingdom, Sweden, Italy and Belgium

British partygoers did found their way on Facebook to communicate about both positive or negative club experiences.

In terms of club culture, the communication about music culture is most prominent in all five countries – especially the diverse forms of communication about the deejay. Both in the communication by organizers and partygoers, deejays can be seen as 'the icon', a concept introduced by Nabben (2010). The Italian and Belgian club culture is distinguished by the use of the concepts of 'underground' or 'alternative', where these concepts are more frequently mentioned and seems to be of more importance than in the other countries involved. The British club culture is characterized by communication about after parties by organizers as a more common practice. Notably, the Dutch and Italian clubs communicate about theme parties or events with a dress code.

Overall, club experiences are communicated in a positive way among most partygoers. Describing the good vibes or atmosphere was most cited as a positive experience. Negative club experiences are, in every country, concentrated around a few clubs. Concerning the negative club experiences, most of the cases are related to the door policy - especially among Dutch and Swedish partygoers – which manifests often in discussions about discrimination executed by the bouncers. Only Belgian partygoers did mention more positive than negative experiences in terms of encounters with bouncers.

In terms of marketing and communication, all organizers of the 56 clubs involved, are making use of advertisement of their upcoming events on Facebook. Moreover, many partygoers indicate their presence to a specific event of the club or they communicate about their intention to go (back) to a certain club. Even expressing their excitement related to a certain announcement is common practice among partygoers. Sometimes a sexualized content was used as promotion for the advertisement of upcoming events, except by organizers from the British clubs. Concerning the communication of previous events, sharing pictures is a common practice among the Dutch and Italian organizers.

Furthermore, presale and doorsale tickets are common practice in the communication by organizers in all five countries. Exceptionally, an implicit form of positive discrimination was found in the communication among a few Italian and Belgian organizers, by using a distinction in the ticket price between male and female partygoers. Communication about reselling their tickets occurred by partygoers in all five countries, however this was rather an exception by partygoers of Swedish clubs, while it was a typical practice among many partygoers of Dutch clubs.

If we look deeper into the opening hours of the clubs/events, it seems that an event at a Belgian club takes – on average - eight hours. The other countries show more limited opening hours, however, the differences are limited. In Italy, the clubs are open for around six hours, which puts Italy last in line. Swedish clubs open the earliest (around 22h) compared to the club culture in the other countries.

The most communication concerning alcohol and other drugs was in general not communicated out of a health perspective both by organizers and partygoers. On the contrary, organizers did communicate about alcohol promotions as a marketing strategy, however, this was less the case or communicated in a more prudent way among Swedish organizers. An exceptional communication by an organizer of a Dutch club, mentioned the age restriction for alcohol consumption at their club.

Nevertheless, a few partygoers – mainly Swedish partygoers – communicated in a more critical way towards alcohol use. Also communication from a health perspective about illicit drugs was as good as non-existing. Just one exception by a British organizer was analyzed, who communicated about the implementation of some drug policy measurements at their club. Notable is the open communication among two Dutch organizers about the topic of cannabis. Partygoers among all countries did communicate about illicit drugs, nevertheless in a more secret way, by using slang language or a hidden reference to a specific substance.

Notwithstanding this research has put an extra focus on the communication among organizers and partygoers concerning the topics of alcohol and other drugs from a health perspective, limitations are there towards the use of Facebook as data source to study these specific topics in-depth. Precisely because of the fact that a huge amount of raw data is available on Facebook, it is more difficult and very time consuming to study this specific topic in a profound way. Furthermore, Facebook was introduced as an explorative way of describing and analyzing club culture in five European countries. The evidence is there that Facebook – and perhaps also other social media channels – are nowadays of great importance to study club culture, or more in general, nightlife culture. Additionally, there can be concluded that the use of Facebook is a popular way of communicating – both by organizers (club owners) and by partygoers (clubbers). Despite, the lack of communication found on Facebook about the topic of alcohol and other drugs from a health perspective, most likely this finding can open opportunities. Especially organizers can use this medium to reach that goal in the first place, but also partygoers are inevitably crucial in a better communication about substance use and other health related topics in general.

CONCLUSIONS ON PART II

An important consideration to interpret the results of the ALAMA-nightlife project is the use of Resident Advisor in the recruitment phase. First of all, none of the nightlife experts questioned Resident Advisor as it should be no reliable platform which represents the electronic dance music scene. Shortcomings why Resident Advisor doesn't represent for 100% the electronic dance music scene must be seen from three different perspectives. Geographically seen, more international oriented clubs end up in our research, which are in general situated in the capital city or bigger cities of each country. Secondly, Resident Advisor represents mainly the techno- and house scene in all countries involved. Other sub scenes in the electronic dance music scene are less, hardly or not represented. Finally, there can be concluded clubs situated in the underground- and more hidden scenes are not or less represented in most of the countries involved in this study – except for the selection of clubs in Belgium, where mainstream clubs are underrepresented. Notwithstanding, the use of Resident Advisor was the best possible way to design a comparative study in the electronic dance music scene across different countries.

