



New Psychoactive Substances: transnational project on different user groups, user characteristics, extent and patterns of use, market dynamics, and best practices in prevention

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1 Summary

This transnational and interdisciplinary research project builds on the knowledge and experience gathered in recent years by researchers from different scientific disciplines in six EU-countries: Germany, Hungary, Ireland, the Netherlands, Poland and Portugal.

The main methods applied in this project were an inventory of the NPS situation within each of the six countries and a survey among three groups of NPS users.

For the inventory of the NPS situation in each of the six participating countries, national information was gathered from existing sources about NPS definitions, drug policy and legislative frameworks, supply (procurement and market), demand (prevalence rates, description of users, motives and patterns of use) and prevention activities. In addition, eight experts were interviewed on these themes, with a focus on best practice.

The survey was conducted among three groups of regular NPS users (as indicated by current knowledge), using a targeted sampling methodology:

1. **Socially marginalised users** are 'high risk drug users', often also frequently using opioids, (crack)cocaine and or (meth)amphetamine – intravenous use or through smoking. They were recruited face-to-face by trained fieldworkers or care professionals in the street, at or through care and treatment facilities (e.g. drug services, shelters) and through snowball sampling. In most cases, pen-and-paper questionnaires were interviewer-administered;
2. **Users in night life** are recreational drugs users who frequent clubs, raves and/or festivals. They were mainly recruited face-to-face on-site at clubs, raves and festivals. Users in night life mostly self-completed either a pen-and-paper or online questionnaire to which they were referred by a flyer containing a link and an individual code;
3. **Users in online communities** are users who are very active on the internet, and actively participate in drug forums. They were recruited by posting messages on drug-related social media and internet forums. Users in online communities were only given access to the online questionnaire.

The survey was restricted to (1) recent NPS users (at least once in the past 12 months), (2) residents of the participating countries, and (3) adult (18+) users. The final sample consists of 3,023 recent NPS users, among which the online community sample is the largest and the marginalised sample the smallest.

Subsample sizes per country broadly reflect the countries' composition of the NPS users population (the Netherlands and Portugal have limited numbers of marginalised NPS users), differences in willingness to cooperate among night life venues and online drug forums, and – in the case of Ireland – inaccessibility of night life because of Ethic Committee regulations.

	MARGINALISED	NIGHT LIFE	ONLINE	TOTAL
SAMPLE				
Germany	23	98	542	663
Hungary	101	15	156	272
Ireland	48	3	11	62
The Netherlands	1	189	1,000	1,190
Poland	86	172	338	596
Portugal	7	170	63	240
TOTAL	266	647	2,110	3,023

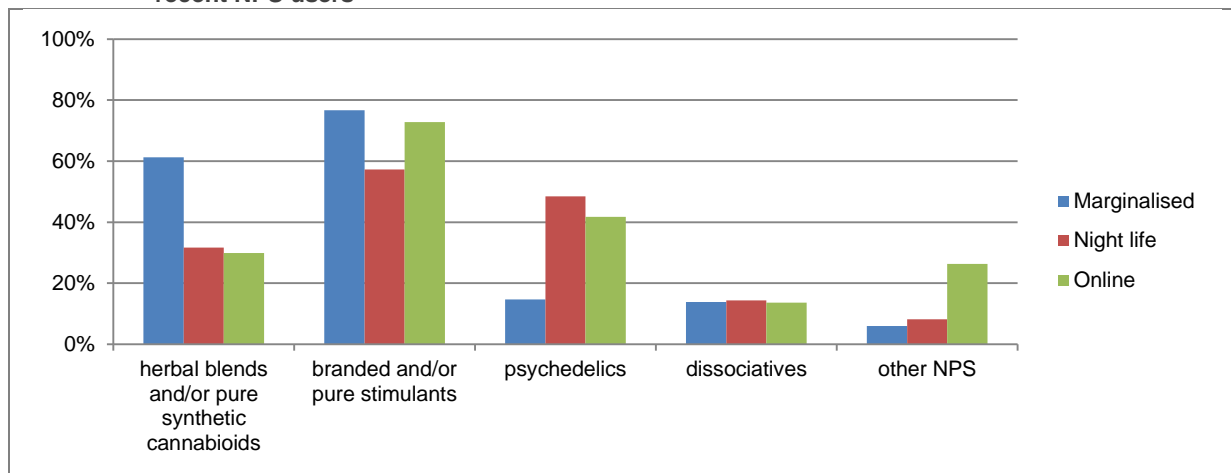
A general result from both the inventory and the survey is a lack of a clear definition of NPS across and within countries. Experts often refer to the international UNODC or EMCDDA definitions, but at the same time complain of the limited workability of these definitions in everyday life. Legality is part of some definitions used but not others. When legality is taken into account, the NPS status of individual substances depends on (and varies with) the prevailing laws of the countries. Regardless of definitions, the term NPS is virtually unknown among users. They use terms like ‘designer drugs’ or ‘legal highs’ or a variety of synonyms (e.g. crystals, herbals). Other results are summarized by research question in the following paragraphs.

1.1 NPS USE

What is the extent of NPS use (prevalence rates for different NPS), which substances are used within each group and what are patterns of use (frequency, poly drug use)?

Estimating general population prevalence rates of NPS, or even prevalence rates among subgroups (e.g. young adults) within the general population, was beyond the scope of this study. Unachievable numbers of respondents would have had to be recruited for reliable measurement and to obtain a large enough sample of users to be able to study use characteristics. The survey was therefore restricted to *recent* (last 12 months) users of NPS. As a consequence, the prevalence of different categories of NPS found in this study cannot be extrapolated to the broader populations of marginalised people, night life visitors or members of drug-related internet forums. Results do indicate, however, the relative proportion of users of specific categories of NPS, and similarities and differences therein between marginalised, night life and online community users and between countries. For comparison, Figure 1 and Figure 2 show prevalence rates of last 12 month use of five categories of NPS studied per group of users and per country.

Figure 1 Last 12 month use of categories of NPS among marginalised, night life and online community recent NPS users



Within all samples of recent users of NPS in this study, branded stimulants ('bath salts') and/or stimulants obtained pure were used by most. However, marginalised users reported using *Mtot Thora* and *Snow Blow* most often, while night life and online community users most often reported using 4-FA and 4-MMC (mephedrone).

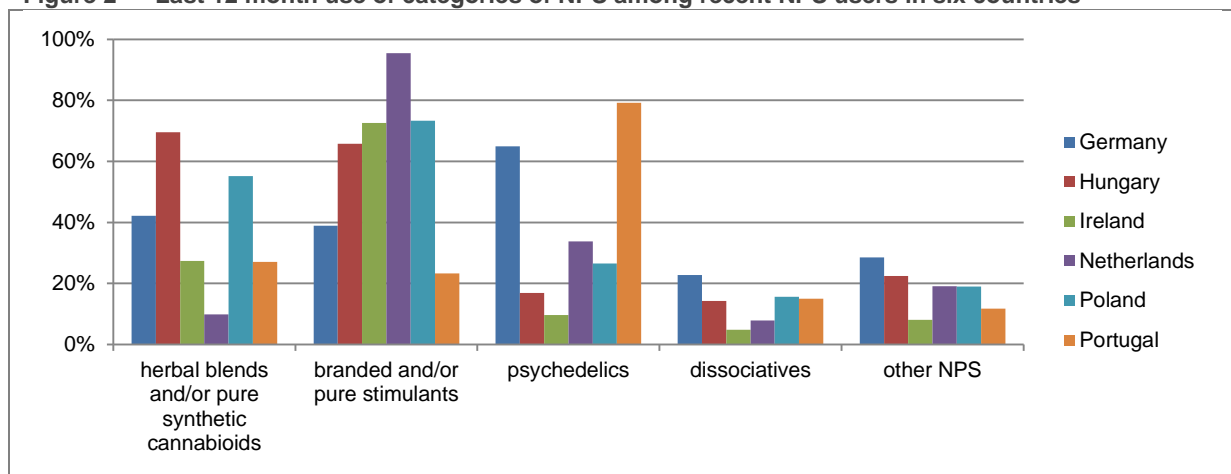
Marginalised users also differ from night life and online community users by a higher prevalence of herbal blends and/or synthetic cannabinoids use. Moreover, while brands of herbal blends used are similar across the three groups (*Mocarz*, *Spice* and *Bonzai* are often named), marginalised users more often seem unaware that the active ingredients in many of these blends are synthetic cannabinoids.

Another difference between marginalised users and night life and online community users is the higher prevalence of psychedelic NPS use in the latter two. The types of psychedelics used does not differ much: NBOME's and 2C-B are often named in all three groups.

Online community users distinguish from both marginalised and night life users by relatively high levels of benzodiazepine class NPS.

Where the three groups of recent users in this study do not differ, is in their use of dissociative NPS (often MXE).

Figure 2 Last 12 month use of categories of NPS among recent NPS users in six countries



One could suspect that prevalence rates per country reflect the composition of the countries' samples. In comparison, proportions of marginalised users are larger in samples of Hungary and Ireland, while

the Portuguese sample consists mainly of night life users and samples of Germany and the Netherlands of online community users. However, results show differences between countries regardless of sample composition.

- The use of herbal blends and/or pure synthetic cannabinoids is most prevalent in Hungary and Poland and least prevalent in the Netherlands;
- Branded and/or pure stimulants are favoured by Dutch NPS users and are least popular in Portugal;
- The Portuguese and German samples are distinguished by high levels of psychedelic NPS use;
- And as for dissociative and other NPS, Germany showed the highest prevalence rates and Ireland the lowest.

Frequency of NPS use is often limited to a few times a month at the most; only the marginalised sample contains significant groups of daily users. Compared to the other categories of NPS, herbal blends and/or synthetic cannabinoids are used more frequently.

Among night life and online community users, NPS are most often used in night life venues in the company of others, and NPS are mostly swallowed, smoked or snorted. In contrast, marginalised users most often use in public spaces, also use alone and often inject their NPS.

Marginalised users also differ from night life and online community users in reporting substantially more acute unpleasant side effects (including paranoia and aggression), more mid- and long-term mental and physical problems and more social problems from NPS use.

1.2 NPS USERS

Who are the users of NPS? What are their demographic characteristics and drug use histories?

In most countries, experts distinguish two main groups of NPS users: (1) socially integrated, recreational, experimental users, and (2) socially marginalised, problematic (intravenous) drug users. In the Netherlands, however, NPS does not seem to have surfaced in the street scene and the group of marginalised NPS users is virtually non-existent. In Portugal, the phenomenon of marginalised NPS users appears to be restricted to the islands of Madeira and the Azores, where traditional drugs are more expensive.

The survey results show that recent NPS users in all countries are predominantly male (less than one third female). Online community users are mostly young adults between 18 and 25 years (average 23.6 years). Night life users are somewhat older: between 18 and 35 years (average 25.7 years). Most night life users reside in large towns, but online community users often live in small and medium-sized towns. Levels of education are high among both night life and online community users and many are students.

Marginalised users of NPS are older than the other two samples (average 33.5 years). They are predominantly found in large towns, have had little education and are often unemployed.

A history of drug use other than NPS is common among marginalised, night life and online community users. The majority of all samples of NPS users has ever used cannabis and traditional stimulant drugs (amphetamines, ecstasy and cocaine) and many have also used other drugs like magic mushrooms, LSD or ketamine. In comparison to the other two samples, marginalised users show higher life time prevalence of crack cocaine, heroin, methamphetamine and unprescribed downer medicines.

They also show considerably higher levels of intravenous drug use (which is rare among night life and online community users).

1.3 SUPPLY

How do users procure NPS? From/with friends, from traditional supply sources or through the internet? In case of the internet: which websites?

Most recent NPS users from the survey purchase NPS themselves, but especially night life users also get NPS for free (through people sharing with them more often than getting it as a gift), have friends purchase NPS with their money or make a group-purchase. When purchasing NPS, marginalised users most often do this from a private dealer, night life users from a friend and online community users from the internet. Buying from stone-and-mortar shops (headshops or smartshops) is also reported, but by a minority of users. Webshops dedicated to NPS are most often used to buy NPS online, social media and Darknet vendors were far less often mentioned.

Depending on the country (laws and regulations), webshop and dealer, NPS are sold under their chemical name, a generic name (e.g. crystals, herbals), a 'fake' name (e.g. bath salt, plant food), a brand name (e.g. Spice, Snow Blow), or under the name of a traditional drug (e.g. ecstasy, lsd). As a result, many users do not know exactly what NPS they have used.

A paper is being prepared in which gathered information on NPS markets, supply and procurement is analysed more elaborately.

1.4 MARKET

What are the market dynamics? Are NPS used because they are relatively easily available? Do people use NPS because it is difficult to procure other –preferred– types of drugs? Are NPS used as an alternative to, or in addition to controlled drugs?

In Ireland, Hungary and the Netherlands the (most recent) wave of NPS started with an increase of mephedrone in 2009/2010. From there on, market developments differed. In Ireland the closure of headshops selling NPS in 2010 reportedly reduced NPS use. In Hungary supply has shifted to other cathinones (4-MEC, MDPV, pentedrone, alpha-PVP), accompanied by a rise in the seizures of plant material impregnated with synthetic cannabinoids. In the Netherlands, mephedrone never much caught on and is by now completely overshadowed by the increasingly popular 4-FA. In Germany the NPS phenomenon started in 2008/2009 with other synthetic stimulants (TFMPP and BZP), after which the focus shifted to synthetic cannabinoids, and more recently developed into a highly diversified NPS market. In Poland and Portugal, NPS market developments are strongly linked to the proliferation of stone-and-mortar NPS shops (various types of outlets in Poland, smartshops in Portugal) from around 2008 and the consecutive ban of these shops in 2010 and 2013, respectively.

Availability and affordability were often pointed out by experts as predominant motives for NPS use, especially among marginalised users. Shortages (resulting in higher prices) of traditional drugs were mentioned in Poland and the Portuguese islands. Inversely, the varied and accessible range of cannabis through coffeeshops is viewed as an important factor in the lack of enthusiasm for synthetic

cannabinoid variants in the Netherlands. Higher potency in comparison to (or failing quality of) conventional drugs also play a role in some countries. In the Netherlands, the expansion of the NPS market in 2009 was strongly associated with a (temporary) slump in the ecstasy market. Nowadays, however, it is not the poor quality, but the very high purity of ecstasy that explains why 4-FA is said to be popular in the Netherlands. Among survey respondents, marginalised users expressed a stronger motivation because of poor quality and low availability of other drugs than night life and online community users.

Concerning the use of NPS in relation to the use of other substances, this report includes figures of life time use of other traditional drugs. Further analyses of recent/current use of these substances will yield some indication whether NPS use is supplementary or substitutional.

1.5 PREVENTION

**What are best practices in NPS prevention regarding supply reduction and demand reduction?
What role does the legality or illegality of NPS play in procurement and use? (e.g. deterrence)
Do users apply strategies to avoid detection or arrest?**

In all countries, *supply reduction* is regulated by prohibiting NPS. In most cases NPS are individually scheduled, requiring the laws to be amended regularly, but Germany recently outlawed the entire NPS classes of phenethylamines and synthetic cannabinoids. In Ireland, Poland and Portugal, stone-and-mortar shops selling NPS have been closed down. In addition, in the Netherlands the national smartshop organisation discouraged the sale of 4-FA even when it was still legal.

Also for *demand reduction* the policies in the different countries are very much linked to the policies for other drugs. Information campaigns for NPS specifically are rare, although in some countries professionals and peers are trained to provide information on (one or more) NPS.

Most countries do not have general *prevention* programmes focusing on NPS specifically. That being said, in Poland there was one initiative on social media targeting a specific. In Ireland, as well, there was a general prevention programme for NPS, this time including more than one substance.

For *harm reduction* it is even more true that NPS strategies are embedded in existing harm reduction activities that primarily target other substances. No harm reduction activities for NPS specifically have been developed. Exceptions to this rule are Dutch peer information projects targeting 4-FA, and a Germany listing the ingredients found in NPS.

In none of the countries are *treatment* facilities aimed specifically at NPS users. However, NPS users are welcome in existing facilities.

The general consensus among experts from all participating countries is that NPS users are not strongly guided by the legal status of the substances. There are, however, subgroups of users who are motivated by the non-detectability of NPS in common urine controls. This can hold for drug users who are in some form of drug control program (e.g. abstinence treatment) or people at risk of losing their driving licence or work permit. In the survey, alleged legality and non-detectability were among the least often reported motives for NPS use.

2 Introduction

New Psychoactive Substances (NPS) are a rapidly growing group of psychoactive drugs. European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) defines NPS as “synthetic or naturally occurring substances that are not controlled under international law, and often produced with the intention of mimicking the effects of controlled drugs”. NPS are also a heterogeneous group (e.g. phenethylamines, tryptamines, cathinones and synthetic cannabinoids). The emergence of NPS poses several challenges to EU legislators and law enforcement.

Firstly, because the rapid spread and the strong variety in chemical composition, it is not an easy task to keep up with the emergence of NPS. This impedes timely and appropriate actions regarding the legal status of NPS, not only at the EU level, but also for individual EU member states, in particular if detailed (national) Risk Assessments are required in order to decide whether or not, and how a specific NPS should be regulated.

Secondly, the emergence of NPS goes hand in hand with the internet as a growing marketplace. The internet is of growing importance as a source of information about NPS (e.g. chemical composition, psychoactive effects), not only for users but also for NPS producers and suppliers, thereby creating new market opportunities. Buying NPS through the internet generally does not require access to social networks and personal contacts with dealers, as is the case in traditional supply (e.g. in the street; in clubs; through ‘stone and mortar’ suppliers such as smart shops and in private settings).

Thirdly, the transnational character of this new market significantly impacts on the structure and organisation of the NPS supply chain since geographical distances covered are much larger than before, while at the same time there are fewer intermediaries in the chain.

Member states provide EU institutions (EMCDDA, Europol) with data about NPS, such as seizures; purity; fatal and non-fatal accidents; pharmacology and toxicology et cetera (e.g. from National Focal Points; police; customs; forensic institutes). Such information is highly relevant for monitoring the NPS market and for Risks Assessments. However, there is a need to be better informed about the extent and patterns of NPS use. Previous studies provided European-wide information, but this is not very specific (e.g. prevalence rates of NPS as a general category in Eurobarometer). Other research focussed on one type/category of NPS (e.g. Spice) or on only one group of users (e.g. night life settings or online communities) – and in the latter case often in only one European country. In addition, there is a need to better understand the supply side of the NPS market. There is a growing body of knowledge about the role of the internet in the NPS market (e.g. number and kinds of websites and types of NPS offered), but relatively little about the extent to which users buy NPS through the internet, and the profile of buyers. Finally, there is a need for evidence-based best practices in the prevention of NPS supply and demand.

Current knowledge on NPS users indicates that three main groups can be distinguished that use NPS regularly:

1. **Socially marginalised users:** ‘high risk drug users’, often also frequently using opioids, (crack)cocaine and or (meth)amphetamine – intravenous use or through smoking; often unemployed, homeless and/or in care.
2. **Users in night life:** recreational drugs users who frequent clubs, raves and/or festivals; they are likely to be mostly student and/or employed.

3. **Users in online communities:** users who are very active on the Internet and actively participate in drug forums.

Current knowledge also suggests both similarities and differences between these groups and across EU countries with regards to user characteristics; (types of) NPS used; patterns of use; and procurement (e.g. role of internet). Reasons for users to procure NPS through a specific source are as of yet largely unknown. Market dynamics might differ substantially from those of controlled drugs.

This project aims to address the need to be better informed about the extent and patterns of NPS supply and use - in particular the role of the internet - and best practices in prevention of NPS supply and demand.

The main objectives are:

1. Determine the extent and patterns of NPS use amongst socially marginalised users, users in night life settings and users in online communities;
2. Assess the characteristics of NPS users in these three groups;
3. Collect information about supply;
4. Identify market dynamics for NPS;
5. Assess perception of legal status of NPS;
6. Make an inventory of prevention strategies used in the different countries;
7. Identify best practices;
8. Disseminate and share project results Europe-wide.

This transnational and interdisciplinary research project builds on the knowledge and experience gathered in recent years by researchers from different scientific disciplines in six EU-countries: **Germany, Hungary, Ireland, the Netherlands, Poland and Portugal**. These six countries vary in NPS use prevalence known so far (e.g. Eurobarometer 2014), geographical location, groups known to use NPS and regulations in place for NPS. The research focussed on five themes:

1. What is the extent of NPS use (prevalence rates for different NPS), which substances are used within each group and what are patterns of use (frequency, poly drug use)?
2. Who are the users of NPS? What are their demographic characteristics and drug use histories?
3. Supply: How do users procure NPS? From/with friends, from traditional supply sources or through the internet? In case of the internet: which websites?
4. What are the market dynamics? Are NPS used because they are relatively easily available? Do people use NPS because it is difficult to procure other –preferred– types of drugs? Are NPS used as an alternative to, or in addition to controlled drugs?
5. What are best practices in NPS prevention regarding supply reduction and demand reduction? What role does the legality or illegality of NPS play in procurement and use? (e.g. deterrence) Do users apply strategies to avoid detection or arrest?

The European Drugs Strategy 2013-2020 specifically mentions the rapid rise of new drugs among young people and the difficulties policy makers have in responding to new drug trends. The information collected in this project will provide important novel insights into the NPS market. These include the identification of similarities and differences in NPS use and supply across EU-countries and between user groups. It will also close the gap in knowledge about impact of current strategies aimed at reducing the supply/distribution and demand and use of NPS and allow for new perspectives on these chosen strategies as they relate to the reduction of health and social risks.

The main methods applied in this project were an **inventory** of the NPS situation; prevention activities and best practice within each of the six countries and a **survey** among the three groups of NPS users.

3 Inventory

For the inventory of the NPS situation in each of the six participating countries, national information was gathered from existing sources about NPS definitions; drug policy and legislative frameworks; supply (procurement and market); demand (prevalence rates, description of users, motives and patterns of use) and prevention activities. In addition, eight experts were interviewed on these themes, with a focus on best practice. This resulted in the publication of six *Country reports on New Psychoactive Substances* and six *National Reports on New Psychoactive Substances Expert Interviews*, reflecting the NPS situation per country in 2016.¹ Below is a concise summary of the information presented in these reports, including any changes that occurred after the reports were first completed. For details about the sources of the information presented below, we refer to the respective reports.

3.1 DEFINITIONS

3.1.1 Germany

The most broadly used definition of NPS in Germany is that of the EMCDDA. However, when trying to define if and when a substance is 'new', different criteria were mentioned. The level of the scientific knowledge was important especially for research experts. Furthermore, the quantitative relevance is important for defining a psychoactive substance as 'new' in the sense of a measurable increase of prevalence, even a short term one, the substance itself can be known for a longer time. For some a listing as a controlled substance is not sufficient to lose its status as 'new', but according to a regulatory definition, NPS cannot be traditional drugs in the sense of German legislation (Betäubungsmittelgesetz, BtmG) and vice versa.

3.1.2 Hungary

According to the Hungarian Medicine Act, new psychoactive substances are substances or groups of compounds recently appearing on the market that have no medicinal use and that, due to their effect on the central nervous system, are suitable for altering a person's state of consciousness, behaviour or senses, and therefore represent a threat to public health similar to the substances listed in the illicit drug and psychotropic substance schedules. Experts, however, had difficulty in defining NPS and reported not to have a scientific or common definition for it. They do not approach the definitions of NPS by chemical structures of substances; they are more interested in effects, the symptoms and the social circumstances of the NPS usage. Among users, several synonyms (designer drugs, NPS, herbals) and names ('zene' (music), 'kristály' (crystal), 'biofű' (bioweed)) are used, but even if it's the same name, they can have very different effects on the user.

3.1.3 Ireland

Definitions of NPS in Ireland vary within the context of the expert's professional role, and are generally confined within the regulatory domain and Irish legislative context. Some refer to the international The United Nations Office on Drugs and Crime (UNODC) definitions. Many label NPS within the context of the headshops prior to 2010 and define '*headshop*' legal highs or define NPS according to the psychoactive effect. Others refer to NPS as substances not detected in usual urine screening of drug treatment patients. Challenges in definition centre on detection, and verification of content by chemi-

¹ These reports can be downloaded from the NPS-t website: www.npstransnational.org.

cal analysis. Because of the dynamic nature of the designer NPS market, surveillance and detection struggle to tackle continuously adapted products.

3.1.4 The Netherlands

Several different definitions of NPS are used in the Netherlands. The legal status of a substance is sometimes part of the definition, other times not. To users, the term NPS is virtually unknown; they speak of designer drugs, legal highs or simply mention the formula. Also among experts, there is no consensus about the definition of NPS. Justice commonly defines NPS by them not being scheduled in the national Opium Act (which makes 2C-B not a NPS) and police adhere to international UNODC definitions (according to which 4-FA is not a NPS, but ketamine is). Healthcare and prevention experts generally use more flexible definitions and consider lack of knowledge about health risks more important than legal status.

3.1.5 Poland

The legal definition of NPS in Poland is that of a substitute: a product comprising at least one new psychoactive substance or other substance with similar effects on central nervous system which can be used instead of a narcotic drug or psychotropic substance or for the same purposes as a narcotic drug or psychotropic substance.

