



# NPS

New Psychoactive Substances among  
People Who Use Drugs Heavily.  
Towards Effective and Comprehensive  
Health Responses in Europe.

## ***Mapping the extent and nature of NPS Use among People Who Use Drugs Heavily (PUDH) in the EU28.***

### ***Report on Work Stream 1***

Jean-Paul Grund, Barbara Janikova, Hana Fidesova,  
Lenka Vavrincikova



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**Inventory – Mapping the extent and nature of NPS Use**  
**among People Who Use Drugs Heavily (PUDH) in the EU28**

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***Preliminary final report.***

*Note: Final versions will be submitted when all deliverables are published, including those currently under review for publication in a scientific journal. When these are published and the web addresses of all deliverables are known, the final versions will be hyperlinked to one another and published collectively on the project website ([www.NPSinEurope.eu](http://www.NPSinEurope.eu)) and submitted to the European Commission.*

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## 1. Introduction and methodology

Workstream 1 (WS1) is a part of the EU project “*New Psychoactive Substances among People Using Drugs Heavily (PUDH) - Towards Effective and Comprehensive Health Responses in Europe*”. This project aims to contribute to the development of innovative and effective health promotion interventions targeting emerging NPS use in Europe, in particular in response to more hazardous patterns of use and in vulnerable populations.

The specific project objectives in WS1 provide an overview of the use of new psychoactive substances in populations of People Who Use Drugs Heavily in the EU28 countries and identify the associated risks for harm and the existing legislative, preventive and harm reduction responses.

Local (in-country) research collaborators were contracted and each has assessed the situation concerning the use of NPS in their country. These national assessments were produced through NPS country reports with the extent and nature of NPS consumption in the respective countries.

### Definitions

**PUDH** - people using drugs habitually or heavily

**New Psychoactive Substances** - in this project the focus is on ‘new drug trends’, which includes the emergent availability and use of substances new to a community, country or culture, independent of their legal status

The aim of WS1 is to provide an EU28 overview of:

1. The extent and nature of the use of new psychoactive substances (NPS) in populations of PUDH in the EU28 countries;
2. the associated risks for drug-related harm identified; and,
3. the existing legislative, preventive and harm reduction responses in the EU28 countries.

### Implementation: Local research collaborators

The national sub-studies research collaborators were selected by the Regenboog Group from among the members of *Correlation – European Local Research Collaborators Network Social Inclusion & Health*, which has a Europe-wide membership. The assessment of the NPS situation in the EU28 countries has two components. The first concerns a basic assessment of NPS availability, use and policies in all 28 EU countries. The second component consists of a more in-depth assessment of NPS use in ten EU Member States with high prevalence of NPS use and/or NPS use among PUDH reported to the EMCDDA, using an invitation only email-based survey of key respondents.

The desk review was processed in 22 countries (21 from the EU and Switzerland): Austria, Belgium, Bulgaria, Croatia, Cyprus, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Luxembourg, Malta, the Netherlands, Slovakia, Slovenia, Spain, Sweden, Switzerland, the United Kingdom. In two EU countries (Denmark and Lithuania) and Norway we were not successful with finding a local collaborator. Five partner project countries (Poland, Romania, Czech Republic, Greece and Portugal) provided country overviews in the Workstream two report on rapid assessment and response. In these countries, the literature research was conducted and more in-depth information on NPS use patterns among PUDH was generated in the focus groups. In addition to EU23 (excluding the 5 partner countries) Switzerland was also included.

Seven selected countries with the highest prevalence of NPS were not only asked to conduct a country desk review but also to carry out an online expert survey among different professionals who can help provide better knowledge on the NPS phenomena. Due to limited resources the online survey was not conducted in all countries.

The methodology for the assessment was to compile and review relevant national sources of information pertaining to the national NPS situation, including: email interviews, telephone

interviews, surveys, peer-reviewed literature and “grey” scientific literature, government publications, reference searches, news media archives, data from service providers were used; the selection of sources was the responsibility of research collaborators.

The selected local research collaborators were responsible for:

1. conducting the “*country desk review*”;
2. the selection and invitation of key expert respondents for the national “*online expert survey*”( in 7 countries only);
3. local coordination and support for the implementation of the study;
4. follow up of outstanding responses to the online survey;
5. producing a “National NPS Assessment” report, consisting of a “*country desk review* and in selected 7 countries outcomes of the “*online expert survey*” .

### ***Country desk review of NPS availability - sources of information***

Each local research collaborator reviewed and critically interpreted European (including the EMCDDA, REITOX and National focal Point databases), national and local data pertaining to trends in NPS availability, use, associated problems, legislative and public health responses in their country.

### ***Key questions for the in-country desk review***

Key questions are divided into main domains – identification, risk assessment and intervention. The first domain is divided into two sub-domains – NPS market & availability and NPS consumption – as is the third – legislative framework and law enforcement responses and harm reduction, prevention and treatment responses. The key questions for the online survey are listed below in the next section.

#### **A. Identification**

##### **1. Describe the drug markets and NPS availability in your country**

- a. Which traditional drugs (e.g. heroin, cocaine, (meth)amphetamine) have been commonly used in your country among populations of PUDH since 2005?
- b. Which NPS (or new drugs; see the definition in 1.3.1) have appeared in your country since 2009 (provide chemical names and types, using the EMCDDA/UNODC classifications)<sup>1</sup>?
- c. In what types of markets and settings are these sold in the country (specific shops, street dealing, internet, bars, clubs-nightlife)?
- d. What do these NPS cost (in € per gram)? (use the special grid for key question Annex2)
- e. How do these prices compare with those of traditional drugs<sup>2</sup>, such as heroin, (meth)amphetamine or cocaine? (use the special grid for key question Annex2)

##### **2. Describe the extent & nature of NPS consumption in your country**

- a. What is known about the extent of NPS use in your country among the general population or among subpopulations (general population, school surveys; surveys of, for example, clubbers, nightlife participants, people who use drugs recreationally)?
- b. What is known about the extent of NPS use in your country among PUDH? (surveys of PUDH, drug services recipients, reports/data from outreach, harm reduction organisations, emergency medical units, consumer accounts, e.g. from the internet, news reports, etc.)
  - i. What types of NPS are commonly used among PUDH? (provide chemical names and types, using the EMCDDA/UNODC classifications)<sup>3</sup>

<sup>1</sup> See chapter 2 of UNODC (2013) “The challenge of new psychoactive substances” Global SMART Programme.” [http://www.unodc.org/documents/scientific/NPS\\_2013\\_SMART.pdf](http://www.unodc.org/documents/scientific/NPS_2013_SMART.pdf)

<sup>2</sup> With “traditional drugs,” we mean illicit substances that (i) were replaced by NPS or whose effects are mimicked by NPS.

<sup>3</sup> Ibid 4.

- ii. What is known about the frequency of NPS use, routes of administration, effects of NPS (description of intoxication) and combinations with other drugs?
- iii. Are NPS substituting traditional drugs used by PUDH or taken in addition?
- iv. What are the recent trends and developments in NPS use among PUDH?

## **B. Risk Assessment**

### **3. Describe the efforts undertaken in your country to assess the risks and harm potential of the NPS consumed in the country**

- a. Which NPS (if any) have been subjected to formal risk assessment in your country?
- b. What were the outcomes of these assessments?
  - i. What kind of (somatic, psychic, social) consequences were reported / have been associated with NPS use;?
  - ii. Have formal risk assessments of NPS use considered their use among PUDH? (please explain, provide a summary of the discussion);
  - iii. Did these formal risk assessments include recommendations for policy responses (such as legislative, law enforcement, harm reduction, prevention and treatment responses)?

## **C. Intervention & response**

### **4. Describe the legislative framework and law enforcement response**

- a. How far have legislative responses to emerging NPS in your country been based on formal risk assessments, such as discussed under 3?
  - i. If not at all, please describe the grounds for legislative responses – what were the main arguments?
- b. Describe the legal approach to NPS in your country;
- c. Describe the legal status of NPS
  - i. What legislation is used to 'regulate' NPS? (criminal law, administrative law, etc. Please describe.)
  - ii. Are there differences by type of substance in the legal framework?
  - iii. Is use or possession of NPS criminalized?
  - iv. How are the NPS market and sales regulated?
  - v. How is NPS regulation different from legislation/regulation of traditional illicit drugs?
- d. What are the legal consequences in practice for users and drug services?
- e. Are there special local or national approaches towards the enforcement of NPS?
- f. How does the policing of NPS sales compare to the policing of traditional drug markets?
- g. How far are NPS an enforcement priority among the (various types of) police?
- h. How far is NPS use among PUDH an enforcement priority among the (various types of) police?

### **5. Describe the harm reduction, prevention and treatment responses to NPS use in your country**

- a. In what types of services are PUDH reporting NPS use/problems identified?
- b. What physical and mental health problems are reported in connection with NPS use by (PUDH using) harm reduction, prevention and treatment services?
- c. Have any formal or informal needs assessments been conducted among NPS consuming PUDH?
  - i. If yes what were the outcomes and recommendations for service development? If no, what other considerations inform service development in your country?
- d. What harm reduction, prevention and treatment or emergency medical responses have been developed, proposed or planned in your country, specific to NPS use and reported consequences?
- e. How far have these harm reduction, prevention and treatment responses to emerging NPS in your country been based on (formal) assessments of the needs of NPS consuming PUDH?



- i. If not at all, please describe the grounds for harm reduction, prevention and treatment responses – what were the main arguments.

### *Email-based Survey among Key Informants of 7 high NPS prevalence countries*

In the following countries a more in-depth assessment of NPS use among PUDH was conducted: Austria, Germany, Hungary, Ireland, Latvia, Spain and the United Kingdom. These represent the four countries with the highest overall lifetime use of NPS reported to the EMCDDA, but also countries where the overall level of NPS use is under the EU average, but that reported injecting of NPS, and of synthetic methcathinones in particular (EMCDDA, 2014).

Key respondents for online survey were selected according to the following inclusion criteria:

1. A minimum of two key respondents will be selected from each of the following types of (national or local) organisations/professionals:
  - prevention, treatment and harm reduction organizations; emergency medical services and hospital emergency rooms;
  - drug (NPS) policy makers;
  - law enforcement in the area of NPS; legal professionals working on NPS legislation or cases (e.g. police officers, lawyers, prosecutors, judges).
  - (organizations of) people who use drugs;
  - researchers working on NPS.
2. It is crucial that key respondents are well informed about the situation regarding new psychoactive drugs in the country or their locality, e.g. documented by their position, (professional) activities or writings.
3. Preferably half of the respondents represent national organisations and the other half local organisations.

## 2. Desk Review

### 2.1 Identification

#### 2.1.1 Drug markets and NPS availability

In 2014, 101 new substances were reported to the Early Warning system (EWS), inter-annual number is increasing, in comparison, in 2013 overall 81 substances were identified. In total the EWS monitors over 450 substances, with more than half identified in the last three years alone. In 2014, the list of substances reported was dominated by two groups: synthetic cathinones (31 substances) and synthetic cannabinoids (30 substances), these substances are often sold as legal replacements for scheduled stimulants and cannabis. These two groups make up almost two-thirds of the new drugs notified in 2014. In most EU countries, the prevalence of use of these substances appears to be low. However, even limited use of these substances may be a concern, due to the severe toxicity of some NPS (EMCDDA, 2015).

According to European Drug Report (EMCDDA, 2015a) there are monitored changes in traditional drug use in Europe. Less people are now entering specialized drug treatment for the first time for heroin problems – 59 000 in 2007 comparing to 23 000 in 2013, there is a shift to increasing average age when entering treatment and there is still large share of the drug-related health and social costs. Over half (700 000) of Europe's 1.3 million problem opioid users are now in opioid substitution treatment. Cocaine remains the most commonly used illicit stimulant, although most users are found in a small number of western EU countries. Approximately 3.4 million people (15–64 years) have used cocaine in the last year, including 2.3 million adolescents and young adults (15–34 years). Only few countries report last-year prevalence of cocaine use among young adults over than 3 %. In some countries decreases in cocaine use are observable in the most recent data. Use of amphetamines (amphetamine and methamphetamine included) remains overall lower than cocaine use in Europe, with around 1.6 million people reporting last-year use; including 1.3 million adolescents and young adults. In a number of European countries 'slamming' (injecting) methamphetamine and other stimulants (e.g. synthetic cathinones) in the context of "chemsex" is emerging among small groups of men who have sex with men, raising concerns over high risk drug use and sexual behaviour. 2.1 million Adults (15–64 years) in the last year have used ecstasy; 1.8 million being young adults (15–34 years). High-purity MDMA powder and tablets are now more commonly available. Synthetic cathinones (e.g. mephedrone, pentedrone and MDPV) are now a fixture on the illicit stimulant market in some European countries and are often used interchangeably with amphetamine and ecstasy. Number of problem drug use (PDU) in EU countries in central rate per 1000 inhabitants aged 15-64 ranged from 9,95 (393 thousands) in Italy to 2,0 (1,2 thousands) in Cyprus- see table 1.

Injecting is mainly associated with opioid use; however in a few countries amphetamines injecting is a major problem. Estimates for 14 countries show prevalence from less than one till more than nine cases per 1000 population aged 15-64. First time treatment amphetamine entrants refer injecting in 46% as a main route of administration. Regarding three main injected drugs together (heroin, cocaine, amphetamines), among first time treatment entrants, injecting as a main route of administration has declined from 28% in 2006 to 20% in 2013 (EMCDDA, 2015a). The data are collected according to primary drug, nevertheless, most countries report polydrug use among PUDH, including opioids and stimulants such as heroin and meth/amphetamine or cocaine, but also benzodiazepines, buprenorphine, alcohol or fentanyl.

**Table1 Number and rate in 1000 inhabitants of problem drug use in some EU countries**

Country	Year	Central rate/1000 ages 15-64	Estimated number of users
Italy	2009	9.95	393490
Latvia	2011	9.37	12974

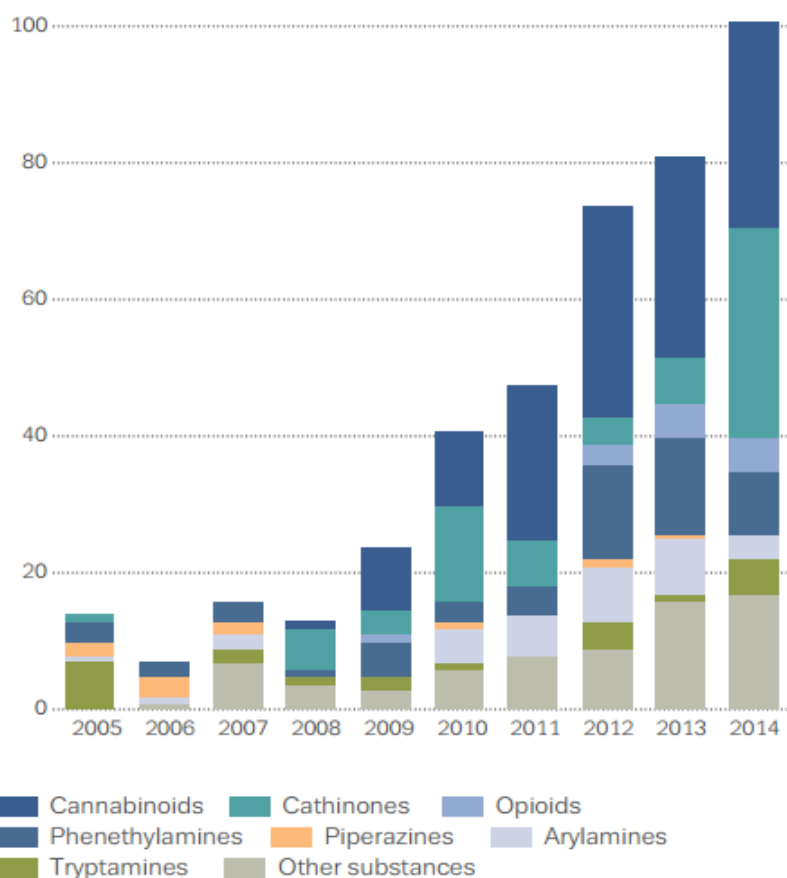
United Kingdom	2009-12	9.16	371279
Denmark	2009	9.12	33074
Czech Republic	2013	6.28	44900
Finland	2012	6.2	20814
Luxembourg	2009	6.16	2070
Bulgaria	2009	6.01	31316
Sweden	2007	4.9	29513
Croatia	2012	3.48	10012
Poland	2009	2.9	79500
Slovakia	2008	2.68	10519
Cyprus	2013	2	1221

Source: EMCDDA, 2015

### 2.1.1 Availability of NPS

In 2014, 101 new substances (two per week) were reported to the Early Warning system, with an increasing interannual number, with 81 substances identified in 2013. In total the EWS is being monitored over 450 substances, with more than half that figure being identified in the last three years alone – figure 1.

*Figure 1 Number and categories of new psychoactive substances notified to the EU Early Warning System*



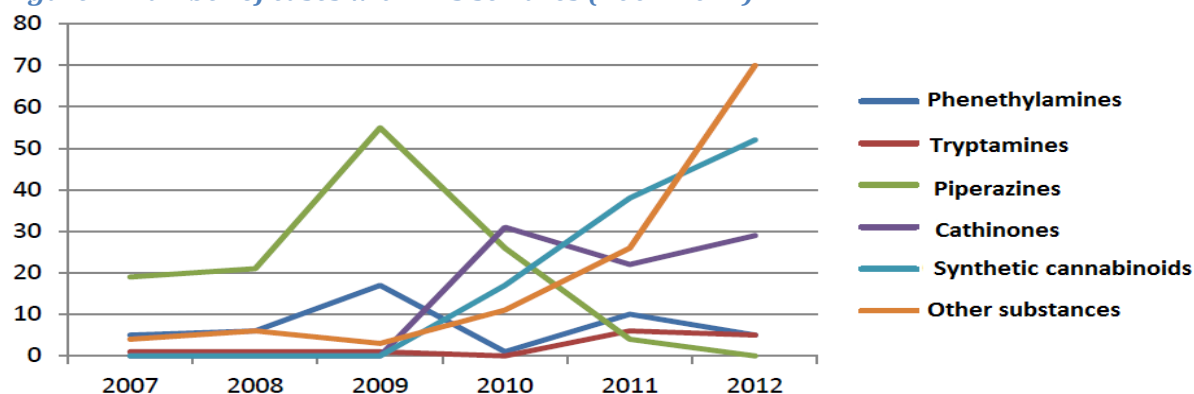
Source: European Drug Report, EMCDDA 2015

In 2014, the list of substances reported was again dominated by two groups: synthetic cathinones (31 substances) and synthetic cannabinoids (30 substances) — often sold respectively as legal replacements for stimulants and cannabis. These represent the two largest groups monitored by the EWS and, together, make up almost two-thirds of the new drugs notified in 2014.

In most EU countries, the prevalence of use of these substances appears to be low. However, even limited use of these substances can be a concern, due to the severe toxicity of some NPS. Health and social responses to NPS are gaining momentum and mirror the full range of responses to the more established drugs (e.g. drug education; internet-based interventions; and needle and syringe exchange programmes) (EMCDDA, 2015).

Identification of substances can be done in the context of seizures by the Ministry of Interior (e.g. customs, police) or in the context of voluntary drug analysis, for example, in Austria the Checkit! Programme (Vienna) or the Mda basecamp (Innsbruck). From January 2009 to December 2014 around 200 different NPS were identified in Austria (Schmutterer, 2015). In Germany, toxicologists from the University of Freiburg test samples of ‘legal high’ products as well as ‘research chemicals’ on a frequent basis. Since 2010, they have tested more than 1000 samples predominantly from German language online shops (Auwärter et al., 2015). Synthetic cannabinoids were found in 908 samples, seven types in more than 50 samples. 159 samples contained NPS other than synthetic cannabinoids. Within this group, local anaesthetics (Lidocaine and Benzocaine) are the most frequent ones (Werse, 2015). Figure 2 from Belgium shows an increasing trend in seizures of synthetic cannabinoids and “other” substances from 2007-2012 (Schrooten, 2015).

**Figure 2 Number of cases with NPS seizures (2007-2012)**



Source: NFP 2014, p. 114, Belgium

In France, less cathinones appear probably due to high MDMA potent ecstasy (Meignen, 2015).

### 2.1.2 Types of markets and settings for the sale of NPS

Previously, the main model for NPS market in most of the countries were smart shops. This is illustrated by what happened in Bulgaria: the ‘legal highs’ model was introduced in the country for the first time by a controversial businessmen, who opened up a chain of shops and started importing and trading various substances not listed under the list of controlled substances, shortly two other similar chains emerged. Parallel to over-the-counter sales headshops also offered drugs via the internet. In Latvia, activists and the public took a role in showing their opinion on the smart shops. Attacks against the shops and their employees led to protected “tube” sale to minimize contact with public, see picture 1 (Sile, 2015).

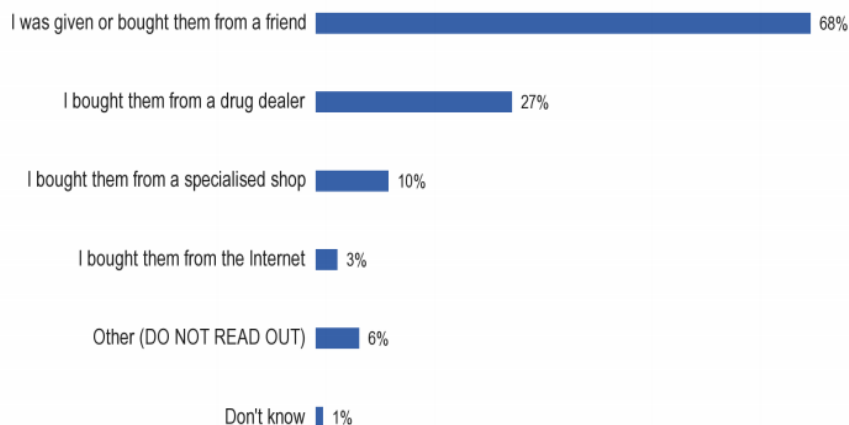
*Picture 1 Smart shop and activists' poster.*



Source: Association "Stop Drugs", 2015

As countries accommodated new substances to national law, the previously promoted "head/smart shops" closed down and under-counter sales appeared (Berne, 2015) or NPS were obtained through internet sale via different online shops advertised as "research chemicals shop" etc. The result of a Flash Eurobarometer study among 15-24 year-olds showed that 68 % of people who had used an NPS in the last 12 months (4%) had obtained the drug from a friend - figure 3.

*Figure 3 Source of an NPS among NPS last-12month users, Flash Eurobarometer (2014)*



Source: Flash Eurobarometer 401, 2014

In the Netherlands, smart-shops were selling drugs as “survival kits”. Four smart shops in Amsterdam and Utrecht sold ‘designer drugs’, kits contained NPS 4-FA and Mephedrone. The “Survival kit” contains 3 capsules inside a metallic gold or purple key chain. Customers were told that the capsules were filled with ‘vitamins’ or that the capsules would give them energy. The smart shops do not even have to offer listed substances. Historically smart shops in the Netherlands are not only oriented towards NPS, as in other countries. Smart shops sell a variety of goods, also a wide variety of drug paraphernalia such as sniffing kits with razors and sniffing tubes (for cocaine), drug testing kits, vaporizers etc., supplements of vitamins and amino acids to mitigate the effects of certain illegal drugs (For example, L-Tryptophan and 5-hydroxy-tryptophan (5-HTP) which can be used to replenish the serotonin levels in the brain after using MDMA (Schatz, 2015).

Different sources of NPS are shown in the table below. Data are very limited, as not many studies at a national level have been carried out. Also, regarding PUDH, it is hard for official institutions’ local collaborators to obtain data about this group or they might not search for such a data from relevant sources ( e.g. drug services). When available, exact data are presented from local studies. The main source for NPS purchase is the internet environment. Street dealing of NPS was reported from Hungary, Ireland, Italy, Slovakia, the United Kingdom, Spain and Germany.

**Table2 Availability of NPS via different sources**

	Internet	Street dealing	Shops	Party	Note	Source
<b>Austria</b>	Nd	Nd	nd			
<b>Belgium</b>	12.22		53.33		NSP clients, in %	Windelinckx, 2015
<b>Bulgaria</b>						
<b>Croatia</b>						
<b>Cyprus</b>	Nd	Nd	nd		Data expected to be available 2016 <a href="http://www.isecproject.com/">http://www.isecproject.com/</a>	
<b>Denmark</b>						
<b>Estonia</b>						
<b>Finland</b>						
<b>France</b>						
<b>Germany</b>	yes	Yes	yes		Bavaria Region	
<b>Hungary</b>	yes	Yes				
<b>Ireland</b>	yes	Yes			PUDH buying NPS on the black street market	(Van Hout, 2012), Manager of a Dublin City Centre (HR)
<b>Italy</b>	yes	Yes		Yes	25i-NBOME and Mephedrone can be found also on the street	
<b>Latvia</b>						
<b>Lithuania</b>						
<b>Luxembourg</b>	yes	Nd		yes		
<b>Malta</b>						
<b>Netherlands</b>						
<b>Slovakia</b>	yes	Yes				
<b>Slovenia</b>	yes			yes	58.1 % purchase before a party, 12.0 % at a party, 29.9 % never buy, others purchase NPS for them. Usually got or bought NPS from friends (57.5 %), 37.4 % bought from the dealer and 6.2 % purchased from the internet.	DrogArt NPS 2014 survey (n = 243)
<b>Spain</b>	yes	Yes	yes	yes		
<b>Sweden</b>	yes				Buying from friends or someone buys a larger quantity to sell among friends, particularly in smaller cities.	
<b>Switzerland</b>	yes		yes	Yes		
<b>United Kingdom</b>	yes	Yes	yes	yes		

Note: NK-not known, Nd-no data.



In Switzerland, an internet-based survey in 2012 (n=120) showed, that the most frequent purchase place are websites in third countries, followed by friends, websites in Switzerland, headshops and dealers. Two other sources were named by more than 10% of respondents: parties and "legal highs" producers (Morgenstern et al, 2013). However, according to police sources, there are currently no shops or websites in the country of significant importance or durability which are known to sell NPS. A hidden market is however possible or even likely, its size is however completely unknown (Zobel, 2015).

According to data from the National General Surveys, in Spain most young people, aged 15 to 24 years old acquire NPS in the same way that they acquire traditional illegal drugs: through their friends and in leisure contexts (at party settings).

**Table3 Acquisition of NPS according to places, surveys and years**

Points of acquisition	Eurobarómetro 15-24 years	EDADES 2011 15-24 years	ESTUDES 2012 14-18 years
Other	7%	4.5%	
Festivals	36%	10.8%	
Smart shops/head shops	33%	5.9%	12%
Discos/bars		20.2%	
Distributors		15.3%	
Friends and acquaintances	54%	77%	31%
Internet	7%	1.9%	10%
Dealers			25%
Party contexts (festivals+discos/bars)			22%

Source: Eurobarómetro 2011, Unidad de sistemas de información y documentación. DGPNSD-MSSSI, Encuesta EDADES 2011, Encuesta ESTUDES 2012

[http://www.pnsd.msc.es/Categoria2/observa/pdf/PresentESTUDES2012\\_2013.pdf](http://www.pnsd.msc.es/Categoria2/observa/pdf/PresentESTUDES2012_2013.pdf) (14 a 18 age)

Not only internet/online markets and deep web (internet web pages which could not be entered through common browser) trade can serve as a source for bigger purchases, which are then used for smaller retail (Sarosi, 2015). Also social media and apps can play a significant role in dealing, but the knowledge in particular countries is very limited. In Germany, there is some evidence from two online surveys directed at NPS-experienced persons. In 2011, most of the users of synthetic cannabis products, bath salts and other misleadingly declared products bought them in head shops, while online shops were the second most important source. In 2013/14, this changed significantly: the proportion of those who buy from online shops was almost three times more than for head shops. This is probably a result of the efforts of law enforcement to ban NPS from shops according to medicines law. However, these efforts do not seem to have completely prevented NPS sales in head shops. Research chemicals are usually bought from online shops, with a small proportion who claimed to having purchased them directly from the producer. Additionally, there were significant proportions of respondents who got their NPS products from friends. However, it is not clear how many of them actually bought the NPS or rather received it as a gift or shared the drugs with fellow users. Since most of the other respondents claimed that they buy NPS from the internet, most of the substances purchased from friends might also have their origin on the internet. Regarding this sample of mainly recreational users, almost no respondent reported NPS ordered in bulk with the intention to distribute it at street- or house-dealer level (the only reports about such kind of dealing came from Bavaria).

According to Smith and Garlich (2013) in the United Kingdom NPS are obtained from three main sources: traditional brick and mortar retailers, online retailers, friends, family and street-level dealers. Within the UK it is estimated that there are approximately 250 specialist retail outlets (head shops) selling unregulated NPS (DrugScope, 2013). However, it should be noted that this does not

include all of the retail outlets where NPS can be obtained. For example, anecdotal reports from the UK (e.g. DrugScope, 2013) suggest that some NPS are being sold in a wide range of outlets, including pubs, market stalls, newsagents and petrol stations where they are marketed as ‘plant food’, ‘bath salts’, ‘research chemicals’, ‘incense’ or ‘herbal highs’ and are typically labelled as ‘not for human consumption’. Online purchase data also decreased from 10.7% (Dargan et al., 2010) to 6% (Eurobarometer, 2014). Sourcing from friends seems to be the most common means of obtaining NPS. This may be due to young people without credit cards being unable to source NPS from the internet (DrugScope, 2014). It is also possible that a small network and/or group of friends may all source from the same single internet purchase. Sourcing from street-level dealers occurs within a variety of settings, such as dance venues, house parties, and music festivals and sometimes in a sexual context. Festivals are a particular concern due to the high level of controlled drugs detected in NPS. The FEWS annual report for 2014 (Home Office, 2014b) shows that in 2013–14, 19.2% of NPS samples collected by FEWS contained controlled drugs. The same report indicates that a low proportion of controlled drugs were detected in NPS samples from head shops (4.3%) and the internet (3.0%), but a high proportion of controlled drugs were detected in NPS samples from festivals (88.1%) (Dalton, 2015).

### 2.1.3 NPS cost and comparison with traditional drugs

Methodologically, it is hard to provide and compare the prices of NPS between countries. There is a lack of information on prices at street level and among PUDH and the information that is available is mainly about internet prices and from law enforcement data sources. Moreover, internet prices could be provided from the same webpages (online stores), just in different language versions. All these factors should be taken into consideration while comparing prices, see tables below. When available, street prices were provided.

Comparing the prices of traditional and NPS drugs, there is no significant difference, NPS can be purchased more cheaply or more expensively (see the Bulgaria example below), but the purity and substance characteristics make a difference. There is no problem with adulterants in NPS and for the same amount of money the user obtains a more potent drug itself, also some NPS can give a stronger and longer lasting effect for the same/lower price. When comparing prices for NPS and traditional drugs, the factor of purity of traditional drugs is not examined, so NPS could be a substitution for low quality traditional drugs, but we have no data to support or refute this idea. Comparison is difficult because of different reporting amount and price, often information is not in EURO per 1g, but in EURO per dose. The data about NPS street prices can only rely on user information but there is no chemical analysis to confirm what kind of substance the user has bought. To sum up, there is an absence of regular and detailed statistics or research on prices and purity of NPS on the drug scene among PUDH.

#### **CASE: Bulgaria**

The Bulgaria experience shows that the emergence of the ‘legal high’ model for marketing and distribution has not adversely affected the demand for the traditional drugs markets. For the period 2010-2012 the average prices of some of the traditional drugs such as amphetamines, cocaine remained largely unchanged, while the prices of others such as herbal cannabis, methamphetamines even increased. Most of the NPS supplied in the country were marketed as analogues of the herbal cannabis (i.e. synthetic cannabinoids) or the traditional ATS drugs (i.e. cathinones, phenethylamines, piperazines). The comparison of the prices of synthetic cannabinoids and herbal cannabis shows that synthetic cannabinoids tend to be priced higher or at least their price is closer to the maximum price of the herbal cannabis for the period 2010-2011. However users report that synthetic cannabinoids seem to be a lot more potent than the regular cannabis (Krasteva 2010), thus providing better value for money (i.e. ‘stronger effect’ for the same money). The situation is similar with NPS marketed as legal substitutes of amphetamines or MDMA - i.e. the reported price per gram of ‘Wild Cat’ (mephedrone) in 2010 is equal to the maximum reported prices per gram of amphetamines or



methamphetamines. The reported prices of other 'legal high' mixtures ('Top Drop', 'Matrix') are somewhat cheaper, but still above the average prices of ATS drugs on the street. User's opinions cited in the reviewed media reports likewise claim that the legal substitutes of ATS drugs are more potent than the traditional drugs sold on the street. However, it is impossible to determine, whether these claims are due to the lower purity of the street drugs, higher purity of the NPS sold or something else (Sarosi, 2015).

The price of traditional drugs versus NPS is mainly similar or NPS are cheaper. NPS would not be that cheap compared to street drugs if there were not a purity question involved. Traditional drugs contain adulterants (high quality of the street drugs were reported from the Netherlands), but the purity of NPS is high, the user needs a smaller amount of the drug, also because of the effect and the duration, which could be stronger with a smaller amount of the drug.

Even within one drug type group traditional drugs have different prices (for example in stimulants, amphetamines and methamphetamine). We will focus on herbal cannabis and synthetic cannabinoids, which is a clear category. Synthetic cannabinoids are reported as being more expensive than herbal cannabis from Belgium, Croatia and most expensive in Bulgaria and Sweden (38 Euro). Germany, Latvia and Hungary report less of a difference between these two categories (costing 4.9-16 Euro).

