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REGIONAL OVERVIEW

**EUROPE**

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# Key findings

## Amphetamine

- Europe plays an increasingly important role in the global market for amphetamine with manufacture remaining concentrated in the region, and subsequent trafficking to the Americas, Central Asia and Transcaucasia, East and South-East Asia, the Near and Middle East, North Africa and Oceania.
- Europe is possibly the origin of increasing amounts of “captagon” tablets destined for the Middle East and serves as a transit region for “captagon” trafficking from the Syrian Arab Republic to the Arabian Peninsula.
- Amphetamine continues to be more commonly used than methamphetamine in most European countries.

## Methamphetamine

- The availability of methamphetamine in Europe and its use has been slowly increasing and spreading geographically.
- Methamphetamine manufacture has extended beyond Central Europe to Belgium and the Netherlands, with increasing evidence of the involvement of transnational organized crime groups.
- The methamphetamine manufactured in Africa and Mexico transits through Europe, usually destined for in East and South-East Asia and Oceania.

## “Ecstasy”

- The quantities of “ecstasy” seized have almost doubled over the past five years, and the number of seizure cases is increasing.
- The MDMA content of “ecstasy” tablets has risen significantly increasing the risk associated with its use.
- “Ecstasy” tablets are manufactured in Europe and trafficked to consumer markets globally.

## New psychoactive substances

- In Europe, 875 different NPS from 42 European countries had been reported by August 2020, mostly stimulants, synthetic cannabinoid receptor agonists and classic hallucinogens.
- Interactions between the NPS market and traditional drugs have become stronger, with NPS sold alongside or in a mixture with other drugs.
- Synthetic cannabinoids and synthetic cathinones continue to be used by high-risk and marginalized groups such as people who inject drugs, the homeless and prison populations.
- A larger number of synthetic opioids such as fentanyl analogues and benzodiazepine-type NPS have appeared on the NPS market and are associated with emergency-room and death cases.

## Precursors

- The continuous innovation of pre-precursor chemicals used in the manufacture of synthetic drugs prevails, as demonstrated by large shifts in the types and quantities of pre-precursors seized annually.

### Europe the major hub for global amphetamine supply

Europe plays an increasingly important role in the global market for amphetamine. Illicitly manufactured in Europe, it is destined for the domestic market as well as for trafficking to overseas markets, including in the Americas, Central Asia and Transcaucasia, East and South-East Asia, the Near and Middle East, North Africa and Oceania. Amphetamine manufacture remains concentrated in Europe with over 400 amphetamine laboratories dismantled between 2014 to 2018, most of them in Western and Central Europe.<sup>466</sup> Overall, 16 European countries reported the dismantling of clandestine amphetamine laboratories in this time period, most notably the Netherlands (141 laboratories), the Russian Federation (91 laboratories), Belgium (56 laboratories), Poland (53 laboratories) and Germany (36 laboratories). Typically, all stages of amphetamine manufacture are carried out in the same location. However, quantities of intermediate products such as amphetamine oil seized in some European countries intended for onward trafficking might indicate that in some cases the final stage of manufacture occurs at, or near, its intended destination.<sup>467</sup>

<sup>466</sup> UNODC, responses to the annual report questionnaire.

<sup>467</sup> European Monitoring Centre for Drugs and Drug Addiction, *European Drug Report 2019: Trends and Developments* (Luxembourg, Publications Office of the European Union, 2019).

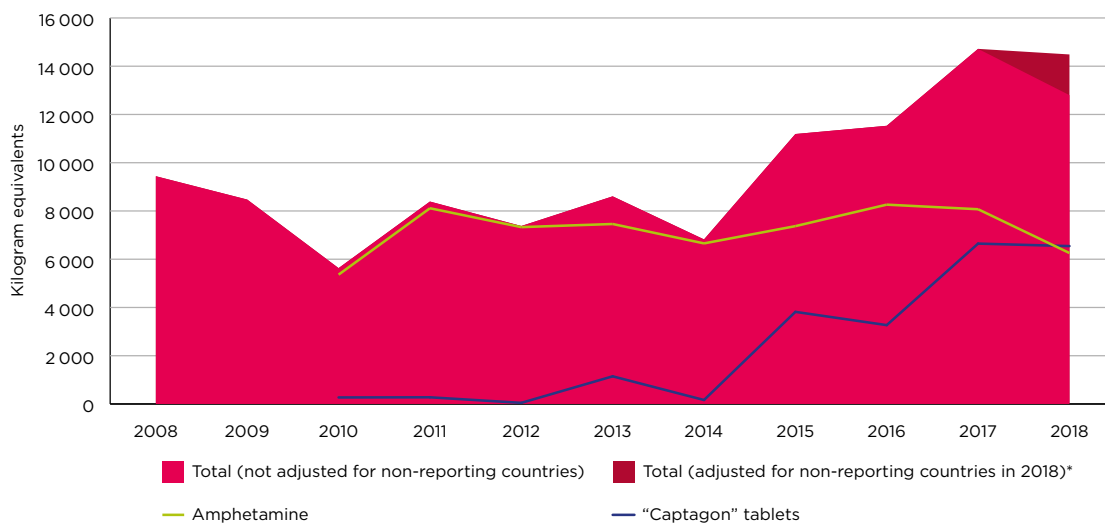
### Increasing quantities of “captagon” tablets seized in Europe

Amphetamine continues to feature prominently in the European synthetic drug market. In 2018, European countries reported more than 33,000 seizure cases of amphetamine, amounting to 12.8 tons. Although the quantities of amphetamine seized in South-Eastern Europe declined in 2018, quantities of amphetamine seized in Eastern Europe continued rising and almost tripled from 218 kg in 2016 to 590 kg in 2018, with the largest quantity seized in the Russian Federation (586 kg). While Germany, Turkey and the United Kingdom have reported more than 1-ton seizures of amphetamine in recent years, large quantities of amphetamine were also seized in Poland (1.3 tons), Sweden (1.05 tons) and Greece (791 kg) in 2018. Above all, Turkey remained the country with the largest annual seizures amounting to 5.8 tons in 2018.

Increasing quantities of “captagon” tablets have been seized in Europe since 2010. In 2018, for the first time, more “captagon” tablets were seized by weight than any other forms of amphetamine. For instance, almost all the amphetamine seized in Turkey and Greece in 2018 was in the form of “captagon” tablets, with 22.7 million and 3.1 million tablets seized respectively. Large seizures of “captagon” amounting to millions of tablets continued to be reported by Turkey and Greece in 2019 and Italy in 2020. In addition, over the last few years “captagon” manufacture has been reported from Greece and the Netherlands<sup>468</sup> (2017).

<sup>468</sup> European Monitoring Centre for Drugs and Drug Addiction and Europol, *EU Drug Markets Report 2019* (Luxembourg, Publications Office of the European Union, 2019).

Figure 63. Quantities of amphetamine seized in Europe, 2008–2018



Source: UNODC, responses to the annual report questionnaire.

\*Calculations assume no change in the quantities of amphetamine seized by non-reporting countries in 2018 as compared to seizures reported in 2017.

## Increased interconnectedness between the amphetamine market in Europe and the Near and Middle East

Most of the amphetamine seized in European countries between 2014 to 2018 originated from Belgium, Bulgaria, Lithuania, Netherlands, Poland and the Russian Federation. However, while most amphetamine trafficking in terms of the number of cases continues to be intra-regional, recent seizures indicate that some “captagon” tablets manufactured in Europe were intended for trafficking to the Near and Middle East. In addition, several large-scale shipments consisting of millions of “captagon” tablets originating from the Syrian Arab Republic and destined for Saudi Arabia have been seized in Greece, Italy and Turkey with countries including Belgium, France, Germany, Italy and the Netherlands being used as transit points. Such large-scale “captagon” shipments constitute a considerable portion of the overall amphetamine seizures in Europe. (For more information, please see the section on the Near and Middle East).

## Amphetamine use continues rising in Europe

In most European countries, amphetamine continues to be the most used synthetic drug. Problems related to long-term, chronic and injecting amphetamine use have been concentrated in countries in northern Europe. Primary amphetamine users account for at least 15 per cent of first-time treatment entrants in Bulgaria, Finland, Latvia and Poland, with an increasing trend observed in Germany since 2009.<sup>469</sup> In Finland, the estimated prevalence of high-risk amphetamine use was 0.7 per cent in 2017.<sup>470</sup>

Furthermore, European wastewater analysis carried out recently found that loads of amphetamine<sup>471</sup> were the highest in cities in the north and east of Europe and lowest in the south of Europe.<sup>472</sup> Data collected from wastewater analyses can provide deeper insights into local patterns of

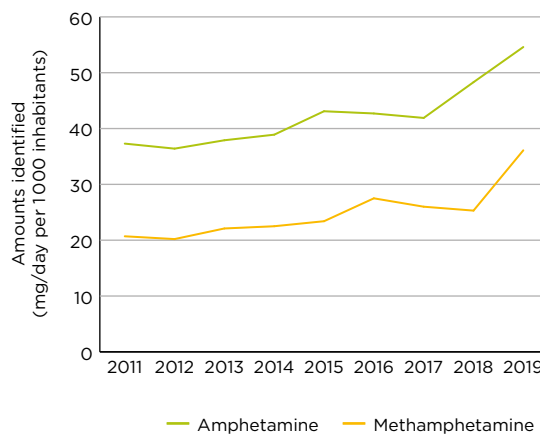
<sup>469</sup>European Monitoring Centre for Drugs and Drug Addiction, *European Drug Report 2019: Trends and Developments* (Luxembourg, Publications Office of the European Union, 2019). Available at [emcdda.europa.eu/publications\\_en](http://emcdda.europa.eu/publications_en)

<sup>470</sup>European Monitoring Centre for Drugs and Drug Addiction, *European Drug Report 2020: Trends and Developments* (Luxembourg, Publications Office of the European Union, 2020).

