



European Monitoring Centre  
for Drugs and Drug Addiction

# Monitoring and reporting on the drug use in Europe; The EMCDDA perspective on Khat

---

Paul Griffiths— October 2009, **Linköping, Sweden**

# Confession

- **Khat addict ...**
  - Have tried very hard to escape its clutches but failed miserably
- **Personally have limited expertise in this area**
- **The EMCDDA's perspective on Khat is simple to present as...**



# This presentation...

- **Brief introduction to EMCDDA**
  - Mission
  - Scope of activities
  - Monitoring approaches and tools
  - Why Khat is a difficult topic for us
- **Explore what we can say in the EU about Khat**
  - What data are there on the availability use
  - Khat in wider perspective of EU stimulant market & emerging trends
- **Conclusion**
  - Why perhaps we should have a perspective on khat





European Monitoring Centre  
for Drugs and Drug Addiction

# Introduction to the EMCDDA

---

## Who we are



- **A decentralised EU agency**
- **Formally established in 1993**
- **Based in Lisbon, Portugal (operating since 1995)**
- **The hub of drug-related information in the EU**
- **About 100 staff; 22 nationalities; a budget of around 13.5 million Euros**

## What we do

- **Provide the Community and EU Member States with:**  
‘factual, objective, reliable and comparable information at European level concerning drugs and drug addiction and their consequences’
- **New mission (2007) gives agency a broader role:**
  - collect, register, analyse information on ‘**emerging trends** in polydrug use’, including combined use of **licit and illicit** psychoactive substances
  - provide information on **best practice** in Member States and facilitate exchange of such practice between them



# Collecting and analysing data

## Methods:

- **Reitox national focal points (NFPs), national experts**
- **Annual reporting to EMCDDA (national reports, standard tables, questionnaires)**
- **Expert groups for developing indicators (nominated by NFPs)**
- **Ad hoc working groups**



# Scope of monitoring activities

- **Epidemiology (drug situation incl. 5 Key Indicators)**
- **Supply & market information**
- **New threats & developments (council decision)**
- **Responses – prevention, treatment, harm reduction & social reintegration**
- **Best practices**
- **Supply reduction activities**
- **Legislation (national and Community strategies and laws)**
- **Policy developments (political and institutional framework, coordination)**





# What information?

- Epidemiology (drug situation incl. 5 Key Indicators)
- **Supply & market information**
- **New threats & developments (council decision)**
- Responses – prevention, treatment, harm reduction & social reintegration
- Best practices
- Supply reduction activities
- **Legislation (national and Community strategies and laws)**
- Policy developments (political and institutional framework, coordination)



# Why Khat a difficult topic for us?

**Historically has fallen into a grey area for us...**

- **Legal status (controlled V non controlled)**
- **Overall - low prevalence & cultural-ethnic specificity – not a policy priority at EU level**
- **Rarely appears in standard quantitative data sets we use**



# EU level monitoring of drug use among ethnic minorities & migrant populations

- **Politically sensitive**
  - Legal status – *'invisible population'* – politically may not exist
  - Concern about encouraging stigmatisation & racism
  - Links between some ethnic minorities & trafficking and supply complicates things further
- **Methodologically challenging**
  - Legal barriers and no consensus on definitions
  - A lack of robust information sources
  - Lack of specialist services in most countries
- **EU added value? ... best done at national level?**





European Monitoring Centre  
for Drugs and Drug Addiction

What do we know about Khat availability & use in  
Europe?

---

# Khat production



Khat is an **economically important plant** in the countries that cultivate it; for

Medical and social use goes back to antiquity: Yemen, Ethiopia, Somalia, Kenya

International trade, & migration khat use has spread to countries far away from areas of cultivation.

Every week tonnes of Kenyan khat reaches the UK by air for local use and distribution to other countries.

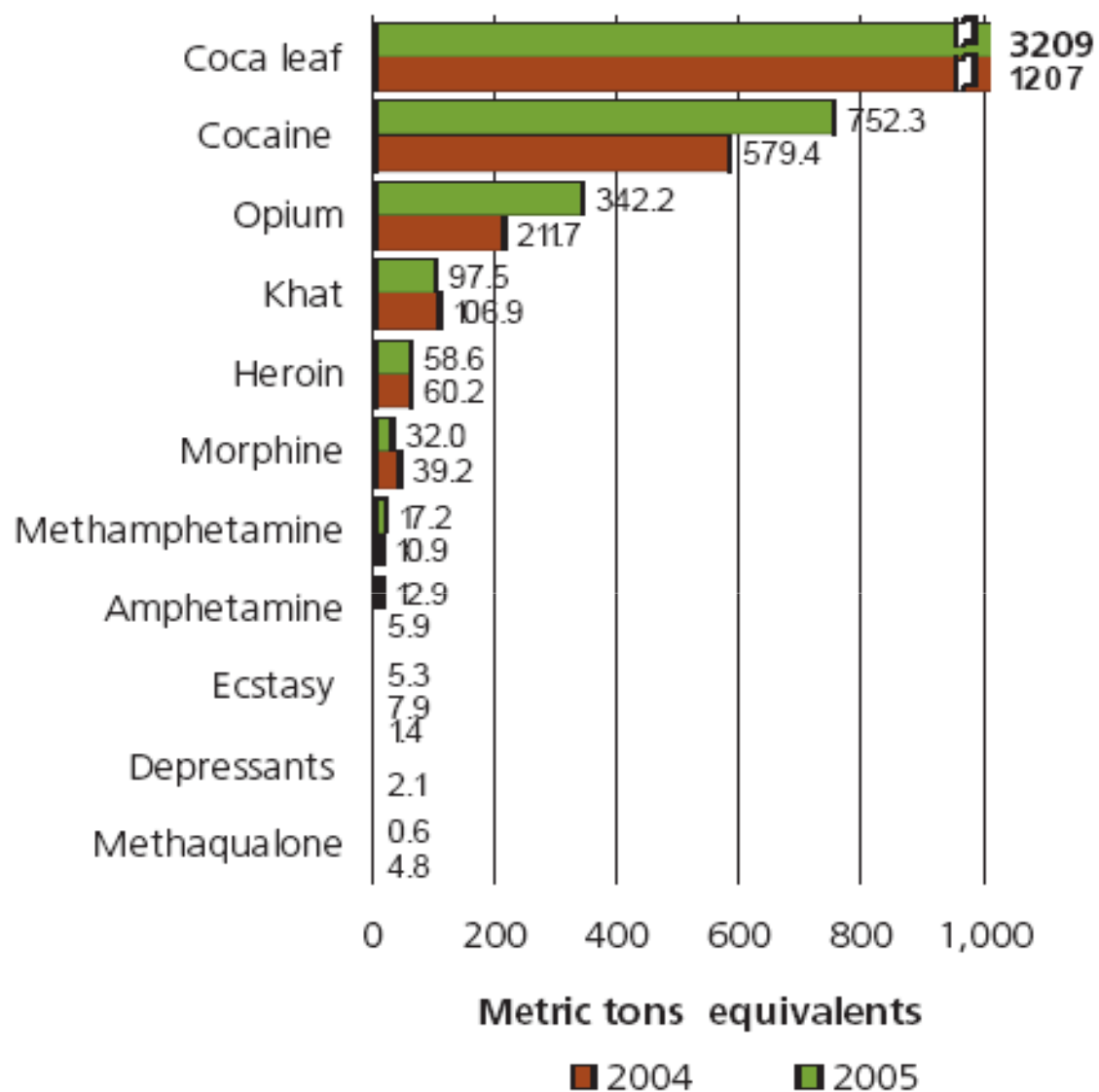
Available from websites and smart shops as '**room odouriser**'.

