



# BAONIPS

BE AWARE ON-NIGHT PLEASURE SAFETY

# DRUG CHECKING

RECOMMENDATIONS FOR A PILOT IMPLEMENTATION  
AND TECHNIQUE UPDATE - **RAMAN** SPECTROSCOPY



# COLOPHON

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# FOREWORDS

Despite being almost unknown to institutions and professionals, a growing number of new synthetic drugs (from 41 in 2010 to 101 in 2014 and 66 in 2016 - EMCDDA) is produced for the illegal market and they are widely available. Most of these substances are used in clubs and parties: Eurobarometer 2013 data reveals that 65% of respondents used new psychoactive substances (hereinafter referred to as NPS) in recreational contexts in the last 12 months (Flash Eurob.401-Young people&drugs). NPS have high health risks for both users and the general public: they can be toxic, addictive and produce long-term damages or adverse effects (V. Reding-Eu Justice Commissioner). For some people, the use of NPS is a choice, but not for everyone: many NPS employ groups of chemicals giving effects similar to those of controlled substances, but it is very difficult to recognise NPS without a screening instrument that can analyse the contents of a drug. Moreover, in 2013 more than a quarter of young people (29%) were not informed about the effects of the “legal highs” (Eurobarometer 2013).

Drug checking is an integrated service that lets drug users to have their synthetic drugs analysed and receive counselling (Ventura et al., 2011); in nightlife contexts it has been shown to be useful at different levels: early detection of NPS, harm and risk reduction for drug users, knowledge improvement for service providers and policy makers (Hungerbuehler et al. 2011); however in most EU countries drug checking

is not implemented. This happens because of different laws but also because of some prejudicial concerns: organizers of musical events are afraid that allowing drug checking could mean admitting the fact that those contexts are connected with drug use while for some policy makers drug checking supposedly increases drug use (Hungerbuehler et al. 2011). As research has shown, a drug checking service can change consumption behaviours of drug users, especially when an unexpected substance is detected in the sample (Martins et al.2017).

Basically, there are 2 main needs to tackle: the first is to rapidly identify and assess NPS, by using specific screening instruments and then transmit the results to the National and European Early Warning Systems; the second is to improve awareness and knowledge about NPS among partygoers, professionals and policy makers. Promoting drug checking in nightlife contexts in the EU countries linked to the EWS and informing local service providers both on NPS and the results of drug checking seem to be the best way to meet the needs.

*The objectives of the B.A.O.N.P.S. – Be Aware On Night Pleasure Safety project addressed the needs listed previously and were the following:*

- to early identify NPS by implementing DC in nightlife contexts and outside them;
- to inform National and European EWS about NPS detected;
- to combine DC with prevention actions and outreach interventions to make drug users aware about risks and effects of drugs, especially those related to NPS;



- to identify NPS consumption patterns, related meanings, cross-cultural differences and spread this information to professionals and service providers;
- to compare different strategies for implementing DC and good practices for pilot implementations that can be used in the EU countries where such testing is not applied yet.

The target group the project mainly reached and worked with was composed of recreational drug users and people attending clubs and parties where drugs were widely used. The choice of the target group was linked to a higher prevalence of drug use and probably also of NPS among those partygoers (EMCDDA, 2016), so they were deemed to be at risk more than other groups. The framework that had been used to reach this target were outreach interventions in party settings (mainly electronic music venues) and drug checking. The latter was performed both in recreational contexts and in local NGO info points for anonymous drug sample collection. A second target group the project reached was composed of professionals working in drug addiction services and policy makers. In order to improve effective interventions and policies, they need to be informed about NPS use and cultural factors that can influence this. As they are involved in prevention, work with people that have a high-risk drug use or problematic drug users and policy development to tackle drug related problems, they require good information regarding NPS, especially those mostly used. In order to reach this second target group different activities such as newsletters, drug alerts and local training sessions during conferences and seminars were carried out. This publication is the last action of the BAONPS project for the second target group.

The BAONPS project involved different organizations and stakeholders: a forensic toxicological lab performing drug checking in the field in Italy (Centro Antidoping “A. Bertinaria”), harm reduction associations and organisations that have been performing outreach intervention and drug checking for many years (APDES/Check!n, Coop. Alice and DrogArt), a research institute (Eclectica), national networks and organizations involved in low threshold activities (CNCA, Fixpunkt and FederSerD) and a local NHS public service provider for drug addiction treatment (ASL TO4).

The aim of this report is to contribute to the development of drug checking services in those (European) countries where the service is not carried out, by giving advice and examples based on this practice.

The NEWIP “Drug Checking Service – Good Practice Standards” (Ventura et al., 2013) guidelines are still the most effective and complete instrument that specifically describes standards for a drug checking project. These guidelines have been constantly used by the Italian partners of the BAONPS project in planning and carrying out the first pilot formal experience of drug checking in Italy.

**This paper aims to underpin what have been the “key” points and highlight a few issues that can update the previous document of NEWIP, especially regarding the difficulties encountered during the implementation of a drug checking project.**





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# DRUG CHECKING IMPLEMENTATION

*“The term “drug checking” is referred to an integrated service that basically enables individual drug user to have their synthetic drugs (e.g. cocaine, ecstasy, GHB or LSD) chemically analyzed as well as receiving advice and, if necessary, counselling” (Ventura et al., 2013)*

Drug checking is increasingly considered a harm reduction strategy, both in European and non-European countries. This fact is demonstrated by the wide number of organizations that have participated to the “International Day of Drug Checking”, on March, 31<sup>st</sup> 2017 <sup>1</sup>

Drug checking can be performed by using different techniques (TEDI, 2013) including RAMAN Spectroscopy (BAONPS Project IT), Infrared Spectrometry (The Loop), colorimetric tests, TLC (Check!n) and MS-coupled instruments (Energy Control, Checkit! and Safer Party).

Drug checking is not a policy but an instrument that works within a broad system of services: the first step to undertake is a **need assessment** (Ventura et al., 2013, p31-39), both of the service system and of the target group(s). When a drug checking programme is planned, it is useful to keep in mind that the target groups that will benefit from the service are multiple and include not only people that use drugs. In

fact, a drug checking project can bring benefit to a wider range of people: policy makers and local Governments, professionals working in drug and youth service providers, researchers, forensic toxicological laboratories, hospitals, party organizers, peer operators and volunteers who are carrying out outreach interventions and even law enforcement agencies. Generally the main target group is drug users but in designing the service it can be useful to bear in mind that other people and groups could benefit from such a project and therefore also take their needs into consideration.

The second action to take is **consider who are the main essential stakeholders** that should be involved in the project, in order to manage the needs that come to light from the previous assessment, as well as to identify the benefits



1\_Eye\_sculpture\_Looney Moon Party

they can have – both directly from the project and indirectly from the results (Ventura et al., 2013, p28). It is important that stakeholders are made aware of the potentials but also of the limitations they might have in managing

<sup>1</sup> <https://drugcheckingday.com/>

the results: **the privacy of users must always be guaranteed and their data must be treated confidentially** (Ventura et al., 2013).

One of the main stakeholders that needs to be involved in the project is a **laboratory** (Ventura et al., 2013), that can analyse samples more in-depth. This stakeholder is important especially regarding the issue of NPS: not every technique can recognize NPS on the field. A GC-MS analysis is then also needed.

Professionals from the lab should be included in the decision of the **proper techniques to be**

and useful information about how to reach the specific target population for the action.

While the stakeholders are being identified, it could be useful to assess if there are **networks of organizations** at local and national level that could be interested in participating or supporting the project: they can contribute to improving the need assessment of the target groups, help the core project team in developing and carrying out the project, even connecting with policy makers and Governments.

It is possible that in carrying out a drug checking project other stakeholders are attracted and would like to join. This is certainly a positive effect of the action but can create some problems for project management. It is necessary to take in account this possibility at the designing phase of the project and decide what the procedures or the spaces should be that other organization could occupy in joining the project activities as implemented thus far.

When defining the stakeholders and then the partnership that will carry out the project, it is important to bear in mind that a lot of energy might be spent in mediation among the different requests and needs brought forward from different stakeholders. Many people have many different ideas, each profession has its own language and procedures and even though the aims are the same, there is always the need to mediate about the strategies adopted to reach the objective.

**The local or national laws** can help or obstruct the implementation of a drug checking project (see chapter Difficulties). This is a different



2\_Human Evolution 2016\_fire games

**used** to perform drug checking on the field. The decision should consider what kind of service to offer to the people but also the decision should consider the budget available for a drug checking programme. **Limitations of the technique should always be explained to users.**

As the main target group are drug users, it is very important to assess if **volunteer groups** are already performing outreach interventions and even drug checking: in fact, there is the possibility that the volunteers are very well considered among drug users (they may be opinion leaders) and they can provide mediation

issue for each European country, but some common actions can be taken to evaluate the possibility of mediating regarding legal situations.

First of all, the legal literature (legal doctrine) and jurisprudence can reveal if someone in the past has already tried to implement a drug checking project and by this, it is possible to learn useful information: what obstructed a drug checking implementation? Are those conditions still available? Is it possible to interpret the law in a different manner?

The second step is to evaluate what are the ways to perform drug checking legally: what exactly is forbidden by the law? Are there any strategies that can be explored to avoid the risk of doing something illegal (can perhaps technology or international law help us)?

If there are enough resources, this kind of study can be done by a lawyer or by people involved in the justice system; nevertheless, the legal doctrine and jurisprudence as well as new technologies can be explored by students or scholars who are interested in these issues (and involved in the project).

If drug checking is explicitly forbidden by the law the only path to tread is to take political action such as campaigns that can underpin the relevance of drug checking and justify the need to carry out this service by using policy and scientific literature to point out the positive outcomes that can derive from a drug checking service.

The **project design** has to be shared with all the stakeholders, clearly defining the roles and methods. Bearing in mind that the action will have to be a mediation between different contexts of intervention and diverse

professionals involved, it is useful to maintain a certain flexibility and to inform all the stakeholders about this.

► **For instance**, the place where underground raves (free parties) are organized is communicated at the last minute and the duration of these event can vary widely. Every partner involved in a drug checking intervention in these contexts has to be aware that it is not possible to plan everything properly (sometimes even the end of the shift is unknown) and sometimes the intervention can't be performed because the party is stopped by police.

When designing a project it is useful to begin with and illustrate the **theoretical model** (Ventura et al., 2013) that supports the intervention, in planning and carrying out the action. This is an important point for all projects, but it is even more important for a drug checking activity because a good theoretical introduction, linked to evidence-based data, can help to resolve or stop doubts about the possibility that drug use could increase, or people are helped in using drugs or that drug checking gives a "quality control" to the illegal market etc.

Furthermore, it is necessary to highlight the specific aims and objectives of a drug checking programme.

The NEWIP "Drug Checking Service – Good Practice Standards" reports a complete list of aims (Ventura et al., 2013, p47):

- to monitor illegal drug markets

- to prevent drug users from using especially dangerous or contaminated substances
- to communicate “safer-use” messages
- to improve the users’ factual knowledge about substances and risks
- to influence the users’ attitude towards drugs
- to increase individual knowledge
- to promote individual risk behaviour changes
- the early detection of problematic behaviour patterns involving consumption
- early intervention
- overdose prevention and reduction of the unconscious use of unwanted substances, raising awareness regarding high dosages of substances and/or cutting agents used in the making of psychoactive drugs.