<sup>471</sup>Data drawn from wastewater analyses only serve as a complementary source of information on amphetamine use rather than a substitute for data generated by drug use studies.

<sup>472</sup>European Monitoring Centre for Drugs and Drug Addiction, *Wastewater analysis and drugs – a European multi-city study* (Lisbon, 2020).

Figure 64. Quantities of amphetamine and methamphetamine found in wastewater, in 140 cities in Europe, 2011–2019



Source: UNODC calculations based on wastewater data provided by Sewage Analysis Core group Europe (SCORE).

Note: Average quantity of amphetamine/methamphetamine found in wastewater in 140 cities in 33 countries weighted by the population of the sites: assumption of gradual increase/decrease in years in which no analysis took place in a city and no change since latest available data.

drug use and temporal trends, supplementing existing data mechanisms such as past-year prevalence surveys or other epidemiological studies, however the relationship between wastewater analyses results and drug use is complex. Moreover, elevated amphetamine loads reported for various cities might be skewed by wastes from illicit manufacture. Of the 41 cities where data were available in 2018 and 2019, more than half reported an increase, while more than a quarter reported a decrease.<sup>473</sup> While data from cities between 2011 and 2019 show a diverse picture, the overall trend for levels of amphetamine in municipal wastewater showed a clear rise which became even more pronounced in 2019.<sup>474</sup> Data also show that the overall use of amphetamine is higher than the use of methamphetamine in Europe and that over time the use patterns for amphetamine have changed. Whereas previously amphetamine loads were distributed more evenly across the week, more recently higher loads have been found at weekends suggesting more use in recreational settings.<sup>475</sup>

<sup>473</sup>Wastewater data provided to UNODC by the Sewage Analysis Core group Europe (SCORE).

<sup>474</sup>UNODC calculations based on wastewater data provided by Sewage Analysis Core group Europe (SCORE).

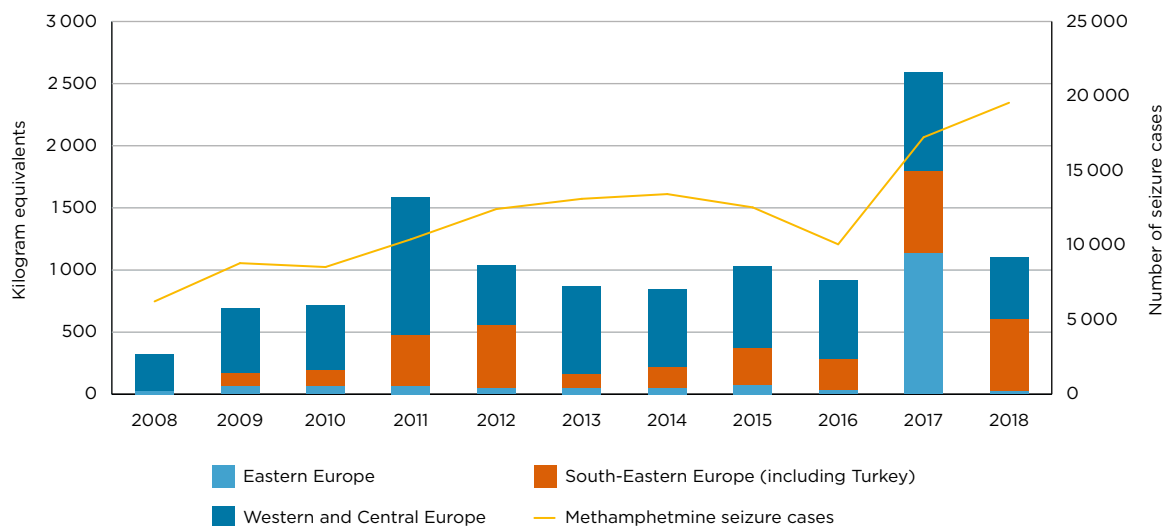
<sup>475</sup>Mean daily amounts of amphetamine in milligrams per 1000 population. Sampling was carried out in selected European cities over a week in each year from 2011 to 2018. Source: Sewage Analysis Core Group Europe (SCORE).

### The methamphetamine market in Europe is expanding

Over the last decade, seizure data indicate that the availability of methamphetamine in Europe has been slowly increasing and spreading geographically, but on a lower scale than amphetamine. The number of countries reporting quantities of methamphetamine seized increased from 11 countries in 2000 to 34 countries in 2018. The largest quantities seized across Europe were reported in 2017 at 2.6 tons, mainly due to record quantities of methamphetamine seized in the Russian Federation (1.1 tons) but dropped in 2018 to 1.1 tons. In 2018, the largest quantities of methamphetamine were seized in Turkey (566 kg), France (126 kg) and Czechia (107 kg). On the contrary, the number of methamphetamine seizure cases in 2018 have almost doubled since 2016 to 19,550 seizure cases, which were mostly reported from Turkey (13,049 cases) and Czechia (1,961 cases). Preliminary data for 2019 indicate that seizures quantities and cases increased in 2019 compared to 2018. For instance, in Turkey seizures increased twofold to over 1 ton in 2019.<sup>476</sup> In Turkey, most notably, methamphetamine-related incidents (e.g., cases reported by law enforcement entities) and the number of suspects arrested in connection with methamphetamine increased from 13,049 in 2018 to 23,019 incidents in 2019 and from 19,201 to 32,445 suspects respectively.<sup>477</sup>

In the period 2014–2018, 13 countries in Europe reported dismantling more than 1,400 methamphetamine laboratories with more than 90 per cent of these located in Czechia, followed by Germany, Austria, Poland, Bulgaria and Slovakia, in descending order.<sup>478</sup> Czechia also remains the country most frequently mentioned as a country of provenance for methamphetamine in Europe, followed by Lithuania and the Netherlands.<sup>479</sup> In Czechia, methamphetamine is primarily manufactured from ephedrine and pseudoephedrine, which is extracted from medicinal products trafficked mainly from European countries. The “kitchen” and small-scale laboratories are operated by local organized crime groups and mostly supply the domestic market. Although small-scale manufacture might not seem to be linked to organized crime groups, there is intelligence suggesting that Vietnamese organized crime groups are upscaling methamphetamine manufacturing sites in Czechia and to a lesser extent in Poland. For example, in 2017, authorities in Czechia dismantled two large-scale methamphetamine laboratories.<sup>480</sup> In parallel, the manufacture of methamphetamine appears to have increased in the Netherlands in the past years. Some of the Vietnamese organized crime groups that were previously involved in methamphetamine manufacture in Czechia seem to have relocated some of their operations to the

Figure 65. Quantities of methamphetamine seized and number of seizure cases in Europe, 2008–2018



Source: UNODC, responses to the annual report questionnaire.

<sup>476</sup>Turkey, Ministry of Interior, *Turkish Drug Report – Trends and Developments* (Ankara, 2020). Available at <http://narkotik.pol.tr/kurumlar/narkotik.pol.tr/TUB%C4%B0M/Uluslar-Arasi-Yayinlar/2020uyusturucuraporuENG.pdf>

<sup>477</sup>Ibid.

<sup>478</sup>UNODC, responses to the annual report questionnaire.

<sup>479</sup>Ibid.

<sup>480</sup>European Monitoring Centre for Drugs and Drug Addiction and Europol, *2019 EU Drug Markets Report*, (Luxembourg, Publications Office of the European Union, 2019).

Netherlands.<sup>481</sup> Moreover, between 2017 and 2018 several European countries including Czechia, Estonia, Finland, Hungary, Italy, North Macedonia and Spain reported the Netherlands as country of provenance for methamphetamine.<sup>482</sup>

Recently, several large-scale methamphetamine laboratories intended for interregional trafficking, mainly for markets in East and South-East Asia and Oceania were dismantled. In 2019, two large-scale crystalline methamphetamine laboratories in the Netherlands and one in Belgium were dismantled by law enforcement officers.<sup>483</sup> In all three cases, Mexican nationals were collaborating with local crime groups. Also in 2020, police in the Netherlands dismantled another large crystalline methamphetamine laboratory that involved nationals from Colombia, Mexico and the United States.<sup>484</sup> Instead of the traditional methamphetamine precursors ephedrine and pseudoephedrine, non-controlled pre-precursor chemicals used to manufacture P-2-P, a main precursor of methamphetamine, were found in these clandestine laboratories. This change in manufacture has also been evidenced recently in the Netherlands by increasing seizures of P-2-P and tartaric acid. Tartaric acid is used in resolving the more potent *d*-methamphetamine from the racemic mixture of *d*- and *l*-methamphetamine resulting from the P-2-P method. This P-2-P-based method has been reported by Mexico regularly since 2009.<sup>485</sup> This suggests that Europe may be emerging as a global supplier of methamphetamine in close connection to organized crime groups from the Americas.

