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Amphetamine

A European Union perspective in the global context

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Cais do Sodré, 1249-289 Lisbon, Portugal
Tel. +351 211210200 • Fax +351 218131711
info@emcdda.europa.eu • www.emcdda.europa.eu

Eisenhowerlaan 73, 2517 KK, The Hague, the Netherlands
Tel. +31 703025000; Fax +31 703455896
File No: 2564-556
Publications: https://www.europol.europa.eu/latest-publications

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Contents

Introduction

This report is the third in a series of European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)–Europol joint publications dedicated to prevalent illicit drugs. It focuses on amphetamine, a substance belonging to the family often referred to as amphetamine-type stimulants (ATS), which covers two main groups of substances: the 'amphetamines', which includes amphetamine, methamphetamine and related substances, and the 'ecstasy-type' drugs, which includes methylenedioxymethamphetamine (MDMA) and its close relatives methylenedioxyamphetamine (MDA) and methylenedioxyethylamphetamine (MDEA).

This study focuses on amphetamine production and markets in Europe, set in a global context. The first two EMCDDA–Europol joint publications were dedicated to methamphetamine and cocaine, while ecstasy-type substances, heroin and cannabis will be addressed in future publications.

The current patterns of amphetamine use in Europe are influenced by both historical and more recent factors. The use of amphetamine has evolved over the years since it was first synthesised, in 1887. Originally an experimental substance used as a medicine to treat narcolepsy, amphetamine was used as a stimulant and performance enhancer by soldiers in the Second World War. In the late 1940s, it became a product of mass consumption, and it remained a widely prescribed medication well into the 1960s. Since the early 1970s, amphetamine has been an illicitly used and produced drug, and since the 1990s it has experienced renewed popularity in many parts of Europe, especially northern Europe.

Although, worldwide, methamphetamine is probably the most widely used synthetic stimulant, in Europe it is amphetamine, mostly in the form of the sulphate salt, that has historically been, and remains, the most produced, trafficked and used synthetic stimulant. Amphetamine, therefore, may be neatly viewed as a 'European drug'. Paradoxically, amphetamine has attracted much less attention in the European and global media, in policy circles and in academia than other drugs such as cannabis, cocaine or heroin. Even the closely related methamphetamine often seems to get more attention, although, compared with amphetamine, its production and use are much less prevalent in Europe. As a result, comparatively less information and analysis is available on amphetamine than on many other substances.

Even so, EMCDDA and Europol data and analysis, as well as the literature reviewed for this report, strongly suggest that the demand and supply of amphetamine in Europe are not secondary issues but warrant careful attention. Overall, amphetamine has stabilised as the second most widely used stimulant drug in Europe today, after cocaine. And in many countries, especially in the north and east of Europe, it is the most consumed stimulant, far ahead of cocaine. In fact, in many of those countries, amphetamine is the second most widely used illicit drug after cannabis. Broadly speaking, the European amphetamine market can be characterised by two main patterns of use. The biggest group of users are generally episodic or occasional users of the drug, most of whom will be relatively well integrated socially, especially in terms of housing and employment status. Patterns of use among this group will vary from occasional experimental use (only once or twice) to regular episodic but intensive periods of use. The typical mode of administration will be nasal insufflation (snorting) or oral ingestion (swallowing). A second, more chronic, pattern of use can also be found in some countries, notably Norway, Latvia, Sweden and the United Kingdom. This pattern of use is characterised by the chronic

(i.e. long-term) injection of often high-dose amphetamine. Users tend to be more socially marginalised and have more chronic health problems. In some countries, amphetamine therefore makes up a significant part of the national drug problem, with the concomitant health and social consequences, and the attendant costs to European societies, that this entails.

Other consequences derive from the fact that the European amphetamine markets — 2 million Europeans are estimated to have used the drug in the last year — represent highly profitable 'business opportunities' for organised crime. Although some amphetamine is produced in 'kitchen-type' laboratories set up by chemistry students to supply a group of local friends, it is likely that the vast majority is manufactured in middling to large, sometimes 'industrial size', facilities. And, in this case, production and wholesale trafficking are in the hands of criminal organisations, some of which are able to operate throughout Europe, and even beyond, and which reap the corresponding profits. The decrease in the number of amphetamine production facilities dismantled in Europe in recent years does not necessarily make for comforting news, as forensic intelligence suggests that there is an increase in the production capacity of the facilities seized in key producer countries. The information available suggests that Europe is the world's number one producer of amphetamine, with much of the production consumed within European borders. However, Europe also produces amphetamine that is usually exported to the Middle East and the Arabian Peninsula, where it is sold under the name 'captagon' (see p. 12). For conceptual clarity, the production and use of amphetamine in Europe needs to be distinguished from the production and export of amphetamine sold as captagon outside the European Union (EU). Patterns of use, including dose and route of administration, also are likely to differ considerably between these products.

All this emphasises the need for careful monitoring of the production, trafficking and use of amphetamine in Europe today and is one of the reasons why the EMCDDA and Europol have joined efforts to publish the present report. Based on the latest statistical data, intelligence reports and original analysis, this joint publication hopes to enhance the understanding of amphetamine, an often overlooked but nevertheless key component on the European scene for stimulant drugs.

Amphetamine powder in a clandestine facility at Calandsoog, the Netherlands, dismantled in 2011. Source: Europol, KLPD (Netherlands Police Agency) and LFO.

Amphetamine

Amphetamine is a synthetic stimulant of the central nervous system, closely related to methamphetamine. Amphetamine is a member of the phenethylamine family, which includes a range of substances that may be stimulants, entactogens or hallucinogens. Thus, amphetamine is *N*,α-methylphenethylamine. Although amphetamine has occasional therapeutic uses in the treatment of narcolepsy and attention-deficit hyperactivity disorder, most is manufactured in clandestine facilities in Europe.

The International Non-proprietary Name (INN) is amfetamine. Amfetamine is also the name required for the labelling of medicinal products within the EU. Other commonly used chemical names include 1-phenyl-2-aminopropane and phenyliospropylamine, and hundreds of other synonyms and proprietary names exist (e.g. Benzedrine, Dexedrine). Amphetamine is sometimes included with methamphetamine and other less common substances (e.g. benzphetamine) under the generic heading 'amphetamines'. English-language 'street' terms include speed, base and whizz.

Amphetamine base is a colourless volatile oil, insoluble in water. The most common salt is the sulphate — a white or off-white powder that is soluble in water. Illicit products mostly consist of powders. Tablets containing amphetamine may carry logos similar to those seen on MDMA and other ecstasy tablets. Amphetamine may be ingested, snorted and, less commonly, injected. Unlike the hydrochloride salt of methamphetamine, amphetamine sulphate is insufficiently volatile to be smoked. When ingested, a dose may vary from several tens to several hundreds of milligrams depending on the purity.

Amphetamine causes hypertension and tachycardia with feelings of increased confidence, sociability and energy. It suppresses appetite and fatigue and leads to insomnia. Following oral administration, the effects usually start within 30 minutes and last for many hours. Amphetamine is less potent than methamphetamine, but in uncontrolled situations, and when using the same route of administration, the effects are generally difficult to distinguish.

Acute intoxication causes serious cardiovascular disturbances as well as behavioural problems such as agitation, confusion, paranoia, impulsivity and violence. Chronic use of amphetamine causes neurochemical and neuroanatomical changes. Dependence — as shown by increased tolerance — results in deficits in memory, decision-making and verbal reasoning. Some of the symptoms resemble those of paranoid schizophrenia. Although these effects may outlast drug use, often they resolve eventually. Injection of amphetamine carries the same viral infection hazards [e.g. human immunodeficiency virus (HIV) and hepatitis] as are found with other injectable drugs such as heroin. Fatalities directly attributed to amphetamine are rare. The estimated minimum lethal dose in non-dependent adults is 200 mg.

Amphetamine is under international control. The *R* and *S* enantiomers (levamfetamine and dexamfetamine, respectively) as well as the racemate (a 50:50 mixture of the *R* and *S* stereoisomers) are listed in Schedule II of the United Nations 1971 Convention on Psychotropic Substances. The amphetamine precursors, 1-phenyl-2-propanone (BMK, P2P), norephedrine and norpseudoephedrine, are listed in Table I of the United Nations 1988 Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances. The corresponding EU legislation is set out in Council Regulation (EEC) No 3677/90 (as later amended), which governs trade between the EU and third countries.

Source: EMCDDA drug profiles.

Amphetamine in Europe at a glance

Number of adults (15–64 years old) having used amphetamine in their lifetime: 12.5 million (3.86 %).

Number of young adults (15–34 years old) having used amphetamine during the last year: 1.5 million (1.1 %).

Amphetamines are reported as the primary drug in about 5 % of all treatment requests.

Minimum of 34 500 seizures ([1]), resulting in the interception of an estimated 6 tonnes of amphetamine powder and 3 million amphetamine tablets ([2]).

Countries reporting the largest number of seizures (in descending order): United Kingdom, Germany and Sweden.

Countries reporting the largest quantities of amphetamines seized (in descending order): the Netherlands ([3]), United Kingdom, Germany, Turkey.

Mean retail price of amphetamine: ranges from EUR 8 to EUR 42 per gram. Since 2004, with the exception of the Netherlands, prices have declined or remained stable in all countries where data are available.

Mean purity of amphetamine: from 1 % to 29 % in most countries. Purity has declined since 2004 in all reporting countries, except Luxembourg, where it increased.

Source: EMCDDA 2011 Statistical bulletin (2009 data unless otherwise indicated) except ([1]) (source: Europol).

([1]) *Number of amphetamine seizures*: (a) In the absence of 2009 data from France, 2008 data were used to construct the European total. (b) The Netherlands is not included in the European total.

([2]) *Quantities of amphetamine tablets seized*: (a) Assuming an average weight of 250 mg per tablet, the number of amphetamine tablets seized in Europe would amount to an estimated 750 kg (this is not included in the 7.3 tonnes of amphetamine powder mentioned above). The amphetamine powders and amphetamine tablets seized in Europe rarely contain pure amphetamine; they are usually a mixture of amphetamine and other substances (adulterants). If adjusted for purity, quantities seized would probably be substantially lower. (b) Of the 3 million tablets seized, 94 % were seized by Turkey.

([3]) In the absence of 2008 and 2009 data for the Netherlands, data reported to Europol were used to construct European totals.

This report provides a condensed review of key issues relevant to understanding how Europe stands vis-à-vis the global amphetamine problem today. At various points in the document, background information on the chemistry of amphetamine, production methods and key European figures is provided.

Analysis begins with a summary of the history of amphetamine in Europe, set in a global context. There then follows an outline of the situation regarding current amphetamine trends worldwide, and recent changes in the international trafficking patterns of key precursor chemicals.

The publication then focuses on Europe. The patterns and latest trends in the use, manufacture and trafficking of amphetamine in (and outside) Europe are examined, and significant information on European trends in precursor trafficking are summarised. Finally, the report provides an overview of initiatives at the European and international levels that address both amphetamine production and precursor trafficking, and the consequences of each.

The global context

Historical background

Amphetamine was first synthesised in Berlin, Germany, in 1887 by the Romanian chemist Lazar Edeleano (Edeleano, 1887). However, it was not until the 1930s that the substance became acknowledged for its therapeutic value and properties (Remberg, 1997; Yoshida, 1997). In 1932, *dl*-amphetamine was marketed under the brand name 'Benzedrine' by the pharmaceutical firm Smith, Kline & French as a inhaler to treat nasal congestion in the United Kingdom. Later on, its stimulant effect was recognised and the drug was used to treat narcolepsy (ACMD, 2005).

In the 1920s and 1930s, the medical and paramedical use of amphetamine increased in Europe and in the West in general. For instance, amphetamine was prescribed for depression and other mood disorders in the United Kingdom, or to treat obesity and asthma in the Netherlands (van Haal and Spruit, 1997), but it was also sought out for its stimulant effects (by students, for instance). In 1938, in Sweden, advertisements for 'pep pills' based on amphetamine appeared in newspapers and on radio programmes aimed at different groups including housewives and students (Svensson, 2009).

During the Second World War, in the Allied camp, although millions of methamphetamine tablets were supplied to US military personnel (ACMD, 2005), the stimulant given to US soldiers was more commonly amphetamine (Zábranský, 2007). An estimated 72 million amphetamine tablets were supplied to British soldiers during the Second World War, while an estimated 200 million amphetamine and methamphetamine tablets were distributed to US troops (ACMD, 2005). Meanwhile, in Japan and Germany the stimulant distributed to military forces was methamphetamine (Heckmann, 1997; Suwaki et al., 1997).

Fuelled by the sale of the huge war surplus of amphetamines to the general population, this initial wave of synthetic stimulant use continued into the late 1940s. There was widespread medical and non-medical use of amphetamine in Europe (especially in Sweden and the United Kingdom), amphetamine and methamphetamine in North America, and methamphetamine in the Far East (Tamura, 1989; UNODC, 2003; ACMD, 2005; Case, 2005; Zábranský, 2007). An estimated 200 000 people were amphetamine users in Sweden in 1942–43, representing about 3 % of the adult population at the time. Of these, two-thirds were occasional users, some 60 000 used amphetamine between several times a year and twice a month, and approximately 4 000 used it every week (Svensson, 2009).

Problematic side-effects of chronic and non-medical use of amphetamine, including hypertension, depression, dependence and psychiatric disturbances, have been documented since the late 1930s (ACMD, 2005). Nevertheless, amphetamine and methamphetamine were widely accepted as safe and helpful drugs by the medical profession and the public at large well into the 1960s. As accounts about negative side-effects and addiction emerged in the 1940s and 1950s, restrictions on the prescription and sale of amphetamine products (tablets, ampoules, inhalers) were imposed in Europe in the early 1950s, and sometimes earlier, as in Sweden in 1939 (Svensson, 2009). However, demand remained high and licit use of amphetamines continued in the 1950s and

1960s (Tamura, 1989; ACMD, 2005), especially among women (Case, 2005), and increasingly the drug became associated with various youth and counter cultures, including motorcycle gangs.