Beside this aims, drug checking can reach other objectives:

- increase the credibility of professionals working in drug service providers (both public agencies that NGOs) for recreational drug users;
- increase the knowledge of professionals;
- improve the local or national early warning system;



3\_Joint Intervention\_Italy\_Slovenia\_Sonica Festival

Drug checking is a service that must be **integrated in outreach interventions or in services that offer drug prevention or harm reduction advice and counselling** (Ventura et al., 2013). As described in the NEWIP “*Drug Checking Service – Good Practice Standards*”:

*“Drug checking services can be offered in a drug counselling centre or on-site at parties, raves, and festivals[...].The intervention itself may have to be adapted depending on the setting. Most drug checking services do not operate in just one setting” (Ventura et al., 2013, p49)*

In the planning phase it is important to define the settings where drug checking will be performed as this might influence the composition of the staff involved.

**Drug checking is an integrated service** composed of a screening (testing a drug) and of a consultation or counselling (Bucheli and TEDI, 2013) that focuses on the users, his/her needs, harm reduction strategies and consumption patterns, related to the drug he/she is testing and in general. If needed, the user can be referred to further counselling/therapy or other programs. Consultation/counselling is a vital part of drug checking, since these services often reach users that otherwise probably wouldn’t engage in any help services. For additional information on how to design and perform counselling in a drug checking service, see “TEDI Drug Checking Consultation and Counselling Guidelines”.

The drug analysis should not be offered alone because the counselling part is a valuable opportunity for an intervention with the user and also because this could pose the risk that

the service can be deemed to help dealers in the “quality control”, workers can be sentenced to help people in using drug etc... Some of this accusations are considered criminal offences by law in many European Countries.

**The staff** has to be adequately trained and peer operators must be involved in the service. As stated in the NEWIP “Drug Checking Service – Good Practice Standards”:

*“The method relies on the influence of peer educators but will fail if the peer educators are not perceived as appropriate, knowledgeable or credible by the target population” (Ventura et al., 2013, p29)*



4\_Drug Checking\_Joint intervention Italy\_Slovenia\_BAONPS

The **drug checking staff** should be multidisciplinary and involve both peer, social workers and chemists or laboratory technicians (Ventura et al., 2013, p61). It is important to bear in mind that peers will probably feel comfortable in the context of intervention but other professionals, especially chemist or laboratory technicians, could have some difficulties in adapting their way of working in such different settings, for instance in an underground rave. Sometimes it is possible

that drug checking technicians and social workers are not “new” to party settings, but it is important not to assume that everyone that attended party settings necessarily feels comfortable to work in such contexts. Peer workers should be made aware of this and social workers should introduce and explain to other professionals the models of work they follow

► **For instance**, social workers should clarify to the stakeholders involved in the intervention why they use harm reduction messages and not “disciplinary” words or a moralistic approach when people reports of negative and side effects of substances.

**The setting** in which the service takes place has to be comfortable and offer the user the possibility to discuss with a social worker about his/her consumption patterns or behaviours but also give the chemists or laboratory technicians a proper space in which to work. It is important that **the privacy of the persons is guaranteed** and so the drug checking area should be located in a room, in a van, behind a tent or a partition for example.

On the other hand, drug checking services shouldn’t be too hidden because people will not understand and realize that there is the possibility to get their drugs analyzed.

*“favourite places for drug checking interventions are either near the entrance or near the chill out area (Chai Shop, Space Bar). The work-site should be as close and visible to the audience and as quiet as possible” (Kriener, 2001)*

**Make drug checking accessible:** In events it is important to negotiate with organizers the location of the service and the implementation conditions. Also try to consult users before setting the location or schedule of a drug checking drop-in. User's know best!

Even if staff is using instruments that can give a rapid analysis, counselling is definitively more time consuming: this is an element that should be taken into account when performing drug checking. Especially in party settings and particularly when the party happens in a single night, workers have to keep in mind that people are there to have fun and if there are just two workers engaged in the drug checking service, some people could give up if they wait too long to have their drug analyzed. Especially when the drug checking service is offered for the first time, people could underestimate the need of having such a service and continue taking the drug as they always did: just trusting the drug is really what they think they have bought. In this sense, it is important to make a choice about the way and the setting where counselling is to occur. It is also important to employ more than one social worker or a peer in the counselling activity.

► **For instance**, a different space for more in depth counselling can be planned.

Another important thing in planning a drug checking service in a party setting, is to understand what are **the peak moments in which people exchange and take drugs**. This depends on the party setting subculture:

*“a potential target population is chosen in line with the needs assessment. The needs*

*assessment consider the target population's culture and its perspectives on drug use” (Ventura et al., 2013, p38)*

► **For instance**, in underground raves people arrive at the party and take drugs throughout the night and part of the day so drug checking should be guaranteed from around midnight to eight-nine o'clock in the morning. If the underground rave is supposed to last for many days, it should be considered that a “drug checking session” could be needed also in the late morning or in the late afternoon.

In clubs and parties that are supposed to last for one night, drug checking will work just at the beginning of the event while in psy-trance festivals (in Italy) experience has shown that a drug checking service has to be planned to work during the afternoon until the middle of the night (two o'clock more or less).

In order to tailor the intervention to the specific target population

*“The active participation of relevant representative of the target group” (Ventura et al., 2013, p56)*

is important, and peer workers have to be consulted and involved in the intervention planning.

In order to have the drug checking service recognized formally and in order to let the stakeholders have benefits from the project/ action, it is important to identify instruments that allow for **data collection**, not only about the

drugs that are analysed but it is also important to collect information about behaviour change and consumption patterns. Research has to be carried out constantly, to monitor and evaluate the changes but also to produce data that can be highlighted to policy makers and Governments: they will be able to verify how drug checking is a practical and cost-effective instrument that can monitor the diffusion of psychotropic substances, change the consumption behaviour by preventing uninformed consumption of dangerous substances, protect people's health by detecting dangerous substances. In this sense, drug checking is not only a harm reduction service but it can be considered a prevention tool.

In the data collection and communication, the **privacy of drug checking users and other actors involved** (for instance club owners and party organizers) **has to be guaranteed**.

When a drug checking pilot intervention is planned in party settings, staff should consider

*“The time necessary to contact club owners and organisers and create a sustainable collaborative partnership” (Ventura et al., 2013, p51)*

It is important to **raise awareness among festival organizers and nightlife workers**: to invest time in presenting the service to festivals and other nightlife events' organizers should be planned. Furthermore, the staff should **tailor the presentation of the drug checking service for the specific club owner or party organizer** who is asked to allow a drug checking service at the event. As outreach workers had experienced somewhere at the beginning of outreach

interventions in party settings, party organizers and club owners could be afraid that allowing a drug checking service in their events could mean declaring that in their venues, drug are sold and used. Although they permit and also frequently request an outreach intervention (with info-stands, chill-outs and even first aid point and psychedelic care), party organizers and club owners could be concerned that a drug checking service can indicate to law enforcement agencies that drugs are sold and exchanged inside the venue and have criminal sanctions as a consequence. It is important that party organizers and club owners understand that **offering drug checking services doesn't mean that they have a permissive approach towards drug use in their events, it means that they are pragmatic and committed with the safety and well-being of their patrons**.

The strategies to deal with organizers' concerns about drug checking implementation can be many and, using the principle that every person is unique, it is not possible to give a definitive solution. Nevertheless, outreach workers can highlight some points:

- Drug checking is an anonymous service and data are managed only from the service and for scientific purposes: professionals involved in the service must maintain confidentiality about what they know when performing their professional activity (Code of Ethics rule);
- Drug checking is formally recognised as a strategy to protect people's health;
- Drug use is widespread and the risks increase when the drug consumption is hidden because it is difficult to prevent drug related crises;
- Drug checking is performed in a setting that guarantees directly the privacy of the users and

indirectly the privacy of the club owner/party organizer also (it is not an “open air service”);

- In many European countries partygoers are provided with a drug checking facility during music events and festivals;
- (Where applicable) drug checking is part of an integrated system of health and social services.

If a drug checking service is a pilot experience and users are not aware that such a service exists, it is necessary to **disseminate information** of intervention **about the possibility to test drugs**. This can be done by spreading flyers, but some further aspects should be taken into consideration.

- in order to guarantee the privacy of the users, it is necessary to spread information in places where flyers can be seen by a lot of people but the information should reach just those that may be interested in the service (drug users). Toilets and bars can be key places to attach flyers informing that drugs can be tested in that party;
- the flyers should contain the hours in which people are provided with drug checking, the place where the service is performed and where they can ask information about. It is essential to specify that drug checking is an anonymous service;
- depending on the context, a drug checking banner can be placed near the location where drugs are tested. However, if drug checking is performed during an event that has political messages (for instance a street parade for the legalization of cannabis) or in an event where undercover policemen are closely controlling the demonstration and the participants, it is better to avoid the banner because users could have problem after they go away from the drug checking point.

**It is important to consider that THE LIMITATIONS OF THE DRUG CHECKING TECHNIQUE USED FOR THE SERVICE SHOULD ALWAYS BE CLEARLY EXPLAINED to users.**

**The communication of the drug checking result** presents a very different situation among countries. If we look at the literature, Kriener (2001) presented two models of communication that were identified:

- Model I: graded amount of information for specific groups
- Model II: all information for everyone



5\_WAO Festival\_Infostand

These models refer to a time where pills were the most analysed drugs and the concern were focused on the fact that, publishing every results, pill-testing could result as a sort of “good pill advertisement”.

The first model makes differences about

*“who shall get which information about quality and quantity of tested pills” (Kriener, 2001, p51)*

Therefore, three different situations could bring to different levels of dissemination of information:

- information only for the person who uses drug checking, even when a dangerous substance is detected;
- information for all, in the case of dangerous substance detected
- information for some in case of “expected pills”, by showing the drug checking results near the area where drugs are tested and information for all in case of dangerous substances.

The second model doesn't make any differentiation and suggests that every drug checking result should be shared with all. This was the situation in 2001 and it was mainly based on quantitative results on pills; nowadays many powders and drugs in other forms (for instance, liquids) are circulating.

**For qualitative results** it probably makes no sense to publish and spread the result to everyone: drug checking service is focused on providing people with consultation or counselling and the results should be spread on-site only when a NPS or dangerous substance is suspected to be sold instead of another, to alert people. A more in-depth analysis will have to be performed and confirm what exactly is contained in the unknown drug.