### **CASE: Sweden**

Considering inflation, real prices for several traditional drugs have remained relatively stable for the last 10 years. Over the past 3 years, increases in price seen for some drugs may not be spectacular, but unique in a long-term perspective since several illicit drugs have now increased in price at the same time. Amphetamines and brown heroin have not yet shown any tendency to increase. A comparison shows that a user can get real amphetamine for about 250kr/gram. The same user can get the cathinone 3-MEC for 245kr/gram. So the prices are about the same, but the potency in 3-MEC is much stronger which means more doses and you can also mix it up to make it last longer.

**Table 4 Prices of NPS, per 1 gram, currency Euro**

Country	Mephedrone	3-MMC	Synthetic cannabinoids	MDPV	Pentedrone and other "Pills"	reagards of the	Note
Austria	–	13	–	–	–	–	
Belgium	–	–	13.5	21	–	–	
Bulgaria	30	–	30	–		–	
Croatia	–	13-14	10	–	19	–	2013 (3-MMC in 2015)
Cyprus	–	–		–	–	–	
Estonia	–	–	2.80pc	–	–	–	newspaper article
Finland	–	–	–	60-40, 40-25	–	–	
France	–	20	–	–	–	–	4-AcO-DMT 156E/g, 3,12€/dose
Germany**	–	ND	8	–	–	–	

Hungary	10.8	-	4.9	17.2	12.3	–	2013 and 2014
Ireland	–	–	–	–	–	–	
Italy	40-60	–	–	–	–	–	
Latvia	–	–	12-16	28.4	–	–	
Luxembourg	–	–	–	–	–	10-12	
Malta	–	–	–	–	–	–	
Netherlands	10-20	–	–	15-21	–	–	
Slovakia	–		8.33	–	–	–	
Slovenia	–	15-21	–	–	–	–	
Spain	–	–	–	20-40	12-30	–	NPS prices from drug checking programme
Sweden	–	–	38	–	–	–	
Switzerland	76	–	–	–	–	–	60SFR/g for Methoxetamine and 100SFR/g for MDA.
United Kingdom	18.81	–	–	–	–	–	

*Table 5 Prices of traditional drugs, per 1 gram, currency Euro*

	Heroin	Fentanyl	Cocaine	Ampheta mines	Methamp hetamine	Ecstasy/1t bl	Cannabis (herbal)	Cannabis (resin)	Year
Austria	30-100	–	50-130	6-60	40-120	4-12	5-12	6-12	2014
Belgium	31	–	49	8.2	–	4.4	8	9	2014
Bulgaria	12.5-50	–	40-125	5-25	5-35	2-15	1-17.5	–	2012
Croatia	60	–	80	16	–	7	6	17	2013
Cyprus	50 - 110	–	47 - 110	36 - 135	–	5-15	11 – 40	10-30	
Estonia	10-15pd	7-10pd	80-120	10-20pd	10-20	6-10	20	7-10	2012
Finland	100-200	–	70-150	15-70	15-71	80-150	15-20	10-15	–
France	–	–	–	–	–	–	–	–	ND
Germany**	50	–	70	10	9.50	8.50	8.50	9.50	2014
Hungary	12.2	–	56.7	9.8	5-50.5	5	7.7	5-15.1	2013 and 2014
Ireland	–	–	–	–	–	–	–	–	ND
Italy	35-50		50-80	20-30	ND	40-	8-15	6-10	–

						60*			
Latvia	71	–	78	–	14,2	7	11.3	–	–
Luxembourg	18-100	–	40-133	10	–	–	10-20	6-15	–
Malta	76	–	79	70	–	10	25	24	–
Netherlands	–	–	55	7	–	3-10	–	–	–
Slovakia	25-80	–	70-120	–	20-100	–	–	–	–
Slovenia	40	–	60	10	–	5	6	10	–
Spain	58.8	–	58.95	27.74	–	10.7	–	5.85	–
Sweden	32	–	–	–	–	–	–	–	ND
Switzerland	43-55	–	71-105	9-18	–	9-14	7.3-12	–	–
United Kingdom	12.54	–	50.17	12.54	18.81	3.76	3.76	3.76	2013

pd - per dose , pc – package, \*MDMA, \*\*Frankfurt street price

## 2.1.4 The extent and nature of NPS consumption

### AUSTRIA

Very little is known about the extent of NPS use in Austria. According to a general population survey conducted in Vienna in 2013 (IFES, 2013), covering 600 persons living in Vienna and aged 15 years or older, interviewed face-to-face, 1% of the sample reported that they had consumed Liquid Ecstasy (GHB, GBL). 1% stated that they had consumed Mephedrone. 2 % said that they had already consumed incense blends such as “Spice” or “Lava Red”. According to the Flash Eurobarometer EB No 330 – Youth attitudes on drugs (The Gallup Organisation, 2011) conducted in 2011 (500 young Austrians aged 15-24 interviewed over the phone) 3.6 % of the interviewed sample claimed that they had already used some of the new substances that imitate the effects of illicit drugs. 0.8% claimed that they did not know if they had already used such substances or refused to answer. 95.5% said that they never used them. In school surveys (pupils and high schools) the prevalence of NPS is not studied. The only drug that has been included in the surveys since 2007 is GHB with a life time prevalence of less than 1% in this population.

### BELGIUM

In 2013 0.1% of the Belgian population (aged 15-64) had used NPS in the preceding 12 months. It contained an equal number of men and women who had used NPS. NPS use is most prevalent in the age group of young people between 25-34 (0.3 %).<sup>4</sup> In 2011: lifetime prevalence was 4%, 2014 lifetime prevalence increased to 8%, last year prevalence: 2%, last 30 days: 1%.<sup>5</sup> In school surveys (pupils and high schools) the prevalence of NPS is not studied. The only drug that has been included in the surveys since 2007 is GHB with a lifetime prevalence of less than 1% in this population.<sup>6</sup> In the VAD nightlife survey, 7% of the clubbers questioned in 2012 said they had used GHB. 7.5% reported a lifetime prevalence for ketamine. Last year prevalence for GHB was 3% and 4% for ketamine. These substances were mostly used occasionally. Over the years we can see a slow but clear increase in the use of GHB and ketamine in the Flemish party scene. The use of mephedrone was rarely registered. The results from the Global Drug Survey show a last year prevalence of 6.5% of ketamine and 2% of GHB amongst Belgian respondents. 3.6% had bought a ‘research chemical’ in the last year. The Vitalsounds peer support registrations (2014) show a lifetime prevalence of ketamine (41%), 2CB (28%), Research chemicals in general (19%), GHB (18%), DMT (15%), mephedrone (11%), 4-FMP (2%).

### BULGARIA

There are several surveys reporting on the extent of NPS use in the country – 2 Eurobarometer surveys among young people aged 15-24 in 2011 and 2014 (TNS Political & Social 2014; Gallup International 2011), one general population survey in 2012 (NFP, 2014) and 2 national surveys among students between 15 and 19 years of age in Sofia, 2012 (NFP 2014; Stoyneva 2014).

The 2011 Eurobarometer survey was the first to provide epidemiological data on NPS use, although it covered only the young adult population (15-24 years old). The lifetime prevalence among young adults in 2011 was 3.4%, whereas 96.4% indicated that they had never used such substances. For comparison the average lifetime prevalence in 2011 for EU-27 was 4.8%. Three years later the second Eurobarometer survey indicated an increase of 3% in the use of NPS – 6% had at some time used such substances, whereas 93% have never used them. Furthermore, the 2014 survey provided data for last month and last year prevalence of use – 1% of the respondents had used such substances in the last month and 2% in the last year. At the same time, the lifetime prevalence in EU-

4 DRIESKENS S., CHARAFEDDINE R., DEMAREST S., GISLE L., TAFFOREAU J. & VAN DER HEYDEN J. (2014). HEALTH INTERVIEW SURVEY, BELGIUM, 1997 - 2001 - 2004 - 2008 - 2013: HEALTH INTERVIEW SURVEY INTERACTIVE ANALYSIS. BRUSSELS: WIV-ISP

5 EUROPESE COMMISSIE (2014). YOUNG PEOPLE AND DRUGS. FLASH EUROBAROMETER 401 - TNS POLITICAL & SOCIAL. BRUSSEL: EUROPESE COMMISSIE

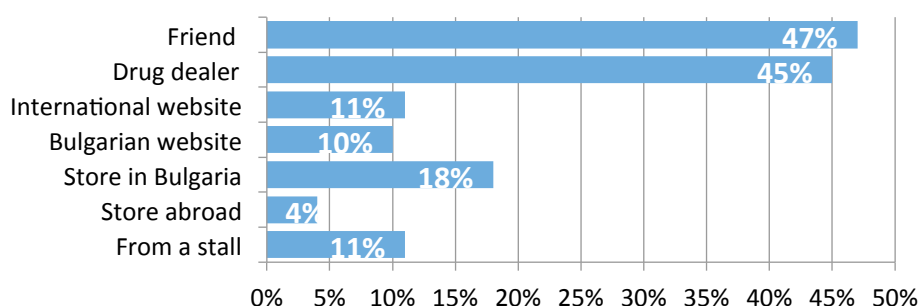
6 MELIS, S. (2014). VAD-LEERLINGENBEVRAGING IN HET KADER VAN EEN DRUGBELEID OP SCHOOL. SYNTHESERAPPORT SCHOOLJAAR 2012-2013. Brussel: VAD

28 was 7%, the last month prevalence 1%, and the last year prevalence 4%. The 2014 Eurobarometer survey also provided data on the context in which NPS are consumed – 37% of the respondents indicated that they used such substances with friends and 78% reported they had used them at a party or at some event (clubbing, music festival, etc.).

The first general population epidemiological data on NPS use in Bulgaria is available from a survey of the National Focal Point administered in 2012. NFP reports that the last year prevalence was 0.5% of the general population or about 25,000 people, whereas the last month prevalence is 0.1% or about 1,000 people (NDC, 2014). For comparison the last year prevalence of use for cannabis in Bulgaria is 3.5% and the last month prevalence – 2%, for amphetamines respectively - 0.6% and 0.3%, for ecstasy – 1.2% and 0.4%, for cocaine - 0.2% and 0.1% (EMCDDA, 2014a). Furthermore, 55.8% of the people who have reported NPS use in the last 12 months indicated that they acquired the drug from a friend, 9.3% purchased it from a store, 7% bought it from a drug dealer, and 2.3 % obtained it through other means, whereas 25.5% refused to answer.

Two school surveys among students aged 15-19 in 2011 and 2013 also collected data on NPS use in the country (NFP 2014; Stoyneva 2014). The survey carried out in 2011 showed that the prevalence of NPS use is 6.1% of all students aged 15-19, the last year prevalence of use was 3.9% and the last month prevalence of use – 3.1%. Two years later in 2013, the survey among the same age group marked a downward tendency. The lifetime prevalence dropped to 4.9%, the last year prevalence diminished to 3.8% and the last month prevalence of use to 2.3%. The school survey from 2013 also provided data on how the drug was acquired. Almost half of the students indicated that they had got the drugs from a friend. A similar proportion of respondents indicated that they had bought the substances from a dealer. The third most often reported method was purchase from a store and 18% of the students indicated this option. Other methods such as online purchasing, etc. seemed even less popular - figure 4.

**Figure 1 How the NPS drugs were acquired?**



\*Source: Stoyneva 2014

## CROATIA

For the purpose of obtaining more detailed insight into the use of new drugs, the Faculty of Education - Rehabilitation Sciences, University of Zagreb conducted a survey of availability and use of new drugs. The survey was conducted in 2011 (N = 1 330) and 2013 (N = 1 035) on the largest Internet forum in Croatia - "Forum.hr". The survey was carried out on a convenience sample of relatively young people who voluntarily filled in online questionnaire. In both rounds of the survey, 90% of participants were in the 18-40 age group. The results show that participants are largely familiar with the new trends in substance abuse and have knowledge of where to purchase new drugs and how to use them. In the first wave of research, 7.8% of respondents reported use of any new drug at least once in their lives, while two years later the lifetime prevalence was 13.9%. The most frequent substance use was reported for synthetic cannabinoids, synthetic cathinones and ketamine (Kranželić and Jerković, 2012; Kranželić, Doležal, 2013). FlashEurobarometer in 2014 for the first time covered Croatia as a new EU Member State. The average EU figure for reported lifetime use

of new drugs among 15-24 year-old participants was 8%, while in Croatia it was slightly lower - 7% (FlashEurobarometer, 2014).

Furthermore, the results of a survey on the quality of life of students (Kovčó Vukadin, 2014) conducted among 1 880 full-time students at higher education institutions in Croatia through an online questionnaire showed that almost half of respondents (44.5%) had used cannabis or hashish, while lifetime use prevalence of new drugs was 5.6%.

As part of a project entitled "Analysis of urinary biomarkers drugs in the waste waters of City of Zagreb" (Terzić, 2012)<sup>7</sup>, conducted by the "Ruđer Bošković" Institute, metabolites of 16 NPS were tested and the Zagreb waste waters (plus ephedrine as a control substance, and ketamine as a substance which is relatively highly abused according to different sources). Out of the selected NPS (which corresponded to the "seized" NPS in Croatia at the time of the research), only metabolites of 4-etilmethcathinone were measurable (7-18 ng / L, 1.5-4.0 g / day). Such a result confirms the dynamism of the NPS market; psychoactive substances detected by police do not necessarily remain too long on the market, and once the responsible authorities make a decision to look more closely at them, they have already been replaced by new ones.

A survey conducted on a random sample of 7th and 8th grade pupils at primary school and 2nd grade students at secondary schools in Međimurje County (N = 1 184) showed that at least once in their lifetime 2.2% of boys and 1.0% of girls in primary schools had used new drugs (Uvodić-Đurić, Bacinger Klobučarić, Kutnjak Kiš, 2014). Among the high school students who were surveyed, every fourth young man (28.9%) and one in ten girls (11.4%) had tried some of the new drugs, which indicates the extent of availability of these substances, but also the lack of a sense of health risks among young people. The second national survey on psychoactive substance abuse in Croatia, which will be implemented during 2015 by using the European Model Questionnaire, will include a module on use of new psychoactive substances. Besides the prevalence of use of new psychoactive substances, special emphasis will be placed on the increasingly popular synthetic cannabinoids, ketamine and GHB / GBL.

## CYPRUS

There are no data for NPS use in Cyprus. The Cyprus Prevalence Survey among young people aged 18-35 (n=1000) will be conducted through a new project, in order to estimate prevalence and other relevant information regarding the use of NPS in Cyprus. The results are expected in 2016. (<http://www.iseccyproject.com/>). Qualitative research (monitoring anonymous online drug market places) will also be conducted, aimed at systematic online monitoring of discussion threads among users and their online transactions on anonymous drug sites. This monitoring could provide important insight information and a rapid assessment of the online drug market. It is important to note that so far, no research on the prevalence of use of NPS has been conducted in Cyprus, nor has any kind of online research taken place regarding NPS.

## ESTONIA

There are very few sources of information about NPS use at all; they are very fragmental, accidental, not systemically collected and cannot give a more or less objective description of the situation. Available data shows only seizures (mainly cannabinoids, and also cathinones and phenethylamines etc.).

## FINLAND

In a wastewater study performed in 10 cities (40 % of the population) in Finland in 2012, MDPV and methylone were included in addition to traditional drugs. Traces of NPS (especially methylone) were small except for some fairly local concentrations of MDPV in Lappeenranta. Based on preliminary

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<sup>7</sup> Internal documents of the Government Office for Combating Drugs Abuse.

results of the latest wastewater study from year 2014 the situation does not seem to have changed (Gunnar, 2015). According to the 2014 Flash EuroBarometer 2% of Finnish youths (aged 15-24) had used NPS, this was a 1% increase from 2011. Comparing EU countries, NPS are more often used when alone (57 %) or with friends (54 %), and less often as party drugs (20 %) (Flash EuroBarometer, 2014). NPS are popular among young people and often recreationally. Some users can be called “psychonauts” – they will experiment with as many substances as possible (Perälä, seminar presentation).

### FRANCE

In France, 1,7 % of 18-35-year-old people have taken an NPS. The reporter points out the fact that results are influenced by cognitive bias as the study tends to include MDMA as NPS (Meignen, 2015).

### GERMANY

It is difficult to estimate the extent of NPS use in Germany. A “quantitative relevance” (Werse, 2014) of NPS is questioned. Prevalence rates are considered low, while research methods show a lack of coherence. The overall availability, or non-availability, of illegal drugs seems to affect the users’ decisions to buy or not to buy NPS; this seems to be true particularly in Bavaria where the availability of traditional drugs is lower than average, and NPS consumption is higher (Werse, 2014).

Two EU-wide surveys found very low prevalence rates of NPS among young people. In both surveys (2011 and 2014), 4% of German respondents said that they had at some time tried NPS, compared to 5% (2011) and 8% (2014) as the European average. Of these 4% in 2014, no respondent had taken NPS within the last 30 days (Eurobarometer 2014, The Gallup Organization 2011).

In the regular German representative survey for adult drug use (“epidemiological survey on addictions”, ESA), questions on NPS were included in the last two surveys, 2009 and 2012 (Pabst et al., 2013). 0.4% (2009) and 0.2% (2012) stated that they had used NPS in the last 12 months. However, these data might underestimate NPS use at least to some degree, since the respective questions did not include all kinds of NPS and popular labels for these drugs such as ‘herbal blends’ or ‘bath salts’.

### HUNGARY

According to a 2013 research conducted by the Psychology Institute of the ELTE university in Budapest, the life prevalence of synthetic cannabinoids among adults (19-64 years old) was 7.7 percent, the life prevalence of other NPS was 3.8 percent (Paksi, 2014). According to the ESPAD 2011 survey among 16 years olds in Hungary, 8 percent of them had used mephedrone – the only NPS included in the survey (Reitox National Report, 2012).

There has been no research on the extent of NPS use among specific subpopulations such as clubbers. Móró and Rácz (2013) described online peer-based harm reduction among drug users and highlighted the case of Daath.hu, the largest online forum targeting young people who use drugs in dance settings. A 2010 online survey among the members of the forum indicated a growing use of synthetic stimulants such as mephedrone among clubbers. Most respondents to this survey were occasional and situational drug users and had not experienced significant negative effects of drug use. A 2011 research conducted among 246 sex workers concluded that approximately half of them had used mephedrone at least once in their lives (Móró, 2013).

### IRELAND

The National Advisory Committee on Drugs, which is an official advisory committee to government, carried out the first national study on NPS (Kelleher, Cathy et al., 2011) which included an online survey of recreational users which found that mephedrone and snow blow were the most popular forms of powder, followed by “Wild Cat” and “Charge”. More than 85% of respondents listed snorting as the route of administration with 40% listing “rub on gums or inside of mouth”. No respondent amongst recreational users reported injecting as the route of administration. In relation to party pills and liquid highs, BZP was the most commonly used substance, followed by “Diablo” and



“Exotic”. The most common route of administration for party pills was swallowing whole and for liquid highs, it was either drinking straight or mixing in to a beverage.

### ITALY

Since 2010, 90% of NPS have been detected in northern Italy but some research shows a certain amount NPS use also in Rome. It is supposed that NPS and the so-called smart drugs are mainly used from a young age. Ketamine is the most detected substance in surveys; it is also detected in waste water. Results show that this is a nightlife recreational drug; ketamine use is increasing. The detection of other NPS use is fragmented, depending on single and local initiatives to collect data in surveys. NPS use was mainly explored in the north of Italy and in Rome. Available surveys report that mephedrone is sold in recreational contexts and used by a minority of people, as are methoxetamine, DMT and Salvia Divinorum. Synthetic cannabinoids and GHB seem to be more widespread among Rome partygoers attending clubs than in the general young Italian population. No NPS, except for ketamine, are used regularly and they are mainly used in recreational contexts (Fornero, 2015).

### LATVIA

According to the research data of the 2014 Eurobarometer, new psychoactive substances have been used by 9% of young people aged 15-24. Out of them, 6% indicated that they had used these substances but it was more than 12 months ago, 2% had used them during the last year, while 1% admitted having used the new substances during the last month.

It is interesting that Latvia is one of those countries in which respondents strictly indicate their support for a complete ban on new psychoactive substances (n=63%). 28% of respondents mention that these substances should be banned in cases when they cause risk, while 8% stress that regulation should be introduced.

Despite the comparatively high prevalence of consumption of new psychoactive substances, given the Latvian scale, 66% of respondents consider that use of new psychoactive substances once or twice causes a high risk to a person's health. Only 5% think that the risk caused is low, and 1% is of the opinion that there is no risk at all. Overall, 95% of respondents in Latvia consider that regular use of new substances is very risky. To compare, regular use of new psychoactive substances is regarded as very risky by 88% of respondents in Lithuania and 80% of respondents in Estonia.

Finally, the top three measures or procedures that could be efficient in fighting drug problems according to young people are: severe punishments / turning against drug dealers and smuggling (mentioned by 66%), more diverse offer of sport and cultural measures for young people (indicated by 53%), and information and prevention campaigns (stated by 35%). These are followed by stricter turning against drug users, which is supported by 34% of the respondents (European Commission, 2014).

Questions about use of Spice and other synthetic cannabinoids (such as Alarma) were first included in the research carried out by the Centre for Disease Prevention and Control entitled “Use of Drugs at Entertainment Venues 2012”. This research was conducted at 48 entertainment venues all over Latvia (Riga, Daugavpils, Jelgava, Liepāja, Valmiera) and included 800 respondents, in total. The average age of the respondents was 22.

The data allows the conclusion that almost 18% of entertainment venue visitors have tried Spice or other synthetic cannabinoids at least once in their lifetime. In general, 10% have used Spice during the last year, and 3% during the last month. Actually, Spice was the first narcotic substance ever tried by 3.5% of respondents. There was a connection observed between experimenting with Spice products and marijuana/hashish, namely 92% of those who have tried Spice have also used marijuana and/or hashish. There is a higher proportion of experimenters with Spice in Riga and Daugavpils, while it is lower in Liepāja and Jelgava, and only one respondent in Valmiera said that he had used Spice. However, this should be considered carefully, as the number of entertainment venues examined in Riga was higher than in other cities.



Generally, 16% of respondents indicated that they had purchased Spice in a sales point of “legal drugs”, 14% mentioned that they purchase marijuana, hashish, or “illegal weed” at these shops, and 8% said they purchase “incense”. Another five respondents mentioned precise names of Spice products that they have supposedly purchased at sales points. The products mentioned were Alarma and Marshmallow Leave, but another five indicated that they had purchased salvia. Some respondents said they do not know what they have purchased or mentioned such names as “chemistry”, “legal substances”, “magic mushrooms”. The reasons mentioned most often for purchasing narcotic substances at drug sales points or kiosks were a wish to try them, their low price, and “legality”.

Since the availability of narcotic substances has currently reduced, it would be of especial importance to perform a repeated survey to establish the prevalence of use of new psychoactive substances among clients of entertainment venues, as well as other groups (Koroļeva, 2012).

One of the most important pieces of drug research in Latvia is the general population survey (GPS), which is carried out once every four years by using a common European Union methodology in all Member States. The survey was last performed in Latvia in 2011, and it will be repeated in 2015. In Latvia, such surveys have been out since 2003.

Within the research, respondents were asked whether they had ever tried intoxicating smoking mixtures /incenses (for example, the so-called Spice group blends or Alarma). Results suggest that such blends have been tried by 2.5% of people aged 15-64 (3.7% of men and 1.4% of women, in total). Out of all of those who have experimented with smoking mixtures /incenses, only 23% have done it during the last year, i.e. in total numbers 0.6% have used them during the last year and 0.3% during the last month.

Most often Spice and similar products have been experimented with by young people aged 15-24 (6.1%). As the age increases, the popularity of these substances decreases. Most often these blends have been tried by people with very low income — below LVL 80 per person in a family (3.8%), but these blends are comparatively popular also among higher income groups. The survey concludes that smoking mixtures/incenses are more widespread in Riga (experimented with by 5.5%) than in other cities (tried by less than 2%). As for the age of experimenting with smoking mixtures, approximately half of the respondents gave an age of up to 19, i.e. before graduating from secondary school (Snīkere, 2012).

The European School Survey Project on Alcohol and Other Drugs (ESPAD), like the general population survey, is performed in Latvia once every four years. There was, though, an exception in 2013 when an ESPAD pilot survey was conducted with a smaller number of respondents and some of the survey forms were filled in online. ESPAD has been carried out in Latvia since 2003, and this year it will be done for the fourth time, not counting the pilot survey. There is a common approved methodology for ESPAD in European countries, therefore results are representative not only in Latvia, but they can also be compared on a European scale.

Questions about using Spice were first included in ESPAD in 2011. According to the results, 10% of young people aged 15-16 had experimented with Spice at least once in their lifetime by 10%. About half of them had used Spice once in their life, while others more often, even three to nine times. Another 4% of young people admitted that they have used salvia at least once with a purpose to get intoxicated. Use of Spice is more popular among boys, namely, 16% of boys whereas 5% of girls have used Spice.

Young people were also asked to assess the risks associated with using Spice. Using Spice once or twice was regarded as being very risky by 35% of respondents, while regular use of Spice was considered very risky by 66% of young people (Trapencieris, 2012). In 2013, the proportion of students aged 15-16 who had experimented with Spice grew by three per cents and overall 13% of respondents had tried Spice in their life, the proportion being higher for boys than for girls (Trapencieris, 2013).

## LUXEMBOURG

The majority of contextual users rarely search for a specific substance, but mostly buy products (party pills, MDs) that are on offer during a limited time within a given setting. According to toxicological analysis of samples collected at parties (D.U.C.K.), the majority of these pills contained medium dosed MDMA, as expected by users. However, other pills or products contained substances such as mephedrone, methylene, 25-I-NBOME, 5-MAPD, DOC or diphenhydramine (for chemical classification see table 1), consumed by users who reported that they were unaware of the genuine composition and the effect of the acquired products.

In 2014, the first seizures of prescription benzodiazepines purchased on the internet for experimental use were carried out. Also substances such as ethylphenidate, not yet controlled in many Member States, are becoming the top-selling products in online shops and are also started to be detected nationally. The future evolution of the demand for these substances should be closely monitored. Moreover, the experimentation with substances such as 25-I-NBOME is also highly concerning because these types of substances are active at very low dosage and overdose risks are significantly increased, especially when handled by inexperienced producers, intermediates or users.

## MALTA

In Malta, drug use is estimated by means of surveys, generally in the form of questionnaires regarding illicit substances. Data available prior to 2013 was obtained through surveys among target populations. As of 2013, general population surveys were implemented in order to obtain a better standpoint as to the drug situation on the Maltese Islands.

Drug and alcohol use is monitored at an early age, with surveys being carried out among school and youth populations. To date, Malta has taken part in 6 European School Survey Projects on Alcohol and Drugs (ESPAD), the latest having been carried out in January 2015. These surveys take into account use of illicit substances, tobacco as well as alcohol and NPS. Initially, Sedqa, one of the five drug treatment agencies, carried out ESPAD surveys, with the lifestyle survey being conducted conjointly by NCADAD (National Commission on the Abuse of Drugs, Alcohol and Dependencies) and NFP (National Focal Point for drugs and drug addiction). The latter survey was carried out among 18-24-year- old full-time students at the University of Malta or post-secondary institutions in Malta and Gozo. These questionnaires were a modified version of the European Model Questionnaire (EMQ) and helped in providing an insight into drug use among students.

Results obtained by ESPAD studies carried out in 2006 and 2012 indicated that throughout the years the popularity of new synthetic drugs had increased among students, with mephedrone and GHB use becoming prominent among young people.

Availability and supply is also estimated by the amounts and frequency of drug seizures. Since 2005, the vast majority of drug seizures have related to traditional drugs such as cannabis resin, ecstasy tablets and heroin. In 2006, over fifty thousand mCPP tablets were seized, making this the largest quantity of synthetic drugs ever seized in Malta. A substantial amount of BZP was also seized in street cases, along with Khat which, as already mentioned, has increased in popularity throughout the years. By 2011, Khat seizures had increased substantially, with triple the amount to that seized in previous years.

## NETHERLANDS

In spite of all the media attention for NPS, its prevalence seems to be limited in the Netherlands (DIMS, 2012). Reliable data on the number of users unfortunately are not available. Nevertheless, modest conclusions can be made on the NPS trends in the Netherlands. The Netherlands appears to differ in use of NPS from many other EU countries. So far the DIMS has received a limited amount of samples containing NPS. What has been striking is the fact that most samples containing NPS submitted to the DIMS were not sold as such but as common illicit drugs e.g. ecstasy or speed. Probably the user did not intend to purchase an NPS and was not aware of its presence in the acquired product. For example, since 2009 the NPS 4-MA has been regularly found in amphetamine

(speed) samples (Blanckaert et al, 2013). Contrary to other NPS which are usually sold in pure form, 4-MA was mostly found in speed samples mixed with normal amphetamine. This resulted in several fatal incidents. Since 2012 the Dutch traditional drug market has been restored, 4-MA and 4-FA are encountered less frequently in speed samples and in lesser amounts.

It appears that Dutch users most likely have been consuming NPS unintentionally for several years in contrast to other Western countries where NPS were purposely purchased online. The low prevalence could be due to the specific drug market, in which common illicit drugs are of relatively high purity, are of reasonable quality and are obtained relatively easy. Furthermore, the use of cannabis is tolerated in the Netherlands and it is available to adults through our well-known coffee-shops system. These factors appear to temper the interest in NPS such as synthetic cathinones and synthetic cannabinoids.

Several surveys suggest that ketamine is on the rise. Ketamine is provided regularly to the DIMS (Reitox, 2013). Lab analyses show that Ketamine samples sometimes contain other substances, such as Methoxetamine and 4-MEC. In 2013, 240 substances were sold as ketamine which were delivered to the DIMS. This is slightly more than in 2012 (216). The ketamine market was very pure for a long time and samples rarely contained other substances. In recent years there has been a change. In 2013 nearly 100 of the 240 samples sold as ketamine contained other substances such as 4 - MEC (15 times) and Methoxetamine (44 times). Five ketamine samples had only PMMA instead of ketamine. A warning went out in the spring of 2013 at various festivals and through various websites.

LSD is virtually offered weekly to the DIMS for analysis (DIMS, 2013). As with ketamine, the LSD blotters sometimes contain substances other than LSD. In 2013 there were 215 LSD purchased samples submitted, a significant increase compared to 2012 (125). Of these 215 samples, nearly a quarter ( $n = 51$ ) contained no LSD but 25I-NBOMe.

Nonetheless, in the Netherlands new psychoactive substances are used by a relatively small group of people referred to as 'psychonauts'. The number of drugs samples submitted to the DIMS (Drug Monitoring System) for analysis containing NPS increased from 22 in 2007 to 431 in 2013 (Hondebrink et al, 2014). The most frequently submitted NPS in 2013 according to Hondebrink et al (2014) were 4-bromo-2,5-dimethoxyphenethylamine (2C-B), 4-fluoramphetamine (4-FA), Methoxetamine (MXE) and 6-(2-aminopropyl)benzofuran (6-APB). From 2012 onwards, the number of NPS bought as drugs of choice exceeded those appearing as adulterants in established drugs. The 2014 Reitox report to the EMCDDA stated "New psychoactive substances are used appreciably less often among partygoers than 'classic' drugs, but nonetheless there are "small clusters of people with a curiosity for these NPS". Among clubbers and ravers in Amsterdam, the lifetime prevalence of use is 15% for 4-fluoramphetamine, 9% for mephedrone, 5% for 6-APB ('BenzoFury'), 4% for methylone, and 3% for Methoxetamine." The addiction potential of NPS occurring in the Netherlands is not known but it seems, at least when used recreationally, to be low, with the exception of the highly addictive sedative substances gamma hydroxyl butyric acid (GHB) and gamma butyrolactone (GBL) ( v Amsterdam et al, 2013).

## SLOVAKIA

Data about the extent of NPS use in Slovakia is limited. According to the general population survey carried out in 2010 ( $N=4055$ ), LTP=1.22%, LYP=0.29% and LMP=0.25%. Use of "Spice" was reported among 0.3% in the sample of 15-64-year-olds and 0.7% in the sample of 15-34-years-olds (EMCDDA, 2012a). According to the school survey among 15-19-year-old students, the LTP of synthetic cannabinoids is 4.1% and mephedrone 1.7%. (Nociar, 2011 in EMCDDA, 2012a). According to the Flash Eurobarometer on "Youth attitudes on drugs" (No330) use of NPS was reported by 3.1% of young people aged 15-24 (The Gallup Organization, 2011). Two surveys about the extent of NPS use and knowledge among the attendees of the biggest summer festival in Slovakia were carried out in 2011 and 2012. In 2011, 100 respondents (average age 24, 25 years old) participated. About 75% of the respondents knew these products and 18.70% had tried NPS. (EMCDDA, 2012a). In 2012, 121 festival attendees participated, while 38.90% had heard about the products and 8.90% had tried

them (EMCDDA, 2013). Two online surveys were carried out using the “drug-friendly” website [www.rastamama.sk](http://www.rastamama.sk). In 2012, 109 people took part in the survey, 79.80% knowing about the products and 42.40% having tried them (EMCDDA, 2013). In 2013, the survey was filled in by 191 participants, 82.20% knew the products and 52.86% had tried them, while 25.47% had tried them during the last year (LYP) (EMCDDA, 2014).

## SLOVENIA

In 2011 and 2012, a Survey on the Use of Tobacco, Alcohol and Other Drugs was conducted among inhabitants of Slovenia aged 15–64 using EMCDDA methodology. According to survey data, 16.1% of Slovenians aged 15–64 have used an illicit drug in their lifetime; nearly one fifth of all men and 12.2% of all women. Of those who have used an illicit drug in their lifetime, 0.6% has used new drugs. Eurobarometer (2014) was another research performed among general population. Results showed NPS use had increased from 7 % in 2011 to 13 % in 2014 (n = 501, population between 15 and 24 years old).