The majority of the amphetamine available at that time was manufactured legally by pharmaceutical companies and prescribed by medical practitioners for a wide variety of disorders, including depression, attention-deficit disorder, alcoholism, obesity and anorexia (ACMD, 2005; Case, 2005; NDLERF, 2005). However, recreational use increased markedly among some subpopulations, for instance artists and young people, in several regions of Europe, and street dealing developed (Käll, 1997). The adoption by the United Nations of the International Convention on Psychotropic Substances in 1971 placed amphetamines under the same strict control measures as those applied to other illicit drugs such as heroin and cocaine (Yoshida, 1997).

After enhanced international and national controls were imposed, supply channels began to shift in Europe during the 1960s and illicit sources of supply gradually emerged (ACMD, 2005). New illicit supply channels are reported to have taken three forms — illegal distribution or diversion of domestically manufactured pharmaceutical products; illegal importation of products manufactured abroad; and illicit domestic manufacture (Tamura, 1989; Käll, 1997; ODCCP, 2001; ACMD, 2005; Case, 2005).

In Europe, the United Kingdom experienced increasing misuse of amphetamine. From the 1950s, amphetamine obtained from licit medical prescription was diverted into the illicit market. By the 1960s, this trend reached epidemic proportions in some cities. Over time, amphetamine and methamphetamine diverted from therapeutic use were replaced on the market by illicitly produced amphetamine sulphate (ACMD, 2005). In Sweden, amphetamine use continued to spread in the 1960s, and the National Medical Board estimated that there were about 1 000 intravenous amphetamine users in the country in 1960 (Svensson, 2009).

In the 1980s, control measures and the arrival of heroin to the European drug market seemed to cause the use of amphetamine to fall among most of western Europe's problem drug users, although amphetamine remained popular in Scandinavia (EMCDDA, 2010a). Recreational amphetamine use was associated with the 'punk rock' subculture in the 1980s, and prevalence rose again in the 1990s with the emergence of the electronic music scene, but problem amphetamine use remained low. Indications of the increased use of amphetamines first appeared in Poland and the Baltic states in the 1990s, and have been slowly increasing since then. Towards the late 1990s, northern European countries saw a new wave of amphetamine use, and problem amphetamine users outnumbered problem opioid users. However, in southern Europe, amphetamine has never been among the most popular or prevalent drugs.

In summary, for a considerable period of time amphetamine was the most commonly available and used stimulant drug in Europe. This situation changed only with the introduction of widespread MDMA use in the 1990s, and with significant volumes of cocaine entering the European market in the last decade. Despite this, however, in most European countries amphetamine use remains an important element in patterns of stimulant use found today. In contrast to the global picture, methamphetamine is far less commonly seen in Europe. Although methamphetamine has been an important element of the drug problem in the Czech Republic since the 1970s, more recently methamphetamine use has also become more common in Slovakia, and very recently appears, to some extent, to be displacing amphetamine use in some Nordic and Baltic countries.

Global situation

The production of illicit amphetamine-type stimulants may be seen as a lucrative business by many criminal actors. The main reason is that they can be produced almost anywhere at a relatively low cost, and that in general they are manufactured close to consumer markets, so that trafficking remains intra-regional, thereby reducing the additional risks of detection associated with cross-border trafficking. The methods involved in the production of this drug are relatively simple and do not require those involved to have a high degree of expertise in organic chemistry. However, more problematic, from the perspective of an illicit producer, is that the precursor chemicals required for amphetamine production are often difficult to obtain. This has resulted in a global market for trafficking precursor chemicals required for amphetamine production. Some of the equipment used to manufacture amphetamine in Europe, especially in larger facilities, is fairly sophisticated and may be custom-made by specialist 'facilitators'. The benefits gained from selling the final product amply cover the initial investment (UNODC, 2003, 2008a, 2009), with reported mark-ups between wholesale and retail prices of up to 300 % in the case of amphetamine (UNODC, 2008b). Finally, in comparison with the production of most other types of illicit drugs, ATS production has the advantage of being relatively non-labour intensive (NDLERF, 2005) and can be carried out indoors, which means that production is not influenced by weather conditions and that it is much less exposed to law enforcement detection.

Data and sources

Systematic and routine information to describe illicit drug markets and trafficking is still limited. Drug seizures are often considered as an indirect indicator of the supply, trafficking routes and availability of drugs; however, they also reflect law enforcement priorities, resources and strategies, the vulnerability of traffickers and reporting practices. Data on purity or potency and retail prices of illicit drugs may also be analysed in order to understand retail drug markets. However, the availability of these types of data may be limited and there may be questions of reliability and comparability. Intelligence information from law enforcement agencies may help complete the picture. The EMCDDA collects national data on drug seizures, purity and retail prices in Europe. Other data on drug supply come largely from the United Nations Office on Drugs and Crime (UNODC)'s information systems and analyses, complemented by additional information from Europol. Information on drug precursors can be obtained from the International Narcotics Control Board (INCB), European Commission, European Anti-Fraud Office (OLAF) and Europol, which are involved in international initiatives to prevent the diversion of precursor chemicals used in the manufacture of illicit drugs. These information sources are not always concordant, and currently work is under way to improve the compatibility, quality and comparability of data in this area. As many parts of the world lack sophisticated information systems related to drug supply, some of the estimates and other data reported, though representing the best approximations available, must be interpreted with caution.

Since the 1990s, the manufacture of amphetamines has been spreading globally with an increasing number of countries reporting production on their territory. Owing to a general lack of data on production and consumption of these drugs, estimating the amounts available for consumption is a challenge. The most recent estimates from the UNODC (2010) place the number of past-year users of amphetamines at between 14 and 53 million and potential global manufacture at between 160 and 600 tonnes in 2008. The UNODC does not distinguish between amphetamine and methamphetamine, but based on the estimates produced for 2006 (UNODC, 2008b), and

assuming stable market shares between amphetamine and methamphetamine since then, one-third of this potentially manufactured amount could be of amphetamine.

Amphetamine is still produced mainly in Europe, with large-scale production and organised crime involvement being found principally in the north-western parts of the region, whereas small- to middle-scale production predominates in eastern Europe (Europol, 2007a; EMCDDA, 2009a) ([1]). In 2008, 80 % of the amphetamine production facilities dismantled worldwide were in western and central Europe (UNODC, 2010).

During the last 30 years, consumption of amphetamine tablets with a 'captagon' logo ([2]), a counterfeit pharmaceutical product, has spread from south-east Europe to the Near and Middle East, and there are several indications that illicit manufacture has also recently shifted to these areas. This displacement might be correlated with recent developments in production of other ATS: when production is an organised crime activity, the location of production is increasingly shifted from developed to developing countries, presumably to make use of the vulnerabilities of poorer countries, which often lack the resources to combat this phenomenon effectively. Other reasons for such shifts in location may include avoiding control and detection by using precursor chemicals not under control and diversification of trafficking routes (UNODC, 2009).

Data on laboratories dismantled worldwide since 2003 show that manufacture of amphetamine also occurs outside Europe, in particular in the United States and Australia, but also in Canada, Mexico, South Africa, Indonesia, India and Lebanon (as captagon).

The chemical 1-phenyl-2-propanone (P2P, BMK) is a precursor predominantly used to manufacture amphetamine in Europe, but which may also be used to make methamphetamine (EMCDDA, 2009b). BMK is placed under international control; it is listed in Table I of the United Nations 1988 Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances. International trade in BMK, licit uses of which include the manufacture of pesticides and cleaning agents, is relatively small and restricted to a few countries. In 2010, a total of 35 shipments of BMK were notified to the INCB, with eight countries exporting nearly 15 000 litres to 16 importing countries (INCB, 2011). Global seizures of illicit BMK shipments decreased from 5 620 litres in 2008 to 4 900 litres in 2009. By comparison, the largest annual total of BMK seized internationally during the 2000s amounted to 18 238 litres and was reported to the INCB by the Netherlands in 2001 (INCB, 2003). Seizures of BMK in Europe, including Russia, remained relatively stable in 2009, amounting to 2 483 litres, compared with 2 757 litres in 2008. In 2008 and 2009, two countries, China and Russia, confiscated almost all of the BMK seized worldwide (INCB, 2011). Information submitted to Europol in 2010 indicates that more than 11 tonnes of BMK was seized worldwide, including more than 5 tonnes intercepted in Belgium, and two seizures totalling more than 6 tonnes of BMK were made in Canada.

([1]) Methamphetamine (known as 'pervitin') predominates in the Czech Republic and, to some extent, in neighbouring countries, although recent reports note its possible spread outside this traditional area of production and consumption (EMCDDA, 2009b).

([2]) The composition of captagon tablets remains unclear; laboratory analyses, however, indicate that it no longer contains phenetylline (as opposed to the legitimately marketed captagon tablets that initially shaped the ATS market in the region), but amphetamine in combination with caffeine and other substances (UNODC, 2008b).

Norephedrine is another precursor chemical that may be used to manufacture amphetamine, and is placed under international control in Table I of the 1988 UN convention. Global seizures of this precursor have been low in recent years, with 230 kg and 195 kg seized in 2008 and 2009, respectively, well below the 1.15 tonnes seized in 2007 (INCB, 2011). The vast majority of the norephedrine seized globally in 2009 was confiscated in the Netherlands (165 kg).

Seizures of phenylacetic acid, a precursor of BMK (see below), rose sharply in 2009, with a total of almost 42 tonnes confiscated worldwide (INCB, 2011). This is far higher than the 160 kg or so seized worldwide in 2007 and again in 2008, or the 520 kg intercepted in 2006, but still below the exceptional 48 tonnes confiscated in 2005. The two countries seizing the most phenylacetic acid in 2009 (as in 2005) were China and Mexico. Phenylacetic acid seizures in Europe in 2009 totalled 2.2 tonnes, most of which was recovered in Serbia (1.9 tonnes) and France (250 kg) (INCB, 2011). Phenylacetic acid was rescheduled from Table II to Table I of the 1988 UN convention in January 2011 (see below).

Globally, amphetamine seizures increased almost eight fold in 10 years, from 3.1 tonnes in 1999 to 24.3 tonnes in 2008 (UNODC, 2010). The proportion of total ATS seized accounted for by amphetamine also increased, from 8 % in 1999 to 47 % in 2008. These increases are largely attributable to large increases in seizures reported by a few countries in the Near and Middle East since 2004. Countries in this region accounted for about two-thirds of the quantity of amphetamine seized worldwide in 2008; one-third was reported by Europe, mostly western Europe, and negligible quantities were intercepted in the rest of the world (UNODC, 2010).

Caution is required here as it is likely that awareness of amphetamine production and trafficking is particularly high in these two regions, which therefore are better equipped to identify seizures of amphetamine than some countries in other parts of the world where, because methamphetamine is traditionally believed to be the predominant substance, information systems are not adapted to identify and track amphetamine separately and seizures are usually combined with seizures of methamphetamine. Note that the reverse might be true in the case of a few countries in Europe which report amphetamine and methamphetamine seizures together, although in this case methamphetamine is believed to represent a negligible proportion of the total amount reported.

Amphetamine production and precursors issues

The production process

The production of amphetamine sulphate is a multi-step chemical process involving a precursor chemical and a range of reagents and solvents. The main amphetamine precursor is benzyl methyl ketone (BMK), also known as 1-phenyl-2-propanone (P2P) or as phenylacetone, which may also be used to manufacture methamphetamine (EMCDDA, 2009b). BMK is usually a colourless or slightly yellow oily liquid, although some illicitly manufactured BMK may vary from yellow to dark brown (UNODC, 2005). In theory, 1 litre of BMK yields about 1.4 kg of amphetamine sulphate, but, in practice, yields in clandestine facilities have tended to be lower, usually well under 1 kg, owing to losses during the production process. The reagent chemicals used in the manufacture of amphetamine, such as formamide, ammonium formate and sulphuric and hydrochloric acids, facilitate a reaction, without becoming part of the final product. Solvents, for instance methanol or acetone, are used for dissolving a solid substance while maintaining the chemical composition (Krawczyk et al., 2009; NDLERF, 2005).

Several methods can be used to manufacture amphetamine. They include the nitropropene route from benzaldehyde and nitroethane, the reductive amination method using aluminium amalgam and the reductive amination method at elevated pressure with the use of a Raney nickel catalyst. However, the most frequently used method in Europe is the so-called 'Leuckart' synthesis using BMK, which, despite its low yield, is arguably the easiest method to learn and put into practice (Europol, 2010a).

The facilities synthesising amphetamine illegally that have been dismantled in Europe vary in size from small 'kitchen' laboratories to extensive 'online' production facilities (Europol, 2010a). A range of equipment is needed for the production process. Depending on the scale of production, such equipment can include glass reaction vessels, reflux condenser tubes, electric heating mantles or gas burners, boiling stones, separation funnels, steam distillation equipment, vacuum pump facilities and glassware items. In the case of large-scale production, mostly occurring in the Netherlands and Belgium, it is increasingly common to find the use of 'custom-made' and industrial equipment, such as stainless steel reaction vessels and condenser tubes, refluxers, distillation machines and separator apparatus. Use of industrial equipment may increase the production capacity and subsequent yield from around 5–8 kg to up to 30–40 kg of end product per production batch, with no change in the overall production time of 20–30 hours using the Leuckart method (NDLERF, 2005; Europol, 2010a). In Poland, the capacity of clandestine amphetamine manufacturing facilities is also reported to have increased in recent years, from approximately 3 kg per production batch to between 4 and 8 kg. This is achieved by using larger steel reaction vessels of capacity 30–50 litres rather than the 20-litre glass reaction vessels formerly used (Krawczyk et al., 2009).

Steel reaction vessel of 120 litres capacity used in the clandestine production of amphetamine in a facility dismantled in Loosdrecht, the Netherlands (2003). Source: KLPD, the Netherlands.

Reaction vessels of 20 litres (left) and 50 litres (right) capacity used in the distillation process in dismantled clandestine amphetamine production facilities at Kobyłka (2002) and Puchały (2008), respectively, both in Poland. Source: Central Bureau of Investigation, National Police Headquarters, Warsaw.