**For quantitative results** the level of dissemination of information can vary, depending on many issues:

- if the quantitative technique is used on the field or not;

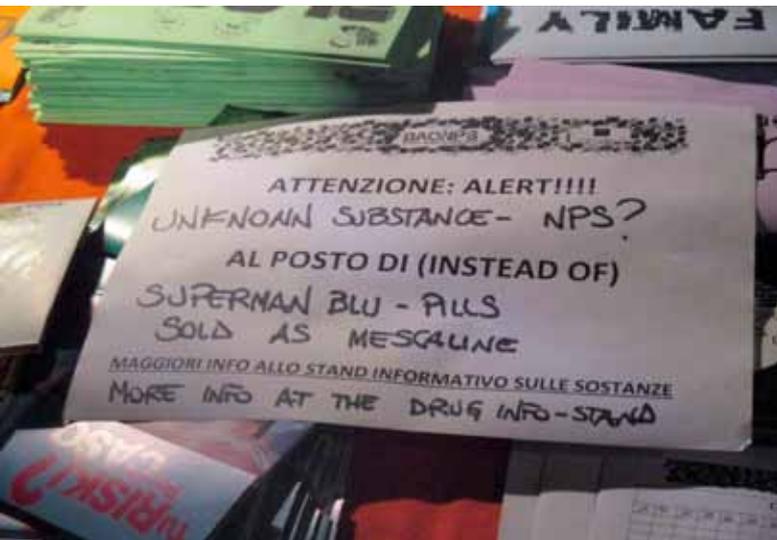
► **For instance**, if quantitative techniques are performed in lab with GC-MS analysis, the drug checking staff should deal with the law and the rules of substance transportation of its own country. The transportation problem, could limit the number of samples to be sent in lab (it is not possible to transport what is recognized as a controlled substance on the field) and probably it make more sense that just that specific drug checking user has the result, by publishing the latter on a website with a code.

- the level of privacy that the organisation performing drug checking decides to give to the users which samples are sent to the lab;

► **For instance**, by sending the result by e-mail (user is somehow asked to give the service his/her personal data) or by publishing the result on a web site, with a code (totally anonymous)

- the possibility than by publishing quantitative result the service can be deemed to be a “quality control” for drugs;
- the level of risk posed by the discovered substance and the extent of the sample use (was it bought by a user online and used only by him or is it widespread)

During the implementation of a drug checking service, highly dosed or dangerous substances, NPS and prescription drugs can be detected. As the main purpose of a drug checking service is to protect people's health and the unintentional use of dangerous substances or NPS, **alerts** should be spread.



## 6\_On site ALERT

There are different levels to spread an alert:

- disseminate the alert during the party/inside the streets;
- disseminate the alert on social networks and web;
- disseminate the alert among drug service providers;
- communicate the dangerous substance or NPS to the local/national Early Warning System;
- other communication strategies (based on the situation).

The first two points can be considered informal channels; the third and the fourth ones can be both considered informal or formal, depending on how and where the communication is disseminated, while the fourth point refers to the institutional process for communicating that a dangerous substance or an NPS has appeared.

The channel(s) that has to be used to spread an alert depends on the risk assessment and formal integration of the organisation and of the drug checking instrument in the service provider system.

To **disseminate an alert on site**, immediately when it is detected that a dangerous/unknown substance or an NPS is sold with the name of a traditional drug, is the most rapid way to inform the partygoers that something potentially dangerous is sold. The impact of the alert can be seen immediately: more people will test their drugs and come to the info-stand to have information once the alert is spread. Recently, Martins et al. presented data from Boom Festival showing that after an alert was published in the festival grounds warning patrons that DOx and 25x-Nbome were being sold as LSD, the number of people wanting to test their alleged LSD increased considerably. This reinforces the idea that alerts when used with caution are extremely effective (Martins et al., 2017).

To **disseminate an alert on on line platforms (website, social networks etc)** is discussed: some think that this could pose risks while others think that this is an effective and rapid way to inform people.

To **disseminate alerts among drug service providers** can increase the dissemination of the information and update professionals about dangerous or new substances that are circulating. To reach drug service providers quickly, it is possible to use networks, associations of professionals or simply mailing-lists.

► **For instance**, the Italian BAONPS partners spread alerts by using the mailing list of the Italian Harm Reduction Network (Itardd<sup>2</sup>)

**The communication to the National and European Early Warning Systems** is the (formal) way to inform professionals, drug service providers, Governments and policy makers about dangerous substances or NPS that have appeared and may help the construction of proper intervention and policies.

**Other communication strategies** can be evaluated, based on the risk assessment of the dangerousness of the substance detected; one of these strategies can be **disseminate the alert via general media**.

Concluding, there are two **cross cutting consideration about the general communication and advocacy for a drug checking service**:

- **Language matters**: drug checking is a public health response that can avoid and reduce several risks related with drug use. This is clear for most harm reduction professionals and users, but unfortunately, drug checking still has many opponents. So when publicizing the service it is important to think clearly about the language used and adapt the message to our target groups. It is very different to advocate for drug Checking to a politician or to a festival organizer. Drug checking has so many advantages think of the ones that might interest the most each of your stakeholders. Advocacy is a specific skill that not all outreach works master, so if you have the opportunity hire professionals to help you convey your message in the best way possible.
- **Law is not enough to guarantee the full implementation of drug checking services**: it is important to mobilize local decision makers, partners, promote advocacy initiatives and, in general, raise awareness about drug checking as a public health response.

<sup>2</sup> <http://www.itardd.org/chi-siamo/>

# DRUG CHECKING HISTORY IN THE COUNTRIES INVOLVED IN THE B.A.O.N.P.S. PROJECT

## DRUG CHECKING IN EUROPE: THE NEWIP AND THE TEDI PROJECT

Drug use imposes several challenges related with public health. One of these challenges is related with the content of the substances being used. Most of the psychoactive substances being consumed are illicit and, consequently, made available via informal and unregulated markets. In the late 80's early 90's, European harm reduction teams were worried with the quality of the synthetic drugs being used in party settings, so drug checking began being introduced progressively as a harm reduction strategy to provide objective information about the drugs content and avoid the use of dangerous, toxic or totally different mixtures (Ventura, 2013; Brunt et al., 2016). The Netherlands, was the first European country to implement a drug checking service creating the Drug Information and Monitoring System (DIMS), a government response to monitor the preexisting and new drug markets by analyzing and producing information about the drugs being sold (dose, composition, adulterants and availability) (Brunt et al., 2016). Soon

afterwards, other European countries began implementing drug checking in nightlife settings, for example: CHECKiT (Vienna, Austria) and Energy Control (Catalunia, Spain) in 1997, Saferparty.ch (Zürich, Switzerland) in and "Contact Point" (Lisbon, Portugal) in 2001, SINTES (France) and Modus Vivendi (Brussels). These drug checking experiences provided very relevant insights, allowing the identification of specific adulterants and adulteration trends in popular and available drugs (for example, MDMA, cocaine, and amphetamines), early detection of new synthetic drugs and in the provision of user-derived information (street retail composition, prices and effects of users' samples) (Brunt et al., 2016).

In 2011, the European project "Nightlife, Empowerment and Well-Being Implementation project - NEWIP" (co-funded from the European Union, in the framework of the Health Programme, 2011-2013) was launched, creating a transnational collaboration effort among EU projects working in party settings<sup>3</sup>. One of the main Work packages of this project created Trans European Drug Information (TEDI), that network implemented with the aim of reuniting existing EU consumer-targeted drug testing systems. The main objective of TEDI network was to assemble the drug testing information into a central database for analysis and monitoring of the European drug markets. This network included the drug checking services of Spain, Switzerland, Austria,

<sup>3</sup> This project was coordinated by Energy Control-ABD and its associated partners were: Modus Vivendi (Belgium); Stichting Jellinek (Holand), Drug Scouts - Suchtzentrum Leipzig (Germany), THLab - University of Padova (Italy), CHECK!N - APDES (Portugal), Techno Plus (France) and CHECK iT! - Verein Wiener Sozialprojekte (Austria).

Netherlands, Belgium and Portugal. This collective effort was very effective in monitoring the adulteration patterns in illicit drugs being sold in EU drug markets, such as cocaine, ecstasy, and amphetamine. It was also very relevant to respond to the emerging markets of new psychoactive substances. In terms of results, between 2008 and 2013, TEDI drug checking services analyzed a total of 45.859 drug samples. The analysis of the results of different national drug checking services allow “to generate a global picture of various drug markets”, identifying more general trends in adulteration but also local differences that can be very relevant as inputs for risk assessments (Brunt et al., 2016:196). After TEDI creation, other drug checking services joined the network, namely: The Loop (UK), Legal High Inhaltsstoffe.de (Germany), CEPT (Luxemburg), Medicinn du Monde (France), Wedinos (Wales), among others.

Recently, other countries were able to implement drug checking services (for example the Italian drug checking implemented under BAONPS project), and in general it seems that this service is gaining a growing attention and also a growing interest. This is related among other factors with the NPS phenomenon that imposes important changes in the drug markets, namely: the appearance of a growing number of substances and the adulteration of more traditional drugs with NPS. Also, nowadays, more scientific evidence is available about the benefits of these services to monitor drug markets, inform risk assessments and early warning systems, rapid responses (for example warning campaigns). Two major benefits of these services are highlighted by drug checking professionals: their efficiency

and pragmatism as an user-oriented prevention and harm reduction measure. Drug Checking services not only inform drug users about the real content of the drugs they intend to use, but they also allow the monitoring of updated information on the street retail allowing a wider perspective of the markets, since most of the drug markets information is based in police seizures only (Ventura et al., 2013; Brunt et al., 2016)..

Still, more drug checking services and more financial resources are needed to improve health and safety of drug users. Several teams are continuously advocating for the creation of laws and funding to support the implementation of these services on a local level. In the 31st of March 2017, the first “International Drug Checking Day”, was celebrated, an initiative that created a global advocacy movement for the generalization and sustainability of drug checking services.



7\_Street Rave Parade\_Bologna

## DRUG CHECKING IN ITALY

During the year 1996, in a popular social centre (Livello 57) located in one of the main university towns of Italy (Bologna), a group of psychologists, social workers and political activists noticed that something was changing in the consumption patterns of people that attended parties in the social centre.

Partygoers were not using only cannabis but ecstasy, amphetamine, ketamine and they did it in uninformed and in dangerous ways (for instance, sharing paper money to snort). The Regional Council together with a local NHS drug addiction service provider funded harm and risk reduction interventions in party settings and the “Drop-In Project” was created.

It was focused on promoting chill out spaces in party settings, from underground raves to festivals, and research was also carried out: drug users were asked to report the positive and negative effects of party drugs in order to create informative leaflets and questionnaires were collected to assess the needs of the target.

In 1998, Livello 57 organized a conference called Substances, Planets and Interventions (D’Onofrio, Monteventi, 2011, p182) where European organizations that were involved in the “Basic Network”, performing harm and risk reduction interventions in party settings, explained the potential of drug checking. This new tool seemed to be a good solution to meet the needs of the target group and especially seemed to be a good instrument to get really get in touch with the target group and mitigate the risks in using drugs.

Drop-In Project workers started to perform drug checking interventions in party settings by using colorimetric reagents but when the Institutions were asked to recognize the practice, they didn’t agree because there was the concern that drug checking could be seen as a tool that “facilitate and encourage people in using drug”. This was probably due to the fact that drug checking was performed without a proper setting: there was not privacy for users, it was not performed in a chill out space or in association with an info-point giving information about harms and risks that can occur in using drugs. Furthermore, every drug checking result was published and this could be seen as a “quality control to publish the best pill”.