## SPAIN

According to the last national general survey, the use of NPS in Spain is happening mainly aiming young men, aged 25 to 34 years old and it is mainly characterized as “experimental uses” (strongly associated with the simultaneous use of traditional drugs). Data shows that about 741% of people had never heard of NPS before, which confirms the minority relevance of the consumption of these types of substances. It is a recent phenomenon in the country (although this percentage has decreased when compared to the previous survey where 47% of people stated that they had not heard about it). The last data shows a prevalence of NPS use of 3% in the category “once in a lifetime”. The survey highlights that, in general, NPS use prevalence is much lower compared to the use of the classic illegal drugs and stresses that, at the moment, the phenomenon in Spain is very minor, although it is being monitored by the SEAT (EDADES 2013/2014 DGPNSD, MSSSI). In an effort to study this phenomenon closer, in 2005 a specific category was created in the National General Drug Surveys for synthetic cannabinoids, under the name of “SPICE”. Although SPICE is the commercial name, it is used to refer to these groups of compounds. With time other categories were added to the surveys in order to get a wider picture of this phenomenon, such as: Research Chemicals, Legal Highs, Piperazines, Mephedrone, Nexus (2CB). The last National Drug Survey had a total of 23 substances. The use of NPS, as stated previously, can be divided into three types: recreational, experimental and substitution. The experimental type is characterized for the mixture of substances (78% of NPS users mix them with other drugs) (EDADES 2013/2014 DGPNSD, MSSSI).

**Table 6 Prevalence of use, according to the EDADES General Drug Survey EDADES, published in 2015, by the PNSD**

Emergent Substances	Prevalence “once in a lifetime”	Last month
Spice	0.5%	0.1%
Legal Highs	0.0 %	0.0%
Piperazines	0.0 %	0.0%
Mephedrone	0.1%	0.0%
Research Chemicals	0.1%	0.0%
Nexus (2CB)	0.2%	0.0%

Source: EDADES 2013/2014 DGPNSD, MSSSI

## SWEDEN

Several studies have been made about the use of NPS, but they only collect statistics from the general population, the biggest one The Swedish Council for Information on Alcohol and Other Drugs (CAN) provides a yearly report on the use of drugs by students. The most recent study of 15 year olds

and students in high school showed that around 5% had used an NPS. Spice is now the 2nd most used illicit drug after cannabis. A third of all those who had used a narcotic had used spice. Since 2013 CAN has introduced spice as an alternative in their questionnaire. The question about NPS use was first asked in a yearly survey among school children in 2012. The goal was to begin collecting data about previous unused substances, regardless of whether they were legal or illegal at the time of use. 2% of students in their final year of elementary school report having used an NPS at least once in their life. In senior high school that number increases to 4%. The most common type of NPS was clearly synthetic cannabinoids. Less than 1 % of students report having used other NPS, such as mephedrone. One third of students with experience of using NPS had bought or participated in purchasing the substances themselves. For students with little or no experience only 1% had bought or were involved in the purchase. A reasonable assumption is that many young people get hold of NPS the same way as with traditional drugs, through friends. Most young users seem not to use NPS as a legal alternative to narcotics, as many did not even know if the substance was classified as a narcotic or not.

Reasons for NPS use:

- The effects in relation to other drugs, regardless of what the effect is, it seems NPS gives the users what they want and no one is complaining about the lack of potency
- The illusion of the effects. NPS are discussed endlessly on internet forums and chat rooms, which creates a demand and/or curiosity for people to test them
- The safety net and the risk of social stigma. "I don't want to be a criminal or associate with criminals"
- To pass drug tests
- No contacts or access to traditional drug markets
- The price
- Availability.

In the night-life environment NPS seems to not have had such a big impact. This could be because of the strong position of traditional drugs, i.e. cocaine and ecstasy.

A study aimed at collecting information concerning the increasing use of new psychoactive substances, commonly sold through online shops, found the use of a broad variety of new psychoactive substances among mainly young people all over Sweden. Drug tests of patients brought to emergency departments for drug intoxications detected psychoactive substances in 82%. The substances comprised synthetic cannabinoids ('spice'; JWH analogues), substituted cathinones ('bath salts'; e.g. butylone, MDPV and methylone) and tryptamines (4-HO-MET), plant-based substances (mitragynine and psilocin), as well as conventional drugs-of-abuse. In 44% of the cases, more than one new psychoactive substance, or a mixture of new and/or conventional drugs were detected.

A survey conducted in 2013 found that young people who use NPS often also use traditional drugs much more than the general population. Young people using NPS also use traditional narcotics but are also big consumers of alcohol. They are also often involved in other crimes and use many different kind of drugs. For example, among youths using NPS as many as 79% had also used cannabis and 15% had used cocaine and amphetamine. Their knowledge about NPS is generally very low and they also display a much higher number of risk factors than other students. The group only using NPS is very small.

## SWITZERLAND

In a representative general population survey conducted in 2013, Swiss residents aged 15 and over reported NPS prevalence of 0.5% for lifetime, 0.1% for last year and 0% for last month use. Levels were highest among 20-24-year-olds with last year and last month prevalence at 0.7% and 0.5% (Gmel et al, 2013).



A cohort study among around 6000 young males entering military service, with a mean age of about 20 years, showed a last year prevalence level of 0.5% for the use of "Spice" (the most well-known product containing synthetic cannabinoids). In comparison, the last year prevalence for cannabis use was 31% in that study (Baggio et al., 2013).

Switzerland participated in the 2013 Global Drug Survey. The (non-representative) sample included about 5 000 people, with 70% of males and a mean age of about 30 years. Switzerland had by far the lowest prevalence among participating countries for last year use of "legal highs/research chemicals/synthetic cannabis" at about 1.8%. More than 5% of respondents in Switzerland reported having already bought drugs over the internet. This was also one of the lowest levels reported among participating countries (Schaub et al, 2014).

Data on drug use was collected in different nightlife settings in Switzerland over the period 2011-2013 with more than 2000 respondents. Among them, 7.8% reported having used "NPS" during the last 12 months (18% during their lifetime). This prevalence level is to be compared with last year prevalence of 65.9% for MDMA, 50.1% for amphetamine and 49.3% for cocaine in the same population (Bücheli et al, 2015). The use of NPS during a typical party night was reported by less than 1% of respondents in 2013 (Maier et al; 2014).

Data from law enforcement shows limited seizures of NPS in Switzerland. In 2014 police forces reported only 13 cases regarding drugs from the E list (see first section above) which represented in total 65 doses, 60 grams and 14ml of (likely) NPS (BFS, 2015). Seizures for mephedrone are handled separately but there were no reported cases in 2014. In 2013, eight cases resulting in the seizure of 2 doses and 10g of the drug were reported in 2013 (BFS, 2014). The main route of supply of NPS is however postal mail and the Swiss customs reported fluctuating but overall increasing volumes of seizures totalling 27kg of "designer drugs" in 2014 which should mostly qualify as NPS (AFD, 2015). The detail of these seizures is however not known. Overall, experts make the hypothesis that Switzerland has a relatively limited demand and supply of NPS but that there might be a group of regular users/psychonauts who buy drugs mainly over the internet and may have used a wide range of NPS.

### *United Kingdom*

There is currently no clear picture of the overall prevalence of NPS use in the UK, although the available evidence from national surveys suggests that use of NPS is generally low compared to the common illicit drugs (Burton et al., 2014). While official statistics showed an overall decline in traditional drugs in the last decade, the current drug scene is now more complex and unpredictable (Daly, 2015).

The CSEW household survey added its first questions on NPS in the 2009/2010 survey, specifically on GBL/GHB, BZP and spice. Questions about Mephedrone were added to the 2010/11 survey (Home Office, 2011). In the 2012/13 CSEW (Home Office, 2013), questions on salvia and nitrous oxide were added, replacing questions on GBL/GHB, BZP, spice and khat, and these were retained in 2013/14 (Home Office, 2014a). Further questions are to be included in the 2014/15 CSEW asking about use of any NPS, to establish lifetime and recent use of these drugs as a whole. In addition, respondents will be asked about the appearance/form of NPS and how they are obtained.

Mephedrone, the most widely used NPS in the UK, grew in popularity following an unprecedented scarcity of MDMA (Power, 2010). According to the CSEW 2013/2014 survey (Home Office, 2014a) 0.6% of adults aged 16-58 had taken mephedrone in the last year. In Scotland the 2012/13 SCJS survey reported that 2.1% of those aged 16-24 had used an NPS in that period and the use of mephedrone was 1.6% (Robert and Bates, 2014). In Northern Ireland the 2010/11 use of mephedrone was 2.2% among adults aged 15-34 (NACD and PHIRB, 2012). The proportion of 16-59 year-olds reporting last year use of NPS, 2009/10 to 2013/14, England and Wales - table 7 (Stephenson and Richardson, 2014).

**Table 7 Reported NPS use in 16-59 year olds in England and Wales (last year use)**

%	2009/10	2010/11	2011/12	2012/13	2013/14
Mephedrone	n/a	1.3	1.0	0.5	0.6
Salvia	n/a	n/a	n/a	n/a	n/a
GBL/GHB	0.1	0.0	0.1	n/a	n/a
Spice	0.4	0.2	0.1	n/a	n/a
BZP	0.5	0.1	0.1	n/a	n/a

The 2009 DrugLink Street Drug Trends Surveys first began reporting on NPS, specifically on GHB and Mephedrone, the latter being the most popular NPS in the UK. The following paragraphs report on NPS use based on the findings of the DrugLink Street Drug Trends Surveys 2009 to 2014.

The Survey of 2009 (Daly, 2009) indicated that GHB and mephedrone were growing in popularity during this period. Mephedrone emerged in the 2009 survey as a drug that young people were using and it was becoming widely available on the internet. The findings of the survey also indicated that users perceived mephedrone as a more reliable high than coke or ecstasy.

Mephedrone was banned in April 2010 and classified as a Class B drug (for more on this see Section 3.4 below). There was a rapid fall in its popularity after being banned in some areas but not in others (Daly, 2010). In 2011 the use of MXE increased. Many other NPS became popular in this period including black mamba, salvia, nitrous oxide and khat (Daly and Simpson, 2011).

Mephedrone use had dipped after becoming a Class B drug in 2010 but while its use did not necessarily increase in 2012, it gained presence as a problematic drug with users of it reporting physical and psychological problems (Daly, 2012). More people were now injecting it, mostly former heroin and crack injectors.

The 2013 survey (Daly, 2013) reported that the most problematic drugs amongst young people were stimulant powders such as mephedrone and synthetic cannabinoids. There was also a rise in the use of some hallucinogens such as salvia, AMT, n-boms. The rising NPS use was reflected in their availability from head shops, petrol stations, takeaways etc. In 2014 NPS continued to rise (Daly, 2015). There was a rapid rise in the use of synthetic cannabinoids, such as black mamba and exodus damnation. Another report has indicated that in 2014 NPS were readily available in prisons in 2014 (Centre for Social Justice, 2015).

### 2.1.5 Extent of NPS use among PUDH

Out of 22 countries 10 have identified NPS use among PUDH, mainly at a local level. There is very limited data about NPS among PUDH. Prevalence data shows the highest ratio of NSP users in Hungary, Germany, Slovakia, Belgium and Croatia. Data is mainly from small local studies or as an estimation of HR programmes. Countries which did not take part in this survey might be affected by NPS use among PUDH such as, for example, Romania and Poland. Also in the Czech Republic NPS use was mainly recorded among Prague's (the capital) PUDH and assessed by studies (Mravcik et. al, 2015).

From published studies, in Belgium last year prevalence was on average 26%, with GHB (31%), Ketamine (29%), synthetic cannabis (19%) and mephedrone (12.5%) the most frequently used. 2CB (9%), DMT (8.2%), MXE (6%), MDPV (4.7%) and 4-FA (4.3%) are other NPS used by the needle and syringe programme population. A study on 600 opioid users in Croatia resulted with NPS 14.9 % lifetime prevalence and the major transfer is to substitution preparates. Last month prevalence in known for Hungary (73%), Germany (31%) and Slovakia (40%) at very local level.

NPS use became most popular among IDUs in Hungary after 2009 and probably the absolute number of PUDH has greatly increased as well. Data provided by needle and syringe programmes shows the change in the drug market. In 2009 2399 clients were reached by needle and syringe programmes, in 2013 4624. In 2009 56 percent of the clients of NSPs used heroin and only 4 percent injected other drugs. In 2013 only 8 percent injected heroin and 73 percent injected other drugs, mostly new synthetic stimulants. Treatment demand for NPS use increased sharply in the same period (Reitox annual report 2013). We can estimate that the majority of PUDH in Hungary use NPS now (Sarosi, 2015).

**Table 8 Prevalence of NPS use among PUDH**

PUDH	NSP in PUDH	LTP synth. Cannabinoids	LTP other NPS	LTP	LMP	Number of respondents	Target group	Details
Austria	Yes							NPS in DRDs in PUDH, there is a limited knowledge about MDPV use among PUDH in Tyrol.
Belgium	Yes		42	26		NK	NSP clients	Within the category of lifetime prevalence NPS use, GHB (31%), Ketamine (29%), Synthetic cannabis (19%) and mephedrone (12.5%) are the most frequently used substances. 2CB (9%), DMT (8,2%), MXE (6%), MDPV (4,7%) and 4-FA (4,3%) are other NPS used by this population (Windelinckx, 2015).
Bulgaria	ND							
Croatia	Yes	2.9 (3.5)	14.9 (14.8), mephedrone 3.2			600, (second wave n=541)	Opioid users	Study concluded that opioid users do not transfer to NPS but substitution preparates (Doležal, 2011, Doležal, 2013)
Cyprus	ND							
Estonia	ND							
Finland	Yes							Use of MDPV reported
France	Yes							ND
Germany	Yes	2*				NK	PUD in Frankfurt	*number of identified users. Qualitative data from interviews with professionals is available (Werse & Egger 2015).
Germany2	Yes		51		31	57	Online survey not specifically for PUD.	PUD identified according to treatment and drug-related assisted housing. Hypothesis for NPS use among clients of treatment programmes to avoid positive test. Injecting of NPS appeared (Werse & Morgenstern 2015).
Hungary	Yes				73**	4624		**other drugs=mostly synthetic stimulants, injecting (Reitox annual report 2013).



Ireland	ND							
Italy	ND							
Latvia	ND							
Luxembourg	No							
Malta	ND							
Netherlands	No							
Slovakia	Yes				40			Information by HR programme in one city, Kosice, estimation (Zilinska, 2015).
Slovenia	ND							Data about NPS users in party settings
Spain	Yes							NPS to be associated with the availability of drugs.
Sweden	ND							
Switzerland	Yes				4***	3000		Very limited NPS use, ***4 person (Delgrande Jordan et al., 2015 and Locicero et al., 2012).
United Kingdom	Yes							small groups of entrenched heroin injecting populations migrating to injecting stimulant NPS. It seems that this is a transitory phase before moving back to heroin injecting
ND - no data								

## AUSTRIA

No specific study has been carried out in Austria.. In 2013 three cases of drug related deaths from narcotic drugs involved blood tests revealing NPS (GBL or MDPV, 4-fluoroamphetamine) combined with narcotic drugs (methamphetamine, morphine) (GÖG/ÖBIG 2014b). It can be assumed that at least GBL, MDPV (3,4-Methylenedioxypropylvalerone, Cathinones, 1-(3,4-Methylenedioxyphenyl)-2-pyrrolidinyl-pentan-1-one), and 4-fluoroamphetamine (Phenethylamines, 1-(4-Fluorophenyl)propan-2-amine) had been used among PUDHs. Anecdotal reports exist concerning mephedrone (4-methylmethcathinone, a Cathinone) consumption in two Austrian federal states (Carinthia and Styria). There are also indications that maybe MDPV (3,4-Methylenedioxypropylvalerone) consumption played a certain role in the “opiate scene” in Tyrol (another federal state of Austria) for a quite short time.

## BELGIUM

In 2014 prevalence of NPS was studied for the first time in the population of PUDH in the syringe exchange programme in Flanders. The reached target group of syringe exchange had an average age of over 35, the use of NPS has clearly made its appearance in this target group. This research shows a lifetime prevalence for NPS of 42% and a last year prevalence of 26%.

Within the category of lifetime prevalence NPS use, GHB (31%), Ketamine (29%), Synthetic cannabis (19%) and mephedrone (12.5%) are the most frequently used substances. 2CB (9%), DMT (8,2%), MXE (6%), MDPV (4,7%) and 4-FA (4,3%) are other NPS used by this population (Windelinckx, T., 2015).

In 2010 56% of the detainees in Belgian prisons had used illegal drugs. The lifetime prevalence (inside or outside prison) of GHB: 35% and ketamine: 17%.

33% of the detainees had used illegal substances in prison. 3% used GHB and 3% ketamine. This is about 1% of the total number of detainees. Only a very small group used these substances for the first time while in prison (Van Malderen e.a., 2012).

The specialised treatment centres for drug addiction and psychiatric hospitals do not specifically register the use of NPS. The number of clients that was treated in these centres with a GHB related

problem has increased between 2003 (3 cases) and 2010 (47 cases). The majority of GHB clients were male, the average age was 27 (De Donder, E., 2014).

### **BULGARIA**

The primary group of NPS users is among young adults, although the prevalence of use remains lower compared to the prevalence in the rest of the EU. NPS has never managed to substitute the traditional drugs among the general population or among PUDH (Rusev, 2015).

### **CROATIA**

Information about the extent of NPS use in Croatia among PUDH is very limited. Surveys conducted among clients of harm reduction programmes in Croatia (Doležal, 2011, Doležal, 2013), which have been mentioned in chapter 1, demonstrate that opioid addicts, due to a shortage of heroin in Europe in 2010 and 2011, did not transfer to new psychoactive substances e.g. synthetic cathinones, as was the case in some European countries, but rather focused on the misuse of substitution therapy. Among the participants of the first wave of research (N = 600), only 2.3% (N = 342) had used mephedrone at least once in their lives, 2.9% (N = 348) had used synthetic cannabinoids and 14.9% (N = 369) other new drugs. In the second wave of the survey, only 1.1% (N = 570) of all participants (N = 541) had used synthetic cathinones at least once in their lives, 3.5% (N = 571) synthetic cannabinoids and 14.8% (N = 567) other new drugs.

The Croatian Public Health Institute, which is running a Registry of Persons Treated for Psychoactive Drugs Abuse, in 2013 modified a questionnaire used for the collection of data on clients in specialised drug treatment services. Besides streamlining the questionnaire with Treatment demand indicator (TDI) standard protocol 3.0 (EMCDDA, 2012), questions related to the use of fentanyl, mephedrone, GHB / GBL, ketamine and synthetic cannabinoids were also included in its structure. In 2014, the first year in which data on selected NPS use was collected from clients in drug treatment, only 4 clients were registered for primary use of NPS which referred to synthetic cannabinoids in all cases (three of them entered treatment in 2014 and one in 2012). As regards the main secondary substance of use, fentanyl was reported in one case (primary heroin user), mephedrone in two cases (primary heroin users) and synthetic cannabinoids in 9 cases (primary cannabis users). In addition, fentanyl and mephedrone were reported as other secondary drug in one case each (heroin is the primary substance of use in both cases), whilst ketamine was reported in two cases (again, heroin is the primary substance of use in both cases) (Vugrinec, 2015).

### **CYPRUS**

There is no data on the use of NPS by PUDH, not with regards to the types of substances most commonly used, whether they displace other substances, how they are used, which effects users experience etc. The European ISEC project has initiated research to determine the prevalence of NPS in the youth population. There is no indication that specific attention will be paid to NPS use among PUDH, although research will focus on improving insight in the online market of these substances. (<http://www.iseccyproject.com/research.html>).

### **ESTONIA**

There are no serious separate researches or studies devoted only to NPS use or NPS users among PHUD.

### **FINLAND**

NPS are not only used as recreational or party/rave drugs but are also used by PUDH (Perälä, seminar presentation). The data on NPS use is limited, there is no data in the PUDH group.

## FRANCE

No exact data available. Most of the NPS users come from forum communities, psychonauts, there are signs of NPS party use and slam<sup>8</sup> events, but no clear data about NPS use among PUDH was reported. There are apartment dealers, which is the term used to describe a dealer that never moves from his apartment. In France this type of selling is very common. There are a few apartment dealers that offer NPS, but that is mostly because they do not take part in big traffic. These types of dealers buy their stuff on the internet, it is quite common that they misspell the name of what they are really selling. ERLI (éducation sur les risques liés à l'injection – injection related risks education) a branch of Médecins du Monde, made a study by analysing the content of the syringes collected in the recuperations units in Paris. In a sample of 3 000 syringes the study shows that in Lena, a district in Paris, 80% of the syringes contained 4-MEC. The limits of the study should be taken into consideration, for example the high rate of injections during slamming practices (Meignen, 2015).

## FINLAND

Finland PUDH at least experiment with NPS, mainly among younger clients, estimation from one social/health program was 70% (Zareff, 2014). Most common NPS among PUDH are Alpha-pvp, MDPV, Phenazepam, and synthetic cannabinoids (Utoslahti 2014). Intravenous use of MDPV is considered to be one of the biggest problems amongst PUDH in Finland - it has been estimated, based on a study of active drug users in Helsinki area (sample size: 100 users), that 90 % of MDPV use amongst PUDH is intravenous use, and more than half of the respondents had at least experimented with MDPV (Tammi et al., 2011).

Among PUDH, NPS are often used many times a day, since their effect may wear off in a fairly short time. They are taken orally (dissolved in liquid, on a slip of blotter), sniffed, smoked, and taken intravenously. Intravenous use of MDPV has been a problem amongst PUDH since 2008 and is still fairly common, so most of the information on NPS use amongst PUDH is on the use of MDPV. MDPV is in many cases used daily, intravenously, even 3-5 times a day. For many PUDH, MDPV has come to substitute amphetamine use. (Tacke et al., 2011).

## GERMANY

Official statistics do not contain data about PUDHs consuming NPS. Surveys, that deal with the use of “traditional” drugs among PUDH, but also ask for prevalence rates of NPS among this targeted group, show very low rates of NPS use. As part of Frankfurt’s municipal “Monitoring System” (MoSyD), PUDH are interviewed on a frequent two-year-basis. Only two PUDH were identified to have ever tested for NPS (synthetic cannabinoids) (Werse & Egger 2015).

Another research example can be found in the second German online survey that was held in 2013/14 (Werse & Morgenstern 2015). This study did not specifically deal with PUDH, but they can be identified by separating all users who spent time in inpatient treatment and consider them to be PUDH (potential PUDH respondents, PPR). In this group, NPS prevalence is higher than among the rest of the respondents, but overall prevalence of NPS use in this group of PUDH is still lower than the use of traditional drugs. In detail, 7% of the respondents (n=57) reported having received opiate substitution treatment, addiction therapy or detoxification, or that they lived in (drug-related) assisted accommodation – which can be regarded as a rough indication for problem drug use. These potential PUDH respondents (PPR) showed significantly more lifetime experience and in part also more current use of “hard drugs” than other respondents (no differences were observed regarding cannabis use): Lifetime prevalence: heroin 32% vs. 8% (other respondents), cocaine: 67% vs. 43%, amphetamine: 93% vs. 66%, non-prescribed psychoactive medical drugs: 60% vs. 34%, last-month prevalence: heroin 5% vs. 1%, cocaine: 4% vs. 7% (exception), amphetamine: 33% vs. 21%, non-prescribed psychoactive medical drugs: 14% vs. 7%.

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<sup>8</sup> Injection of synthetic cathinone in a sexual context

Generally, PPR were more often current users of NPS (last-month prevalence: 51% vs. 35%), and much more often frequent users of NPS (at least one type of NPS more than ten times in the last month: 30% vs. 11%). Particularly current use (last month) of ‘herbal blends’/ synthetic cannabis (HB) and synthetic cannabinoids (SC) was more prevalent among PPR: last month: HB: 37% vs. 16%, SC: 23% vs. 9%, HB and/or SC: 42% vs. 20%. Other legal high products apart from research chemicals, e.g. ‘bath salt’ (OLH), were also more prevalent, albeit the generally lower rates of consumption: 14% vs. 6%. In contrast, the last-month prevalence of research chemicals (RC) was not significantly higher than among other respondents: 25% vs. 20%.

However, the rates for frequent use (more than ten times in the last month) were higher for all four NPS categories: HB: 21% vs. 6%, SC: 11% vs. 4%, OLH: 4% vs. 2% (not significant), and RC: 11% vs. 3%. PPR showed significantly higher rates of lifetime prevalence for some of the most popular NPS, mostly stimulants, such as mephedrone, MDPV, methylone, 4-fluoroamphetamine, or MDAI. 86% of the PPR had been tested for drug use in their lifetime (compared to 36% of other respondents), most of them in the context of therapy or substitution (46% of all PPR, vs. only 3%). This might be one reason why PPR mentioned “non-detectability” more often than others as an important motive for NPS use (45% vs. 35%). PPR also referred more often to problems as a motive for use than other respondents: 18% vs. 5%.

The 57 respondents identified here as potential problem drug users cannot be regarded as representative for German NPS-using PUDH, because the survey itself was not (and could not have been) representative in any way. Moreover, there may be a bias towards PUDH who use the internet frequently, which is not very often the case for this kind of population. These biases might lead to some overrepresentation of amphetamine use – generally, opiate users are still the largest group of “hard drugs” users in treatment or therapy in Germany (Brand et al. ,2014).

However, the results give some hints on NPS use among German PUDH: They largely confirm the notion that synthetic cannabinoids are the most important substances, also among this population. Some of this use is linked to participation in drug therapy or substitution: as mentioned by German therapy practitioners, there is a significant sub-group of hard drugs users who do not want to quit cannabis/cannabinoid use when they start treatment. If NPS other than cannabinoids are used, those are mostly stimulants (in the form of “bath salt” or pure substance), which fits into the general patterns of use within this group (Brand et al. 2014; Werse & Morgenstern 2015).

In Bavaria, the availability of traditional drugs is somewhat lower than in the rest of the country, and prices are usually higher. This is due to the higher level of repression of Bavarian law enforcement. In the online survey mentioned above, we saw a massive overrepresentation of Bavarian respondents: 32% of the respondents lived in Bavaria, while only 15% of the total population in Germany live in this Bundesland (Werse & Morgenstern 2015). Anecdotal reports from professionals confirmed the notion of higher NPS prevalence rates in Bavaria. Three telephone interviews with local experts were conducted ad-hoc. One practitioner in party drug prevention (a) and two in low-threshold drug services (b & c) were asked about the situation in Bavaria, answers are summarised:

Experts estimate that 80% of PUDHs have tested for NPS. In the beginning, “bath salts” were “demonised”, and then rates of use grew, so that currently a somewhat noteworthy amount of PUDH is using NPS, mainly intravenously. There are preliminary results from research “Druck-Studie”, RKI Berlin (Zimmermann, 2015), which concludes that almost half of the interviewed PUDH users from Munich had at some time used “bath salts” (stimulant NPS), mostly intravenously; almost one fifth had used them in the last month. “Herbal blends” showed a similar proportion for lifetime use, while last-month use was much lower than for “bath salts”. In Hamburg and Hannover, the two other cities where researchers asked for NPS use, “bath salts” were nearly nonexistent, while relatively small proportions had tried synthetic cannabis products. One expert assumes “quite a few”; 31% several times a week (according to the answers to an internal questionnaire from 2013). Half of the NPS users do not know what they are using when using “bath-salts”, in consequence there were rising health issues varying from substance to substance such as persecution complex, psychosis, and sometimes multiple organ distress.

PUD mainly use stimulants (e.g., cathinones), often sold as “bath salts”. When using these, users often don’t know what they are using; there is illegal dealing on the drug scene; synthetic cannabinoids have a secondary role. Elderly users, in particular, do not like synthetic cannabinoids. NPS are bought from “common” dealers (who also sell illicit “hard” drugs), possibly for high profit margins; also via internet orders (sometimes group orders), experienced users try to get clean NPS (research chemicals instead of “bath salts”). They also buy from others, sometimes NPS are bought on the internet with the intention to resell. NPS are adulterated by dealers. NPS prevalence rose when heroin availability got worse, currently heroin ODs are peaking because heroin got stronger/cleaner, this may be a reaction by heroin dealers to rising availability of NPS (Werse, 2015).

## HUNGARY

Heroin-related treatment demand and mortality dropped parallel to the growing treatment demand for NPS users (Péterfi et al, 2014). According to data from the drug treatment system (TDI), the number of NPS users has been increasing significantly among clients attending services. Among them, the proportion of children and young people is much higher than among traditional drug users. While in 2009 the proportion of those under 20 years of age was 12% among stimulant users, in 2013 the same figure was 27%. The proportion of under-20 users primarily using other, non-classified substances also increased between 2009 and 2013, from 12% to 20% (Sarosi, 2015).

Rácz, Csák and Demetrovics conducted research among the clients of the largest needle and syringe programme (operated by the NGO Blue Point, shut down in August 2014) in 2011. They interviewed 183 injecting drug users about their drug use habits. Close to half of the former amphetamine injectors had switched to MDPV (64 persons, 45.1%) as had 10 (41.7%) of the former heroin injectors and 11 (78.6%) of those using other substances (cocaine and mephedrone). The appearance of MDPV on the illegal drug market had a substantial effect on the drug use patterns of the IDU population. Another study, based on interviews with 17 clients of the same needle exchange programme, assessed the motivations of drug users to switch from traditional drugs to NPS. Respondents of the study highlighted the positive effects of mephedrone in comparison to that of traditional drugs, especially heroin (Rácz and Csák, 2014).

## IRELAND

Prevalence estimates of the use of NPS in Ireland are not yet available. Van Hout and Bingham (2011) conducted a study aimed at exploring and uncovering a ‘consumptive snapshot of mephedrone use among pre-legislation Irish users.’ Twenty-two in-depth interviews were undertaken with young Irish people aged 18–35 years, who had used mephedrone in the six months prior to fieldwork. Analysis of the resulting narratives identified unique mephedrone-user decision-making processes, particular drug effects and outcomes, socially contextualised mephedrone use and harm-reducing strategies grounded in prior illicit and polydrug taking careers. The authors report that although mephedrone was legal at the time of the study, ‘it appeared that mephedrone user experiences, reliability and positive effects, weighed far heavier than fears of illegality’ (p. 9). They conclude that ‘the solitary focus on criminalisation of mephedrone...inherently neglects to include user experiences centralised in acceptable drug consumptive behaviours and internally sanctioned safe use in weekend socialising’.

## ITALY

No data about PUDH use.

## LATVIA

There is no data about NPS use among PUDH. There is a survey performed in 2014 “Prevalence of Drugs in Prisons in Latvia in 2014”. The total number of respondents in prisons was 1603. Respondents in this survey were asked to indicate their experience of using narcotic substances, and those who have been sentenced pursuant to Section 253.1 “Unauthorised Manufacture, Acquisition, Storage, Transportation and Forwarding of Narcotic and Psychotropic Substances for the Purpose of

Sale and Unauthorised Sale” of the Criminal Law were asked to assess the changes that had taken place in the State with regard to the drug market. Overall, 64 in-depth interviews with persons sentenced pursuant to this Section were carried out.

Generally, 69% of prisoners have experimented with any illegal narcotic substances before being imprisoned, and 32% of prisoners have used them during imprisonment. Any illegal drugs during imprisonment have been used by 17% and 9% of prisoners during the last year and last month, respectively. And 2.4% of those who had not used drugs while free tried them for the first time while in prison.

Prisoners have most often used marijuana or hashish — these substances have been experimented with by 26% of prisoners. Other often mentioned substances used by prisoners during their imprisonment are anaesthetics and sedatives (22%), amphetamines (18%), and NPS (18%). To continue, 10% of prisoners have used heroin, 8% — other opiates, 7% — ecstasy, and 4% — cocaine. Over the last year, respondents in prisons have more often used anaesthetics and sedatives (17%). These are followed by marijuana/hashish (13%), NPS (12%), and amphetamines (9%). Other substances have been used by a considerably lower number of prisoners. And, finally, the substances used most often over the last month are: anaesthetics and sedatives (10%), marijuana/hashish (7%), and NPS (5%) (Klave, 2014).

The answers given by respondents suggest that changes in the drug market have taken place in several aspects. First, there are product-related changes, for example, the quality of narcotic and psychotropic substances has worsened (mentioned 7 times), “legal” drugs have entered the market (3 times), as have new, more risky drugs (3 times), and also the total amount of narcotic and psychotropic substances in the market has grown (2 times).

Another change noted by respondents was use of the internet in the distribution of narcotic and psychotropic substances (mentioned 3 times), as well as increased frequency of the use of mobile phones (1 time). In addition, prisoners also indicated that there are certain changes related to the restriction of narcotic and psychotropic substance distribution. Respondents stressed that normative regulation has been amended and punishments have become more severe (1 time), and that the police is working much better in restricting distribution of narcotic and psychotropic substances (1 time) (Klave, 2014).

## LUXEMBOURG

As mentioned, there appears to be a rather limited and specific NPS user population at national level. Thus far, there is no evidence that PDU (or PUDH) using ‘conventional’ drugs such as heroin or cocaine are attracted by the concomitant use of NPS or by a switch to NPS use. Nationally speaking, the user scenes of established controlled drugs and NPS (predominantly recreational users) are two of a kind. Neither the distribution networks, nor the users of both type of drugs seem to merge to any extent. Currently available national data suggests that NPS use is confined to recreational and most particularly festive contexts, even though a small community of more intensive experimental users may exist.

## MALTA

No specific study was reported. Perception of availability, as with other NPS-related statistics, has been limited to traditional drugs solely due to the fact that PUDH within the Maltese community are treated for addiction to traditional drugs. Hence availability is measured for heroin, ecstasy, cannabis and cocaine, with perception of availability being extended to include tranquilisers and amphetamines later on in 2012. Hence perception of availability and general availability of NPS is not known.