The popular Polish term used to express the notion of NPS is 'dopalacze' which can be literally translated as 'afterburners' as it signifies the potential boost or a high one can get after NPS use. The term 'dopalacze' comes from the name of the popular e-shop www.dopalacze.com launched in 2008, offering a vast catalogue of substances and products including herbal mixtures; powders; pills and crystals. Media discourse also delivered several different labels describing the phenomenon as 'legal highs'; 'smart drugs'; 'novel psychoactive substances'; 'new generation drugs'; 'designer drugs' or 'research chemicals' (Dobrowska, Bujalski 2013). The use of the Polish translation of the term NPS ('Nowe Substancje Psychoaktywne') occurs mostly in a professional discourse and is not common among users and lay people.

NPS are defined in opposition to conventional drugs as leading to greater (and fast increasing) harm. Their use is more risky because of unknown composition. Experts mentioned the inability to define NPS as it is impossible to create a closed register of NPS because of the emergence of new substances.

According to experts the concept of new psychoactive substances includes both scheduled substances but also those substances that potentially can be scheduled in the future. Attention was drawn to the definitional problems associated with the unclear status of the substances, which have been present for many years on the market and are already well recognized, such as mephedrone.

NPS are defined as a relatively new phenomenon lacking the cultural contexts, meaning and symbolic value, typical for conventional drugs. NPS are treated instrumentally, without any social, political or moral consideration, contrary to conventional drugs that used to be considered as a manifestation of counter culture.

3.1.6 Portugal

Until the definition set by the *European Monitoring Centre for Drugs and Drug Addiction* (EMCDDA) and the *United Nations Office on Drugs and Crime* (UNODC), the public and main definition of NPS was simply 'legal drugs', which encouraged and required an urgent national and institutional definition for these drugs. The governmental Directorate for Intervention on Addictive Behaviours and Dependencies (SICAD) adopted the EMCDDA definition in 2012 which was published in several media. Though most experts tend to follow regulatory definitions rather than scientific ones, there is no consensus about the definition of NPS. There are definitions which only consider NPS as substances that have emerged recently. There are others which consider NPS as research chemicals, i.e. synthesized

substances. And yet others define NPS as substances that appeared recently in the market and began to be consumed recreationally, including ‘the new consumption of old substances’. Despite differences in definitions, most deliberately emphasize the ‘new’ instead of the ‘legal’.

3.2 POLICY AND LEGISLATION

3.2.1 Germany

There are three lists of classified substances in the German narcotics law (BtMG): One (list III) defines all medicines that can be prescribed by doctors; the other two define all substances that may not be prescribed, making them ‘illegal’ for most (list II), if not all purposes (list I). Drug use is generally not criminalised in Germany but the *possession* of even small amounts of drugs is subject to criminal law. According to a clause in the BtMG, the state attorneys usually dismiss the charge if the case refers to a small amount of illicit drugs for personal use. Since 2009, there have been repeated amendments of the BtMG that banned (single) NPS. Since 2010, there were attempts to ban the sales of NPS by laws that regulate the market for pharmaceuticals (Medicinal Products Act, ‘*Arzneimittelgesetz*’, AMG) without criminalising the users. At the end of 2016, generic legislation (NpSG – *Neue psychoactive Substanzen Gesetz*) was implemented. The previous draft bill was ratified; therefore, on the 26th of November, 2016, phenethylamines and synthetic cannabinoids (cannabimimetics) were outlawed by defining groups of chemical molecules. Other groups of substances are not (yet) included. The law mainly aims at reducing the supply of NPS. While possession for personal use is also outlawed, the law does not include penalties or fines for this offense. However, it is (still) unclear whether this decriminalisation may be undermined by punishing users that bought NPS on the internet (incitement of supply, ‘*Anstiftung zum Inverkehrbringen*’).

3.2.2 Hungary

The Hungarian Criminal Code (effective from 2013) regulates illicit drugs under six statutory definitions: drug trafficking; possession of narcotic drugs; inciting substance abuse; aiding in the manufacture or production of narcotic drugs; criminal offences with drug precursors and misuse of new psychoactive substances. The Medicines Act (2005) lays down the framework of the new legislation, while the Government Decree (2012) determines the processes and the responsible institutions in connection with the reporting of new psychoactive substances; their preliminary assessment; their scheduling and risk assessment. The Medicines Act and the Government Decree created a new schedule (2014) for the new psychoactive substances which contains both individual compounds and compound groups (through this providing both a list of individual compounds and a generic approach).

3.2.3 Ireland

The current National Drug Strategy was designed as cross cutting area of public policy and service delivery and brings together Departments, agencies and the community and voluntary sectors to provide a collective response to tackling the drugs problem in the Republic of Ireland. The overall objective of the Strategy is to tackle the harm caused to individuals, families and communities by problem drug and alcohol use through five pillars:

- Supply reduction
- Prevention
- Treatment
- Rehabilitation and
- Research.

The primary legislation controlling drugs are the Misuse of Drugs Act 1977 and the Misuse of Drugs Act 1984. These are further amended by the Criminal Justice Act 1999, the Criminal Justice Act 2006

and the Criminal Justice Act 2007. The Misuse of Drugs Regulations 1988 (SI 328 of 1988) (as amended) registers the different substances to which the legislation applies and has two main purposes. First, to establish a control system over specific substances so as to protect the public from dangerous or possibly dangerous or harmful substances. Second, it enables safe use of specific controlled substances which, even though they can be harmful if misused, has a therapeutic and medical significance. As per this legislation, unless specifically authorised to do so, it is illegal to possess, supply, manufacture, import or export a controlled substance (for example stimulants, cannabinoids, or hallucinogens). NPS are regulated both by individual listing and a generic system.

Street based headshops were blamed for the apparent extent of NPS use, mostly amongst youths, in the Republic of Ireland. Media attention and public reaction were the key factors that contributed to legislative controls over cathinones and a multitude of other NPS in the Republic of Ireland in May 2010. Several headshop products in Ireland were made illegal on 23 August 2010 when the new Criminal Justice (Psychoactive Substances) Act 2010 was passed. This gave the Irish police and the Irish courts the power to prohibit sales of psychoactive substances in the case that such substances were not listed on under the Misuse of Drugs Act, or if they were represented on their packaging as 'not for human consumption', which is often the case. It was explicitly aimed at vendors/suppliers and it was an endeavour that forced the closure of Irish headshops.

3.2.4 The Netherlands

The Dutch drug policy is a combination of judicial control and socio-medical control. Dutch legislation is laid down in the Opium Act, making possession and selling (but not use) of banned substances individually named on Schedule I ('hard drugs') or Schedule II ('soft drugs') illegal. 2C-B has been scheduled since 1997. In recent years, about a dozen NPS have been added to the Opium Act, for instance mephedrone (October 2011), 4-MA (February 2013), MXE (March 2015) and methylene (July 2015). The most recent additions to Schedule I were 4-FA, alpha-pvp and acetylfentanyl (May 2017).

3.2.5 Poland

New Psychoactive Substances are regulated by the Polish Act of 29 July 2005 on Counteracting Drug Addiction. The list of illicit substances is specified in annexes to the Act which are updated when new substances are detected on the market. Until March 2009, NPS were legal, and the law did not regulate their status, yet the first amendment to the Act was implemented to expand the list of substances under the control of the State. The list included substances such as benzopiperazine (BZP), opioid receptor agonists and 15 plants, recognized to be the most common ingredients of NPS. In 2010 and 2011 legislative actions against NPS became more intense. At that time three amendments were adopted. Two of them expanded the catalogue of illicit drugs. The first one from 2010 penalized substances mainly from the group of synthetic cannabinoids and mephedrone. The amendment from 2011 expanded the catalogue by another 23 substances detected in NPS available on the market. In the amendment from 2010, in addition to the expansion of the list of illegal substances, NPS were defined as a substitute drug, banned the "advertising and promotion of food or other products by suggesting that they have effects of psychotropic substances, narcotic drugs or their consumption, even against the intended use" and banned manufacturing and introducing NPS onto the market. The amendment from 2015 extended the list of scheduled substances again and banned the import of NPS from other countries. With the latest amendment from January 2016, in Poland there are 423 scheduled psychoactive substances in total.

3.2.6 Portugal

NPS appeared in Portugal in 2007 with greater awareness from 2011 onwards. These substances were sold through smartshops throughout the country. It was the autonomous region of Madeira that first initiated a legislation related with NPS (October 2012), a legislative decree prohibiting the sale

and distribution of NPS. In 2012 an amendment to the national Decree-law No. 15/93 added some NPS – including mephedrone – to the illegal substances list and the Ministry of Health started working with Parliament in order to create a new national legislation able to control the entry and sale of NPS in Portugal. In 2013 the Decree-Law N° 54/2013 was introduced and the Ordinance 154/2013 of the same date, outlawing over 159 new drugs and closing approximately 60 smartshops in Portugal.

3.3 SUPPLY

3.3.1 Germany

Different NPS groups have emerged in Germany. At first (2008/2009), synthetic stimulants were dominant, especially substitutes for amphetamine and MDMA, namely TFMPP and BZP. Then the focus shifted to synthetic cannabinoids and finally the phenomenon reached the point when the supply was highly diversified, in a way, that not only some stimulants and psychedelics occurred, but also opioids and benzodiazepines.

The effects and side-effects of the new law that was implemented in 2016 are not yet clear. The reduced criminalisation of users is certainly a plus that may influence the criminalisation of possession of illegal drugs for personal consumption in general. While there might be a noticeable reduction of supply in general, it is questionable whether the law will have the desired effects, especially with regard to problematic NPS use. Furthermore, the first synthetic cannabinoid that is not covered by the chemical definition that is used in the NpSG has already occurred on the market (MDA 19). Sellers have immediately reacted and now claim to sell only substances that are not banned by the NpSG. Subsequently, there seems to be a higher risk that benzodiazepines and synthetic opioids are traded unless these groups of NPS are included in generic legislation (this might be problematic because various substances of these two groups are widely used as medicines, which makes generic legislation difficult). A scientific evaluation of the effects of this law will start soon.

3.3.2 Hungary

During 2010–2014 new psychoactive substances completely restructured the Hungarian drug market. Following the large-scale increase in the amount of mephedrone available in the summer of 2010, the proportion of the new psychoactive substances as compared to the classical drugs rose continuously. Following mephedrone in 2010, the largest share of cathinones in seizure was 4-MEC and MDPV in 2011, pentedrone from 2012, and a temporary surge of alpha-PVP in 2014.

Since autumn 2010 there has also been a continuous rise in the seizures of plant material impregnated with synthetic cannabinoids. The number of seizures of the products known as 'herbal', 'bio weed' or 'sage' in 2014 was nearly double the number of seizures of herbal cannabis. The range of active substances found in the products follow the changes in legislation dynamically, The most frequent active substance during 2014 was AB-CHMINACA.

In Hungary there are no legal 'offline' outlets available. NPS is sold illegally primarily on the streets (as it is connected to the poorest, low status population), on the countryside they order it from the internet and it is shipped by the post. Today there are big dealers (families) in Budapests 8th district who buy large quantities from online sources, produce the NPS at home and sell it to users.

3.3.3 Ireland

Throughout 2009 and 2010, mephedrone was located in drug scenes within Britain, Northern Ireland and the Republic of Ireland, and was obtainable for sale/purchase through numerous sources such as dealers, street-based headshops and online vendors. Although there has been closure of all headshops in Ireland and products are not openly for sale, it is common knowledge that these are still available and accessible on both the black market or on the internet. Available NPS include party pills or herbal highs, herbal smoking mixtures or powders such as cathinones.

Research shows a post legislation decrease in NPS use; however, legislative controls appear largely ineffective in the view of experts. In general experts observed how legislative control and regulation has not impacted on how users are sourcing NPS in the Republic who are undeterred by their current legal status because of their online and black market availability and successful sourcing over time incurring no legal repercussions.

Recent legislative control in Northern Ireland had a positive impact on cross border NPS drug tourism in terms of significantly reducing availability of NPS (most commonly SCBs), but with negative drug displacement outcomes in the form of heroin smoking and illicit benzodiazepine trade.

3.3.4 The Netherlands

The emergence of NPS in the Netherlands developed in three waves. The first generation of NPS appeared in the mid-nineties and consisted largely of fenylethylamines (such as MDEA and 2C-B). The second wave was mid noughties and concerned mainly methylone, which was sold in smartshops as Explosion. The third wave, according to the experts, started after the (temporary) ecstasy dip 2008-2009 with mephedrone (4-MMC) which was available in smartshops and on the internet. Currently it is not the poor quality, but precisely the very high purity of ecstasy that makes 4-FA popular. The milder empathogen 4-FA is seen as an alternative to the high-dosed MDMA. In recent years, 4-FA supply changed from mainly powder to mainly tablets.

Virtually all experts (including justice and police) see a clear link to the presence of coffee shops in the Netherlands and the varied and accessible range of cannabis that comes with them and the lack of enthusiasm to experiment with (potentially risky) synthetic cannabinoid variants.

3.3.5 Poland

There is no precise data when the NPS market started its activity in Poland. However, the year 2008 was a breakthrough in the Polish NPS market with the introduction of the website www.dopalacze.com, where users were able to purchase a wide array of NPS. Also in 2008, the first smart shop that sold NPS was opened. In a short time (ca. half a year) about 40 retail outlets offering the NPS appeared, mainly located in the centres of large towns, and by 2010 almost 1.300 shops were a part of the NPS sales network across the country. Almost a year after legislative change, in October 2010 the retail outlets offering NPS were closed down based on the decision of the Chief Sanitary Inspector who claimed that NPS have negative effects on human health. After the closing of stationary shops, NPS business was continued unofficially as 'under-the-counter' sales, to the initiated customers. Currently, NPS can be reached in stores or places whose names do not indicate the trade of NPS, for example in sex shops, hot spots and other.

Access to NPS through online stores is viewed as easy and comfortable. Purchases are often made through Darknet. Shopping can be done discreetly, anonymously, quickly. The order is received from an anonymous pick-up point (e.g. parcel lockers). According to professionals, clients of online shops are mainly those who experiment with various substances, for example hallucinogens. They procure larger quantities of the substance, often not only for their own use.

The Internet purchases are also made by problem drug users as it offers access to a greater variety of NPS and lower prices compared to those offered in stationary shops and by private dealers.

The products offered by stationary and on-line stores mostly comprises of stimulants and herbal mixtures, with lesser availability of psychedelics. The market is characterized by an instability of products offered. Therefore users receive new products about which their knowledge is limited as those previously tested by them disappear from the market. It is claimed that in some cities NPS have replaced conventional drugs on the local markets.

3.3.6 Portugal

The NPS market in Portugal can be divided into two distinct periods of time: before and after the implementation of Decree-Law No. 54/2013 and the closure of all smartshops. According to experts, the geographical location of Portugal is one of the major reasons for the easy access and availability of all substances in the country. Additional factors appear to influence the autonomous regions of Azores and Madeira, making these regions distinct from the rest of Portugal. In these regions availability of conventional drugs such as cocaine or heroin is lower and prices are higher. In continental Portugal, nearly all NPS can be purchased on the street, but some cases, especially specific substances such as salvia or other products which require their own preparations, are mainly purchased online. On the autonomous regions substances are also purchased in the street, but they are believed to arrive there essentially by post offices, suggesting a greater development of online marketplaces. In the Azores there are an additional particularity of migratory flows with Canada and the United States, which seems to have a significant influence on new trends, consumption, and availability of substances, such as the use of synthetic cannabinoids and cathinones, which seems to be more popular in these countries than in Portugal.

3.4 DEMAND

3.4.1 Germany

Most NPS users in night life/party settings are experienced drug users. Experts state that this group of users does not have a selective use of substances and that they often use different sources like family, friends, or just someone in the club. Socially marginalized NPS users from the problem drug user scene are usually long-term users. The clients are so called heavy users, or problematic drug users (PDUs), often homeless and with large quantities of pending criminal proceedings. They are people who have already stopped a lot of therapies and most of them show patterns of poly drug use with the preferred substance being heroin.

Motives for NPS use are not directly related to the role of legality but it is important that many NPS are not detectable in common urine controls. For 'psychonauts' aiming for altered states of consciousness through psychoactive drug use, legality does not seem to play a role. They perceive NPS as a complementation of what the market offers and who try every substance anyway. They are generally driven by a scientific curiosity.

3.4.2 Hungary

The herbal-user and the crystal-user is distinguished unambiguously as the main two types of NPS users by experts. This would suggest a typology based on the substance characteristics but the typology of users also represents the complexity of multiple substance use patterns. A third category is the multiple disadvantageous user.

The herbal user is a smoker, who can be an intensified/compulsive user and circumstantial-situational or social-recreational user as well, but rather the latter. Marginalized (Roma, homeless) persons and middle-class teenagers also use herbals but with different motivations. For middle-class teenagers the herbal is like marijuana use. Among marginalised users herbal is regarded the less harmful substance (in comparison to crystal): to be or to become herbal user is a status-change, a beginning of the road of 'recovery'.

The crystal user is typically marginalized, injecting, intensified/compulsive user, who will most probably have serious health problems and would be difficult to get treatment for them. They have hallucinations of bugs and worms under their skin. This experience can lead them to a psychotic condition. Their compulsive use is leading to risk behaviours, quick physical and psychic deterioration and deaths among users.

With the multiple disadvantageous users different factors add up: homelessness; dysfunctional families; prison; low status; socio-demographic and -economic characteristics. Roma people are often mentioned, but it's not only a Roma-issue. These users are often indifferent, have nothing to lose and use NPS because it's extremely cheap and very easily available.

Undoubtedly the crucial motives for using NPS on both individual and national level is the low price and the easy accessibility. None of the intense or regular users would be motivated to use NPS because it's legal, but infrequent users might.

3.4.3 Ireland

Experts identify specific groups of NPS users: college students or young people at parties; 'Chemsex' men who have sex with men (MSM) groups; entrenched persons who inject drugs (PWID) seeking a cheap high not undetectable by routine screening; co-morbid individuals with (often) primary mental illness and self-medicating of symptoms. Popular NPS include synthetic cannabinoids; psychedelics; GHB alternatives; psychedelic hallucinogenic and stimulant party pills containing the 2-C substances and cathinone stimulants such as a-PVP and Mephedrone.

General reasons for use of NPS centred on user curiosity; experimentation; boredom; peer use; social influences; for sexual reasons; better effect and value for money; availability in the form of a '*cheap high*' and potency in comparison to conventional drugs.

3.4.4 The Netherlands

NPS surfacing on the Dutch market did so with varying market success. Methylone has virtually disappeared, mephedrone never much caught on and the use of and dissociatives remains low. 4-FA, on the other hand, is increasing in popularity according to all the experts, and has nested itself as a 'drug of choice' in the mainstream. This is also evident from the latest study among frequent visitors of parties, festivals and clubs in the ages 15-35 in the Netherlands (Monshouwer et al., 2016). One quarter of the respondents in this study had used 4-FA in the past year; a prevalence rate equal to that of cocaine and amphetamines. Experts do not think that users were strongly guided by the legal status of the drug.

The use of NPS is primarily limited to recreational user groups in the Netherlands. The street scene is apparently unfamiliar with or not interested in NPS and sticks with the classic street drugs (crack cocaine and heroin) and methadone.

3.4.5 Poland

Basically, NPS users can be divided on the rationale of social integration. The group of socially marginalized users consists mainly of opiate users and IDUs, often unemployed, operating within the 'street drug scene'. Members of this group often lack knowledge on consumed substances, even those of them who deal drugs. They are a high-risk group due to the high number of daily injections. NPS are also popular among clients of substitution treatment because they may use it without a risk of being tested and accused of consumption of psychoactive substances strictly prohibited on methadone treatment programmes. Among marginalized drug users the most popular NPS are stimulants as synthetic cathinones, while synthetic cannabinoids are used by them from time to time.

Socially integrated users are those who use NPS in a recreational manner; they work or study, use illicit substances during weekend parties, mainly cannabis or synthetic cannabis but, also to some extent, stimulants. Socially integrated NPS users are often considered as curious experimentators looking for relaxation and fun in their spare time. They are characterised by extensive, advanced and state-of-the-art knowledge on NPS, including their compounds, function, dosage, effects. They experiment with novel substances to find new unique experiences. Members of this group are also active on the internet, where they can share their trip stories genuine, knowledge and experiences.

Availability and affordability were emphasised to be the most important feature of NPS popularity in general. NPS have displaced traditional drugs because of price but also due to shortages in supply and quality of traditional drugs. Also the internet plays an essential role in access to NPS for both integrated and marginalized users providing easy, confidential and anonymous access to a vast offering of products. Psychological motives of NPS use include curiosity, need for new experiences and willingness to avoid legal consequences as well as need for sexual stimulation. Psychoactive substances are not a social taboo any longer, use of NPS is aimed at particular purpose of intoxication, without a wider cultural context.

3.4.6 Portugal

Distinguishing between intentional and non-intentional consumption is one of the biggest challenges for determining who the consumers are and which NPS are the most consumed in Portugal. According to experts, most of NPS users are non-intentional consumers. However, there is an additional niche of intentional consumers with a very specific profile.

Intentional users of NPS are individuals who are looking for particular substances, such as 2C-B drugs' type, Salvia, or MXE. Normally, these intentional consumers have a significant knowledge about drugs and seem to be well informed about drug policies and about accurate methodologies of consumption.

However, the majority of NPS users are unintentional consumers. These consumers are regular users of drugs in general who were misled somehow. For instance, drug testing services frequently find LSD samples contain NBOMe-x instead. On the other hand, in the case of 2C-B, it is becoming trendy in recreational settings on its own, and the consumption can be intentional and repeated.

In Madeira, before the closing of the smartshops there, NPS users were either minors (< 18) or around 25 years and most of these individuals were unemployed and with lower levels of education. In the Azores, the consumption trend appears to essentially be a novel experience for those within the school aged population, but a problem for those who are a part of a therapeutic program or treatment. Synthetic cannabinoids, synthetic opioids, and cathinones seem to be the most consumed NPS in the region.

3.5 PREVENTION ACTIVITIES

3.5.1 Germany

Apart from prohibiting some (classes of) NPS, there are no *supply reduction* strategies in Germany. Generally, addiction prevention is one of the pillars of the national drug policy. Because of the heterogeneous nature of both NPS and the users of NPS, prevention activities and demand reduction are hindered. Currently, prevention and harm reduction activities are basically related to safer use organizations, mainly from the field of party drugs prevention in the night life and information websites.

There are several *prevention* activities at parties; clubs; festivals; conferences and workshops, where different projects offer information at info-desks, answer questions and provide information flyers. Some of the projects are more focussed on providing online information, but generally their activities are similar. They also provide information at schools or for professionals.

Since 2012 there is a website that focuses on *harm reduction* of NPS use by listing the ingredients found in NPS (www.legal-high-inhaltsstoffe.de). The website has pages for users, parents or relatives of the users and professionals. This website is based on an acceptance oriented approach, providing objective information.

There are no *treatment activities* specifically aimed at NPS users. There are some indications that in certain areas in Germany, NPS users are seeking more treatment than elsewhere.

3.5.2 Hungary

In Hungary there are no special prevention interventions or other activities aimed at *supply reduction* with regards to NPS use.

There is *general prevention* at schools, however, due to regulations, in the school year 2013/2014 only ten programs were available nationwide. None of the general prevention programs are certain of their long-term sustainability because of lack of steady funding. Due to a reorganisation of the government body responsible for supporting and overseeing the prevention programmes, it is currently unclear how many organisations are still active in prevention, nor how many persons they are able to reach.

There are no *harm reduction* programmes aimed at NPS users specifically, but there are needle and syringe programmes available in Hungary, a total of 31 programs.

With regard to the present *treatment* possibilities, there are no specialised treatment programmes targeted at the users of individual substance types, instead programmes target the users of all substance types or addictions or psychiatric problems in general. A majority of individuals entering treatment have done so as an alternative to criminal proceedings (60% in 2014). From the data on drug treatment, one can see the influence of NPS, which implied that NPS-users are able to find their way to treatment.

3.5.3 Ireland

Ireland's *supply reduction* took form in the National Drugs Strategy 2009-2016, endeavouring to monitor headshop activities (pre-legislation) and all other businesses concerned with NPS sales (e.g. online vendors) with the objective of guaranteeing no illegal actions were undertaken. This strategy also ensures that legislative steps are/were taken in respect of NPS legality where it is deemed appropriate and to consistently monitor and review drugs related legislation, specifically in the area of NPS, and refer to EU and a wider international experience and best practice (Department of Health, 2013). Unfortunately demand reduction data such as custom and excise seizure relating to NPS is unavailable in Ireland.