Clandestine amphetamine laboratories may pose significant risk of fire, explosion and toxic fume effects to those operating them and those nearby, and to law enforcement personnel when they enter them. There are also environmental threats linked to the chemical waste products generated during the production process (ranging from 18 to 24 kg of chemicals per 1 kg of amphetamine manufactured), and which can result in environmental hazards, pollution and physical harm depending on the method of disposal (ACMD, 2005; NDLERF, 2005).

The precursors

BMK — properties, production and trafficking issues

The illicit production of key amphetamine precursors was rare in Europe until 2010. The processes require chemical knowledge and financial investment, as well as access to (non-scheduled) chemicals and equipment. However, although importations of BMK into Europe continue, recent intelligence collected by Europol suggests that some of the BMK used by criminal groups is now self-produced in Europe (Europol, 2011a).

Supply and/or importation problems due to enhanced international cooperation and law enforcement can lead to the illicit manufacture of precursors within Europe using so-called 'pre-precursors' such as phenylacetic acid, benzaldehyde or, more recently, alpha-phenylacetoacetonitrile (APAAN). For instance, Europol reports several large seizures of APAAN consignments and the dismantlement of conversion laboratories of APAAN into BMK in Europe during the 2009–11 period (Europol, 2011a). In Poland, three clandestine facilities manufacturing BMK from phenylacetic acid for sale to amphetamine manufacturers have been dismantled since the early 2000s (Krawczyk et al., 2009). Recently, the INCB has reported the dismantling of clandestine amphetamine production sites using phenylacetic acid in Germany and Spain in 2010 (INCB, 2011).

Owing to concerns over an increase in global seizures since 2006, phenylacetic acid was rescheduled on 17 January 2011 from Table II to Table I of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, 1988 (INCB, 2011). Phenylacetic acid is now placed under the same type of international control as the substance of which it is an immediate precursor, BMK, which is also in Table I.

Up until late 2004, the BMK used in European clandestine facilities was almost exclusively sourced from the People's Republic of China and smuggled by Chinese organised criminal groups in large quantities into major EU ports including Antwerp, Hamburg and Rotterdam (Europol, 2007b). In 2004, BMK seizures in China totalled 23 345 litres, while in 2003 and 2004, record seizures of 6 109 litres and 9 297 litres of BMK, respectively, were made in Europe, largely in the Netherlands and Poland (INCB, 2007). A trend in BMK trafficking has been identified from mid-2004. Sourced from the Russian Federation, BMK has been smuggled via Latvia, Belarus, Lithuania, Finland, Estonia, Denmark, Poland and Germany, for use in large-scale amphetamine production sites in the Netherlands and, to a lesser extent, in Belgium and Poland (Europol, 2007a; Krawczyk et al., 2009). Forensic profiling information indicates that the vast majority of the BMK seized in the EU in 2005–09 had a stable and unique impurity or marker pattern, identified as the presence of 4-tert-butyl, the so-called 'TB-factor' (TB-BMK), which, at that time, was unique to BMK of Russian origin (Europol, 2007a).

BMK seized in Europe: clockwise from top left, De Heen, Kerkrade and Yerseke, the Netherlands (all 2010) and Warsaw, Poland (2007). Source: Europol (2010b).

In theory, a range of different methods and chemicals may be used to illegally manufacture BMK. In practice, however, only a few are effectively applied by those operating clandestine laboratories (Europol, 2008). The following processes have been frequently used to obtain BMK:

- synthesis of BMK from phenylacetic acid (in combination with acetic acid or acetic anhydride);
- synthesis of BMK from benzyl cyanide;
- synthesis of BMK from benzaldehyde and nitroethane (so-called 'nitropropene route') (Krawczyk, 2005); and
- transformation of alpha-phenylacetoacetonitrile (2-phenylacetoacetonitrile) into BMK (Europol, 2011a).

The first three production methods have been used in illicit laboratories in Poland in the past (Krawczyk et al., 2009), and the production of BMK from nitropropene was reported to Europol by Iceland (Europol, 2008). The last method was reported recently in Belgium, the Netherlands, Poland and Turkey (Europol, 2011a).

Despite self-production of BMK in Europe from 'pre-precursors', BMK continues to be smuggled into Europe, notably by organised crime groups from Russia and China. This is illustrated by recent seizures of 5 tonnes of BMK in Belgium (sourced from China) in August 2010, and 290 kg of BMK seized on the Lithuania–Poland border in July 2011.

Masked — converted form of BMK

In recent years, intelligence reports have indicated that criminal groups may have started to 'mask' BMK. This process involves the temporary conversion of the precursor into other 'legal' substances not placed under control. In 2008, a large-scale illicit synthetic drugs production site was dismantled by Dutch police. During the crime scene investigation, BMK was found in converted form — as a white powder rather than a yellow liquid. Subsequent forensic examination confirmed that the process of converting BMK powder into a liquid had taken place inside the production facility. The powder form of the BMK was identified and named by the Netherlands Forensic Institute (NFI) as BMK bisulphite adduct (Europol, 2009a) ([3]).

According to the NFI, a simple chemical process is used to transform the BMK and no specialised chemical knowledge is required. BMK bisulphite adduct is a white, moist, crystalloid, solid substance that looks like damp sea salt.

BMK bisulphite in powder form (the Netherlands, 2009). Source: Europol and KLPD, the Netherlands.

In May 2009, Europol received reports of the attempted trafficking of the BMK bisulphite adduct from the Russian Federation to the EU. A shipment totalling 2 600 kg of BMK bisulphite was seized during a customs clearance at the border checkpoint between the Russian Federation and Latvia. However, this phenomenon has not been reported in Europe since then.

([3]) An adduct is a product of direct addition of two or more distinct molecules, resulting in a single reaction product containing all atoms of all components, with the formation of two chemical bonds and a net reduction in bond multiplicity in at least one of the reactants.

The European user markets for amphetamine

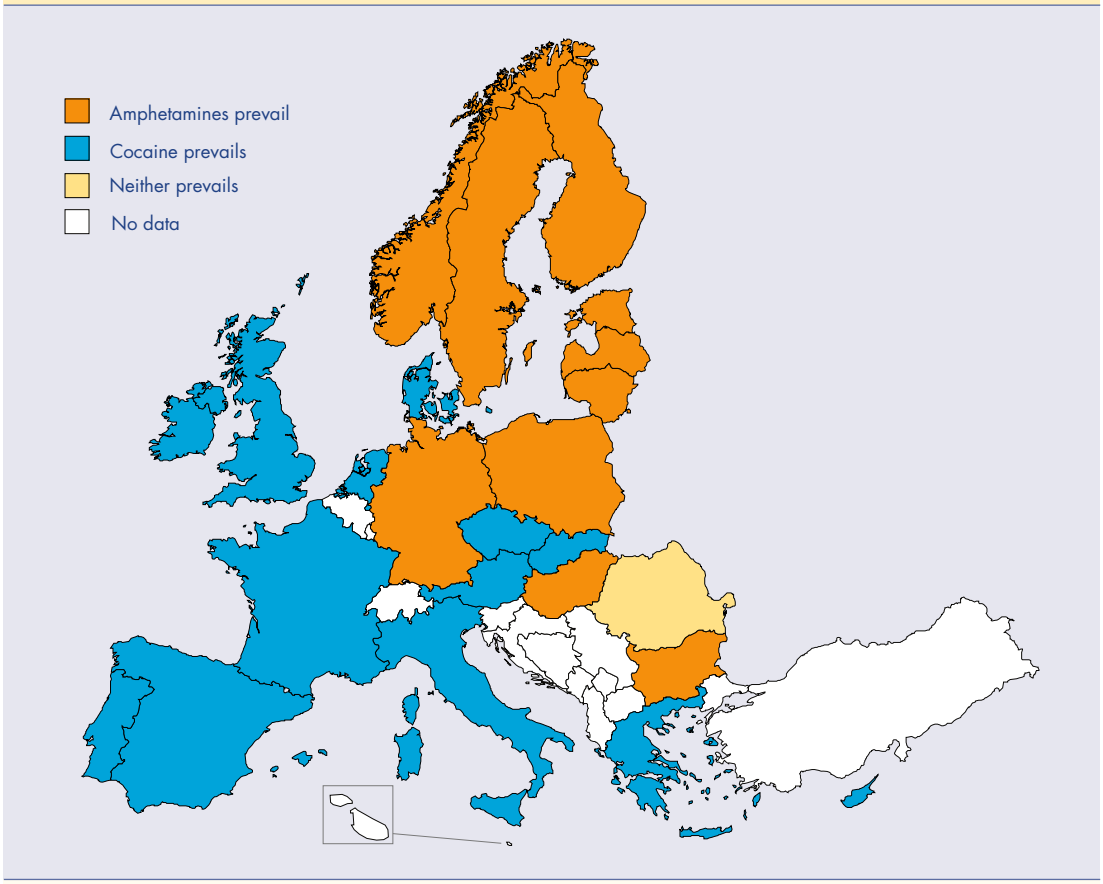
An estimated 2 million Europeans used amphetamines at least once during the last year, while 12.5 million (3.8 % of European adults) have used them at some stage in their lives. As far as young European adults (15–34 years) are concerned, an estimated 6.5 million of them have tried amphetamines, equivalent to 5 % of that population, and 1.5 million (1.1 %) have used them during the last year. It is important to note that amphetamines consumption varies considerably between countries: the highest levels of use (15–34 years) are reported in Norway, Denmark, Latvia and the United Kingdom, and the lowest levels in Greece, Cyprus, Malta and Romania.

Amphetamine and methamphetamine are often sold as powders or tablets that look very much alike. Although methamphetamine is a more potent central nervous system stimulant, the effects of the two drugs are similar, and even experienced users may not be able to distinguish between the two, especially as the purity of street samples of both drugs may vary considerably. Of the two drugs, amphetamine is by far the most commonly available in Europe. In many countries, especially in the north, centre and east of Europe, amphetamines are the second most commonly used illicit substance after cannabis, and the most often used stimulant drug (see Figure 1). In countries such as Latvia, Finland and Sweden, use of amphetamine makes up an important part of the drug problem, and accounts for a substantial proportion of those seeking treatment.

The patterns and geography of amphetamine use in Europe are harder to describe than for other widespread drugs. One reason for this is that the prevalence of amphetamine use varies considerably between countries. Second, it is difficult to establish a profile for the 'typical' amphetamine user. Amphetamine is used by a wide range of different populations including soldiers, lorry and taxi drivers, hospital workers, students, sex workers, clubbers and problem heroin users, in search of a diversity of effects including increased energy, alertness and concentration and decreased social or sexual inhibitions (EMCDDA, 2010a). In addition, European stimulant markets, especially in nightlife settings, are subject to shifts in the popularity of different drugs such as amphetamine, methamphetamine, cocaine, ecstasy and piperazines, and to the emergence of new substances such as mephedrone (EMCDDA, 2010b).

In terms of patterns of use, a recent study undertaken in six large European cities suggests that European amphetamine users, like users of most other widespread drugs, may be divided into two broad categories: *integrated* and *marginalised* consumers (Eisenbach-Strangl et al., 2009). Integrated consumers tend to be younger and better educated, and are more likely to have secure and stable accommodation or live with their parents. They also tend to enjoy a regular income from steady employment. More socially integrated users are also likely to be frequent consumers of cannabis. Typically, use among this group takes place in recreational settings and may be instrumental in the sense that it allows the user to stay up and out longer than would otherwise be the case. Findings from qualitative studies suggest that use of amphetamine has been a stable feature for years in certain music scenes (techno, rock, etc.) and in some rural areas. Amphetamine is usually sold at a low price, which makes it attractive to those who cannot afford more expensive stimulants such as cocaine. This may explain why the popularity of amphetamine is growing among young people living in small towns or in the countryside. On the other hand, amphetamine is sometimes viewed as a low-status drug used by 'losers' who cannot afford better-quality drugs (EMCDDA, 2010a).

Figure 1. Dominant illicit stimulant drug in European countries (based on last 12 months prevalence of amphetamines and cocaine use among young adults (aged 15–34) measured by latest available national population surveys)



Source: EMCDDA Statistical bulletin 2011.

Although the majority of amphetamine users across Europe are socially integrated recreational users, there a smaller number of more marginalised or problematic users of amphetamines, many of whom administer the drug by injection. Studies suggest that these users are often characterised by low education status, homelessness, lack of regular employment and frequent contact with the police. Many of them report incomes from illegitimate sources such as drug dealing and petty theft or from prostitution and begging. This group is likely to have more contact with health and social services and may benefit from interventions that target their social marginalisation as well as their drug problems. Injection rates are very high among this marginalised population, and sometimes involve both opiates and amphetamines. Injecting amphetamines carries the same risks of viral infection as injection of other drugs, including an increased risk of HIV, hepatitis C infection, etc. (Eisenbach-Strangl et al., 2009), although, generally, studies of amphetamine injectors in Europe have tended to report lower rates of HIV infection than typically found among opiate injectors.

Recent EMCDDA data on problematic amphetamines use in Europe suggest that in 2009 a total of approximately 20 000 people in 28 European countries entering drug treatment reported one of the amphetamines as their primary drug, around 40 % of whom were entering drug treatment for the first time. Compared with other drugs such as heroin and cocaine, this is a relatively small number. Additionally, around 20 000 treatment entrants reported amphetamines as their secondary drug, frequently in combination with opioids. Problematic amphetamines use is a differentiated phenomenon that takes different forms in different regions. In Europe, three geographical areas may be distinguished: northern Europe, western and southern Europe, and eastern and central Europe (EMCDDA, 2010a).

Concerns associated with use of amphetamines are more apparent in the north of Europe than in the rest of the continent. In Sweden and Finland, problematic amphetamines use is at the heart of the drug problem, and in neighbouring Denmark and Norway it is also a significant issue, with levels of use in the general population above the European average. A notable trend in northern Europe since the early 2000s is the increasing availability of methamphetamine on some national markets, especially Norway and Sweden, and a concomitant decrease in amphetamine. In fact, convergent supply-side and demand-side data series seem to suggest that in these two countries methamphetamine is displacing amphetamine in the illicit market, at least for the time being.