## NETHERLANDS

Data on NPS use among PUDHs or PDUs is not available. Traditional illicit drugs are still the main substances of abuse among this population.



## SLOVAKIA

Knowledge about NPS use among PUDH is limited. The only information about the use of NPS among PUDH comes from harm reduction organizations, which provide syringe exchange. The problem is, there are only 5 cities where such organizations are working and for example, the central part of the country is without such services. Harm reduction organizations providing syringe exchange are located in these cities/towns: Bratislava (the capital), Trnava, Nitra, Sered' (the west part of the country) and Košice (the second biggest city in Slovakia, located in the east). While in Bratislava, Trnava, Nitra, Sered' use of NPS among PUDH was not identified by harm reduction organizations and probably occurred only "as an experiment" among PUDH, Košice is the only city reporting the use of NPS among its clients (defined as people who inject drugs).

In Košice, probably the first appearance of NPS use among PUDH was identified in 2012. Specifically it was probably a product from Poland called Columbian salt. This product, according to the expertise, consisted of 4-methylmethcathinone and N-methylephedrine. A harm reduction NGO in Košice, Pomocná ruka, meets yearly with around 80 people who use drugs (mostly young people up to the age of 30) and estimates that 40% of them are using NPS. At the moment, there is no more information about products and their consistence. According to the outreach workers from Košice, the NPS used are mostly stimulants and paranoia and intense hallucination occur. NPS in this city are injected. Other drugs used by clients of the organization are methamphetamine and suboxone, so it hard to define whether NPS is a substitute for methamphetamine. However, it looks like it is a cheaper and more accessible option. To sum up, NPS use among PUDH only occurs in the east of the country - according to the limited data from harm reduction organizations in Slovakia. It is hard to conclude whether these substances are used in higher prevalence in this region. According to the existing data in Slovakia, NPS use can be more associated with young people, however NPS use among PUDH may be growing.

## SLOVENIA

The Poison Control Centre reported 31 cases of GHB intoxication in 2013. So far some cases of 3-MMC intoxication have also been treated. In the DrogArt (nightlife) counselling service 4 users were included because of NPS use in 2013 and 8 users in 2014. The DrogArt NPS 2014 survey also included users (26.2 %, n = 168) who reported more than 1.5 g of 3-MMC consumed in one night and users who had experienced more than 24-hour-long use of NPS (43.6 %, n = 243), which increases the risks connected to NPS use significantly. Another specific risk group of NPS users are young users (16 – 20 years old), who accounted for 26.8 % of respondents (n = 249). There is some information about users attending gay chemsex parties and using NPS. No formal research has been done yet on that topic but there are a few users self-reports about GHB and 3MMC used during chemsex parties. Chemsex represents specific risks connected to risky drug use and also risky sexual behaviour.

## SPAIN

In Spain, there are no scientific studies about the use of NPS among PDUH, although a pattern called "substitution" has been described in some isolated cases: regular users of traditional intravenous illegal drugs that due to accessibility (a decrease in the availability of their traditional drugs of choice or price increases) sometimes search for effects with other substances. This type of use is mainly done alone and some cases of severe intoxications have been reported. There is also evidence that these new compounds are being used to adulterate traditional drugs. Data is provided by four harm reduction centres in Barcelona where active intravenous drug users come to attend the service consumption rooms, among others.

**Table 9 Number of users in drug consumption rooms and substances injected, 2009-2012**

Injected substances	2009	2010	2011	2012
<b>Dexamphetamine</b>	1			
<b>Heroin</b>	41501		33.655	631
<b>Cocaine</b>		955	9.657	1.619
<b>Heroin + cocaine</b>	8.121	5.753	3.876	280
<b>Methadone</b>	1			1
<b>zoplicona</b>	1			
<b>Synthetic drugs</b>		122		

**Table 10 Number of users in drug consumption rooms and substances smoked, 2010-2013**

Inhaled substances	2010	2011	2012	2013
<b>Heroin</b>	5673	6117	4071	3987
<b>Cocaine</b>	565	231	261	240
<b>Heroin + cocaine</b>	80	41	10	49
<b>Synthetic drugs</b>	122			

From observing the above data, they find that in harm reduction centres, the main drugs of use are still heroin and cocaine (or a mixture of both). Other substances appear as a minority, here they are stated as “synthetic drugs” but not specified, we cannot be sure of how many of these are actually NPS. The use of emergent drugs in these contexts is very scarce and seems to be associated with the availability of drugs (Giné et al., 2014).

### SWEDEN

No clear data about PUDH was reported. The online survey about the use of NPS received 66 answers from all over the country. 74% said they buy their NPS from an internet shop. A distant second was buying from a friend with 26%. The average age was 27,7. Data based on a customer database with over 10,000 entries found that the age groups that buy the most NPS in Sweden are between 25-29 years old followed by 20-24 and lastly 30-34. After that the age range spans from 35-54.

71% said they also use traditional drugs indicating a lot of poly drug use. Only 8% said they used an NPS on its own. The many different reasons they gave (multiple answers) for using NPS was also significant. There were four equally important reasons given:

- I use them as a substitute for traditional drugs
- I use them not to get caught in a drug test
- I use them because they are cheaper
- I use them because they're not illegal.

15% also stated NPS were better than traditional drugs. 41% said they have used the incorrect dosage and/or have overdosed at least once.

### SWITZERLAND

Available data shows very limited use of NPS among PUDH entering treatment or in low-threshold facilities (Delgrande Jordan et al., 2015 and Locicero et al., 2012). In 2013, only 4 persons reported synthetic cathinones as their problem drug among over 3000 registered clients entering illicit drug treatment in Switzerland. There are no reports related to these drugs, except occasional ones, issued by emergency, forensic or coroner services. This could be linked to limitations in data collection and/or to the potency of some of the NPS in low doses. Fatalities with presence of MDPV were mentioned in 2012/3 and one case with the presence of NBOMe in 2013.



There is no early warning system in Switzerland but it is often considered that new trends rarely remain undetected for a long time. While this may sometimes be an optimistic view, it is also true that it is not heard from low threshold services, treatment services, nightlife projects or the police that the supply and demand of NPS is an important issue.

## UNITED KINGDOM

We only have anecdotal information about the extent of NPS use amongst PUDH. From needle exchange programmes we know of small groups of entrenched heroin injecting populations migrating to injecting stimulant NPS. It seems that this is a transitory phase before moving back to heroin injecting. There is also the practise of Chemsex amongst the LGBT populations (particularly men who have sex with men - MSM), where high risk sexual practices, injecting and poly-drug use is an increasing concern. "Chemsex" is the term used to describe sex between men that occurs under the influence of drugs immediately preceding and/or during the sexual session, with methamphetamine, GHB/GBL and mephedrone the drugs most often used (Bourne et al, 2014).

The Centre for Social Justice (2015) reports on drugs in prisons in England and Wales. In relation to traditional drugs they report that a 2010 survey indicated that 30% of prisoners had used cannabis, 20% had used heroin and 10% cocaine. They also report that the use of traditional illegal drugs has declined in prison. For example, heroin finds fell by 82% between 2007 and 2013 and positive cannabis tests in English and Welsh prisons fell by 5% between 2003/4 and 2013/14. They do, however, stipulate that there has been no recent research to support these statistics and report that drug experts believe that there has been no such reduction. Furthermore, the number of needles seized between 2003 and 2013 was reported to have increased by 336%.

NPS use in UK prisons over recent years has reportedly skyrocketed (Centre for Social Justice, 2015). Most NPS are not part of the mandatory drug testing regime and it is difficult to determine the proportion of users in prison. The 2014 annual report of the Chief Inspector of Prisons (HM Inspectorate of Prisons, 2014) reports that NPS, specifically 'Spice' and 'Black Mamba', were cited as causes for concern at 14 (37%) of the adult male establishments inspected in 2014. The report also cites the increased availability in prisons of NPS as a source of debt and associated bullying and a threat to health. According to one media report, a prison governor has been cited as saying that the use of so-called legal highs is a growing problem and causing inmates to be "grotesquely violent" (BBC News, 2015a).

Data from drug treatment services can provide an indication of levels of use of certain substances and the extent to which they are causing problems for people using them. The National Treatment Agency (NTA) has started to collect treatment data on ketamine, mephedrone, methamphetamine and GHB. Public Health England (PHE, 2014) reports, that in 2014 there was an 82% increase in mephedrone presentations, from 900 in 2011-12 to 1,641 in 2013-14. GHB/GBL presentations increased from 135 to 249 in the same period. In Scotland, presentations to drug treatment services by mephedrone users are small in number. In 2011/12, 35 people reported mephedrone as their main drug (a further 76 reported using it with other drugs), down from 133 users in 2010/11, when 69 reported it as their main drug (ISD, 2013). Services in Wales have reported a rise in referrals related to mephedrone (Welsh Government, 2013).

Unpublished data from CRI (CRI, 2015) show that in February 2015, a total of 62 new clients presented with NPS as one of their three main drugs. This was an increase from 9 new presentations in April 2014 and the highest month for new presentations in the period from April 2014 to February 2015. The cumulative number of new clients presenting with NPS, in the period from April 2014 to February 2015, was 330. The total number of clients in CRI treatment for NPS use in February 2015 was 189.

22 of these clients were involved in computer-assisted therapy (CAT) using Breaking Free Online (BFO) and of those 22 clients, unpublished data from BFO shows that 13 of the 22 were Mephedrone users, three were synthetic cannabis users, three MDPV users, one user of GHB, one of Methoxetamine and one of Nitrous oxide. Psychometric assessments, the Patient Health

Questionnaire-4 (PQ4) and Severity of Dependence Scale (SDS), were done on these 22 clients by BFO and findings indicate severe, moderate or mild mental health issues in 21 of these clients (8, 6, and 7 respectively). 19 of the clients showed above threshold severity of dependence (BFO, 2015).

### 2.1.6 Types of NPS commonly used among PUDH

The data provided was mostly extracted from online shops and seizures, data about NPS used solely among PUDH is rarely available from reports received.

#### FRANCE

The author of the report mentioned commonly used NPS in France among PUDH, however, the source is an internet forum and information from the slam community.

- 3-MMC 3-methyl-N-ethyl-cathinone.
- 4-MEC : 4-methyl-N-ethyl-cathinone
- Pentedrone
- Ethylphenidate
- 4-FA
- MDPV.

These substances are the most used, along with some party-pills. Unfortunately no study has ever been carried out on this; those substances are the most quoted in the discussions on the internet and among the slam community.

#### GERMANY

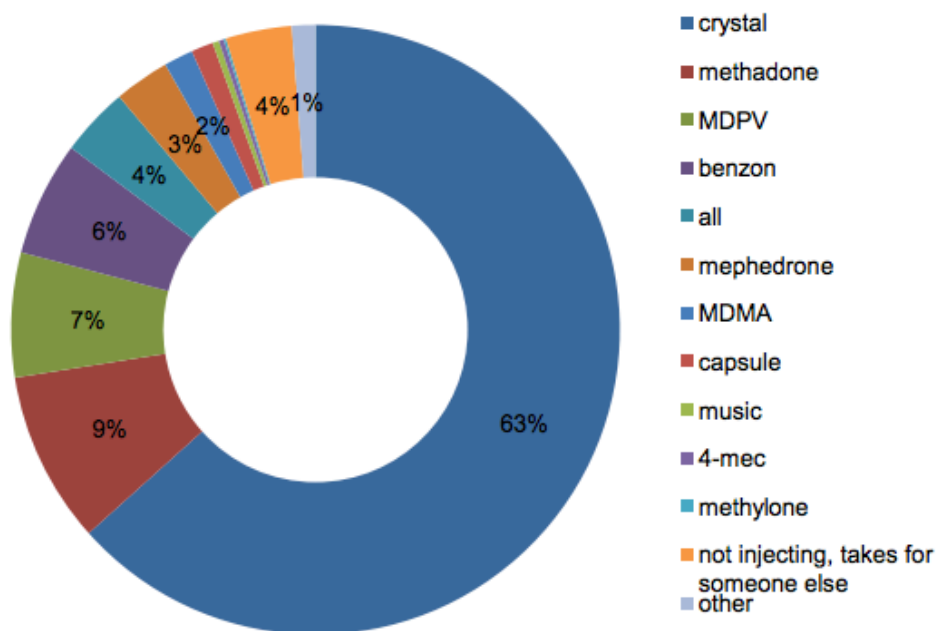
In Germany synthetic cannabinoids are used by PUDH, mainly among users in abstinence-oriented therapy. Also use of cathinones among PUDH is reported from Bavaria.

#### HUNGARY

There are two main types of NPS used among young people in Hungary. The most popular NPS products contain synthetic cannabinoids (sold under the misleading brand names “herbál” or “biofű”, i.e. bioweed). The other type contains synthetic stimulants, especially cathinones, usually sold under the brand name “crystal”. There has been no comprehensive epidemiological study on the patterns of NPS use among adult/school populations. In addition, there is no possibility of drug/pill testing for service providers or party-going young people in Hungary. This makes it difficult to assess what substances PUDH use under the brand name “crystal”.

Clients of needle and syringe programmes (see the graph below) cannot identify what chemical substance they are using, most clients say they are using “crystal”, a brand name that can imply a variety of new synthetic stimulants (Reitox Annual Report, 2014, Rácz and Csák, 2014).

Figure 6. Breakdown of NSP clients primarily injecting other drugs by drug type in 2013 (N=2315)

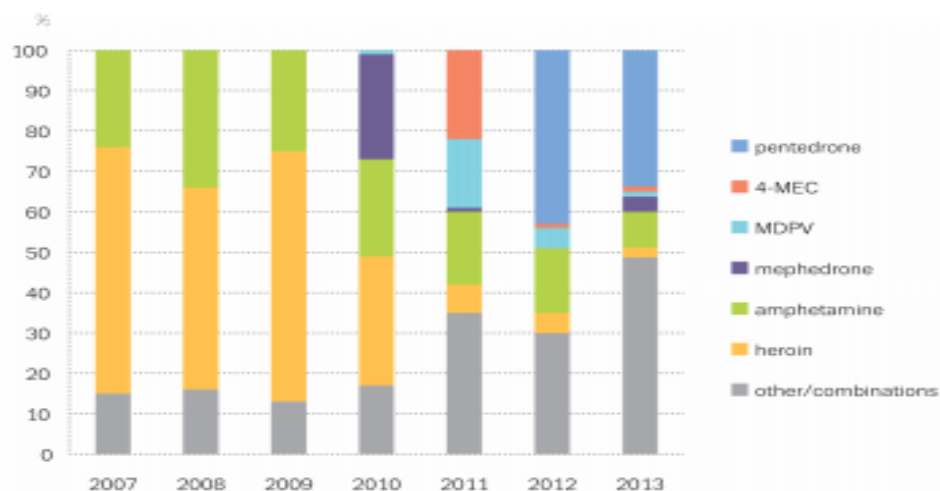


Source: Csák 2014b

The Hungarian Institute for Forensic Sciences provides data on NPS use patterns, based on police seizures and residual drugs on syringes. In 2013, for the first time in the history of Hungary, more synthetic cannabinoids were seized by the police than herbal cannabis.

Products sold as “herbal” or “bioweed” in the Hungarian market contain various types of synthetic cannabinoids, they are replaced by others after they have been added to the list of NPS (Schedule C). The Institute for Forensic Sciences carries out a survey each year about residual drugs in syringes. The graph below shows the changing patterns of injecting drug use in Hungary between 2007 and 2013. Over the course of a few years NPS took over the role of dominant drugs injected by drug users in Hungary. Heroin almost completely disappeared from the samples while the number of samples with new synthetic stimulants, especially mephedrone, is growing.

### Analysis of seized injecting equipment (needle, syringe, filter, spoon) in Hungary (3)



Source: Hungarian national focal point, 2014.

After mephedrone was banned in 2010, a new cathinone type stimulant, MDPV, became popular among injecting drug users that has produced many unintended effects and hospitalization (Kalapos, 2011, Csák, Demetrovics and Rácz, 2013, Farkas et al, 2013). This can be explained by the different dose-response to MDPV: it is a much more potent drug and several drug users who used to inject mephedrone before now overdosed on MDPV. Szily and Bitter (2013) reported that “the somatic and mental consequences of their (MDPV) consumption are frequent, severe, and sometimes even life-threatening”. Since the ban of MDPV another cathinone, pentadrone, has been the most prevalent drug among injecting drug users in Hungary (Péterfi et al, 2014).

### IRELAND

Head shop compounds were reported in treatment figures as a main problem substance for the first time in 2009 (17 cases), with the number increasing significantly to 213 cases in 2010, when it exceeded the numbers reporting amphetamines, ecstasy and volatile inhalants.

A number of recent small-scale studies have investigated the issue of NPS use among problem drug users in Ireland. One study investigated the extent of use of mephedrone, methylene and BZP among a group of individuals attending a methadone maintenance programme (McNamara et al., 2010) and results indicated that more than one in ten of those tested were using ‘legal high’ powders. In another study, drug users attending a drugs service in Dublin city were surveyed about their use of NPS in powder form (Murphy et al., 2010). Of the 17 individuals surveyed, 12 (70.6%) had tried ‘bath salts’ on at least one occasion. Products sampled included ‘Snow’ (84% [ten]); ‘Blow’ (42% [five]), and ‘Vanilla Sky’ (25% [three]), and 50% of the respondents had injected these. Qualitative research exploring the use of NPS involved a focus group undertaken with a group of ten problematic drug users (O’Reilly et al., 2010) and reported a range of products sampled by participants including ‘Blow’, ‘Blow Out’, ‘Charge’, ‘Hurricane Charlie’, ‘Snow’, ‘Vanilla Sky’ and ‘Wild Cat’.

The NACD study reported that injecting drug users constitute an especially vulnerable sub-population among users of NPS. The data gathered from this group and from project workers engaged with them appear to converge, and are consistent with previous research (Murphy et al., 2010; O’Reilly et al., 2010). This group appears to be using NPS in powder form, in particular ‘Amplifier’, with more frequency and in larger quantities than are other users. In addition to this, their preferred route of administration (injection) is associated with unique and specific risks and complications. Use of NPS has not replaced heroin use, both drugs are being used together.

## LATVIA

One of the most important surveys among PUDH is the so-called cohort study, which has been carried out regularly in Latvia since 2006, and 2014 is the eighth year of this study. Questions on NPS were first included in the 2012 survey form, with 1368 drug users recruited and surveyed, including 122 drug users involved in all six study stages.

According to respondents' answers in 2012, 32% of drug users have purchased substances at the so-called drug stores or kiosks at least once in their life (Trapencieris, 2013). In 2013 (1439 drug users were recruited and surveyed, including 30 drug users involved in all seven study stages) this fact was confirmed by 37.9% of respondents (Trapencieris, 2014). Actually, 11% had purchased substances at these sales points during the last 30 days (in 2013 — 16.3%), 7% — during the previous 12 months (in 2013 — 8%), while 14% had purchased substances more than a year ago (2013 — 13.6%). Study data from both 2012 and 2013 shows that men had purchased new psychoactive substances at these sales points more often compared to women, respectively 36% and 23% in 2012 and 42.2% men and 28.8% women in 2013.

The younger drug users visit kiosks or sales points more often (Trapencieris, 2014), and the reasons for purchasing various substances at the so-called kiosks mentioned most often in 2012 survey are: curiosity and interest in trying; convenience; it is easy to do; and "you're not put in jail for that". However, 29 drug users or 18% of respondents have admitted that they "did not like" the acquired substances. Among those who have purchased substances at these sales points over the last 12 months various synthetic cannabinoids are most popular. Respondents have mentioned such names characteristic of cannabinoids as "Spice", "marijuana", "smoking mixture", "podkur", "legalize", "pot", "anasha". At least one of these names has been mentioned by nearly a fifth (19.7%) of drug users or 57% of last year's clients of drug kiosks (Trapencieris, 2013).

Despite the fact that almost 38% of respondents have acquired NPS at kiosks (Cohort Study, 2013), only seven have indicated that they have ever used Spice and another three admitted to having used mephedrone (Trapencieris, 2014). It is possibly related with the understanding of the questions asked by the surveyed drug users and what they understand under the term "NPS". According to the experience, users often think that they have purchased the traditional herbal cannabis at kiosks instead of products containing synthetic cannabinoids, for example.

The 2014 study revealed that 36% of drug users (n=194 respondents) had experimented with NPS, or smoking mixtures, more specifically Spice. Over the last year these substances have been used by 126 respondents, and during the last month — by 74 users, out of whom 20 people admitted having injected these substances (Trapencieris, 2015). Unfortunately, this data cannot be compared to the 2012 data since respondents in this period were not asked about use but about acquisition of NPS. Theoretically, of course, it can be assumed that in a situation where a person acquires something he or she also uses it.

## SLOVENIA

The most commonly used NPS in Slovenia are synthetic cathinones, 3-MMC being the most popular. There are also some self-reported cases of heavy experimentation with a huge variety of NPS.

## SPAIN

In 2013, the professionals from a supervised consumption room (located in a harm reduction centre — CAS Baluard) started detecting unusual adverse effects among the users. They then started the process of collecting information and samples to get them tested in order to find out exactly what these substances were. Among the analysis results, they found many substances named as "Legal Highs" and the reports were slowly incrementing in number. That year the centre reported 10 cases in which NPS were sold as heroin or cocaine and caused some unusual side-effects on the centre's regular users.

**Table 11 Examples of documentation of drug checking and clients' information**

Drug Checking result	Sold as	Observations
<b>4-Metilamphetamine;amphetamine; caffeine</b>	Heroin	The user describes unusual and rare effects.
<b>4-MEC; sub-products</b>	Cocaine	Drowsiness, responsiveness to verbal stimuli; Slightly miotic, isochoric and hiporeactive pupils. Involuntary eye movements. Tachycardia and tachypnea. Blood pressure 106/68. Bruxism. Nausea. Feeling of instability. Inability to open the eyes, defined as a pleasurable sensation. They say that the immediate "flash" effect is similar to what is seen when using cocaine, but the "craving" is non-existent.
<b>4-MEC</b>	Legal High / synthetic cocaine / H2O	

Source: Reporte Del Uso De Nuevas Sustancias Psicoactivas En Usuarios De Centro De Reducción De Daños. Agència De Salut Publica De Catalunya (2013)

Upon investigating, the centre's professionals found that the reason some users were coming with these new drugs was the opening of a smart shop just around the corner from the harm reduction centre. This shop had a variety of new products (sold as legal alternatives to traditional illegal drugs and sold cheaply).

### SWEDEN

In general the most common types of NPS are synthetic cannabinoids, central nervous system stimulant variants and finally substances with mainly hallucinogenic effects in that order. Mostly, cathinones, cannabinoids, benzodiazepines.

Synthetic opioids have increased and they cause many deaths. Two years back the most common types of NPS were cannabinoids, cathinones and tryptamines. Even analogues to benzodiazepines and opioids had then begun to show up. Nowadays cannabinoids are sold in powder form where the user can spray it on tobacco or other plant material with the help of acetone. Examples of cathinones category are MDPV, Mephedrone, Methyline or 3,4 CTMD.

The Swedish Poisons Information Centre is a service in which the public can call and get information about poisonings and substances they have ingested and are worried about. In the most recent year (2014) the most common NPS mentioned in calls were: Synthetic cannabinoids (611 calls), MDPV (129), PCP, 3-MeO-PCP och 4-MeO-PCP (53), flubromazepam (25), alfa-PHP (25), 4F-PVP (24), 3,4-CTMP (24), difenidin (23).

### SWITZERLAND

The 372 people surveyed in nightlife settings who reported the use of NPS between 2011 and 2013 are, in general, older and experienced users and they report NPS use in addition to other substances (Maier et al; 2014).

### UNITED KINGDOM

This section lists the types of NPS most commonly used by PUDH: Synthetic Cannabinoids, Ethylphenidate hcl, Methiopropamine hcl, Ketamine hcl, methamphetamine, mephedrone, GHB, GBL, Etizolam.

#### 2.1.7 The frequency of NPS use, routes of administration, effects of NPS (description of intoxication) and combinations with other drugs

Injecting (mainly intravenous use) is reported from Austria, Hungary, Latvia, Slovenia, Sweden, the United Kingdom and Finland. Injecting is not clearly stated in Italy. Also in the majority of countries there is limited information about in which users' group NPS injecting occurs, if it is in the group of PUDH as well or mainly party goers. An increasing amount of injecting is seen in the United Kingdom (night life setting) and Hungary. High risk behaviour related to NPS use is reported from the United Kingdom, where the MSM population has a high ratio of NPS use, and NPS and other drugs are used



to facilitate sex activities. These activities can lead to serious public health consequences, especially infectious diseases and STIs transmission.

Hungary reports that NPS injecting is connected with more frequent injections (10-15 times a day) than amphetamine or heroin (3-4 times a day). This leads to injecting tools sharing and to a serious public health threat.

Most of the countries report that NPS are combined with all other drugs that are prevalent in that local area.

NPS are taken by all different routes of administration. Germany reports not only the main route of administration of products containing synthetic cannabinoids as smoking in cigarettes or mixed with tobacco. In party/night club/festival settings the users administer synthetic stimulants either orally (solved in liquid, packed in cigarette papers and swallowed etc.), or snorted as powder.

### AUSTRIA

Three drug-related cases of death in 2013 (see question A1a) and some anecdotal reports from hospitals showing that NPS are also combined with other licit and illicit drugs. Normally NPS are consumed orally, snorted or smoked. Anecdotal reports from Tyrol and Styria describe a small proportion of intravenous use in 2013.

### BELGIUM

No data available

### ESTONIA

Due to the absence of research and statistics it is very difficult to make common conclusions about frequency of NPS use in Estonia and routes of administration. Some of the effects of NPS (description of intoxication) and combinations with other drugs are the subject of discussion at the informal youth chats.

### GERMANY

According to the information from a Munich-based drug service (Prop e.V. 2015), stimulant NPS are combined with all other drugs that are prevalent in this local surrounding, including several opioids (methadone, buprenorphine, heroin, fentanyl, alcohol, benzodiazepines, cannabis, Lyrica, and cocaine; in descending order). Descriptions of the effects of and experiences made with NPS, intoxications and overdoses included, can be found on the internet (online forums etc.). However, these reports are highly subjective and not always clearly identified as domestic (German) reports. Even if they are written in German they might be of Austrian or Swiss origin.

### HUNGARY

A 2010 survey conducted among 319 members of the Daath.hu forum found that 25% ordered mephedrone online, 66% obtained it through a friend and only 9% bought it from an unknown person. 86% of respondent used mephedrone intranasally (sniffing), 14% orally. 43% used it at least monthly, only 8% used it daily. 53% of respondents had not experienced any negative side effects, 39% rarely experienced side effects (Móro and Rácz, 2013).

Kapitány et al. (2013a) interviewed 145 mephedrone users, recruited using the snowball method. Factor analysis revealed six factors of mephedrone-induced subjective effects: positive emotions, sensibility, adverse somatic effects, adverse psychological effects, stimulant effects, and psychedelic effects. A preference list of subjective effects indicates that mephedrone is popular primarily for its psychostimulant and entactogen effects.

According to a study conducted among 10 clients of the Nyíró Gyula hospital's outpatient clinic, most respondents ascribed more intensive psychoactive effects to synthetic than to herbal cannabis, as well as a shorter period of peak effect and a higher addiction potential (Kapitány et al. 2013b)

The injecting use of new psychoactive stimulants is more prevalent in Hungary than in most other EU Member States, it has replaced heroin and amphetamine among the majority of injecting drug users

(Péterfi et al, 2014, Rácz and Csák, 2014). A 2014 survey conducted among key professionals in 5 European countries (Serbia, Poland, Romania, Portugal, Hungary) found that the injecting use of NPS had a high prevalence only in Romania and Hungary (Sárosi, 2014). Among injecting drug users, NPS are injected more frequently (10-15 times a day) than amphetamine or heroin (3-4 times a day). This leads to sharing of injecting equipment. NPS can be injected without similar preparations (eg. cooking) that were prevalent among heroin users. This, in addition to fear from police arrests and the lack of hygienic and safe spaces lead to riskier injecting practices. While there is a growing need for sterile injecting equipment, the supply of needles and syringes decreased significantly between 2011 and 2014. The two largest needle and syringe providers had to shut down because of the lack of financial resources and political attacks. Harm reduction is not a priority any more for the government. The twofold increase in hepatitis C prevalence among IDUs in Hungary between 2011 and 2014 is associated with these trends (Tarján et al. 2015).

### ITALY

Partygoers who are considered PUDH seem to have a propensity for the use and experimentation of NPS more than other PUDH (e.g. people in treatment in drug service providers).

Ketamine is the most widespread NPS and it is used both in recreational contexts and in daily life: the results of two surveys carried out at illegal rave parties show that half of the sample of ketamine users use it habitually and regularly. It is mostly taken by nasal insufflation but a minority of the sample use it by an intramuscular route. The most used synthetic cathinones are Mephedrone and MDPV; they can be eaten, dissolved in drinks, injected or taken by nasal insufflation.

### LATVIA

According to a trauma register, which includes information on poisoning, the use of and poisoning with Spice products appeared in 7 persons in 2012, in 19 persons in 2013, and in 78 persons in 2014. It must be noted that use of NPS in these cases has been established according to patients' clinical symptoms and what they themselves have stated about use of Spice, for example. The substance most often additionally used is alcohol, and the most popular manner of using NPS — smoking. In separate cases analysis also showed the presence of MDMA, THC and amphetamines. Those patients who were at a hospital's receiving room and went home after having received out-patient services are not registered.

There were 245 unique patients who have used NPS registered in the register of narcological patients in 2013, but in 2014 — 307 unique patients (number of episodes was 291 and 394, respectively; that means that one patient has been treated at an in-patient and/or out-patient clinic in connection with NPS use several times a year).

Out of all 307 patients in 2014, 284 persons have smoked NPS, 10 persons have injected them, four have used them by sniffing, and three — by eating/drinking. Generally, 39 of these patients had not used NPS over the last month (patients of out-patient clinics, Minnesota programme, detoxification or methadone OST programme). Among others, 18 patient have used NPS several times a day, 51 patients — every day, 20 patients — 4-6 days a week, 68 patients — two, three days a week, while 108 patients have used NPS once a week or rarer. Overall, it can be concluded that smoking of synthetic cannabinoids is popular in Latvia with regard to NPS (Centre for Disease Prevention and Control, 2015).

### SLOVENIA

Users (n = 169) included in DrogArt research about NPS use among party goers (2014) reported nasal (88.8 %) and oral administration (42.6 %) of 3-MMC. Nearly one half of respondents occasionally mix NPS with illicit drugs, while 34.5 % of respondents do so often or always. Only a minority of users (17 %) never mix NPS with other drugs (n=241). Respondents most commonly mix NPS with marijuana (69.5 %). In terms of other stimulants, NPS is most frequently mixed with amphetamines and MDMA. A relatively large share (20.4 %) mix various NPS, which entails a particularly high risk due to a lack of

research on the potential risks and combinations as well as the possibility of the suppliers delivering a different drug than intended.

Till 2015, there was no officially known case of users injecting NPS, information came from the Stigma Association, which reported about 20 users injecting 3-MMC (SI-EWS monthly report, March 2015).

### SWEDEN

On the island of Gotland some very potent NPS have been discovered. The effects are unpredictable and in many cases violent. They are often mixed with alcohol which enhances the effects. Media reports paint a picture of known addicts under the influence of NPS becoming more violent which causes a public disturbance. The police feel hopeless and often do not even know if the substances are legal or not.

In Sweden's third largest city Gothenburg the same pattern appeared. At the end of 2014 there was an increase in poisonings from NPS (about two/day). One of the explanations for this was the banning of the latest cannabinoid that led to the price being reduced, which caused an increase in deaths. That later led to a new cannabinoid being released on the market, which in turn caused more poisonings.

### SWITZERLAND

There are no data available regarding the route of administration, the effects and intoxication of these drugs. There are data about mixing NPS with other drugs: among 372 people surveyed in nightlife settings who have reported the use of NPS between 2011 and 2013, 45.8% have reported having used them at least once alongside alcohol, 35.9% with Cannabis, 19.1% with Amphetamine and 18.3% with Ecstasy. Among the whole sample of almost 2400 interviews, 3.3% reported having used an NPS during the last 30 days and 0.1% to have done it more than 20 days during that time period (Maier et al; 2014).

### UNITED KINGDOM

Data indicates that NPS are commonly used amongst clubbers and those accessing the night-time economy, and the MSM community. The routes of administration for those within the night-time economy is either oral or insufflation – depending on the form of the drug. However, data from the NTA suggests the proportion of club drug users reporting injecting has risen from 6% to 8% in the period 2007/2008 to 2011/2012 (National Treatment Agency, 2012).

According to a Kirby and Thornber-Dunwell (2013) Lancet report, injecting amongst the MSM community is increasing. They report a rise in high-risk practices among London MSM, including shared injecting specifically, putting them at risk of infection with HIV, hepatitis C (HCV), and a range of other blood-borne and sexually transmitted infections (STIs). Data indicate that among the 239 patients seen between 2011/12 identifying as MSM at the Club Drug Clinic in London, 24% had currently injected and 18% had previously injected such drugs. More recently, data from the clinic show that 55% of service users have injected drugs at some point (National Aids Trust, 2013). At CODE (a sexual health service for gay and bisexual men), 30% of patients in 2011 reported the injection of methamphetamine and mephedrone, and by 2012 this had risen to 80% (Kirby and Thornber-Dunwell, 2013). Seventy-five percent of those accessing the CODE clinic in London or using Antidote's services using methamphetamine, GBL or mephedrone were also HIV positive. In addition, out of those who were HIV positive, 60% reported not taking their ARVs, possibly increasing their infectiousness and risking the development of drug resistance. At Antidote (an LGBT drug and alcohol support service), 70% of those injecting reported sharing injecting equipment (Stuart, 2013). Users at Antidote reported between five and ten sexual partners per drugs episode, often within chill out parties or sex parties where injecting drugs are used to facilitate sex (Stuart, 2013). Within such environments, MSM are engaging in high-risk behaviour through the sharing of needles and having unprotected sex. Within this population in 2005, methamphetamine, mephedrone and GHB/GBL were responsible for only 3% of all presentations (the remaining 97% relating mostly to alcohol,

cocaine and marijuana; and to a lesser extent, ecstasy, heroin and crack cocaine) to Antidote (Stuart, 2013). In 2012, methamphetamine, mephedrone and GHB/GBL were responsible for 85% of all Antidote presentations.