During the interviews, country specific findings from the Facebook analysis were presented to the nightlife experts. In general, the nightlife experts confirmed the results conducted out of the Facebook analysis: Most importantly, deejays are highlighted as the icon of the electronic dance music scene, while music culture is seen as less prominent. However, the dichotomy 'underground' (scene) versus 'mainstream' (scene) was discussed among many nightlife experts. Several of them are convinced the underground aspect is fading away in the electronic dance music scene. Furthermore, some nightlife experts mentioned the aspect of being part of a community as an important topic in the club scene, nevertheless no clear line can be drawn from their findings. A rather remarkable discrepancy was

found concerning the results about theme parties. Dutch and Belgian nightlife experts were questioning these results and didn't agree with the fact that Dutch clubs are known for their theme parties or dress code parties. Concerning the door policy at clubs (and related problems), several nightlife experts confirmed the findings. To end, there was stressed during the interviews, there is less to no open communication concerning substance use.

The British nightlife expert emphasized the importance of the social media platform 'Instagram'. This online platform shows more the world from the eyes of the clubber, while Facebook feels a lot more professional – according to the nightlife expert.

Not a lot of feedback was given on the results from the ALAMA survey. The lower number of substance use among the Italian participants in this study received divergent feedback from a few nightlife experts.

In general, the link between drug use and the electronic dance music scene was not questioned among the nightlife experts. Nevertheless, nuances were given by several nightlife experts. They specified drug use is not only a phenomenon in the nightlife setting, but has to be seen as a societal phenomenon. Likewise for the electronic dance music scene, which is not the only music scene were drugs are used. Furthermore, explanations were given for these specific links. Escapism (from daily life) and more functional explanations (to expand sensations, having fun) were the most prominent explanations. According to the link between drug use and the electronic dance music scene, nightlife experts specifies the link between electronic music and stimulants in particular – such as MDMA.

Concerning trends and evolutions in terms of substance use, different views among the nightlife experts were determined. The normalization and increase of drug use was the most discussed topic, however there was no predominant consensus among this specific evolution among all nightlife experts. Explanations for the normalization or increase of drug use were mentioned, such as the international context (cf. party tourism), wherein the electronic dance music scene is embedded. Some nightlife experts mentioned the evolution where in the past specific drugs were linked to specific scenes, while nowadays this is less or even not the case anymore. Another evolution was raised about more awareness concerning drug use among some nightlife experts. Nevertheless, opposite opinions were stated by other nightlife experts. A final evolution which was indicated by nightlife experts from almost all countries, is the rise of ketamine use.

When the topic was raised during the interviews about drug policies at clubs or festivals, the zero tolerance policy was stated as the legal framework for drug policies at the level of the club or festival. Nevertheless, some nightlife experts denounced this restrictive policy in the nightlife context. Secondly, health related issues were put forward as prominent by several nightlife experts. The role of the club owner or organizer was discussed among some nightlife experts – with different opinions concerning how they (should) adopt their role in the context of implementing health related aspects in their drug policy. During some interviews, harm reduction initiatives were mentioned in this context.

Annex 1

Country	Regions	Total number of clubs	Number of inhabitants (Eurostat, 2011)	Number of clubs/100.000 inhabitants
Belgium		959	11.000.638	8,71768
The Netherlands		1.173	16.655.799	7,04259
	Amsterdam	413		
	Eindhoven	43		
	Rotterdam	98		
	The Hague	70		
	Utrecht	69		
	other regions	480		
Sweden		327	9.482.855	3,44833
Italy		3.078	59.433.744	5,17888
Cent	Central	1.155		
	North	1.174		
	South	537		
	Sicily	212		
United Kingdom		3.752	63.182.180	5,93838
	London	1.366		
	Midlands	335		
	North	795		
	Northern Ireland	62		
	Scotland	286		
	South+East	607		
	West+Wales	301		
TOTAL		9.289		

Table 1: Descriptive analysis of all clubs situated in the participating countries of the ALAMA nightlife project mentioned on Resident Advisor (situation January 2017)

Annex 2

Belgium	The Netherlands	Sweden	Italy	The United Kingdom
10 clubs	12 clubs	10 clubs	12 clubs	12 clubs

Table 2: Number of clubs involved per country