A report by Kelleher et al. (2011) revealed the outcomes of an NPS review from the Irish perspective, which included a review of the markets supplying the substances. This review was authorized by the National Advisory Committee on Drugs (NACD) in accordance with Action 14 of the National Drugs Strategy (interim) 2009–2016. Action 14 stipulates the monitoring of headshops and other sales outlets of NPS, under the Misuse of Drugs Act 1977 and the Misuse of Drugs (Amendment) Regulations 2007. The review was carried out between May and August 2010 by researchers at the Centre for Social and Educational Research (CSER) within the School of Social Sciences and Law at Dublin Institute of Technology (DIT), and at the School of Chemical and Pharmaceutical Sciences (DIT). This report recommended the following *prevention* strategies:

- Efforts put in place to observe online monitoring models already in existence;
- Collaborate more meticulously with UK and other EU countries' initiatives that are aimed at constraining access to NPS;
- Data collected at hospital level be centralised appropriately in agencies such as the Economic and Social Research Institute (ESRI) (which details hospital admissions each year), the Health Research Board (HRB), or the National Advisory Committee on Drugs (NACD). This is so as to give a clearer, empirical representation of the harm being caused due to NPS thus replacing the system (which was present at that time) of reliance on anecdotal reporting;
- Standard reporting of NPS intoxication to the National Poisons Information Centre;
- Usage of online social media platforms such as Facebook, to give a much more dynamic stating of NPS risks. Additionally, placing advertisements there and actively engaging with chat room threads;

- Specifically targeted interventions towards polydrug substance users;
- In light of changes in consumption choices and patterns of NPS use due to legislative changes, the report recommended these changes be observed and assessed so as to identify any emerging new risks and to respond appropriately;
- The establishment of a laboratory specifically dedicated to rigorous testing of new and emerging NPS;
- Establishment of a reference standards company/body in Ireland that can respond more swiftly as new products appear on the NPS market;
- Continually adopting a pragmatic public health approach to NPS.

Much *harm reduction* information in Ireland is based around needle exchange services aimed at reducing harm to injecting drug users and the spread of blood borne viruses (Van Hout and Hearne, 2015). However, some services have focused on NPS harm reduction. The Anna Liffey Drug Project, has distributed a brochure providing harm reduction information on novel psychoactive substances – ‘legal highs or otherwise’. In 2010, the Health Service Executive (HSE) launched a national drug awareness campaign ‘Legal or illegal highs – they’re anything but safe’. This campaign is predominantly aimed at individuals aged between 15 and 40 years. The campaign consisted of information on T-shirts, posters, and wallet cards; relating to the dangers of and harm reduction advice on NPS. The campaign also includes an information booklet for parents explaining all aspects of NPS use, legal issues, harm reduction advice, and how to deal with someone having a negative reaction to a synthetic substance (Reitox National Focal Point, 2011).

Information on *treatment* is extremely limited in Ireland. However, one recent report showed the numbers of people seeking treatment for NPS as their primary problem substance in 2013 was minimal (Health Research Board, 2015).

3.5.4 The Netherlands

Regarding *supply reduction*, no specific NPS related activities were developed, apart from banning some NPS and therefore making their sale more difficult. However, the national organisation of smart shops has advised their members not to sell some types of NPS that are legal, such as 4-FA.

From a *supply reduction* focus, there is *general prevention* at schools. This general prevention aims to avoid and reduce the demand for drugs, to postpone the first use of drugs and problematic use and, in relation to this, to prevent and reduce the risks for the user and the environment of the drug user.

There is a national project, ‘Night life, alcohol and drugs’, that works on a safe and healthy night life circuit. Information to night life visitors is provided through information leaflets and a website, and courses for people working in night life are provided.

There are no *harm reduction* programmes aimed at NPS users specifically but there are needle and syringe programmes. Drug testing is available and there are peer support programmes. Also, there are prevention programmes aimed at reducing dropping out of school, homelessness and child abuse. NPS users are always able to join these programmes. Peer information programmes also tackle the issue of NPS use when they are active in night life. At the time of this study, extra attention was given only to 4-FA as a NPS that is used by a relatively large group. Other NPS are not given any explicit attention. At night life and festivals, it is obligatory to have first aid workers present, as is providing drinking water.

With regard to the present *treatment* possibilities, there are no specialised treatment programmes targeted at the users of individual substance types, instead programmes target users of all substance types or addictions or psychiatric problems in general. The numbers of NPS users in these programmes are very low.

3.5.5 Poland

Regarding *supply reduction*, outlets are controlled and checked whether they sell banned substances. In 2010 all smartshops and NPS whole sale businesses were closed down. Since then, websites selling NPS and thematic forums are continuously monitored by government institutions.

Strategies for *reducing demand* for NPS are the same as in case of other drugs: general prevention activities at schools, media campaigns and treatment. In media campaigns emphasis is placed on the users unable to know the ingredients of NPS and therefore the health risks.

The most common forms of prevention are information campaigns, websites and brochures issued by the National Bureau of Drug Prevention. In addition, teachers are educated on NPS risk by the Police and the General Sanitary Inspection. This education also extends to prison officers.

According to the interviewed experts there are no *general prevention* measures for specific NPS in Poland. However, there was one recent social media initiative focussing on the mix of synthetic cannabinoids called Mocarz. This drug was the source of alarming reports in the Polish media, leading to a YouTube movie featuring the head of the General Sanitary Inspection. However, this video was not well received due to its poor quality..

There are also *harm reduction* activities in the nightlife setting, aiming at drug users in need and providing information by distributing flyers and talk to party-goers. Harm Reduction volunteers also distribute water, condoms and earplugs. Among the users themselves, information about NPS is shared through the internet, and according to the experts, this is a common way to inform about risks.

There are no *treatment programmes* specifically dedicated to NPS users.

3.5.6 Portugal

There is no *general prevention*, nor *treatment* programmes specially focused on NPS in Portugal. Some prevention programmes include NPS if necessary – according to the experts.

Even without many scientific data available in the country or public debate about the issue, the interviewed experts seemed to have knowledge about NPS. In Portugal the problem started with smartshops (2007), in April 2013 there were changes in the law and in consequence all the smartshops where closed. After that, the NPS prevention is limited to some specific services and professionals who work directly with drug issues.

In Portugal, *harm reduction* programmes that already exist have included NPS in their intervention. For example, harm reduction strategies such as drug and pill testing services in recreational settings; breathalyser; syringe exchange; snorting; kits with condoms and information have included NPS.

Due to the differences between continental Portugal and the autonomous regions, Madeira and Azores, especially in terms of drug's prices (higher in the islands), the work that have been done about NPS depends directly on the problems of each region. For that, it is possible to notice some additional initiatives among institutions working in those islands, although mostly focused in drug law and not in specific intervention projects.

4 Survey

Relative to controlled drugs, the use of NPS is less wide-spread, also in drug using groups. Consequently, large numbers of respondents would have to be contacted for estimating prevalence of NPS use and many respondents (those who have not used NPS) would not provide information on patterns of use; motives; procurement et cetera. The survey was therefore restricted to NPS users. Eligibility criteria for the survey were: (1) recent NPS use (at least once in the past 12 months); (2) resident of the participating countries and (3) 18 years or older.

A questionnaire was developed covering all themes of the study, and included items about:

- Demographic characteristics;
- Prevalence and patterns of use of some controlled drugs;
- Prevalence and patterns of NPS use (specific: which ones) + poly drug use;
- Procuring NPS (buying/getting for free; role of Internet);
- Types of markets (friends/dealer/shops/internet);
- Perceptions of NPS prevention (incl. role of legal status).

The questionnaire was developed in English and translated into the other languages in this project. To guarantee comparability, translation was done back and forth (from /into English).

A targeted sampling methodology was chosen to reach NPS users in each of the three groups:

1. **Socially marginalised users** were recruited face-to-face by trained fieldworkers or care professionals in the street, at or through care and treatment facilities (e.g. drug services, shelters) and through snowball sampling. In most cases, pen-and-paper questionnaires were interviewer-administered;
2. **Users in night life** were mainly recruited face-to-face on-site at clubs, raves and festivals. Users in night life mostly self-completed either a pen-and-paper or online questionnaire to which they were referred by a flyer containing a link and an individual code;
3. **Users in online communities** were recruited by posting messages on drug-related social media and internet forums. Users in online communities were only given access to the online questionnaire.

The next paragraphs provide a description of the fieldwork efforts conducted to recruit socially marginalised users, users in night life and online community users in each of the six participating countries, followed by survey results for these three samples. User profiles of marginalised, night life and online community samples will be outlined, as well as user profiles of subgroups of recent users of separate NPS categories. Then, patterns of NPS use, procurement of NPS, motives for NPS use and side effects and problems experienced by the users are described. The final paragraph discusses the users' view on prevention strategies.

Main results and similarities and differences between samples are presented in text and graphs. Detailed figures can be found in Appendix A. This report offers descriptive data and basic comparisons between samples. International papers based on more elaborate analyses of specific themes are being prepared.

4.1 FIELDWORK

4.1.1 Socially marginalised users

4.1.1.1 Germany

Attempts to recruit respondents from the 'open' drug scene in Frankfurt on the Main failed because there are very few regular NPS users in the local setting of marginalised users. We already knew this from the regular 'open drug scene survey' in Frankfurt (Werse et al. 2017) and therefore expected low numbers of respondents from Frankfurt. This is why we cooperated with a harm reduction centre in the centre of Munich which is a main contact point for users of illicit 'hard drugs', to be able to conduct at least some face-to-face interviews with socially marginalised users. Munich is the only German city known to have a significant prevalence of (injected) 'bath salts' (mainly stimulants) among marginalised 'hard drugs' users. These efforts were partially successful.

To ensure the scientific standards of conducting interviews with this special user group, a project member of the CDR delivered training in conducting interviews to five student employees recruited by a peer prevention project in Munich. These five student employees then conducted the interviews with some clients of the harm reduction centre mentioned above. Interviews were interviewer-administered with pen-and-paper questionnaires.

Additionally, following the procedure that was used in the Netherlands, we distributed invitation-flyers with codes for group-assignment (a code specifically for socially marginalised respondents in this case) in organisations that work with socially marginalised users in Munich and Frankfurt. This harvested only a small group of marginalised respondents who filled out the questionnaire on their own on the internet. This might be due to the fact that entering the code into the questionnaire was voluntary.

4.1.1.2 Hungary

The data collection among the marginalised users was initiated on the basis of low threshold/harm reduction services active in Budapest. These services provide syringe exchange programmes and/or other low threshold services, including drop-in, day-care and/or psychosocial consultation. Apart from drugs-related service providers, residential care service for homeless people and a special service for pregnant women also assisted us in finding the clients who met the selection criteria. Seven to eight service providers helped us in total to get the sufficient number of respondents. We included not just those persons who benefited from the above mentioned services but also those who were not in service at all. To meet this criteria we used a snow-ball technique. Clients of the given services were asked to refer the interviewers to persons who were supposed to use NPS, but did not participate in any services. Those who were not in the clientele of the mentioned services were given financial incentives (cash 1.000 HUF = 3 EUR).

Before the actual data collection started some pilot interviews were carried out among this particular target group, resulting quite a few critical remarks in relation to the interview format: the respondents had difficulty in identifying the active ingredients of the substances they were using and they found it difficult to respond to the list of motivations. None of the questions were modified as a consequence of the pilot but the interviewers were given detailed instructions as to how to behave if and when the respondents had difficulties in answering the questions. The respondents participating in the pilot were not included in the database.

In general to ensure the reliability and validity of the whole data collection process a detailed interview guide was drafted and discussed with the interviewers. Nine interviewers (students of our university majoring in psychology or in social work and young researchers) did the face-to-face data collection. The paper and pencil questionnaires were supposed to be self-administered but in many cases due to reading and writing inabilities of the respondents it became interviewer-administered. After the inter-

views were completed the data obtained were registered in the electronic platform (on-line questionnaire). To avoid duplications the TDI (treatment demand indicator) code of the subjects was taken. The constant monitoring of the data collection process ensured the early detection of any duplications. Due to the fact that financial incentives were given it happened 3 times that the same person filled in the questionnaire. The duplications were taken out; their responses are not in the data base.

4.1.1.3 Ireland

Recruitment of marginalised users began with a search of all drug services (harm reduction and counselling services; addiction clinics; opiate substitution in primary care; local and regional drug task forces) in all areas of Ireland. A total of 46 services/key professionals were contacted. All were initially contacted with an email providing the full details of the study. One week later a follow up email was sent to all who had not responded to the initial email. Following this, services were telephoned or correspondence was entered into via email; whichever suited the service/professional. Efforts to communicate ceased on a third non response.

Thirteen services (addiction clinics, opiate substitution and harm reduction services) initially agreed to take part in the study, of which six took surveys and agreed to distribute to NPS clients with support from the research team at their service. On receipt of the surveys, however twelve services reported that they had not treated clients for NPS use in the past 12 months. One service declined to participate in the study as they did not allow research be carried out with their clients. The team of two researchers visited the six centres and spent a full working day at each. All surveys were interviewer administered using pen and paper versions due to client literacy difficulties. These were then inputted the following day by the team. Difficulties were encountered where clients had a history of NPS use but had not used in the past 12 months.

Of note is that most marginalized users the team interviewed/surveyed at these centres had only used Spice or Snow Blow once or twice in the last 12 months; however many commented that they were regular/dependent users of NPS (mostly Snow Blow) two or more years prior the interview. Currently in 2017, it would appear from the above, that the Irish Government's enactment of targeted legislation, combined with vigorous enforcement, has significantly impacted on the availability of NPS and their use by drug users (both problematic and occasional/ recreational). The sample size obtained in Ireland is therefore reflective of this policy and enforcement success.

4.1.1.4 The Netherlands

In the Netherlands, the number of socially marginalised drug users has been steadily decreasing for many years. There is no 'open drug scene'. Socially marginalised users constitute an ageing population, most of them are in their late 40s, 50s or 60s. They predominantly use opioids and/or crack-cocaine; a small minority uses intravenously. The vast majority is in contact with one or more types of care, low threshold services and harm reduction oriented facilities in particular (substitution programs, user rooms, housing, shelters for homeless, as well as with (user) organisations that aim to improve the rights and health of users.

We extensively tried to find socially marginalised users of NPS. Firstly, we contacted the different organisations in Amsterdam that are in contact with socially marginalised drug users. None of the professionals that work with this group (e.g. social workers, outreach workers), knew of any user that used NPS.

Secondly, at our request, they also asked marginalised drug users in their own network themselves whether they had ever used for instance synthetic opioids or other NPS themselves, or maybe knew of others users taking NPS. These professionals reported that they had to explain the concept of NPS. Subsequently, users commonly were surprised to be asked about the use of such substances: why would they use other drugs with methadone readily available (and for a smaller group heroin on medical prescription), and good quality 'base coke' (crack-cocaine) and heroin at the illegal drugs

market? Also, this second strategy did not result in getting into contact with socially marginalised users of NPS.

Thirdly, we conducted several weeks of field work in the streets, in parks and other settings where we might find socially marginalised users of NPS. We had dozens of informal conversations with marginalised users. A few times we were referred to specific places (e.g. remote areas where homeless would sleep rough) where we might find people that were said to experiment with NPS. We went to these places, had informal conversations, but in the end only one socially marginalised user of NPS was found included in the survey by interviewer-administered pen-and-paper questionnaire.

4.1.1.5 Poland

The fieldwork was conducted between June and August 2016 in four locations: in Warsaw; Cracow; Poznań and in the area of Tri-City (Gdańsk, Gdynia and Sopot). The choice of location was determined by the greater prevalence of NPS use than in other parts of the country, which offered an opportunity to cover the study sample successfully.

Fieldwork was conducted mainly by streetworkers (N=16) and partyworkers (N=7) from Warsaw; Cracow; Poznań and Tri-City (who also conducted survey in the night life setting). Respondents from marginalized samples were recruited in the streets; around the treatment units; inside the treatment facilities; in the social welfare facilities; in the shelters and night shelters. Interviews were conducted face-to-face with use of paper-and-pencil questionnaire. Respondents filled in the questionnaire by themselves, with the assistance of street/party workers.

4.1.1.6 Portugal

In Portugal the decriminalization model implemented in 2001 has been changing the drug paradigm of drugs in the country. Portugal seems to have less marginalized drug users and most of them never used NPS. According to GAT (In Mouraria, Group of Activists for treatment), their use seems to be more often related with cocaine and heroin, sometimes some hallucinogenic or other traditional drugs. According to fieldwork experience in Portugal, most marginalized drug users have never used NPS. However, our data suggests the NPS problem exists predominantly in the autonomous regions: in Madeira, where prices for conventional drugs are two or more times higher than continental Portugal and the Azores, where the prices are also higher, but because of the effects of migration increasing the region's proximity to trends in Canada and the United States (e.g. some tourists bring new trends such as NPS from the US).

Pen-and-paper questionnaires were used over all data collection in this group of users.

4.1.2 Users in night life

4.1.2.1 Germany

As for the 'marginalised' scene, we were aware that also among 'party drugs' users in Frankfurt, there is a very low prevalence of NPS (Werse et al. 2016). Therefore, the efforts to recruit persons for face-to-face interviews in Frankfurt were of limited success. Several requests were directed to hosts of festivals and clubs, but only one allowed us to conduct field research at their events, while the other hosts declined to participate. One of our student assistants conducted four interviewer-administered interviews there using the pen-and-paper version of the questionnaire. Additionally, again following the procedure that was used in the Netherlands, invitation flyers with codes for group-assignment (the group of users in night life, in this case) were distributed among the guests of the same club at several weekends. In order to reach a considerable sample of users in night life and party settings, we cooperated with peer prevention projects in Munich (five interviewers, who also conducted interviews with marginalised users, see 3.1.1.1) and Leipzig (four interviewers) that provide information about drugs, drug use and risk reduction to young drug users in clubs, at festivals and parties.

As shown in previous research (Werse, 2016), Munich and the surrounding federal state of Bavaria appears to be a 'hotspot' of NPS use in Germany. Anecdotal evidence (mainly oral reports from drug service professionals) indicated that also in East Germany (including the city of Leipzig), there might be a considerable prevalence of NPS among party drugs users.

As for the group of marginalised respondents (in the case of Munich, where interviewers interviewed both groups), a member of the CDR carried out special trainings for conducting scientific interviews with members of the party projects, who interviewed users in party settings.

The members of the party projects additionally distributed flyers on parties, in clubs etc., for encouraging users to participate on the online survey by themselves, again using a voluntary code for group assignment.

4.1.2.2 Hungary

It was the most difficult and least successful part of our data collection. During July and August in Budapest the normal party scenes were not really functional. The big festivals were not in town and in order to ensure the comparability we decided to stay with the original idea; consequently we tried to have all our interviewees from the capital. As during the first weeks of data collection we were not able to find the appropriate venues we distributed flyers among the participants of big festivals. A special code was given (POn-line-HU) to these people. After the summer period in September and October we tried to establish a supportive relationship with party scene owners as we needed their permission for doing the interviews. It was difficult and not too successful as these places wanted to avoid to make the impression that there was any drug use in their premises. Finally we managed to find a few places (3 clubs) where our interviewers were able to do the interviews and/or distribute the flyers mentioned before. The relatively low number of respondents in this category is the consequence of the fact that the partygoers were not aware whether they were using NPS. In order to be able to find those respondents who were certain that they used NPS a filter question was used before the face-to-face interview was administered or the flyer was given. As a general experience we can say that the Hungarian partygoers believe that they are using illegal (classical) substances.

4.1.2.3 Ireland

Waterford Institute of Technology's Research Ethics Committee did not grant the team permission to approach night life users both inside nightclubs and on the street outside nightclubs. The team, however, did receive ethical approval to advertise the survey inside nightclubs as an alternative.

Subsequently, the team focused on two major cities in Ireland: Dublin and Waterford. The team's Research Assistant initially contacted all the local nightclubs and dance venues in Waterford (n=6) and Dublin (n=6) via Facebook. All clubs declined to give access permission with the reason that they did not wish to associate drug use/drugs research with their clubs. Subsequently the team attempted to recruit Irish night life users and the Irish night life community through Facebook groups and pages that are specific to Irish clubs and Irish house/dance music and DJs etc. This route to access proved limited in terms of eliciting responses.

4.1.2.4 The Netherlands

From the beginning of June until mid-August 2016, researchers and trained interviewers visited night life locations or festivals on a total of 11 occasions. Respondents were recruited both at festivals and in clubs. The interviewers were students, familiar with night life scenes where NPS were used. Before the field work started, they were given a training about the aim of the project and were asked to pilot the survey, both to get a better idea of the questions and to see whether our survey worked well in practice. During the training, interviewers were also informed of the different types of NPS and were given an overview of most well-known NPS in the Netherlands. During field work, respondents received a small incentive upon completion of the survey. The incentives varied according to type of

setting, and the music at the event that was visited. Examples were water pistols, bubble blowers, lighters, glow sticks and lolly pops. Most of the time, respondents could choose from different options. Respondents were given the option to fill out the survey immediately on the spot - on paper with or without assistance of the interviewer - or to fill it out later online. In the latter case, respondents were given a flyer with a unique number. When filling out the questionnaire through the Internet, respondents were obliged to enter this number at the start of the survey.

Not all clubs or festival organisers wanted to be associated with NPS. Sometimes we were allowed to move around freely, in other instances we were allowed to create a booth and had to wait for potential respondents to approach us. In two instances we weren't allowed to enter the festival or club, and we worked outside, in the shuttle buses to the festival or in front of the entrance to the club.

Generally, respondents reacted positively to our questionnaire. They enjoyed talking to the interviewers and sometimes telling them about their 'adventures' with NPS. At one festival, people were more apprehensive and, despite the guarantee of anonymity, more reluctant to participate in the survey because of privacy reasons. But in other instances, this was not an issue for potential respondents. The most important reason not to participate in our study was because people had never used NPS (or, more specifically, did not meet the inclusion criterion of NPS use at least once in the past 12 months); other times potential respondents did not want to spend time on filling out the questionnaire. Most respondents were recruited at two large-scale festivals.

4.1.2.5 Poland

Fieldwork among night life users was conducted between June and August 2016 in Warsaw; Cracow; Poznań and Tri-City (Gdańsk, Gdynia and Sopot). Fieldworkers were experienced partyworkers, who had the ability to establish contacts and conduct surveys in clubs. They are working for non-governmental organisations on a daily basis and had already participated in several projects aimed at harm reduction. Their activities were conducted in night life/entertainment venues, to reach event/club-goers. These were the places where party workers often do their duties so the venues' staff have already knew them. This helped them to enter the venues and carry out interviews. Interviews were conducted face-to-face with paper-and-pencil questionnaires. Respondents filled in the questionnaire by themselves, with the assistance of party workers.

4.1.2.6 Portugal

The data collection process for night life users was challenging. Entrance to night clubs and festivals usually begins around 2:00 AM or 3:00 AM, and people attending these events often socialize and consume alcohol in the hours prior to entry. The agency team searched for respondents at many party places and festivals (around 20 different places – organized parties or not), but it was difficult to find people who would agree to talk for, at least, thirty minutes about their NPS use.

The concept of NPS does not seem to be very clear for the majority of party goers. Many were entirely unfamiliar with the concept of NPS. Trance parties were the easiest location to find NPS users, which makes sense in accordance with previous national studies and these contexts (Calado, 2006).

Additionally, people involved in this culture were helpful and open with the research team. The night life workers, such as the party organizers and technicians working in harm reduction (CheckIn project and APDES) were all very important key-factors in the fieldwork. The parties in the forest were also valuable sources for NPS users. The variations in cultures in different settings for drug use were clear among the professionals: at techno parties, most attendees discussed MDMA and cocaine, and the NPS issue did not seem to be a prominent or familiar issue to users in this setting. However, in trance parties - 'hallucinogenic places' (Calado, 2006) - it was easier to find NPS users (organized parties or not). People from this culture seemed to be the major users of NPS, especially regarding their use of psychedelics, such as 2C-B, LSA and other kinds of NPS.

We have faced a lot of difficulties in finding NPS users (intentional users). However, 2cb, LSA (sometimes), DMT and 25-I and Xanga (a mix of DMT with mescaline, super trendy, especially after boom festival as the festival theme was 'shamanism') seemed to be the NPS used more often here. Pen-and-paper questionnaires were used over all data collection among this group.

4.1.3 Online community users

4.1.3.1 Germany

Online invitations were spread among various internet sources for drug users. These include mainly drug forums (eve-rave.ch/forum); Facebook, Twitter and a drug policy activist website. These activists also used their social media accounts for further invitations (homepage and social media of the German Hemp Association). Additionally, a social worker from a Frankfurt-based drug service who is the administrator of the most popular German NPS prevention website (www.legal-high-inhaltsstoffe.de), helped to spread the invitations on his site, on Facebook and on the popular drug forum www.land-der-traeume.de.

Since mid-2016, online recruitment got stuck at less than 300 respondents, we decided to approach additional resources in order to motivate persons to fill out the survey. Since YouTube is a crucial medium for young people nowadays, we approached two persons who regularly submit videos on drugs issues in Germany: Simon Ruane, a young self-experimenter, whose videos sometimes reach several hundreds of thousand views ('Open Mind'), mentioned our survey on his Facebook account and his blog, and Markus Berger, a psychonaut/drug policy activist ('Drug Education Agency' and 'Nachtschatten Television'; YouTube views around 10,000) even mentioned the survey in one of his videos. These efforts obviously contributed to more than 250 additional filled-out questionnaires.