In addition, there have been reports of methamphetamine manufactured in the Islamic Republic of Iran, Mexico and West Africa being trafficked to European countries. Belgium, for example, reported that methamphetamine shipments have arrived there from Burkina Faso and Nigeria, while Spain reported shipments from Côte d'Ivoire and Mexico.<sup>486</sup> Data further suggest that this methamphetamine is intended for destination markets in Australia and East and South-East-Asia.

<sup>481</sup> Ibid.

<sup>482</sup> UNODC, responses to the annual report questionnaire.

<sup>483</sup> European Monitoring Centre for Drugs and Drug Addiction and Europol, 2019 *EU Drug Markets Report* (Luxembourg, Publications Office of the European Union, 2019).

<sup>484</sup> The Netherlands, Politie Nederland, "Drie personen aangehouden bij inval groot drugsfab", press release, 10 May 2020. Available at [politie.nl/nieuws/2020/mei/10/11-drie-personen-aangehouden-bij-vondst-groot-drugsfab-in-achter-drempel.html](https://politie.nl/nieuws/2020/mei/10/11-drie-personen-aangehouden-bij-vondst-groot-drugsfab-in-achter-drempel.html) and Politie Drenthe, Tweet, 27 June 2020. Available at [twitter.com/poldrenthe/status/1276806492545601537?s=20](https://twitter.com/poldrenthe/status/1276806492545601537?s=20)

<sup>485</sup> International Narcotics Control Board, *Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances 2019* (United Nations publication, Sales No. E.20. XI.2).

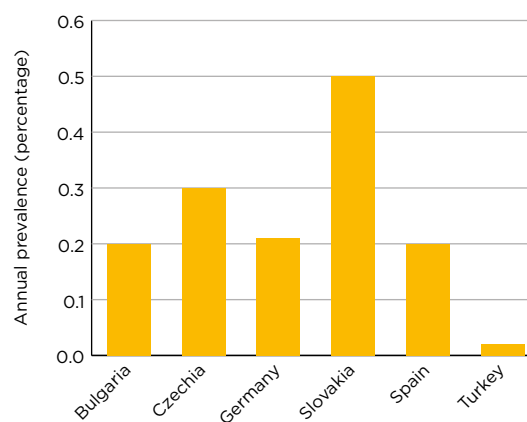
<sup>486</sup> European Monitoring Centre for Drugs and Drug Addiction and Europol, 2019 *EU Drug Markets Report* (Luxembourg, Publications Office of the European Union, 2019).

## Use of methamphetamine is increasing in Europe

In recent years there have been increases in the level and geographical reach of methamphetamine use. While, previously, methamphetamine use was mostly restricted to Czechia and Slovakia, it has been spreading to other countries such as Cyprus, Germany and Spain, as well as to countries in northern Europe.

Several countries in Europe reported past-year prevalence of methamphetamine use in the general population at 0.2 per cent between 2015 and 2018. Higher past-year prevalence rates of methamphetamine use among the general population were reported from Czechia, at 0.3 per cent in 2017 and in Slovakia at 0.5 per cent in 2015. A cross-sectional survey on drug use among prison inmates in Czechia in 2018 indicates that methamphetamine was reported as the most commonly used drug in the past year at 30 per cent, followed by cannabis (28 per cent) and MDMA/"ecstasy" (12 per cent).<sup>487</sup>

Figure 66. Use of methamphetamine in the general population in selected countries in Europe



Source: UNODC, responses to the annual report questionnaire.

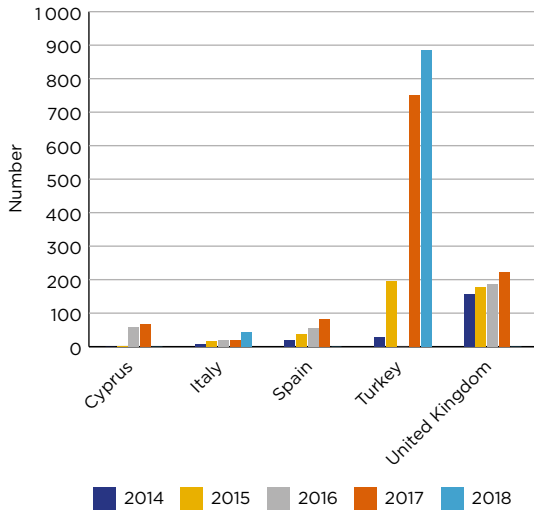
Note: The graph represents the latest period available (2015 to 2018).

High-risk methamphetamine use has reportedly been expanding over the past years, particularly in Czechia and Slovakia. In Czechia, high-risk methamphetamine use among adults (15–64) was estimated at 0.5 per cent or 33,500 users in 2018.<sup>488</sup> It is also the most prevalent injected drug, and more than half of the users reported sharing their injecting equipment. Furthermore,

<sup>487</sup> European Monitoring Centre for Drugs and Drug Addiction, *Czechia, Country Drug Report 2019* (Lisbon, 2019).

<sup>488</sup> European Monitoring Centre for Drugs and Drug Addiction, *European Drug Report 2020: Trends and Developments* (Luxembourg, Publications Office of the European Union, 2020).

Figure 67. Clients in treatment for methamphetamine use in selected countries in Europe, 2014–2018



Source: UNODC, responses to the annual report questionnaire.

treatment entrants reporting primary methamphetamine use are concentrated in Czechia, Germany, Poland, Slovakia and Turkey, which together account for 92 per cent of the 8,300 methamphetamine clients reported in 2018.<sup>489</sup> While in Slovakia the number of methamphetamine clients in treatment has been relatively stable since 2015 with about 1,100 to 1,200 clients annually, countries such as Cyprus, Italy, Spain, Turkey and the United Kingdom reported an increasing number of people entering treatment for methamphetamine use over the period 2014–2018. Moreover, people entering treatment for methamphetamine use in Czechia commonly report polydrug use. For example, the injecting use of methamphetamine in combination with buprenorphine or other opioids, for example heroin, has been reported.<sup>490</sup>

Data collected from wastewater analyses also provide some deeper insights into patterns and trends of methamphetamine use.<sup>491</sup> While the overall annual prevalence for amphetamine use in Europe is clearly higher than for methamphetamine use, in some European cities the level

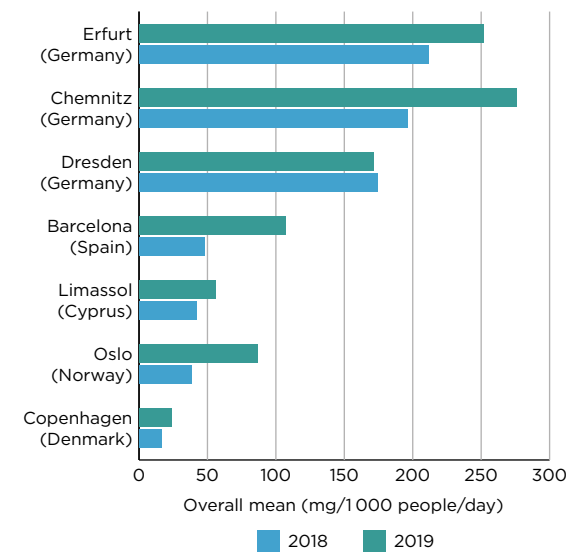
<sup>489</sup> European Monitoring Centre for Drugs and Drug Addiction, *European Drug Report 2020: Trends and Developments* (Luxembourg, Publications Office of the European Union, 2020).

<sup>490</sup> European Monitoring Centre for Drugs and Drug Addiction, *Czechia, Country Drug Report 2019* (Lisbon, 2019).

<sup>491</sup> Data collected from wastewater analyses can provide deeper insights into local patterns of drug use and temporal trends, supplementing existing data mechanisms, such as past-year prevalence surveys or other epidemiological studies, however the relationship between wastewater analyses results and drug use is complex. Data drawn from wastewater analyses therefore only serve as a complementary source of information on methamphetamine use rather than a substitute for data generated by drug use studies.

of methamphetamine in wastewater<sup>492</sup> was higher than the amphetamine levels.<sup>493</sup> This was for instance the case in all cities investigated in Czechia and in cities in Germany, Italy, Lithuania, Spain, Slovakia, Switzerland and Turkey.<sup>494</sup> In 2019, most cities taking part in the study reported higher levels of methamphetamine in wastewater compared to 2018, particularly cities in Cyprus, the east of Germany, Spain, several northern European countries (Denmark, Finland, Lithuania and Norway) as well as Czechia and Slovakia. The highest methamphetamine loads were found in Czech, Slovak, German and Finnish cities, in descending order. As most clandestine methamphetamine laboratories are located in Czechia, the elevated methamphetamine loads reported for the country might be skewed by wastes from illicit manufacture. Methamphetamine loads were found to be distributed more evenly over the whole week, possibly reflecting methamphetamine being associated with more ongoing and high-risk use patterns by a small cohort of users.<sup>495</sup>

Figure 68. Mean loads of methamphetamine detected in wastewater in selected cities in Europe, 2018 and 2019



Source: European Monitoring Centre for Drugs and Drug Addiction, *Wastewater analysis and drugs – a European multi-city study* (Lisbon, 2020).