In several countries of central and eastern Europe, use of amphetamines is a significant problem. The cases of the Czech Republic and Slovakia, where the most widespread of the amphetamines is methamphetamine, have been described elsewhere (EMCDDA, 2009b, 2010a). In other countries in the region — Estonia, Hungary, Latvia, Lithuania and Poland — both amphetamine and methamphetamine seem to be present, albeit in different proportions. Primary use of amphetamines is reported by between 2 % (Estonia) and 44 % (Hungary and Latvia) of those entering treatment and declaring opioids, cocaine or amphetamines as their primary drug. Polydrug use seems to be common among amphetamine users in the region, especially involving opioids.

In western and southern Europe, amphetamines users account for a small proportion of problem drug users, and there are typically twice as many men as women in this group. In the majority of countries in this region, primary amphetamines users account for less than 5 % of those entering treatment for opioids, cocaine or amphetamines problems. The proportion is higher, however, in three countries: Belgium (17 %), Germany (12 %) and the Netherlands (10 %).

Trends in amphetamine production and trafficking in Europe

Patterns and trends in amphetamine seizures

Amphetamine produced in the EU is trafficked extensively within Europe, and some is exported abroad but in quantities that remain difficult to determine. In 2009, an estimated minimum of 34 200 seizures, amounting to 8.7 tonnes of amphetamine, were made in Europe. Out of this total, 8.0 tonnes was seized in the form of powder and the rest was made up of 3 million amphetamine tablets ([4]).

Challenges in the analysis of amphetamine seizures

The EMCDDA collects, on a routine basis, annual data on the seizures of illicit drugs — both numbers of seizures made and quantities intercepted — by country, in the EU Member States, Croatia, Turkey and Norway, via its Reitox network of national focal points. This data set is validated by the reporting countries and published online. A second source of data on drug seizures is Europol, which, in support of its on-going activities in the fight against production and trafficking of illicit drugs in Europe, collects data on quantities of drug seized annually in the EU Member States. This data set is somewhat less detailed and not published. The third source of information on drug seizures is the UNODC, which publishes worldwide annual data on the quantities of illicit drugs seized by country, based on national responses to the Annual Report Questionnaire (ARQ).

The number of amphetamine seizures made in Europe is therefore available only from the EMCDDA. The main problem in this data set is that two countries — the Netherlands and Poland, which are major producing and seizing countries — do not report on the number of amphetamine seizures made on their territory.

Data on the quantities of amphetamine seized in Europe may be sourced from the three institutions mentioned above. The main issue here is that the three data sets can at times be highly inconsistent for some countries, with figures presenting large variations depending on the source. For instance, in one case millions of tablets were reported to one of the sources but not to the other two. Whereas, in some cases, the differences are negligible, or the data could be reconciled because at least two of the sources reported identical or close data sets, in other instances it was very difficult to decide which of the three alternatives reflected the reality or could be viewed as the best approximation to it. Several factors may explain such differences, including differences in data collection instruments and methods, data providers, timeframe for data collection, potential updates, checking practices and validation processes.

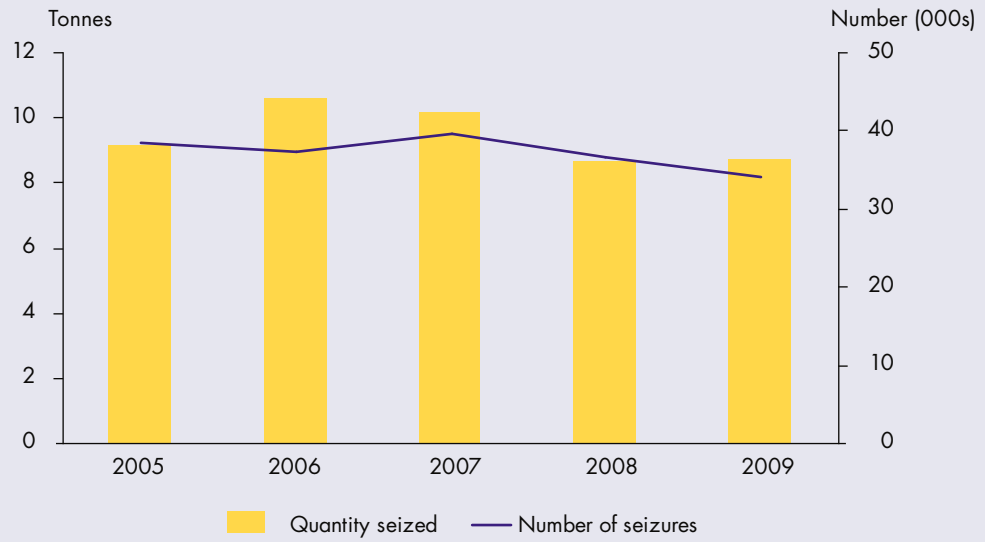
In addition, amphetamine products can take various forms, including powder, tablet and, more rarely, liquid and paste. These different forms may raise additional issues in terms of data reporting and analysis.

In order to ensure consistency between data sets, in particular between the number of seizures and the amounts recovered, the data analysed in this section were sourced primarily from the EMCDDA and, where missing, completed with Europol data. In the case of individual country analysis in Figure 4, and where there were inconsistencies between EMCDDA and Europol data sets, both estimates obtained are provided.

([4]) The analysis of seizures presented in this section covers the 30 EMCDDA reporting countries, which are designated by the term 'Europe' in the text and include the 27 EU Member States, Croatia, Turkey and Norway.

Figure 2 shows the total number of annual seizures (where reported) and quantities intercepted in Europe since 2005. The total amounts represent the sum of the quantities of amphetamine seized under different forms, including powder, tablets, liquids and paste.

Figure 2. Seizures of amphetamine in the EU, Norway, Turkey and Croatia, 2005–09



Notes:
Number of seizures: (a) In the absence of 2009 data, 2008 data were used to construct the 2008 European total. (b) Data on the number of seizures are not reported by the Netherlands and Poland, and therefore are not included in the European totals.
Quantities seized: (a) In the absence of 2008 and 2009 data from some countries, data reported to Europol were used to construct European totals. (b) The total quantity seized each year includes the number of tablets reported, assuming for conversion purposes an average weight of 250 mg per tablet, and the number of litres of liquid amphetamine reported, assuming that 1 litre weighs 1 kg. Seized amphetamine powders and tablets rarely contain pure amphetamine; they are usually a mixture of amphetamine and other substances (adulterants). If adjusted for purity, seized quantities of powders and tablets would probably be substantially lower.
Data used in this graph include seizures made in Croatia, Turkey and Norway.
Preliminary data for 2010 reported to Europol indicate a total of 2 643 kg.
Source: EMCDDA (Reitox national focal points).

The number of amphetamine seizures in Europe has been fluctuating for the last 5 years, with a decrease reported in 2008 and 2009 (see Figure 2). However, this analysis is limited by the fact that major seizing countries do not report the number of seizures made (see 'Challenges in the analysis of amphetamine seizures' box, p. 22).

Quantities of amphetamine powder recovered in Europe have stabilised at a high level: between 7 and 8 tonnes has been recovered annually in Europe since 2004, with a low of 5.5 tonnes in 2006 and a peak of 8.2 tonnes in 2007. The largest amounts of amphetamine powder were recovered in the United Kingdom, where the cumulative quantity seized between 2005 and 2009 has been estimated to be nearly 10 tonnes (including several individual seizures between 100 and

500 kg), followed closely by the Netherlands with nearly 9 tonnes, and then Germany with just under 5 tonnes, Bulgaria with 3 tonnes, and Poland and Sweden, each of which seized close to 2 tonnes (see Figure 4).

Of the 3 million amphetamine tablets seized in Europe in 2009, almost all was accounted for by Turkey with the interception of a total of 2.8 million captagon tablets. Turkey has long been the principal country for seizing amphetamine tablets in Europe, with several millions of captagon tablets intercepted every year since 2002, and a record of 20 million in 2006. It should be noted that seizures of captagon tablets represent production that is mostly not intended for consumption in the EU, and this fact needs to be taken into account when interpreting overall trends in cumulative seizures, which include drugs intended for both EU and non-EU consumption. The amounts recovered in Turkey in 2008 and 2009 have remained at just under 3 million and seem rather low compared with previous years, perhaps pointing to a displacement of the manufacture of captagon tablets outside south-east Europe. Altogether, Turkey intercepted a cumulative total of 40 million captagon tablets (equivalent to 10 tonnes of captagon tablets) ([5]) over the period 2005–09, which makes it the country seizing the largest quantities of illicit amphetamine products in Europe ([6]) (see Figure 4), although clearly not the country seizing most amphetamine intended for consumption in Europe. This could be explained by the geographical position of Turkey on the route to the captagon consumer countries in the Middle East.

Other European countries, although much further behind Turkey in terms of quantities intercepted, regularly report seizing tens of thousands of amphetamine tablets every year. This is the case of Spain, for example, which seized nearly 100 000 tablets in 2009 and a record of more than 340 000 in 2006. Significant quantities of seizures have also recently been reported by Hungary (80 000 tablets seized in 2009) and Portugal (130 000 in 2008).

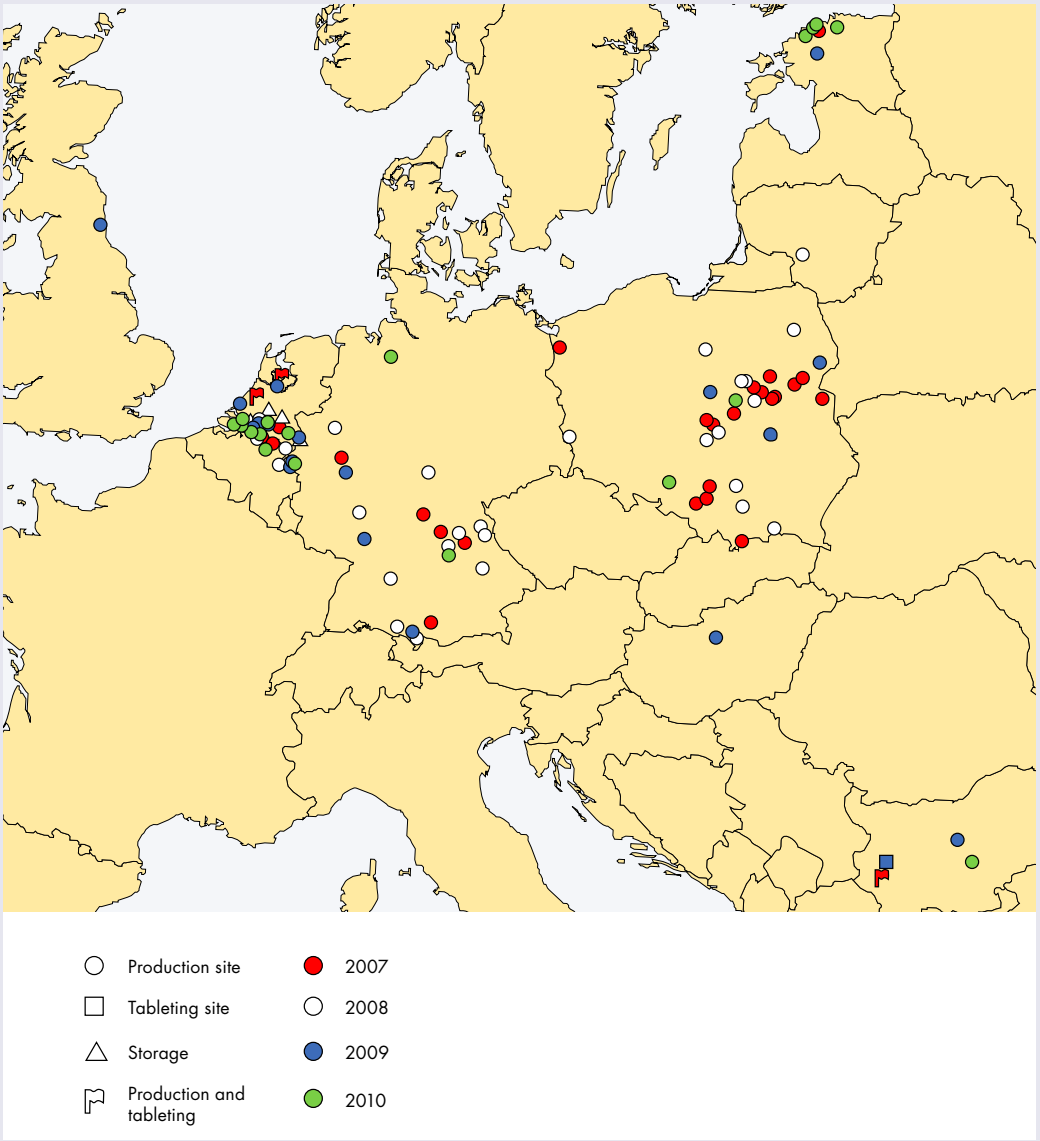
Amphetamine production and trafficking in Europe

Europol has monitored seizures of facilities involved in the illicit production, tableting and storage of synthetic drugs, and related waste dump sites, in the EU since 1999. Figure 3 provides an overview of the amphetamine production, tableting and storage sites detected in the EU and reported to Europol between 2007 and 2010. It suggests that most of the amphetamine production facilities detected in recent years were located in northern Europe (north-west and north-east criminal hubs, see 'EU criminal hubs' box). UNODC data confirm that this has been the case at least since the early 1990s (UNODC, 2003). However, some facilities have also been dismantled in the south-east of Europe, in Balkan and Black Sea countries, probably in connection with the extra-European trade in captagon (see below).

([5]) For this calculation, an average weight of 250 mg per tablet was used.