# Khat use in Europe

- **No evidence of Khat use in general population (most surveys do not include this category) but...**
- **Use reported among East Africa migrants (Somali, Ethiopian, Kenyan and Yemeni)**
- **Some anecdotal evidence to suggest that limited diffusion may be occurring to other groups ? (among UK students, Poly drug use)**
- **Seizures reported by some countries**
- **But not a commonly or regularly used stimulant in EU outside of specific populations**



# Global drug seizures, excluding cannabis, 2004-2005



Source: UNODC, WDR 2007



# Legal situation

- **UN Conventions**
  - Khat itself is not controlled
  - But its psychoactive compounds, cathine and cathinone are classed as Schedule III and Schedule I respectively under the UN Conventions (and controlled in all EU MS).
  - National legislation determines if the plant is controlled
    - Parallel with magic mushrooms & legal grey area
- **Plant controlled as narcotic drugs in at least 14 EU member states**
  - Belgium, Denmark, Germany, France, Ireland, Italy, Lithuania, Slovenia, Finland, Sweden, Norway, Latvia, Greece, Poland



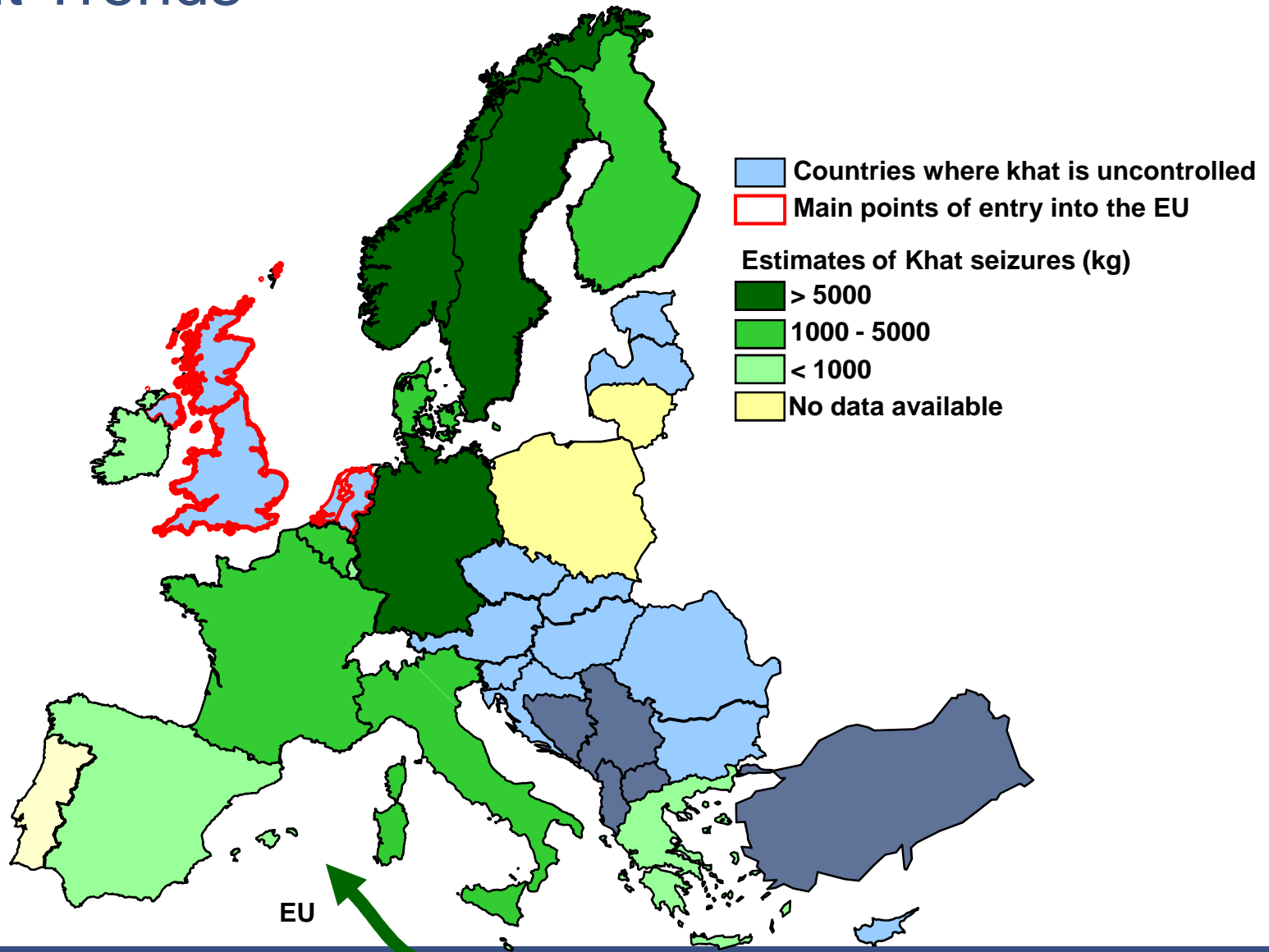


# Khat seizures in the EU

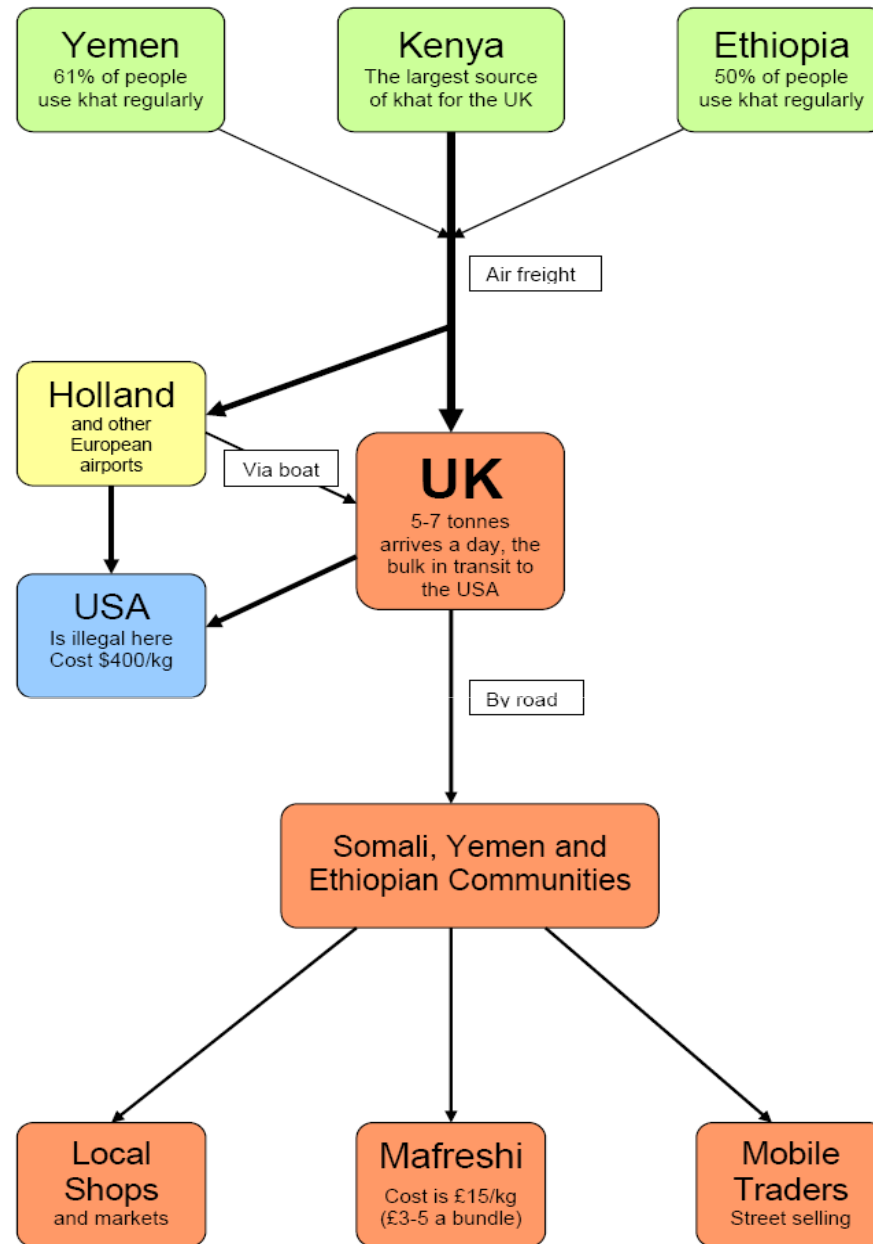
- **Main point of entry UK & NL**
- **Only 12 countries report seizures**
  - in 2006 an estimated 1,200 seizures totalling 41 tonnes of Khat were reported
- **Number seizures low**
  - Typically less than 100
  - Sweden & Norway a bit higher
- **Quantities**
  - Fairly stable situation – most countries reporting less 2,500KG
  - Over the period 2000–2006, quantities seized increased
  - Germany, Norway, Sweden important