### 2.1.8 NPS substituting traditional drugs used by PUDH

The substitution of traditional drugs by NPS is seen in Hungary. In most cases NPS drugs substitute traditional drugs, because of their low price, easy availability, legality and perceived low risk can play a role in their popularity (Sárosi, 2014). Synthetic cannabinoid products are used to substitute herbal cannabis, probably most users would prefer herbal cannabis if it is as cheap and accessible. Most injecting drug users who use NPS as substitute because they are cheaper and easier to access – but if they have access to good quality amphetamine they use it.

In Austria, Estonia, Italy NPS are not substituting traditional drugs used by PUDH. Some are taken in addition, in general it seems that NPS play no major role among PUDHs.

From Germany and Sweden is reported NPS use by OST patients, drivers or other people who could be tested for drugs to avoid punishment as NPS are not easy to detect via standard tests.

For Bavaria/ Munich it seems like “bath salt” are just added to the portfolio of different drugs being used in the Munich PUDH scene, because of the poor availability of illicit drugs. As far as data exists, NPS do not play any significant role in other German urban PUDH scenes.

In France according to reporteur opinion, most of drug users began to use traditional drugs and continue to do so. In exceptions, some people only buy drugs on the internet because they are not familiar with the fact of buying from a drug dealer and don't want to bother with questions such as quality. But the majority began to buy in the street and then discovered the NPS and thus continue to buy both street-drugs and NPS.

In Slovenia it is not possible to give universal answer for all users. There are self-reported cases, when NPS is a drug of choice and on the other hand there are also users, who report using NPS when there's no option to use preferred traditional drug.

In Finland, NPS are, especially amongst PUDH, used together with and in addition to amphetamine, alcohol, medicinal products, and traditional drugs. According to information from substance abuse services, there are only few of those amongst PUDH who use NPS exclusively (Tacke et al. 2011). Poly-use of different substances can also be unintended from the user's part since a substance bought is not always what it is sold as. Increasingly, NPS come in the form of several substances mixed together (e.g. Utoslahti 2014). It has also been reported that NPS are added to cannabinoids and mixed with amphetamine to strengthen the effect of the drug and/or to maximize profit for the seller, and are also sold as traditional drugs. Alpha-PVP and MDPV, for example, have been sold as or mixed together with amphetamine (Tacke et al. 2011). An emerging trend in NPS use is smoking them in an electric cigarette (Zareff & Hietanen 2014).

### 2.1.9 Recent trends and developments in NPS use among PUDH

#### FRANCE

In France, rectal use of NPS was recorded. The substance is diluted and by syringe (without needle) is administered to rectum to be absorbed by the rectal mucus membrane. This method has several advantages: the onset is very quick, because the zone is highly supply blooded. Although the quickness of the onset can set between a snort and an injection it still can be an alternative to injections when their veins work very poorly. But it exists a very strong opposition, often labeled as a gay practice.

One of the most significant trend in NPS use is the slam (injection of cathinones in a sexual context). There is not much information, but there are for example applications on smart-phones that tell people if and where are the slam parties at the moment, with localisation. A study made by ERLI (éducation sur les risques liés à l'injection – injection related risks education), a branch of Médecins du Monde, made a study by analysing the content of the syringes collected in the recuperations units in

Paris on 3 000 syringes showed that in Iena, a district in Paris, 80% of the syringes contained 4-MEC. The number of injections per hour can be very high (e.g. four).

According to the collaborative experience from online forums, the trend can be seen in use of synthetic cannabinoids. Since it is not detectable in standard test and that in France you lose your driving licence if you are controlled positive, users begin to be aware of cannabinoids. About cannabinoids, there are multiplying reports of people who home-made their e-liquid with cannabinoids in order to smoke them with e-cigarettes.

## GERMANY

One general trend is a shift from NPS hidden in mixes like “herbal blends” and “bath salt” to pure / clean NPS (synthetic cannabinoids and other “research chemicals”) (see Werse & Morgenstern, 2015). It is unclear whether the same trend might occur among PUDHs using NPS too. As far as we know about the Munich PUDH scene, nobody, including the dealers, knows about the origin and exact ingredients of the so-called “bath salt” being sold in this surrounding.

## HUNGARY

According to all indicators the prevalence of the use of synthetic cannabinoid products is increasing among young people – we have anecdotal reports from schools, hospitals and prisons that it is the number one drug of concern now, leading to most drug related hospitalizations.

According to the data of „Alternative Prenatal and Family Care” program in the 8th district of Budapest, an area most affected by injecting NPS use, most of their clients used NPS in 2013.

A new trend is the spread of injecting NPS use among young people who live in Roma settlements in the countryside – in these segregated environments even access to basic public services, such as food, clean water or electricity is a problem. Now we only have anecdotal evidence that in some of these settlements the prevalence of injecting NPS use is very high while there is no access to sterile injecting equipment or any kind of public health services. This can lead to a major outbreak of HCV and HIV, not to mention other social and health harms (Tarján et al. 2015).

## SWEDEN

Before cannabinoids have mostly been sold as ready-blended mixes, today cannabinoids in powder form is dominant instead of ready-made smoke-mixtures.

According to user’s opinion, the use of traditional narcotics will decrease because of the introduction of NPS in the drug market. Mainly because most of these substances are legal, so there is no punishment and that is many youths’ biggest fear, a criminal record. The health care system has as a result noticed an increase in poisonings from variants on benzodiazepines like pyrazolam and flubromazolam. NPS substituting for opioids are the least common but becoming more popular, which has experts worried, since that could mean more overdoses in the future. Users are also reporting taking MDPV to self-medicate against ADHD because it’s cheaper than amphetamine.

## 2.2 Risk Assessment

Process of assessment of the risks of the psychoactive substances is called Risk Assessment and it is a structured and coordinated activity, which draws conclusions about potential risks of particular substance based on all available and valid information. Also presents recommendations to minimize those risks (Drápalová, Grund & Bělácková, 2016). In 2010, EMCDDA published guidelines for NPS risk assessment<sup>9</sup>. The situation in countries differs, not all of them use the RA on national level.

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<sup>9</sup> Risk assessment of new psychoactive substances — operating guidelines (2010)

## AUSTRIA

There hasn't been any NPS subjected to formal risk assessment in Austria till now, because experts think that due to the lack of data a serious scientific risk assessment is not possible. There is often no information in the literature on the pharmacology, toxicology, potential for dependence etc. of NPS. A risk assessment might be a valuable tool to decide on the legal status of well-known substances, but not suitable for new substances. Even for mephedrone, for which compared to other substances a lot of data were available, according to Leslie King the risk assessment was scientifically weak (King 2012). An expert consultation on NPS at UNODC in late 2014 and inquiries concerning assumed cases of NPS emergencies in Austrian hospitals resulted in the same problem. Decisions would have to be made on the basis of poor and often not trustable data. Because the new substances seemed not suitable for inclusion in normal drug legislation other approaches of regulation were needed and found: the Act on New Psychoactive Substances (NPSG) and the Regulation on New Psychoactive Substances (NPSV). Nevertheless, different kinds of information on NPS in Austria and elsewhere are gathered and documented by the Austrian and the European Early Warning System in the Gesundheit Österreich GmbH (GÖG) and provided to the Ministry of Health. For example information on detected substances by checkit! (counselling and drug checking project - Vienna), mda basecamp (counselling and drug checking project - Innsbruck), AGES PharmMed laboratory OMCL and the Ministry of Interior (seizures), but also information on health problems and emergencies due to NPS from hospitals, forensic medicine institutes, the poisoning information centre and addiction aid. Furthermore internet research and expert consultations are done if needed.

## BELGIUM

One formal risk assessment has been undertaken for 4-methylamphetamine (4-MA). Within a period of 9 months (August 2011 – April 2012), 6 deaths and 3 intoxications were reported in Belgium. Also substantial seizures of 4-MA were found in Belgium these days. Considering that 4-methylamphetamine was usually found in contaminated speed samples, there was a risk for recreational amphetamine users to be exposed to 4-methylamphetamine without their knowledge. Taking into account that the psychoactive effects of 4-methylamphetamine are less pronounced compared to amphetamine, and that 4-methylamphetamine even has the potential to diminish the psychoactive effects of amphetamine, users of contaminated speed could be inclined to consume more of the product, potentially resulting in severe or even fatal intoxications (Risk assessment report 4-MA). Next to the formal needs assessment, early 2014 VAD has taken the initiative to set up a multidisciplinary working group with specific focus on NPS. Representatives in this working group are Flemish EWS coordinator; federal EWS coordinator; the drug info helpline; syringe exchange coordinator; Flemish Cross; Red Cross; peer support coordinators; University Antwerp (toxicology); National Institute for Criminalistics and Criminology; Federal police, section drugs; 2 emergency doctors; Global Drug Survey responsible from Belgium; Federal health inspector. Within the NPS working group different goals have been defined:

- To improve data collection on NPS in Belgium/Flanders
- To improve the data exchange between different partners (mainly based on the EWS)
- Developing an approach to reducing risks and incidents related to the use of NPS (treatment protocols, methodologies, policy recommendations, ...).

The working group has been working mainly on the improvement of the data collection and exchange. Several kinds of studies and registration programmes were selected and added standard question to measure the use of NPS. These questions are based on the EMCDDA European Model Questionnaire for NPS. Current work is related to a drug policy approach for dance events. In this plan were added NPS specific measures like blood analyses of intoxicated persons in the first aid; urine analysis in different areas of the festival; lab analysis of the mercy bins at the entrance; data registration by peer support; questionnaires among party people, data from police etc. All these data are collected at a central desk at the event control centre. Based on specific situations an acute early warning can be sent out to the festival attenders.



## BULGARIA

The existing mechanism for assessing the risks and harm potential of newly detected NPS substances in Bulgaria is set up in the Drug and Precursors Control Act, as well as in the Regulation on classification of plants and substances as narcotic drugs<sup>10</sup>. The body responsible for developing and submitting bills of amendment in regards to the drug legislation is the National Drugs Council. The basic prerequisite for starting the procedure for enlisting of new plants or substances under the lists of controlled substances is a lasting trend of increased trafficking and distribution of a given NPS.

An expert council to NDC is established, which is tasked to provide expert opinion for each plant or substance suggested for inclusion or removal under the list of controlled substances. The expert council is accountable to provide a motivated opinion on each NPS suggested for inclusion among the controlled substances in one month. The opinion should be drawn taking into account the presence of one or more out of the following set of criteria: 1) The plant or the substance has documented psychoactive effects; 2) The use of the plant or the substance can lead to dependence; 3) The plant or the substance can have adverse effects similar to the effects of narcotic or psychotropic substances; 4) The plant or the substance can be transformed to narcotic or psychotropic substances; 5) There is documented evidence about abuse of the plant or substance in other countries; 6) The plant or the substance is already under control in other countries.

The mechanism and the procedures do not involve any other more rigorous or complex scientific assessment of the risks and harm potential of the NPS and therefore such are not performed. Any documented evidence suggesting possible harm potential is deemed sufficient to include a new plant or substance under the list of controlled substances.

## CROATIA

Drug Abuse Prevention Act, the central act governing all major issues relating to drug abuse, states that the Minister of Health defines the List of drugs, psychotropic substances and plants from which one can get drugs and substances that can be used to manufacture drugs (hereinafter: the List of Drugs). Therefore since early 2000s, a Committee<sup>11</sup> in charge of revising the List of Drugs operates at the Ministry of Health. The Committee convenes *ad hoc*, on the invitation of the Minister of Health, usually following the request of the Government Office for Combating Drugs Abuse or the Ministry of Interior for consideration of legal control of new psychoactive substances detected in the country. Besides representatives of the Ministry of Health, the Committee comprises experts and scientists from the Government Office for Combating Drugs Abuse, the Ministry of Interior (Forensic Science Centre and Drug Division), “Ruđer Bošković” Institute and School of Medicine of the University in Zagreb – Pharmacology Department. Since the only toxicological laboratory in the country which has technical and scientific capacities to detect NPS in a product or biological sample is Forensic Science Centre of the Ministry of Interior, analytical information on NPS is limited to police “seizures”. Lack of information from emergency departments and health sector in general makes assessment of NPS related health risks very difficult. Integrated emergency admission units in hospitals sporadically inform OCDA on acute intoxications which are suspected to be related to NPS (based on statement of a patient or patient’s accompaniment), however analytical confirmation is not available. Specialised drug treatment centres, harm reduction programmes and social welfare institutions (e.g. juvenile correctional institutions) also occasionally report to the OCDA availability of new products likely to contain NPS, brand names (including street names) of products, effects (especially unwanted ones or possible health problems) and sale sites (legal and illegal). However, all that information refers only to different products without link to its specific psychoactive compound(s). Due to described limitations, there is no structured scientific risk assessment of individual NPS that appear on the

<sup>10</sup> State Gazette No. 87 of 04.11.2011.

<sup>11</sup> Name of the Committee responsible for revising the List of Drugs varied over the years and therefore in the upcoming text only a term Committee will be used.

Croatian market. Decision on scheduling of specific substances is rather based on information available in European Database on New Drugs (EDND) and scientific literature. Over the years Committee tended to control all NPS detected in Croatia which chemical structure suggested that the substance is mimicking effects of traditional drugs. Occasionally, NPS detected in neighbouring countries also become subject to legal control in Croatia, as a precautionary measure. Growing emergence of NPS led to adoption of generic approach to control of NPS in Croatia.

All substances considered by the Committee were put under legal control as well as substances regulated by the Council Decisions. Since there is no scientific, comprehensive risk assessment in Croatia, none of the consequences have been reported or associated to any NPS use so far. NPS use among PUDH hasn't been considered. There are also no recommendations for policy responses.

### **CYPRUS**

There is insufficient data about risk assessments previous to regulating NPS. It could not be determined whether NPS have been subjected to any form of risk assessment and its outcomes.

### **ESTONIA**

The NPS have not been scientifically, with serious research or investigation subjected to formal risk assessment separately or as a group.

### **FINLAND**

In Finland, all NPS brought under legal control as narcotics have been subjected to formal risk assessment (Pihlainen 2015). The process is started by Finnish Medicines Agency (Fimea) by collecting relevant information. One of the main sources of information is the Customs Laboratory as unit providing detection of new substances entering the country in larger amounts. Fimea coordinates the evaluation process. Fimea also gathers information from Poison Information Centre, Department of Forensic Medicine, and the Finnish Customs and police. The police may also collect information from users about their experiences of NPS and their effects. Often there has been very little scientific information or experience on the substance, making extensive risk assessment difficult to perform in situations where the substances pose an acute risk to individual or public health.

The consequences of NPS use depend on the substance. There have been a few acute intoxications (some lethal), addictiveness, different somatic consequences depending on the nature of the substance (e.g. stimulants have specific somatic consequences which are not shared with depressants), psychotic episodes etc. The consequences are found either in scientific literature, derived from other substances with similar structure or based on domestic or international case reports. Risk assessments have been provided to the European Commission when the national scheduling decision proposals have been notified. The formal risk assessments always contain a legislative recommendation. The risk assessments have been performed in a general manner with the view of the population as a whole. If a particular group of citizens has been considered more closely it would be adolescents and young adults being the most vulnerable group in NPS use (Jurvansuu, 2015).

### **FRANCE**

There are only recommendations for legislative responses (i.e. a ban of the incriminated substances). For example, the entire known families of cannabinoids have been forbidden, even if the risk assessment has not concluded to a major threat about these families. There is limited public available information. The NPS concerned are: 25I-NbOMe , 25C-NbOMe , 2C-I , 2C-B , Methiopropamine , PMMA , PMA , 5-EAPB , DOC , 5-APB , 6-APB , MDPV , 5-IAI , MT-45 , 4,4'-DMAR. These NPS are the only ones for which a risk assessment has been realized. There are other substances that has been brought attention to, but these are the ones for which there have been a formal risk assessment, or at least that have been signalled potentially dangerous.

## GERMANY

Lawmakers have their own advisory board (“Sachverständigenausschuss”) for the assessment of substances that might qualify for a ban. Substances have to be seized in Germany in considerable amounts, there must be evidence that these substances were used as a psychoactive drug, and at the same time, they must be known to have the potential to cause harm. According to this basis, the board recommends listing of substances to legislators. Detailed risk assessments for certain substances are rare. Since NPS are considered a public health problem in general, a lot of them have been recommended for listing on one of the two lists that are reserved for “illegal” drugs. In some cases, e.g. if there is little evidence about the use as a psychoactive drug or about potential harms, the board decides to put substances on a watch list. Usually, legislators follow the recommendations and list the drugs. The legislators usually publicise this process afterwards, but it remains unclear how the advisory board first chooses substances. As it seems, in many cases risk assessments of the EMCDDA and the WHO are taken for granted. In some cases, they assign knowledge of harms and side effects of other, more or less similar drugs/medicines, in order to “prove” the harm of NPS.

Overall, this procedure seems to be highly bureaucratic and suited for the purpose of criminalising drugs in general. It should be noted that it is specifically this legal and procedural framework that is put to the test by the appearance of NPS. New substances can be developed and marketed much faster than the advisory board can react.

## HUNGARY

According to Government Regulation 66/2012. (IV.02.), the National Centre of Addictology (OAC) is mandated with conducting risk assessments of NPS reported by the Early Warning System. According to the original regulation, the OAC had one year to finalize the assessment report and make a recommendation to the government for either placing the substance on the schedules of illicit drugs or to place it on Schedule D (no restrictions on sale/use, but under surveillance). Lack of research and lack of resources to operate the system prolong the assessment for more than a year. Institutions that are consulted in the risk assessment procedure: Hungarian Institute for Forensic Sciences (BSZKI), members of public health commissions (psychiatric and addiction sciences), Directorate General of the National Institute of Pharmacy, National Drug Focal Point, Hungarian Police HQ and the Interministerial Drug Coordination Committee. The Drug Council, an advisory body where NGOs are represented, is not consulted in the procedure.

The documents in relation to the risk assessment process are not accessible for the public. In March 2015 the Hungarian Civil Liberties Union submitted a Freedom of Information request to the National Addiction Centre, in order to obtain the risk-assessment documents, but the Centre refused access, claiming that any publicity would endanger the professional quality of work. The HCLU is now suing the Centre for a violation of the constitutional right to freedom of information, arguing that these documents are public data, because they serve as the basis for criminal sanctions, and their publication is therefore in the public interest. The Hungarian Constitutional Court has previously made it clear that “the convenience of persons and agencies serving a public interest does not override the fundamental right to information” - that is to say, authorities should provide access to public data even when this is inconvenient for public servants.

## IRELAND

The NACD research included a risk assessment for use of NPS by problem drug users and risks were identified across a range of factors; the nature of the drugs themselves, the patterns of use, the routes of administration, the mix with other drugs and the social risks. The drugs themselves can be of very high strength and are being used at very high doses, and in some cases daily. Injecting as a route of administration carries additional risk with some NPS in powder form, as it is not easily injected and may clog in the vein. It appears common for individuals to mix ‘powders’ and heroin together in one dose, and to use heroin and ‘powders’ interchangeably in order to cope with the negative effects of each one. The extent and implications of this pattern of use have yet to be fully

understood. The NACD report also identified significant social risks associated with NPS use, such as losing housing accommodation and spending all available income on supplies of NPS. Problem drug users with an existing mental health condition may be at particular risk of negative psychological effects associated with the use of NPS in powder form.

No framework has been put in place to follow up on the risk assessment factors as identified by the NACD. The NACD report recommends the continuation of a pragmatic public health approach to NPS. It notes that despite historical efforts to control a variety of substances, they have consistently been available through illegal suppliers. The pattern of use and reported effects associated with NPS among injecting drug users mean that targeted measures must be developed and promoted in order to ensure that the harm associated with these substances is minimised.

*A number of specific recommendations are made around harm reduction:*

- *The continuation and extension of outreach activities by agencies working with problematic drug users.*
- *The promotion of safer injecting practice in current harm-reduction practice and greater access to medical back-up. This might also include extending opening hours of such services.*
- *Supporting harm-reduction agencies in making available appropriate and specific harm-reduction information and advice,*
- *The provision of training for staff in harm-reduction agencies in both State and non-State organisations.*
- *Closer liaison between health services, emergency services and harm-reduction agencies.*
- *The promotion of peer-to-peer education in harm reduction among problem drug users.*

To assist in giving a clearer, empirical picture of the harm that is being caused by NPS use, the NACD report also recommends that data relating to NPS use should be collected in emergency departments at local hospital level and centralised at an appropriate agency, such as the HRB, or the NACD. There should also be a system of routine reporting of NPS intoxication to the National Poisons Information Centre.

## ITALY

In Italy there are no sources certifying and reporting the substances subjected to formal risk assessment, but scheduling a substance in the so called “drug tables” is the end of a risk assessment procedure. So it is possible to consider the NPS scheduled since 2010 as substances subjected to formal risk assessment. Since 2013 Italy has got its own risk assessment procedure; in 2014, it was started a project in order to assess the NPS potential of addiction and their effects on the driving of a vehicle, results are not available yet. In NPS risk assessment PUDH are not mentioned and NPS use among this population is not considered.

The risk assessments end with the scheduling of the NPS. A Manual on NPS containing analytical standards was produced and disseminated to all toxicological laboratories and to Italian law enforcement agencies, to rapidly detect NPS.

## LATVIA

As the number of NPS in Latvia increased (NPS are generally identified at the police laboratory in samples seized) and there were simultaneous attempts to include them in lists of controllable substances, a necessity arose to define more clearly when and why this or that substance is subjected to control. This wish resulted in the National Risk Assessment Guidelines (hereinafter — the guidelines) drafted by the Reitox National Focal Point at the end of 2011, and in several normative documents defining the essence of risk assessment in the State later on.

Guidelines in Latvia were drafted based on EMCDDA guidelines of 2009 “Risk assessment of new psychoactive substances. Operating guidelines” which were adapted to the situation in Latvia. Guidelines for risk assessment of new psychoactive substances were approved by the Drug Control and Drug Addiction Restriction Coordination Council on 5 January 2012. Ministry of Health (MoH) established an official commission on subjecting NPS to control after risk assessment has been performed for the specific substance. Risk assessment procedure is initiated by Reitox National Focal Point when a specific NPS is established in the State at least twice within a calendar year and when

reports from two different data sources are received. To deal with financial resources and time, NPS can be subjected to a control without a special local risk assessment based only on the experience of other countries with regard to control of a specific substance.

There are some limitations of the system. Presence of NPS in biological samples is not established in Latvia, it is not possible to evaluate and present prevalence of use of a specific substance. NPS are identified according to their generic groups, and only some individual, specific substances (methcathinone, mephedrone, pyrovalerone) can be determined separately. In case of synthetic cannabinoids, four groups can be identified, but it is still not possible to identify the particular cannabinoid used. Also information on the substance price is available for synthetic cannabinoids as a group, not for a particular substance. The official expert commission was only established in 2013, consists of 22 members representing various institutions. The Reitox National Focal Point had started the risk assessment of (N-(1-adamantyl)-1-(5-fluoropentyl)-1H-indazole-3-carboxamide) or 5F-AKB48 (Grămatîna, 2013), which resulted in the first meeting of the Commission for Risk Assessment of New Psychoactive Substances on 29 August 2013. One of the tasks of the commission was to familiarise with the technical report of risk assessment of the synthetic cannabinoid 5F-AKB48 prepared by the Centre for Disease Prevention and Control and, at the same time, to take a decision on the inclusion of similar substances in the schedules of narcotic and psychotropic substances and precursors to be controlled in Latvia by creating a new generic group. However, it can be concluded that establishment of this procedure in 2013 was belated, as other normative regulations had come into effect in this period that asked another approach. For example, along with introduction of generic system a question on the scale of application of risk procedure arouse, namely, should only one substance from the whole group be subjected to the risk assessment? Also the huge amount of substances and the inadequate human resources putting big strain on the performance of risk assessments. The increasing amount of substances was not taken into account properly or projected during drafting the guidelines, if more precise.

When such significant changes have been made to normative documents in Latvia (generic system, temporary ban, amendments to the Criminal Law), it is necessary to create a new procedure — risk assessment procedure of NPS, since the current procedure does not live up to itself and does not match the actual situation.

## LUXEMBOURG

The national risk assessment approach relies primarily on the regulatory framework set by the former Joint Action 97/396/JHA of 16 June 1997, concerning the information exchange, risk assessment and the control of new synthetic drugs and the more recent Council Decision 2005/387/JHA of 10 May 2005 on the information exchange, risk-assessment and control of new psychoactive substances. However, it should be stressed that the mechanisms set by the Council Decision 2005/387/JHA foresees, under certain conditions, a formal and in-depth risk assessment of NPS duly notified by Member States to the EMCDDA.

The vast majority of NPS detected for the first time in the EU have been so in other Member States before they were eventually found on the national drug market, and as such have been monitored and were often in an ongoing risk assessment procedure before national detection. Substances that may not have been assessed by the referred instruments, and that would cause concern at the national level, may be assessed as to their prevalence, observed adverse events and possible medical or industrial uses and decision made in order to put them under national control. These national assessments involve the National Drug Coordinator Office, the Division of Pharmacy and Pharmaceuticals of the Ministry of Health, the toxicological department of the LNS and, when required, the consultation of specialized field agencies and external experts.

## MALTA

None of the detected NPS and those seized in Malta have been subjected to a formal risk assessment, with the majority of the information regarding these substances being made available through the EMCDDA portal.

## NETHERLANDS

The Coordination centre Assessment Monitoring New Drugs (CAM) was established in 2000 by law, and is responsible to ensure that new drugs will be subjected to a multi-disciplinary risk assessment according to fixed procedures and criteria. On the basis of these outcomes the CAM will make recommendations to the Minister of Health, Welfare and Sports (VWS) on suitable measures. The CAM consists of a coordinator and a secretarial and is accompanied by a commission risk assessment new drugs, in which various experts in the field of drug and drug-use are represented. The CAM has a coordinating task in early detection of new drugs, in which it makes use of existing drug monitoring systems. The CAM defines new drugs, as psychoactive substances that recently appeared on the Dutch drug market. These can be either new combinations, new or changed methods of administering existing drugs. These substances can be natural or synthetic. Five Risk assessments reports on NPS and three Quick Scan Reports were done.

## SLOVAKIA

In Slovakia, no formal risk assessment of identified NPS was realized yet.

## SLOVENIA

Formal risk assessment was not proceeded. Non-formal risk assessment based on the process of collecting available professional information and user experience for specific NPS which emerged (despite most of them weren't widely used) in Slovenia was also made by Association DrogArt. Basic NPS and harm reduction info for each NPS is available on [www.drogart.org/nsd](http://www.drogart.org/nsd).

The outcomes in DrogArt NPS 2014 survey highlighted the most frequently reported problems by users (n = 236): depression (55.2% of users), concentration difficulties (44.0%), damage to the mucous membrane of the nose and to the throat (39.8%), feelings of fear and anxiety (39.4%), and tingling in the arms or legs (34.4%). 6,4 % of users reported unwanted sexual intercourse and 9,3 % unprotected sex connected with use of NPS. Among social consequences users reported relationship problems with their parents or partner (31,4 %) and relationship problems with their friends (25,8 %). The main reasons for cutting down or discontinuing the use of NPS were 'fear of the health consequences', 'actual health consequences', and 'growing weary of using'. Among users of NPS, 7% have sought help, while 9.1% have considered doing so.<sup>12</sup>

Risk assessments outcomes were used by Slovenian EWS and disseminated the information with relevant partners. Information also comes to users through NGO's communication channels (mostly internet and personal communication with users in the NGO's and field work). Risk assessment done in DrogArt research about NPS also use included recommendations for harm reduction and treatment responses.

In 2013, the interministerial working group of the Early-Warning System for New Psychoactive Substances detected a significant increase in the number of GHB and GBL poisonings. Information obtained in the field indicated that the use of GHB and GBL had spread from the group of "party drug" users to young people who were not used to these drugs and used them as an inexpensive alternative to alcohol. The situation became critical in late September and early October, when the Centre for Poisoning treated eight extremely severe cases of GHB/GBL poisoning. The members

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<sup>12</sup> DA-NPS14



of the Early-Warning System for New Psychoactive Substances responded with rapid measures to prevent additional poisonings.<sup>13</sup>

## SPAIN

No information about formal risk assessment in Spain.

## SWEDEN

Sweden has developed a system for early detection with a focus on interagency cooperation. The system provides a way to monitor the Swedish drug market and to control dangerous substances within a relatively short time span, but also old substances used in a new way. NADiS (Nätverket för den Aktuella Drogssituationen i Skandinavien) [Network for the Current Drug Situation in Scandinavia] started their work 2000 and has the goal of detecting at an early stage, collecting and exchanging information, knowledge and experience about NPS, both through Internet scouting, buying and sharing material between laboratories. Many different government agencies are members of NADiS, also individual experts such as doctors and anesthesiologists. In addition there is also representatives from Denmark and Norway (joined 2003), Finland (2006), and Iceland (2011). The substances that is deemed most dangerous get priority over other substances. The group meets at least four times a year, in 2014 was reported a record of 84 NPS to EMCDDA, which is considerable more than any other EU-country.

Another project is STRIDA (Samverkansprojekt kring Toxicitetsutredning och Riskbedömning av Internetdroger baserat på laboratorieAnalyser) [Collaboration on Toxicity investigation and Risk Evaluation of Internet Drugs based on Laboratory Analyzes] which started in march 2010 and is a collaboration between The Swedish Poisons Information Centre and The Karolinska University Laboratory. The goal is to evaluate the effect of NPS on the human body as they become popular. Drug tests and blood samples are collected from emergency rooms to chart unknown side effects based on types of NPS and recent trends. The information is distributed to government agencies and health care systems. Free-of-charge analyzes are offered. The knowledge gathered is used to determine which substances should be banned to reduce availability. There is a clearly defined recommendation made based on a formal risk assessment.

Consequences of NPS use are ever. Between 2010 and 2014 Sweden has had several small "epidemics" with NPS with deadly outcome. Since 2007 NPS are suspected to have caused close to 200 deaths in Sweden. There are 52 recorded deaths from NPS since 2010. Poisonings in 2012 reached 95 and since then it has increased every year, 170 (2013) and close to 800 (2014). Synthetic cannabinoids in its powder form are also injected, which brings forth a whole range of negative consequences. Triggered psychosis from different types of NPS are increasing. Staff at emergency wards and clinics for emergency psychiatry report a large increase the last couple of years, particularly among young people.

## SWITZERLAND

The latest revision of the narcotics law allows the Department of the Interior to decide to add the new substances to a specific schedule for substances with supposed narcotic or psychotropic action. This new schedule allows scheduling of groups, fast track procedure and a revised assessment of new substances. Main criterion is not the risk and harm assessment (due to lack of data), but the emergence of new substances (distribution channels, internet shops, shipment and others). Chemical analysis is conducted by a reference laboratory (Art 29c) which, among others, analyses seizures of potential NPS. The further assessment is focusing on medical, industrial or other legal use of the substance. If the assessment results that a new substance has supposed narcotic or psychotropic action, by appearance, chemical structure or other factors and that no medical, scientific or industrial

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<sup>13</sup> RODS14

use is known, the substance could be added to schedule in a fast track process within a few months. Substances on this schedule are subject to strict control measures comparable to forbidden substances.

### UNITED KINGDOM

Formal risk assessment of NPS in the UK is done by the Advisory Council on the Misuse of Drugs (ACMD), the government's independent statutory drug advisers. The ACMD make recommendations to government on the control of dangerous or otherwise harmful drugs. NPS are identified by a variety of organisations. These include the Home Office's Forensic Early Warning System (FEWS) and other forensic science providers. Within the ACMD there is an NPS committee which was set up in response to the emergence of NPS. The committee aims to monitor the prevalence and harms of NPS and where appropriate provide advice on this to government. In 2014 the NPS Committee published five reports on: synthetic cannabinoids; synthetic opioids AH-7921 and MT-45; the tryptamines and LSD-related materials; and the synthetic stimulant 4,4'-DMAR<sup>14</sup>.

Because there is no UK wide drug testing system, the full scale and impact of the use of NPS is not fully understood. This leads to concerns about whether health professionals can provide the appropriate intervention when medical attention is sought. In an attempt to address this issue WEDINOS (Welsh Emerging Drugs and Identification of Novel Substances) has been designed to collect and test substances. WEDINOS was launched in October 2013. It is a web-based, public access system for the submission and testing of samples of drugs where users have experienced negative or unexpected effects or have 'unknown' substances. Appropriate evidenced-based harm reduction information for individuals who misuse substances and interested professionals is disseminated via their website ([www.wedinos.org/](http://www.wedinos.org/)).

A similar local system is based at Manchester's Warehouse Project, a series of club nights organised in Greater Manchester. The scheme is a research project led by Prof. Fiona Measham of Durham University. It is part of a wider partnership that includes The Warehouse Project, the police, the council, drug charity The Loop, and Guy's and St Thomas' NHS trust. It is the first scheme of its kind in the UK. Tests at The Warehouse Project are currently carried out once a month (Pidd, 2013). The project has its limitations insofar as the drugs being tested are those confiscated by security, or handed into the drug amnesty boxes anonymously.