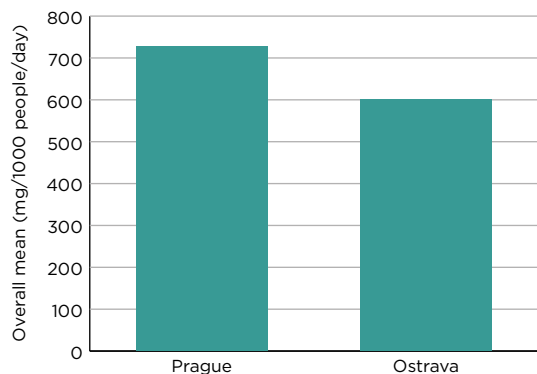
<sup>492</sup> European Monitoring Centre for Drugs and Drug Addiction, *Wastewater analysis and drugs – a European multi-city study* (Lisbon, 2020).

<sup>493</sup> Such reports were received from Czechia, Germany (in regions bordering Czechia), northern Italy (Milan), Lithuania, Slovakia, Spain (Madrid and Barcelona), some cities in Switzerland (Zurich, Basel and Geneva) and Turkey (Istanbul).

<sup>494</sup> Wastewater data provided to UNODC by the Sewage Analysis Core group Europe (SCORE).

<sup>495</sup> European Monitoring Centre for Drugs and Drug Addiction, *Wastewater analysis and drugs – a European multi-city study* (Lisbon, 2020).

Figure 69. Mean loads of methamphetamine detected in wastewater in selected cities in Czechia, 2019



Source: European Monitoring Centre for Drugs and Drug Addiction, *Wastewater analysis and drugs – a European multi-city study* (Lisbon, 2020).

### The “ecstasy” market continues to expand

There have been signs of an ongoing expansion of the “ecstasy” market, including increases in seizures, a decline in prices and a sharp increase in MDMA content of “ecstasy” tablets. While in Europe, “ecstasy” is mainly available in tablet form, high-purity “ecstasy” in powder or crystalline form has emerged in some countries in the region.

The number of MDMA seizure cases in Europe as well as the quantities seized have been increasing since 2016 with more than 6 tons reported in 2018. Most of the “ecstasy”

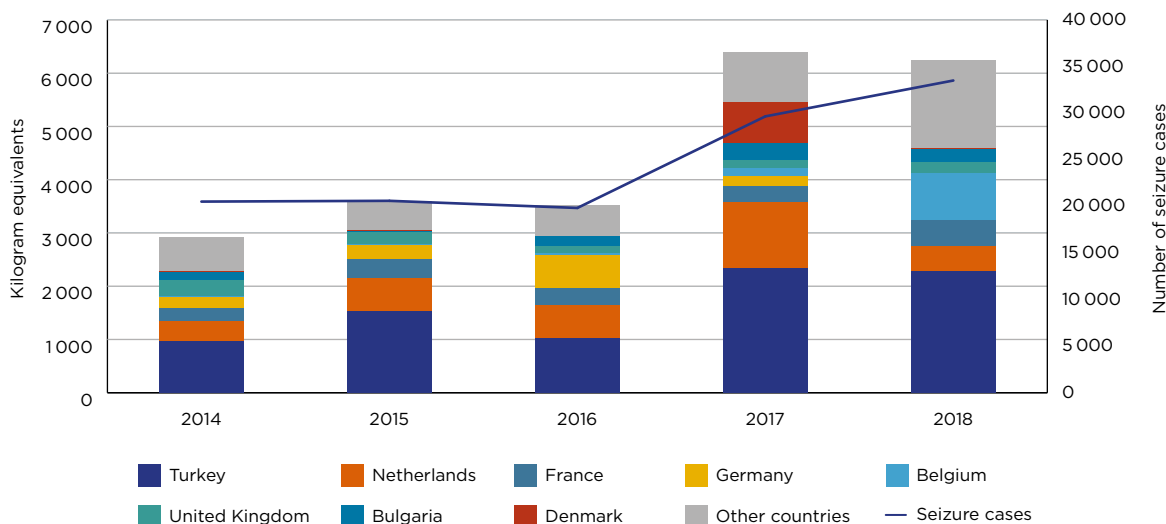
seized in Europe during the period 2014–2018 continued to be intercepted in Western and Central Europe, however almost half of the quantities seized were reported from countries in South-Eastern Europe, most notably Turkey. In 2018, Turkey was the country reporting the largest quantities of “ecstasy” seized globally with 2.3 tons. While in 2014, Turkish authorities only reported 3,706 seizure cases, this increased to 9,758 seizure cases in 2018.

In the period 2014–2018, Europe accounted for two thirds of the “ecstasy” laboratories dismantled worldwide, with most located in Western and Central Europe. The concentration of “ecstasy” manufacture in Western and Central Europe seems to be linked to innovation in manufacturing methods, custom-made industrial equipment and flexibility in precursors used, all of which is increasing manufacturing capacity for cheap and large quantities of “ecstasy”. Most manufacture of “ecstasy” in the period 2014–2018 is reported from Belgium and the Netherlands. In 2018, 20 active MDMA laboratories were detected in the Netherlands, ten “ecstasy” laboratories were detected in Belgium, three in Spain, one in Poland and one active laboratory in Sweden.<sup>496,497</sup> Other countries including Greece, Poland, the Russian Federation, Spain and Sweden also reported laboratories for “ecstasy” manufacture and/or packaging/tableting between 2015 to 2018.

<sup>496</sup>Data for Belgium, Spain and Poland – UNODC, responses to the annual report questionnaire.

<sup>497</sup>Data for Netherlands and Sweden - European Monitoring Centre for Drugs and Drug Addiction and Europol, *2020 EU Drug Markets Report* (Luxembourg, Publications Office of the European Union, 2020).

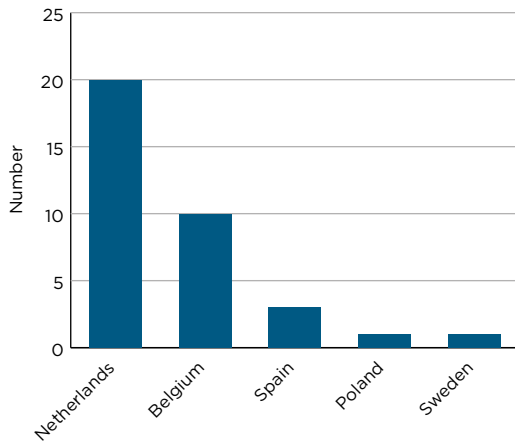
Figure 70. Quantities of “ecstasy” seized and number of seizure cases in Europe, 2014–2018



Source: UNODC, responses to the annual report questionnaire.



Figure 71. “Ecstasy” manufacturing facilities dismantled in Europe, 2018



Source: UNODC, responses to the annual report questionnaire and European Monitoring Centre for Drugs and Drug Addiction and Europol, *2020 EU Drug Markets Report* (Luxembourg, Publications Office of the European Union, 2020).

While “ecstasy” manufactured in Europe is mainly trafficked within the region, a significant share is trafficked to other regions outside of Europe. Between 2014 and 2018, Belgium and the Netherlands remained the most frequently mentioned countries of provenance for “ecstasy” worldwide. In addition, five other countries, including, in descending order, Germany, Spain, the United Kingdom, France and Bulgaria were also reported as countries of provenance. East and South-East Asia are major destinations markets for “ecstasy” shipments originating from Europe, as well as countries in Oceania and the Americas. For instance, in 2018, 328 kg of MDMA was seized in European postal centres and most of this was destined to markets in North America, South America and Asia.<sup>498</sup> In the fiscal year 2017–2018, Australia reported countries in Europe, particularly the Netherlands, followed in descending order by Germany, France, Spain, the United Kingdom, Belgium and Turkey, as the main embarkation points for “ecstasy” shipments. In addition, Dutch organized crime groups appear to be working with criminals of Turkish origin, resulting in two-way trafficking with MDMA and other drugs being sent from the Netherlands to Turkey in exchange for heroin and morphine.<sup>499</sup>

<sup>498</sup> European Monitoring Centre for Drugs and Drug Addiction and Europol, *2019 EU Drug Markets Report* (Luxembourg, Publications Office of the European Union, 2019).