4.1.3.2 Hungary

To gather information from the on-line community was the easiest part of the data collection. The links to the web based questionnaire was sent out to the online community as soon as the links became public and available (June, 2016). Two platforms were used. One of them (www.daath.hu) is the platform of well educated, experienced substance users who are experiential users and they are rigorously sharing all the relevant information among themselves, including harm reduction messages/information as well. It is more difficult to describe the characteristics of the other platform (www.facebook.com/drogriporter), this platform is the meeting point of persons having an interest in drug policy related issues. The 2nd platform became included in the 3rd week of the data collection period as there was not sufficient activity detected (low number of questionnaires completed) during the first 10 days. parallel to the inclusion of the 2nd platform the motivating message was repeated on the 1st platform by the moderator. Both platform moderators eagerly assisted us in finding the target persons.

4.1.3.3 Ireland

Online recruitment began on international forums www.drugs-forum.com, www.legalhighsforum.com, and www.bluelight.org. These forums are considered the 'leading edge' Internet forums (Psychonaut Web Mapping Project) located on the surface web (Deluca et al., 2012) and were chosen based on this.

Following this a search for Irish drug user forums was carried out. However, this returned no results. A search for general online forums was then carried out and www.boards.ie was found to be the only Ireland based forum where discussions around drugs were present so this forum was contacted also. Recruitment to all forums began with a mail to the moderators of the appropriate forum detailing all information relating to the NPS study, which had been written by the P.I. of the project. The first forum to respond was Drugs-forum and they refused to permission to recruit there. Bluelight responded and

agreed to advertise the study on their forum, but as it is a huge international forum, the PI took over this and posted the survey there for all countries. The Legal highs forum did not respond and so the moderators/admin was contacted again 1 month later, again with no response. As regards the Irish forum boards.ie, they initially declined as the Irish research team had just set up an account with them as a new member. However, after some contact with the moderator in the research/survey forum it was agreed that the Irish team could post the survey. However when the team attempted to do this, the site would not allow the survey to be posted. To post surveys/links to research, the forum rules stated that a member must have 150 posts to their name, and as a new member the Irish team did not have this. As a result the Irish team were not able to recruit online users with the exception of those located on Bluelight.

Following this, the team ran a search on Facebook for some NPS groups/pages using a combination of search terms such as 'legal highs Ireland', 'research chemicals Ireland', 'Ireland head shops' etc. They found four such groups and contacted all and requested permission to either join a group, if private, and if public asked to advertise the survey. One group (Street Aware) read the Facebook message and did not reply, the other 3 groups ('Legal Highs Game Over'; 'Legal Highs Your Stories and Experiences' and 'If They Make Legal Highs in Ireland Illegal') did not respond to the team's request to join the group. On looking through the timeline of these groups, it was obvious there had not been much activity since 2010 (which coincided with the enactment of the first legislation outlawing the selling of legal highs in Headshops in Ireland). The team's Research Assistant posted information and a link to the survey on her personal Facebook page daily from 27.06.16 to date. This is regularly shared by friends also. Facebook member interest in completing the survey was sporadic with a low uptake because of the inclusion criteria of 12 month prevalence.

4.1.3.4 The Netherlands

The survey was distributed through several international and national drugs forums. In addition to the international forums (Bluelight.org and reddit.com), the survey was posted on the following forums in the Dutch language: drugsforum.nl, partyflock.nl, jointjedraaien.nl, the internet forum of a smart shop and on an internet community related to a national TV programme that focuses on young people, lifestyle and drug use ('Spuiten en slikken'). Especially the latter post, combined with the attention paid to the study on their Facebook page, generated the largest number of respondents. The response through the international forums was very limited for the Netherlands.

In the selection of Dutch language forums, only forums where users actively participated in discussions about the use of drugs were selected. Forums where only the growing of cannabis was discussed, were not selected. Forums with no more than a few hundred users or no recent discussion, were not selected either.

In some cases, the messages were posted by a moderator of the forum, giving the posts more credibility and rapport among the forum users. Some of the moderators first filled out the questionnaire themselves and then informed us whether they would post it, thereby screening our study and questionnaire for any subjects or questions they could not stand by. However, none of them refused to give us access or refused to post our message.

After posting messages, the forums were visited regularly by the research team to follow and engage in discussions and to answer any questions that discussants would have. In almost all cases, respondents reacted positively and in a constructive way. Sometimes reactions were posted about how this study could lead to the ban of more NPS and were sceptical of our intentions. Often, other forum users would respond by saying that more knowledge about NPS could never be a bad thing, leading to a more constructive discussion about our study.

For privacy reasons, the source of the internet respondents was not logged, but based on the dates of responses. For the Netherlands the most relevant dates were:

8 June 2016: Webmaster posted our call for respondents on drugsforum.nl. Some people reacted to the call and posted some remarks, all of them positive.

13 June 2016: A message was posted on the Reddit forum on drugs. This elicited quite some comments, most of them positive. Some users were curious about the reasons for doing the study.

30 June 2016: Our message on the paryflock.nl forum about drugs is published. Some reactions followed, largely positive.

7 July 2016: We posted a message on jointjedraaien.nl. The message was viewed quite a lot and elicited 23 responses. Most of the reactions were from forum users that didn't understand why we posted the message in this forum. For them, NPS are equivalent to chemical drugs, which are equivalent to negative associations. A lot of the conversation put emphasis on the negative consequences of Spice.

14 July 2016: repeated the message on the partyflock.nl forum, emphasising the types of NPS that were most used in the Netherlands so far to increase recognisability. Again, the same type of reactions followed.

27 July 2016: Spuiten en Slikken posts a message on their website to stimulate persons to participate in the survey. The text was written by the programme itself.

28 July 2016: webpage of Spuiten en Slikken shared on their Facebook page. This initiated such a high response that we decided not to actively recruit any new respondents.

4.1.3.5 Poland

A total number of 4 web forums and 3 social media fan sites (facebook.com) were contacted via email. The first wave of contacting was initiated on 14th June 2016. During the first wave all 3 social media fansites and one web forum responded to our request. The information of our survey was posted on-line within two days. The second wave took place three weeks later on 4th July. As a result, the information on our survey was posted on one additional web forum. Due to high number of responses, the two remaining online forums which didn't respond to our attempts have not been contacted further. However, it should be stressed that none of NPS-specific web forums have responded to our request. This can be explained due to criminalization and stigmatization of NPS market and its users. All in all, the positive response was received from 2 web forums and all contacted social media fansites. The information on web forums have been embedded which made it highly visible easily accessed to forum users. Detailed plan of implementation can be found below.

Website	Type	Characteristic	Response/ Posting
Hyperreal.info	Web forum	The biggest Polish drug users' forum covering vast spectrum of psychoactive substances, including NPS	Yes/Yes
Wolnekonopie.pl	Web forum	The biggest Polish forum dedicated to cannabis use and advocacy, covering issues of both natural and synthetic cannabinoids	Yes/Yes
Dopalacze.info	Web forum	NPS-oriented forum	No/No
Dopalamy.net	Web forum	NPS-oriented forum	No/No
Studencka Inicjatywa Narkopolityki	Social media	The fan site of Student Drug Policy Initiative supporting the idea of decriminalization of drug use	Yes/Yes
Polska Sieć Polityki Narkotykowej	Social	The fan site of think-tank Polish Drug Policy Net-	Yes/Yes

	media	work advocating the idea of decriminalization of drug use	
Fundacja Redukcji Szkód	Social media	The fan site of Harm Reduction Foundation supporting and delivering low-threshold and harm reduction services for drug users	Yes/Yes

4.1.3.6 Portugal

Data collection process for the online users was essentially done through the questionnaire available on the international platform ‘Reddit’ and other Portuguese platforms such as ‘Penso logo sou’, ‘Check!n’, and ‘VICE Portugal’ – all platforms where drugs are the main subject or are frequently discussed. Generally, Portuguese people seem to prefer using international platforms. In Portugal, there are only two web pages related to drug issues: one on Facebook, held by a harm reduction project from the non-governmental organization APDES; and the other, on Facebook and on a website, called ‘Penso logo Sou’, a forum where many subjects are discussed, including drug issues. We also collaborated with VICE magazine, an online magazine focused on current events and issues in society. There is only one platform with a Portuguese side, Azarius, but they declined our request for collaboration with the survey.

4.1.4 Response

A total of 3,503 respondents were recruited in the data collection phase. Among those, 253 were not a resident of either of the six participating countries and were excluded for not meeting eligibility criteria. These respondents mainly entered the survey through the international internet forums used in the online community fieldwork, but some also responded to posts on national forums or were found during night life fieldwork. Additionally, seven minors (15-17 years) were excluded for not meeting eligibility criteria.

Of the remaining 3,243 respondents, 212 were excluded because they had not used any NPS in the past 12 months. They either reported names of non-NPS substances when asked which NPS they had used in the past year, or – which was more often the case (189 out of 212) – reported their last NPS use was more than 12 months ago. The eligibility criterion of last 12 months NPS use was clearly communicated during recruitment and also checked at the very beginning of the questionnaire. This general question of last 12 months NPS was answered in the affirmative by these respondents, but when asked about specific categories of NPS later in the questionnaire their answers were negative.² This reflects the general issue encountered during field work that the concept of NPS is not always clear at the consumer level.

Finally, eight respondents were excluded because of questionable validity, based on their silly, irrelevant, incoherent or angry comments on open-ended questions.

The final sample of recent NPS users in this study consists of 3,023 recent NPS users, among which the online community sample is the largest (2,110) and the marginalised sample the smallest (266). For reasons described in the fieldwork section above, the subsamples of marginalised users from the Netherlands and Portugal and night life users from Ireland are very small, with less than 10 respondents.

² Including an ‘other’ category, where respondents could enter their answers when they were not sure to which category the substance they had used belonged.

	MARGINALISED	NIGHT LIFE	ONLINE	TOTAL
SAMPLE				
Germany	23	98	542	663
Hungary	101	15	156	272
Ireland	48	3	11	62
The Netherlands	1	189	1,000	1,190
Poland	86	172	338	596
Portugal	7	170	63	240
TOTAL	266	647	2,110	3,023

4.2 USER PROFILES

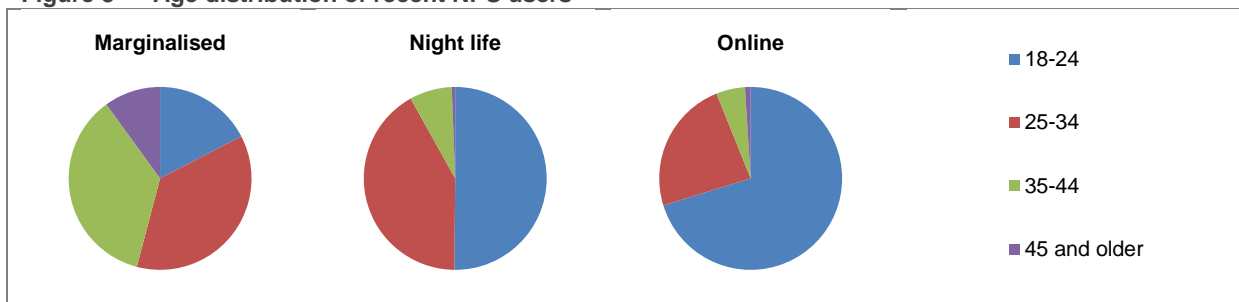
4.2.1 Profiles of marginalised, night life and online community recent NPS users

4.2.1.1 Background characteristics

See Table 1 in Appendix A

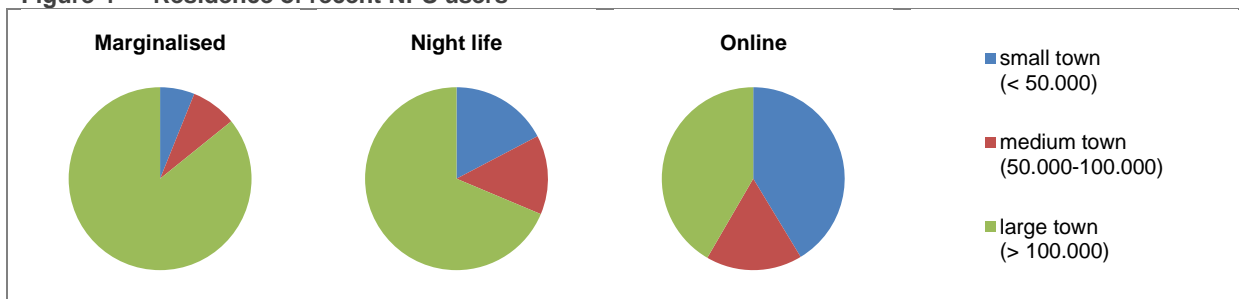
In all three samples, most respondents are male (marginalised: 71.7%, night life: 67.9%, online: 68.0%). The online community sample is the youngest with an average age of 23.6 years and 70.3% falling within the 18-24 age group; the night life sample is somewhat older (average 25.7). The marginalised sample is the oldest (average 33.5) with only 17.4% in the 18-24 age group and 10.0% being 45 years or older.

Figure 3 Age distribution of recent NPS users



A vast majority of the marginalised sample lives in a large town with more than 100,000 inhabitants (86.8%) and the night life sample also mainly resides in large towns (68.5%). A sizeable part of the online community sample, however, lives in small towns with a population of less than 50,000 (41.2%).

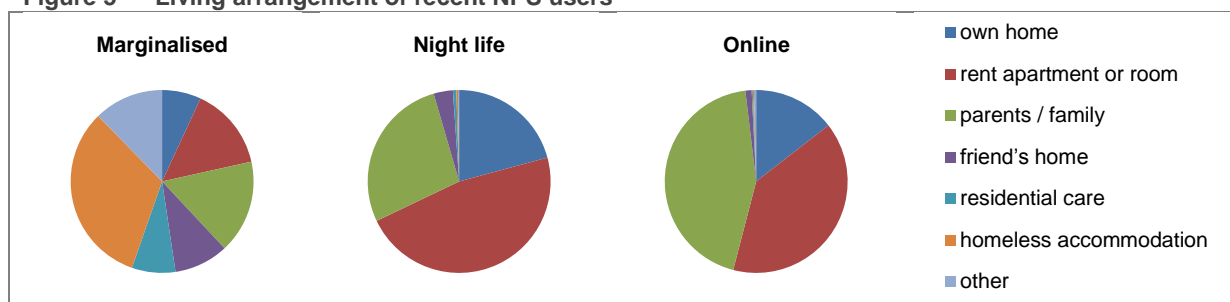
Figure 4 Residence of recent NPS users



Most of the night life and online community samples live either with their parents or family (27.6% and 44.1%) or in a rent apartment or room (47.1% and 39.6%). Compared to these two samples, respondents in the marginalised sample more often live in homeless accommodations or hostels

(32.3%) or reported other living arrangements (12.3%), including living on the streets (sleeping rough).

Figure 5 Living arrangement of recent NPS users



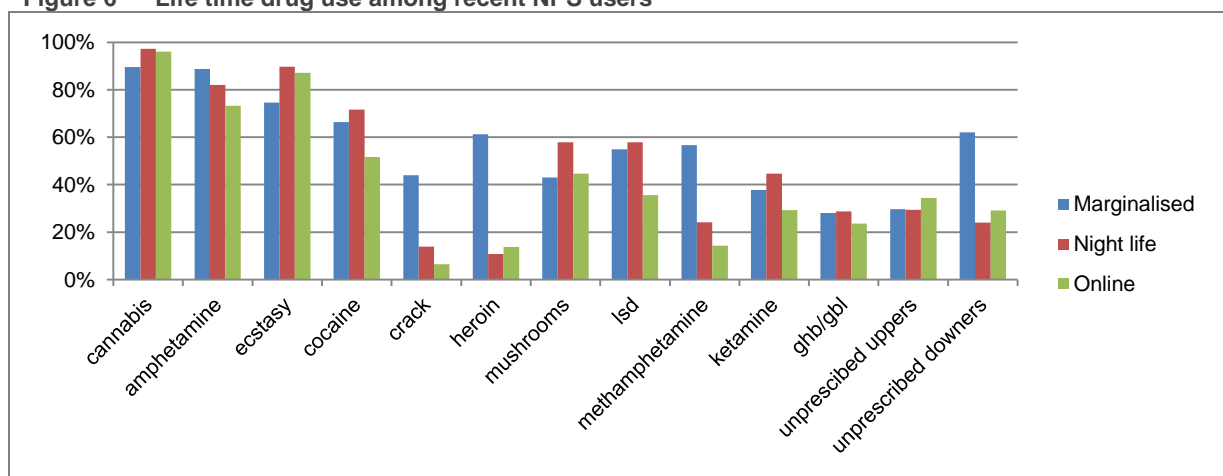
The night life and internet community samples show high levels of education. Many have so far only completed a secondary level education (46.2% and 56.2%), but there are also many that are still studying for a higher degree (28.6% and 43.7%). And 37.3% and 28.6% already have a college or university diploma. Among the marginalised sample most completed no or just primary education (55.2%), only few (3.1%) are students and three quarters are unemployed and/or live on benefits (75.7%).

4.2.1.2 Drug use history

See Table 2 in Appendix A

Generally, life time drug use is common among the samples of recent NPS users. Nearly all night life and online community users have ever used cannabis; life time use of cannabis in the marginalised sample is only slightly lower. A majority of all samples of NPS users have had experience with the traditional stimulant drugs amphetamines, ecstasy and/or cocaine (marginalised: 66.3–88.7%, night life: 71.6–89.7%, online: 51.6–87.1%) and many, if not most have ever used magic mushrooms, lsd, ketamine, ghb/gbl and unprescribed upper medicines (marginalised: 28.0–54.9%, night life: 28.7–57.9%, online: 23.6–44.6%). Notably, life time use of crack cocaine, heroin, methamphetamine and unprescribed downer medicines is considerably higher in the marginalised sample (29.6–61.2%) than the other two samples (6.4–29.1%). When comparing night life with online community NPS samples, the latter often show somewhat lower rates of use.

Figure 6 Life time drug use among recent NPS users



Among the marginalised sample almost three quarters have ever used drugs intravenously (74.4%) compared to 3.6% of night life and 4.9% of online community sample.

4.2.2 Use of NPS categories

Information was gathered on the use of seven categories of NPS:

- **Herbal blends** (e.g. 'Spice')
- **Synthetic cannabinoids** (obtained pure)
- **Branded stimulants** (e.g. 'bath salts')
- **Stimulants/empathogens/nootropics** (obtained pure, e.g. mephedrone, MDPV, a-PVP)
- **Psychedelics** (e.g. NBOMe-x, 2C-x)
- **Dissociatives** (e.g. methoxetamine)
- **Other**

For each of these categories, respondents were asked about their use (life time, last 12 months, last 30 days, and frequency of use in the last 30 days). If respondents indicated last 12 months use, they were asked to name up to three NPS they had used within that category. For herbal blends and branded stimulants respondents were also asked to name up to three active ingredients. Except for the few examples mentioned with the seven categories above, no lists of known NPS or active ingredients per category were provided.

When analysing the respondent's answers, it became clear that this categorisation was not necessarily common among NPS users. Names of NPS were not always entered under their proper categories. Also, respondents said they did not know the names or active ingredients of NPS they had used.

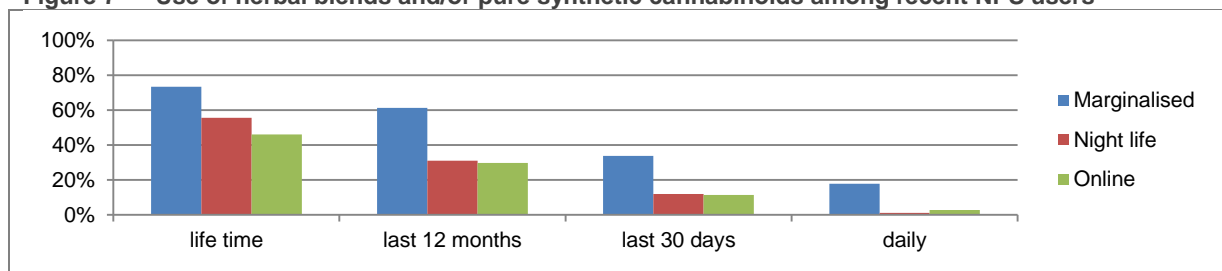
The distinction between the categories of herbal blends and synthetic cannabinoids obtained pure, and between the categories of branded stimulants and stimulants/empathogens/nootropics obtained pure, is especially fluid. Synthetic cannabinoids are sold pure under their chemical name, but under the same name also sold as a brand of herbal blends. Likewise, pure stimulants are sold as bath salts under their chemical name. Although this deserves further exploration, the lack of a clear-cut distinction between users of these two pairs of NPS categories is obvious. Therefore, when describing user profiles in the following paragraphs, users of herbal blends and/or synthetic cannabinoids obtained pure are aggregated into one subgroup. The same holds for users of branded stimulants and/or stimulants/empathogens/nootropics obtained pure. For the sake of readability, these categories will be referred to as 'herbal blends and/or pure synthetic cannabinoids' and 'branded and/or pure stimulants' in the text.

4.2.2.1 Herbal blends and/or synthetic cannabinoids obtained pure

See Table 3 and Table 4 in Appendix A

Life time, last year and last month use of herbal blends and/or pure synthetic cannabinoids is higher in the marginalised sample than in the night life and online community sample. Current (last 30 days) use is three times higher (33.8% versus 11.4–11.9%). The marginalised sample also shows more frequent use, with 54.0% of current users using every day (versus 10.7% and 25.1% of current night life and online community users). This translates to 17.9% daily users of herbal blends and/or pure synthetic cannabinoids in the marginalised sample, 1.2% among the night life sample and 2.8% among the online community sample.

Figure 7 Use of herbal blends and/or pure synthetic cannabinoids among recent NPS users



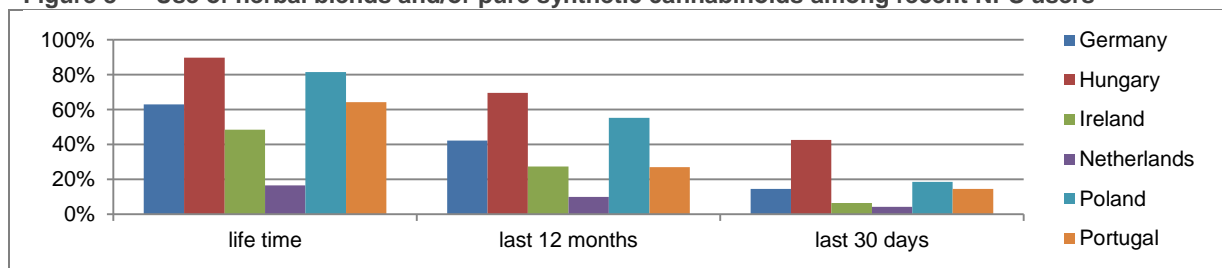
The three most named herbal blends in the marginalised sample were *Mocarz*, *Spice* and *Bonzai*. These brands also occur in the top three of the night life and online community sample. However, night life users also mention *Czeszący grzebień* and with online community users *Jamaican* is the most named brand of herbal blends. Notably, about half of those who said they had used herbal blends in the past 12 months, stated that they did not know which herbal blends they had used.

When asked about active ingredients of herbal blends, the vast majority of those who said they had used these in the past 12 months failed to name any active ingredient (marginalised: 81.2%, night life: 86.1%, online community: 83.0%). Another interesting result is that – if active ingredients were named – night life and online community users most often named synthetic cannabinoids while marginalised users appeared to think that herbal blends contain a variety of dangerous chemical compounds (acetone, rat poison, battery acid).

At least two thirds of respondents who said they had used synthetic cannabinoids did not know which they had used (marginalised: 69.8%, night life: 75.0%, online community: 68.6%). Synthetic cannabinoids of the JWH series (mainly JWH-018) were most often named in the online community sample, followed by synthetic cannabinoids of the AM series (mainly AM-2201). Ab-chminaca and ab-fubinaca shared third place. In the night life sample, only JWH cannabinoids and baka were mentioned by more than two respondents. In the marginalised sample no individual synthetic cannabinoid was named by more than two respondents.

Comparing the six countries participating in this study, the use of synthetic cannabinoids and/or herbal blends is most prevalent in the Hungarian samples, with 89.7% of recent users of NPS having ever used these substances and 42.6% having used in the last 30 days. In contrast, life time use among recent NPS users in the Dutch samples is 16.6% and current use 4.2%.