# Current Trends

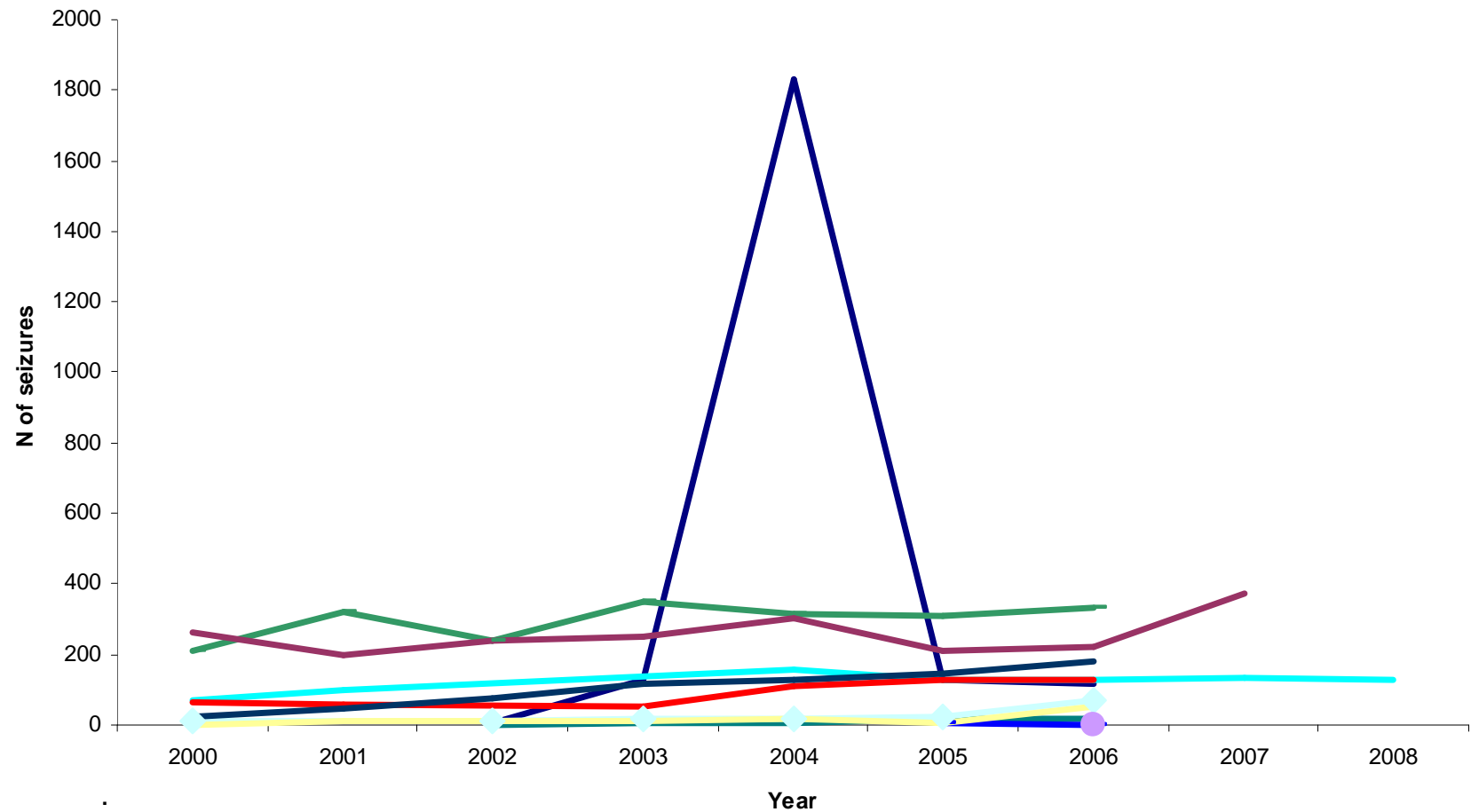


# Distribution of Khat from a UK perspective

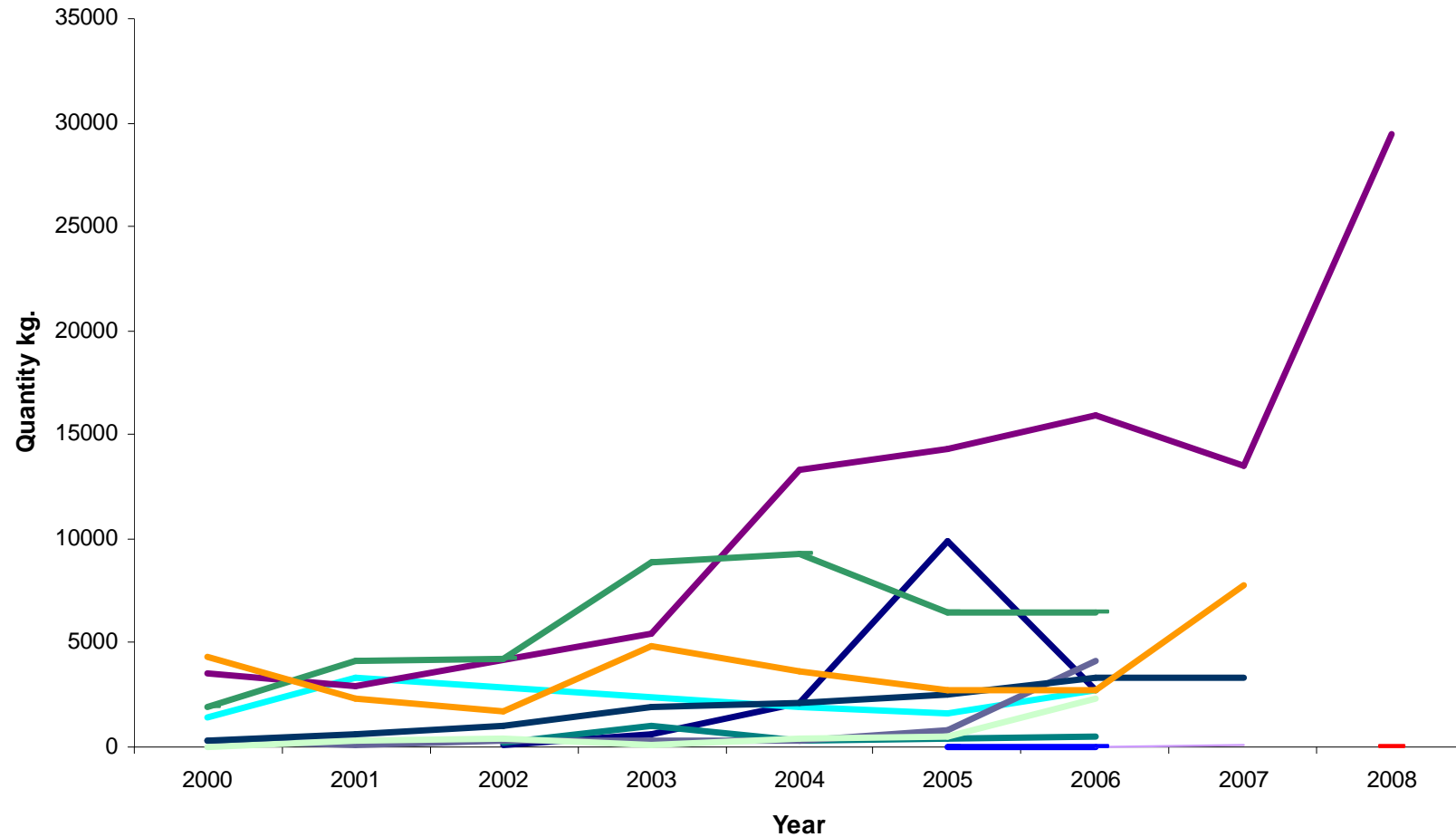


Source: ACMD report, 2005

# Number of seizures of Khat by country and year in some EU countries and Norway, 2000-2008.



## Quantities siezed (kg.) of Khat by country and year in some EU countries and Norway, 2000-2008.





European Monitoring Centre  
for Drugs and Drug Addiction

Khat as a new drug?

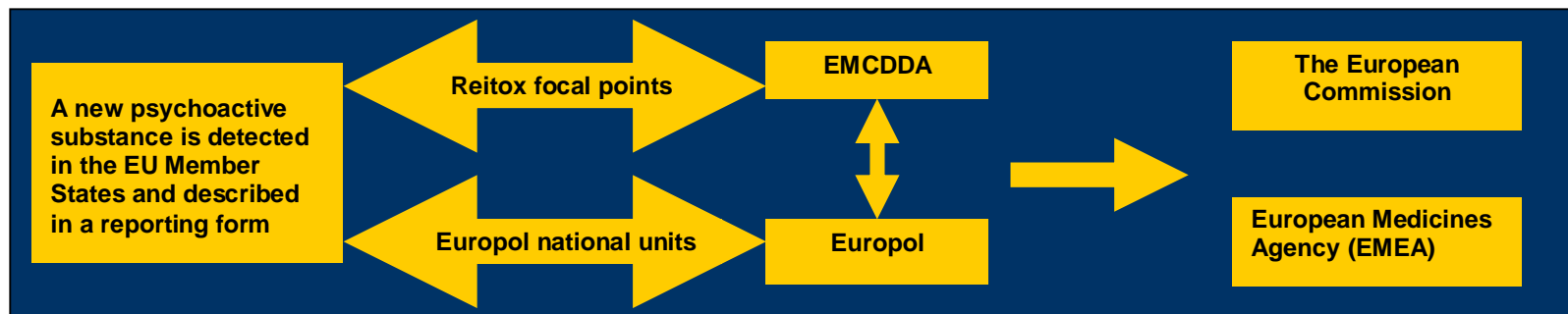
Khat & related compounds in the EWS

---

# EWS - Council Decision 2005/387/JHA: a three-step process

## Information exchange/Early-warning

1



## Risk assessment

2



## Decision-making

3



## EWS & new trends

- **Globalisation, information technology & other technological advances important drivers**
  - Mahajan & Miller (1994) – *creation of unified markets is associated with the faster diffusion of new ideas products & technologies*
- **Market actively seeking out new products –**
  - Sophisticated marketing
  - Innovation driven by cheap organic synthesis,
  - Difficulties of drug control in global market
  - Growing importance of the INTERNET





## Spice: a recent example



- Herbal mixtures sold on the Internet & specialised shops around 2005?
- An 'exotic incense blend', 'not for human consumption'
- Reported by some users to have effects similar to cannabis
- Extensive forensic investigations by some Member States identified synthetic cannabinoids added to the herbal mixture (JWH-018, CP 47,497, HU-210) (2008)
- Mainly an Internet phenomenon
- Control measures: AT, DE, FR, LU, PL, EE, SE... (2008-9)
- New cannabinoids continue to appear following control measures

## What is the potential of Khat as...

- A newly promoted psychoactive substance within the herbal highs market?