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<sup>14</sup> [www.gov.uk/government/organisations/advisory-council-on-the-misuse-of-drugs](http://www.gov.uk/government/organisations/advisory-council-on-the-misuse-of-drugs)

## 2.3 Harm reduction, prevention and treatment responses to NPS use in participating countries

### *Introduction*

This part of the report report analyses information on harm reduction, prevention and treatment responses to NPS use collected by local research collaborators in EU members excluding five implementing project partners, i.e. Greece, Poland, Portugal, Romania and the Czech Republic. Two EU members have not participated in the analysis (Denmark, Lithuania). The report of some participants did not contain part related harm reduction, prevention and treatment responses to NPS use (Hungary, the Netherlands, Spain).

### 2.3.1 Key questions and key findings for the description of the harm reduction, prevention and treatment responses to NPS use

Local research collaborators describe the harm reduction, prevention and treatment responses to NPS use in your country through these key questions:

1. In what types of services are PUDH reporting NPS use/problems identified;
2. What physical and mental health problems are reported in connection with NPS use by (PUDH using) harm reduction, prevention and treatment services;
3. Have any formal or informal needs assessments been conducted among NPS consuming PUDH;
  - i. If yes what were the outcomes and recommendations for service development; If no, what other considerations inform service development in your country;
4. What harm reduction, prevention and treatment or emergency medical responses have been developed, proposed or planned in your country, specific to NPS use and reported consequences;
5. In how far have these harm reduction, prevention and treatment responses to emerging NPS in your country been based on (formal) assessments of the needs of NPS consuming PUDH;
  - i. If not at all, please describe the grounds for harm reduction, prevention and treatment responses – what were the main arguments.

### *Key findings*

Key findings of this part of study have been compiled in Table no. 1: WS1: Key findings on the harm reduction, prevention and treatment responses to NPS use among PUDH.

It indicates that most countries have the partial data or the piecemeal partial information on the use of NPS among PUDH from emergency services and hospital and drug services generally.

Analysis of harm reduction, prevention and treatment responses indicates that most of the countries have only partial data or piecemeal information on the use of NPS among PUDH from emergency services and hospitals and drug services generally. EU countries have formal or informal needs assessment procedures in place for emerging psychoactive substances. Harm reduction, prevention and treatment programs, as well as emergency medical services are poorly prepared to deal with NPS use among PUDH, while measures in response to NPS do not specifically target PUDH, but juveniles, young adolescents and recreational drug consumers, frequently in nightlife, party and festival services. The responses to NPS use are mainly a part of standard and daily work of drug or health services with target groups.

Specific response to NPS consuming PUDH were identified e.g. in Finland (treatment staff violence, prevention training, web-based brochure for harm reduction purposes), in Ireland (development legislation to enable a safer injection room connected with increase of risk of HIV and other blood-borne diseases among Mephedorne injection users). The United Kingdom has advanced NPS responses oriented on clinical practice too.

**Table 12 WS1: Key findings on the harm reduction, prevention and treatment responses to NPS use among PUDH**

No.	Country	1. Types of services reporting NPS use by PUDH	2. Physical/mental health problem	3. Formal /informal needs assessment	4. Specific HR , prevention and treatment responses	5. Responses based on needs assessment
1	Austria	drug services in general	12 MDMA-CHMICA (somnolence, coma, seizure, emesis, tachycardia, tongue-cramp, palpitations, mydriasis); psychotic episodes	NO	NO	NO
2	Belgium	peer education project	Ocfentanyl, PM(M)A, 4-MA (several death); MT45, AB-CHIMINAC, N-ethyl-bephedrone (NEB), 25I nBome (complicated intoxication – emergency service)	NO	YES leaflets on specific NPS (ketamine, GHB, Mephedrone), general seminar on NPS for professionals	NO
3	Bulgaria	data from survey	no data, very low prevalence of NPS use	NO	NO	NO
4	Croatia	drug services in general	unexpected or negative effects of NPS reporting by opiate users; possible influence of Salt on death of long-term heroin users (psychotic and bizarre behaviour, rapid physical decline before their death); 2 deaths of opiate addicts in substitution treatment (maybe connection with 5-APB)	NO	NO	NO
5	Cyprus	no data	no data	NO	NO	NO
6	Czech Republic	participant in RAR				
7	Denmark	non-participation				
8	Estonia	all bigger drug services for PUDH	10 adolescent scholars hospitalized with overdose of synthetic cannabinoids (2 of them unconscious, life-threatening), some of them vertigo, vomiting, foam from the mouth	NO	NO	NO
No.	Country	1. Types of services reporting NPS use by PUDH	2. Physical/mental health problem	3. Formal /informal needs	4. Specific HR , prevention and treatment	5. Responses based on needs

				assessment	responses	assessment
9	Finland	treatment centres, psychiatric wards, municipal health centres	rapid decline in psychological wellbeing, more aggressive and unpredictable and suffer from severe psychotic episodes requiring hospitalization, skin abscesses, corrosion of injection sites, excessive sweating, tachycardia, spasms, blood poisoning etc.	NO	YES treatment staff violence prevention training; active exchange of information between NGOs and authorities in different networks; web-based brochure for HR purposes; information and self-help for high-risk population; peer work	NO
10	France	drug services in general	bad-trips for hallucinogenic and stimulants (that occurs with sleep deprivation), tachycardia, panic attack, aggressiveness and confusion with large doses of hypnotic benzodiazepines	NO (in progress – waiting for results of I-TREND – EC project)	YES Harm reduction association “Not-For-Human”) propose to analyse NPS (e.g. purchased on the internet). HR cooperation with users forums or organisations (psychonaut.com, Not for human, Techno+, AIDES)	NO
11	Germany	very rare cases of NPS drug use in Germany excluding Bavaria (general drug services)	mental symptoms, including severe ones such as psychosis	NO	NO	NO
12	Greece	participant in RAR				
No.	Country	1. Types of services reporting NPS use by PUDH	2. Physical/mental health problem	3. Formal /informal needs assessment	4. Specific HR , prevention and treatment responses	5. Responses based on needs assessment
13	Hungary	HR response is missing in desk review				
14	Ireland	law threshold services, treatment services	increase of risk of HIV and other blood- borne diseases among Mephedorne, MDPV (Snow Blow) injection users (people injecting stimulants typically inject more often than those injection heroin); increase in diagnosis of recently acquired HIV linked to injection of a synthetic cathinone	NO	YES based on community and voluntary services working with drug users (e.g. initiative of group of drug and homeless services in Dublin City Center to develop legislation to	NO



			PVP (Snow Blow)		enable a safer injection room)	
15	Italy	drug service providers, emergency services and hospitals, outreach units/mobile units	-physical health problems: increased rapid heartbeat or increased heartbeat, hypertension or high/increased blood pressure, psychomotor agitation, nausea, vomiting, mydriasi, cephalgia, increased body temperature, problems in urination, sleep disturbance and gastric/stomach problems; - mental health problems: alteration in mood, (attacks of) panic and anxiety decreased capacity for concentration, problems in the short-term memory, paranoia, confusion, hallucinations, depression, alteration/distortion of sensory perception.	NO	YES syringe exchange service for ketamine users+ discussion about drug consumption room in cities with open drug scenes	NO
16	Latvia	detoxification services	aggressiveness, non-critical attitude, excitability, hallucinations, tachycardia, bradycardia, fluctuating blood pressure	NO	NO	NO
No.	Country	1.	2.	3.	4.	5.
		Types of services reporting NPS use by PUDH	Physical/mental health problem	Formal /informal needs assessment	Specific HR , prevention and treatment responses	Responses based on needs assessment
17	Lithuania	<i>non-participation</i>				
18	Luxembourg	RELIS (monitoring system – refer to all drug users indexed by the national care, treatment and law enforcement network, sensitive to NPS use and PDU or PUDH)		NO	YES BUT not specific for PUDH nightlife settings: Mag-Net Party; on site drug testing pilot project (D.U.C.K.)	NO
19	Malta	no health cases reported	no health cases reported	NO	NO	NO
20	Netherlands	<i>No data</i>				
21	Poland	<i>participant in RAR</i>				
22	Portugal	<i>participant in RAR</i>				
23	Romania	<i>participant in RAR</i>				
24	Slovakia	HR NGOs organizations	regular mental problems (intense	NO	NO	NO

			hallucinations, paranoia) – unclear connection with NPS / methamphetamine			
25	Slovenia	low threshold NGO services, medical emergency, DrogArt NPS 2014 research	depression, concentration difficulties, damage to the mucous membrane of the nose and to the throat, feelings of fear, anxiety, tingling in the arms or legs; unofficial information about suicide attempts (3-MMC use)	YES (DrogArt 2014) Conclusion: NPS users need similar approaches as traditional drug users	NO (in process)	NO
26	Spain	No data				
27	Sweden	The Swedish Poisons Information Centre	paranoia, anxiety, different heart problems like arrhythmia and tachycardia, high blood pressure	NO	NO	NO
No.	Country	1.	2.	3.	4.	5.
		<b>Types of services reporting NPS use by PUDH</b>	<b>Physical/mental health problem</b>	<b>Formal /informal needs assessment</b>	<b>Specific HR , prevention and treatment responses</b>	<b>Responses based on needs assessment</b>
28	United Kingdom	substance misuse services, emergency departments, sexual health services, HIV treatment services, mental health services, prisons, homeless shelters and GP Clinics	agitation, seizures, hypertension, emesis, hypokalaemia, epileptic seizures, collapse/unconsciousness, anaphylactic shock, inability to move limbs, paranoia, symptoms similar to that of psychosis, paranoia, symptoms similar to that of psychosis, anxiety / fear etc.	NO	YES Royal College of Psychiatrists. (2014). <i>One new drug a weeks</i> . (briefing on steps to be taken to address NPS and club drug harm); Wide voluntary sector response (Addaction, CRI, SADAS, Angelus Foundation); Education and media campaigns (i.e. FRANK website); Treatment intervention (NEPTUNE – Novel Psychoactive Treatment UK Network – produced clinical guidance for the management of NPS)	YES (informal need assessment)
No.	Country	1.	2.	3.	4.	5.

		<b>Types of services reporting NPS use by PUDH</b>	<b>Physical/mental health problem</b>	<b>Formal /informal needs assessment</b>	<b>Specific HR , prevention and treatment responses</b>	<b>Responses based on needs assessment</b>
<b>29</b>	Switzerland	nightlife-prevention offers and drug testing services	NPS users reported more often physical or mental problems than users of other drugs, i.e. bad trip experiences, unconsciousness, anxiety and panic attacks , and depressive symptoms	NO	NO	NO
No. of positive answers				<b>1</b>	<b>7</b>	<b>1</b>

**Notes:**

Columns 1 – 5 include shortened version of the key questions for the description of the harm reduction, prevention and treatment responses to NPS use

### 2.3.2 National Reports Summary

This section is prepared from information obtained from national desk review analysis provided by experts participating countries (local research collaborators).

The project partners, i.e. 5 EU Member States: The Czech Republic, Greece, Poland, Portugal, and Romania have not participated on this part directly. The situation regarding NPS use/problem among PUDH has analysed in Workstream 2 – Rapid Assessment Analysis in detail.

#### Austria

There are the same harm reduction, prevention and treatment responses as Austria has to traditional drugs (including counselling and drug checking projects focussing on recreational drug use and NPS use). Additionally the Austrian branch of the EMCDDA-Early Warning System (EWS-AT) serves as information and networking platform for the prevention, treatment and health care system in Austria.

The same **type of services** they are reporting other drug use problems report NPS use/problems too. About 90% of the Austrian drug care facilities report their data to the DOKLI-system (standardised documentation system of the drug care system – most data reported above stem from this source).

There are only few reports about **physical and mental health problems** that occur in connection with the sole use of NPS. Concerning 12 MDMA-CHMICA intoxications in 2014 somnolence, coma, seizure, emesis, tachycardia, tongue-cramp, palpitations and mydriasis were reported. In 2 cases psychotic episodes seemed to be linked to the consumption.

Austria has **no formal or informal needs assessments been conducted among NPS consuming PUDH**. Special harm reduction, prevention and treatment or emergency medical responses did not identify. It seems that **NPS play no major role among PUDHs in Austria**.

#### Belgium

**Peer education projects** have become a very interesting source **identify different kinds of drug use including NPS**. Another interesting source is the reporting of the Belgian Early Warning System (BEWSD), relating to intoxications at emergency departments. Since last year The Flemish syringe exchange program questions its clients about the use of NPS.

**Health problems** related to the use of NPS are mainly reported by the BEWSD, related to an intoxication of a patient in the emergency departments or death. Over the past years several intoxications with health problems have been reported for Oxycodone (one young man died most likely by a respiratory depression), for PMMA (hyperthermia, tachycardia one young man died), for MT-45 (respiratory depression, loss of consciousness, slowed heart rate), for AB-CHMINACA (dysfunction of the brains with overstimulation), for **N-ethyl-buphedrone (NEB)** (injection abscesses, swollen hands, irritable and / obsessive-compulsive behaviour), for 25I nBome (decreased responsiveness, insufficient breathing, mydriasis and tachycardia - 100 / min), for PMA (one man died, most likely of hyperthermia), for 4-MA (6 people died, some of them related to extreme hyperthermia and cardiac arrest).

In Belgium/Flanders **no formal needs assessment has been conducted** among NPS consuming PUDH. But early 2014 VAD has taken the initiative to set up a multidisciplinary working group with specific focus on NPS.

Apart from **some info leaflets** on specific NPS as ketamine, GHB, mephedrone, etc. developed by the peer projects and a general seminar on NPS for professionals in the field, no specific prevention, harm reduction or treatment responses have been developed for NPS in Belgium.

The working group NPS has been working mainly on the data collection and data exchange for NPS.

**The responses to NPS have been based on the needs of the professionals working in the field and the fact that some studies** as the nightlife survey, the Eurobarometer and the peer support registration show that the use of NPS is increasing (slowly) in Belgium.

## Bulgaria

The desk review **did not identify any existing or planned prevention, harm reduction or treatment services specifically targeting the NPS** use in Bulgaria. The Early Warning System for new psychoactive substances, which is currently managed by the National Focal Point, remains the only existing targeted intervention, which beyond its other functions mandated by law has also a preventative function.

Therefore the possible recommendations in regards to NPS for Bulgaria include collecting of more detailed data both on the supply and on the demand side. Drawing on it, specific measures for enhancing the capacities of law enforcement authorities and developing of targeted interventions should be developed and employed.

## Croatia

**Different services** that provide care to addicts **very rarely report NPS use/problems identified among PUDH**. Services for Mental Health and Drug Addiction Prevention are organizational units of County Public Health Institutes; on annual basis provide treatment demand data to the Registry of Persons Treated for Psychoactive Drugs Abuse, which is run by the Croatian Public Health Institute. The data collection form has been revised in 2013 in line with the EMCDDA's TDI protocol version 3.0, and implemented in the course of 2014. A questionnaire also has some national specificity especially in relation to NPS use.

In the frame of the Early Warning System on New Psychoactive Substances in Croatia, some Services for Mental Health and Drug Addiction Prevention on several occasions **reported unexpected or negative effects of NPS** products which their patients, mainly opiate users, admitted to take with the prescribed pharmacotherapy or separately. Only one case of heavy NPS use has been so far reported from therapeutic communities.

**Systematic overview of physical and mental health problems reported in connection with NPS use is not available**. From 2014 several intoxications with fatal consequences was reported for Salt (two long-time clients of their harm reduction services, who almost 20 years used heroin as primary drug, but a few weeks before death they apparently used product Salt. Deaths were preceded by psychotic and bizarre behaviour, rapid physical decline and changing of skin colour to green tones.), for Lord Koks (patient in substitution treatment complained on "a poor health condition" and was twice tested positive on fentanyl in urine after the use to previously Lord Koks (used rapid screening test, therefore result is not reliable), for Crocodil (a death of long term opiate addict with suspicion on use consummation of Crocodile due to tissue necrosis etc.), for bath salts and/or 5-APB (two deaths of opiate addicts in substitution treatment). For other reported cases it is not known if clients / patients were PUDH.

There is **no information available on formal or informal needs assessment conducted among NPS consuming PUDH**. Services providing prevention interventions rely on International Standards on Drug Use Prevention (UNODC, 2013) which state that there is no evidence on the effectiveness of preventive interventions related to NPS use and suggest focusing on risk factors in early childhood, and strengthening coping skills, with the aim to prevent drug use, among other issues.

**NPS specific harm reduction responses haven't been noted** in Croatia. However, Guidelines on Drug Related Harm Reduction Programmes adopted in the course 2015, provide a specific section on NPS. There is no information available on treatment or emergency medical responses specific to NPS use. However, Government Office for Combating Drugs Abuse is working towards developing sustainable infrastructure for monitoring adverse health consequences of NPS use in Croatia, which also implies building the knowledge in toxicological analysis and clinical treatment of intoxicated patients.

There is **no information available on harm reduction, prevention and treatment responses to emerging NPS** in Croatia based on formal assessment of needs of NPS consuming PUDH.

## Cyprus

There is **no data available on PUDH and problematic NPS use** in Cyprus.

As far as can be ascertained, **no needs assessments** have been conducted among PUDH that might or might not consume NPS. There is no data regarding PUNPSH. In 2013, the licensing procedures established by the CAC have led to improved monitoring of treatment service provision, and presented an opportunity for making specific recommendations according to the needs of the treatment system (NFP 2014).

In Cyprus, the CAC is responsible for monitoring and licensing all programs pertaining to drug use, and made specific recommendations to treatment programs in 2013. An outpatient treatment program called 'Anakampsí' (Gr: 'recovery') was established by the Mental Health Services in November of 2013, offering intensive care for drug users (NFP 2014).

According to the CAC, treatment priorities in 2013 included: 1) the extension of substitution services in an attempt to expand them all over Cyprus and make them more accessible to the drug users, 2) the creation of intensive care outpatient treatment programs 3) the promotion of actions leading to the identification of hidden populations with an aim to reduce harm and encouraging entry into treatment and 4) the development of a new computerized system for monitoring the treatment continuum of care (NFP 2014). The most common recommendations were related to the need for external supervision for the staff, the need for external and internal evaluation of the programs, the need for cooperation and networking with other units and services of the newly-established programs, and inclusion of more interventions for psychosocial and social reintegration for the user, as well as educational and other activities (NFP 2014).

**No interventions specific to NPS use have been developed** so far, and neither has research on the prevalence of use of NPS has been conducted in Cyprus ([www.isecproject.com](http://www.isecproject.com)).

## Estonia

**PUDH, reporting NPS use/problems were identified** but not scientifically (researches, questionnaires, special reports) documented **at all bigger service providers who work with PUHD**, as needle exchange sites or methadone treatment centres, also at some rehabilitation centres

Due weak purity and information about composition about NPS appearing on the drug market risks of overdose and intoxication was discussed in different police or drug services interviews. Some of specialist notes very rapid formation of dependence.

Examples from the police, service providers comments to widely described (mostly from mass media channels) accident in Rakvere region, where 10 adolescent scholars has hospitalized with overdose of synthetically cannabinoids: Rakvere young people who got to the hospital as a result of abuse of synthetic cannabinoids, two of them unconscious, and life-threatening condition, without exception describe the felt sense of death. The substance was extremely bitter, and even after the first puff began pulling dizzy, some began to vomit, and some has foam from the mouth. The youngest of them was 14-year-old, and all had previously used drugs. Shouting and screaming of those young people who had received an overdose supported incomprehensible hysteria described by the eyewitnesses.

**No formal or informal needs assessments** have been conducted among NPS consuming PUDH.

There are **no harm reduction, prevention and treatment or emergency medical responses** have been developed, proposed or planned in ESTONIA, specific to NPS use and reported consequences; There is huge absence of NPS specific response in area of harm reduction, prevention and treatment or emergency medical responses. There no NPS or NPS consuming PUHD specific centres, projects (even pilot one), services (medical, rehabilitation or social). After the last National Drug Prevention Strategy for 2007-2012 was over in 2012, government decided not to have a separate national drug



prevention strategy anymore, but include this area into the new National Health Plan for 2009–2020, which was very controversial step (same action was undertaken with HIV/AIDS prevention Program).

## Finland

Already since 2009, there have been reports of **problems caused by NPS used by PUDH at substance abuse treatment centres, psychiatric wards and municipal health centres.**

As for physical and mental health problems, users of NPS experience a rapid decline in psychological wellbeing; they are more aggressive and unpredictable and suffer from severe psychotic episodes requiring hospitalization. Other problems include e.g. skin abscesses and severe corrosion of injection sites; excessive sweating; tachycardia; spasms; unconsciousness; increase in body temperature; blood poisoning; severe infections; renal failure.

There was **no information found on formal or informal needs assessments conducted among NPS consuming PUDH regarding service development.**

However, **harm reduction, prevention and treatment or emergency medical responses have been developed for NPS problems purposes.** As regard health care, the current care guidelines are being updated to incorporate the most advanced treatment methods for users of new psychoactive substances (Current Care Guidelines for problem drug users). In some hospitals and treatment centres, because of these new types of problems with aggressive and violent patients, the staff's gets violence prevention training and some places have also taken into wearing security wristbands. The Government Resolution on an Action Plan to Reduce Drug Use and Related Harm 2012-2015 emphasizes preventive work and early intervention as well as treatment of drug addiction and reduction of harm from drug use as key elements in service development.

An important part of harm reduction and prevention response to NPS in Finland is an active exchange of information between non-governmental organizations and authorities in different networks. NOVI is administered by the Finnish Red Cross substance abuse work, NOPSa by A-Clinic Foundation's Communications Unit. These are places for professionals and authorities in the field of substance abuse work as well as users and relatives and friends to exchange information on new substances and trends in the field. They also issue press releases on new substances to inform the general public about new substances and their features.

Vinkki, a health and social counselling centre for intravenous drug users, has provided a web-based brochure on NPS for harm reduction purposes. A low-threshold web service, Päihdelinkki, also provides information and self-help for high-risk populations. Other non-governmental organizations, such as Youth against Drugs, Irti Huumeista Ry/Free from Drugs, also provide information on the most common NPS on their websites. These are mostly directed at young people and their ability to reach problem users may be limited (see e.g. Utoslahti 2014). Peer work is considered a way to reach the most excluded and hardest to reach groups of problem drug users (EMCDDA/Situation summary for Finland).

## France

**France has no statistical data about PUDH reporting NPS use/problems.** In case of crises, first aid services and hospital emergencies are called. For other problems we don't have statistic in France about it. We could supposed that all of health services specially those dealing with drug have a low percentage of PUDH with NPS problem.

As for **physical and mental health problems**, users of NPS reported bad-trips for hallucinogenic and

stimulants -that occurs with sleep deprivation In that case-, tachycardia, panic attack, aggressiveness and confusion with large doses of hypnotic benzodiazepines (etizolam particularly).

There is **no information available on formal or informal needs assessment conducted among NPS consuming PUDH**. The European I-TREND project did a survey in 2015 specific for NPS use, but not specific NPS use among PUDH. The most of information about NPS come from drugs users or professionals facing emergency cases. This type of information is based mainly on field observation.

**Some specific harm reduction, prevention and treatment responses have been identified.** A group of people from psychonaut.com co-founded the first French harm reduction association ("Not-For-Human"), which proposes people to analyse the NPS they bought on the internet or in the street in order to check and ensure that retailers websites or street dealers propose NPS of good quality with the expected content. Harm reduction workers developed quickly new information tools about NPS thanks to drug user's forums or organisations as psychonaut.com, not for human, Techno+, AIDES. Medical emergencies are encouraged to develop their awareness of NPS and toxicological identification skills of these substances.

Since 10 years in France drugs analyses in a harm reduction purpose are far low in priorities of the drug policy but thanks to NPS this question come back on the top of preoccupations mainly because NPS are often not sell as NPS but usual street drugs. NPS training among professional is growing too.

Above mentioned responses **have not been based on formal assessments of the needs of NPS consuming PUDH**. For Harm Reduction NPS responses consuming PUDH are mostly at the origin of the responses. Elsewhere (prevention and treatment) this is mainly a professional or a public health based responses when there is some. For prevention, NPS or not, the message is that people do not have to use drug. Prevention is not an education about how dealing with drugs but how to stay away from drugs. So the apparition of NPS don't change the way of doing this kind of actions. At best NPS as a new devil folk help prevention to scary people with drugs. Treatment responses are based on professional observations and new cases. These professionals just start to think about this issue. Local health authorities just start to think about how to integrate NPS in their action plans as a new issue for them.

## Germany

There a **rare cases of NPS problem drug use outside of Bavaria**. Munich as well as several other Bavarian cities has to deal with frequent users of synthetic cannabinoids and other NPS **in drug services**.

The only **physical and mental health problems** are – again – reported by Munich-based services, predominantly mental symptoms, including severe ones such as psychosis.

**Formal or informal needs assessments have not been conducted among PUDH consuming NPS**, NPS use among PUDH is a rare phenomenon in Germany.

**Special harm reduction and treatment or emergency medical responses did not identify. Prevention responses have been developed.** Various safer use organisations (mainly from the field of party drugs prevention) provide flyers and online information on the issue (e.g., drug scouts/ Leipzig, Alice/ Frankfurt, Mindzone/ Munich) There is also a Frankfurt-based specific prevention website ([www.legal-high-inhaltsstoffe.de](http://www.legal-high-inhaltsstoffe.de)) that has been advanced in the frame of the EC-funded project "Spice II plus". It provides general information on the issue, information on the contents of a wide range of NPS products, anonymous online counselling, and "webwork" (online outreach work in discussion boards).

Perhaps something **will be developed** for the Munich area in the future (but according to experience, Bavaria not only is the most repressive *Bundesland*, but also the least likely one to implement progressive measures of prevention and treatment). Since there is evidence that there is a certain

group of mainly young people who try NPS, who are vulnerable to mainly acute cases of emergency, prevention measures have focused on this group not on PUDH.

## Ireland

**The use and problems associated with NPS are currently being reported mainly by low threshold services**, in particular in the area of Dublin City Centre, and the profile of NPS users is of people who are chaotic drug users, often homeless and who are not linked into treatment services, not “on a clinic”.

As far as **physical and mental health** according to Tony Duffin of Ana Liffey Project, his team first noticed an increase in the availability of drugs like Mephedrone and MDPV are being sold as Snow Blow in September 2014. This concern is reflected in a recent increase in diagnosis of recently acquired HIV in PWID which has been noted in Dublin since early 2015. Clinicians from the drug services are concerned that the increase is linked to injection of a synthetic cathinone PVP, street name Snow Blow, with consequent more frequent injecting, and unsafe sexual and needle sharing practices. This has mainly been seen in chaotic drug users, who report polydrug use, and are often homeless.

Evidence to date indicates that the increase has been occurring since June 2014. Fifteen cases of recently acquired HIV infection (confirmed cases) and one case with epidemiological link to a recently acquired HIV infection (probable case) have been diagnosed in PWID in Dublin from June 2014 to June 2015. A case control study is underway to identify any association between use of Snow Blow leading to an increase in unsafe injecting practices, and at-risk sexual behaviour, and acquisition of HIV. The injection of cathinone derivatives is associated with a number of features which mean that this activity is particularly high risk. A multidisciplinary incident team has been set up by the Director of Public Health in Dublin to investigate and respond to the increase and an epidemiological investigation is underway.

Harm reduction, prevention and treatment responses

**There has been no co-ordinated response to NPS use at policy or harm reduction, prevention and treatment services development level in Ireland.** In the case of previous “new” drug problems, the National Co-ordinating Committee of the National Drugs Strategy (formerly NDST) followed up on NACD research reports by leading discussion on the recommendations and identifying actions to be followed up by the relevant agencies. This has not happened in the case of NPS; there has been no co-ordinated response at policy or service development levels and no specific needs assessment for NPS users. In recent years there has been a lack of prioritisation of the drugs issue overall, both at a political level and at a departmental level and in particular there has been an absence of resources to address emerging trends such as NPS.

The community and voluntary services working directly with drug users on the ground continue to provide the lead, both in terms of highlighting the emerging issues and trying to develop appropriate responses. An example of how NGOs are taking the lead in responding to NPS is the initiative taken by a group of drug and homeless services in Dublin City Centre to develop legislation to enable a safer injecting room to be set up in the city centre. Through their lobbying work, this group has won the support of the city centre business community who are concerned about levels of “anti-social behaviour” on the streets. The recently appointed Minister with responsibility for Drugs supports the setting up of injecting rooms and this proposal is currently being considered by the Dept. of Health.

## Italy

In Italy **NPS use among PUDH can be identified in drug service providers, emergency services and hospitals and outreach units/mobile units.** It is quite difficult to detect clear-cut data on real NPS use in these services because of different reasons: NPS type is not specified in drug service provider data reports (NPS are included in the category “other illegals”), not every Italian emergency service report data to the N.E.W.S and not every hospital has got the equipment to detect NPS in biological

fluids, outreach/mobile units are not formally implementing drug checking yet. Many PUDH don't report their NPS use, especially in emergency services. The only NPS which is known a little better is ketamine (its use is reported in drug service providers and detected from outreach/mobile units).

The most often reported **physical health problems** connected with NPS use by PUDH have been increased rapid heartbeat or increased heart rate, hypertension or high/increased blood pressure, psychomotor agitation, nausea, vomiting, mydriasis, cephalgia, increased body temperature, problems in urination, sleep disturbance and gastric/stomach problems. As regards mental health problems these complications have been reported most often: alteration in mood, (attacks of) panic and anxiety decreased capacity for concentration, problems in the short-term memory, paranoia, confusion, hallucinations, depression, alteration/distortion of sensory perception.

In Italy **formal need assessment among NPS consuming PUDH have never been done**; some Italian Regions have a local Early Warning System but there are no need assessments among PUDH using NPS.

In Venice, a group of outreach operators working in nightlife contexts promoted a qualitative survey to the local Addiction Department in order to start analysing the NPS consumption among partygoers that can be considered PUDH.

There are **no harm reduction, prevention and treatment or emergency medical responses** have been developed in Italy. **Harm reduction is still based on traditional drugs.** In nightlife contexts, especially in illegal rave parties, outreach projects provide partygoers with harm reduction tools for ketamine use (syringes and stuff to sniff); informative flyers giving harm and risk reduction advice on ketamine, mephedrone, GHB and smart drugs are spread among partygoers in outreach intervention just from few projects.

Prevention programs are still based on traditional drugs too. In the "Update & National Action Plan against NPS" it is recognised a certain lack of information about NPS but the document nevertheless invites to pay attention to the fact that giving information about this kind of substances could create curiosity in people and the prevention campaign could have a sort of "promotional effect". Treatment programs for NPS (where applied) are centred on a psychosocial approach (the so called "drug free programs"). In the emergency services NPS intoxications are treated with medical protocols and the patient is monitored till the discharge from the hospital.

In the last 5 years harm reduction in Italy has been "formally downgraded": it is now called "prevention of drug related diseases"; in the past 20 years need assessment of PUDH was conducted among injecting heroin and cocaine drug users. The syringe exchange service for ketamine users derives from these assessments. ITARDD is currently discussing about the implementation of Drug Consumption Room in cities with open drug scenes that have to be managed and is starting to discuss about recreational drug use.

In Italy prevention is divided in 3 areas: universal prevention, carried out by teaching programs for students, families, teachers and operating local actors; selective prevention and indicated prevention with a target of people at risk, such as partygoers, youth dropping out of school, youth with social or criminal law problems, youth in families with multiple problems, immigrants. Funds for prevention programs decreased since 2012.

Drug service providers treat drug and addiction problems through drug substitution programmes and/or psycho-social therapies; they take charge of prisoners with drug related problems too. Social re-integration of drug addicts is carried out by therapeutic communities (residential structures) and day centres (semi-residential structures). Most of clients of Italian drug service providers are older than 39 years old.

## Latvia

There is **no specific data on the health damage caused by the use of NPS reported by PUDH** in Latvia. Inaccurate information on the use of NPS and problems is available in the PREDA database in case the medical staffs filling in the patient's card has specified it. Theoretically, such information could also be provided by HIV prevention point or medical treatment institutions.

As for **physical and mental health problems**, by medical doctors narcologists and toxicologists are aggressiveness (a patient can hurt him or herself or others). Among other problems also appear non-critical attitude, excitability, hallucinations, and tachycardia, in some cases also bradycardia, fluctuating blood pressure. Specialists also state that use of NPS promotes “awakening” of psychosis and psychic disorders that, possibly, would not have appeared for a long time or even at all if not for. Use of cannabinoids provokes psychical diseases like schizophrenia, but repeated use of substances makes people into chronic psychiatric patients. Cognitive disorders or fluctuating blood pressure and dangerous behavioural disorders are the reasons why NPS-using people turn to in-patient clinics for aid most often. Often patients are diagnosed with central nervous system disorders, changes in the heart and blood vessels — tachycardia, narrowing of blood vessels, and high blood pressure.

**No specific evaluation of needs of PUDH using NPS** has been performed in Latvia. Up to a point, the needs of PUDH have been assessed when evaluating the narcological treatment services available in Latvia, or specifically the opioid substitution therapy; the evaluation has been performed twice — in 2008 and 2011. Both times it was recognised that OST needs certain improvements, including main conditions for improving the patient satisfaction; but, as it was already mentioned, these conclusions cannot be related specifically to patients using NPS.

In 2014, an evaluation of detoxification services was carried out; this evaluation could also be partially related to patients using NPS. In total, 100 narcological detoxification patients in Latvia were surveyed within the DS evaluation. Patients were surveyed during the treatment and DS. In general, 7% of patients received detoxification because of using marijuana, including smoking blends Spice.

There is **no special harm reduction, prevention, treatment or emergency responses developed with relation to use of NPS and consequences of such use**. The Early Warning System on NPS is active in Latvia and includes a number of local specialists. Thus, it can be concluded that the leading drug-related specialists are informed on the trends in the field of NPS. Although the information feedback of the Early Warning System should be improved materially, it is related with the lack of adequate and evidence-based information and not with the unwillingness of specialists to provide information.