Figure 8 Use of herbal blends and/or pure synthetic cannabinoids among recent NPS users



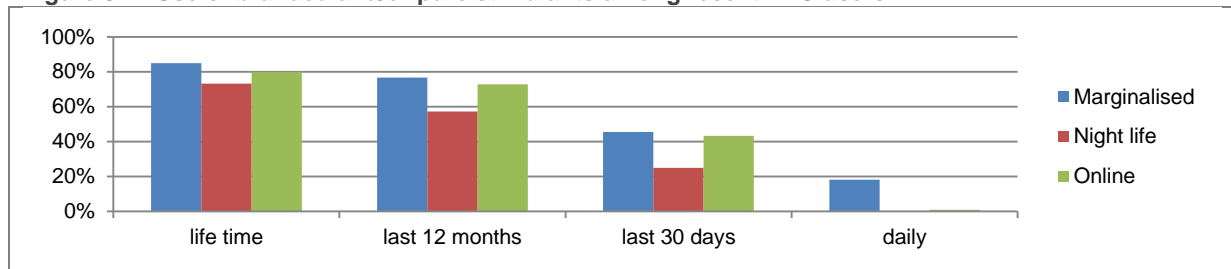
4.2.2.2 Branded stimulants and/or stimulants/empathogens/nootropics obtained pure

See Table 5 and Table 6 in Appendix A

The use of branded and/or pure stimulant NPS is also highest in the marginalised sample, but the differences are somewhat smaller compared to herbal blends and/or pure synthetic cannabinoids. In current (last 30 days) use the difference between marginalised users (45.5%) and online community

users (43.3%) is negligible. However, 41.6% of current users in the marginalised sample are daily users, compared to only 2.3% of current user in the online community sample. Extrapolated to the entire sample, 18.2% of marginalised recent NPS users are daily users of branded and/or pure stimulants, while this is the case for 1.0% of online community users. Prevalence and frequency rates of branded and/or pure stimulants are lowest in the night life sample, with 25.0% current use and 0.3% daily use.

Figure 9 Use of branded and/or pure stimulants among recent NPS users



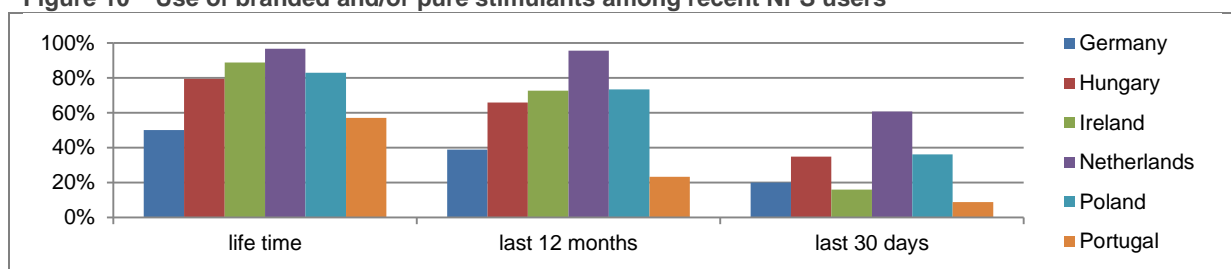
The lack of distinction between branded stimulants and stimulants obtained pure becomes clear when looking at the respondents' answers to the question which brands of stimulants they used. While in the marginalised sample, the top three consists of actual brands (*Młot Thora*, *Kryształ górski*, *Co-colino* and *Funky*), the three most named 'brands' in the night life and online community samples are chemical stimulant names (4-MMC or mephedrone, 3-MMC and 4-CMC).

For as far as recent (past 12 months) users of branded stimulants were able to name active ingredients: alpha-pvp was most named in the marginalised sample and 4-MMC in the night life and online community samples. However, most reported that they did not know the active ingredients of the branded stimulants they had used (marginalised: 86.5%, night life 86.6%, online community: 79.4%).

Just as chemical stimulant names were reported when asked for branded stimulants in the online community sample, a brand (*Snow blow*) was often reported when asked for stimulants obtained pure in the marginalised sample. Again indicating that there is no clear distinction between branded and pure sold stimulants at the consumer level. The top three of stimulants used in the night life and online community samples are the same: 4-FA, followed by 4-MMC and 3-MMC.

Prevalence rates of branded and/or pure stimulants are highest among samples of Dutch users. Almost every recent NPS user from the Netherlands has ever used branded and/or pure stimulants (96.7%) and a majority of 60.8% has used it in the past 30 days. German and Portuguese samples show the lowest prevalence rates.

Figure 10 Use of branded and/or pure stimulants among recent NPS users

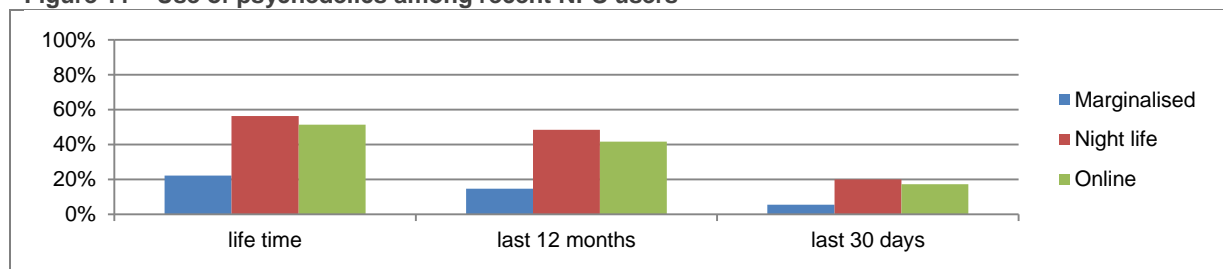


4.2.2.3 Psychedelics

See Table 7 and Table 8 in Appendix A

Contrasting the NPS categories in the previous paragraphs, the use of psychedelic NPS is more prevalent in the night life and online community samples than in the marginalised sample. Life time use is more than twice as high (56.4-51.3% versus 22.2%) and last 30 days use is more than three times as high 20.1-17.3% versus 5.6%). Daily use is uncommon within the night life and online community sample (2.5% and 1.2% of current users; 0.5% and 0.2% of total sample). In the marginalised sample, 23.1% of current users consume psychedelic NPS every day. Because of the relatively limited number of current users within this sample, the rate of daily use in the total sample is only 1.1%.

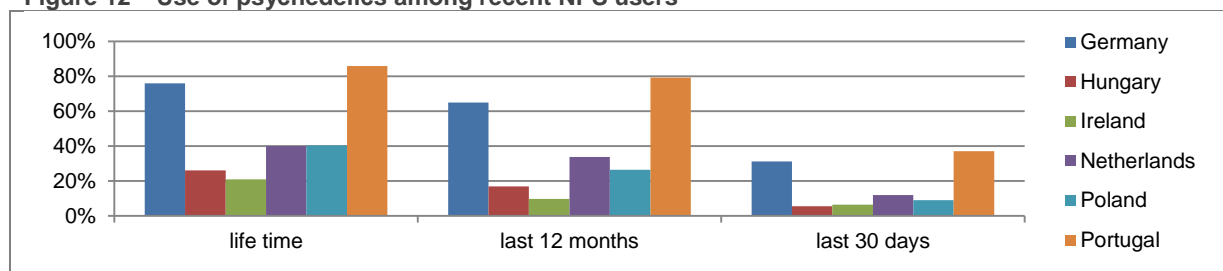
Figure 11 Use of psychedelics among recent NPS users



NBOME's and 2C-B are among the top three of psychedelic NPS used in all three samples. In addition to these two substances, Changa was often named in the night life sample and 1p-LSD in the online community sample. The marginalised sample is distinguished by a large number of recent users not knowing which psychedelic they had used (59.5%).

Notably, the use of psychedelic NPS is at least twice as prevalent in the samples from Germany and Portugal than the samples from the other four participating countries. In comparison, The Netherlands and Poland show intermediate prevalence rates and Hungary and Ireland low prevalence rates. Current (last 30 days) use, for instance, is 37.1% and 31.2% in the Portuguese and German samples, 11.9% and 9.1 in the Dutch and Polish samples and 5.5% and 6.5% in the Hungarian and Irish samples.

Figure 12 Use of psychedelics among recent NPS users

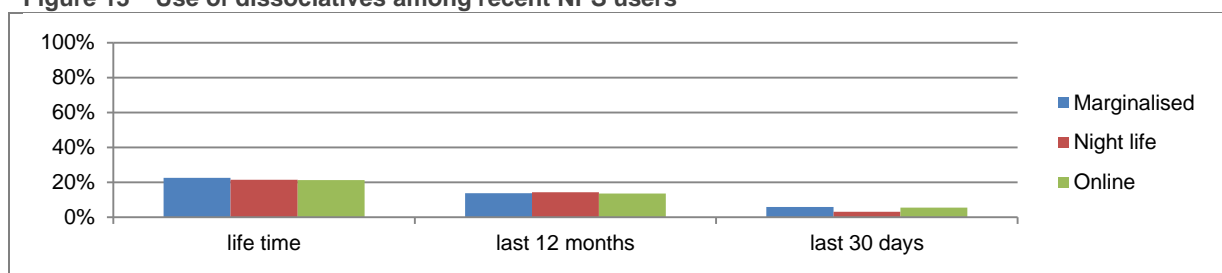


4.2.2.4 Dissociatives

See Table 9 and Table 10 in Appendix A

On the whole, the use of dissociative NPS is relatively limited compared to the other categories of NPS. It is also the only category of NPS with similar rates of use in the marginalised, night life and online community sample. Only in last 30 days use is there a small difference between the night life sample (3.2%) and the other two samples (online community: 5.6%, marginalised: 6.0%). And though the marginalised sample has some more frequent users among its current users, the proportion of daily users in the total samples does not significantly differ (marginalised: 0.8%, night life: 0.2%, online community: 0.3%).

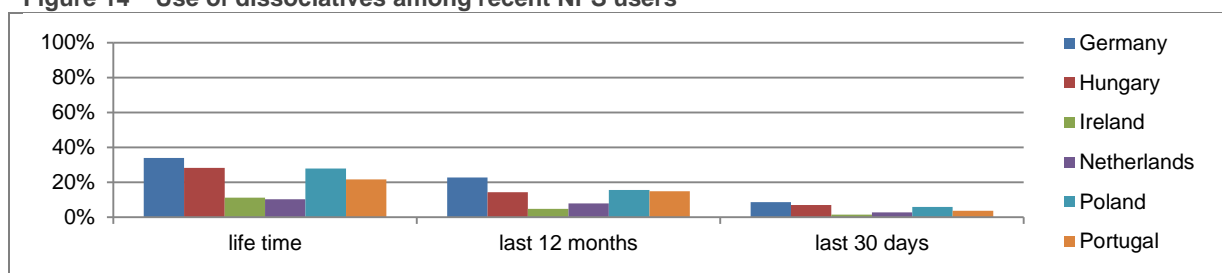
Figure 13 Use of dissociatives among recent NPS users



MXE is the most used dissociative NPS in all three samples. In the online community sample followed by MXP and 3-MeO-PCP. In the night life and marginalised samples, other dissociatives were named by only a few respondents. A majority of marginalised recent (past 12 months) users of dissociatives could not name a specific substance they had used (81.8%), while in the night life and online community sample most did know what they had used (79.1% and 67.4%).

Even though the overall prevalence of dissociative NPS use is relatively low, there are still differences between the six participating countries, with Germany showing the highest rates (33.9% life time), followed by Hungary (28.3%), Poland (27.9%) and Portugal (21.7%), and at some distance Ireland (11.3%) and the Netherlands (10.3%). The Hungarian marginalised NPS users are the only subsample where the use of dissociatives is more prevalent than that of psychedelics (24.8% versus 12.9% life time).

Figure 14 Use of dissociatives among recent NPS users

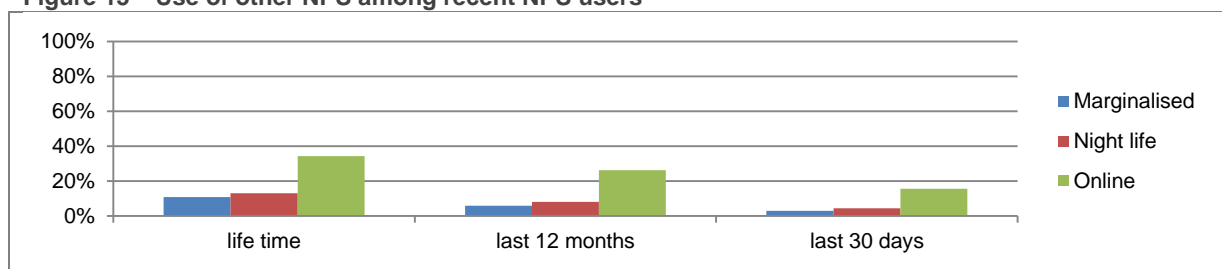


4.2.2.5 Other NPS

See Table 11 and Table 12 in Appendix A

Other NPS, not belonging to the categories described in the previous paragraphs, are mostly used in the online community sample. Life time, recent and current use is around three times higher than in the night life and marginalised samples. Again, The marginalised sample has more frequent users among its current users, but the proportion of daily users in the total marginalised sample (0.8%) does not differ from that in the online community sample (1.1%). The night life sample has no daily users of other NPS.

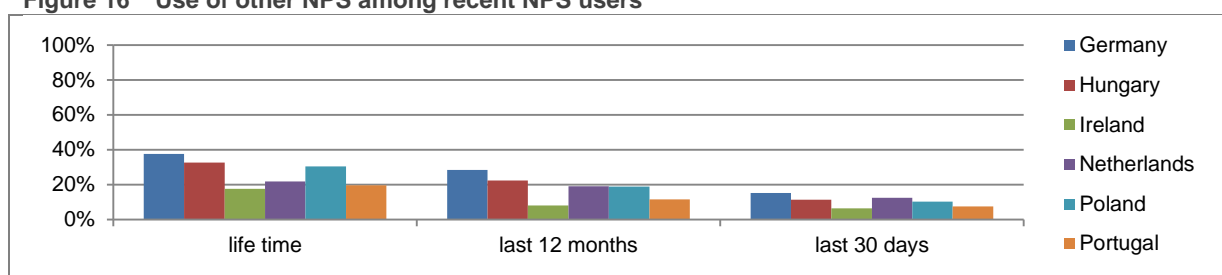
Figure 15 Use of other NPS among recent NPS users



The names of other NPS most mentioned in the online community and night life samples are that of benzodiazepine class substances (Etizolam, Diclazepam and Clonazolam), but around a third of the recent users (65.7% and 63.9%) does not know the name of the substance(s) they used. The most reported other NPS in the marginalised sample, if any, is an opioid analgesic (Furanylfentanyl).

Despite the fact that the prevalence of other NPS use is highest in the total online community sample, Germany shows higher rates of other NPS use than the other countries, mainly because of many users in the German marginalised sample. For example, in the German marginalised subsample 21.7% has used other NPS in the past 30 days, compared to 3.0% in the Hungarian marginalised subsample and none in the other countries' marginalised subsamples. For the total country sample, prevalence rates are lowest in Ireland and Portugal.

Figure 16 Use of other NPS among recent NPS users



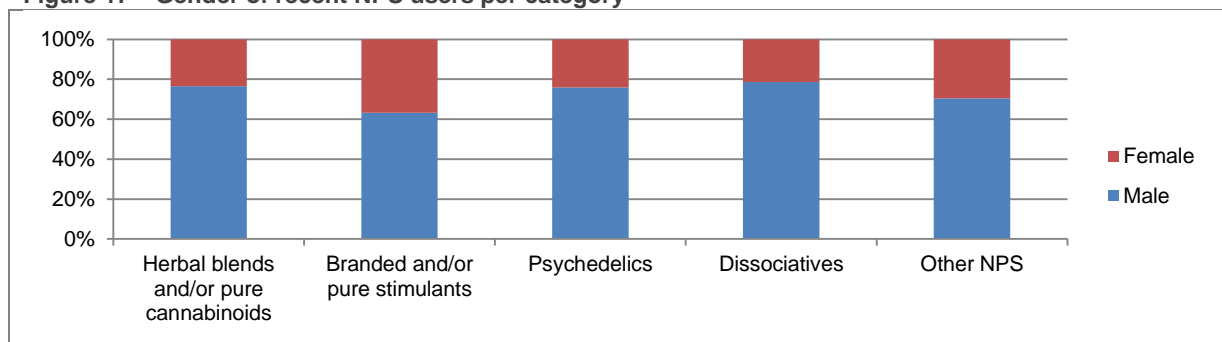
4.2.3 Profiles of recent users of NPS categories

4.2.3.1 Background characteristics

See Table 13 and Table 14 in Appendix A

Most of the recent users of NPS from each of the five categories are male. Users of branded and/or pure stimulants, however, are more often females than users of the other four NPS categories (36.8% versus 21.4–29.6%).

Figure 17 Gender of recent NPS users per category

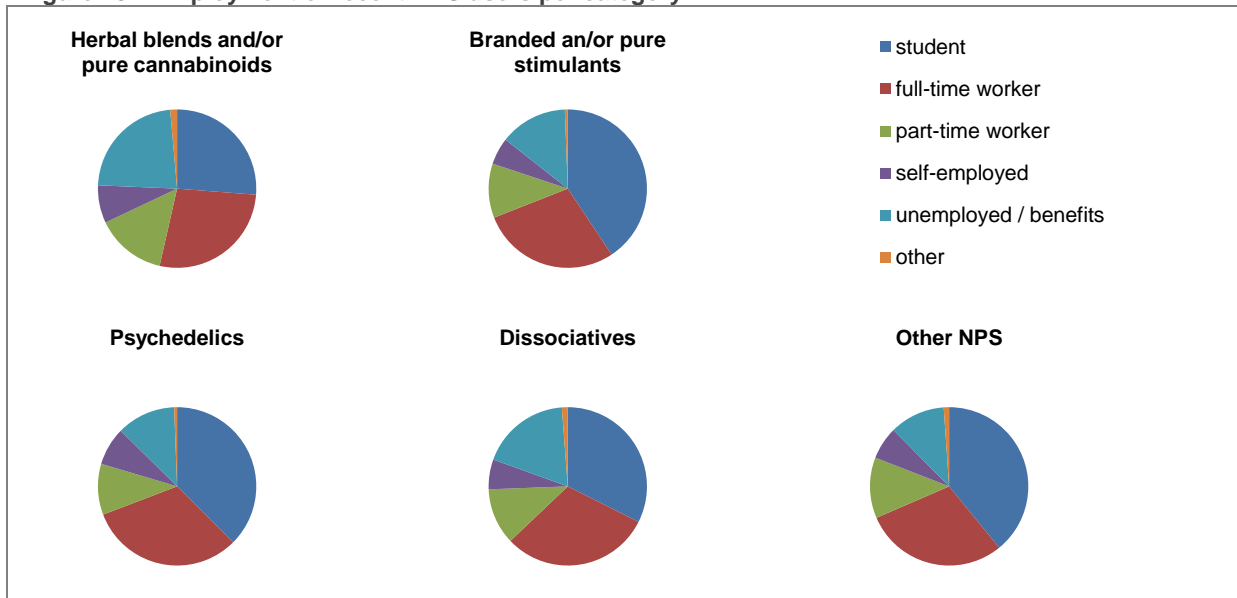


Recent users of herbal blends and/or pure synthetic cannabinoids show a slightly higher average age than the other groups (25.7 versus 24.1–25.1 years), but in general recent users of all categories of NPS are mainly young adults aged 18-24 years.

Concerning residence, recent users of dissociatives more often reside in large towns and recent users of other NPS are relatively often from small towns. For all five categories of NPS applies that most recent users live with parents/family or rent an apartment or room.

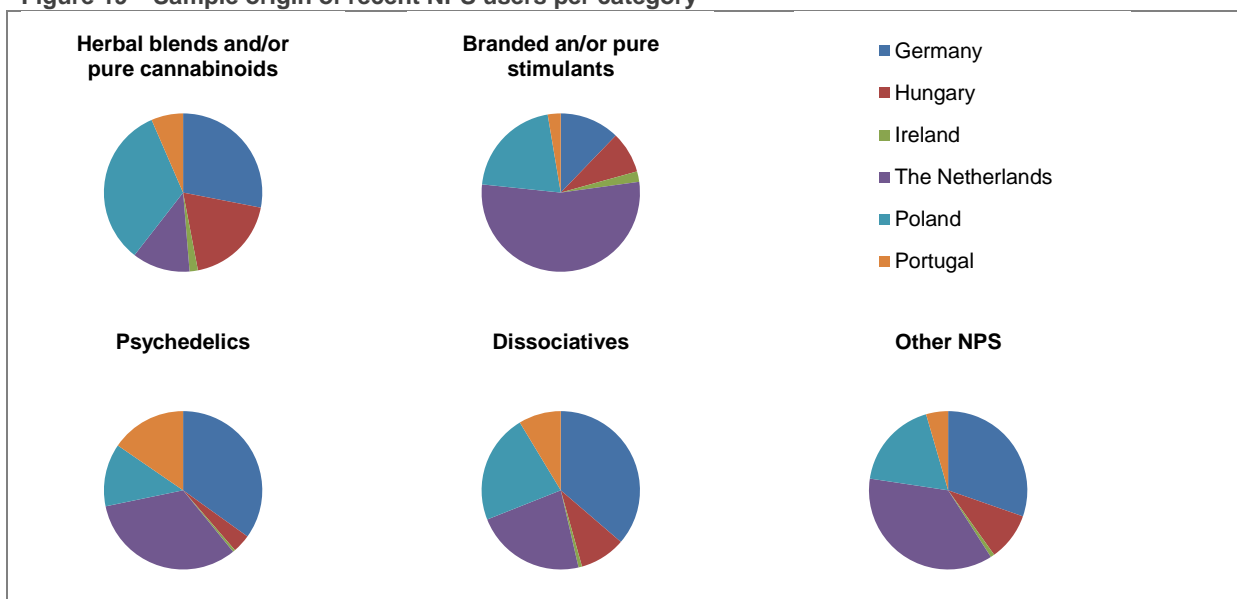
Level of education is highest among recent users of branded and pure stimulants, with 30.1% having a college or university degree, and lowest among recent users of herbal blends and/or pure synthetic cannabinoids, with 23.0% college/university level and 29.3% having finished primary school at most. Compared to other categories, unemployment is relatively high among recent users of herbal blends and/or pure synthetic cannabinoids (22.9%).

Figure 18 Employment of recent NPS users per category



In the previous paragraphs percentages of users within the countries' samples were presented. When looking at it from another perspective (the percentage of the countries' samples within the user group), recent users of herbal blends and/or pure synthetic cannabinoids were often recruited in Germany, Poland and Hungary, while recent users of branded and/or pure stimulants were mainly in the Dutch sample. Recent users of psychedelics were relatively often found in Portugal. Because of the relatively small numbers of respondents in the Irish samples, Ireland is the smallest proportion of recent users in each category.

Figure 19 Sample origin of recent NPS users per category

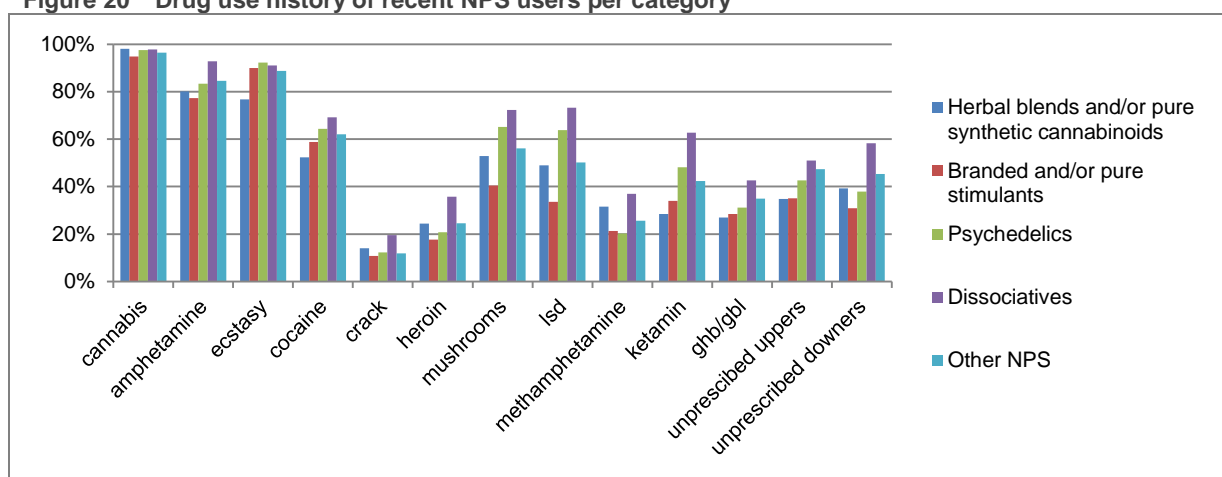


4.2.3.2 Drug use history

See Table 15 in Appendix A

Life time use of most drugs is higher among recent users of dissociatives than among recent users of other categories of NPS. Life time use of traditional psychedelic drugs – magic mushrooms and lsd – is also high among recent users of psychedelic NPS. A history of intravenous drugs use is relatively prevalent among recent users of both herbal blends and/or pure synthetic cannabinoid (19.1%) and dissociatives (18.1%).