- A chemical group...within the context of developments in synthetic drug market in Europe?



# Patterns of use, mode of action and effects

- **Patterns of use**
  - Fresh leaves, twigs & shoots are **chewed** (like coca leaf / tobacco chewing) and the juice of the masticated leaves is **swallowed**
  - Typically, **100-300 g** of khat (1 bundle) are used over a period of **3-4 h**
  - Dried khat is also ingested as an infusion
  - Occasionally smoked
- **Mode of action**
  - Facilitates dopamine release
  - Inhibits dopamine and norepinephrine re-uptake
  - Affects the serotonin system
- **Psychostimulant effects**
  - Central nervous system stimulant
  - Mildly euphoric and stimulant
  - Insomnia, wakefulness
  - Increased heart rate
  - Decreased appetite



# Khat



Fresh khat leaves



Dried khat leaves



Khat bundles

Results for Fresh KHAT - Mozilla Firefox

www.freshGAT.com  
We Export Catha Edulis Worldwide

Search Results

Found 28 product(s) for Fresh KHAT (1-6 of 28)

Fresh KHAT | Yemenite KHAT

**Dealers Red Yemenite 3 kilo**  
Type: Yemenite  
Grow in: Israel  
Life long after cut: 7 Days  
Stick Long: 30 Cm  
Chew stick: No  
Chew leaf: Yes  
Price: \$59.00  
Add to Cart

**Grand Red Yemenite 1 kilo**  
Type: Yemenite  
Grow in: Israel  
Life long after cut: 7 Days  
Stick Long: 30 Cm  
Chew stick: No  
Chew leaf: Yes  
Price: \$27.50  
Add to Cart

**Max Red Yemenite 0.5 kilo**  
Type: Yemenite  
Grow in: Israel  
Life long after cut: 7 Days  
Stick Long: 30 Cm  
Chew stick: No  
Chew leaf: Yes  
Price: \$16.25  
Add to Cart

African and International Ethnobotanics - Mozilla Firefox

Click For Larger Image 1000 gram \$170.00 Add to Basket

**Catha edulis: Ghat**

Viable seeds, this years harvest, please note that foliage of the Khat tree may be illegal in your country. Check your local laws first!