([6]) This comparison is based on the gross weight of the illicit amphetamine products seized (mainly powders and tablets). Note that this weight is not adjusted for purity. Illicit amphetamine products rarely contain pure amphetamine. They usually contain several other substances in a proportion that varies widely across samples and countries, but may be relatively large (over 99 % in some cases).

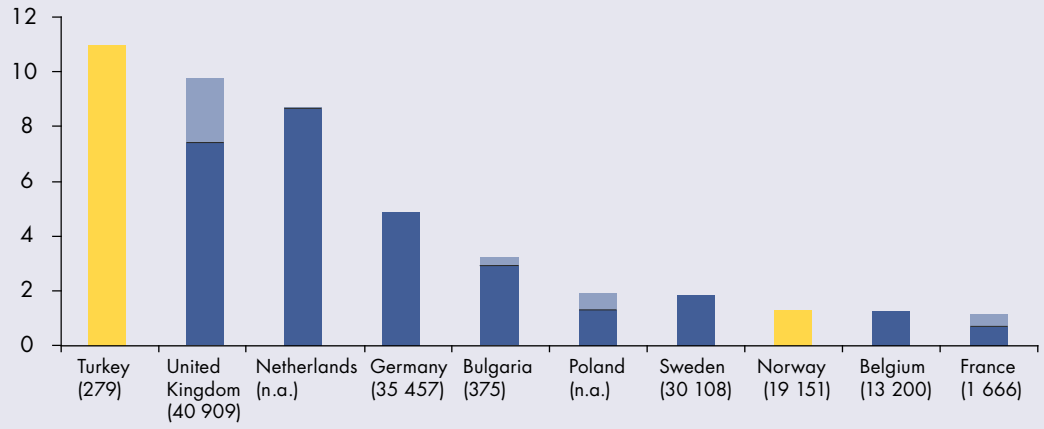
Figure 3. Dismantled amphetamine production, storage and tableting sites, as reported to Europol, 2007–10



Closer examination of the Europol information combined with EMCDDA seizure data (see Figure 4) and other sources further suggests that amphetamine production and trafficking in Europe can be thought of as concentrated in geographically distinct areas. The two most important of these broadly correspond to the north-west criminal hub (centred on the Netherlands and Belgium, but for amphetamine Denmark and the United Kingdom are also important) and the north-east criminal hub (although with the caveat that for amphetamine Poland is also strategically important in this latter geographical area). In addition, significant production, albeit at lower levels, is also found in Germany and some other central European countries. Lastly, and somewhat distinctly for reasons already noted, Bulgaria and Turkey are also important sources of captagon production for export outside Europe.

Figure 4 shows cumulative data for amphetamine seizures over the period 2005–09 in the 10 countries in Europe seizing the largest quantities of amphetamine (all forms included). We have calculated, based on the 5-year cumulative data from Figure 4, the average seizure size in each country over the 5-year period by dividing the total quantities seized by the total number of seizures in each country. Seizure data primarily reflect law enforcement activities (organisation, priorities, resources), but they are also an indirect reflection of different patterns of amphetamine trafficking ([7]). Both Turkey, which accounts for the largest quantities over the period but, at the same time, the lowest number of seizures, and Bulgaria, which ranks fifth in terms of quantities recovered, are characterised by average seizures in the order of kilograms — 39 kg and 8 kg, respectively. This points to a high prevalence of wholesale trafficking in amphetamine in these two countries, and is probably a reflection of the fact that south-east Europe has been identified as an area of amphetamine production, especially of captagon.

Figure 4. Largest quantities of illicit amphetamine products seized in the EU, Norway and Turkey, cumulative total for 2005–09 (tonnes)



Notes:
The figure represents the total quantities of illicit amphetamine products seized cumulated over 2005–09 for each of the top 10 seizing countries in Europe. Quantities reported in weight, in number of tablets and in litres are included in the totals. For conversion purposes, amphetamine tablets were assumed to weigh on average 250 mg each, and amphetamine liquids to weigh 1 kg per litre. The number between brackets is the estimated number of seizures (reported to the EMCDDA) for 2005–09; unavailable data were approximated by adjacent data points.
The ranking of countries is based on the gross weight of the illicit amphetamine products seized (mainly powders and tablets), without adjustment for purity. Available data show that illicit amphetamine products contain between 0.1 % and 75 % of amphetamine sulphate in the EU, Norway, Croatia and Turkey. As a result, if quantities seized were adjusted for purity, amounts of illicit amphetamine products seized would be much lower, and it is possible that the ranking of the countries would be different.
Data from the EMCDDA and Europol were used. Where there were inconsistencies between data sets, both the lowest and highest figures are reported, with a change in colour representing the lower estimate and the top of the bar the highest one.
Data from Germany for 2005 include both amphetamine and methamphetamine seizures.
Sources: EMCDDA (Reitox national focal points) and Europol.

([7]) A limitation of this method is that it does not provide information on the real distribution of the size of seizures in a country.

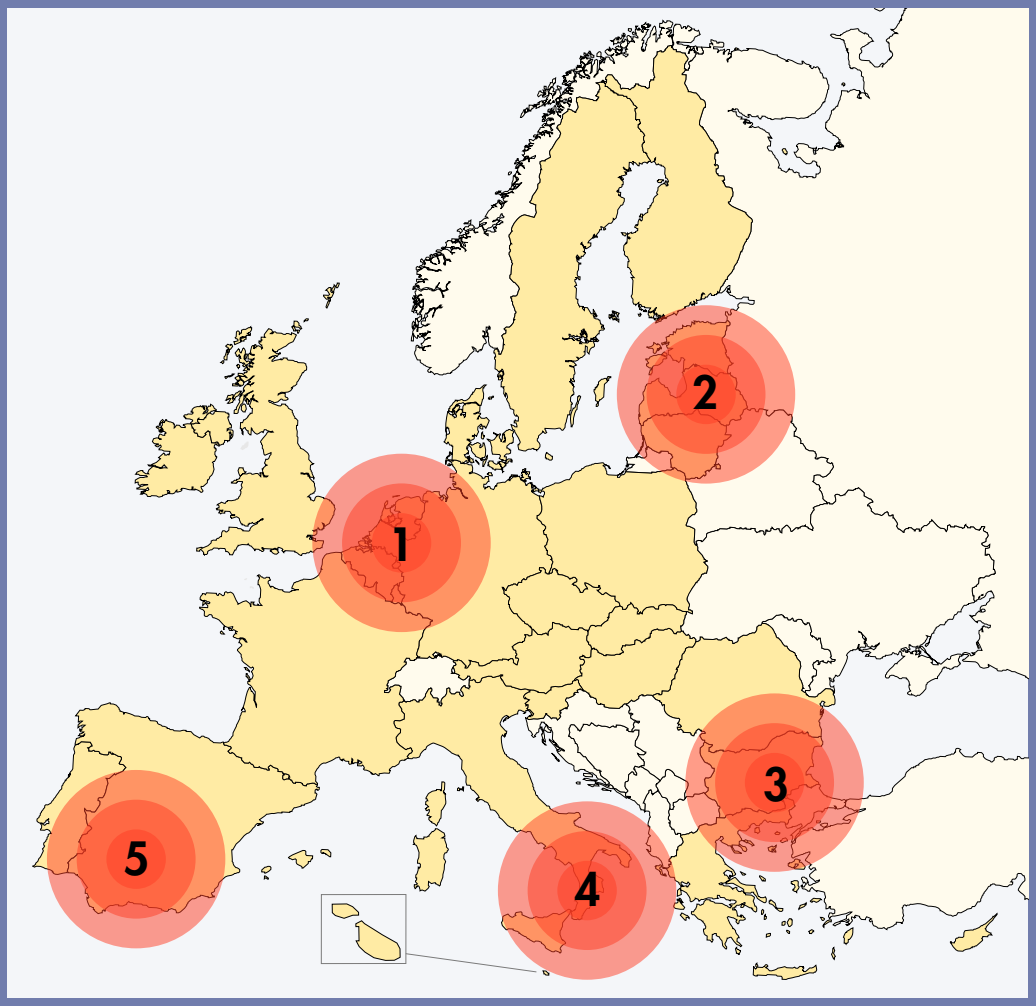
France, where amphetamine production has not been detected and where prevalence of use is low, appears to be a transit country for amphetamine destined to larger consumer markets such as Spain and the United Kingdom, with an average seizure size of around 0.5 kg. The low average seizure size in the United Kingdom (200 g) is likely to result from a mixture of street-level deals in a country where amphetamine use is widespread and mid-level to wholesale trafficking for supplying such a market. In Belgium, where amphetamine manufacture also occurs, the average seizure is 100 g.

The relatively high average size of amphetamine seizures (140 g) in Germany probably reflects the extent of the amphetamine consumer market in Germany, which is characterised by medium to high levels of use in young adults, as well as the fact that Germany is an amphetamine producer as well as an importer country, and a transit country for amphetamine produced in Poland and other countries on the Baltic Sea making their way south and north (see below).

Finally, data from both Sweden and Norway reveal average seizures of around 60 g, which, as for the United Kingdom, might be indicative of a large consumer market for amphetamine and of the distribution networks that such markets entail at all levels of the supply chain. However, although a large proportion of amphetamine use in the Nordic countries is problematic, which possibly entails larger quantities consumed per user compared with the United Kingdom, where most users are recreational, the total market is much smaller in these countries than in the United Kingdom because of their smaller populations. Amphetamine data from the Nordic countries are also likely to reflect the fact that methamphetamine consumption and trafficking seem to have increased greatly in these countries in recent years, with methamphetamine gradually replacing amphetamine as the most frequently used stimulant (EMCDDA, 2009b).

Data on the number of seizures are not available for the Netherlands and Poland, but the relatively large quantities seized in both countries, especially in the Netherlands, seem to confirm that significant amphetamine manufacturing occurs in both countries.

EU criminal hubs ([1])



1. North-west criminal hub — centre of gravity, the Netherlands and Belgium.
2. North-east criminal hub — centre of gravity, Lithuania, Estonia, Latvia, Kaliningrad exclave (Russia).
3. South-east criminal hub — centre of gravity, Bulgaria, Romania and Greece.
4. Southern criminal hub — centre of gravity, southern Italy.
5. South-west criminal hub — centre of gravity, Spain and Portugal.

([1]) Note that centres of gravity as identified by circles on the map are approximate and do not designate cities or regions of prolific criminal activity.

The 'north-west hub'

The north-west hub, centred on the Netherlands and, to a lesser extent, Belgium, is the largest area of manufacture of amphetamine in Europe, and it is likely to be the largest source of the amphetamine consumed within Europe. It is the region where the largest quantities of amphetamine are confiscated, and is among the largest for number of seizures. The north-west hub may also be

the region of Europe where the largest quantities of amphetamine are consumed; at the very least, it contains what is probably Europe's largest consumer market for the drug, the United Kingdom (Europol, 2007b; UNODC, 2008b).

It should be noted that information on amphetamine production and trafficking (as well as use) in the north-west hub is comparatively more abundant and more detailed than in other areas, which may reflect the priorities and resources of the law enforcement agencies in this area.

Europol reports that amphetamine synthesis and tableting facilities in the north-west hub are concentrated in the Netherlands and, to a lesser extent, in Belgium. Occasional dismantling of facilities in recent years suggest that some limited amounts may also be produced in the United Kingdom (see Figure 3), where significant amphetamine production has occurred in the past (UNODC, 2008b). In addition, an amphetamine laboratory was dismantled in Luxembourg in 2003. Most of the large amphetamine production sites seized in the region featured sophisticated reaction vessels, tableting machines, heating mantels and other equipment, such as punches with logos. This equipment is either custom-made or diverted, new or second-hand, from the licit market for industrial equipment in Europe and elsewhere. The facilities and equipment used to manufacture amphetamine in Belgium and the Netherlands are also often used to produce MDMA, the active ingredient in ecstasy. Since the early to mid-2000s, the capacity of both the reaction vessels and the tableting machines seized from Belgian and Dutch production sites has increased to reach large-scale capacity, i.e. the ability to produce between 20 and 50 kg of amphetamine a day. High production capacity seems to be a characteristic feature of the north-west hub as the facilities dismantled elsewhere in Europe have so far tended to be smaller. However, as detailed information on facilities manufacturing captagon is not available, this remains a tentative conclusion.

There have been some seizures of amphetamine precursor chemicals in the north-west hub in recent years, but they are unlikely to reflect the full scope of amphetamine production there. In 2009, for instance, total seizures of amphetamine precursors in the north-west hub comprised just 207 litres of BMK and 165 kg of norephedrine in the Netherlands, and 120 litres of BMK in Belgium. However, it is probable that a significant proportion of the BMK seized in central Europe and the north-east hub was in fact destined for the north-west hub.

The Dutch Reitox national focal point quoted in 2009 a research report suggesting that Dutch production experts cooperate with illicit amphetamine manufacturing groups in Belgium, Poland and the Baltic States. Europol reports that Dutch, British and Belgian criminal groups appear to dominate large-scale amphetamine trafficking. British traffickers, sometimes residing in the Netherlands or Spain, seem to control movements of large consignments to the United Kingdom. Several seizures in the United Kingdom have been part of multi-commodity consignments, including also substantial quantities of cannabis, cocaine and heroin. A relatively recent trend is for amphetamine to be exported in a wet or paste-like state to the United Kingdom, where it is re-packed for subsequent distribution.

Dutch amphetamine production

The production of amphetamine is widespread in the Netherlands, as illustrated by the seizure in the first half of 2011 of some 365 kg of amphetamine and 10 litres of amphetamine oil that were linked to production sites in the Netherlands. In addition, during this period two BMK conversion labs were dismantled while 10 amphetamine-related waste dump sites were identified. In 2010–11, several mid- to large-scale amphetamine production laboratories were discovered in the Netherlands. Production is mostly located in the southern part of the Netherlands, in the border area with Belgium and Germany. Most production sites are in rural and/or commercial sparsely populated areas. The cross-border nature of production in this area is illustrated by the recent discovery of a partly dismantled amphetamine laboratory in Belgium, where 60 kg of amphetamine and BMK was seized. Criminal investigations suggested that the Belgian laboratory was associated with a Dutch criminal group. Amphetamine production in the Netherlands can be regarded as relatively sophisticated compared with that in other parts of Europe. This can be seen in efforts made to conceal large production sites, which can include noise reduction measures and the use of carbon filters to avoid odours. Custom-made equipment is also often used, including stainless steel vessels of high capacity. Most amphetamine is produced in the Netherlands by the Leuckart method, which requires the use of BMK. The United Kingdom is probably the largest export destination for Dutch amphetamine, followed by the Scandinavian countries (Smits, 2007; Vijlbrief, 2011).