Figure 20 Drug use history of recent NPS users per category



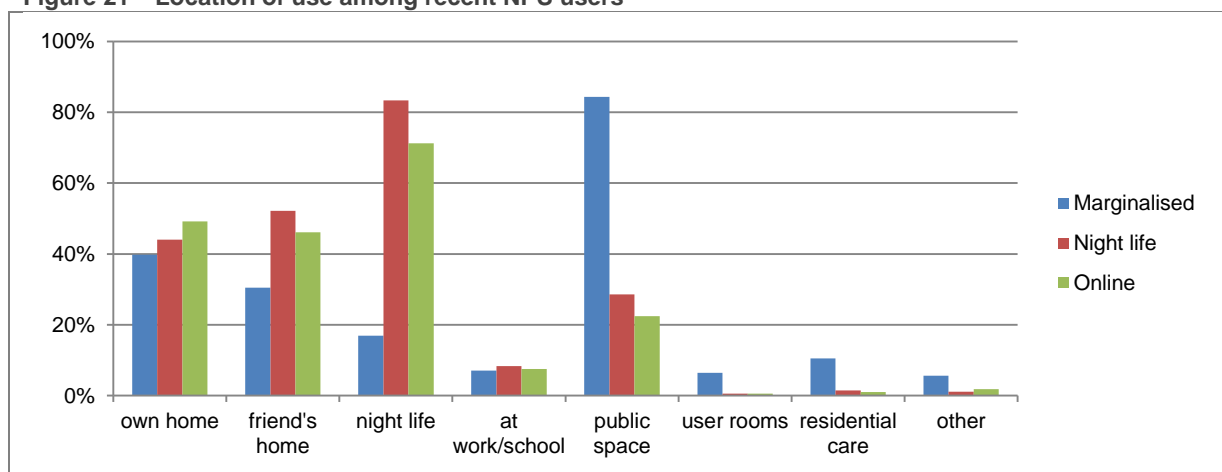
4.3 PATTERNS OF USE

See Table 16 in Appendix A

Information on patterns of use other than prevalence and frequency (location of use, use in company of others, mode of administration, and preparation of homemade mixes) was gathered in general and not for specific categories of NPS. Results are therefore presented for the total samples of marginalised, night life and online community recent NPS users.

Among night life and online community recent users, NPS are most often used in night life venues, followed by the users' own home or friend's home and in public spaces like streets, parks, forests, beaches, etc. They seldom use NPS in user rooms, residential care and other locations (e.g. in a car, public toilets, stairways). For marginalised users, public space is the most common and night life is notably less mentioned compared to the other two samples.

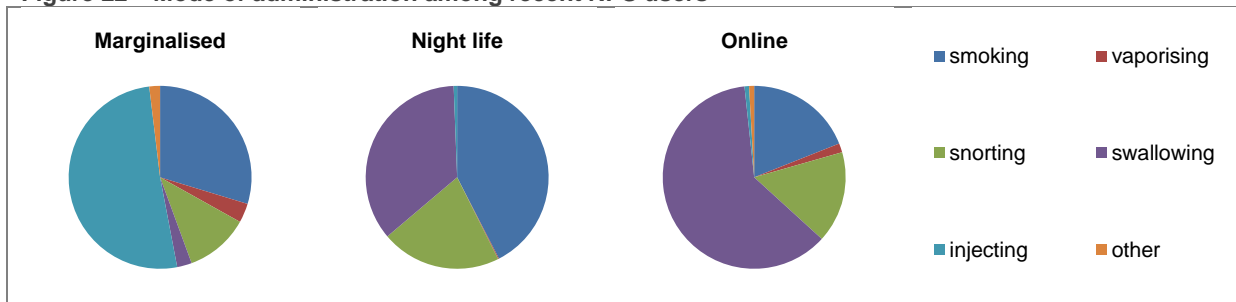
Figure 21 Location of use among recent NPS users



Most night life and online community users are always in the company of other when consuming NPS (66.7% and 57.3%); a minority uses mostly or always alone (4.1% and 11.1%). Marginalised users use NPS alone more often; 22.9% mostly or always.

Half of the marginalised users usually injects NPS (51.1%). Among the online community users swallowing is the most common mode of administration. Night life users mainly swallow, smoke or snort their NPS.

Figure 22 Mode of administration among recent NPS users

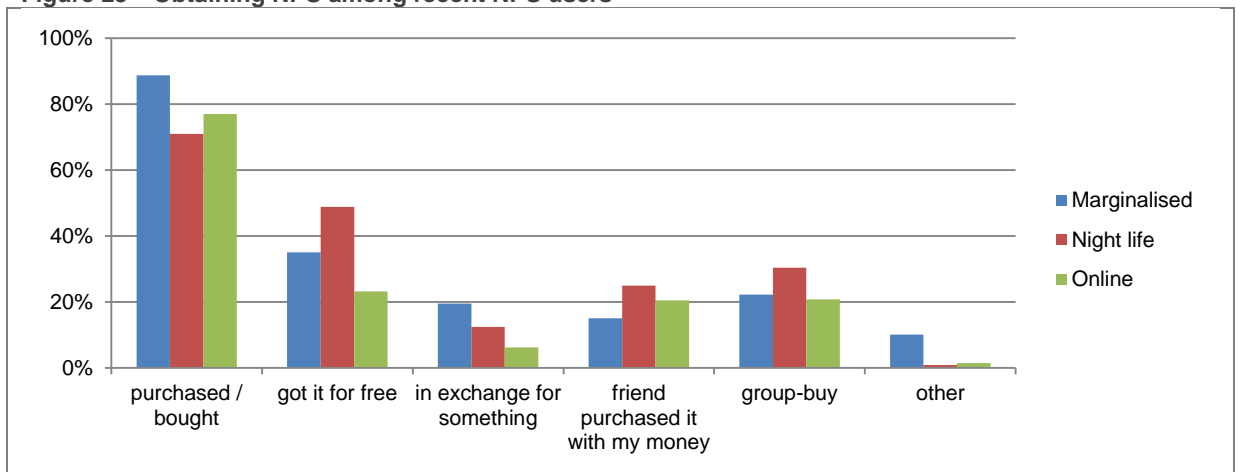


4.4 PROCUREMENT

See Table 17 in Appendix A

Even though a majority of recent users in all three samples purchase NPS themselves, marginalised users (88.7%) do this more often than night life and online community users (70.9% and 77.0%). Especially night life users often (also, multiple methods of obtaining NPS could be reported) get NPS for free (48.8%), have friends purchase NPS with their money (24.9%) or put money together with friends to make a group-buy (30.4%). Marginalised users relatively often (also) get NPS in exchange for something (19.5%).

Figure 23 Obtaining NPS among recent NPS users

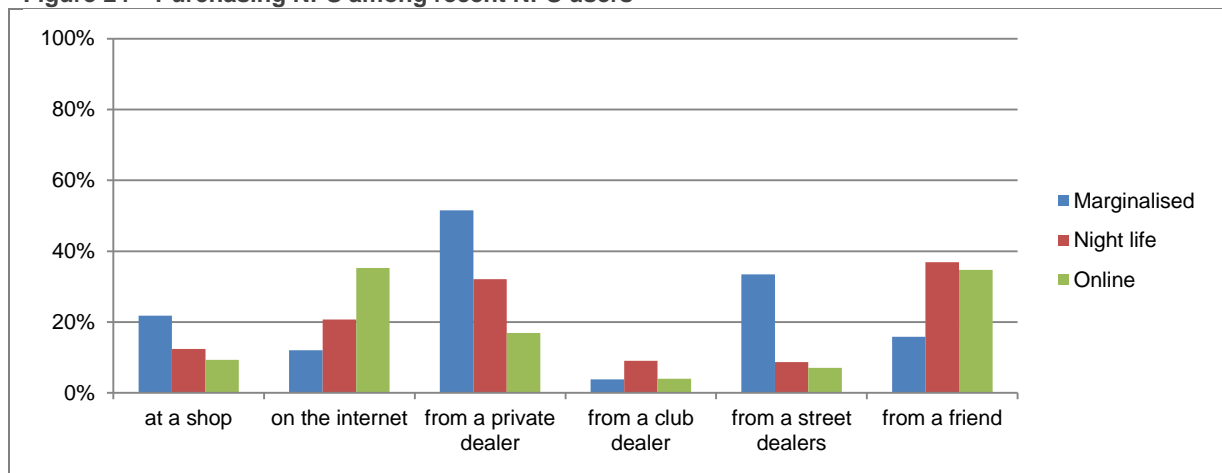


4.4.1 Purchasing NPS

See Table 17 in Appendix A

When recent users themselves purchased NPS, marginalised users most often did this from a private dealer (51.5%) or a street dealer (33.5%).³ Night life users most often purchased from a friend (36.9%), followed by a private dealer (32.1%); online community users on the internet (35.3%) or from a friend (34.7%). Purchasing from a club dealer was done least often in all three samples.

Figure 24 Purchasing NPS among recent NPS users



Purchasing NPS at a shop was done by 21.8% of marginalised users, 14.2% of night life users and 9.3% of online community users. When buying at a shop, if at all, marginalised users reported buying mostly at a headshop (where substance-related merchandise is sold, but no psychoactive substances), while night life and online community users reported buying mostly at a smartshop (where legal psychoactive substances are sold). In total, 6.9% of marginalised users obtained NPS in a headshop; 9.2% and 5.3% of night life and online community users respectively obtained NPS in a smartshop.

When purchasing NPS though the internet, recent users from all three samples mainly order from a dedicated webshop for NPS. The proportion of marginalised users ordering NPS from these webshops is the smallest, but even so 9.8% of marginalised users have done so. Online users most often buy from a NPS dedicated webshop (30.4%). Darknet marketplaces were also reported to have been used by online community users, but to a much lesser extent (6.8%).

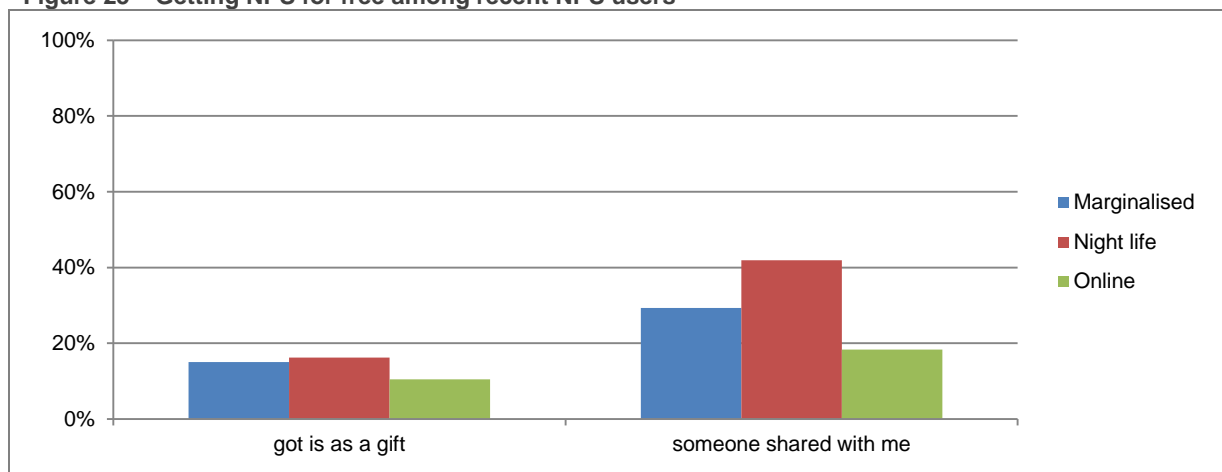
4.4.2 Getting NPS for free or in exchange for something

See Table 17 in Appendix A

Someone sharing their NPS with you is the most common way of getting NPS for free. Among the total sample of recent night life users 41.9% obtain NPS this way. Among marginalised users this is 29.3% and among online community users 18.3%. Getting NPS as a gift, including free samples from vendors, is less common.

³ Percentages refer to the total respective sample. Multiple answers were allowed.

Figure 25 Getting NPS for free among recent NPS users



As described above, procuring NPS in exchange for something else is not done often and mostly by marginalised users. Among marginalised users NPS are usually exchanged for common goods (10.5% of the total sample) but also for other (traditional) drugs (5.3%), other NPS (4.5%), work or services (4.1%) or sex (3.0%). When NPS are obtained through exchanging among the night life and online community users, it is primarily for other traditional drugs (9.1% and 3.9% of the total respective sample).

4.5 MOTIVES

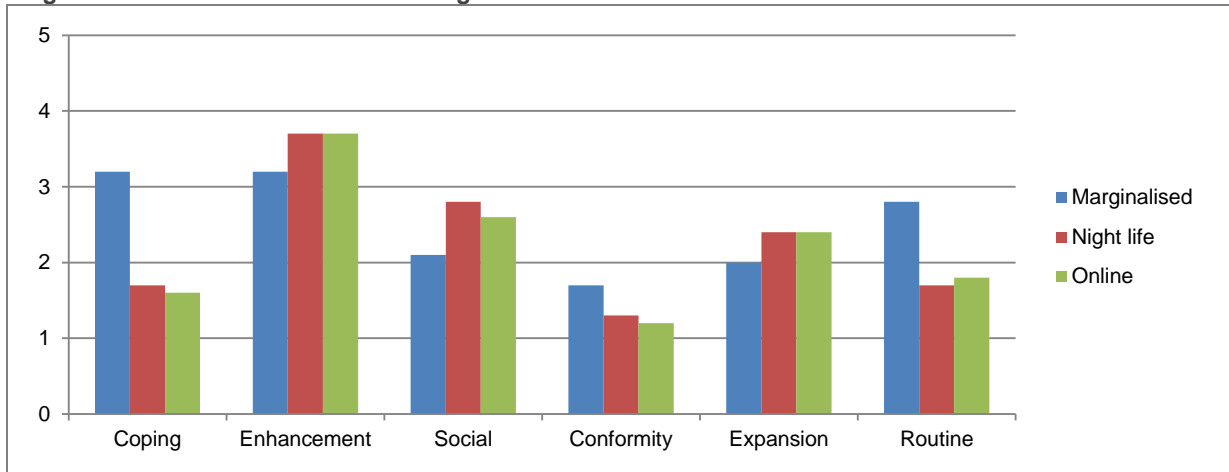
See Table 18 in Appendix A

To examine motives for NPS use, an adaptation of the Marijuana Motives Measure (MMM) was included in the questionnaire. The original MMM (Simons et al., 1998) is a 25 item questionnaire assessing five motives for using cannabis. Each item has a five-point response option (1 almost never/never, 2 some of the time, 3 half of the time, 4 most of the time, and 5 almost always/always). The five motives are labelled: enhancement, coping, social, conformity and expansion. The MMM was later extended with two items, reflecting a sixth motive labelled routine (Benschop et al., 2015). This extended version of the MMM was modified to measure motives for NPS use in this study. Two items from the conformity factor ('So that others won't kid me' and 'Because my friends pressure me to') were omitted because they showed little to no validity in previous studies (Benschop et al., 2015; Chabrol et al., 2005; Zvolensky et al., 2007) and were thought to annoy adult respondents. Six items reflecting motives unique for NPS and not covered by the MMM were added.

Whether or not the factor structure of the MMM can be replicated when used to measure motives for NPS use, and whether or not the added items constitute one or more additional motivational factors, will be subject to further research to be published in the scientific literature. For this report, all items are assumed valid and item scores within the known factors are combined into a factor score.

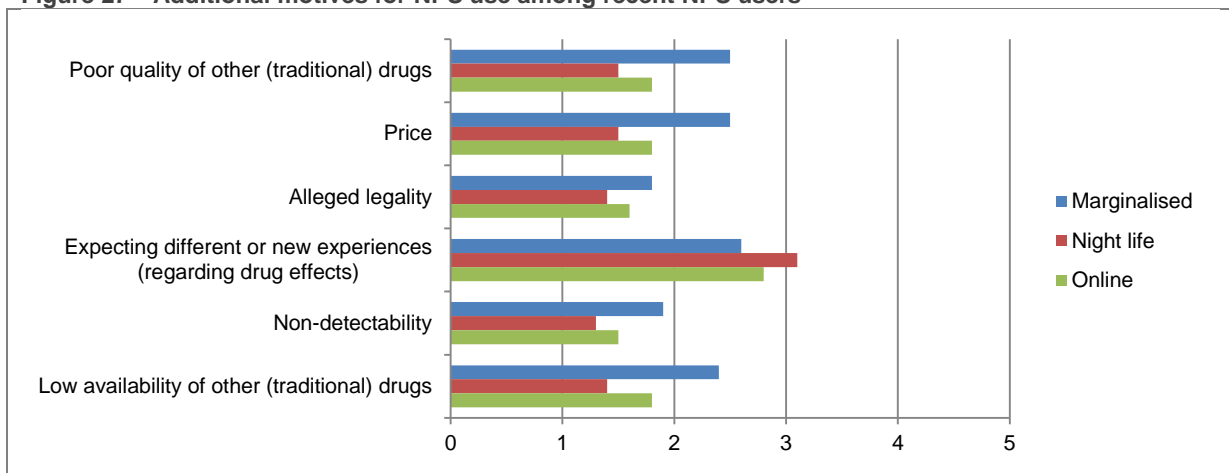
Within the night life and online samples enhancement, social and expansion motives were most often reported. While enhancement was also the most reported among marginalised users, this sample clearly differs from the other two because of relatively high scores on coping and routine motives. Conformity motives are least important in all samples.

Figure 26 Motives for NPS use among recent NPS users



Of the additional motives included in the questionnaire all but one apply more to marginalised users than night life and online community users. Only scores for ‘Expecting different or new experiences’ are higher in the night life and online community sample. This seems in line with higher scores on enhancement and/or expansion motives. It is noteworthy that scores on the five other added items are higher for online community users than night life users. This might indicate differences or nuances in motives for use between these samples that is not captured by the original or extended MMM. Noteworthy is also that ‘Alleged legality’ and ‘Non-detectability’ are among the least mentioned individual motives for NPS use in all three samples.

Figure 27 Additional motives for NPS use among recent NPS users

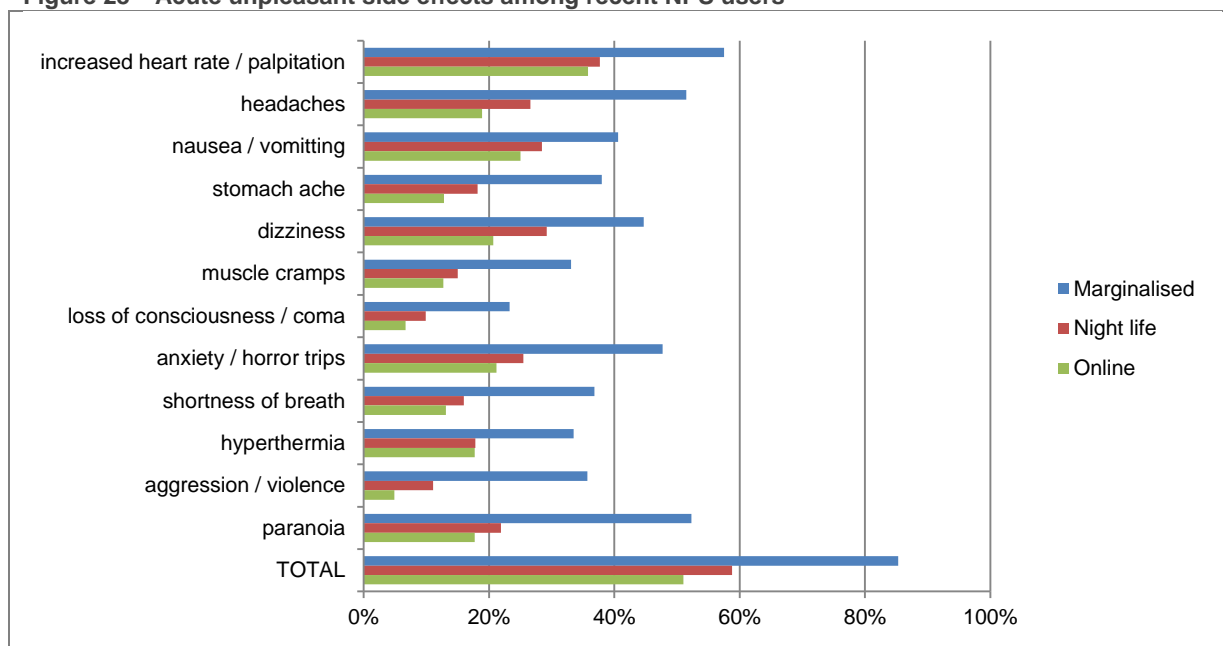


4.6 SIDE EFFECTS AND PROBLEMS

See Table 19 in Appendix A

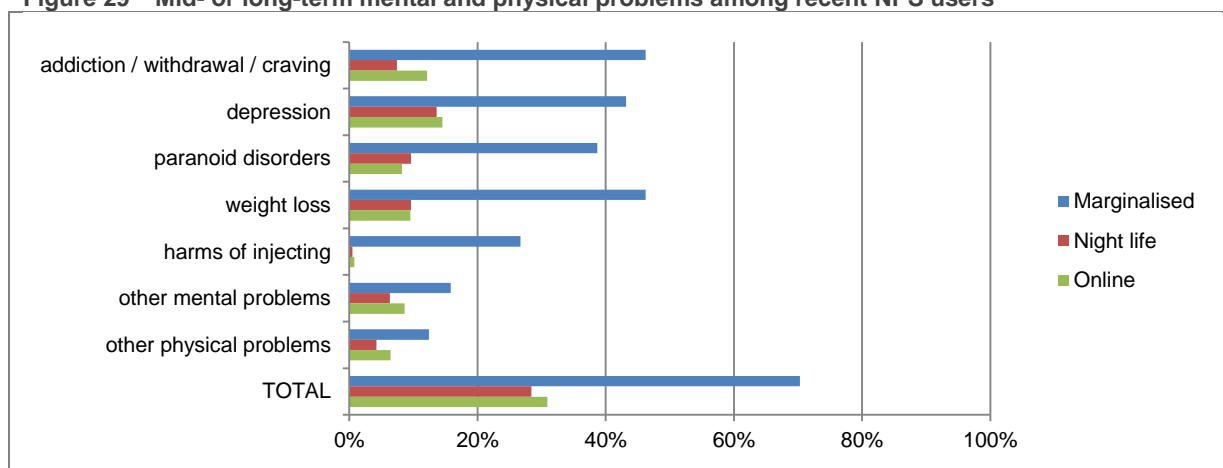
Within all three sample, the majority had experienced acute unpleasant side effects after NPS use. However, the proportion of users who had experienced these effects was substantially larger in the marginalised sample (85.3%) than in the night life and online community samples (58.8% and 51.0%). This dichotomy between marginalised users on the one hand and night life and online community users on the other hand applies for all of the 13 side effects listed in the questionnaire, with aggression/violence and paranoia showing the largest gap. When comparing night life users and online community users with each other, night life users report more unpleasant effects, especially head and stomach aches and dizziness. Increased heart rate or palpitation is the most reported side effect in all three samples.

Figure 28 Acute unpleasant side effects among recent NPS users



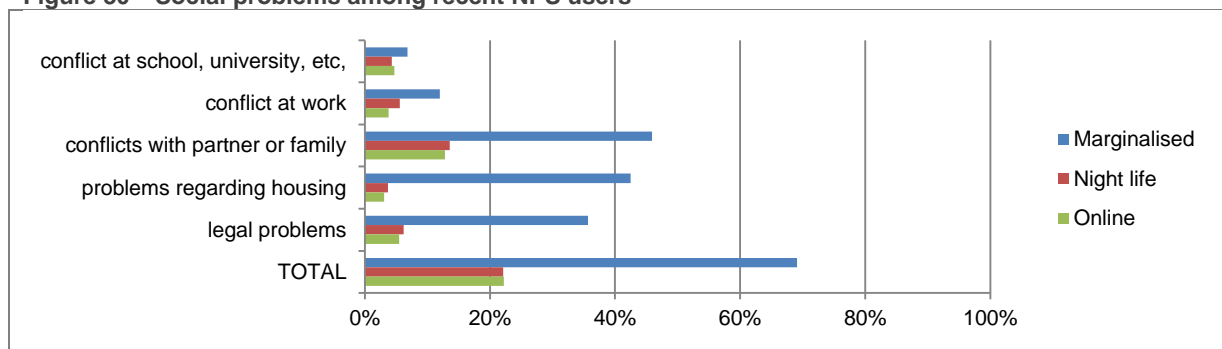
Mid- or long-term mental and physical problems are also experienced by the majority of the marginalised sample (70.3%), but not within the night life and online community sample (28.4% and 30.9%). The same dichotomy between marginalised users on the one hand and night life and online community users on the other hand applies for all problems listed, but while night life users reported more unpleasant acute effects than online community users, this is not the case for mid- and long-term problems. Depression is the most reported problem in the night life and online community sample; in the marginalised sample it is dependence symptoms and weight loss.

Figure 29 Mid- or long-term mental and physical problems among recent NPS users



Regarding social problems from NPS use, again a dichotomy between the marginalised sample and the night life and online community samples appears, with marginalised users experiencing these problems three times as often (69.1% versus 22.1% and 22.2%). Especially housing and legal problems are reported more often by marginalised users. In experiencing conflicts at school or work, there is little or no difference between the marginalised sample and the other two samples. This of course is related to the fact that most marginalised users do not go to school and are unemployed.