Product Name	Product Amount	Product Cost	Option
Catha edulis Seeds	25 seeds	\$17.50	Add to Basket
	50 seeds	\$30.00	Add to Basket
	100 seeds	\$50.00	Out of Stock
	250 seeds	\$100.00	Out of Stock
	500 seeds	\$180.00	Out of Stock
	1000 seeds	\$310.00	Out of Stock

Click For Larger Image  
"Out of stock items can be back ordered. Contact us for more info."

**Datura stramonium: Datura**

Datura enjoys a long history as medicine and sacred hallucinogen. All over the world we find mention to this powerful plant and its properties in both religious and occult related printed works.

Product Name	Product Amount	Product Cost	Option
Datura Foliage	50 gram	\$12.00	Out of Stock
	100 gram	\$22.00	Out of Stock
	250 gram	\$44.00	Out of Stock
	500 gram	\$80.00	Out of Stock

Mafreshi Khat  
Worldwide Catha Edulis Export

Categories

- Dried Khat (1)
- Fresh Khat (3)
- Teas (1)
- Seeds
- Accessories

Welcome to Mafreshi Khat!!!

Khat is a natural herbal stimulant consisting of the leaves and shoots of the shrub Catha Edulis. Chewing Khat causes increased levels of energy, concentration, alertness, self-esteem, talkativeness, friendliness, sensations of elation, enhanced imaginative ability and capacity to associate ideas. Khat eases symptoms of diabetes, asthma, depression, MS and stomach/intestinal tract disorders. It improves male fertility and is a powerful appetite suppressant and Khat used as a dieting supplement is highly effective for weight loss. Khat is

Catha edulis, Khat Seeds for sale at Herbal Fire Botanicals - Mozilla Firefox

HERBAL FIRE.COM BOTANICALS

Home Page What's New? Specials Create an Account Log In Contact Us

SHARE

Shopping Cart (2 Items)

CATEGORIES

- EHTNOBOTANICALS (57)
  - KRATOM (10)
  - AMANTIA MUSCARIA (6)
  - SALAZAR DIVINORUM (13)
  - SAN PEDRO CACTUS (6)
  - AYAHUASCA (7)
  - CACTUS (18)
  - HERBALS (92)
  - NATURAL INCENSE (9)
  - QUE SHE WEIGHT LOSS (1)
  - SMOKING BLEND (8)
  - SUPER DEALS (15)
  - BOOKS (15)
  - SHIP TO US (1)
  - JAPANESE GREEN TEA (3)

QUICK FIND

Use keywords to find the product you are looking for.  
Advanced Search

INFORMATION

- Payment & Shipping
- Wholesale
- Disclaimer
- Privacy Policy
- Links
- Contact Us

AFFILIATE PROGRAM

TOP » CATALOG » EHTNOBOTANICALS » » CATHA EDULIS - KHAT SEEDS

click to enlarge

Catha edulis - Khat Seeds

Catha edulis, Khat, was extremely popular in ancient Egypt. Khat was used to increase conversation. Khat is little known today outside its common use by Arab males in Yemen. The United States has seen some popularity growth for Khat, but it is mostly limited to Arab immigrants.

Khat foliage is illegal in the U.S.

**Catha Edulis (Khat) Seeds:**

Option	Price	Quantity
5 Seeds	\$5.00	<input type="text" value="0"/>
100 Seeds	\$50.00	<input type="text" value="0"/>
20 Seeds	\$15.00	<input type="text" value="0"/>

ADD TO CART

CUSTOMERS WHO BOUGHT THIS PRODUCT ALSO PURCHASED

- Thailand Kratom - Mitragyna speciosa 15% Powdered Extract
- White Cedar - Cedrus libani
- Latvian Amanita Muscaria, Grade A Caps

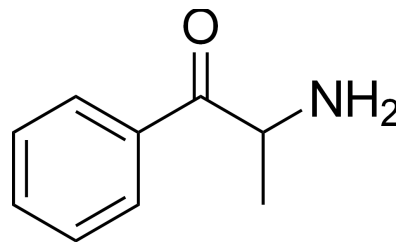




Effects peak after  
15-30 min  
98% metabolised  
by the liver

Fresh khat leaves

**Cathinone**



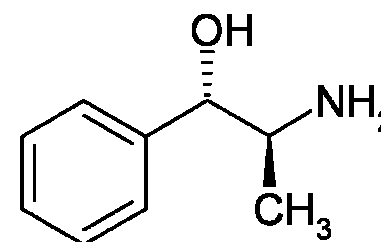
Unstable, potent

Schedule I drug,  
1971 UN Convention

Decomposition  
48 hr  
depotentialisation of khat  
leaves over time

Dried khat leaves

**Cathine**



Milder

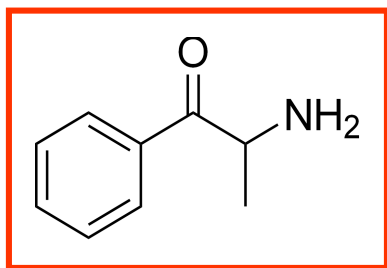
Schedule III drug,  
1971 UN Convention

Half-life in  
humans ~ 3hr

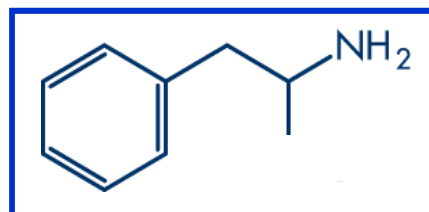


# Cathinones

**cathinone** (beta keto derivative of amphetamine)



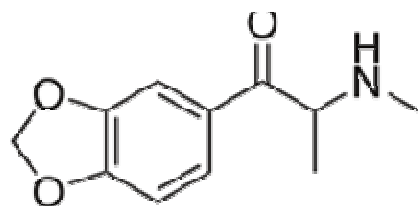
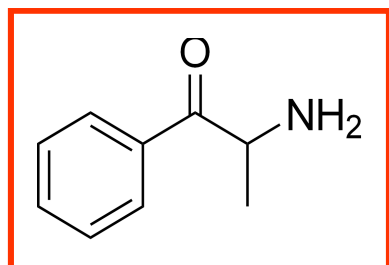
**amphetamine**  
(phenethylamine)