<sup>499</sup> *Ibid.*

## Diverse trends in “ecstasy” use

While MDMA use had been on the decline in many countries since the early to mid-2000s, recent use estimates show diverse trends. “Ecstasy” seems to have transformed from a niche or subcultural drug limited to dance clubs, raves and festivals, where electronic music is played, to a drug that is used by a broad range of young people in mainstream recreational nightlife settings, including mainstream clubs, bars and parties.<sup>500</sup> Past-year prevalence of “ecstasy” use among young adults aged 15–34 years ranged from 0.2 per cent in Portugal and Romania to 6.9 per cent in the Netherlands.<sup>501</sup> While some countries reported a stable trend such as Finland with an annual prevalence of 2.5 per cent in 2014 and 2.6 per cent in 2018, other countries such as Czechia reported a decline from 3.6 per cent in 2014 to 1.6 per cent in 2018 and in Germany, for example, prevalence levels more than doubled, from 1.3 per cent in 2015 to 2.8 per cent in 2018. Further, the European Web Survey on Drugs, carried out in 2016, found that among people who had used MDMA in the previous year, the proportion reporting frequent use (more than 50 days in the past year) ranged from none in Cyprus to around 8 per cent in Austria and Croatia.<sup>502</sup>

Data from wastewater analyses<sup>503</sup> between 2011 and 2019 show that the highest mass loads of MDMA were found in cities in Belgium, Germany and the Netherlands<sup>504</sup> and for 11 out of the 12 European cities with data for both years, MDMA loads were higher in 2019 than in 2011. More than three quarters of cities showed higher loads of MDMA in wastewater during the weekend than during weekdays and in most countries mass loads of MDMA were higher in larger cities, reflecting the predominant use of “ecstasy” in recreational settings.

## Risks of “ecstasy” use are increasing

The emergence of “ecstasy” tablets with high doses of MDMA and high-purity crystalline “ecstasy” on the drug market has been linked to severe adverse health consequences and even fatalities. In Western and Central

<sup>500</sup> UNODC, *World Drug Report 2019* (United Nations publication, Sales No. E.19.XI.8)

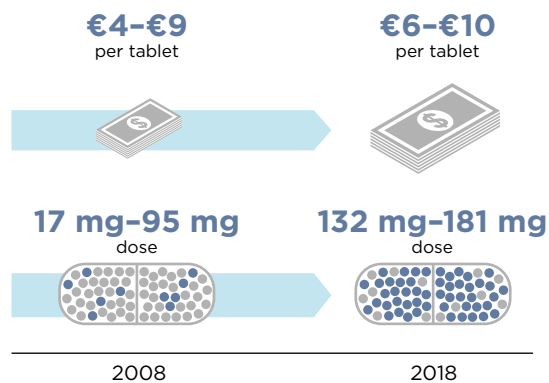
<sup>501</sup> European Monitoring Centre for Drugs and Drug Addiction, *European Drug Report 2020: Trends and Developments* (Luxembourg, Publications Office of the European Union, 2020).

<sup>502</sup> European Monitoring Centre for Drugs and Drug Addiction, *European Drug Report 2019: Trends and Developments* (Luxembourg, Publications Office of the European Union, 2019).

<sup>503</sup> Data drawn from wastewater analyses only serve as a complementary source of information on “ecstasy” use rather than a substitute for data generated by drug use studies.

<sup>504</sup> European Monitoring Centre for Drugs and Drug Addiction, *Wastewater analysis and drugs – a European multi-city study* (Lisbon, 2020).

Figure 72. Typical price and dose of “ecstasy” tablets in Europe, 2008 and 2018



Source: European Monitoring Centre for Drugs and Drug Addiction, *European Drug Report 2010/2019: Trends and Developments* (Luxembourg, Publications Office of the European Union, 2010/2020)

Europe, the MDMA content of “ecstasy” tablets reached a 10-year high in 2018.<sup>505</sup> In Europe, the price range per tablet remained almost stable at €4 to €9 in 2008 and €6 to €10 in 2018 (Euro), while the typical dose of MDMA per tablet increased substantially from a range of 17 mg to 95 mg to a range of 132 mg to 181 mg.<sup>506,507,508</sup>

According to data on MDMA purity from drug checking services operating in several European countries, the average amount of MDMA per tablet was 180 mg in the first half of 2019, a slight increase on the 172 milligrams found during the same period in 2018, but much higher than the average of 102 mg found in 2012.<sup>509</sup> Furthermore, 5 out

<sup>505</sup>For more information please see European Monitoring Centre for Drugs and Drug Addiction, *Recent changes in Europe’s MDMA/ecstasy market*, EMCDDA Rapid Communication. (Luxembourg, Publications Office of the European Union 2016) and UNODC, “Emergence of New Psychoactive substances in Latin America and the Caribbean”, *Global SMART Newsletter for Latin America and the Caribbean*, No. 3 (March 2019). Available at <https://mailchi.mp/57b4e9fc292f/c8h95kwi0q-257735>

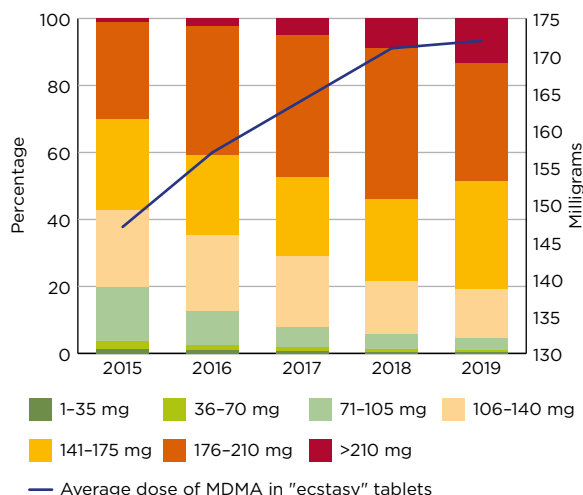
<sup>506</sup>Price and purity data are indicated as interquartile range of national mean values.

<sup>507</sup>European Monitoring Centre for Drugs and Drug Addiction, *European Drug Report 2010: Trends and Developments* (Luxembourg, Publications Office of the European Union, 2010).

<sup>508</sup>European Monitoring Centre for Drugs and Drug Addiction, *European Drug Report 2020: Trends and Developments* (Luxembourg, Publications Office of the European Union, 2020).

<sup>509</sup>European Monitoring Centre for Drugs and Drug Addiction, *European Drug Report 2020: Trends and Developments* (Luxembourg, Publications Office of the European Union, 2020). Source: Samples were collected during the period January to June 2019. Data were provided by drug checking services in Austria (Checkit and Z6), Belgium (Modus Vivendi), Italy (Neutavel and SottoKassa), Luxembourg (PiPaPo), Slovenia (DrogArt), Spain (Energy Control and Ai Laket) and the United Kingdom (Wedinos) and a research project in Finland (A-Clinic Foundation).

Figure 73. MDMA content and average dose of “ecstasy” tablets in the Netherlands, 2014-2019



Source: Ruben Vrolijk and Daan Van der Gouwe, *Annual Report 2019 Drugs Information and Monitoring System* (Utrecht: Trimbo-instituut, 2020).

Note: MDMA content as a proportion of total tablets analysed by the Drugs Information and Monitoring System.

of 8 drug checking services reported of tablets with high amounts of MDMA ranging between 270 mg to 367 mg.<sup>510</sup> The average MDMA content of “ecstasy” tablet samples handed in at the Drugs Information and Monitoring System of the Netherlands has been increasing since 2010, with an average of 172 mg per tablet reported in 2019.<sup>511</sup> In addition, 81 per cent of the 2019 samples contained over 140 mg of MDMA. While in 2018, 9 per cent of tablets contained over 210 mg of MDMA, this increased further to 13.5 per cent of tablets in 2019.

## The new psychoactive substances market in Europe: less innovation, but a higher risk of use

The NPS market in Europe continues to evolve and is characterized by a range of substances that are cheap, easily replaceable, potent and linked to a wide range of health harms including emergency room admissions and fatalities. Interactions between NPS and traditional drug markets have become stronger with NPS increasingly being sold alongside other drugs or in mixtures with them.

<sup>510</sup>European Monitoring Centre for Drugs and Drug Addiction, *European Drug Report 2020: Trends and Developments* (Luxembourg, Publications Office of the European Union, 2020).

<sup>511</sup>Ruben Vrolijk and Daan Van der Gouwe, *Annual Report 2019 Drugs Information and Monitoring System* (Utrecht: Trimbo-instituut, 2020).

By August 2020, 875 different NPS were reported to UNODC, from 42 European countries. Most of the substances reported were stimulants (306 substances), followed by synthetic cannabinoid receptor agonists (258 substances) and classic hallucinogens (128 substances). While 101 new substances were reported by the 30 European countries covered by the EMCDDA<sup>512</sup> in 2014, in 2019, only 53 new NPS were reported, suggesting that the pace of innovation may have slowed down. About 20 tons of NPS were seized in Europe in 2018, mainly plant-based substances with 12.7 tons (mostly khat), followed by 4.9 tons of stimulants (mostly mephedrone)<sup>513</sup> and 1.3 tons of synthetic cannabinoid receptor agonists. Apart from herbal and powder material, seizures of liquid material were made in EMCDDA reporting countries with over 4,200 litres in 2018.