Figure 30 Social problems among recent NPS users

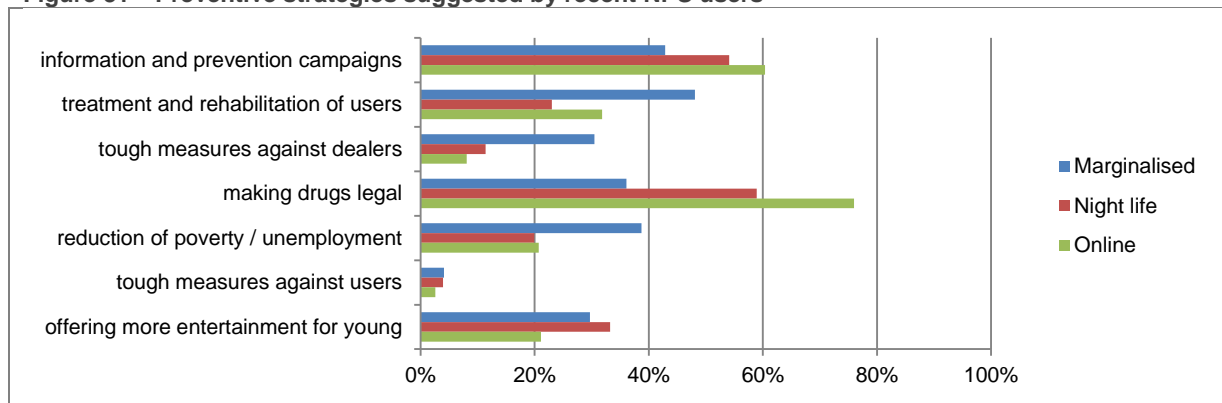


4.7 PREVENTIVE STRATEGIES

See Table 20 in Appendix A

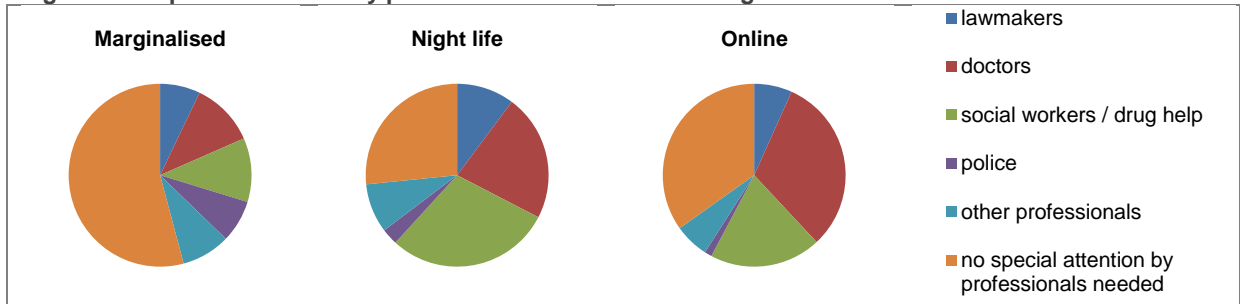
An item from the 2014 Flash Eurobarometer *Young people and drugs* was used to assess the respondents' opinion about the most effective ways for public authorities to reduce drugs problems (in general). Online community users clearly favour making drugs legal (76.0%). This preventive strategy is also the most reported one among night life users (58.9%). Information and prevention campaigns are the second most reported strategy within these samples. In comparison, marginalised users are more confident about treatment and rehabilitation of users, reduction of poverty and unemployment, and tough measures against dealers. Tough measures against users is considered least effective by all three samples.

Figure 31 Preventive strategies suggested by recent NPS users



Respondents were also asked whether or not they thought NPS need particular attention by professionals, and if so, which groups of professionals can best help. Surprisingly, considering they reported treatment and poverty relief as important prevention strategies, most marginalised users do not think professional attention to NPS is needed (54.1%). Those who do, consider doctors and social workers or drug help the preferred professionals. In all three samples, only a small minority feels special attention to NPS from lawmakers and police is needed.

Figure 32 Special attention by professionals needed according to recent NPS users



5 Review

After completion of the draft of this report, five external reviewers with expertise, knowledge and oversight were invited to give feedback on the report and comment on generalisability of the findings to other EU countries:

- **Alexander Grabenhofer-Eggerth**
Gesundheit Österreich GmbH (Austria)
- **Anja Mihevc**
Professional worker, counsellor/psychotherapist for drug users – Association DrogArt (Slovenia)
- **Jane Mounteney**
Head of public Health Unit – EMCDDA (Portugal)
- **Mireia Ventura / Xoán Carbón**
Drug checking coordinator / NPS consultant – Energy Control-ABD (Spain)
- **Agnese Zile-Veisberga**
Senior Policy Advisor – Sectoral Policy Department, Ministry of the Interior (Latvia)

Feedback given by these five reviewers is summarized below.

Is each of the stated research questions and objectives of the research adequately addressed in the report?

All reviewers consider the research questions and objectives adequately addressed.

One reviewer would have liked the prevention section to have included specific harm reduction measures such as how users are measuring their doses or if they are analysing their drugs before using a drug checking service. In developing the questionnaire, choices had to be made to omit more detailed questions on some topics to limit the (already lengthy) completion time.

Another reviewer would have liked the subject of internet supply to have been addressed more detailed. Market and supply is one of the topics that will be analysed more thoroughly in a paper that is being prepared.

Are there any major errors or gaps in the information presented?

The reviewers identified no major errors or gaps in the information.

Two reviewers commented on the unequal number of respondents by country and group, but the general opinion was that the reasons for this were sufficiently explained. The limitations of the studies samples in relation to specific topics will be addressed more thoroughly in various papers that are being prepared by the project group.

One reviewer remarked that the supply and demand sections did not reflect differences between countries and suggested to add data from national or cross-national studies for background information. Differences in supply and demand between countries is analysed further in a paper that is being prepared. The requested background information can be found in the separate country reports. Finally, one reviewer did not agree with grouping nootropics and stimulants in the same category. There has been a lot of discussion within the project group on the current categories of NPS in the questionnaire. Eventually, choices had to be made.

To what degree are the findings laid out in this report applicable to European countries in general and/or your country specifically?

There was general agreement among the reviewers that this study highlights the variety in all aspects of the NPS phenomenon (users, substances, policy, prevention, etc.) across countries. The Spanish reviewer states that the findings in this study are in consonance with their own findings. The reviewer from Slovenia, however, paints a slightly different picture of the use of synthetic cathinones (mainly 3-MMC) among very young people and that of synthetic cannabinoids in prisons (because of non-detectability). Another reviewer also mentions NPS use in prison populations as well as among some groups of MSM. Future NPS studies may include these populations.

One reviewer states that the specifics of NPS use in different European countries should be taken into account when drafting overall EU responses or national responses, but that the data included in the report is a good evidence for both researchers and policy makers, regardless the country.

What do you perceive as the strengths of this research report and what do you perceive to be its weaknesses?

Strengths mentioned by the reviewers include the design and methodology of the study and the presentation of findings in the report, the variety that is shown between types of users and across countries, and the improvement of knowledge that can be used in the development of NPS research and policy responses across Europe.

Limitations were the aforementioned unequal number of respondents by country and group and the possible overlap between night life and online user groups. The latter is addressed in a paper that is being prepared, elaborating on the recruitment strategies in this study.

One reviewer suggested strengthening the report by the inclusion of a literature review. An extensive review of the growing body of international literature on NPS was not part of this study. However, country-specific literature can be found in the six country reports, and topic-specific literature (e.g. harm, motives, prevention, supply, etc.) will be included in various papers that are being prepared.

Do you have any further feedback on the overall document not addressed in the preceding sections?

Related comments of two reviewers concern the popularity of specific NPS or lack thereof. One reviewer was curious about why a certain NPS becomes popular, while other NPS do not stay on the market; the other reviewer was curious as to why there is not one “mega-seller”, at least not one that has stayed around.

One reviewer remarked the absence of sources in the inventory section. The information in this section originates from previously published country reports and expert reports from each of the participating countries, based on desk research and expert interviews. In this final report we have tried to summarise these 12 reports (more than 250 pages) as concise as possible. For detailed source information we refer to the respective reports.

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Table 1 Background characteristics of marginalised, night life and online community recent NPS users

	MARGINALISED n = 266	NIGHT LIFE n = 647	ONLINE n = 2.110	p
GENDER				
male	71.7%	67.9%	68.0%	.457
female	28.3%	21.1%	32.0%	
AGE				
18-24 years	17.4%	50.1%	70.3%	.000
25-34 years	36.7%	41.7%	23.7%	
35-44 years	35.9%	7.6%	5.1%	
45 years and older	10.0%	0.6%	1.0%	
average (sd)	33.5 (8.7)	25.7 (5.9)	23.6 (5.8)	
RESIDENCE				
small town (pop. < 50.000)	6.1%	17.3%	41.2%	.000
medium town (pop. 50.000-100.000)	8.1%	14.0%	17.0%	
large town (pop. > 100.000)	85.8%	68.6%	41.8%	
LIVING ARRANGEMENTS				
own home	6.9%	20.8%	14.5%	.000
rent apartment or room	14.6%	47.1%	39.6%	
parents / family	16.5%	27.6%	44.1%	
friend's home	9.6%	3.4%	1.1%	
residential care	7.7%	0.6%	0.2%	
homeless accommodation / hostel	32.3%	0.3%	0.2%	
other	12.3%	0.2%	0.4%	
LEVEL OF EDUCATION				
none	7.7%	0.3%	0.6%	.000
primary school	47.5%	16.9%	12.8%	
secondary school	37.9%	45.2%	56.2%	
college / university	5.7%	37.3%	28.5%	
doctor's degree, PhD, etc.	1.1%	0.3%	1.9%	
EMPLOYMENT				
student	3.1%	28.6%	43.7%	.000
full-time worker	3.5%	39.0%	30.6%	
part-time or casual worker	9.4%	12.0%	11.7%	
self-employed	5.9%	9.3%	5.4%	
unemployed / benefits	75.7%	10.8%	8.1%	
other	2.4%	0.3%	0.5%	

Table 2 Drug use history of marginalised, night life and online community recent NPS users

	MARGINALISED n = 266	NIGHT LIFE n = 647	ONLINE n = 2.110	p
DRUG USE HISTORY (LIFE TIME)				
cannabis	89.5%	97.3%	96.1%	.000
amphetamines	88.7%	82.0%	73.3%	.000
ecstasy / mdma	74.6%	89.7%	87.1%	.000
cocaine	66.3%	71.6%	51.6%	.000
crack cocaine	43.9%	13.9%	6.4%	.000
heroin / unprescribed opioids	61.2%	10.8%	13.7%	.000
magic mushrooms	43.0%	57.9%	44.6%	.000
lsd	54.9%	57.9%	35.6%	.000
methamphetamines	56.7%	24.1%	14.3%	.000
ketamine	37.8%	44.7%	29.2%	.000
ghb / gbl	28.0%	28.7%	23.6%	.017
unprescribed prescription upper medicines	29.6%	29.4%	34.4%	.029
unprescribed prescription downer medicines	62.0%	24.0%	29.1%	.000
intravenous drug use	74.4%	3.6%	4.9%	.000

Table 3 Use of herbal blends and/or synthetic cannabinoids obtained pure among marginalised, night life and online community recent NPS users

	MARGINALISED n = 266	NIGHT LIFE n = 647	ONLINE n = 2.110	p
PREVALENCE				
life time	73.3%	55.8%	46.2%	.000
last 12 months	61.3%	31.7%	29.9%	.000
last 30 days	33.8%	12.1%	11.5%	.000
FREQUENCY (LAST 30 DAYS)⁴				
every day	54.0%	10.7%	25.4%	.000
more than 10 times, but not every day	20.7%	22.7%	25.0%	
6-10 times	6.9%	16.0%	9.1%	
3-5 times	5.7%	22.7%	14.7%	
1-2 times	12.6%	28.0%	25.9%	
TOP 3 HERBAL BLENDS NAMED⁵				
1	Mocarz (8)	Spice (18)	Jamaican (29)	
2	Spice (6)	Mocarz (12)	Spice (24)	
3	Bonzai (5)	Czeszący grzebień (7)	Bonzai (50)	
does not know which herbal blends	43.9%	50.0%	53.6%	.119
TOP 3 ACTIVE INGREDIENTS OF HERBAL BLENDS NAMED⁵				
1	Acetone (9)	JWH cannabinoid series (8)	JWH cannabinoid series (20)	
2	Rat poison (6)	<i>other names < 3 respondents</i>	AM cannabinoid series (14)	
3	Battery acid (4)		Ab-chminaca (8) Ab-fubinaca (8)	
does not know which active ingredients	81.2%	86.1%	83.5%	.505
TOP 3 SYNTHETIC CANNABINOIDS NAMED⁶				
1	<i>all names < 3 respondents</i>	JWH cannabinoid series (8)	JWH cannabinoid series (34)	
2		baka (5)	AM cannabinoid series (28)	
3		<i>other names < 3 respondents</i>	Ab-chminaca (17) Ab-fubinaca (17)	
does not know which synthetic cannabinoids	69.8%	75.0%	68.6%	.667

⁴ Current (last 30 days) users only. Marginalised n = 90, night life n = 78, online community n = 243. Maximum reported frequency of herbal blends or synthetic cannabinoids obtained pure.

⁵ Named by at least three respondents (number of respondents between brackets). Percentage 'does not know' refers to respondents who used herbal blends in the past 12 months (marginalised n = 150, night life n = 162, online community n = 448).

⁶ Named by at least three respondents (number of respondents between brackets). Percentage 'does not know' refers to respondents who used synthetic cannabinoids in the past 12 months (marginalised n = 67, night life n = 96, online community n = 376).

Table 4 Use of herbal blends and/or synthetic cannabinoids obtained pure among marginalised, night life and online community recent NPS users – per country

	Germany	Hungary	Ireland	Netherlands	Poland	Portugal	p
LIFE TIME							
marginalised	78.3%	89.1%	41.7%	*(100%)	72.1%	*(57.1%)	.000
night life	66.3%	86.7%	*(100%)	23.8%	77.9%	59.4%	.000
online community	61.8%	90.4%	63.6%	15.2%	85.8%	77.8%	.000
TOTAL	63.0%	89.7%	48.4%	16.6%	81.5%	64.2%	.000
LAST 12 MONTHS							
marginalised	56.6%	77.2%	31.3%	*(0%)	64.0%	*(28.6%)	.000
night life	35.7%	86.7%	*(0%)	13.2%	60.5%	16.5%	.000
online community	42.8%	62.8%	18.2%	9.3%	50.3%	55.6%	.000
TOTAL	42.2%	69.5%	27.4%	9.9%	55.2%	27.1%	.000
LAST 30 DAYS							
marginalised	0%	65.3%	6.3%	*(0%)	22.1%	*(28.6%)	.000
night life	12.2%	46.7%	*(0%)	5.8%	20.9%	7.1%	.000
online community	15.5%	27.6%	9.1%	3.9%	16.3%	33.3%	.000
TOTAL	14.5%	42.6%	6.5%	4.2%	18.5%	14.6%	.000

* excluded from comparative analysis because of small group size (< 10 respondents)

Table 5 Use of branded stimulants and/or stimulants/empathogenics/nootropics obtained pure among marginalised, night life and online community recent NPS users

	MARGINALISED n = 266	NIGHT LIFE n = 647	ONLINE n = 2.110	p
PREVALENCE				
life time	85.0%	73.1%	79.9%	.000
last 12 months	76.7%	57.3%	72.8%	.000
last 30 days	45.5%	25.0%	43.3%	.000
FREQUENCY (LAST 30 DAYS)⁷				
every day	41.6%	1.3%	2.3%	.000
more than 10 times, but not every day	26.5%	5.9%	8.0%	
6-10 times	16.8%	9.2%	7.9%	
3-5 times	4.4%	24.8%	20.6%	
1-2 times	10.6%	58.8%	61.3%	
TOP 3 BRANDED STIMULANTS NAMED⁸				
1	Młot Thora (16)	Cocolino (14)	4-MMC (16)	
2	Kryształ górski (14)	Funky (3)	3-MMC (12)	
3	Cocolino (6)	<i>other names < 3 respondents</i>	4-CMC (10)	
does not know which branded stimulants	25.4%	53.7%	62.7%	.000
TOP 3 ACTIVE INGREDIENTS OF BRANDED STIMULANTS NAMED⁸				
1	Alpha-pvp (4)	4-MMC (4)	4-MMC (14)	
2	MDVP (4)	Alpha-pvp (3)	3-MMC (13)	
3	<i>other names < 3 respondents</i>	<i>other names < 3 respondents</i>	4-CMC (9)	
does not know which active ingredients	86.5%	86.6%	79.4%	.154
TOP 3 STIMULANTS/EMPATHOGENICS/NOOTROPICS NAMED⁹				
1	Snow blow (25)	4-FA (123)	4-FA (622)	
2	4-MMC (24)	4-MMC (109)	4-MMC (92)	
3	Alpha-pvp (10) MDVP (10)	3-MMC (30)	3-MMC (66)	
does not know which stimulants/empathogenics/nootropics	48.9%	26.8%	39.8%	.000

⁷ Current (last 30 days) users only. Marginalised n = 121, night life n = 162, online community n = 914. Maximum reported frequency of branded stimulants or stimulants/empathogenics/nootropics obtained pure.

⁸ Named by at least three respondents (number of respondents between brackets). Percentage 'does not know' refers to respondents who used branded stimulants in the past 12 months (marginalised n = 127, night life n = 69, online community n = 234).

⁹ Named by at least three respondents (number of respondents between brackets). Percentage 'does not know' refers to respondents who used stimulants/empathogenics/nootropics obtained pure in the past 12 months (marginalised n = 147, night life n = 350, online community n = 1.477).

Table 6 Use of branded stimulants and/or stimulants/empathogenics/nootropics obtained pure among marginalised, night life and online community recent NPS users – per country

	Germany	Hungary	Ireland	Netherlands	Poland	Portugal	p
LIFE TIME							
marginalised	87.0%	86.1%	93.8%	*(100%)	77.9%	*(85.7%)	.094
night life	58.2%	26.7%	*(100%)	95.2%	80.8%	52.9%	.000
online community	47.0%	80.1%	63.6%	97.0%	85.2%	65.1%	.000
TOTAL	50.1%	79.4%	88.7%	96.7%	82.9%	57.1%	.000
LAST 12 MONTHS							
marginalised	78.3%	81.2%	81.3%	*(100%)	67.4%	*(85.7%)	.123
night life	39.8%	13.3%	*(100%)	92.6%	73.8%	14.7%	.000
online community	37.1%	60.9%	27.3%	96.1%	74.6%	39.7%	.000
TOTAL	38.9%	65.8%	72.6%	95.5%	73.3%	23.3%	.000
LAST 30 DAYS							
marginalised	65.2%	60.4%	18.8%	*(0%)	39.5%	*(28.6%)	.000
night life	14.3%	0%	*(0%)	48.1%	28.5%	4.7%	.000
online community	19.2%	21.8%	9.1%	63.2%	39.1%	17.5%	.000
TOTAL	20.1%	34.9%	16.1%	60.8%	36.1%	8.8%	.000

* excluded from comparative analysis because of small group size (< 10 respondents)

Table 7 Use of psychedelics among marginalised, night life and online community recent NPS users

	MARGINALISED n = 266	NIGHT LIFE n = 647	ONLINE n = 2.110	p
PREVALENCE				
life time	22.2%	56.4%	51.3%	.000
last 12 months	14.7%	48.5%	41.7%	.000
last 30 days	5.6%	20.1%	17.3%	.000
FREQUENCY (LAST 30 DAYS)¹⁰				
every day	23.1%	2.5%	1.2%	.000
more than 10 times, but not every day	7.7%	4.3%	1.2%	
6-10 times	15.4%	11.1%	3.9%	
3-5 times	30.8%	34.2%	18.1%	
1-2 times	23.1%	47.9%	75.5%	
TOP 3 PSYCHEDELICS NAMED¹¹				
1	NBOMe (6)	2C-B (191)	2C-B (351)	
2	2C-B (4)	NBOMe (70)	1p-LSD (168)	
3	Mlot Thora (3)	Changa (37)	NBOMe (123)	
does not know which psychedelics	59.5%	14.8%	18.3%	.000

Table 8 Use of psychedelics among marginalised, night life and online community recent NPS users – per country

	Germany	Hungary	Ireland	Netherlands	Poland	Portugal	p
LIFE TIME							
marginalised	73.9%	12.9%	8.3%	*(100%)	25.6%	*(28.6%)	.000
night life	82.7%	0%	*(33.3%)	48.1%	20.3%	93.5%	.000
online community	74.7%	37.2%	72.7%	38.4%	54.1%	71.4%	.000
TOTAL	75.9%	26.1%	21.0%	40.0%	40.3%	85.8%	.000
LAST 12 MONTHS							
marginalised	43.5%	7.9%	4.2%	*(100%)	18.6%	*(28.6%)	.000
night life	69.4%	0%	*(0%)	40.2%	9.9%	90.0%	.000
online community	64.9%	24.4%	36.4%	32.5%	37.0%	55.6%	.000
TOTAL	64.9%	16.9%	9.7%	33.8%	26.5%	79.2%	.000
LAST 30 DAYS							
marginalised	13.0%	5.9%	0%	*(0%)	4.7%	*(28.6%)	.120
night life	28.6%	0%	*(0%)	11.6%	3.5%	43.5%	.000
online community	32.5%	5.8%	36.4%	12.0%	13.0%	20.6%	.000
TOTAL	31.2%	5.5%	6.5%	11.9%	9.1%	37.1%	.000

* excluded from comparative analysis because of small group size (< 10 respondents)

¹⁰ Current (last 30 days) users only. Marginalised n = 15, night life n = 130, online community n = 366.

¹¹ Named by at least three respondents (number of respondents between brackets). Percentage 'does not know' refers to respondents who used psychedelics in the past 12 months (marginalised n = 39, night life n = 314, online community n = 879).

Table 9 Use of dissociatives among marginalised, night life and online community recent NPS users

	MARGINALISED n = 266	NIGHT LIFE n = 647	ONLINE n = 2.110	p
PREVALENCE				
life time	22.6%	21.6%	21.3%	.896
last 12 months	13.9%	14.4%	13.6%	.867
last 30 days	6.0%	3.2%	5.6%	.048
FREQUENCY (LAST 30 DAYS)¹²				
every day	18.2%	5.6%	6.0%	.014
more than 10 times, but not every day	18.2%	0%	4.0%	
6-10 times	18.2%	0%	8.0%	
3-5 times	27.3%	44.4%	23.0%	
1-2 times	18.2%	50.0%	59.0%	
TOP FIVE DISSOCIATIVES NAMED¹³				
1	MXE (5)	MXE (85)	MXE (107)	
2	other names < 3 respondents	DXE (6)	MXP (40)	
3		3-MeO-PCP (3) 3-MeO-PCE (3) MXP (3)	3-MeO-PCP (36)	
does not know which dissociatives	81.8%	20.9%	32.6%	.000

Table 10 Use of dissociatives among marginalised, night life and online community recent NPS users – per country

	Germany	Hungary	Ireland	Netherlands	Poland	Portugal	p
LIFE TIME							
marginalised	69.6%	24.8%	6.3%	*(100%)	16.3%	*(14.3%)	.000
night life	51.0%	0%	*(0%)	16.9%	9.9%	24.1%	.000
online community	29.3%	33.3%	36.4%	9.0%	39.9%	15.9%	.000
TOTAL	33.9%	28.3%	11.3%	10.3%	27.9%	21.7%	.000
LAST 12 MONTHS							
marginalised	30.4%	17.8%	2.1%	*(100%)	11.6%	*(0%)	.006
night life	34.7%	0%	*(0%)	13.2%	2.9%	17.1%	.000
online community	20.3%	13.5%	18.2%	6.8%	23.1%	11.1%	.000
TOTAL	22.8%	14.3%	4.8%	7.9%	15.6%	15.0%	.000
LAST 30 DAYS							
marginalised	8.7%	11.9%	0%	*(0%)	2.3%	*(0%)	.010
night life	5.1%	0%	*(0%)	3.2%	1.2%	4.7%	.266
online community	9.4%	4.5%	9.1%	2.7%	9.2%	1.6%	.000
TOTAL	8.7%	7.0%	1.6%	2.8%	5.9%	3.8%	.000

* excluded from comparative analysis because of small group size (< 10 respondents)

¹² Current (last 30 days) users only. Marginalised n = 16, night life n = 21, online community n = 118.

¹³ Named by at least three respondents (number of respondents between brackets). Percentage 'does not know' refers to respondents who used dissociatives in the past 12 months (marginalised n = 37, night life n = 93, online community n = 286).