## Luxembourg

NPS intoxications have been reported very rarely by **national emergency services** in Luxembourg. In terms of drug use surveillance, Luxembourg has been setting up a monitoring system based upon a nationally elaborated concept; namely the *drug-related contact indicator*. Relying on a multi-sectorial data network, including specialized in- and outpatient treatment centres and low-threshold facilities, general hospitals as well as law enforcement agencies and national prisons, the national drug monitoring system RELIS, established in 1995 by the National Focal Point (NFP) of the EMCDDA in collaboration with the Ministry of Health, enables the assessment of new trends in drug users populations in general as well as in drug treatment demanders in particular. Luxembourg has opted for a holistic monitoring of the national drug using population, which obviously is heterogeneous and not limited to drug treatment demanders. RELIS data refer to all drug users indexed by the national care, treatment and law enforcement network and, as such, it is also sensitive to NPS use. **RELIS thus allows for the detection of NPS use in PDU (or PUDH)**. However, as NPS use does not necessarily concentrate in PDU, such as in Luxembourg, other data collection sources are required.

As far as **physical and mental health**, first aid facilities at festive events mainly report dehydration and exhaustion symptoms and adverse reaction following combined use of ‘party pills’, alcohol and cannabis or cocaine.

**No formal or informal needs assessments have been conducted among PUDH consuming NPS.**

**Harm reduction, prevention and treatment responses** aim to youngsters and recreational users, nightlife and parties. The CePT, a foundation financed by the Ministry of Health, is a key partner in terms of prevention and harm reduction interventions in youngsters and recreational settings. The CePT is an active member of several health promotion and harm reduction programmes in nightlife



settings. The main objectives of these networks and projects are to improve existing interventions reducing drug-related harm in nightlife and party settings and to facilitate their transferability, evaluation and implementation.

As nightlife settings provide privileged environments for recreational drugs' and NPS use, the CePT launched MAG-Net Party under the INTERREG IV A Programme: Grande Région 2007-2013, Project 52 GR 3 3 100 ([www.mag-net.eu](http://www.mag-net.eu)), which is a harm reduction project targeted at recreational drug users in the party scene of Luxembourg and the surrounding Greater Region. Party MAG-Net's booths and stands are part of most national music festivals since 2011. These on-site interventions focus on keeping in line with the party spirit of the targeted events while adequately managing risk situations. Additionally to information on psychotropic substances, the recreational Mag-Net point of presence also provides earplugs and information on auditory risks, condoms with and without lubricant, breath tests, but also disinfecting soap, sun screen and drinking water. Trilingual postcards are made available to the public, including information on alcohol, cocaine, cannabis, synthetic cannabinoids, other NSP, tobacco, XTC, LSD, ketamine, GHB/GBL, heroin, speed and information on road safety and risky sexual behaviours in relation to drug use. Collaboration with local medical first aid services is actively promoted in order to optimize preventive and crisis interventions.

The experience gathered in the framework of the MAG-Net program also facilitated the set-up of the first ***national on-site drug testing pilot project*** (DrUCheKing: D.U.C.K); a joint initiative from the Ministry of Health, the CePT and the LNS. The on-site drug testing facility D.U.C.K. became operational in 2014. It allows users to anonymously provide a small sample of their drugs to the D.U.C.K. team in order to be confidentially informed on their exact composition. With the agreement of users, their drugs are photographed, measured and weighted and questions are asked on the expected active component and effect of the product as well as on paid price etc. The collected samples are analysed the following day by the toxicological department of the LNS and results are transmitted to CePT, which puts the results on a secured website in individualized form and with prevention messages. During the sample collection users got a 15 random alphanumerical code, which allows them to confidentially consult results of the toxicological analysis and the composition of their acquired product only. Users are invited to contact the CePT team for any further questions. The pilot project, that allowed in its first months of functioning to collect more than 50 different samples of psychoactive products (of which many were detected for the first time in Luxembourg), will be evaluated in 2016 in order to decide upon its future development.

With regard to treatment and counselling offers, the Ministry of Health financed service IMPULS (Solidarité –Jeunes asbl) is a key partner in the field of *drug use in youngsters*. IMPULS is a drug consultation service for youngsters and also intervenes in case youngsters (max 21 years) have been running into conflict with law for drug-related offences. This project should also allow to further access NPS users in need of help.

The CePT and IMPULS provide *training on new synthetic drugs and psychoactive substances, (NPS, Legal Highs) to various stakeholders* (teachers, educational staff, police officers, multipliers).

## Malta

There have been **no reported health cases in any of the institutions or health centres** on the Maltese Islands. Hence there is **no in depth information regarding the consequences of NPS use**. Consequently there are **no specific prevention or treatment services for NPS use or addiction**.

## Slovakia

In Slovakia, the only information about NPS use among PUDH is coming from harm reduction non-governmental organizations.

Related to **the physical and mental health problems connected with NPS**, very little is known about this theme. No "confirmed" problems are identified with NPS use; however, according the information from outreach workers from Košice, since the first appearance of NPS, the overall



condition of their clients has been worsening (mostly related to the physical appearance). They also described regular mental problems such as intense hallucinations and paranoia; however it is not clear whether it is connect to the NPS use or methamphetamine use.

**No formal or informal need assessment about NPS has been realized among PUDH.** Organizations in Košice which is in contact with PUDH who use NPS are facing financial difficulties every year. Their services have limited options for preparing special assessments, however, they do react and develop articles about NPS and adapt their counselling focus on NPS.

**No systematic harm reduction, prevention or treatment response have been developed or proposed in Slovakia.** The presence of NPS is mostly discussed in media, among EWS working group members and the one mentioned harm reduction organization in Košice (Pomocná ruka). In 2011, during the time of growing media attention to smart shops and NPS, nongovernmental harm reduction organization Odysseus (based in the capital, Bratislava) with cooperation with national EWS working group published an online article about existing sold substances (labelled as gifts, souvenirs, etc.) and described existing information about the substances and its risks. C.A. Odysseus also published an educational leaflet about “Smart shops” with harm reduction tips and the leaflets have been distributed during the outreach work with young people during summer open-air festivals. As it can be seen, *the intervention was mostly focused on young people, as they also are one of the most articulated groups in the connection to NPS in Slovakia so far.* In Košice, nongovernmental harm reduction organization Pomocná ruka has been addressing NPS through articles in local harm reduction magazine for PUDH and through counselling during outreach work.

## Slovenia

PUDH are also reporting NPS use/problems **identified in low threshold NGO services.** Association DrogArt approached young NPS users through outreach work on parties and open public spaces where they socialize and use drugs. Association Stigma is having Centre and outreach work for people using drugs intravenously. In **medical emergency units** at Ljubljana University Medical Centre treated intoxications with 3-MMC in 2013 and 2014 (there is no data about exact number available).

As regard **physical and mental health problems**, in DrogArt NPS 2014 survey the most frequently reported problems by users were depression (55.2% of users), concentration difficulties (44.0%), damage to the mucous membrane of the nose and to the throat (39.8%), feelings of fear and anxiety (39.4%), and tingling in the arms or legs (34.4%). The main reasons for cutting down or discontinuing the use of NPS were ‘fear of the health consequences’, ‘actual health consequences’, and ‘growing weary of using’. Among users of NPS, 7% have sought help, while 9.1% have considered doing so. During the research there was also data about young person’s using synthetic cathinone’s (3-MMC) with intention to induce downer effect. There was also some (unofficial) information about suicide attempts connected with 3-MMC use (information gathered through DrogArt harm reduction activities).

Some users were medically treated in *Poison Control Centre* because of NPS intoxications. Most of NPS intoxication is connected with GHB (GHB intoxications increased rapidly in 2013) and 3-MMC use.

**Formal need assessment has been conducted** in Slovenia in 2014. Based on DrogArt NPS 2014 survey the following recommendations for **NPS harm reduction interventions were formed**:

- distribution of harm reduction informational leaflet about general NPS harm reduction and other material;
- distribution of sniffing tools and informing users about possibilities of virus transmission through sniffing tools sharing,
- distribution of harm reduction dosing tool for GHB / GBL,
- informing users about risks connected to use of different drug mixtures,
- informing users about acute intoxication effects with NPS and how to provide basic first aid,
- informing about dangerous of dosing imprecisely and importance of using analytical scale,

- providing the option of anonymous drug checking,
- rapid response and informing users about specific harm, connected with specific NPS
- Counselling and psychotherapy programmes for NPS users having addiction problems.

It was concluded that NPS users need similar approaches as traditional drugs users. Counsellor or psychotherapist need to be well informed about risks and harm reduction for specific NPS in order to sense users risky behaviours, connected to his/her drug use and give him/her information about harm reduction. Good knowledge about NPS strengthens the counsellor's contact with the user and enhances his/her trust in the counselling process. This is very important especially while working with younger users.

National action plan on drugs for 2015 – 2016 states the following activities considering NPS use consequences:

- monitoring emergence of new NPS in Slovenia and EU (expected results: proposals of changes of the list of illicit substances),
- modernization and expansion of Early warning system on new psychoactive substances,
- overview of NPS situation and protocol of information exchange system preparation (on national and region level),
- preparation of educations about new NPS (regarding needs expressed in the specific local environments),
- regular notifications about NPS emergence and information exchange,
- development of quick and effective responses on NPS emergence.

In practice, the low-threshold NGO are adopting their activities based on detected their users' needs and improving professional knowledge on NPS use among PUDH.

This year new project about *chemsex started*, carried out by Association Škuc – Kulturni center Q, Association Legebitra and Association DrogArt, in order to perform in-depth research of patterns and risks, connected to chemsex among gay population.

Associations Stigma and Association DrogArt are cooperating **with aim to address needs of intravenous users, using 3-MMC** in order to adapt harm reduction activities among population of intravenous users.

## Sweden

**Problems caused by NPS used by PUDH** have been reported in Sweden by harm reduction services such as needle exchanges, addiction clinics, social services, emergency departments, Maria Ungdom offers detox and acute help for youths with drug and alcohol problems (many municipalities also have their own similar services), the Swedish Poisons Information Centre. In Sweden, health care professionals more often contact The Swedish Poisons Information Centre because of how potent and life threatening NPS has become. It's often the last resort when patients arrive showing signs of drug intoxication and poisoning after taken an unknown NPS. In 2013 this happened more than 600 times. Twice as many as the year before. In 2014 they were contacted 621 times regarding synthetic cannabinoids alone.

Sweden has the most developed risk assessment structure in Europe. Despite this drug users experience and expertise are seldom used in formal assessments. This has to change if Sweden wants to include the group most affected. There is one thing to discover NPS and banning them, but there is another to prevent harm, something Sweden lacks behind from the rest of Europe. **As for formal needs assessments among NPS-consuming PUDH, no assessment was conducted.**

Missbruksutredningen (The Drug Abuse Investigation) was a large investigation that recommended hundreds of changes to addiction care in Sweden. One of those was that the landsting (county council) instead of municipalities should be solely responsible for addiction care. So far no political

party have made those recommendations into law. There is no mention in the report about treatment for users using NPS.

There is beginning to start up treatment programs for people who uses NPS. One is specifically aimed at users of MDPV, The treatment is focused on education about the drug based on interviews with previous users and also support from others in the same situation. A network of previous users of MDPV is attached to the treatment program and act as mentors. The actual treatment is based on 12-step programs and consists of talks, group therapy, motivating private talks, relapse prevention and an action plan. Non-institutional treatment care or institutional care can also be provided to problematic users.

**With regards to treatment of people who uses NPS there is no official guidelines**, but for a few experts who give advice.

The police often visit schools to inform about the dangers of drugs and to learn teachers on how to identify signs of drug intoxication. They work both with primary prevention (prevent disease, injuries, and physical problems) and secondary prevention (prevent development of social problems).

One of the biggest and most serious shops selling NPS in Sweden now have infosheets and tests their products in a laboratory for purity. A development that seems to indicate some form of responsibility and willingness to protect their customers from harm. Drug awareness campaigns about NPS are very rare. One recent campaign was called “Fimpa Spice” (Stub Spice Out) in where they wanted to scare people from using it.

**When it comes to harm reduction programs for NPS there is none available since Sweden has a zero tolerance against all drugs.** Sweden have prevention or information campaigns, but they are limited to websites about traditional drugs, for example Drugsmart.com, includes a section about NPS.

SDUU has a non-financed project concerning NPS called SBF Nätdroger. They have for a long time tried to raise the question of NPS among their own community, especially harm reduction, p2p and drug information. They have also had a strategy and tried to employ younger people raised on the internet and with their own experience using NPS. The last couple of years have seen a big increase in NPS among drug users. ***The SDUU are now reporting that its common among their members to mix NPS with traditional substances.*** SDUU has responded by setting up their own web-based warning system to inform users and the public about risks associated with many NPS. Warnings for 2014 included information about PMMA sold as MDMA, MT-45 and Flubromazolam. That same year ***the police also started to release warnings with the same information.***

*In some municipalities the budget for treatment has escalated because of NPS.* The reason behind the increase in cost is institutionalized care for people who are deemed a danger to themselves or someone else. That would indicate that treatment options for NPS are desperately needed as well as other resources and adequate funding.

Since there is no category, or diagnosis for that matter, for NPS in most statistics its hard to estimate the need for treatment, which is why there is a need to develop better information methods before any such need can be fully assessed. Most available aftercare and treatment today is based on what substance the NPS contained or tried to copy.

## The United Kingdom

Drug treatment services in the UK are seeing increased presentations from people using NPS, and in reports of problems related to their use. **The types of services reporting NPS use and problems are** substance misuse treatment services, emergency departments, sexual health services, HIV treatment services, mental health services, prisons, homeless shelters and GP Clinics.

The problems associated with NPS use within the UK are very similar to those described in a recent UNODC World Drug Report (United Nations Office on Drugs and Crime, 2013) which gathers together the available evidence to list the main adverse effects associated with each main NPS groupings. These range from a variety of physical symptoms - e.g. cardiovascular problems, hyperthermia,

kidney failure, fluid on the lungs, seizures - to psychological disorders, including anxiety, agitation, memory loss, depression and psychosis.

**The most common physical and mental health problems reported to services** include mostly agitation, seizures, hypertension, emesis, hypokalaemia, epileptic seizures, collapse/unconsciousness, anaphylactic shock, inability to move limbs, paranoia, symptoms similar to that of psychosis, anxiety/fear, increased levels of aggression, low mood & fatigue, acute depression etc.

**No formal or informal need assessment about NPS has been realized among PUDH.**

As regard **intervention and recommendation**, in September 2014 the Royal College of Psychiatrists published a briefing on steps to be taken to address NPS and club drug harm (Royal College of Psychiatrists, 2014). **In the briefing they argue that the new range of NPS requires a different treatment response. In particular they argue that there are many new drugs manufactured to mimic the effects of traditional recreational drugs and that increasing numbers of people are seeking help for them but existing treatment services are not set up to meet their treatment needs.** They set out six steps to help tackle the emerging problem of NPS and club drug use. The steps include:

- widening the remit of traditional drug services ,
- supporting front line staff through education and training
- creating better links between front line staff and drug services to share knowledge
- better monitoring and recording of the harmful effects from these drugs
- prioritising research funding into interventions for club and NPS drug users
- better education and access to information on these drugs.

**Many organisations in the voluntary sector have already been developing new approaches to respond to NPS harms.** Examples of the types of responses from some of the charities providing drug services across the UK are set out below:

- In 2013, Turning Point Scotland (TPS), Crew and Glasgow Council on Alcohol piloted a drop-in service in Glasgow in an attempt to cut the harm caused by NPS. The service continued in Turning Point Scotland's Glasgow Drug Crisis Centre after the pilot.
- In December 2014, Addaction launched a project in North Somerset, 18225, to raise awareness among young people of the dangers of alcohol and drug use, particularly NPS. Services include drop in sessions, workshops, 1:1 sessions with counsellors, and a dedicated FaceBook page.
- In June 2014, CRI launched a website *Strange Molecules*: dedicated to advising young people about 'legal highs'. CRI also has dedicated 'legal high' clinics in some areas and deliver training to schools, youth workers, professionals and colleges
- In April 2015, SADAS opened an NPS drop in centre in the city of Guilford.
- The charity Oasis Partnership in Oxfordshire and Buckinghamshire opened a drop in centre aimed at 18-26 year olds. The charity also opened a clinic, responding to the increase in reports of mental health issues around NPS.
- The Angelus Foundation was set up in 2009 to educate young people and parents on the use of NPS. It has a dedicated 'Parents Handbook' (Angelus Foundation, 2015) and a website aimed at educating young people on NPS use.

In response to the NPS expert panel, **the government committed to developing an NPS resource pack for informal educators and frontline practitioners to use to prevent drug taking amongst young people.** The pack was created alongside drug treatment partners and was published in March 2015 (Home Office 2015b). This complements the Home Office FRANK website ([www.talktofrank.com](http://www.talktofrank.com)) which is used to engage with young people, providing them with reliable and

balanced information on drugs. The Government has also undertaken targeted communications campaigns to raise awareness of the risks in taking NPS among young people. For example, in August 2014 a national campaign to raise awareness of the dangers NPS among teenagers and young adults was launched by the Home Office. The radio, digital and mobile phone adverts were aimed at people aged 15 to 21 and warned them about the risks of taking the drugs.

A project funded by the Health Foundation's Shine Innovation Programme 2012 and led by Central and North West London NHS Foundation Trust called NEPTUNE (Novel Psychoactive Treatment UK Network) has been responsible for developing evidence-based clinical guidelines to cover the assessment and treatment needs of users of NPS and club drugs. ***The clinical guidance for the management of NPS produced by NEPTUNE (NEPTUNE, 2015) is based on a systematic review of the evidence and clinical consensus with the support of a multi-disciplinary group of experts.***

The NEPTUNE guidance states that it does not aim to replace the role and resources of the Public Health England commissioned National Poisons Information Service (NPIS), whose role is to advise NHS healthcare professionals on the diagnosis, treatment and care of poisoned patients across the UK. In its annual report for 2013 to 2014, the NPIS noted increases in enquiries about NPS. There were more than 130 phone queries, a 13-fold increase, from clinicians treating users in the previous year. There was also a 2-fold increase in queries from NHS health professionals through the NPIS online database TOXBASE, over the same period. The NEPTUNE guidance states that Clinicians should consult TOXBASE, and where necessary call the NPIS for up-to-date information on NPS.

## The Switzerland

The **only type of service where the use of NPS is visible is nightlife-prevention offers** or drug testing services.

In the above mentioned study among nightlife attendees, the **most often reported problem by NPS** users were bad trip experiences (53.5%), unconsciousness (22%), anxiety and panic attacks (29.7%), and depressive symptoms (48.3%). Overall, NPS users reported more often physical or mental problems than users of other drugs. This might however be due to other factors than the use of NPS. (Maier et al; 2014).

The Switzerland **did not conduct any formal or informal needs assessments among NPS consuming PUDH**. There was one online survey conducted in 2012 and extended questions related to the use of NPS within the F&F Nightlife Questionnaire. But there were no questions about specific needs of this group of users.

There are **no specific harm reduction, prevention and treatment or emergency medical responses / offers developed for this group of user**. They are two reasons for this: First the use of NPS is not often reported in Switzerland and, secondly, NPS users are also using other illegal substances. Existent harm reduction services, such as drug-testing services and other nightlife-interventions also address this population. Some users, of NPS and other drugs, will however not make use of such interventions.

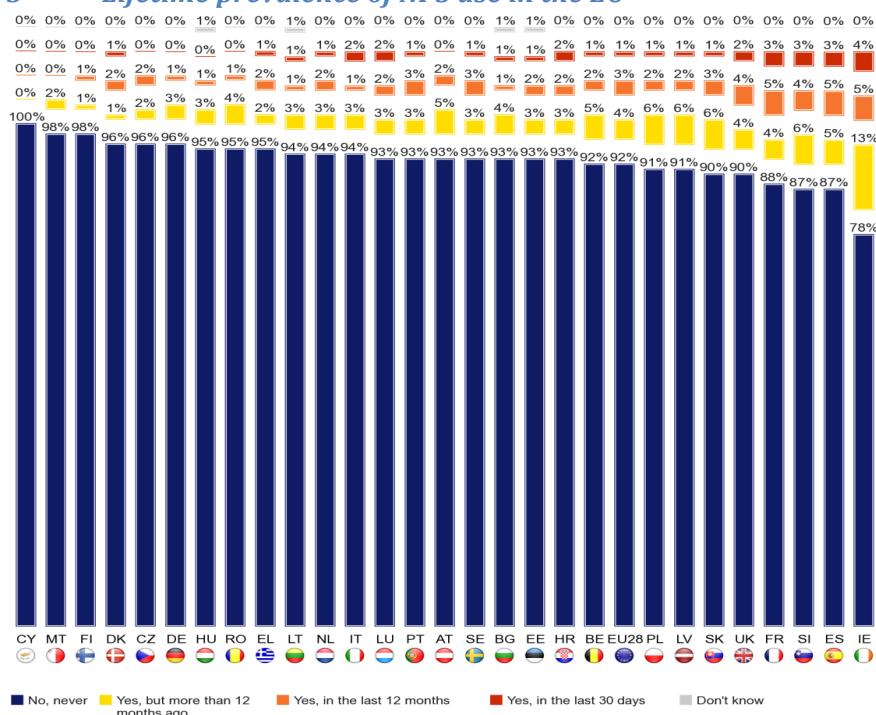
There are no specific offers for NPS users in Switzerland. The base for harm reduction, prevention. Law enforcement and treatment is the Swiss Federal Drug Policy, which is based on 4 pillars (Prevention, Therapy, Harm Reduction and Market Control). This policy allows creating new type of services at the local level if needed.

### 3. Email-based Survey among Key Informants of high NPS prevalence countries

#### 3.1 Introduction

Invitation-only email survey among key respondents was conducted in 2015, March till May. Totally 54 experts was involved in various aspects of NPS policy and practice. We collected respondents from the 5 countries. Three was Western and two Central European countries - *Germany, Hungary, Latvia, Spain and the United Kingdom*. These represented two countries with the highest overall lifetime use of NPS (see graph below – Eurobarometer 2014, n=13 000), but also countries where the overall level of NPS use was under the EU average, but that reported injecting of NPS, of synthetic methcathinones in particular (EMCDDA, 2014).

**Figure 5** *Lifetime prevalence of NPS use in the EU*



Source: EMCDDA, 2014

#### 3.2 Methodology

The questionnaire aimed to collect information from among a broad range of stakeholders, including service providers, police officers, policy makers and (representatives of advocacy organizations of) people who use drugs. We defined in detail inclusion criteria for Key respondents.

Key questions for the invitation-only email-based survey – topic list

1. Describe respondent's last experience/case/issue to solve related to NPS use.
2. Describe differences of other drug cases according respondent's practice.
3. Describe the most frequent problems related to NPS according respondent's practice.
4. Describe respondent's opinion on NPS problem/local situation/country.
5. Recommend measures to minimize the potential harms related to NPS use.
6. Recommend potential legislative changes in the field of NPS.

The questions were formulated somewhat generic (see Annexes). Participation in this study was voluntary and confidential. The combination of phone, SMS and email contact helped to motivate the respondents.



### 3.3 Results

#### *Characteristics of key respondents*

In total 54 e-mail based questionnaires were sent out and received back. Participants were chosen for their experience and professional relevance in the area of drug use and drug addiction. The key informants of the survey represented areas of the public health services (24 respondents), drug (NPS) research (15 respondents), law enforcement (7 respondents), drug (NPS) policy (6 respondents), and organizations of people who use drugs, in this particular case – 3 respondents. There were respondents to the questionnaire including researchers, toxicologists, narcologists, people working in drug treatment services and people working in harm reduction organisations. Key informants represented drug policy field were deeply involved in drug legislation issues on a daily basis (Ministry or National Focal point workers).

**Table 13** *Characteristics of key respondents (Summary)*

Country	Latvia	Germany	Hungary	Spain Catalonia	UK	TOTAL
<b>Number of respondents</b>	10	12	11	11	10	N=54
<b>Public health services (Prevention, treatment and HR organizations)</b>	2	4	3	8	7	24
<b>Law enforcement in the area of NPS, legal professionals working on NPS legislation or cases</b>	2	2	2	1	0	7
<b>Researchers working on NPS</b>	2	5	5	0	3	15
<b>Drug (NPS) policy makers, municipality and legal governance</b>	2	1	0	3	0	6
<b>(Organizations of) People who use drugs</b>	2	0	1	0	0	3
Country	Latvia	Germany	Hungary	Spain Catalonia	UK	TOTAL
<b>GENDER M/F</b>	1/9	7/5	8/3	8/3	n.a.	24/20
<b>Mean age</b>	25-60	27-56	35-58	30-57	n.a.	25-60
<b>Length of practice/years</b>	1,5 - up30	1,5 - up30 Ø13	3-47 Ø17	7-25 Ø13	Sum: up90	1,5-up30

We asked respondents about their gender, age and how long they have been working in the field. 44% respondents were males, 37% were females. 19% of respondents did not answer the question about his /her gender. The median age of respondents was 40 years; the oldest respondent was 60 years old, the youngest 25 years old. Most respondents have been working in their professions for a

long time (14 years in average). Work experience varies from one and a half years to more than 30 years in the field.

### *Working time focused on drug-related issues and especially NPS*

If we look at time or working hours spent on drug related issues as well as time on NPS's we may conclude that it varies from respondent to respondent/county to country (see Tab14).

There were 54 respondents to the questionnaire including researchers, toxicologists, and drug treatment and harm reduction service providers. The respondents spend approximately between 25% and 100% of their 'working' hours on drugs related issues. For most it is a 100% job. This signifies the high priority of drug related issues for service providers, researchers and law enforcement agents from the participating countries. Roughly between 0% - 100% of their working time is spent NPS related issues. Although the life prevalence of NPS use among the general population might be lower than that of traditional illicit drugs, a significant amount of working hours of professionals working on drug issues is spent on NPS.

**Table 14** *Percentage of working hours spent by key informants on drug related issues*

COUNTRIES	DRUG RELATED ISSUES TIME (%)		NPS RELATED ISSUES TIME (%)	
	MIN	MAX	MIN	MAX
Latvia	75	100	25	100
Germany	25	100	0	100
Hungary	25	50	25	75
Spain	50	100	0	25
UK	75	100	25	100

### *Sources of information*

The Table 3 below shows what source of information the respondents use about NPS and other drugs. The sources of information used by these professionals are varied. Majority of respondents highlighted scientific literature, reports and statistics and the Internet as the most important sources of information. Colleagues and conferences were also mentioned as useful information source. The biggest difference between information sources used for traditional drugs and NPS was in the case of online forums. This can be explained by the low availability of traditional information sources about NPS, which are much newer and their properties are often unresearched. Only in Latvia main sources of information on drugs in general and on NPS does not differ

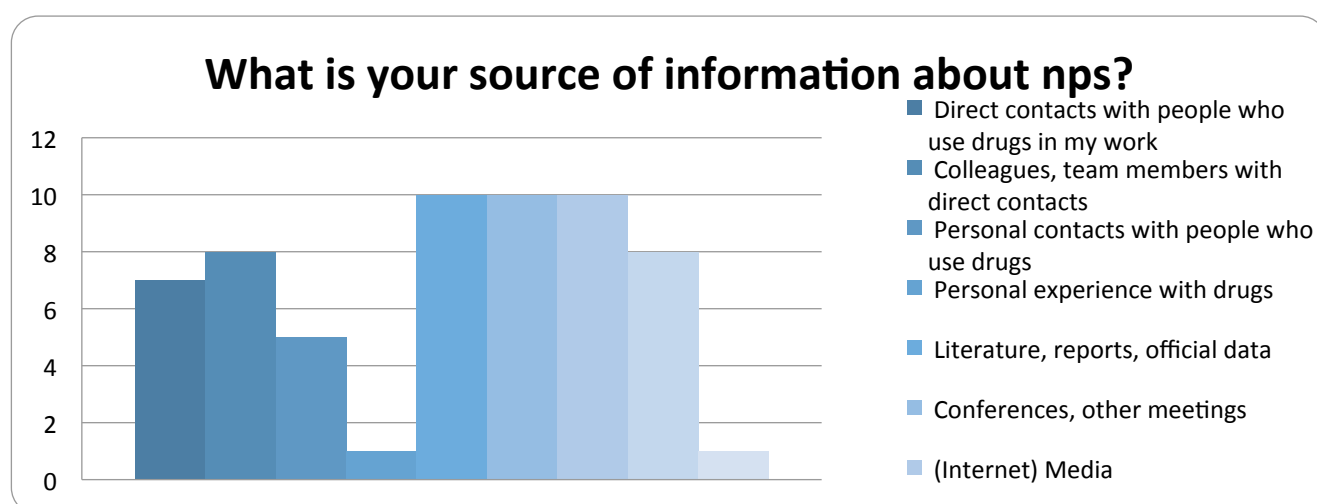
**Table 15** *Source of information about NPS and other traditional drugs*

Country	Spain N=11		Hungary N=11		Germany N=12		Latvia N=10	
	NPS %	Drugs %	NPS %	Drugs %	NPS %	Drugs %	NPS %	Drugs %
Directly from drug users at work	55	82	100	83	50	58	40	40
Co-workers	55	82	89	78	67	75	40	40
Personal contact with drug users	46	73	100	100	25	25	40	40

<b>Personal experiences with drugs</b>	36	64	75	100	25	33	10	10
<b>Scientific literature, statistic, reports and official data</b>	91	100	100	82	100	100	90	90
<b>Conferences and meetings</b>	64	73	100	90	83	92	100	100
<b>Internet (media)</b>	64	82	100	82	100	100	100	100
<b>Online drug forums and specialized websites</b>	28	36	100	67	75	50	60	60

Figure 6 illustrates the responses in the UK, their sources of information about NPS. All ten respondents state that they get their information from literature, reports, conferences and internet media. Seven get information from direct contacts with people who use drugs. Eight respondents get information from colleagues who have similar direct contact or from internet drug forums.

**Figure 6** *Sources of information about NPS (e.g. UK)*



#### *NPS consumption patterns among different groups of users*

We asked respondents to identify the most important patterns of use of NPS among specific sub-groups of users: clubbers, festival goers, those who use drugs at home, young experimenters, PUDH and others (e.g. social services; condition of probation; total institution with drug testing- prison, treatment centre, forensic psychiatry and, of the other part, replacement of cannabis in general).

Regarding this question, there were people that stated they didn't have enough information about it, in order to answer. Among those who did answer, based on the professional or personal information/experience that they have, we find some variability in the responses given, mostly regarding frequency of use of NPS in some specific contexts. Observing the data collected from the questionnaire, we can suggest that the frequency of use of NPS is predominantly occasional, no matter the context, with the exception of young experimenters that is essential experimental use. However, balanced number of respondents regarded young experimenters as frequent and occasional users.

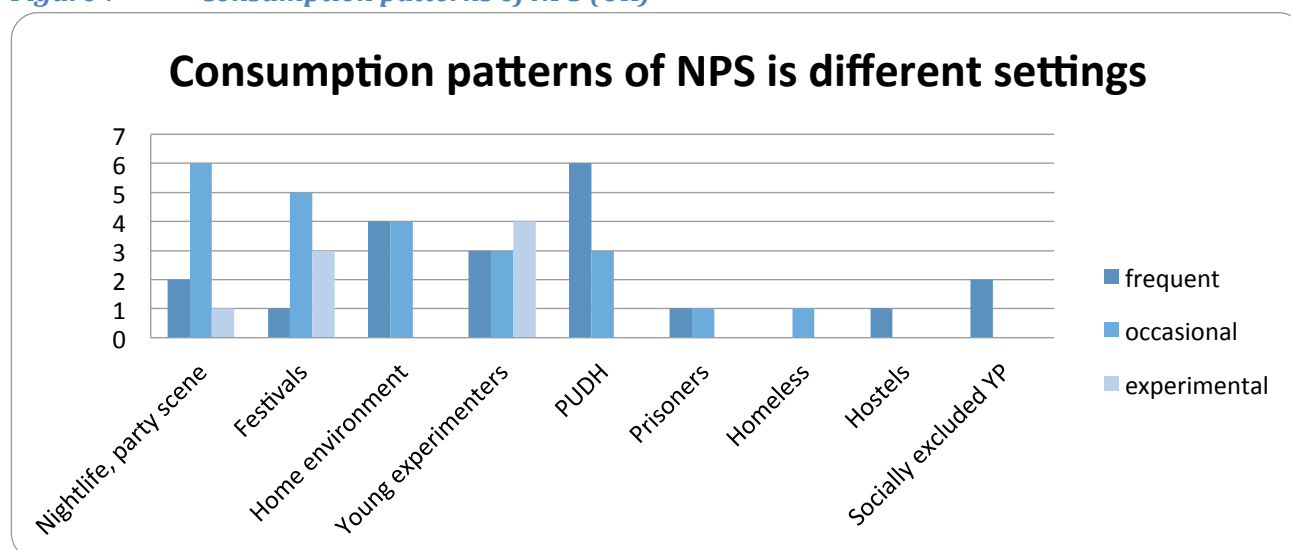
**Table 16** *NPS consumption patterns among different groups of users*

SETTING/POPULATION	SPAIN						LATVIA						TOTAL			n
	F	O	E	F	O	E	F	O	E	F	O	E	F	O	E	
Nightlife/parties	2	5	2	2	3	0	5	3	1	1	5	1	10	16	4	30
Festivals	2	6	1	3	3	0	3	4	1	1	6	0	9	19	2	30
Home environment	0	4	4	3	3	0	1	2	4	5	4	0	9	13	8	30
Young experimenters	1	5	1	4	1	2	3	3	6	3	2	5	11	11	14	36
PUDH	0	3	3	5	0	0	1	5	2	5	5	0	11	13	5	29
Others	-	1	1	-	-	-	-	-	-	7	3	-	7	4	1	13
<b>TOTAL</b>	<b>5</b>	<b>23</b>	<b>12</b>	<b>17</b>	<b>10</b>	<b>2</b>	<b>13</b>	<b>17</b>	<b>14</b>	<b>22</b>	<b>25</b>	<b>6</b>	<b>57</b>	<b>76</b>	<b>34</b>	<b>138</b>

**Legend:** F=frequent O=occasional E=experimental  
N=54; mostly respondents mentioned several answers

The remaining statistics around consumption patterns of NPS in the UK can be seen in Figure 7.