While China and India remain the most important countries of provenance for NPS trafficked to Europe, further processing, for example, repackaging, customizing, dissolving and spraying on herbal material, etc. mostly takes place locally. Nevertheless, some clandestine synthesis laboratories have also been detected in Europe. In 2018, three laboratories located in the Netherlands, Poland and Spain were detected producing mephedrone. In 2017, five laboratories were dismantled, one in Belgium (ketamine), two in the Netherlands (3-methylmethcathinone (3-MMC) and 4-chloromethcathinone (4-CMC))<sup>514</sup> and two in Poland (4-CMC).<sup>515</sup> Some of these laboratories were operated by crime groups that were also involved in the manufacture of MDMA and amphetamine. In addition, a total of 50 kg of the synthetic cathinone precursor 2-bromo-4-methylpropiofenone was seized within the European Union as well as precursors for the manufacture of fentanyl and fentanyl derivatives with more than 0.5 kg of 4-anilino-N-phenethylpiperidine (ANPP) seized in France and 3 kg of N-phenethyl-4-piperidone (NPP) in Belgium.<sup>516</sup>

<sup>512</sup>The following countries are part of Europe but are not EMCDDA member countries: Albania, Andorra, Belarus, Bosnia and Herzegovina, Bulgaria, Faroe Islands, Holy See, Iceland, Kosovo, Monaco, North Macedonia, Republic of Moldova, Montenegro, Russian Federation, San Marino, Serbia, Switzerland and Ukraine.

<sup>513</sup>Mephedrone has been under international control as of November 2015.

<sup>514</sup>4-chloromethcathinone has been under international control as of November 2020.

<sup>515</sup>European Monitoring Centre for Drugs and Drug Addiction and Europol, 2019 *EU Drug Markets Report* (Luxembourg, Publications Office of the European Union, 2019).

<sup>516</sup>European Monitoring Centre for Drugs and Drug Addiction, *European Drug Report 2020: Trends and Developments* (Luxembourg, Publications Office of the European Union, 2020).

## Synthetic cannabinoid use prevails among vulnerable groups

The relatively low cost, easy availability and high potency of synthetic cannabinoids appear to have resulted in increased use among vulnerable groups including the homeless and the prison population. In 2019, European countries reported 99 synthetic cannabinoids of which 9 were reported for the first time in 2019.

Table 1. The most frequently seized synthetic cannabinoids by EMCDDA reporting countries, numbers and quantities, 2017

Substance	Number of seizures	Powder (kg)	Herbal (kg)
5F-MDMB-PINACA	2,295	41.7	33
MDMB-CHMICA	1,438	0.6	10
AMB-FUBINACA	1,400	13.6	42

Source: European Monitoring Centre for Drugs and Drug Addiction and Europol, 2019 *EU Drug Markets Report* (Luxembourg, Publications Office of the European Union, 2019).

In Europe, the use of NPS in prisons was reported by 22 countries, with synthetic cannabinoids identified as posing the main challenge and health risks (16 countries).<sup>517</sup> Moreover, the use of synthetic cannabinoids by inmates has been associated with prison violence and adverse health effects. While NPS only accounted for 6.2 per cent of the drugs involved in all emergency presentations recorded in the European Drug Emergencies Network in 2017, almost 70 per cent were due to the use of synthetic cannabinoids, indicating their potential for severe toxicity.<sup>518</sup> In some countries the use of synthetic cannabinoids was reported as the main reason for entering specialized drug treatment such as in Turkey (19 per cent) and Hungary (5.5 per cent).<sup>519</sup> In 2018, synthetic cannabinoids were present in 46 per cent of all drug-related deaths reported in Turkey.<sup>520</sup> Deaths related to

<sup>517</sup>European Monitoring Centre for Drugs and Drug Addiction, *New Psychoactive Substances in Prison: results from an EMCDDA Trendspotter Study – June 2018*, EMCDDA, Rapid Communication Series (Luxembourg, Publications Office of the European Union, 2018).

<sup>518</sup>European Monitoring Centre for Drugs and Drug Addiction, *Drug-related hospital emergency presentations in Europe: update from the EuroDEN Plus expert network*, Technical report (Luxembourg, Publications Office of the European Union, 2020).

<sup>519</sup>Ibid.

<sup>520</sup>Turkey, Ministry of Interior, *Turkish Drug Report – Trends and Developments* (Ankara, 2020). Available at <http://narkotik.pol.tr/kurumlar/narkotik.pol.tr/TUB%C4%B0M/Uluslar-Arasi-Yayinlar/2020uyusturucuraporuENG.pdf>

drug poisoning due to synthetic cannabinoids in England and Wales more than doubled from 24 in 2017 to 60 in 2018.<sup>521</sup>

### Synthetic cathinones use among high-risk population remains high

Synthetic cathinones have typically been sold as legal replacements for controlled substances such as amphetamine, MDMA or LSD among others. While synthetic cathinones are used in recreational settings, they are also used by high-risk drug users, including people who inject stimulants and/or heroin and other opioids. In 2019, European countries reported 98 synthetic cathinones of which 14 were reported for the first time in 2019. In 2018, large quantities of mephedrone, a substance now under international control, were seized in Spain (1.74 tons) and in the Russian Federation (566 kg as well as 2.43 tons of derivatives of mephedrone). Moreover, the Russian Federation dismantled 59 mephedrone laboratories in 2018.

Table 2. The most frequently seized synthetic cathinones by EMCDDA reporting countries, numbers and quantities, 2017

Substance	Number of seizures	Powder (kg)	Herbal (kg)
N-ethylhexedrone*	2,653	224	13
4-CMC/clephedrone	1,769	443	4
4-CEC	1,638	137	92

Source: European Monitoring Centre for Drugs and Drug Addiction and Europol, *2019 EU Drug Markets Report* (Luxembourg, Publications Office of the European Union, 2019).

\*N-ethylhexedrone has been under international control as of November 2020.

Synthetic cathinone use in prison has been reported from 10 of the 22 countries reporting the use of NPS.<sup>522</sup> For instance, problems related to the primary use of synthetic cathinones were cited by 0.2 per cent of treatment entrants

<sup>521</sup>United Kingdom, Office for National Statistics, *Deaths related to drug poisoning in England and Wales: 2018 registrations* (August 2019). Available at [www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/deathsrelatedtodrugpoisoningbyselectedsubstances](http://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/deathsrelatedtodrugpoisoningbyselectedsubstances)

<sup>522</sup>European Monitoring Centre for Drugs and Drug Addiction, *New Psychoactive Substances in Prison: results from an EMCDDA Trendspotter Study – June 2018, EMCDDA, Rapid Communication Series* (Luxembourg, Publications Office of the European Union, 2018). Available at [emcdda.europa.eu/publications\\_en](http://emcdda.europa.eu/publications_en)

in the United Kingdom.<sup>523</sup> Moreover, deaths related to drug poisoning due to synthetic cathinones in England and Wales more than doubled from seven deaths in 2017 to 16 in 2018.<sup>524</sup>

While synthetic cathinones are used in recreational settings, they are also used among high-risk drug users. For example, in Hungary people injecting opioids, drug treatment clients and needle exchange clients have reported the use of synthetic cathinones. Several European studies looking at residues of syringes found that apart from amphetamines, opioids and cocaine, synthetic cathinones such as pentedrone,<sup>525</sup> MDPV,<sup>526</sup> N-ethylhexedrone, mephedrone, 4-MEC<sup>527</sup> (all under international control), 4-Cl-*alpha*-PVP and 3-MMC were most commonly injected.<sup>528,529</sup> Injecting of synthetic cathinones has also been reported in combination with GHB, usually in the context of sex parties among men who have sex with men.<sup>530</sup>

### Synthetic opioids: an increasing presence in Europe

A recent trend in the NPS market has been the rising number of potent synthetic opioids, particularly fentanyl analogues that have emerged since 2015. While most of them fall into the category of NPS, some, such as fentanyl have therapeutic uses and are under international control. Since 2009, 59 synthetic opioids have been reported in Europe, including 9 reported for the first time in 2019. Of the 29 synthetic opioids reported in 2019, 20 were fentanyl analogues. In 2018 approximately 1,000 seizures of synthetic opioids were reported to the European Union Early Warning System, which amounted to approximately 9.3 kg. The most frequently seized synthetic opioids reported by EMCDDA reporting countries in 2017 was

<sup>523</sup>European Monitoring Centre for Drugs and Drug Addiction, *European Drug Report 2019: Trends and Developments* (Luxembourg, Publications Office of the European Union, 2019).

<sup>524</sup>United Kingdom, Office for National Statistics, *Deaths related to drug poisoning in England and Wales: 2018 registrations* (August 2019). Available at [www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/deathsrelatedtodrugpoisoningbyselectedsubstances](http://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/deathsrelatedtodrugpoisoningbyselectedsubstances)

<sup>525</sup>Pentedrone has been under international control as of November 2017.