Table 11 Use of other NPS among marginalised, night life and online community recent NPS users

	MARGINALISED n = 266	NIGHT LIFE n = 647	ONLINE n = 2.110	p
PREVALENCE				
life time	10.9%	13.0%	34.3%	.000
last 12 months	6.0%	8.2%	26.3%	.000
last 30 days	3.0%	4.5%	15.6%	.000
FREQUENCY (LAST 30 DAYS)¹⁴				
every day	25.0%	0%	7.7%	.014
more than 10 times, but not every day	50.0%	8.3%	11.3%	
6-10 times	0%	16.7%	7.7%	
3-5 times	0%	25.0%	17.0%	
1-2 times	25.0%	50.0%	55.1%	
TOP 3 OTHER NPS NAMED¹⁵				
1	Furanylfentanyl (6)	Clonazolam (3)	Etizolam (34)	
2	<i>other names < 3 respondents</i>	<i>other names < 3 respondents</i>	Diclozepam (19)	
3			Clonazolam (18)	
does not know which other NPS	40.0%	63.9%	65.7%	.029

Table 12 Use of other NPS among marginalised, night life and online community recent NPS users – per country

	Germany	Hungary	Ireland	Netherlands	Poland	Portugal	p
LIFE TIME							
marginalised	69.6%	5.0%	6.3%	*(0%)	4.7%	*(14.3%)	.000
night life	24.5%	0%	*(33.3%)	12.7%	8.1%	12.4%	.002
online community	38.6%	53.8%	63.6%	23.5%	48.2%	39.7%	.000
TOTAL	37.6%	32.7%	17.7%	21.8%	30.4%	19.6%	.000
LAST 12 MONTHS							
marginalised	43.5%	4.0%	0%	*(0%)	1.2%	*(14.3%)	.000
night life	19.4%	0%	*(0%)	9.0%	4.7%	5.3%	.000
online community	29.5%	36.5%	45.5%	21.0%	30.8%	28.6%	.000
TOTAL	28.5%	22.4%	8.1%	19.1%	19.0%	11.7%	.000
LAST 30 DAYS							
marginalised	21.7%	3.0%	0%	*(0%)	0%	*(0%)	.000
night life	9.2%	0%	*(0%)	5.8%	2.3%	2.9%	.078
online community	16.1%	17.9%	36.4%	13.9%	17.2%	20.6%	.137
TOTAL	15.2%	11.4%	6.5%	12.6%	10.4%	7.5%	.011

* excluded from comparative analysis because of small group size (< 10 respondents)

¹⁴ Current (last 30 days) users only. Marginalised n = 8, night life n = 29, online community n = 329.

¹⁵ Named by at least three respondents (number of respondents between brackets). Percentage 'does not know' refers to respondents who used other NPS in the past 12 months (marginalised n = 16, night life n = 53, online community n = 554).

Table 13 Background characteristics of recent (last 12 months) users of NPS categories

	HERBAL BLENDS AND/OR PURE SYN- THETIC CANNA- BINOIDS n = 998	BRANDED AND/OR PURE STIMULANTS n = 2.112	PSYCHEDELICS n = 1.232	DISSOCIATIVES n = 416	OTHER NPS n = 629
SAMPLE					
Germany	28.1%	12.2%	34.9%	36.3%	30.3%
Hungary	18.9%	8.5%	3.7%	9.4%	9.8%
Ireland	1.7%	2.1%	0.5%	0.7%	0.8%
The Netherlands	11.8%	53.8%	32.6%	22.6%	36.4%
Poland	33.0%	20.7%	12.8%	22.4%	18.1%
Portugal	6.5%	2.7%	15.4%	8.7%	4.5%
GENDER					
male	76.5%	63.2%	75.9%	78.6%	70.4%
female	23.5%	36.8%	24.1%	21.4%	29.6%
AGE					
18-24 years	57.8%	62.9%	62.5%	60.6%	66.1%
25-34 years	28.6%	27.4%	29.5%	29.7%	26.8%
35-44 years	10.9%	8.1%	7.1%	8.5%	6.2%
45 years and older	2.7%	1.5%	0.8%	1.2%	1.0%
average (sd)	25.7 (7.6)	24.7 (6.6)	24.6 (6.2)	25.1 (6.5)	24.1 (6.1)
RESIDENCE					
small town (pop. < 50.000)	34.6%	31.1%	32.0%	26.7%	36.5%
medium town (pop. 50.000-100.000)	13.9%	15.4%	15.1%	16.4%	17.0%
large town (pop. > 100.000)	51.5%	53.5%	52.9%	56.9%	46.4%

Table 14 Background characteristics of recent (last 12 months) users of NPS categories - continued

	HERBAL BLENDS AND/OR PURE SYN- THETIC CANNA- BINOIDS n = 998	BRANDED AND/OR PURE STIMULANTS n = 2,112	PSYCHEDELICS n = 1,232	DISSOCIATIVES n = 416	OTHER NPS n = 629
LIVING ARRANGEMENTS					
own home	13.0%	15.0%	13.7%	13.2%	14.4%
rent apartment or room	32.1%	38.6%	45.3%	42.3%	40.1%
parents / family	40.8%	38.4%	36.5%	34.5%	40.7%
friend's home	3.5%	2.3%	1.6%	4.4%	2.3%
residential care	2.3%	0.8%	0.5%	0.7%	0.7%
homeless accommodation / hostel	5.5%	3.4%	1.2%	2.7%	0.8%
other	2.8%	1.6%	1.2%	2.2%	1.0%
LEVEL OF EDUCATION					
none	2.4%	1.1%	0.7%	1.4%	0.7%
primary school	26.9%	12.5%	16.5%	22.7%	17.9%
secondary school	45.8%	55.0%	53.7%	49.3%	53.3%
college / university	23.0%	30.1%	27.9%	25.6%	26.1%
doctor's degree, PhD, etc.	1.8%	1.3%	1.2%	1.0%	2.1%
EMPLOYMENT					
student	26.2%	40.7%	37.5%	32.4%	39.1%
full-time worker	27.3%	28.4%	31.7%	30.5%	29.4%
part-time or casual worker	14.4%	11.1%	10.4%	11.5%	12.4%
self-employed	7.7%	5.5%	7.8%	6.1%	6.7%
unemployed / benefits	22.9%	13.8%	12.0%	18.3%	11.3%
other	1.4%	0.6%	0.6%	1.2%	1.1%

Table 15 Drug use history of recent (last 12 months) users of NPS categories

	HERBAL BLENDS AND/OR PURE SYN- THETIC CANNA- BINOIDS n = 998	BRANDED AND/OR PURE STIMULANTS n = 2.112	PSYCHEDELICS n = 1.232	DISSOCIATIVES n = 416	OTHER NPS n = 629
DRUG USE HISTORY (LIFE TIME)					
cannabis	98.0%	94.8%	97.5%	97.8%	96.4%
amphetamines	80.1%	77.3%	83.4%	92.8%	84.6%
ecstasy / mdma	76.7%	90.0%	92.2%	91.1%	88.8%
cocaine	52.3%	58.8%	64.4%	69.2%	62.1%
crack cocaine	14.0%	10.8%	12.2%	19.6%	11.9%
heroin / unprescribed opioids	24.4%	17.7%	20.8%	35.7%	24.5%
magic mushrooms	52.9%	40.4%	65.2%	72.3%	56.1%
lsd	48.9%	33.6%	63.8%	73.3%	50.2%
methamphetamines	31.5%	21.3%	20.2%	36.9%	25.6%
ketamine	28.5%	34.0%	48.1%	62.7%	42.4%
ghb / gbl	26.9%	28.4%	31.2%	42.6%	34.9%
unprescribed prescription upper medicines	34.8%	35.1%	42.6%	51.0%	47.4%
unprescribed prescription downer medicines	39.3%	30.9%	37.9%	58.2%	45.3%
intravenous drug use	19.1%	13.0%	7.5%	18.1%	9.8%

Table 16 Patterns of NPS use among marginalised, night life and online community recent NPS users

	MARGINALISED n = 266	NIGHT LIFE n = 647	ONLINE n = 2.110	p
WHERE				
own home	39.8%	44.0%	49.2%	.003
friend's home	30.5%	52.2%	46.1%	.000
night life	16.9%	83.3%	71.2%	.000
work or school	7.1%	8.3%	7.5%	.734
street, park, etc.	64.3%	28.6%	22.4%	.000
user rooms / low-threshold services	6.4%	0.6%	0.6%	.000
residential care / hostel	10.5%	1.5%	1.0%	.000
other	5.6%	1.1%	1.8%	.000
WITH WHOM				
always alone	7.9%	0.8%	2.0%	.000
mostly alone	15.0%	3.3%	9.1%	
equally often alone and in company	26.7%	8.0%	13.7%	
mostly in company	28.2%	22.2%	17.7%	
always in company	21.1%	65.7%	57.3%	
other	1.1%	0%	0.2%	
MODE OF ADMINISTRATION				
smoking	29.7%	25.6%	19.0%	.000
vaporising	3.4%	0.2%	1.6%	
Snorting	11.3%	27.8%	16.2%	
swallowing	2.6%	45.6%	61.6%	
injecting	51.1%	0.8%	0.8%	
anal / rectal insertion	0%	0%	0.4%	
eyeball insertion	0%	0%	0%	
other	1.9%	0%	0.5%	
HOMEMADE PREPARATION				
no homemade preparation	81.2%	89.0%	84.3%	.002
homemade mix with herbs	4.1%	2.5%	4.6%	.058
homemade mix with tobacco	5.3%	5.3%	5.5%	.977
homemade e-liquid	1.1%	0.6%	1.7%	.113
homemade mix with various NPS	3.8%	3.1%	3.8%	.703
homemade mix with traditional drugs	4.9%	1.9%	4.4%	.010
other	0.8%	1.1%	1.6%	.382
MIXED USE*¹⁶				
mixed with other NPS	2.3 (1.6)	2.0 (1.5)	2.1 (1.5)	.085
mixed with traditional use	2.3 (1.6)	3.1 (1.5)	3.1 (1.6)	.000
mixed with alcohol	2.4 (1.5)	3.2 (1.4)	2.9 (1.5)	.000

¹⁶ Average score of 5-point scale never (1) to always (5).

Table 17 Procurement of NPS among marginalised, night life and online community recent NPS users

	MARGINALISED n = 266	NIGHT LIFE n = 647	ONLINE n = 2.110	p
OBTAINING NPS				
purchased / bought	88.7%	70.9%	77.0%	.000
got it for free	35.0%	48.8%	23.2%	.000
in exchange for something	19.5%	12.4%	6.2%	.000
friend purchased it with my money	15.0%	24.9%	20.5%	.003
group-buy	22.2%	30.4%	20.7%	.000
other	10.1%	0.8%	1.4%	.471
PURCHASING NPS				
at a shop	21.8%	12.4%	9.3%	.000
on the internet	12.0%	20.7%	35.3%	.000
from a private dealer	51.5%	32.1%	16.9%	.000
from a club dealer	3.8%	9.1%	4.0%	.000
from a street dealers	33.5%	8.7%	7.1%	.000
from a friend	15.8%	36.9%	34.7%	.000
other	0%	0.3%	0.5%	.565
n/a (did not purchase)	11.3%	29.1%	23.0%	.000
PURCHASING NPS AT A SHOP				
headshop	6.9%	1.2%	1.7%	¹⁷ ...
smartshop	5.0%	9.2%	5.3%	
sexshop	1.9%	1.4%	0.2%	
kiosk	0.8%	0.2%	0.4%	
casino	3.4%	0%	0.2%	
other	2.3%	0%	0.4%	
n/a (did not purchase at a shop)	79.9%	88.0%	91.8%	
PURCHASING NPS ON THE INTERNET				
dedicated shop for NPS	9.8%	14.4%	30.4%	.000
internet forum	2.3%	5.1%	3.4%	.054
social media	1.5%	2.2%	0.9%	.035
darknet marketplace	1.1%	3.2%	6.8%	.000
darknet vendor without marketplace	1.1%	1.5%	2.2%	.319
other	0%	1.1%	0.8%	.245
n/a (did not purchase on the internet)	88.0%	79.3%	64.7%	.000
GETTING NPS FOR FREE				
got is as a gift	15.0%	16.2%	10.5%	.000
someone shared with me	29.3%	41.9%	18.3%	.000
other	0.8%	0.2%	0.4%	.387
n/a (did not get for free)	65.0%	51.2%	76.8%	.000
EXCHANGING NPS FOR SOMETHING				
other (traditional) drugs	5.3%	9.1%	3.9%	.000
other NPS	4.5%	3.4%	2.5%	.105
common goods	10.5%	3.1%	1.7%	.000
work / service	4.1%	1.7%	0.7%	.000
sex	3.0%	0.3%	0.3%	.000
other	0.4%	0.2%	0%	.123
n/a (did not exchange)	80.5%	87.6%	93.8%	.000

¹⁷ Statistic cannot be computed because of low counts.

Table 18 Motives for NPS use among marginalised, night life and online community recent NPS users

	MARGINALISED n = 266	NIGHT LIFE n = 647	ONLINE n = 2.110	p
COPING				
To forget my worries	3.1 (1.5)	1.7 (1.1)	1.5 (1.0)	.000
To forget about my problems	3.3 (1.5)	1.6 (1.1)	1.5 (1.0)	.000
Because it helps me when I feel depressed or nervous	3.2 (1.5)	1.7 (1.1)	1.6 (1.2)	.000
To cheer me up when I am in a bad mood	3.2 (1.5)	1.8 (1.1)	1.6 (1.0)	.000
TOTAL	3.2 (1.2)	1.7 (1.0)	1.6 (0.9)	.000
ENHANCEMENT				
Because it gives me a pleasant feeling	3.6 (1.4)	4.0 (1.3)	4.2 (1.2)	.000
Because I like the feeling	3.7 (1.4)	3.9 (1.3)	4.1 (1.3)	.000
Because it's fun	2.7 (1.5)	4.1 (1.2)	4.1 (1.3)	.000
To get high	3.2 (1.7)	3.0 (1.7)	3.0 (1.6)	.281
Because it's exciting	2.6 (1.5)	3.3 (1.5)	2.8 (1.5)	.000
TOTAL	3.2 (1.0)	3.7 (1.0)	3.7 (0.9)	.000
SOCIAL				
Because it makes social gatherings more fun	1.9 (1.3)	2.8 (1.4)	2.4 (1.4)	.000
Because it helps me enjoy a party	2.1 (1.5)	3.5 (1.4)	3.3 (1.6)	.000
Because it improves parties and celebrations	2.0 (1.3)	3.1 (1.5)	3.1 (1.5)	.000
To be sociable	2.1 (1.4)	2.6 (1.6)	2.9 (1.6)	.000
To celebrate a special occasion with friends	2.0 (1.3)	2.8 (1.4)	2.4 (1.4)	.000
Because I feel more self-confident and sure of myself	2.3 (1.5)	1.8 (1.1)	1.8 (1.2)	.000
TOTAL	2.1 (1.0)	2.8 (1.0)	2.6 (1.0)	.000
CONFORMITY				
To be liked	1.6 (1.1)	1.2 (0.7)	1.1 (0.6)	.000
To fit in with the group I like	1.9 (1.3)	1.5 (0.9)	1.3 (0.7)	.000
So I won't feel left out	1.8 (1.2)	1.3 (0.7)	1.1 (0.5)	.000
TOTAL	1.7 (1.1)	1.3 (0.6)	1.2 (0.5)	.000
EXPANSION				
To expand my awareness	2.3 (1.4)	2.7 (1.6)	2.6 (1.6)	.001
To understand things differently	2.1 (1.4)	2.4 (1.5)	2.5 (1.5)	.002
To be more open to experiences	2.2 (1.4)	2.7 (1.5)	2.6 (1.5)	.000
To know myself better	1.8 (1.3)	2.1 (1.4)	2.3 (1.5)	.000
Because it helps me to more creative and original	1.8 (1.2)	2.0 (1.3)	2.0 (1.3)	.040
TOTAL	2.0 (0.9)	2.4 (1.1)	2.4 (1.2)	.000
ROUTINE				
Out of boredom	2.6 (1.5)	1.7 (1.0)	1.7 (1.1)	.000
Out of habit	3.0 (1.7)	1.6 (1.1)	1.8 (1.2)	.000
TOTAL	2.8 (1.2)	1.7 (0.9)	1.8 (1.0)	.000
ADDED ITEMS				
Poor quality of other (traditional) drugs	2.5 (1.6)	1.5 (0.9)	1.8 (1.3)	.000
Price	2.5 (1.6)	1.5 (1.1)	1.8 (1.2)	.000
Alleged legality	1.8 (1.3)	1.4 (0.8)	1.6 (1.2)	.000
Expecting different or new experiences (regarding drug effects)	2.6 (1.5)	3.1 (1.5)	2.8 (1.5)	.000
Non-detectability	1.9 (1.4)	1.3 (0.8)	1.5 (1.1)	.000
Low availability of other (traditional) drugs	2.4 (1.5)	1.4 (0.9)	1.8 (1.3)	.000

Table 19 Side effects and problems from NPS use among marginalised, night life and online community recent NPS users

	MARGINALISED n = 266	NIGHT LIFE n = 647	ONLINE n = 2.110	p
ACUTE UNPLEASANT SIDE EFFECTS				
increased heart rate / palpitation	57.5%	37.7%	35.8%	.000
headaches	51.5%	26.6%	18.9%	.000
nausea / vomiting	40,6%	28,4%	25,0%	.000
stomach ache	38.0%	18.2%	12.8%	.000
dizziness	44.7%	29.2%	20.7%	.000
muscle cramps	33.1%	15.0%	12.7%	.000
loss of consciousness / coma	23.3%	9.9%	6.7%	.000
anxiety / horror trips	47.7%	25.5%	21.2%	.000
shortness of breath	36.8%	16.0%	13.1%	.000
hyperthermia	33.5%	17.8%	17.7%	.000
aggression / violence	35.7%	11.1%	4.9%	.000
paranoia	52.3%	21.9%	17.7%	.000
other	4.1%	4.9%	6.3%	.221
TOTAL	85.3%	58.8%	51.0%	.000
MID- OR LONG-TERM PROBLEMS				
addiction / withdrawal / craving	46.2%	7.4%	12.1%	.000
depression	43.2%	13.6%	14.5%	.000
paranoid disorders	38.7%	9.6%	8.2%	.000
weight loss	46.2%	9.6%	9.5%	.000
harms of injecting	26.7%	0.5%	0.8%	.000
other mental problems	15.8%	6.3%	8.6%	.000
other physical problems	12.4%	4.2%	6.4%	.000
TOTAL	70.3%	28.4%	30.9%	.000
SOCIAL PROBLEMS				
conflict at school, university, etc.	6.8%	4.3%	4.7%	.277
conflict at work	12.0%	5.6%	3.8%	.000
conflicts with partner or family	45.9%	13.6%	12.8%	.000
problems regarding housing	42.5%	3.7%	3.1%	.000
legal problems	35.7%	6.2%	5.5%	.000
other	3.0%	1.1%	1.7%	.117
TOTAL	69.1%	22.1%	22.2%	.000

Table 20 Preventive strategies suggested by marginalised, night life and online community recent NPS users

	MARGINALISED n = 266	NIGHT LIFE n = 647	ONLINE n = 2.110	p
MOST EFFECTIVE STRATEGY				
information and prevention campaigns	42.9%	54.1%	60.4%	.000
treatment and rehabilitation of users	48.1%	23.0%	31.8%	.000
tough measures against dealers	30.5%	11.4%	8.1%	.000
making drugs legal	36.1%	58.9%	76.0%	.000
reduction of poverty / unemployment	38.7%	19.9%	20.7%	.000
tough measures against users	4.1%	3.9%	2.6%	.118
offering more entertainment for young	29.7%	33.2%	21.1%	.000
other	7.9%	5.1%	8.9%	.008
SPECIAL ATTENTION NEEDED BY PROFS				
lawmakers	7.1%	10.2%	6.7%	.000
doctors	11.3%	22.4%	31.3%	
social workers / drug help	11.3%	29.2%	19.7%	
police	7.5%	2.9%	1.3%	
other professionals	8.6%	8.7%	6.1%	
no special attention by profs needed	54.1%	26.6%	34.8%	

Appendix B Questionnaire

When using this questionnaire, please include the following citation in your publication:

Benschop, A., Bujalski, M., Dabrowska, K., Demetrovics, Z., Egger, D., Felinczi, K., Henriques, S., Kalo, Z., Kamphausen, G., Korf, D.J., Nabben, T., Silva, J.P., Van Hout, M.C., Werse, B., Wells, J., Wieczorek, L. & Wouters, M. (2017) *New Psychoactive Substances: transnational project on different user groups, user characteristics, extent and patterns of use, market dynamics, and best practices in prevention*. NPS-transnational Project (HOME/2014/JDRU/AG/DRUG/7077).



Welcome to our survey on NPS use. This survey is part of an international research project. We are examining various aspects of NPS use in six European countries. By NPS, we mean all kinds of New Psychoactive Substances, both pure and branded. Alternative names for NPS are "research chemicals (RCs)", "legal highs", "herbal blends", and "bath salts". A common brand name is "Spice". NPS cover a whole range of pharmaceutical groups like stimulants, empathogenes, sedatives, and dissociatives. Therefore, NPS can be synthetic cannabinoids, cathinones, amphetamines, opioids, and other chemical drugs, and can be used for a whole range of purposes from sleeping to partying. It will take about 30 minutes to answer our questions (there are 64 questions, but in most cases, you will not have to answer all of them). Participation is completely anonymous. For further information please contact us here.

Section A: Origin / participation (face-to-face or internet) / eligibility (12 month

A1. Do you participate in this survey face-to-face or via internet?

face-to-face

internet



Section C: Prevalence

C1. Did you ever use NPS of one of the following groups within...

By NPS we mean "synthetic or naturally occurring substances that are not controlled under international law, and often produced with the intention of mimicking the effects of controlled drugs" (EMCDDA).

Such substances are sometimes sold as brand-labelled products in form of herbal blends (e.g. "Spice") or chemical mixtures ("bath salts").

In this question, we ask both for pure and branded NPS.

If you are not sure which category of NPS you have used, you can choose 'other'.

	No, never	Yes, more than 12 months ago	Yes, within the last 12 months, but not within the last 30 days	Yes, within the last 30 days
Herbal blends (e.g. "Spice")	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Synthetic cannabinoids (obtained pure)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Branded Stimulants (e.g. "bath salts")	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stimulants / Empathogens / Nootropics (obtained pure, e.g. mephedrone, MDPV, a-PVP)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Psychedelics (e.g. NBOMe-x; 2C-x)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dissociatives (e.g. methoxetamine)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C2. How often did you use herbal blends (e.g. "Spice") within the last 30 days?

Every day	<input type="checkbox"/>
More than 10 times, but not every day	<input type="checkbox"/>
6 - 10 times	<input type="checkbox"/>
3 - 5 times	<input type="checkbox"/>
1 or 2 times	<input type="checkbox"/>
No answer	<input type="checkbox"/>

C3. How often did you use synthetic cannabinoids (obtained pure) within the last 30 days?

Every day	<input type="checkbox"/>
More than 10 times, but not every day	<input type="checkbox"/>
6 - 10 times	<input type="checkbox"/>
3 - 5 times	<input type="checkbox"/>
1 or 2 times	<input type="checkbox"/>
No answer	<input type="checkbox"/>



C4.

How often did you use branded stimulant NPS ("bath salts") within the last 30 days?

Every day

More than 10 times, but not every day

6 - 10 times

3 - 5 times

1 or 2 times

No answer

C5. How often did you use stimulant / empathogenic NPS (obtained pure) within the last 30 days?

Every day

More than 10 times, but not every day

6 - 10 times

3 - 5 times

1 or 2 times

No answer

C6. How often did you use psychedelic NPS (e.g. NBOMe-x; 2C-x) within the last 30 days?

Every day

More than 10 times, but not every day

6 - 10 times

3 - 5 times

1 or 2 times

No answer



C13. Do you know which synthetic cannabinoids (obtained pure) you have used?

Yes
No

C14. Please name up to 3 synthetic cannabinoids (obtained pure) you have used.

Synthetic cannabinoid 1

Synthetic cannabinoid 2

Synthetic cannabinoid 3

C15. Do you know which branded stimulant NPS ("bath salts") you have used?

Yes
No

C16. Please name up to 3 brand names of stimulating NPS ("bath salts") you have used.

Stimulating NPS brand 1

Stimulating NPS brand 2

Stimulating NPS brand 3

C17. Do you know the active ingredients of the branded stimulant NPS ("bath salts") you have used?

Yes
No

C18. Please name up to 3 active ingredients of the branded stimulant NPS ("bath salts") you have used.

Active ingredients branded stimulant NPS 1

Active ingredients branded stimulant NPS 2

Active ingredients branded stimulant NPS 3

C19. Do you know which stimulant / empathogenic NPS (obtained pure) you have used?

Yes
No



C20. Please name up to 3 stimulant / empathogenic NPS (obtained pure) you have used.

Stimulant NPS 1	<input type="text"/>
Stimulant NPS 2	<input type="text"/>
Stimulant NPS 3	<input type="text"/>

C21. Do you know which psychedelic NPS (e.g. NBOMe-x; 2C-x) you have used?

Yes

No

C22. Please name up to 3 psychedelic NPS (e.g. NBOMe-x; 2C-x) you have used.

Psychedelic NPS 1	<input type="text"/>
Psychedelic NPS 2	<input type="text"/>
Psychedelic NPS 3	<input type="text"/>

C23. Do you know which dissociative NPS (e.g. MXE) you have used?

Yes

No

C24. Please name up to 3 dissociative NPS (e.g. MXE) you have used.

Dissociative NPS 1	<input type="text"/>
Dissociative NPS 2	<input type="text"/>
Dissociative NPS 3	<input type="text"/>

C25. You have named that you have used "other" NPS. Do you now which other NPS you have used?

Yes

No

C26. You have named that you have used "other" NPS and that you know which these were. Please name up to 3 of these NPS.

Other NPS 1	<input type="text"/>
Other NPS 2	<input type="text"/>
Other NPS 3	<input type="text"/>