Social workers involved in the Drop In Project, that in the meanwhile changed his name in Lab57<sup>4</sup>, were not asked to stop the drug checking activity, but they were asked to

<sup>4</sup> <http://lab57.indivia.net/>

declare that the service was under their responsibility, as a private association. In the statement was declared that they were carrying out the service for health purposes and NHS local service providers were asked to join in a pilot experience, but an answer never came. Lab57 was not formally allowed but it was not formally stopped either. Therefore, volunteers continued in performing drug checking in party settings by using a proper setting (info-stand and chill out area) and avoided to publish every single result: just alerts were now spread in the chill out space. Lab 57 workers were trained by Erik Fromberg.

At the beginning of the millennium, a network of harm reduction workers, scholars and users was created: it was called M.D.M.A. (Movimento Di Massa Antiproibizionista – Mass Movement Against Prohibition) and was proposing alternative policies to better deal with the drug use and abuse issue. Drug checking was presented as an instrument to help harm reduction and risk reduction interventions in party settings and again discussion on this instrument was stimulated.

In 2006 another social centre from Turin, CSOA Gabrio, set up an informal and self-funded outreach project, Infoshock<sup>5</sup>, that mainly intervened in underground raves providing people with first aid, drug information and by offering a self-managed chill-out space. The following year, the volunteers created an info-point where they started to perform drug checking weekly. By collecting questionnaires

to assess the needs of the target, Infoshock noticed that people were using drugs in an uninformed and high risk manner, by mixing high quantities of different substances. Information and first aid were not enough and so they decided to perform drug checking in the field because the aim was to get in close contact with users and discuss clearly with them drug use patterns and habits. As an informal and self-funded project, Infoshock didn't try to assess institutional willingness to recognize drug checking. Nevertheless, volunteers had strong cooperation, especially in underground raves, with institutional projects as Neuttravel Project: the former were performing drug checking and managing the chill-out area while the latter ran the info-stand and the first-aid point.

At this point, it is possible to say that drug checking in Italy had been carried out informally for a long time from people advocating for harm reduction policies coming from underground and alternative movements; at the beginning, drug checking service was offered "in an open scene" and clearly declared, but some



8\_Neutravel Project\_infostand

<sup>5</sup> <https://gabrio.noblogs.org/infoshoc/>

restrictive policies from 2006 to 2013 brought the volunteers that were carrying out the service to do it just in underground context. The fact that those services had had no resources to collect and analyzed data, meant they were unable to promote (and defend) drug checking as a strategy for health protection.

In 2010 there was another attempt to perform drug checking formally. Three cooperatives from Rome, that were running Nautilus Project (harm and risk reduction in party settings) tried to implement drug checking by networking with different institutions (the National Department for Policies Against the Drug, the National Health Institute and the public prosecutor of the city of Rome). The proposal was to collect samples in party setting and send them to a lab to be analysed. On site drug checking was not in the project. Even though the public prosecutor on one side agreed with the project and understood the importance of the instrument, on the other side he had to recognize that that the project could not be carried out because the drug transportation is not allowed. This attempt of drug checking ended in a biological samples analysis (hair and saliva).

Four years later, in 2014, workers from Neutravel Project tried a different strategy to implement drug checking formally. The decision was taken because the drug analysis was often requested from people encountered during outreach interventions: many users reported strange effects from drugs and they wanted to check substances. Neutravel workers were aware about the spreading of NPS and they realized that the only way to clear doubts and monitor the potential threat given by NPS was to try to

implement formal drug checking again. Coop. Alice and its historical partner in Neutravel Project, the local NHS drug addiction service provider ASLTO4, networked with a forensic toxicological lab and a research institute and during one of the first meetings, they tried to define what the NPS issues could be and what were the actions that could be carried out to face this new threat. Drug checking was one of the results of the brainstorming session. The other was a research project that could identify NPS consumption patterns, the cultural influences that could act a risk or protective factors that could increase or prevent the use of drugs.

In 2015 BAONPS project was funded by the European Commission, under the Justice programme and drug checking on the field started to be formally implemented in Italy. A legal opinion<sup>6</sup> (De Caro, 2015) definitively stated that drug testing on the field, in a proper harm and risk reduction programme and intervention, is not forbidden by the law and the use of a RAMAN Spectrometry tool effectively avoid the operator to touch the substance.

This was the background that allowed BAONPS project to formally perform drug checking for the first time in Italy. European funding and the partnership with CNCA (a national network of organisations involved in social and health care issues) allowed social workers and chemists to perform drug checking all around Italy, disseminating the tool among outreach teams that intervene in party setting.

Since the BAONPS Project has been

<sup>6</sup> <http://lab57.indivia.net/materiali-informativi/test-rapido-delle-sostanze/analisi-colorimetrica-delle-sostanze-e-legalita/> (only in Italian)

implemented, two projects have been carrying out experimental drug-checking services in party settings in Lombardy:

- GoodNight Project – Bergamo (MI) (Cooperativa Aeper in partnership with Coop.Itaca and Coop. Alchimia): the project is funded by the Lombardy Region with the European Social Fund (promoting social inclusion – fighting marginalisation).
- Cooperativa Lotta Contro L'Emarginazione: the outreach teams have been performing drug checking in party settings from January 2017

Other public (NHS) and private (NGO) organisations have been performing or have planned to implement a drug checking service, targeting the heroin and cocaine street users:

- Drop-In Collegno (NHS - public service provider): Since July 2016 the clients can have their drugs analysed
- Drop-In Reggio Emilia (it is managed by an NGO - Coop. La Quercia – in partnership with a public NHS drug service provider - AUSL RE): the NGO applied for a project including drug checking in the call for proposal “JUST-2016-AG-DRUGS”, Drug Policy Initiatives – Justice Programme

During the writing of this paper, the Italian Health National Institute (Istituto Superiore di Sanità) is evaluating the possibility to formally involve drug checking services in the National Early Warning System (N.E.W.S.) and professionals from the Italian partners of BAONPS project will contribute to the renovation of N.E.W.S.

<sup>7</sup> More information about this law available online in: [http://www.sicad.pt/BK/Publicacoes/Lists/SICAD\\_PUBLICACOES/Attachments/94/DesdobramentoDescriminalizacao\\_PT\\_EN.pdf](http://www.sicad.pt/BK/Publicacoes/Lists/SICAD_PUBLICACOES/Attachments/94/DesdobramentoDescriminalizacao_PT_EN.pdf)



9\_Dancing

## DRUG CHECKING IN PORTUGAL

### LEGAL FRAMEWORK

In Portugal, the history of drug checking services within a Harm Reduction framework is relatively recent and has been facing important constraints that inhibited its full implementation.

In November of 2001, Portugal did a somewhat radical change in its drug policy, implementing the law nº 30/2000, of November 29<sup>7</sup>. From then on the acquisition, possession and consumption of drugs has ceased to be a crime in Portugal. Consumption of illicit psychoactive substances remained an act punishable by law, but it ceased to be a criminal offense (and as such a court case) and became a social misconduct. Alongside with this legal change the existing responses to drug use were reinforced and a law decree was issued (No 183/2001 of 21 June) creating a legal framework for a number of harm reduction responses namely low threshold substitution treatments, outreach teams, needle exchange programs and experimental drug checking services. The law decree specifically refers that “info points can be equipped with the tools

necessary for performing chemical analysis to supplant the user's lack of information about the substances" (No 183/2001 of 21 June, p.). However, drug checking implementation in the field was always faced with numerous constraints namely due to the law's ambiguity concerning fundamental issues like handling and transporting illegal psychoactive substances.

## DRUG CHECKING TIMELINE

The first drug checking experience in Portugal began in 2001 when the Portuguese Association "Ares do Pinhal" implemented in Lisbon a mobile pill testing project using colorimetric reagents (Martins, Valente & Pires, 2015). Later in 2006, APDES created CHECK!N – an outreach project designed to intervene in party settings with the aim of reducing risks and promoting safer drug use patterns and practices. In an early phase, CHECK!N used colorimetric reagents to inform its users about the content of their drugs. In order to minimize the limitations presented by the sole use of colorimetric reagents, CHECK!N establish a partnership with the Legal Medicine Institute (IML) to be able to provide users with more accurate information about their drugs' contents. Still, once again the difficulties in transportation and handling of the samples collected in the field didn't allow this partnership to be fully developed.

So in 2009, with a co-funding of the High Commissioner of Health and with the training of Energy Control<sup>8</sup> APDES was able to implemented CHECK!NG – a fully integrated drug checking service. This pioneer project was funded for 4 years (2009-2013) allowing the acquisition of specific laboratory material and the integration of a chemist in the outreach

team. CHECKING began implementing Thin Layer Chromatography (TLC)<sup>9</sup>, in party settings and, later, in a drop in facility (Martins, Valente e Pires, 2015). Sample collection happened during the week and analyzed once a week (on Fridays). This drop in was offered in the APDES headquarters which are located in a remote area of the city, about 20km from the center and with limited transportation access, so only a very small number of users went there to test their drugs. In the beginning of the project CHECK!N also offered users' the possibility of sending their samples via mail, but this raised several legal problems and the team was strongly advised by the police to stop doing this. In 2011 CHECK!N integrated, along with several other Drug Checking Integrated services , as a founding member the "Trans European Drug Information" (TEDI) – a "European database system that collects, monitors and analyses the evolution of the various European drug scenes and reports on them on a regular basis". Drug Checking organizations share their data on the T.E.D.I. database, which was originally established in conjunction with projects that worked directly with drug users." (Drug Checking Good Practice Standards pag. 10)

After the governmental funding finished, the team was only able to perform drug checking once or twice a year and only when the festival organizers guaranteed the minimum conditions

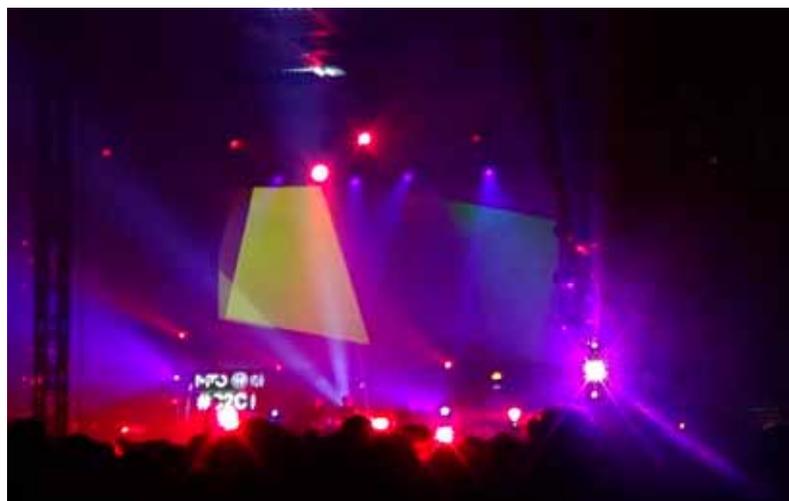
<sup>8</sup> Energy Control is a Spanish harm reduction team promoted by ABD, that intervenes with drug users in party settings and, since 1999, offers drug checking services in festivals and in drop ins.