Some amphetamine production is also reported, albeit on a smaller scale, in Germany, especially southern Germany. A total of eight illicit amphetamine production facilities were seized in 2009 and 2010 (BKA, 2009a, 2010). One of the reasons for this fairly limited amphetamine production is likely to be the success of supply reduction activities resulting from cooperation between the chemical industry and law enforcement agencies (UNODC, 2008b). Another likely reason is that the majority of the German consumer market for amphetamine is supplied with drugs manufactured elsewhere, in particular Poland and, to an even greater extent, the Netherlands.

Illicit amphetamines production in Germany is a fairly long-standing phenomenon, dating back to the 1970s at least, and seems to be especially prevalent in Bavaria, often in the north of the *Land* bordering the Czech Republic, where around 45 clandestine amphetamines laboratories were dismantled between 2001 and 2010 (BLKA, 2011). Amphetamine production also seems to occur with some frequency along an axis stretching from Germany's southern borders with Switzerland and Austria (Bade-Württemberg and Bavaria *Länder*) up to Dortmund in the north, via the Stuttgart, Frankfurt and Cologne areas. Most of the amphetamine (and methamphetamine) facilities dismantled in Germany seem to be small in scale, mostly 'kitchen-type' labs. It is also worth noting that significant quantities of BMK, a key precursor for amphetamine that may also be used to produce methamphetamine, have been seized in Germany in recent years, including 100 litres in 2009 (BKA, 2009b), 243 litres in 2007 and 1 310 litres in 2005. In addition, 26 kg of phenylacetic acid, a precursor of BMK, were seized in the country in 2009 (INCB, 2011). It is likely that most of the precursors confiscated in Germany were in transit from the north-east hub (see below) to the north-west hub, although some limited quantities were probably intended for illicit amphetamines manufacture in Germany or in other countries of central Europe.

While there is little doubt that most of the amphetamine manufactured in Germany is consumed locally, some may be exported abroad. In addition, Germany is probably a transit territory for amphetamine produced in the Netherlands and in the north-east hub (see below), especially Poland and Lithuania, and smuggled to Nordic countries including Sweden (Nilsson and Kegö, 2009).

To summarise, it would seem that Germany is primarily a zone of transition, where small amounts of amphetamine are produced, but fairly large quantities are consumed and therefore imported, and which is crossed by flows of precursor chemicals travelling west from the north-east hub to the north-west hub and flows of amphetamine sulphate travelling north to Scandinavia.

National reports of the Reitox focal points for 2009 and 2010, Europol information and the UNODC (2008b) converge to indicate that the north-west hub is the main source of the amphetamine consumed in most western European countries including the United Kingdom, Germany (see below), Spain, the Netherlands and Belgium ([8]), countries which have large to middling consumer markets for amphetamine. Some amphetamine from the north-west hub is also exported to northern European markets, including Norway, Sweden and Denmark, and is reported to be found in central and southern European markets such as in Austria, Hungary, Croatia, Greece and Italy.

The 'north-east hub'

Significant production and trafficking of amphetamines occurs in the north-east hub, especially in Poland and, apparently to a lesser extent, in Lithuania and Estonia. In Latvia, very limited illicit production was identified and suppressed in the late 1990s, although intelligence obtained in 2010 indicates a possible renewal of amphetamine production in the country. Likewise, sporadic, limited production has been detected in the past in Finland and Sweden (UNODC, 2008b). Judging from seizure data and intelligence and forensic reports, it would appear that the quantities produced in the north-east hub are smaller than in the north-west hub, but larger than in central Europe.

Poland, which seems to be the north-east hub country where the largest quantities of amphetamine are manufactured, is often viewed as the second or third largest amphetamine producer in northern Europe, after the Netherlands and just before or just after Belgium depending on the source (UNODC, 2008b; Krawczyk et al., 2009). Some 95 % of the 160 illicit production facilities dismantled in Poland since 1995 produced amphetamine sulphate (Krawczyk et al., 2009).

([8]) Several large seizures of amphetamine were made in France in recent years, but Europol information indicates that most of these large shipments were in fact intended for the UK market and, to a lesser extent, the Spanish market.

Amphetamine sulphate (11 kg) drying under hot lamps — clandestine production facility seized at Jażwie, Poland (2001). Source: Central Bureau of Investigation, National Police Headquarters, Warsaw, Poland.

The general pattern for some years in the north-east hub has been that amphetamine, and increasingly methamphetamine (EMCDDA, 2009a), is produced for local consumption, which is increasing, and for export to Scandinavian countries, especially Sweden, Finland and Norway, and, perhaps to a lesser extent, Denmark. In addition, smaller amounts are likely to be exported from Poland to neighbouring Germany and Hungary, and further away, for example to Croatia. Closer examination of the information available suggests that there may be trafficking networks linking specific producer countries to specific consumer countries. For instance, several reports suggest that amphetamine produced in Lithuania and, to an even greater extent, Poland is exported mostly to Sweden (UNODC, 2008b; Nilsson and Kegö, 2009; Pullat, 2009), whereas the primary consumer market for the amphetamine manufactured in Estonia would appear to be to be Finland (Pullat, 2009; THL, 2009). In Poland (Krawczyk et al., 2009), Estonia (Pullat, 2009) and Lithuania (Gutauskas, 2009), most amphetamine production appears to be in the hands of organised gangs of traffickers.

Polish, Estonian and Lithuanian criminal organisations also seem to be involved in amphetamine export to and trafficking within the Scandinavian countries, mostly in partnerships with local traffickers (Käll, 1997; Svensson, 2009). An original method is reported to be often used to traffic amphetamines between Estonia and Finland: Estonian traffickers first bury a quantity of drugs in a secret location in Finland and then sell a map, or global positioning system (GPS) coordinates, to Finnish buyers, who then distribute the drugs in Finland (Pullat, 2009; THL, 2009). Moreover, intelligence reported to Europol suggests the growing prominence of Polish and Lithuanian criminal groups in trafficking drugs obtained in the Netherlands to various Nordic and Baltic States, Ireland and the United Kingdom, as well as the United States and the Russian Federation. It is also possible that some criminal organisations of the north-east hub are involved in trafficking amphetamine (and

other synthetic stimulants) made in the Russian Federation, where a large number of facilities manufacturing synthetic drugs have been dismantled in recent years, especially in the Saint Petersburg region (UNODC, 2008b), which is close to Estonia. Europol reports that north-east hub organised crime groups closely cooperate with their counterparts in the north-west hub. For example, a north-east hub group may receive half of the amphetamine produced by a north-west hub group in return for trafficking BMK to the north-west hub (Europol, 2011b).

It should be noted that in Estonia, and to a greater extent Lithuania, the production of methamphetamine is now higher than that of amphetamine (EMCDDA, 2009a). This appears not to be the case in Poland, where in recent years very few facilities making methamphetamine have been dismantled, and the production capacity of amphetamine facilities is reported to have increased (UNODC, 2008b; Krawczyk et al., 2009).

In Poland, Lithuania and Estonia, the precursor chemical used to produce amphetamine (and methamphetamine) seems to be almost exclusively BMK imported from the Russian Federation (Europol, 2007b; Estonian Focal Point, 2009; Krawczyk et al., 2009). Quantities of BMK ranging from a few litres to a few hundred litres are seized every year in Poland, Lithuania and Estonia. The aggregate quantity of BMK seized in all three countries and reported to the INCB over the period 2005–09 totals 2 421 litres, approximately 60 % of which was seized in Poland (1 484 litres) (INCB, 2011). These relatively large quantities reflect the importance of the north-east hub as both an amphetamine producer region and a transit zone for BMK sourced in Russia and destined primarily for the north-west hub (Europol, 2007b; UNODC, 2008b; Estonian Focal Point, 2009; Krawczyk et al., 2009).

Polish amphetamine production sites

Illegal amphetamine manufacturing facilities dismantled in Poland are typically located in a small town or a village, in isolated detached houses, although some facilities have been detected in apartment buildings. Although amphetamine manufacturing does not require large amounts of power or water (a Polish clandestine laboratory's electricity and water consumption is reported to be similar to that of an average household), the facility must have access to electricity and water. The water may come from the municipal system, a well or a closed-circuit system based on tanks. The electricity is frequently diverted illegally from the mains supplies.

Production facilities are reported to be often set up by organised criminal gangs, which employ chemists and operators. The chemists, who usually have a degree in chemistry, design the entire manufacturing process. They specify the chemicals and equipment needed, the proportions of precursors (usually BMK) and reagents to be used, and the time and temperature required for each step (e.g. distillation, extraction, drying, grinding). These amphetamine 'recipes' are usually written in simple terms, so that they may be understood by lay persons, as the chemists are rarely personally involved in the production process at the site. This is left to the operators, who are usually not familiar with chemistry and may not know the exact nature of the substance they are producing. Operators are trained to strictly follow the instructions prepared by the chemists and to operate the equipment. Operators are the most vulnerable actors in the amphetamine production process because of their exposure to potentially dangerous controlled chemicals and drugs, and because they are in the front line, i.e. more likely to be arrested and then convicted (Krawczyk et al., 2009) (1).

(1) Pullat (2009) gives a similar description of clandestine amphetamine production arrangements in Lithuania.

Production and trafficking in central Europe

Production and trafficking of synthetic stimulants also takes place in central Europe, albeit on a smaller scale. Judging from data on seizures of clandestine facilities, production in central Europe is centred on Germany, although some facilities are occasionally found elsewhere in the region, for instance in Hungary in 2009 (see Figure 3). Although neither Hungary nor Austria ranks among Europe's 10 largest amphetamine-seizing countries (see Figure 4), relatively high cumulative totals of amphetamine — 200 kg and 112 163 tablets in Hungary and 141.5 kg in Austria — seized in the 2005–09 period suggest that both countries are fairly significant players in central Europe. Slovenia is also thought to produce principally amphetamine, although amounts seized are much smaller, totalling only 10.2 kg and 2 291 tablets over the period 2005–09. Both Interpol and the INCB have reported dismantling of amphetamine production facilities in Slovenia in recent years. In contrast, in the Czech Republic and Slovakia, methamphetamine overwhelmingly dominates the production, trafficking and use scenes and amphetamine is practically absent (EMCDDA, 2009b).

Production and trafficking of captagon in the 'south-east hub'

Captagon was originally the registered trademark of a medicinal product. Today, tablets sold as captagon account for a significant amount of seized illicit synthetic stimulants in several countries, particularly in the Near and Middle East. The drug has experienced a number of transitions since it was first developed for paediatric and geriatric use and given its trade name in the 1960s (UNODC, 2009). The original captagon product contained phenethylline, which is metabolised in the human body to amphetamine. Today, the limited forensic data available show that seized captagon tablets do not contain any phenethylline, but mainly amphetamine sulphate (in a quantity of between 1 % and 16 % of the gross weight) and caffeine (in quantities between 5 % and 61 %), and usually an additional additive in combination with paracetamol and theophylline (Interpol, 2009).

According to the UNODC (2009), trafficking in captagon in the Near and Middle East, especially the Arabian Peninsula, dominates global amphetamine seizures, with 23.6 tonnes (29 % of global seizures) being seized in this region in 2007. Captagon is popular among the younger, affluent population and has enjoyed a reputation as a sexual stimulant since the beginning of the 1980s (UNODC, 2009). Bulgaria and, to a lesser extent, Turkey, are believed to be the sources of captagon, with several indications that undetected amphetamine manufacture may also be occurring close to the consumer markets in the Near and Middle East. Moreover, over the past few years, Interpol and the INCB have reported seizures of clandestine laboratories in several south-eastern European countries, including Serbia, where 1 900 kg of phenylacetic acid was also seized in 2009 (INCB, 2011).

Bulgaria reported to the UNODC the seizure of 18, frequently large-scale, amphetamine production facilities between 2001 and 2007 associated with the manufacture of captagon tablets (UNODC, 2008b). The Bulgarian Reitox focal point network reported in 2008 that some amphetamine production had been moved out of Bulgaria, but that exports to Turkey, Lebanon, Georgia, Armenia and Syria had still been detected (Bulgaria NFP, 2008). Two years later, in 2010, Bulgaria reported the continuing production of amphetamine with one and three production sites seized in 2008 and 2009, respectively (Bulgaria NFP, 2010).

According to the Turkish focal point of the Reitox network, Turkey is primarily a transit country for captagon manufactured in eastern European countries and in Syria and bound for the Middle East

and the Arabian Peninsula by road and by sea (TMCDD, 2009). However, tableting facilities have been detected in Turkey in recent years. For instance, in 2006, 12 illicit captagon production sites were dismantled in Turkey (UNODC, 2008b); in February 2009, 2.1 million tablets were seized at a clandestine facility where amphetamine was transformed into captagon tablets; and in September 2009, 473 kg of amphetamine was seized at a captagon manufacturing site (KCM, 2009).

Little information is available on how illicit amphetamine production is organised and what precursor chemicals are used to manufacture captagon. The production capacity of amphetamines facilities in Bulgaria was reported to be between 1.5 and 70 kg per month in 2001 (UNODC, 2003). The very limited quantities of BMK and of its precursor, phenylacetic acid, that have been seized in Bulgaria and Turkey since the early 2000s are unlikely to reflect the scope of production there. In the 10-year period 2000–09, Bulgaria reported seizing an aggregate total of 373 litres of BMK and 528 kg of phenylacetic acid, while Turkey confiscated 225 litres of BMK and no phenylacetic acid (INCB, 2003, 2007, 2011).