<sup>526</sup>MDPV has been under international control as of November 2015.

<sup>527</sup>4-MEC has been under international control as of November 2017.

<sup>528</sup>European Monitoring Centre for Drugs and Drug Addiction, *Drugs in Syringes from Six European Cities: Results from the ESCAPE Project 2017* (Luxembourg, Publications Office of the European Union, 2019). Available at [emcdda.europa.eu/publications\\_en](http://emcdda.europa.eu/publications_en)

<sup>529</sup>European Monitoring Centre for Drugs and Drug Addiction, *European Drug Report 2019: Trends and Developments* (Luxembourg, Publications Office of the European Union, 2019).

<sup>530</sup>Ibid.

carfentanil<sup>531</sup> (318 cases), followed by furanylfentanyl<sup>532</sup> (183 cases) and cyclopropylfentanyl<sup>533</sup> (131 cases).<sup>534</sup> According to these reports, carfentanil samples often contained heroin.

Synthetic opioids have been associated with severe adverse health events, including fatalities. In the 30 European countries covered by the EMCDDA, the fentanyl analogue cyclopropylfentanyl was involved in 78 deaths, carfentanil in 61 and acrylfentanyl<sup>535</sup> in 47, in 2017 and 2018.<sup>536</sup> For instance, in England and Wales a total of 74 fentanyl-related deaths and 31 deaths relating to fentanyl analogues were recorded in 2018.<sup>537</sup> Several countries reported a decline in deaths relating to fentanyl or fentanyl analogues including Germany (from 157 deaths in 2017 to 59 in 2018), Estonia (from 86 in 2017 to 12 in 2018) and Sweden (from 131 in 2017 to 30 in 2018).<sup>538</sup> Synthetic opioids have also been found in blotters and in herbal smoking mixtures which may pose an elevated risk of overdose as the form of presentation does not give an indication that they contain potent opioids.

These substances are mixed and/or sold as replacement for heroin, other opioids and cocaine but are also used in falsified medicines. Fentanyl analogues such as the internationally controlled furanylfentanyl, 4-fluorobutyrfentanyl<sup>539</sup> and cyclopropylfentanyl were identified in samples sold as heroin in crypto markets by vendors located in France, Ireland, Malta, Spain and the United Kingdom between June 2014 and April 2018.<sup>540</sup> Moreover, from mid-November 2017 to mid-January 2018, Swedish police made at least 10 seizures of falsified “Xanax<sup>®</sup>”

(alprazolam) tablets that contained cyclopropylfentanyl or cyclopentylfentanyl.<sup>541</sup> There is a particularly high risk of severe health effects from tablets containing opioids sold as benzodiazepines, mostly as users may not be aware of the presence of opioids in the product.

Synthetic opioids are also used by high-risk drug users, including those who inject heroin and other opioids. Data from specialized treatment centres in Estonia for example, indicate that opioids, mainly illicit fentanyl or 3-methylfentanyl, were the most commonly reported primary substances for first-time clients entering treatment in 2016.<sup>542</sup> The use of synthetic opioids among prisoners in Latvia has also been linked to an increase in overdose cases, injecting drugs and sharing needles.<sup>543</sup> Moreover, increasing heroin overdose deaths, post-mortem cases and heroin street seizures in the north-east of England, in 2017, pointed to infiltration of fentanyl and its analogues into the heroin supply chain.<sup>544</sup> In addition, law enforcement authorities dismantled a laboratory that may have been used to mix fentanyl and its analogues with heroin.<sup>545</sup>

### Benzodiazepine-type new psychoactive substances sold as substandard and falsified medicines

As a relatively new phenomenon, NPS belonging to the benzodiazepine class have emerged over the past years. These substances have been associated with harm, including an increased risk of overdose. They are often sold at very low prices, sometimes mimicking medicines in shape, have variable dosages of active ingredients, possibly containing contaminants, as well as highly potent synthetic opioids. In 2011, Germany, Norway and the United Kingdom were the first countries to report benzodiazepine-type NPS.

<sup>531</sup> Carfentanil has been under international control as of May 2018.

<sup>532</sup> Furanylfentanyl has been under international control as of May 2018.

<sup>533</sup> Cyclopropylfentanyl has been under international control as of May 2019.

<sup>534</sup> European Monitoring Centre for Drugs and Drug Addiction and Europol, *EU Drug Markets Report 2019* (Luxembourg, Publications Office of the European Union, 2019).

<sup>535</sup> Acrylfentanyl has been under international control as of May 2016.

<sup>536</sup> European Monitoring Centre for Drugs and Drug Addiction, *Drug-related deaths and mortality in Europe* (Luxembourg, Publications Office of the European Union, 2019).

<sup>537</sup> United Kingdom, Office for National Statistics, *Deaths related to drug poisoning in England and Wales: 2018 registrations* (August 2019). Available at [www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/deathsrelatedtodrugpoisoningbyselectedsubstances](http://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/deathsrelatedtodrugpoisoningbyselectedsubstances)

<sup>538</sup> European Monitoring Centre for Drugs and Drug Addiction, *European Drug Report 2020: Trends and Developments* (Luxembourg, Publications Office of the European Union, 2020).

<sup>539</sup> 4-fluorobutyrfentanyl has been under international control as of May 2019.

<sup>540</sup> Energy Control International, *Fentanyl and fentanyl derivatives (1): Adulterated heroin samples from cryptomarkets* (April 2018). Available at [energycontrol-international.org/wp-content/uploads/2018/05/ECINT001\\_Heroin\\_Adult\\_CRYPTMK.pdf](http://energycontrol-international.org/wp-content/uploads/2018/05/ECINT001_Heroin_Adult_CRYPTMK.pdf)

<sup>541</sup> European Monitoring Centre for Drugs and Drug Addiction/ Europol, *2019 EU Drug Markets Report* (Luxembourg, Publications Office of the European Union, 2019). Available at [emcdda.europa.eu/publications\\_en](http://emcdda.europa.eu/publications_en)

<sup>542</sup> European Monitoring Centre for Drugs and Drug Addiction, *Estonia, Country Drug Report 2018* (Lisbon, 2018). Available at [emcdda.europa.eu/publications\\_en](http://emcdda.europa.eu/publications_en)

<sup>543</sup> European Monitoring Centre for Drugs and Drug Addiction, *New Psychoactive Substances in Prison: results from an EMCDDA Trendspotter Study – June 2018*, EMCDDA, Rapid Communication Series (Luxembourg, Publications Office of the European Union, 2018). Available at [emcdda.europa.eu/publications\\_en](http://emcdda.europa.eu/publications_en)

<sup>544</sup> United Kingdom, National Crime Agency, *Recent Deaths Possibly Linked to Fentanyl* (London, 2017). Available at [nationalcrimeagency.gov.uk/who-we-are/publications/7-recent-deaths-possibly-linked-to-fentanyl/file](http://nationalcrimeagency.gov.uk/who-we-are/publications/7-recent-deaths-possibly-linked-to-fentanyl/file)

<sup>545</sup> UNODC, *World Drug Report 2020* (United Nations publication, Sales No. E.20.XI.6).

Since 2009, 28 benzodiazepine-type NPS have been reported in Europe with 18 reported in 2019. In 2018 close to 4700 seizures of new benzodiazepines were reported to the European Union Early Warning System, amounting to 1.4 million tablets, 1.3 litres of liquids and under 8 kilograms of powders.<sup>546</sup> In 2017, EMCDDA reporting countries most frequently seized etizolam,<sup>547</sup> followed by clonazepam and norfludiazepam.<sup>548</sup> Bulk materials are mostly brought into Europe from countries such as India and China, where they are then further processed into tablets or products mimicking commonly prescribed benzodiazepine medicines, such as alprazolam and diazepam. Specifically, in recent years there have been various reports of substandard and falsified benzodiazepine medicines that were intercepted and found to contain benzodiazepine-type NPS. During 2017, a single seizure of 1.67 million tablets, of falsified diazepam tablets containing etizolam was made in Scotland.<sup>549</sup> There were also several incidents of such falsified medicines that not only contained benzodiazepine-type NPS but also synthetic opioids. In 2016 for instance, Police Scotland reported of tablets sold as diazepam that were found to contain etizolam, diclazepam, flubromazepam and the synthetic opioid U-47700, increasing the risk of accidental overdose.<sup>550</sup> In Scotland, benzodiazepines were implicated in 67 per cent of the 1,187 drug-induced deaths recorded in 2018.<sup>551</sup>

In some cases, substandard and falsified medicines are produced by the same organized crime groups that manufacture and/or traffic synthetic drugs, such as MDMA, LSD and ketamine. For example, in 2017 law enforcement authorities in Ireland seized a large quantity of falsified “Xanax<sup>®</sup>” tablets together with 6.5 kg of “ecstasy”.<sup>552</sup>

<sup>546</sup>European Monitoring Centre for Drugs and Drug Addiction, *European Drug Report 2020: Trends and Developments* (Luxembourg, Publications Office of the European Union, 2020).

<sup>547</sup>Etizolam has been under international control as of November 2020.