<sup>9</sup> Thin Layer Chromatography (TLC) is an analytical tool widely used because of its simplicity, relative low cost, high sensitivity, and speed of separation. This technique allows the qualitative analysis of a mixture by separating it and defining its components.

for its implementation, and supported the basic expenses of the team professionals and volunteers. In these events, the technical and human resources were supported by APDES and eventually by other EU projects (some of the material costs were covered by PINS<sup>10</sup> in the summer of 2016 and by BAONPS in the summer of 2017).

In 2017 the Department of Social Rights of the Lisbon City Hall, APDES received financial support from the municipality to implement a drug checking service in 4 festivals organized in the city. But once again due to the ambiguous character of the law the police believed the necessary conditions were not reunited to perform Drug Checking and the intervention did not happen despite the municipality's interest.

Considering the Portuguese drug checking history, it is possible to realize that although the Portuguese decriminalization model offers a legal framework for the implementation of drug checking the truth is that, in practical terms, the decision makers and governmental institutions had frequently inhibited civil society initiatives to fully implement these responses, showing that legal framework is not enough "to make it happen".



10\_ClubToClub\_Turin

## DRUG CHECKING IN SLOVENIA

The first elements of drug checking service began in Slovenia after year 2000. DrogArt started with a small subsite e-tester on [www.drogart.org](http://www.drogart.org) with basic information on MDMA pills from Europe. It was a repository of some randomly acquired data from the web, and for that reason highly inaccurate without any backup from laboratory tests or reagents. So DrogArt had no chance to present tests from MDMA that was present in Slovenia at that time, only rough comparison based on logos was available. It was however interesting, that the subsite was added on the request from users.

The rationale behind the site was, that DrogArt will inform (mostly) MDMA users, that there were also other active substances (amphetamines, ketamine, MCPP, caffeine) in the pills and that the content of active ingredient was from 50 up to 120 mg at that time. Also there were variations of MDMA, MDEA and MBDB in the pills circling around Europe at that time. Despite the fact, that it was only a site with random quantitative data of different

<sup>10</sup> Project "Connecting Peer Intervention in nightlife settings", funded by ERASMUS+ programme. Information about this project available in: <http://www.connectingpins.eu/>

MDMA pills the benefits of such information were evident for awareness raising and risk reduction.

First laboratory analysis with the aim to reduce potential harm of the use of dangerous substances occurred in 2001, when a death of a party goer, connected with ecstasy use, happened. With the help of the peers on the field DrogArt searched for information about the pill that was allegedly taken and asked party community to bring that specific pill to be analysed, in order to inform other party goers about its content and potential risks, connected to its use. Analysis was performed in cooperation with Police in the National forensic laboratory. It showed that the pill contained MDMA, which brought to discussion how to communicate to the party goers that also use of a 'good' pill (containing only MDMA) can be fatal and raise awareness about harm reduction strategies, (especially for preventing cerebral edema, which was the cause of death in that specific case) and was on the other hand a starting point for development of drug checking service in Slovenia (Paš & Sande, 2011).

Later on DrogArt began with selling colorimetric reagents and started the cooperation with Ministry of interior as part of EWS system, in order to collect samples to be analysed in National forensic laboratory. At that time only substances with reported negative reports from users regarding strength or unwanted effects were handed out for analysis.

NGO info points for anonymous drug sample collection have been officially set up since 2006 in

two non-governmental organisations (DrogArt and Stigma) as part of the Early-warning system on new psychoactive substances (EWS). In 2015 and 2016, as part of the I-SEE project, the existing EWS system was upgraded with seven new info points for drug sample collection, to then comprise nine info points in total (two for nightlife drug users, six for intravenous users, and one for both user groups). After collection of the sample at the info point, the substance is anonymously confiscated and tested in the National Forensic Laboratory. Afterwards, the result of the analysis (quantitative information is not available to the users) is sent to both the user(s) and the EWS, which then, according to the risk-assessment, proceeds to produce a broader alert on the emergence of a hazardous substance intended for users. Currently, users in Slovenia can test their substances by either buying a colorimetric test (online or in DrogArt info point) or by bringing it into one of NGO info points where it can be tested with colorimetric reagents (only in certain info points) or collected for a laboratory analysis. Since this is an integrative service, we also conduct a brief consultation/counselling with the user.

The establishment of drug checking system was included in both national Action plans on Drugs (2015-16 and 2017-18), which indicates the recognition of the service as a part of national drug policy. The document doesn't define if the service should be stationary or mobile. However, due to legal restrictions, until now there has not been any onsite drug checking service that is active in Slovenia. In 2016 we started a discussion about collecting samples in NGO mobile units, which opened the legal problem of possession and transportation of

possibly illegal substances to the laboratory. We tried to figure out a solution together with the Police, who offered the possibility that the samples be collected by the same protocol as in fixed units. The Police should be called immediately after the sample is collected and afterwards sample is seized by the Police on the nearby location. Only few of the organizations decided to collect samples in the mobile units, because the protocol didn't suit their working dynamics (for example they had a schedule of field work, which didn't enable to wait for the policeman to collect the sample). At the moment we are still looking for other solutions and agreements, which would simplify the transportation of the collected samples.

In the scope of B.A.O.N.P.S. project, we also engaged in various discussions with policy makers and party organisers about the possibility of drug checking implementation also in nightlife settings and in 2017, we carried out a pilot on-site drug sample collection, making drug checking service accessible also to partygoers from a region, where there is no NGO info point.

In 2016, the first survey on drug checking was conducted in Slovenia, as a part of project I-SEE evaluation. The survey which included 102 users from harm reduction programmes and 554 nightlife drug users (online questionnaire), offered valuable insights about users' opinions and needs regarding drug checking service. According to the results, the accessibility of a drug checking service is important to 93,4% users from nightlife settings (n=455) and 89,2% of respondents from the programmes (n=102). Both groups perceive drug checking

as a contribution to risk reduction - 87,6% users from nightlife settings (n=437) and 80,2% users from the programmes (n=101). The main reasons for the use of the drug checking service in both samples are distrust in the quality of substances on the market, risk reduction, and the users' wish to get information before use of the drug. As the principal reasons discouraging them from using the service, nightlife users stated: the fear of police accessing the data on users, the loss of anonymity, and waiting too long for the results (Sande & Šabić, 2017).

The survey gave us useful directions for further intervention and confirmed that an upgrade of the service is needed, especially regarding the waiting time for results. This remains one of the challenges that we can hopefully tackle in the future, together with the implementation of mobile units (supported by public funding) and adequate regulation of drug checking on the systemic level.

## DRUG CHECKING IN GERMANY

For many years now, ambulatory drug service providers have been working to provide drug checking to at-risk users to improve the access to contact, counselling, and therapy services. The department of health rejected a Berlin project. At the same time, trends in the drug market and in consumption behaviours are becoming more evident as a consumer protection-related substance analysis.

Unlike other European countries, drug checking has not been established and accepted in Germany. Legally, the implementation of such a project would be possible, but it is not politically desirable. Several state governments (Berlin, Thuringia) have stated that they want to start drug checking, but none of them has undertaken concrete and serious steps for realization (Leicht 2016<sup>11</sup>).

The aims of drug checking are to reduce consumption related harms (harm reduction), to establish contact with consumers and to facilitate access to care system and prevention, as well as to monitor the illegal market and to identify particularly dangerous substances. Differentiated according to target groups, drug checking is an offer for consumers of synthetic substances at parties, opiate consumers, men who have sex with men and do chemsex as well as NPS / cannabinoid consumers. Various implementation variants are considered: ambulatory, stationary or mobile drug checking

or a combination of these. The implementation of such a service should link to existing consultancy, recovery and prevention services.

### NEED FOR DRUG CHECKING

The market and trafficking of psychoactive substances is in a state of upheaval and brings new, unknown risks to consumers.

Due to these current trends, the care system must adjust to changed patterns of consumption and increase their awareness of the new drug patterns and new substances. The therapeutic aids must be adapted. In view of this, the political and legal contradictions and absurdities become increasingly perceptible.

High-risk consumers should also be able to use possibilities of substance analysis, for example, users in drug consumption rooms. The possibility exists, to inform at-risk consumers with factual information and enable a change in behaviour, e.g. reduction of a dose, the omission of injecting substances coming from an unknown dealer, the change from injection to less risky forms of consumption.

In the nightlife sector is also a need for target group-oriented education and the availability of analysis results. There are regular reports of LSD falsifications (25I-NBOMe instead of LSD) from occurring side effects. Users frequently ask for the possibility of analyses to differentiate between amphetamine and methamphetamine. The inhibition threshold is (still) present

<sup>11</sup> [http://www.fixpunkt-berlin.de/fileadmin/user\\_upload/PDF/Mobilix/ADSB2016\\_Bericht.pdf](http://www.fixpunkt-berlin.de/fileadmin/user_upload/PDF/Mobilix/ADSB2016_Bericht.pdf)

for consumption of methamphetamine and accidental consumption should be avoided. The party projects in Germany are still limited to the reproduction of analytical results from other European countries.

## HEALTH POLICY FOR THE INTRODUCTION OF DRUG CHECKING IN GERMANY

**Germany:** In its response to a small request from “Die Linke” (left-wing party) in 2011, the federal government made it clear that they do not regard drug checking as a measure of drug prevention and therefore rejected it<sup>12</sup>.

**Berlin:** The Berlin government declared in the coalition contract of 2016:

*“The coalition will strengthen measures aimed at reducing the accompanying risks of drug use (harm reduction). These include the development of “drug-checking”, the further development of drug consumption rooms, the distribution of clean consumption materials and the disposal of the used material as well as the examination of a project for the use of naloxone in opiate poisoning” (SPD/Bündnis 90-Die Grünen/Linke: 2016)<sup>13</sup>*

**Thuringia:**

*“The introduction of so-called drug checking projects means effective protection for consumers. We also want to examine other measures of harm reduction” (SPD/Bündnis 90-Die Grünen/Linke: 2014)<sup>14</sup>*

## LOBBYING

A milestone in recent developments in Germany is the fact that the club lobby associations (associations of the party organizers and club operators: LiveKomm, Clubcommission) have opened up to the issues of health and substance consumption. The topic has thus emerged from an expert niche and taboo corner. In the run-up to the Bundestag election, LiveKomm demanded (2017<sup>15</sup>):

- decriminalisation of club visitors and operators
- continue to promote and develop health promotion in the nightlife, including the “BEST” Training programme for health promotion in the party setting<sup>16</sup>
- introduction of a “mobile drug checking”

In the course of the Nights Conference<sup>17</sup>, the Federal Association for Safer Nightlife “Soncis” has been founded. Soncis wants to install a competence centre for safer-nightlife on national level and the implementation of drug checking. These proposals have been submitted to the Federal Ministry of Health.

## HEALTH PROMOTION, PREVENTION MEASURES AND DRUG CARE IN GERMANY

In Germany, there are many activities, which are a good basis for the introduction of drug checking.

It exists a well-developed drug care system.