The Lebanese authorities intercepted laboratory equipment and precursor chemicals for captagon manufacture in 2007 (UNODC, 2009), and a large captagon laboratory was reported to be seized in Saudi Arabia in June 2010 (UNODC, 2010). Syria has been described as a transit country for captagon from Turkey and Lebanon to the Gulf States by US authorities (US INL, 2009). The Syrian authorities seized 6.8 million captagon tablets during the first 8 months of 2008. Saudi Arabia seized a record 13.9 tonnes of fake captagon in 2007. According to the UNODC, many of the drugs seized were destined to travel from Syria by road, via Jordan, to Saudi Arabia. Several countries in the subregion, including Jordan, Syria, the United Arab Emirates and Yemen, have reported dramatic increases in seizures of these tablets since 2004, typically via overland routes and often destined for Saudi Arabia's large domestic market. A smuggling route by which captagon was transported to Iraq through Syria was recently detected.

Recent developments concerning precursor chemicals could confirm that large amounts of captagon are now manufactured in the Near and Middle East, including Iraq. The INCB reports that a shipment of 8 865 litres of the amphetamine precursor BMK was made to Jordan in 2010. This was the largest single shipment made anywhere in the world in 2010, accounting for more than 50 % of the total quantity of BMK shipped internationally that year (14 690 litres) (INCB, 2011). In 2009, Jordan also accounted for most of the BMK shipped internationally. In addition, in 2009, authorities in India stopped shipments of 9 800 litres bound for Jordan and 3 900 litres destined for neighbouring Syria. The Jordanian authorities claimed that the BMK was intended to be used as a cleaning and disinfection agent, and reported that Iraq was the final destination of the shipment. However, because laboratory analysis of the cleaning product showed no trace of BMK, the INCB has expressed concern that recent BMK shipments to Iraq via Jordan may be illegitimate (INCB, 2011).

It is likely that until recently captagon manufacturing in south-eastern Europe was the principal source of the captagon tablets consumed on Near and Middle East markets. This may no longer be the case following the probable displacement of at least some captagon production in the Near and Middle East region in recent years. The information available at this stage makes it difficult to draw any definite conclusions in this respect. However, until recently it is likely that south-eastern Europe was the region of Europe where either the largest or the second largest quantities of amphetamine were illicitly manufactured, just before or just after the north-west hub.

European and international initiatives

The EU, its Member States and the international community have undertaken a range of initiatives to address amphetamine production and trafficking. Some of the most significant ones are addressed below.

European initiatives

The Polish presidency of the EU (July 2011 to December 2011) has made reducing the supply of synthetic drugs in Europe one of its priorities. The Horizontal Working Party on Drugs (HDG) and the Internal Security Committee (COSI) of the Council of the EU deal with this in parallel. An important initiative of the Polish presidency in this respect is the development and adoption in late 2011 of the pact against synthetic drugs. The pact is an integral part of the EU Drug Strategy 2005–12 and EU Drug Action Plan 2009–12 and it is a practical application of the Stockholm Programme and of the EU Internal Security Strategy adopted by the Council in 2010. Among other measures, the pact targets the illicit production and trafficking of synthetic drugs such as amphetamine through a number of concrete measures. Europol is given a central office function for the coordination of the European fight against synthetic drugs. Information gathering and analysis will be enhanced in order to improve understanding and monitoring of production and trafficking in synthetic drugs and precursor chemicals in Europe. Information sharing among Member States is encouraged. Specialised training will be provided to European law enforcement organisations with a view to making the investigation and dismantling of illicit drug production facilities safer and more uniform at EU level. Actions implemented under the pact will be monitored by the Member States with assistance of the information and analysis provided by the EMCDDA and Europol.

Project SYNERGY, including a dedicated Analysis Work File (AWF), was set up by Europol and EU Member States and focuses on illicit synthetic drugs in Europe. It gathers and exploits relevant information available within and outside the EU in order to detect links between different cases, identify new criminal targets and target groups. It also initiates, provides support for and coordinates the intelligence aspects of on-going investigations, while enhancing information exchange, knowledge and experience in the area of synthetic drugs, related precursors and equipment.

The AWF currently comprises 22 participating EU Member States — Belgium, the Czech Republic, Denmark, Germany, Estonia, Ireland, Greece, Spain, France, Italy, Cyprus, Latvia, Lithuania, Hungary, the Netherlands, Austria, Poland, Portugal, Slovakia, Finland, Sweden and the United Kingdom — and five associated parties — Australia, Canada, Eurojust, Iceland and the United States. Norway and Switzerland have been invited to become associated.

Project SYNERGY also includes the Europol Illicit Laboratory Comparison System (EILCS) and the Europol Ecstasy Logo System (EELS), the latter incorporated within the general Europol Synthetic Drug System (ESDS). The EILCS collates detailed photographic and technical information on synthetic drug production, storage and dump sites, thereby enabling the identification of matches between seized equipment, materials and chemicals, initiating information exchange, backtracking investigations and forensic examination for the targeting of facilitators and criminal groups. The

ESDS collates modus operandi, photographic and basic forensic information on significant seizures, enabling the identification of matches between seizures or seized punches, initiating information exchange, further investigations and forensic profiling for the targeting of criminal groups. Related criminal data arising from the findings of the ESDS and EILCS may be analysed within the AWF component. Furthermore, Europol specialists provide 'on-the-spot' assistance to Member States in the dismantling of illicit synthetic drug production sites.

Project SYNERGY supports, and is supported by, EU initiatives on the forensic profiling of synthetic drugs and related precursors for law enforcement purposes (e.g. EDPS — the European Drug Profiling System Project), whereby significant seizures may be forensically matched, leading to or supporting on-going intelligence analysis. Project CHAIN, an EU forensic and law enforcement initiative on the profiling of amphetamine formed in 2008, is part of an intermediate solution for forensic analysis of EU amphetamine samples using harmonised methodology. Amphetamine profiling is now a shared activity between 11 European countries ([9]). Profiling results are stored in a common database. In addition, project CHAIN developed the concept for a long-term solution at EU level for the use of synthetic drug forensic profiling results for law enforcement, strategic and operational purposes.

The EDPS, which began in February 2010, is a law enforcement-driven 3-year project which aims, in line with the EU Drug Action Plan 2009–12 ([10]), to implement an EU-wide system for the profiling of all synthetic and potentially other drugs, drawing on the experience gained through Europol project SYNERGY and project CHAIN.

The EDPS will focus on continued involvement in profiling of amphetamine, implementation of forensic profiling of MDMA and a feasibility study on forensic profiling of heroin and cocaine. Its specific objective is the targeting of organised crime involvement in the production and trafficking of illicit drugs by integrating forensic profiling in intelligence-led law enforcement operations. The project is coordinated by the Netherlands. The consortium consists of eight law enforcement agencies, including Europol, and seven forensic laboratories from six Member States (Belgium, Finland, France, the Netherlands, Sweden and the United Kingdom) and one third party (Switzerland).

In line with the Council Conclusion on a European system for forensic drug profiling ([11]), Europol is expected to take a leading advisory role in migrating the current EDPS project to a European Union Drug Profiling Database (EUDPD) in 2012 and to take the measures necessary to enable it to host the EUDPD, within the existing Europol structure and subject to available resources.

Mutual support also exists between the COSPOL initiative in the field of synthetic drugs and Project SYNERGY. The COSPOL synthetic drug group comprises Belgium (co-driver), Finland, France, Germany, Italy, Lithuania, the Netherlands (driver), Poland, Spain, Sweden, the United Kingdom, Europol and Interpol.

([9]) Accredited forensic institutes of Belgium, Denmark, Germany, Estonia, France, the Netherlands, Norway, Poland, Finland, Sweden and the United Kingdom are able to perform amphetamine profiling for law enforcement purposes.

([10]) Official Journal of the European Union 2008/C 326/09.

([11]) Doc 15876/09 ENFOPOL 288/CORDROGUE 72, November 2009.

International initiatives

The Global Synthetics Monitoring: Analyses, Reporting and Trends (SMART) programme was launched by the UNODC in September 2008 in Bangkok, Thailand. It aims to assist United Nations Member States in generating, analysing and using synthetic drug information in order to design effective policies and interventions. The SMART programme aims to provide information on the patterns of trafficking and use of synthetic drugs, including amphetamine, by supporting countries to better monitor trends, including detecting and reporting on new trends, while improving methods for exchanging comparable information ([12]).

Between July 2009 and March 2010, the INCB launched Operation Pila in the framework of Project Prism, which monitors global trade in key amphetamine precursors BMK and phenylacetic acid, and methamphetamine precursors ephedrine and pseudoephedrine. Operation Pila was intended to generate intelligence on precursor trafficking and identify weaknesses in mechanisms for precursor control at national and regional levels. Operation Pila led to the suspension of 40 suspicious shipments of ephedrine and pseudoephedrine, totalling 12.8 tonnes and 199 million tablets. It also resulted in the identification of a number of suspicious BMK shipments. In addition, information gathered through Operation Pila indicated that traffickers were increasingly using substances not under international control, including esters of phenylacetic acid.

([12]) The EMCDDA is a member of the SMART programme steering group, and Europol closely cooperates with the SMART programme.

Conclusions

As a stimulant drug, amphetamine should be considered in the context of the overall European market for stimulants. This encompasses a fairly large variety of European-made and imported drugs, some of which are based on plants, such as cocaine, and others which are purely synthetic, such as ecstasy (MDMA) and methamphetamine (EMCDDA, 2009b), as well as a number of other substances of diverse chemical make-up and changing legal status, such as piperazines (e.g. BZP) and synthetic cathinones (e.g. mephedrone). A significant proportion of stimulant use occurs in nightlife settings, which are subject to frequent changes, with shifts in the popularity of different drugs, and prone to innovation, with new substances emerging frequently.

In this respect, an important question raised implicitly in the present publication is the extent, and the terms, of the competition between amphetamine and cocaine on the European market. Will the strong rise in cocaine use and trafficking seen in western Europe in recent years (EMCDDA, 2010c) extend to other regions of the continent and, in the coming years, result in cocaine displacing amphetamine as the stimulant of choice in northern and central Europe, for instance?

Several factors should be taken into account when attempting to answer this question. First, amphetamine is neatly a European drug, as Europe is both one of the main manufacturers of amphetamine in the world, perhaps even the main global producer, and a major consumer market for the drug. A proportion of the amphetamine manufactured in Europe is consumed locally while some is exported abroad, especially to the Middle East and the Arabian Peninsula.

That said, the second factor is that patterns of amphetamine production and trafficking are not uniform across Europe. Improving understanding of these patterns, including how and why they may be changing, is clearly an important task, and one that requires more information. Four distinct production and trafficking areas are outlined in this publication, which partly overlap with the three geographical consumption areas also described here. As is the case with other drugs, history may be important in accounting for the emergence of several of Europe's amphetamine production regions.

Yet signs of change are also noticeable. In the north-west hub, Europe's largest source of amphetamine, production capacity and sophistication are reported to be increasing, which could indicate further professionalisation of trafficking networks and the availability of large consumer markets. However, this sits oddly with the fact that, based on available information, overall amphetamine use is stabilising whereas cocaine use is increasing in Europe. Meanwhile, production of captagon could be moving out of south-eastern Europe and relocating closer to the drug's consumer markets in the Arabian Peninsula and the Middle East. Within the dynamic north-east hub, amphetamine production capacity is reported to be on the rise in Poland, whereas in Lithuania and, to a lesser extent, Estonia, traffickers appear to have switched to producing methamphetamine, which now appears to be the dominant product in key consumer markets such as Norway and perhaps Sweden (EMCDDA, 2009b). These markets were previously supplied with amphetamine, mostly sourced in the Netherlands and Poland, and more information is needed to understand how apparent newcomers producing methamphetamine mainly out of Lithuania succeeded in capturing, although perhaps only temporarily, such large shares of wealthy Scandinavian markets from established Dutch and Polish producers.

Third, the European amphetamine use scene is also a diverse phenomenon. Broadly speaking, it involves two very different types of scene and population: a vast recreational scene mostly populated by socially integrated users and a much more limited marginalised scene inhabited by problem users. Although cocaine, especially in crack form, is also used by some marginalised users, it seems that cocaine use in Europe still mostly takes place in recreational settings or for recreational purposes. Clearly, the greatest 'competition' between amphetamine and cocaine, and thus the highest stakes, is to be found in recreational markets, where price, as well as status, is likely to be an important factor. Amphetamine has been, and continues to be, a much cheaper drug than cocaine, but with this comes lower status, with amphetamine often seen as a 'poor man's cocaine' associated more with farmlands than the glittering lights of trendy downtown clubs. However, in times of recession such as the present, price concerns may override status concerns, especially among young users in the less affluent central and eastern parts of Europe, where amphetamine is already the stimulant of choice.

Our understanding of amphetamine production and trafficking in Europe is still limited. Additional or better-developed information systems are needed. In particular, there is a need to be able to estimate how much amphetamine European markets may be consuming. There is also a need to estimate the potential size of the production of amphetamine worldwide, and in particular within Europe, although progress in this area is likely to be hampered by the current lack of solid data.

For a variety of reasons, it is difficult to draw a clear picture of amphetamine supply and trafficking in Europe, based on traditional quantitative indicators such as seizures, prices and purity data. Indeed, these need to be developed further so that comparability and reliability issues can be addressed and more detailed data may be analysed. There is, in particular, a strong need to streamline the reporting of amphetamine seizures across supranational reporting systems as divergences seem to be greater than for other illicit drugs. In this regard, it is important that countries report both the quantities of amphetamine seized and the number of seizures made on a routine basis. The fact that amphetamine is marketed in different forms (powder, tablets, liquid) is a challenge for monitoring systems as they need to be able to pick up trends on all fronts. The need to distinguish between amphetamine and methamphetamine requires further emphasis at international level, in order to obtain a more accurate picture of the global context in which amphetamine European markets are set. Furthermore, there is a need to develop innovative alternative monitoring strategies that may be based on sources complementary to law enforcement, and which may rely on more qualitative data, with a view to better understand intra-European amphetamines markets, focusing especially on their structure, organisation, actors and dynamics.