<sup>548</sup>European Monitoring Centre for Drugs and Drug Addiction and Europol, *2019 EU Drug Markets Report* (Luxembourg, Publications Office of the European Union, 2019).

<sup>549</sup>Ibid.

<sup>550</sup>United Kingdom, Police Scotland, *Drug Trend Bulletin – Issue 13* (September 2016) and *Drug Trend Bulletin – Issue 8* (March 2016). Available at [nhs.uk/borders-scotland/patients-and-visitors/our-services/general-services/alcohol-and-drugs-partnership-\(adp\)-support-team/news-and-events/police-scotland-drug-trend-bulletins/](https://nhs.uk/borders-scotland/patients-and-visitors/our-services/general-services/alcohol-and-drugs-partnership-(adp)-support-team/news-and-events/police-scotland-drug-trend-bulletins/).

<sup>551</sup>United Kingdom, Government of Scotland, National Records of Scotland, “1,187 drug-deaths in 2018: up 27 per cent in a year,” press release, 16 July 2019. Available at [www.gov.scot/news/1-187-drug-deaths-in-2018-up-27-percent-in-a-year/](http://www.gov.scot/news/1-187-drug-deaths-in-2018-up-27-percent-in-a-year/).

<sup>552</sup>Ireland, An Garda Síochána – Ireland’s National Police Service, “Drug Seizure Kildare 13/02/17 €344,000,” press release, 14 February 2017. Available at [garda.ie/en/About-Us/Our-Departments/Office-of-Corporate-Communications/Press-Releases/2017/February/Drug-Seizure-Kildare-13-02-17-%E2%82%AC344-000.html](http://garda.ie/en/About-Us/Our-Departments/Office-of-Corporate-Communications/Press-Releases/2017/February/Drug-Seizure-Kildare-13-02-17-%E2%82%AC344-000.html).

## Continuous changes in precursors used to manufacture synthetic drugs

In Europe, a main area of concern has been the change in precursors used to manufacture synthetic drugs such as amphetamine, methamphetamine and MDMA. While, ephedrine and pseudoephedrine were the predominant precursors used in domestic manufacture of methamphetamine in Europe, a shift has been noticed towards the use of 1-Phenyl-2-propanone (P-2-P) for the illicit manufacture of amphetamine and methamphetamine.<sup>553</sup> In Europe, the use of chemical intermediates to manufacture P-2-P, such as *alpha*-phenylacetonitrile (APAAN – 2014), *alpha*-phenylacetoacetamide (APAA – 2019) and methyl *alpha*-phenylacetoacetate (MAPA – 2020), all of which were recently placed under international control, has intensified over the past years to avoid detection, circumvent controls on P-2-P, lower costs of manufacturing and ensure business continuity.<sup>554</sup> For instance, large-scale laboratories dismantled in Belgium and the Netherlands in 2019 manufactured methamphetamine using non-controlled precursors of P-2-P, similar to the methods used in North America.<sup>555</sup>

While a diverse range of precursors are being seized in Europe, international control seems to have had an impact on the quantities seized over time. After the pre-precursor APAAN was placed under international control in 2014, P-2-P methyl glycidic acid derivatives were increasingly used as alternatives, followed by APAA and MAPA. While quantities of APAAN seized decreased from 48 tons in 2013 to 13.5 tons in 2018 in EMCDDA reporting countries, quantities of APAA seized increased from 8 tons in 2016 to 31 tons in 2018. In addition, P-2-P methyl glycidic acid derivatives emerged in 2012 and while quantities seized increased from 3 tons in 2016 to 6 tons in 2017, this was followed by a decrease in 2018 to 2.3 tons. Furthermore, in late 2017, the pre-precursor MAPA emerged on the European market with quantities seized increasing from 490 kg in 2017 to 7 tons in 2018. Between 2017 and August 2019, more than 10 tons of MAPA was seized globally, mainly in the Netherlands.<sup>556</sup>

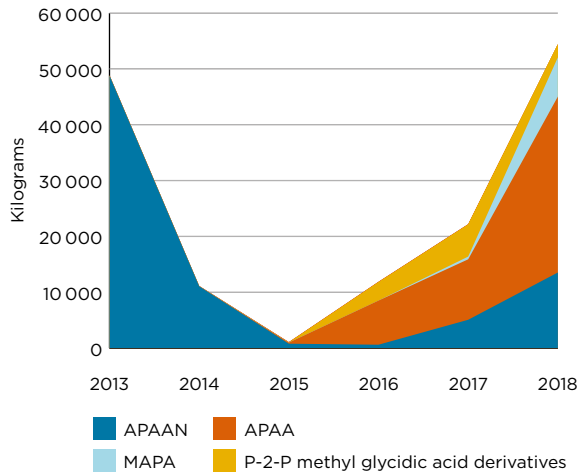
<sup>553</sup>International Narcotics Control Board, *Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances 2018* (United Nations publication, Sales No. E.19.XI.6).

<sup>554</sup>European Monitoring Centre for Drugs and Drug Addiction and Europol, *2019 EU Drug Markets Report* (Luxembourg, Publications Office of the European Union, 2019) and European Monitoring Centre for Drugs and Drug Addiction, *Drug precursor developments in the European Union*, EMCDDA Papers (Luxembourg, Publications Office of the European Union, 2019).

<sup>555</sup>European Monitoring Centre for Drugs and Drug Addiction and Europol, *2019 EU Drug Markets Report* (Luxembourg, Publications Office of the European Union, 2019).

<sup>556</sup>European Monitoring Centre for Drugs and Drug Addiction, *Drug precursor developments in the European Union*, EMCDDA Papers (Luxembourg, Publications Office of the European Union, 2019).

Figure 74. Quantities of APAAN, APAA, MAPA and P-2-P methyl glycidic acid derivatives seized by EMCDDA reporting countries, 2013–2018

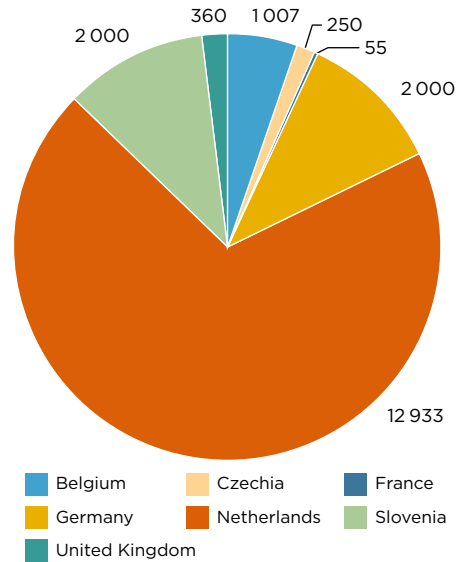


Source: European Monitoring Centre for Drugs and Drug Addiction, *European Drug Report: Trends and Developments* (Luxembourg, Publications Office of the European Union) of 2015, 2016, 2017, 2018, 2019, 2020; and International Narcotics Control Board, *Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances 2018* (United Nations publication, Sales No. E.19.XI.6).

In the first 10 months of 2019, almost 50 seizures of the three pre-precursors (APAAN, APAA, MAPA) were reported in Europe, amounting to more than 18 tons.<sup>557</sup> While the Netherlands reported the largest number of seizures and quantities seized of the pre-precursors, the single largest seizure was reported from Slovenia, with 2 tons of MAPA seized from an inbound shipment at a local seaport. For incidents where information on the origin was available, China was frequently mentioned.<sup>558</sup> Reported destination countries included Belgium, Czechia, France, Germany, the Netherlands, Poland and the United Kingdom.<sup>559</sup>

A wide range of controlled and non-controlled precursor chemicals are also being used in the manufacture of “ecstasy”. The main scheduled precursors used to

Figure 75. Quantities of APAA, MAPA and P-2-P methyl glycidic acid derivatives communicated by countries in Europe through the Precursors Incident Communication System, in kilograms, 2019



Source: International Narcotics Control Board, *Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances 2019* (United Nations publication, Sales No. E.20.XI.2)

manufacture “ecstasy” are safrole, isosafrole, piperonal and 3,4-methylenedioxyphenyl-2-propanone (3,4-MDP-2-P, PMK). While the use of 3,4-MDP-2-P has been reported by several European countries, quantities seized decreased from 9,820 litres in 2017, mostly seized in the Netherlands and Bulgaria, to 718 litres in 2018, mostly seized in Spain and the Netherlands.<sup>560</sup> In 2018, the largest seizures of 3,4-MDP-2-P glycidic acid were reported by the Netherlands with more than 2.8 tons of the methyl ester and 1.1 tons of the sodium salt, Portugal (1.2 tons of the methyl ester), as well as Belgium, Germany and the United Kingdom reporting smaller quantities seized.<sup>561</sup>

<sup>557</sup> Communicated through the Precursors Incident Communication System.

<sup>558</sup> International Narcotics Control Board, *Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances 2019* (United Nations publication, Sales No. E.20.XI.2).

<sup>559</sup> Ibid.

<sup>560</sup> Ibid.

<sup>561</sup> Ibid.