<sup>12</sup> <http://dip21.bundestag.de/dip21/btd/17/070/1707006.pdf>

<sup>13</sup> [https://www.berlin.de/rbmskzl/\\_assets/rbm/161116-koalitionsvertrag-final.pdf](https://www.berlin.de/rbmskzl/_assets/rbm/161116-koalitionsvertrag-final.pdf)

<sup>14</sup> [https://www.die-linke-thueringen.de/fileadmin/LV\\_Thueringen/dokumente/r2g-koalitionsvertrag-final.pdf](https://www.die-linke-thueringen.de/fileadmin/LV_Thueringen/dokumente/r2g-koalitionsvertrag-final.pdf)

<sup>15</sup> <http://www.livemusikkommission.de/was-wir-wollen/>

<sup>16</sup> <http://best-clubbing.de>

<sup>17</sup> <http://stadt-nach-acht.de/>

Selective-indicated and structural prevention measures and health promotion projects at parties are available in some cities and regions; they receive public or private funding. They have good access to nightlife. In addition, there are various voluntary and self-organized projects without public funding. Projects of health promotion / HIV prevention targeting LGBTI\* communities are specialized in specific aspects of chemsex. There are also harm reduction service providers, which reach high-risk consumers (opiates, cocaine, which mainly practice injecting consumption patterns).

The project BEST - training program for health promotion in party setting (organized by Fixpunkt) has been sponsored twice (2014/15 and 2016) by the Federal Ministry of Health. Various health projects are involved here, which can provide trainings for club staff and party organizers in several German cities and regions. A specific module contents knowledge transfer about New Psychoactive Substances (NPS).

Phar-Mon NPS is a nationwide information system for the abuse of NPS and drugs. The basis is an interdisciplinary network, which at national level facilitates the rapid and reliable identification of new developments as well as monitoring and reporting on the consumption of these substances. Drug checking is not (yet) available for this network as an instrument.

In Frankfurt a.M. exists the project "legal high Inhaltsstoffe", which is analysing with the support of the University of Freiburg i.Br. contents of NPS with a focus on synthetic cannabinoids.

Berlin service providers Fixpunkt and vista prepared in 2015 a concept for a stationary analysing of unknown, psychoactive substances. This was submitted as an application in the year 2016 to the Berlin administration for health. The application was rejected with very little justification.

## OUTLOOK



11\_Free Party

For the year 2018 the Berlin service providers Fixpunkt, vista and Schwulenberatung have applied for funds to carry out drug checking. It is to be expected that the Berlin health administration will organize a research about the possibilities for realization of this project..

One option to generate information on the potential and harms of illegal substances in 2018 is the realization of "substance monitoring" within the framework of the international research group DRUSEC. In several cities in Germany, waste materials in drug consumption rooms will be analysed in a laboratory. Individual results will not be reported. In this respect, this is not drug checking. However, it's a promising step forward.

# DIFFICULTIES ENCOUNTERED IN THE DRUG CHECKING IMPLEMENTATION

## LEGISLATION ON DRUGS

In many European countries there might be certain law frameworks that could pose problems in the proposal of a pilot drug checking implementation.

## POSSESSION OF SUBSTANCES

### PROBLEM DESCRIPTION

Drug possession is generally not allowed in many European countries. Depending on the national law, generally there are specific drug schedules that specify the range of drug quantity (minimum and/or maximum amount or active ingredients) that are considered for prosecution.

In some countries, the uncertainty about what is considered as possession and what not, seemed to have caused problems in the planning of a pilot experience of drug checking.

### WHAT SOLUTION WAS ADOPTED?

Since 2006, drug checking in **Slovenia** has been a part of Early warning system, which is the legal frame for collecting samples in NGO info points. Establishment of drug checking system was also included in both national Action plans on Drugs (2015-16 and 2017-18), which indicates

the recognition of the service as a part of national drug policy.

However, legal dilemmas regarding drug checking arose when we started looking into the possibilities of sample collection in NGO mobile units and on-site drug checking in 2016. In Slovenia the question of drug checking was considered from two different law acts, more specifically 'Criminal Code', which incriminates supporting activities of others' drug use (defined as criminal offense), and 'Production of and Trade in Illicit Drugs Act', which incriminates possession of illicit drugs (defined as civil offense). Because drug checking is not specifically regulated in the existing legislation, we turned to the Institute for criminology to obtain a legal opinion, in order to clarify the legal issues of possession of potentially illegal substances (while performing drug checking onsite and transporting it to the laboratory) and onsite drug checking itself. In the legal opinion it was expressed that it is possible for the drug checking service to be implemented inside established legislation, but suggested improved legal clarification of the topic (more detailed legal regulation), in order to efficiently protect drug checking service providers from practical point of view. The legal opinion pointed out also the question of criminal responsibility for misconduct and importance of clear standards for drug checking, which provide the highest possible level of security for service users and the framework for the responsibility of the service provider.

However, even when, from the legal point of view, the service can technically be implemented, other considerations should be made. Since it is carried out in different local environments, it is crucial to meet with the local

police representatives to clarify the purpose of the service and agree on the execution details, to avoid unnecessary complications and misinterpretations.

A legal opinion can serve as a good basis for further arrangements and discussions with policy makers. In addition, gathering information about how the legal dilemmas were confronted by organizations in various other European countries turned out to be valuable in the discussions as well.

**In Italy**, institutional outreach projects, working in party settings, were stopped due to the concern that drug checking could increase drug use but especially the concern that drug checking could pose some risks with the law. Particularly, the concern was about the fact that, in order to analyse a sample, the worker has to touch it and organisations were afraid that this could be seen as “possession of substances” that in Italy is an administrative offence.

Despite the fact that the law do not explicitly forbid drug checking and in the legal literature and case-law there were no articles and sentences about it, no one from professional services dealing with drug use and drug addiction implemented the service.

The concerns of workers were at first mitigated by a legal opinion made by Avv. Elia De Caro, from Antigone Association<sup>18</sup> (De Caro, 2015<sup>19</sup>): the Italian Constitution (ART 32) protects

the right to health and when drug checking is performed in a prevention or harm reduction framework, it can be seen as a tool to protect people’s health. Furthermore, there is no possession issue for the operator because it is always the drug user who manipulates the substance. Finally, the analysis happens with a very small amount of substance, that is below the minimum quantity punishable by Italian law as possession and the operator has no measure of the quantitative earned by the consumer.

Beside the legal opinion of Avv. De Caro, the advancement of technology in creating new tools to analyse and identify drugs helped in mitigating the concerns of workers. In fact, using a Raman Spectrometry, the operator can avoid to touch the substance because it is the partygoers himself that manages the drug at all times during the analysis (see drug checking RAMAN procedure).

## FACILITATION AND ENCOURAGEMENT OF THE DRUG USE

### PROBLEM DESCRIPTION

Just as important harm reduction services such as needles and syringes exchange had faced in the past (Block, 2008), concerns about drug checking and the supposed potential of this practice facilitate and encourage the use of drugs, also arose. In the same way that the provision of tools to inject drugs was seen

<sup>18</sup> Antigone is an NGO that protects the rights and guarantees of people in the criminal system; particularly, it promotes processing and debates on criminal law, it is responsible for the preparation of drafts law and promotes information and awareness campaigns on themes or particular aspects, related to rising legal culture model.

<sup>19</sup> <http://lab57.indivia.net/materiali-informativi/test-rapido-delle-sostanze/analisi-colorimetrica-delle-sostanze-e-legalita/> (only in Italian)

as a way to facilitate drug injection and not as a strategy to protect people's health, drug checking had to face the same concerns: to analyze a drug may be considered equal to allowing and even promoting the drug use by giving people a sort of "quality control".

### WHAT SOLUTION WAS ADOPTED?

As described in NEWIP "Facsheet on drug checking in Europe"

*"Support for drug checking means that an authority is appointed to deal seriously with the issue of drug use, through the dissemination of information and consciousness-raising efforts to make users aware of the actual, individual risks as well as seeking ways to reduce those risks. Official support of a drug checking service sends a clear message that a Government take the issue of drug use seriously" (TEDI, 2011)*

In Italy professionals and workers of drug service providers were concerned for a long time about the possibility that drug checking could bring about a prosecution for a crime offence: the facilitation and encouragement of drug use and/or the indirect free sale of substances.

A legal opinion made by Avv. Elia De Caro (De Caro, 2015<sup>20</sup>): mitigated these concerns: the Italian Constitution (ART 32) protects the right to health and when drug checking is performed in a prevention or harm reduction framework, it can be seen as a tool to protect people's health. Furthermore, the analysis is performed in a setting where users can find leaflets that inform about the risks and harms that can derive from using drugs and they can be counselled from professionals: this cannot

be seen as "encouraging" drug use. Finally, people are not allowed to consume where the analysis is performed.

In Italy the involvement of an NHS public service provider for drug addiction treatment (ASL TO4) and of a forensic toxicological laboratory in outreach interventions (Centro Antidoping "A. Bertinaria", with the task to perform drug checking), gave the service and the BAONPS project an added value: high professionalism



12\_Mechanical sculpture

<sup>20</sup> <http://lab57.indivia.net/materiali-informativi/test-rapido-delle-sostanze/analisi-colorimetrica-delle-sostanze-e-legalita/> (only in Italian)

and credibility, especially with respect to public institutions.



13\_Neutravel Project

## OBLIGATION OF PROFESSIONAL SECRECY AND OBLIGATION TO NOTIFY A CRIME BY PEOPLE IN CHARGE OF A PUBLIC SERVICE

In Italy during the BAONPS project implementation another “legal concern” arose from professionals working as local public service providers for drug addiction treatment: do these professionals have to notify a crime in case a high purity substance result from the drug checking result? Can this highly dosed sample be considered as proof of the crime of sale and diffusion of the drug (ART 73, d.p.r. 309/90)?

Specifically, the doubt was about the obligation, for public officials and persons in charge of a public service, to notify law enforcement agencies regarding any crime prosecutable ex officio (ART 331 c.p.p.).

Professionals that work in a public service provider, are considered by the Italian law as persons in charge of a public service (ART 358 c.p.). But professionals working in a drug addiction service provider are also obliged by the law (ART 120, comma 7, d.p.r. 309/90 and each specific professionals Code of Ethics) to maintain confidentiality about what they learn during their professional activity; ART 120, comma 7, d.p.r. 309/90 extent the obligation of professional secrecy to educators, even though they are generally not obliged by the law because they don't refer to any Code of Ethics.

*“the rationale of this rule of law is the need to avoid that a request for help or a diagnostic investigation could result in the person being punished due to the application of administrative or criminal law; this legal standard extends to health and social workers the possibility to have the same guarantees of the defender ex. ART 103 cpp. In this sense, the rule provides the right of anonymity for the person that ask a public of private service for help for addiction treatment or a diagnostic investigation” (De Caro, Conti 2017)*

At this point the doubt was about how to merge the two rules of law. A legal opinion cleaned the doubts again.