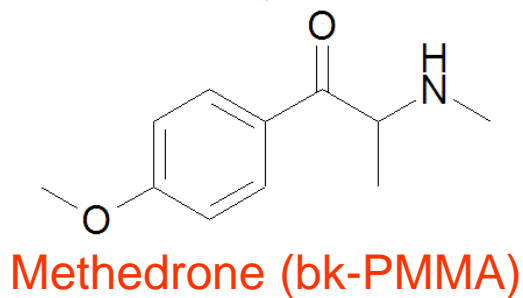
- **Cathinones** are pharmacologically active (stimulant) alkaloids extracted from the leaves of **Khat** plant (*Catha edulis*)
- When khat leaves are chewed, cathinone is metabolised by the liver into **cathine**, which is also present in khat
- These compounds are structurally and pharmacologically similar to **amphetamine**

# Cathinones: Structural analogues of phenethylamines

## Cathinones

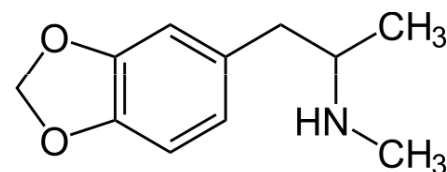
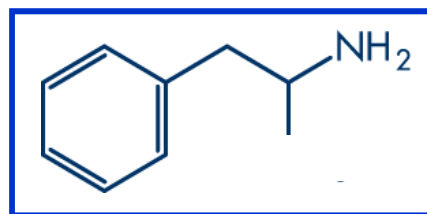


Methyldrone

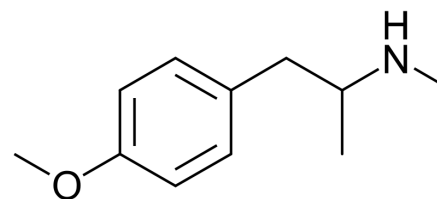


Methedrone (bk-PMMA)

## Phenethylamines



MDMA



PMMA

~

~



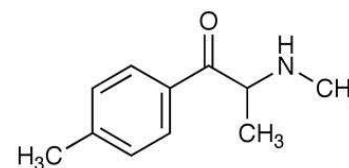


## Cathinones sold as 'legal highs'

- 13 cathinones are being monitored by the EWS
- 6 of the 13 NPAS reported to the EWS in **2008** were **cathinones**
- 2 cathinones have been reported to the EWS in 2009 so far



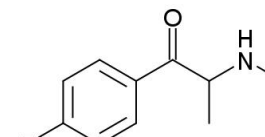
Notified to the  
EWS in 2008



Mephedrone



Ethylcathinone



Flephedrone

# Methylone

- First reported in NL at the end of 2004,
- Marketed under name Explosion
- Marketed as a vanilla-scented 'room odorizer', with the following warnings: '*do not ingest*', '*keep away from children*', '*never use more than one bottle*'.





European Monitoring Centre  
for Drugs and Drug Addiction

Can Khat compete with other drugs on the EU stimulant  
market?