References

ACMD (2005), *Methylamphetamine review. A report by the Advisory Council on the Misuse of Drugs*. Online at: http://drugs.homeoffice.gov.uk/publication-search/acmd/ACMD-meth-report-November-2005.html

BKA (2009a), *Rauschgift. Jahreskurzlage 2009*, Bundekriminalamt, Wiesbaden. Online at: https://www.bka.de/nn_196810/SharedDocs/Downloads/DE/Publikationen/JahresberichteUndLagebilder/Rauschgiftkriminalitaet/2009RauschgiftJahreskurzlage.html?__nnn=true

BKA (2009b), *Rauschgiftkriminalität, Bundeslagebild 2009 — Tabellenanhang*, Bundekriminalamt, Wiesbaden. Online at: https://www.bka.de/nn_196810/SharedDocs/Downloads/DE/Publikationen/JahresberichteUndLagebilder/Rauschgiftkriminalitaet/2009RauschgiftJahreskurzlageTabellen.html?__nnn=true

BKA (2010), *Rauschgift. Jahreskurzlage 2010. Daten zur Rauschgiftkriminalität in der Bundesrepublik Deutschland*, Bundekriminalamt, Wiesbaden. Online at: https://www.bka.de/nn_196810/SharedDocs/Downloads/DE/Publikationen/JahresberichteUndLagebilder/Rauschgiftkriminalitaet/2010RauschgiftJahreskurzlage.html?__nnn=true

BLKA (2011), *Table on laboratories seized in Bavaria 2001–2010*, document provided upon request by the Bayerisches Landeskriminalamt, Munich, March 2011.

Bulgaria NFP (2008), *'Bulgaria'. New development, trends and in-depth information on selected issues*, Bulgaria National Focal Point, 2008 national report (2007 data) to the EMCDDA by the Reitox National Focal Point, Sofia. Online at: http://www.emcdda.europa.eu/attachements.cfm/att_86795_EN_NR_2008_BG.pdf

Bulgaria NFP (2010), *'Bulgaria'. New development, trends and in-depth information on selected issues*, Bulgaria National Focal Point, 2010 national report (2009 data) to the EMCDDA by the Reitox National Focal Point, Sofia.

Case, P. (2005), *The history of methamphetamine: an epidemic in context*, First National Conference on Methamphetamine, HIV and Hepatitis, The Harm Reduction Project, Salt Lake City, August.

Edeleano, L. (1887), 'Über einige derivate der phenylmethacrylsäure und der phenyllisobuttersäure', *Berichte der deutschen chemischen Gesellschaft* 20, pp. 616–622.

Eisenbach-Strangl, I., Moskalewicz, J. and Thom, B. (eds) (2009), *Two worlds of drug consumption in late modern societies*, European Centre Vienna, volume 34, Ashgate, Farnham.

EMCDDA (2009a), *Annual report 2009. The state of the drugs problem in Europe,* European Monitoring Centre for Drugs and Drug Addiction, Lisbon.

EMCDDA (2009b), EMCDDA–Europol joint publications. *Methamphetamine: A European Union perspective in the global context,* European Monitoring Centre for Drugs and Drug Addiction, Lisbon, and Europol, The Hague. Online at: http://www.emcdda.europa.eu/attachements.cfm/att_82097_EN_Methamphetamine_final.pdf

EMCDDA (2010a), *Problem amphetamine and methamphetamine use in Europe*, Selected issue, European Monitoring Centre for Drugs and Drug Addiction, Lisbon. Online at: http://www.emcdda.europa.eu/attachements.cfm/att_120112_EN_EMCDDA_SI10_Amphetamines.pdf

EMCDDA (2010b), *Risk assessment report of a new psychoactive substance: 4-methylmethcathinone (mephedrone)*, European Monitoring Centre for Drugs and Drug Addiction, Lisbon. Online at: http://www.emcdda.europa.eu/attachements.cfm/att_116646_EN_Risk%20Assessment%20Report%20on%20mephedrone-1.pdf

EMCDDA (2010c), EMCDDA–Europol joint publications. *Cocaine: A European Union perspective in the global context,* European Monitoring Centre for Drugs and Drug Addiction, Lisbon, and Europol, The Hague. Online at: http://www.emcdda.europa.eu/attachements.cfm/att_101612_EN_TDAN09002ENC.pdf

Estonian Focal Point (2009), *Problem amphetamine and methamphetamine use, related consequences and responses*, Chapter 12, 2009 national report to the EMCDDA by the Estonian Focal Point.

Europol (2007a), *Amphetamine-type stimulants in the European Union 1998–2007*, Europol contribution to the expert consultations for the UNGASS assessment, Europol, The Hague.

Europol (2007b), *Production and trafficking of synthetic drugs and precursors*, Europol, The Hague.

Europol (2008), *Europol illicit laboratory comparison system* (EILCS), Europol, The Hague.

Europol (2009a), *BMK bisulphite adduct*, Europol Drugs Newsletter July 2009 — Alert 2009-002, Europol, The Hague.

Europol (2010a), *Europol synthetic drug production equipment catalogue 2010*, Europol, The Hague.

Europol (2010b), *Packaging used for BMK smuggling, SYN2010-024*, Europol, The Hague.

Europol (2011a), Production of BMK out of 2-phenylacetoacetonitrile, *Europol Alert Report 2011-001*, Europol, The Hague.

Europol (2011b), *European Union organised crime threat assessment 2011*, Europol, The Hague.

Gutauskas, A. (2009), 'Organized crime in the Baltic Sea region', in Nilsson, R. and Kegö, W. (eds.), *The impact of drugs trafficking, corruption and organized crime. How to strengthen cooperation around the Baltic Sea*, Policy Paper, Institute for Security & Development Policy, Stockholm, June.

Heckmann, W. (1997), 'The phenomenology of amphetamine use in Germany', in Klee, H. (ed.), *Amphetamine misuse. International perspectives on current trends*, Harwood Academic Publishers, Amsterdam.

INCB (2003), *Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances*, United Nations, New York.

INCB (2007), *Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances*, United Nations, New York.

INCB (2011), *Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances*, United Nations, New York.

Interpol (2009), *Feasibility study on captagon*, July 2008 – December 2009.

Käll, K. (1997), 'Amphetamine abuse in Sweden', in Klee, H. (ed.), *Amphetamine misuse. International perspectives on current trends*, Harwood Academic Publishers, Amsterdam.

KCM (2009), *Annual drug report 2009*, Ministry of Interior, Turkish National Police, Department of Anti-smuggling and Organised Crime, Ankara.

Krawczyk, W. (2005), Nielegalne Laboratoria Narkotykowe, CLK, Warsaw.

Krawczyk, W., Kidawa, M. and Strzelecka, A. (2009), *Problem amphetamine use, related consequences and responses*, Centrum informacji o narkotykach I narkomanii, 2009 national report to the EMCDDA by the Reitox national focal point, Warsaw.

NDLERF (2005), *The governance of illicit synthetic drugs*, monograph series No. 9, Commonwealth of Australia. Online at: http://www.ndlerf.gov.au/pub/governance_synthetic_drugs.pdf

Nilsson, R. and Kegö, W. (eds.) (2009), *The impact of drugs trafficking, corruption and organized crime. How to strengthen cooperation around the Baltic Sea*, policy paper, Institute for Security & Development Policy, Stockholm, June.

ODCCP (2001), *Global illicit drug trends 2001*, ODCCP Studies on Drugs and Crime Statistics, United Nations Office for Drug Control and Crime Prevention, New York. Online at: http://www.unodc.org/pdf/report_2001-06-26_1/report_2001-06-26_1.pdf

Pullat, R. (2009), *Organized crime related drug trafficking in the Baltic Sea region. Police point of view*, Estonian Police Board, Tallin.

Remberg, B. (1997), 'Stimulant abuse: From amphetamine to ecstasy', in UNODC (ed.) *World Drug Report 1997,* United Nations, Vienna, pp. 38–39.

Smits, E. M. (2007), *Productielocaties van synhetische drugs*. KLPD, Zoetermeer.

Suwaki, H., Fukui, S. and Konuma, K. (1997), 'Methamphetamine abuse in Japan: its 45 year history and the current situation', in Klee, H. (ed.), *Amphetamine misuse. International perspectives on current trends*, Harwood Academic Publishers, Amsterdam.

Svensson, B. (2009), *Problem amphetamine and methamphetamine use, related consequences and responses*, Chapter 12, 2009 national report to the EMCDDA by the Swedish Focal Point, Swedish National Institute of Public Health.
Online at: http://www.emcdda.europa.eu/publications/national-reports/2009

Tamura, M. (1989), 'Japan: Stimulant epidemics past and present', *Bulletin on Narcotics* 1, pp. 83–93. Online at: http://www.unodc.org/unodc/en/data-and-analysis/bulletin/bulletin_1989-01-01_1_page007.html

THL (2009), *Finland drug situation 2009. New developments, trends and in-depth information on selected issues*, 2009 national report to the EMCDDA by the Finnish Focal Point, Helsinki.

TMCDD (2009), *Turkey 2009 national report on counteracting addictive substances and substance addiction*, EMCDDA 2009 Annual report (2008 data), Turkish monitoring centre for drugs and drug addcition, Reitox National Focal Point, Turkish National Police, Ankara. Online at: http://www.emcdda.europa.eu/attachements.cfm/att_112133_EN_NR_2009_TR.pdf

UNODC (2003), *Ecstasy and amphetamines global survey 2003*, United Nations Office on Drugs and Crime, Vienna.

UNODC (2005), *Bulletin on narcotics*, Volume LVII, Nos. 1 and 2, United Nations Office on Drugs and Crime, Vienna.

UNODC (2008a), *World drug report 2008*, United Nations Office on Drugs and Crime, Vienna. Online at: http://www.unodc.org/unodc/en/data-and-analysis/WDR-2008.html

UNODC (2008b), *Amphetamines and ecstasy: 2008 Global ATS assessment*, United Nations Office on Drugs and Crime, Vienna.

UNODC (2009), *World Drug Report 2009*, United Nations Office on Drugs and Crime, Vienna. Online at: http://www.unodc.org/unodc/en/data-and-analysis/WDR-2009.html

UNODC (2010), *Global SMART Update*, Volume 4, United Nations Office on Drugs and Crime, Vienna, October.

US INL (2009), *2009 International narcotics control strategy report*, United States Department of State Bureau for International Narcotics and Law Enforcement Affairs, Washington, DC. Online at: http://www.state.gov/documents/organization/120054.pdf

Van Haal, M. and Spruit, I. (1997), 'Chasing ecstasy: use and abuse of amphetamines in the Netherlands', in Klee, H. (ed.), *Amphetamine misuse. International perspectives on current trends*, Harwood Academic Publishers, Amsterdam.

Vijlbrief, M. (2011), *Biannual basic report on synthetic drugs and precursors*, Nationale Recherche, Son.

Yoshida, T. (1997), 'Use and misuse of amphetamines: an international overview', in Klee, H. (ed.), *Amphetamine misuse. International perspectives on current trends*, Harwood Academic Publishers, Amsterdam.

Zábranský, T. (2007), 'Methamphetamine in the Czech Republic', *Journal of Drug Issues*, 37, pp. 155–180. Online at: http://www2.criminology.fsu.edu/%7Ejdi/samples/zabransky.pdf

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EMCDDA–Europol joint publication series

The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) and the European Police Office (Europol) stepped up their cooperation on drugs and crime in the spring of 2009, by defining a series of collaborative activities for the period 2009–12. The commitment was made in the framework of a 'Cooperation Agreement' signed in Brussels in November 2001, under which the organisations exchange information and expertise on drug-related issues, money laundering and the diversion of chemical precursors. The two bodies also collaborate actively in detecting and monitoring new and potentially threatening psychoactive substances and in assessing the involvement of organised crime in their manufacture and trafficking. This activity is carried out under the terms of a specific legal instrument, adopted by the Council of the European Union in 2005 (www.emcdda.europa.eu/drug-situation/new-drugs).

Among the collaborative activities planned for 2009–12 is an EMCDDA–Europol joint publication series covering key aspects of European drug markets. While the first titles in the series are dedicated to illicit substances — e.g. methamphetamine, amphetamine, ecstasy, cocaine, heroin and cannabis — future editions will be developed in line with ongoing and emerging information needs.

The series is designed to inform policymakers, drug experts and the general public on important aspects of the drug situation. Bringing together EMCDDA and Europol information and data on prevalence, health consequences and drug research, with data and knowledge on production, trafficking, markets and drug-related crime, the publications will offer an integrated analysis of the topics chosen and constitute a joint EMCDDA–Europol view on key drug issues. The analysis will be informed by complementary information provided by the organisations' respective national networks — the Reitox national focal points and the Europol national units.

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The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) is the hub of drug-related information in Europe. Its mission is to provide the EU and its Member States with 'factual, objective, reliable and comparable information' on drugs, drug addiction and their consequences. Established in 1993, it opened its doors in Lisbon in 1995 and is one of the EU's decentralised agencies. With a 100-strong multidisciplinary team, the agency offers policymakers the evidence base they need for drawing up drug laws and strategies. It also helps professionals and researchers pinpoint best practice and new areas for analysis. As well as gathering information on the demand and reduction of the demand for drugs, the agency in recent years has extended its monitoring and reporting on drug supply, supply reduction and illicit drug markets.

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About Europol

Europol is the European Union's law enforcement agency handling criminal intelligence. Its aim is to improve the effectiveness of, and cooperation between, the competent authorities in the EU Member States in preventing and combating serious international organised crime and terrorism. Operational since 1999 and based in The Hague, the organisation employs some 600 staff to support national law enforcement agencies in their everyday work, including efforts to tackle illicit drug trafficking, money laundering, cyber crime and terrorism. Europol comes into play when an organised criminal structure is involved and two or more EU Member States are affected. Among others, it facilitates cross-country information exchange and provides analysis of operations.

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