*“some, embrace a restrictive interpretation of ART 120 d.P.R. 309/1990, denying that the rule may be used to justify the non-reporting of a crime prosecutable ex officio, such as the sales of drugs, by a person in charge of a public service; others, on the contrary, believe that a professional working in a public drug addiciton service provider is not required to report and that, in the event of a dispute, professional may have the same*

*guarantees as those provided for defenders” (De Caro, Conti 2017)*

Even when the first/restrictive interpretation is embraced, a professional can be considered free to not report the crime of sales of drug [ART 73, d.p.r. 309/90] because the high purity of a sample is not enough to prove that the drug checking user is a dealer.

*“there is a news of crime when the information learned relates to a specific fact, with the appropriate support of evidence, in which the essential elements of the crime can be clearly identified ”(De Caro, Conti 2017)*

## ADVOCACY

### PROBLEM DESCRIPTION

Since drug checking is a topic, often met with doubts, scepticism and negative (false) representations among people who do not know a lot about the service, it can be a delicate subject of conversation. However, the opinions matter, since they play a big part in the story of a successful service implementation – if the public (be it professional or general) is not in favor of the service, many problems arise, from straightforward opposition, to difficulties in obtaining funding, lack of supporting network, organizers who don't allow drug checking, distrust of users etc.

It can take time for the attitudes to change, so persistence and evidence based arguments are very important.

### WHAT SOLUTION WAS ADOPTED?

**Slovenia:** When communicating information about the drug checking service to different target groups (party goers, policy makers, other professional workers, general public) it is necessary to be aware of the aspects of the drug checking service, which are important for those groups. The messages should be tailored to fit their specifics.

While discussing the activity with the users, workers are careful to communicate clearly

#### ► For instance:

- ensuring party goers that the service is anonymous;
- highlighting to the policy makers the importance of drug checking service from the public health aspect;
- introducing drug checking as an integrated activity to professional workers from other fields of drug use treatment, including its potential to reach hard-to-reach target groups, offering them harm reduction information and counselling, when needed<sup>21</sup>;
- among the general public, creating the positive image of drug checking and contradicting the notion that it encourages drug use (supported by data).

all the limits of the existing service (in the Slovenian case long waiting time for the results, not performing quantitative analysis, limitations of colorimetric testing), despite the fact that these limits could lower users'

<sup>21</sup> Those are few examples, based on our experience.

Depending on the specifics of particular situations, also other aspects can be important for different target groups.

motivation to use the service.

When new NGO info points are established, it takes time for the service to be accepted by users in the local environment. Raising awareness of the importance of drug checking, promoting the service in the info point and building trust among users are all part of the process.

## FACING THE CONCERNS OF CLUB OWNERS/PARTY ORGANISERS

### PROBLEM DESCRIPTION

Party organizers and club owners could be concerned that allowing a drug checking facility in their event could mean declaring that drugs are used at their events. Furthermore, they can be concerned about the Police involvement in such service.

### WHAT SOLUTION WAS ADOPTED?

Experience from [Slovenia](#) confirms that is essential to take enough time for communication with club owners and event organizers to discuss collecting samples/onsite drug checking on their event. Beside the fear

that drug checking activity would contribute to the image that illicit drugs are being sold and used at their event (especially if their club was the only one, where drug checking would be performed in the local community), some of them also expressed discomfort with the involvement of the Police in the drug checking process. It is important to speak about the Police involvement openly and explain them sensitively the role of the Police in the process. On the other hand, some organizers that were contacted were very inclined to the idea of having a drug checking service. Starting the implementation in such clubs can simplify the process, since you can expect more flexibility and dialog and less complications.



14\_Sonica Festival 2017\_Dragon

## CLUBS AND LOCAL ENVIRONMENT

### PROBLEM DESCRIPTION

It is important to consider also the local environment and specifics of the club, where the drug checking activity takes place and consider that the privacy of user must be guaranteed.

### WHAT SOLUTION WAS ADOPTED?

In **Slovenia** experience showed that in smaller local communities the issue of anonymity needs even greater attention. This must be carefully discussed with the local Police and venue owners. Beside that, the clubs' infrastructure is important to consider. In some clubs there is already an appropriate space (a space with enough privacy), where drug checking activity (collecting samples) can be performed, but in some cases additional infrastructure should be considered.

Important part of communication and collaborations on local levels is the one with local Police, who must be well informed about the drug checking service, its purpose and legal frames. Because legal regulation in Slovenia is not specifically regulating the service, it is really important that actions of drug checking service providers and Police are well coordinated on the local level.

# POSITIVE OUTCOMES OF A DRUG CHECKING SERVICE

Drug checking services are relevant to monitor drugs markets and to improve harm reduction counselling is well known among professionals working in party settings and party goers. Most of the teams intervening in party settings feel the need to include drug checking services in their interventions mainly because illegal drugs are bought in informal markets (black and grey markets), so a significant number of these substances are potentially adulterated or totally substituted, sometimes with dangerous, toxic or completely different substances. The teams implementing drug checking highlight also the relevance of these services to provide reliable information about the drugs circulating in a specific event or the real content of the substances the users of the service intend to consume on “that specific night”.

Besides this perceived relevance, the fact is that, this service is frequently criticized by other professionals and decision makers that conceptualize this response as an acceptance and incentive to drug use. In the last few years, several drug checking professionals began publishing the main results and perceived impacts of their intervention, reinforcing and highlighting the relevance of drug checking for harm reduction purposes. In this section, we highlight the main advantages or positive outcomes of using drug checking services.

## **DRUG CHECKING IS A PUBLIC HEALTH SERVICE:**

According to Ventura et al. (2013), in general, a drug checking service is a public health response that contributes for the reduction of drug-related harms and for the early detection of new or lethal drugs or adulteration patterns that can support the effectiveness of government’s responses (monitoring and warning campaigns).

## **DRUG CHECKING IS RELEVANT FOR COUNSELLING AND DRUG INFORMATION:**

This service allows the creation of communication channels with drug users and, consequently, to obtain more information about their drug use patterns and support them with harm reduction counselling (Giné et al., 2017). Being integrated in outreach projects in party settings, drug checking also reinforces the intervention increasing the reliability and acceptability of information and counselling provided near party goers (Ventura et al., 2013). A recent study conducted at the Boom Festival (Martins et al. 2017) shows that most consumers, when given accurate information about their drug content, report that they will implement actions to protect their health: to avoid the unexpected substance, as well as to seek more information. These results support the provision of integrated drug checking

services in party settings.

It is also a very useful tool to identify substances or mixtures potentially harmful, so it allow quick responses like spreading warnings, in a rapid way, or websites health warnings and advice (Giné et al., 2017).

#### **DRUG CHECKING IS A MONITORING TOOL:**

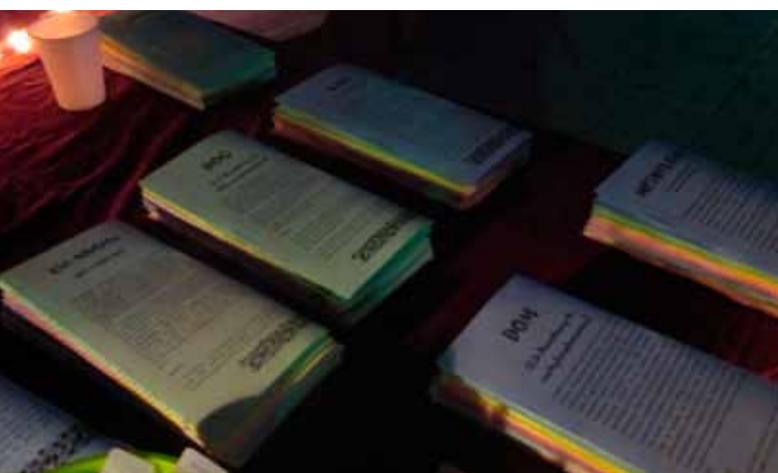
The utility of drug checking in monitoring drugs markets – these services were able to identify discrepancies between what users think they are using and what they actually use. These studies demonstrated that NPS are increasingly being used as an adulterant in traditional drugs as LSD or MDMA (Giné, Espinosa e Vilamala, 2016; Martins e al., 2017). They also contribute actively to the Early Warning Systems (EWS) since most of the existing drug checking services report their information, including specific notifications on NPS, to their local EWS (Giné et al., 2017).

Drug checking can also be a very relevant service to monitor the adulteration patterns in hard-to-reach markets, like cryptomarkets and webstores (Quintana et al., 2017; Giné et al., 2017).

#### **DRUG CHECKING IS A COST-EFFECTIVE RESPONSE TO THE CHALLENGES OF THE NPS PHENOMENON:**

Besides its relevance as a drugs markets' monitoring tool and, consequently, for the early detection of NPS, drug checking services are effective in contacting with two NPS users profiles: users that intentionally use NPS and unintentional NPS users. Recently, Energy Control implemented an international drug checking service<sup>22</sup> receiving, among others, samples bought in cryptomarkets. In a pioneer study that analyzed the content of 219 cryptomarket drugs, Caudevilla et al. (2016) reported that most of them contained the advertised ingredient and most of them were of high of purity. What is also interesting, is that most of the drugs received were traditional drugs (cocaine, MDMA, amphetamines, LSD, ketamine, cannabis) enhancing the argument that users still prefer recreational common drugs.

Other studies demonstrated that NPS are being used as adulterants what implies their unintentional use (Giné, Espinosa & Vilamala, 2014; Martins et al., 2017). This unintentional use of NPS is potentially harmful since the user don't have any information about the drug he/she is using (effects, dose, risks, harm reduction). Quintana et al. (2017) detected the presence of a fentanyl analog – ocufentanyl in heroin samples bought in cryptomarkets, demonstrating that some of the deep web substances are also adulterated. Considering this, drug checking can be a powerful tool



15\_NPS\_info

<sup>22</sup> More information about the service available online in: <https://energycontrol-international.org>

to contact hard-to-reach populations as cryptomarkets users, identify harmful substances and mixtures and, consequently, avoid NPS related harms.

#### **DRUG CHECKING AS A TOOL FOR THE IDENTIFICATION OF LOCAL AND EU DRUG USE TRENDS AND ADULTERATION PATTERNS:**

The establishment of transnational networks to monitor not only local but also EU informal markets is a best practice. On this level, the Trans European Drug Information (TEDI network), was a very important platform to identify trends that include similarities and interesting local differences in EU drug markets (Ventura et al., 2013; Brunt et al., 2016). This informal networking allowed the implementation of a system of pharmacovigilance that can be very relevant for further risk assessments of substances. “Moreover, drug testing services can be an instrument to offer some control over a market that is otherwise unpredictable and treacherous” (Brunt et al., 2016:196).

# RAMAN: A NOVEL TOOL TO IDENTIFY PSYCHOACTIVE SUBSTANCES

In the B.A.O.N.P.S. project, a portable RAMAN-based instrument was used in order to perform the drug-checking service. Since RAMAN is not included in the TEDI Guidelines, hereby we propose a general description of the RAMAN technique, with possible benefits and limitations.