**Figure 7** *Consumption patterns of NPS (UK)*



### *Types of NPS used in various settings*

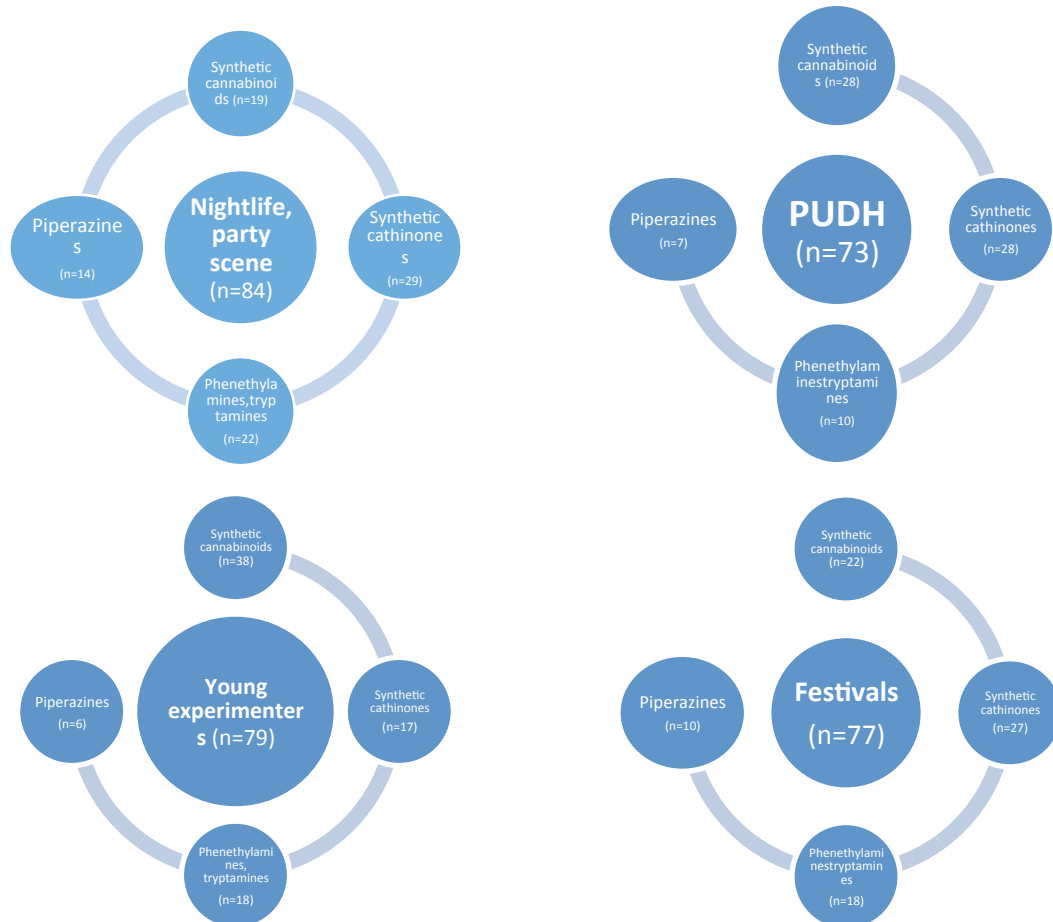
Table 17 shows the types of NPS are being used in these environments or populations, according to the survey respondents. Answers given by respondents clearly show us the popularity of synthetic cannabinoids. Our key respondents could identify young experimenters as the group which uses synthetic cannabinoids the most. Synthetic cathinones also appear to be widely used, as are Phenethylamines, tryptamines. Piperazines are less widely consumed according to the respondents. NPS are mentioned as those attributed to nightlife, as well as to young experimenters and to festival environment.

**Table 17** *Types of NPS being consumed in different environments/populations*

	Synthetic cannabinoids					Synthetic cathinones					Phenethylamine, tryptamines					Piperazines				
	U K	H U	L T	G E	S P	U K	H U	L T	G E	S P	U K	H U	L T	G E	S P	U K	H U	L T	G E	S P
Nightlife, party scene	2	1	10	3	3	8	3	4	7	7	7	1	3	7	4	1	1	4	4	4
Festivals	5	1	8	6	2	7	1	5	7	7	5	2	1	6	4	2	0	2	3	3
Home environment	7	3	7	6	1	4	2	2	4	2	4	0	2	4	2	0	0	2	3	1
Young experimenters	9	6	10	7	6	6	1	3	5	2	5	1	2	3	7	0	1	2	2	1
PUDH	10	3	8	5	2	7	4	6	5	6	0	0	3	3	4	0	0	3	3	1
TOTAL	33	14	43	27	14	32	11	20	28	24	21	4	11	23	21	3	2	13	15	10
	131					115					80					43				

All other groups of substances in relation to the setting are mentioned rarer. Unfortunately the group of “other” is not decoded so it is not clear in this case what exactly the substances were meant by respondents.

**Figure 8** *Types of NPS used in different settings (key respondent's opinions)*



Although regarding this issue there is a lot of variability among the responses, piperazines have been the less mentioned group of NPS. Synthetic cannabinoids use seems to be more present with experimental uses (young experimenters), although it's also associated with home environment. The use of synthetic cathinones takes place mostly in party contexts and festivals. People who use drugs heavily, use Synthetic cannabinoids and Synthetic cathinones in the same way.

### *The reasons for using NPS - Motivation of drug users to use NPS*

The reasons that users usually give for using NPS were common across all respondents who have direct contact with people who use NPS.

They include:

- **Experiment/curiosity/fun:** "Desire to try something new, to relax, for fun, to get new emotions and experience", "Experimenting, no reason, being bored", "Experimenting or that they could not find other drugs";
- **Availability:** "Availability of drugs, legality", "I think people use NPS primarily because it is fashionable, low price and easy availability", "Easy to buy in the internet";
- **Price:** "Also the cheap price for Spice", "Unlike heroin NPS are readily available on the black market and cheap";
- **Some legal (therefore 'safe'):** "They are legal", "Not being aware of the harms NPS cause or might cause. People do not perceive NPS as real drugs", "Create the illusion of legality";
- **Undetectable on a drug screen:** "No punishment as they know NPS are not detectable mostly", "Substituted clients consume NPS in addition to substitution because NPS are severe detectable in urine checks";
- **Perceived high purity/Strength over similar illegal drugs:** "More intensive effects", "Their effects are more intensive", "They like the increased sexual desire", "(maybe) Constant supply quality".



## Difference between NPS use and traditional drug use

The respondents were also asked to identify the differences observed between the use of NPS and the use of traditional illegal drugs. Regarding this issue, most respondents stated that they have very little information about it. Most reported no significant difference.

Key experts reported:

- **more intensive psychoactive effects, higher risks of psychopathology:** *“Schizophrenic condition even after 1x use, aggression, disorientation”. “NPS – more hallucinations, aggressiveness. Traditional drugs not so”,*
- **the lack of knowledge about these substances** (regarding effects, doses and administration routes),
- **an increase in injecting injuries:** *“Syringe exchange has increased rapidly. Venous diseases have increased. Abscesses occur increasingly”,*
- **repeat dosing due to cost and availability:** *„Use more frequently” because the effects of NPS are shorter, so „craving” and „dependent use” is evolved easier,*
- **polydrug use:** *“There have been some cases of serious physical consequences such as heart problems and multi-organ failure. Relationship work is strongly affected by mental changes”.*

Respondents mostly named not really the differences but rather the condition of NPS users: *“People do not perceive NPS as real drugs. Term “legal highs” makes them believe, that NPS are less harmful than traditional illegal drugs”; or “First use of NPS is at very young age (similarly as for marijuana); mean age of NPS users is smaller than for other drugs, NPS are used in companies”; and “More people with no contact to the drug-scene”.*

## The Types of perceived problems among NPS users

Table 18 outlines the types of problems respondents observe in connection with NPS use. 72% of respondents reported that they observe urgent health problems, such as high blood pressure, tachycardia, weight loss, overdoses, mental illness, heart attack, anxiety, psychosis and depression. 70% of respondents reported that they observe urgent physical health problems such as acute toxicity, presentation to emergency departments, injecting injuries. 42% of respondents reported long term health problems (such as schizophrenia, addiction). Social problems have been observed by 58% of respondents including aggression, violence, addiction, homelessness, financial issues (unemployment, poverty, “no money”) and relationship breakdowns.

**Table 18** *Observed problems in connection with NPS use*

	UK N=10	HU N=11	LT N=10	GE N=12	TOTAL N	%
<b>Urgent physical health problems</b>	7	7	5	11	30	70
<b>Urgent health problems</b>	9	5	9	8	31	72
<b>Long term health problems</b>	3	6	6	3	18	42
<b>Social problems</b>	6	7	5	7	25	58
<b>Other (debt and violence in prisons; legal problems – problems with police)</b>	1	4	5	5	15	35

Legend:

Spain – not available, key informants have no relevant information

N=43

### *Risk assessment of NPS*

In relation to the questions regarding risk assessment most respondent didn't give the answer. Some respondents from UK and Latvia are involved in the risk assessment procedure or the work of risk assessment commission and this is the reason they could give answers to one, two or all three questions in questionnaire. The general outcome for any risk assessed NPS has been to control them.

In Spain reports, the majority of key informants have no information on formal risk assessments of NPS, in fact all of them mentioned that this process isn't done. It was mentioned the warning alert systems that detected and report the NPS found but there is no knowledge of further evaluations of risk. The information provided by these warning systems is managed by the EMCCDA, which then provides guidelines, mostly legal ones (which mostly results in direct legal control without previous risks assessments). This is a concern expressed by some professionals which don't agree with the direct prohibition of substances without extended studies.

### *Recommended policy measures and legal regulation related to NPS use*

Respondents had to rate and prioritize various interventions according to their importance in minimizing the risks of NPS use. All responses to this question are set out in Table 19.

**Table 19** *Measures to minimize the potential harms*

Type of measures	urgent need					medium need					low priority				
	UK	HU	LT	GE	SP	UK	HU	LT	GE	SP	UK	HU	LT	GE	SP
<b>Preventive measures</b>	3	8	9	9	4	2	1	0	2	5	1	0	0	0	0
<b>Harm reduction measures</b>	8	8	5	7	4	1	1	4	2	4	0	0	0	2	1
<b>Building treatment capacity</b>	4	9	5	3	2	2	0	4	4	3	2	0	0	4	3
<b>Legal regulation</b>	5	4	5	8	2	2	1	3	2	4	2	4	1	3	1
<b>Others</b>	1	0	2	4	0	0	0	0	0	0	1	0	0	0	0

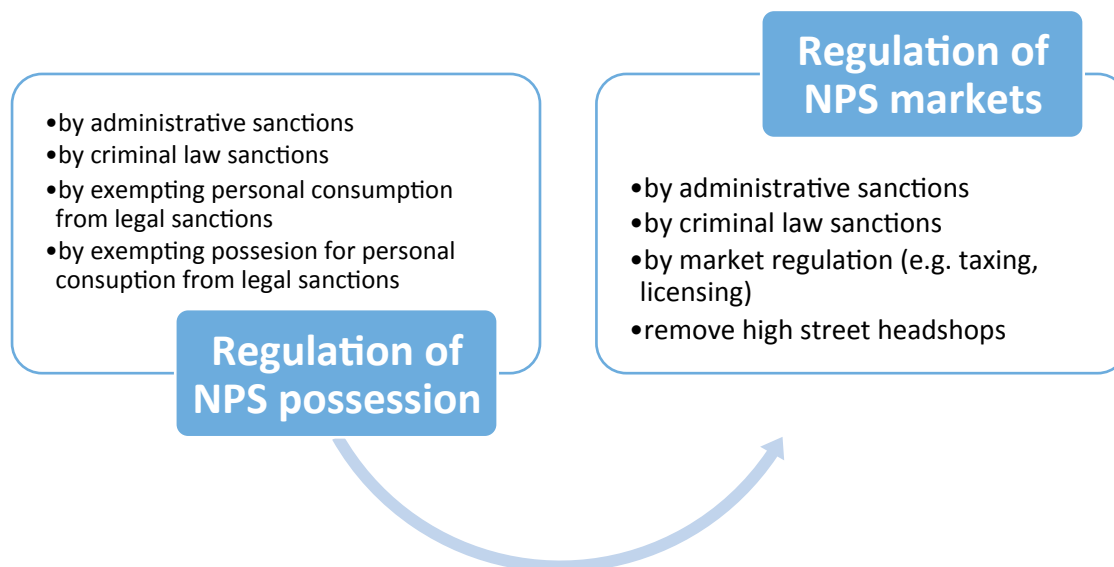
When asked about what measures should be taken to minimize the potential harms related to NPS use, 61% of respondents stated that there was an urgent need for preventive measures and harm reduction measures (59% of respondents). 44% stated there was an urgent need for legal regulation and 43% stated there was an urgent need for building treatment capacity.

Among others key measures respondents identified: education, social help or increased availability of social services for drug users, qualification for social workers, reduce tracking of consumers with small amounts of heroin for personal use, so changing to NPS is not required, allow drug checking - better detection tests, research about the nps, finding very important for good treatment, quality detoxification and first aid.

### *Needs for legislative changes*

Majority of respondents agreed that there should be legislative changes, both – need for regulation on NPS possession and on NPS markets. The suggested changes are outlined in Figure 9.

**Figure 9** *Types of legislative changes*



Only two respondents strongly manifested their disagreement on the need of legal changes, based on the following reasons: one of them believes the NPS market is so dynamic and volatile that first we would have to regulate traditional drugs and therefore avoid people shifting their use to NPS. The other person stated that she doesn't believe that in legal regulation in general, only regarding access and availability. She also argues that the scientific evidence states that limitation of access is connected with a decrease in associated problems.

We asked respondents to share with us any additional comments about NPS and related policy responses. There were only three comments:

„In this area the state generates more harm than good by pushing the drug market to change constantly, thus new, potentially more dangerous substances come to the market,” said a human rights advocate.

„I have heard about NPS first four years ago, at a police conference in Germany, where the presenter showed us concrete mixers where these substances were produced. And now I see that these substances are everywhere in the media,” said a policeman.

„This issue needs an urgent re-evaluation and rethinking,” said another policeman.

### 3.4 Discussion and conclusions of the email based survey

In general it is possible to conclude that experts (key informants) see NPS use as more widespread problem among experimental drug users and nightlife, party attenders (especially Latvia, Spain – Catalonia). Synthetic cannabinoids is the most popular group of new psychoactive substances used by various populations in different settings. Most respondents highlighted easy availability and low price as the most important motivations of people to use NPS. The availability of NPS was contrasted to the unavailability of traditional illegal drugs. A law enforcement official emphasized that NPS use is prevalent among prisoners because it is easy to smuggle them into prisons, so it replaced the previously popular prescription benzodiazepines. Users, according to answers of the respondents, mostly face urgent health problems due to NPS use. However long term health problems was also observed. These urgent health problems include increased blood pressure, cardiac problems, tachycardia, heart attack, overdoses etc. and long term health problems such as schizophrenia, addiction and other psychical conditions. In relation to this there is a need for specific measures to

be taken in several areas – prevention and harm reduction, treatment capacity building and legal regulation. Even if there is a quite strict legislation policy on NPS developed in EU at the moment, experts still express opinion that there is a need for legal changes. Exempting use of NPS or the possession for personal use from the law is not accepted among the surveyed experts.

Overall drug use has reduced in the EU and although there is no complete picture of NPS prevalence, while high in some subgroups, such as clubbers and men who have sex with men, NPS use is lower than more traditional drugs such as cannabis, cocaine, and alcohol. The current drug scene is, however, now more complex than ever. Across the EU, the number of people seeking treatment for NPS use is increasing and NPS use continues to pose a challenge to government, local authorities, healthcare services and the criminal justice system in the EU. The rapid changes in the drugs market have meant that emergency departments and hospital staff are often not aware of these emerging substances. Similarly, there is currently a dearth of evidence regarding the social harms of NPS and little scientific evidence on the long term health harms of NPS.

Although there is much media and political interest in NPS, more needs to be done to raise awareness around the risks of NPS use. Education and prevention in the field of NPS is challenging because of the lack of knowledge about NPS use and prevalence, and the frequent emergence of new substances. Education, however, can be used to build factual awareness for young people about the risks associated with using NPS, as well as to provide harm reduction advice for those using NPS. Professionals who help people seeking treatment for NPS need to have up-to-date information on NPS to disseminate this to service users and to treat them appropriately.

The issue of control has presented the biggest legislative challenge in dealing with NPS. The biggest challenge in tackling NPS was having a legal framework that could respond to new substances in a timely and effective manner. The introduction of the Psychoactive Substances Bill will fundamentally change the way to NPS. There is an evidence gap on the impact and effectiveness of legislative changes in tackling NPS but experts in the field agree that some kind of change to the current legislative response has been needed.

It indicates that most countries have the partial data or the piecemeal partial information on the use of NPS among PUDH from emergency services and hospital and drug services generally.



## 4. Discussion and Conclusion

In 2014/2015 in total 22 EU countries and Switzerland have reported about the use of NPS with focus of the use of NPS in population of people who use drugs heavily. Out of 22 countries, ten have identified NPS use among PUDH, mainly on local level. There are very limited data about NPS in PUDH, the population of PUDH is not studied in this regard, also data from treatment data registers are not suitable. Countries with the known prevalence of NSP users is Hungary, Germany, Slovakia, Belgium and Croatia. Data are mainly from small local studies or an estimation of HR programmes. It is not clear, if all countries have built communication channel (on actual, emerging situation and its changes among PUDH) between low-threshold services that are in contact with PUDH and research/monitoring centres, which should inform other institutions and policy makers and how this kind of information can be distributed to the wider audience. Further research and focus should be on the way how information about actual data and situation (probably more qualitative way) are reported to the NFPs, official sites and in written language. It is not clear if EWS in each country also include a working group involving outreach and drop-in workers to have clear picture and fresh data about emerging situations.

The methodology of this study was not easy. Nor for the respondents, nor for the analysis. The design used a report based data which was hard to analyse due to the amount of text and also a lack of original information - due to a lack of data/not written - on national level. Reporters have used a lot of EU, mainly EMCDDA sources and national mainly low enforcement data such as from police and customs, which does not refer to the PUDH population as such. The role in it probably was also the profession of the reporter. Just few reporters made their own search - asked in facilities, searched the media articles etc., which can lead to the conclusion that the use of NPS can be still in some countries hidden phenomena. This factor influenced all parts of the study. For example, reported prices of the NPS, which could be compared as were mentioned repeatedly, were mainly online shop prices, as street prices were reported rarely. Another problem regarding NPS is if we know how to ask people for the use of NPS. Do they really understand what we mean? Also, the definition of NPS can be taken broader by the reporter.

The motivation for NPS use may differ, the main role play safety of legal possession, (or the illusion of) better effects, availability and price, availability of traditional drug markets and impossibility to detect the substance in drug tests (driver licence, OST programmes etc.).

NPS, mainly cathinones, Phenethylamines, Piperazines, synthetic cannabinoids and Tryptamines are used by PUDH. Cathinones prevail and are used to substitute other drugs (Germany) or because of lower price (Slovakia). NPS are used by PUDH in addition of traditional drugs (Estonia). Factors related to NPS preference are difficult to identify, as usually more than one occurs.

The main source for NPS purchase is the internet environment. Street dealing of NPS was reported from Hungary, Ireland, Italy, Slovakia, the United Kingdom and Germany.

Comparing prices of traditional and NPS drugs, there is not significant difference, NPS can be purchased cheaper or even more expensive, but the difference makes purity and substance characteristics. Traditional drugs contain adulterants, (high quality of the street drugs were reported from the Netherlands). There are no adulterants in NPS and for the same amount of money the user obtain more potent drug, also some NPS can give stronger and longer lasting effect for the same/lower price. While comparing prices in NPS and traditional drugs, the factor of purity of traditional drugs is not examined, so NPS could be substitution for low quality traditional drugs, but we have no data to support or refute this idea.

Even within one drug type group have traditional drugs different prices. Synthetic cannabinoids are reported more expensive than herbal cannabis from Belgium, Croatia and the most expensive in Bulgaria and Sweden (38 Euro). Germany, Latvia and Hungary report less difference between these two categories (ranking 4,9 -16 Euro).



Injecting (mainly intravenous use) is reported from Austria, Hungary, Latvia, Slovenia, Sweden, the United Kingdom and Finland. Injecting is not clearly stated in Italy, also in majority of countries, there is limited information about in which users' group NPS injecting occurs, if it is in the group of PUDH as well or mainly party goers. Increasing number of injecting is seen in the United Kingdom (night life setting) and Hungary. High risk behaviour related to NPS use is reported from the United Kingdom, where MSM population has high ratio of NPS use, NPS and other drugs are used to facilitate sex activities. These activities can lead to serious public health consequences, especially infectious diseases and STIs' transmission.

Hungary reports that NPS injecting is connected with more frequently injections (10-15 times a day) than amphetamine or heroin (3-4 times a day). This leads to injecting tools sharing and to a serious public health threat.

Most of the countries report that NPS are combined with all other drugs that are prevalent in that local area. Synthetic opioids are perceived as a serious threat to users due to possible overdose.

In a part related to risk assessment of NPS in different countries we tried to sum up realized assessments in specific country and their outcomes based on reported information. Risk Assessment on national level is provided in Sweden, the United Kingdom, the Netherlands, Belgium, Finland, Hungary, Latvia.

In Switzerland, main criterion for banning the substance is not the risk and harm assessment (due to lack of data), but the emergence of new substances (distribution channels, internet shops, shipment and others).

In data collection regarding the risk assessment were reported obstacles with obtaining the relevant documents. For example in Hungary, the documents in relation to the risk assessment process are not accessible for the public. With the risk assessment the topic of the future with new technologies and banning substances which will be immediately substituted with new, probably more dangerous substances, occurred.

In spring 2016 there will be available data from ISEC project (see [www.iseccyproject.com](http://www.iseccyproject.com)), Cyprus. This project, whose aims are to do a prevalence survey; perform qualitative research; monitor online sales and discussions regarding NPS and to establish a robust database, plans to publish its findings somewhere in the spring of 2016.

Regarding the harm reduction and others intervention, the use of NPS obviously carries a risk of unexpected health complications, including an increased risk of significant deterioration of health and death. However, most participating countries have processed no formal or informal needs assessment for this area (excluding Slovenian DrogArt reported included NPS use). As in regard to special harm reduction, prevention and treatment or emergency medical responses the vast majority of the measures are not intended directly to PUDH. Main target group of NPS programmes are youngsters, recreational drug users. Activities in a nightlife setting are very frequent too.

Specific response to NPS consuming PUDH were identified e.g. in Finland (treatment staff violence, prevention training, web-based brochure for harm reduction purposes), in Ireland (development legislation to enable a safer injection room connected with increase of risk of HIV and other blood-borne diseases among Mephedrone injection users). The United Kingdom has advanced NPS responses oriented on clinical practice.

Based on Slovenian DrogArt NPS 2014 survey the following recommendations for NPS harm reduction interventions were formed. These recommendations can be used across the countries:

- distribution of harm reduction informational leaflet about general NPS harm reduction and other material,
- distribution of sniffing tools and informing users about possibilities of virus transmission through sniffing tools sharing,
- distribution of harm reduction dosing tool for GHB / GBL,
- informing users about risks connected to use of different drug mixtures,
- informing users about acute intoxication effects with NPS and how to provide basic first aid,
- informing about dangerous of dosing imprecisely and importance of using analytical scale,
- providing the option of anonymous drug checking,

- rapid response and informing users about specific harm, connected with specific NPS,
- counselling and psychotherapy programmes for NPS users having addiction problems.

As the substances are changing on the market rapidly, the more general information about risks of these substances should be offered to users.

The results of the email-based survey of 54 experts working in the drugs field (in various aspects of NPS policy and practice), in-depth overview of NPS use in the five EU countries focused to identify the associated risks for harm and the existing legislative, preventive and harm reduction responses.

While the use of NPS poses many challenges, there is a growing evidence base for NPS harms and EU drug workers are becoming more experienced in helping people seeking treatment for NPS use. It is acknowledged that there is no one solution to the NPS issue but those who come into contact with NPS, including policy makers, government, local authorities, healthcare and drug treatment services, educators, etc. need to be innovative in their approach to dealing with the issues.

**Note: Based on the outcomes of work stream 1 (EU-wide NPS assessment), work stream 2 (5-country RAR) and work stream 3 (intervention development), A “*Research Summary and Recommendations for Policy and Intervention from the NPSinEurope.eu project*” has been prepared.**

**This document can be downloaded from:**

<http://www.NPSinEurope.eu/PolicyRecommendations>

[http://adiktologie.cz/en/NPSinEurope\\_PolicyRecommendations](http://adiktologie.cz/en/NPSinEurope_PolicyRecommendations)

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## 6. ANEXES

### Questionnaire for email-based survey

Code of questionnaire (leave blank, will be filled by researcher )	International code of country	Order number

*Dear Participant,*

*You are kindly invited to participate in this study of the EU project “New Psychoactive Substances among people who drugs heavily (PUDH) – Towards Effective and Comprehensive Health Responses in Europe”.*

*This project aims contribute to the development of innovative and effective health promotion interventions targeting emerging NPS use in Europe, in particular in response to more hazardous patterns of use and in vulnerable populations.*

*Your participation concerns questions regarding your personal or work experience with the use of NPS and the NPS market. The survey should take less than 20 minutes to complete.*

*Please note that participation in this study is voluntary and confidential. You are free to withdraw from the questionnaire at any time without consequences.*

*There are only minor risks anticipated associated with participation in this study. Personal identifiers will be stored separately in encrypted files. Individual responses will be anonymised and reported without references to the respondents.*

*This questionnaire aims to collect information from among a broad range of stakeholders, including service providers, police officers, policy makers and (representatives of advocacy organizations of) people who use drugs. Therefore, at times, the questions are formulated somewhat generic. You are requested to interpret these questions in light of your expertise on NPS, be it professional or personal.*

*Should you have any questions or problems concerning your participation in this research project, please contact the Principal Investigator, Jean-Paul Grund, PhD (E-mail: [jpgrund@drugresearch.nl](mailto:jpgrund@drugresearch.nl)), Charles University in Prague, First Faculty of Medicine, Department of Addictology.*

#### **DEFINITIONS:**

**Drugs** = “traditional” drugs, such as cannabis, heroin, cocaine, amphetamine, methamphetamine, regulated by controlled by the 1961 Single Convention on Narcotic Drugs or the 1971 Convention on Psychotropic Substances

**NPS** = new psychoactive substances, which may pose a public health threat, also called “designer drugs”, “legal highs”, “herbal highs”, “bath salts”, “and research chemicals”, “laboratory reagents.” in this project we define NPS in somewhat broader terms as ‘new drug trends,’ which includes the emergent availability and use of substances new to a community, country or culture, independent of their legal status<sup>15</sup>.

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<sup>15</sup> For example a substance that is long known in one country could present a new drug trend and an emerging issue in another.



**1. What is your gender?**

1. ☐ Male
2. ☐ Female

**3. What is your profession?** →

**4. How long have you worked in this profession?** \_\_\_\_\_ years

**2. What is your age?** \_\_\_\_\_ years

1. ☐ Manager
2. ☐ Policy maker
3. ☐ Police officer
4. ☐ Prosecutor / judge / lawyer
5. ☐ Social worker
6. ☐ Teacher
7. ☐ Researcher
8. ☐ Medical doctor
9. ☐ Nurse
10. ☐ Other:

## 5. What type of services do you provide?

### *(Public) Health Services*

1. ☐ Drug prevention project
2. ☐ Safer Night life project
3. ☐ Other: \_\_\_\_\_
4. ☐ Harm reduction project for people who use drugs
5. ☐ Advocacy organization of people who use drugs
6. ☐ In-patient/out-patient drug treatment
7. ☐ Emergency Medical Services (ambulance or 1<sup>st</sup> aid hospital department)
8. ☐ General population (in-patient/out-patient) medical care

### *Law enforcement*

9. ☐ street police officer
10. ☐ Police detective
11. ☐ Public prosecutor
12. ☐ defence lawyer / Legal counselling
13. ☐ Judge
14. ☐ Probation officer
15. ☐ Prison staff

### *Drug policy making*

16. ☐ Local drug coordinator
17. ☐ National drug coordinator
18. ☐ National focal point
19. ☐ Other (please specify department) \_\_\_\_\_

### *Other*

20. ☐ \_\_\_\_\_

**6. About what percentage of your 'working' hours do you spend on drugs related issues?**

☐ up to 100%    ☐ up to 75%    ☐ up to 50%    ☐ up to 25%    ☐ 0%

**7. Of the time spent on drugs, about what percentage of the time does this concern New Psychoactive Substances (NPS)**

☐ up to 100%    ☐ up to 75%    ☐ up to 50%    ☐ up to 25%    ☐ 0%

**8. What is your source of information about:**

**A. New Psychoactive Substances (NPS)**

1. ☐
2. ☐
3. ☐
4. ☐
5. ☐
6. ☐
7. ☐
8. ☐
9. ☐

Direct contacts with people who use drugs in my work  
Colleagues, team members with direct contacts  
Personal contacts with people who use drugs  
Personal experience with drugs  
Literature, reports, official data  
Conferences, other meetings  
(Internet) Media  
Internet drug forums and other 'special interest' sites  
Other: \_\_\_\_\_

**B. Other drug related issues?**

- ☐
- ☐
- ☐
- ☐
- ☐
- ☐
- ☐
- ☐
- ☐

**9. What consumption patterns NPS can you distinguish in particular settings of use or populations of consumers, based on your (professional or personal) experience and the information you have?**

*Please check off area and estimate an extent of NPS use.*

	setting/population	frequent	occasional	experimental
<input type="checkbox"/>	nightlife, party scene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	festivals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	home environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	young experimenters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	people who use drug heavily*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	other (please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	other (please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\*: e.g. those seeking help at drug services.

# 10. Which types of NPS are being used in these environments or populations?

Please check off NPS types by setting/population.

	setting/population	Synthetic cannabinoids	Synthetic cathinones	Phenethylamines, tryptamines	Piperazines	Others
<input type="checkbox"/>	nightlife, party scene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	festivals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	home environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	young experimenters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	people who use drug heavily	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	other (please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	other (please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

## 11. Please describe the reasons that the people you are in contact with usually give for using NPS.

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## 12. Please identify the differences you have observed between the use of NPS and use of traditional illegal drugs (such as heroin, cocaine, cannabis etc.) among the people you are in contact with.

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**13. What types of problems do you observe in connection with NSP use?**

*Please check off area and specify problems.*

1. ☐ Urgent physical health problems: \_\_\_\_\_
2. ☐ Urgent health problems: \_\_\_\_\_
3. ☐ Long term health problems: \_\_\_\_\_
4. ☐ Social problems: \_\_\_\_\_
5. ☐ Legal problems: \_\_\_\_\_
6. ☐ Others: \_\_\_\_\_

**14. Which NPS (if any) have been subjected to formal risk assessment in your country? What were the outcomes of these assessments?**

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**15. Did these formal risk assessments include recommendations for policy responses (such as legislative, law enforcement, harm reduction, prevention and treatment responses)?**

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**16. In how far have legislative responses to emerging NPS in your country (if any) been based on (recommendations from) formal risk assessments?**

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**17. In your professional opinion, what measures should be taken to minimize the potential harms related to NPS use?**

**Please check off measures and rate marked measures by importance.**

	Type of measures	urgent need	medium need	low priority
<input type="checkbox"/>	preventive measures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	harm reduction measures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	building treatment capacity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	legal regulation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	other (please specify):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**18. Do you consider legislative changes necessary? If yes, specify the area of regulation.**

1. ☐ No
2. ☐ Yes

If yes, by what type of measures?

- a. ☐ Regulation of NPS possession
  - 1) ☐ By administrative sanctions (e.g. fine)
  - 2) ☐ By criminal law sanctions
  - 3) ☐ By exempting personal consumption from legal sanctions
  - 4) ☐ By exempting possession for personal consumption from legal sanctions
- b. ☐ Regulation of NPS markets
  - 1) ☐ By administrative sanctions (e.g. a fine)
  - 2) ☐ By criminal law sanctions
  - 3) ☐ By market regulation (e.g. taxing, licencing, etc.)
- c. ☐ Other: \_\_\_\_\_

**19. If you have any other information concerning NPS, comments or suggestions you would like to share, please feel free to share these here.**

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☐ *If you are interested in the project results, please tick this box to be included in final report mailing list*

*Thank you for your contribution in the research.  
NPSinEurope project team*



Email-based NPS Survey reporting grid

<b>Country:</b>	<b>Contact person:</b>	<b>Date:</b>
<b>Number of respondents: [    ]                      How many drug users: [    ]</b> <b>How many respondents in each category:</b>		
Prevention, treatment and harm reduction organizations (e.g. emergency medical services and hospital emergency rooms)		
Law enforcement in the area of NPS, legal professionals working on NPS legislation or cases (e.g. lawyers, prosecutors, judges)		
Researchers working on NPS		
Drug (NPS) policy makers, municipality and legal governance		
(Organizations of) People who use drugs		
<b>KEY QUESTION/ TOPIC</b>	<b>INFORMATION by respondent number (copy and paste all respondents' answers + respondent number)</b>	<b>Summary of the findings (consensus and dissent; provide count of typical responses)</b>



New Psychoactive  
Substances in Europe

[www.npsineurope.eu](http://www.npsineurope.eu)