## INTRODUCTION

Raman spectroscopy is a spectroscopic technique used to observe vibrational, rotational, and other low-frequency modes in a system. Raman spectroscopy is commonly used in chemistry to provide a structural fingerprint by which molecules can be identified. It relies on inelastic scattering, or Raman scattering, of monochromatic light, usually from a laser in the visible, near infrared, or near ultraviolet range. The laser light interacts with molecular vibrations, phonons, or other excitations in the system, resulting in the energy of the laser photons being shifted up or down. The shift in energy gives information about the vibrational modes in the system. Infrared spectroscopy yields similar, but complementary, information. Typically, a sample is illuminated with a laser beam. Electromagnetic radiation from the illuminated spot is collected with a lens and sent

through a monochromator. Elastic scattered radiation at the wavelength corresponding to the laser line (Rayleigh scattering) is filtered out by either a notch filter, edge pass filter, or a band pass filter, while the rest of the collected light is dispersed onto a detector.

Raman spectroscopy is used in chemistry to identify molecules and study chemical bonding. Because vibrational frequencies are specific to a molecule's chemical bonds and symmetry (the fingerprint region of organic molecules is in the wavenumber range 500–1500  $\text{cm}^{-1}$ , Raman provides a fingerprint to identify molecules.

## KEY BENEFITS

Specificity (Virtually, any drug can be identified with Raman spectroscopy, provided that the RAMAN spectra is in the instrument library); Fast, accurate identification; Easy to use; Non-contact sampling (Scan directly through plastic or glass to minimize contamination, reduce exposure and preserve evidence); Automated, tamper-proof records (Capture all scan results, including time-and-date stamp). Once a substance is analyzed, full results are automatically stored for reporting and evidence; Little or no sample preparation is required, unless substances that exhibit high fluorescence are analyzed.

## LIMITATIONS

Sensitivity (might not work for samples with substance concentration < 5%); fluorescence (some molecules' signal may be interfered); Minimum sample size is needed; only qualitative analysis with portable instruments.

## MATERIALS

Ideal with solid, powders, pills, and liquids (if

contained in thin and transparent recipients). Inconclusive analyses were observed with paper/blots, grass, resin.

## COSTS

The cost of a RAMAN spectrometer can vary widely (in the low thousands of dollars for portable instruments up to 50.000 and above)



16\_RAMAN result

## RAMAN SPECTROMETRY: USE ON THE FIELD FOR DRUG CHECKING PURPOSES

On site drug checking was performed using a ThermoFisher TruNarc™ portable Raman analyzer (Thermo Fisher, Germany) equipped with a 785-nm Class IIIB laser at 250mW. Raman spectra in the interval 300-1800 cm<sup>-1</sup> were recorded. The identification of the substances was performed by comparing the spectrum of the unknown compound with those present in an on-board library containing traditional drugs, NPS, cutting agents, and precursors. When the compound is identified, the result is displayed on the instrument itself so a lap-top is not necessary. The results are color-coded. If the instrument identifies one or more controlled substances, a Red Alarm is

displayed. With Raman spectrometry, a false positive result is very unlikely, if not impossible, as well as the misrecognition of the active principle. This is obviously very important since the result will address the counselling phase. When the instrument identifies one precursor used in the manufacturing of illegal drugs, an Orange Warning is displayed. If the instrument does not identify any controlled substances, a Green Clear Result is displayed. If the instrument does not identify any of the controlled substances, precursors, or cutting agents present in its library, then a grey Inconclusive Result will be displayed. Drug checking by Raman spectroscopy proved effective in the identification of several NPS and the investigation of drug distribution present in various recreational settings at different times. In particular, portable Raman instrumentation has demonstrated several advantages in this context, namely the direct analysis of the sample through water, glass, and plastic bags, avoiding direct contact with the substance, with non-destructive and non-invasive testing. The non-handling of the material reduces the safety risk for the operator (in terms of exposure to unknown compounds) and avoid the transfer of allegedly illicit substances. Furthermore, the portable Raman instrument proved to be very easy to use insomuch that very limited technical skills were needed to perform drug-checking on field. These features were essential for the fulfilment of BAONPS project's goal. The biggest limitation seems the sensitivity. From our experience, it seems that RAMAN does not work for samples when the component concentration is < 5/10%. Other limitations may arise with substances contained in complex biological materials,

such as marijuana, opium and ayahuasca. Heroin detection is also interfered by high fluorescence.

The compound identification is based on library matching. It is inevitable that libraries will be incomplete since new variants of NPS are regularly introduced into the black market.



17\_drug checking area\_IT

### **RAMAN SPECTROMETRY: ON SITE DRUG CHECKING PROCEDURE**

The person is invited to insert a small amount of the compound to be examined in a plastic bag and put it on the table for checking. In the meanwhile a social worker discuss with the person about his/her drug consumption patterns and behaviours (pre-test counselling; risk profile)

The technicians in charge of the service will put the RAMAN device close to the plastic bag

and will wait a few seconds, in order to let the spectrometer analyse the substance. This part will last for 2 minutes approximately.

The analysis result will be communicated to the person and the social workers will give him/her personalised counselling about the risks and harms that may occur with the use of that substance.

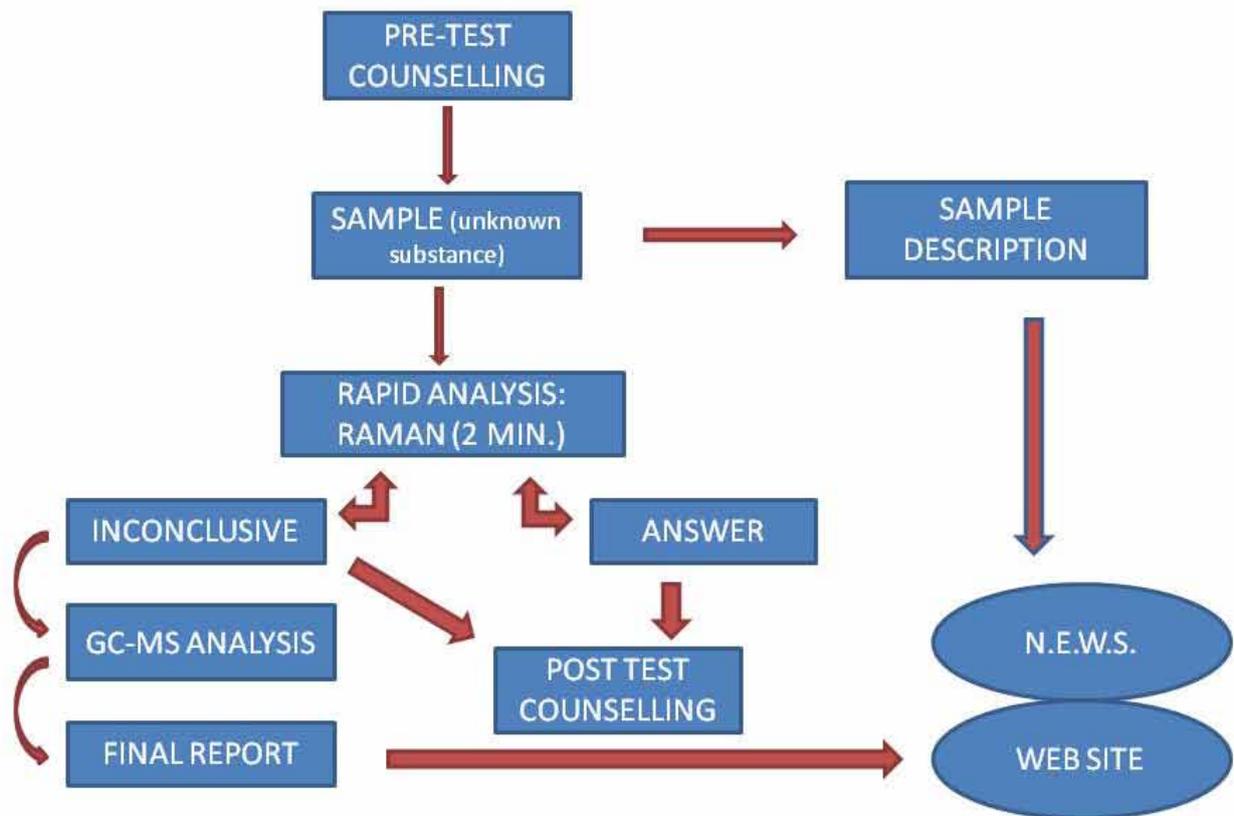
If a illicit substance cannot be recognized by RAMAN, the person is asked if he/she is willing to donate small amount to be tested in the laboratory, where a MS-coupled technique is used. The analysis result will be finally published on the Project web site in the following weeks.

### **DRUG CHECKING IS AN ANONYMOUS SERVICE.**

**THE SUPPOSED DRUG IS NOT ACTUALLY HANDLED BY ANY SOCIAL WORKERS OR TECHNICIANS. THE PERSON ITSELF REQUESTING DRUG CHECKING WILL INSERT A SMALL AMOUNT OF THE COMPOUND IN A PLASTIC BAG. THE PERSON ITSELF WILL TAKE BACK THE SUBSTANCE WHEN THE ANALYSIS IS COMPLETED.**

This procedure avoids the transfer and handling of psychoactive substances by people different from users.

## DRUG CHECKING: RAMAN PROCEDURE



# CONCLUSIONS

According Harm Reduction International, harm reduction defines policies, programmes and practices which aim to reduce the risks and harms related with the use of psychoactive substances. Since people who use drugs in party settings are socially integrated and can be characterized for their non-problematic drug use patterns, the biggest risks they face are related with the lack of information about the real content of the drugs they intend to use. This lack of knowledge difficult the management and regulation of their immediate drug use (doses, contraindications, expected effects, harm reduction practices) and can have important health consequences such us bad trips and psychological crisis, overdose, overstimulation, intoxication or even death. Harm reduction teams working in party settings with info-stands and chill outs are very important to provide drug education, counseling and support in difficult experiences, however, without a drug checking service available their information is partial, since they can give information about the alleged psychoactive substance the user intends to use but not about its real content. When working with a drug checking service integrated in party settings, the team is able to not only provide information about the real content of the samples and enhance their harm reduction counseling, but also to detect and respond to dangerous substances or mixtures that could be circulating in the event or nightlife district. When fully implemented articulated in local and international networks, drug checking

services can actively contribute to a bottom-up monitoring of the informal drug markets and the early detection of NPS or dangerous adulterants. As highlighted in this document, several empiric and scientific evidences are suggesting that drug checking is cost-effective in responding to drug use risks and uncertainty about the substances circulating in the informal markets. Considering this, and citing Martins, Valente and Pires (2015), drug checking is indeed “the ultimate frontier for harm reduction in party settings”.

Besides all its advantages, drug checking is still a very controversial service, mainly because it is pragmatic in accepting that drugs are being (and will be) used, and responding to the health risks that the illegality of drugs imposes. However, several times, this pragmatism is misunderstood and conceptualized as a drug use incentive. Because of this, it is important to continue advocate for drug checking advantages as a public health response. With this document we intend to offer some guidance and recommendations to the drug checking implementation by compiling important guidelines highlighted by TEDI network, evidences suggested by literature on the topic, by local drug checking experiences. Moreover, and probably the added value of this publication, is the description, protocol and procedures of the implementation of RAMAN spectroscopy for drug checking in party settings.

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