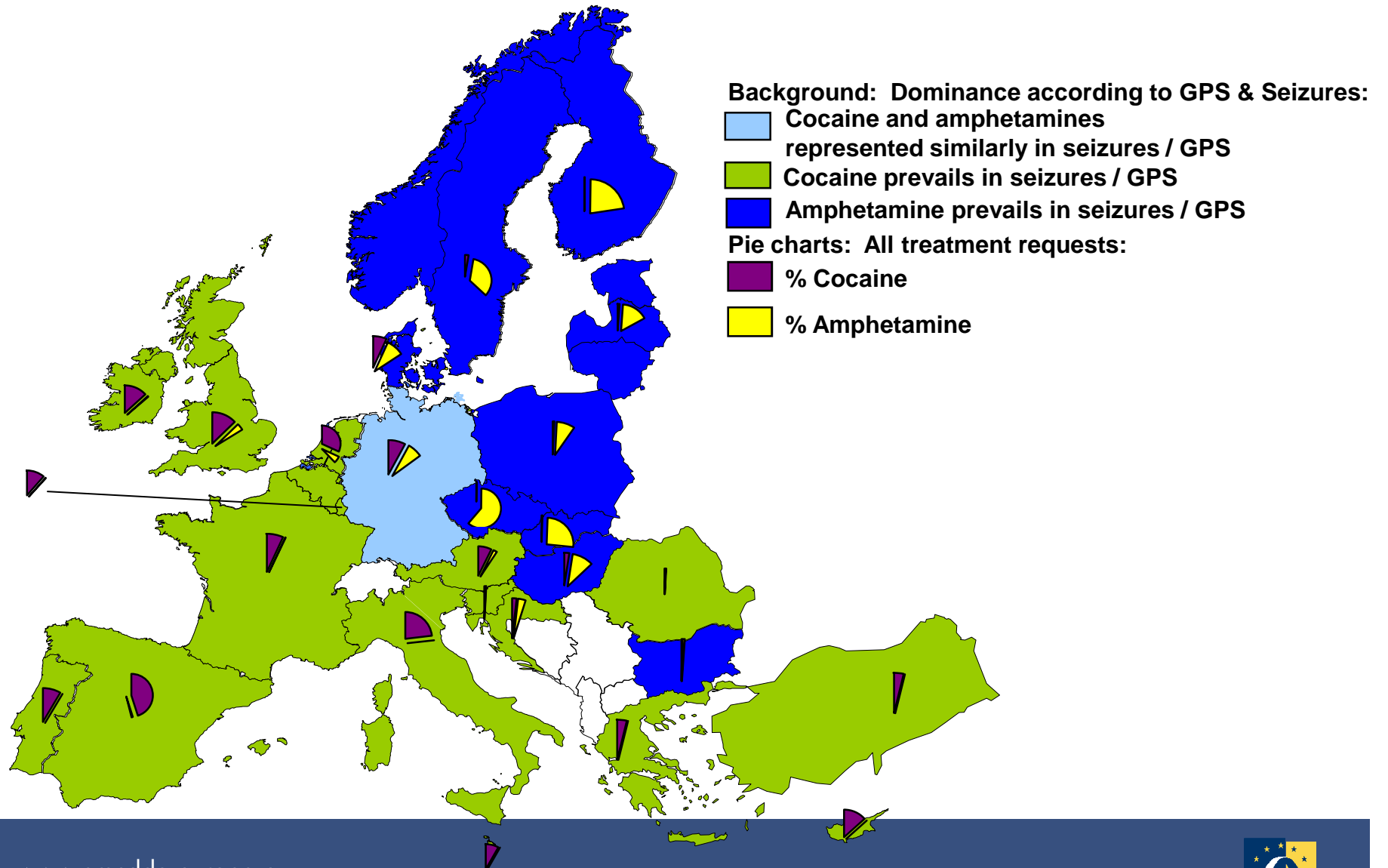
---

## Perspective in EU stimulant market

- Strong stimulant market in Europe
- Cocaine, amphetamines, and drugs used in Europe but not as widely as cannabis synthetic
- Increase of cocaine use over the last years whereas amphetamines use steady (or even decreasing)
- Cocaine use prevails in west and south Europe whereas amphetamines use predominant in northern, central and eastern Member States
- Hypothesis of replacement of substances
- Could Khat play a future role?



# Stimulant markets in the EU

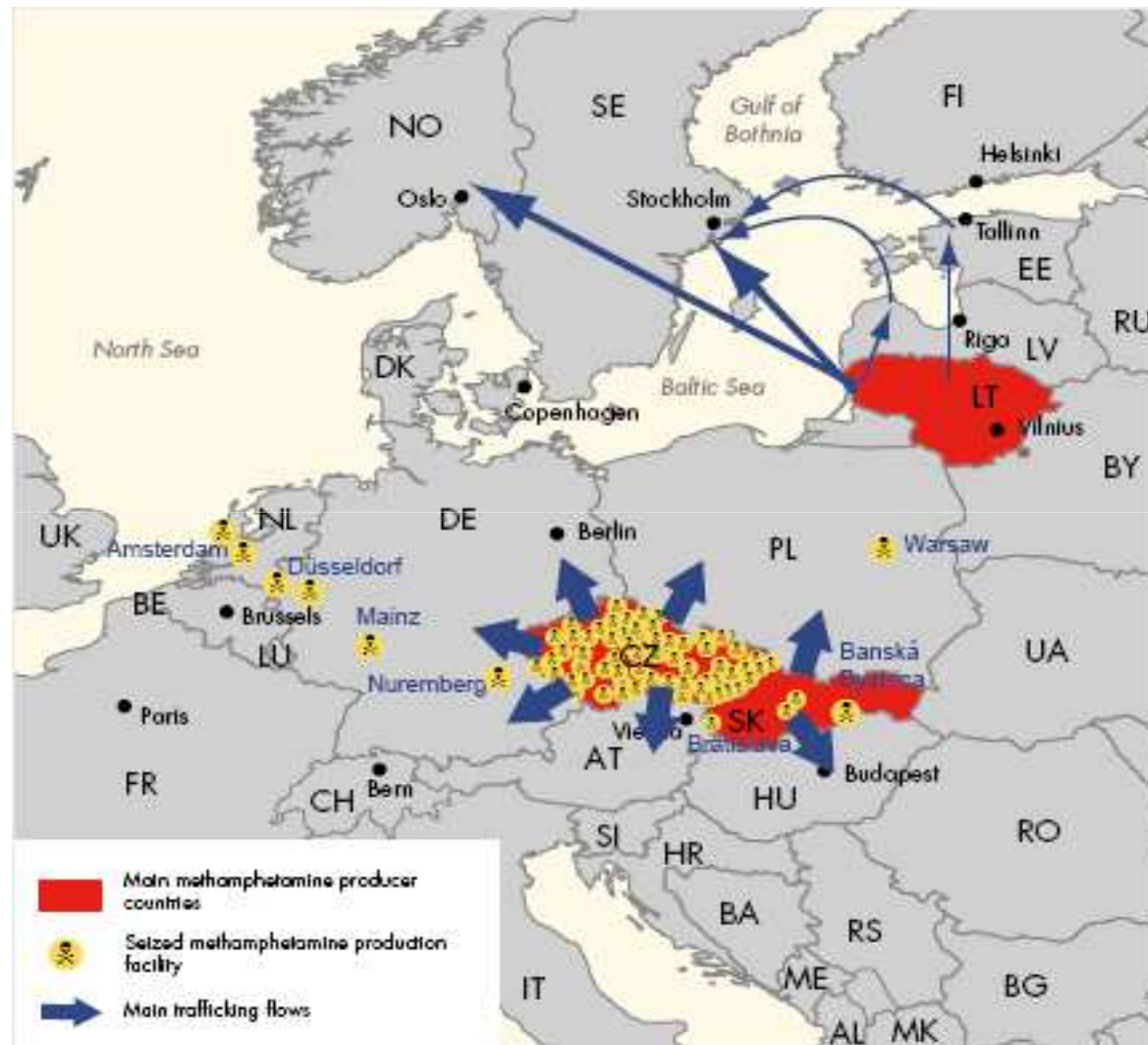


# Issues – barriers to Khat diffusion

- **Transportation**
  - Large volume
  - Short product life
- **Pharmacological action**
  - need a lot
  - Slow onset
- **Route administration**
  - Unfamiliar
  - Stimulant drugs often used instrumentally (specific activities & settings)



# Methamphetamine production facilities (2008)





European Monitoring Centre  
for Drugs and Drug Addiction

Concluding remarks...

---



# An EU perspective...

- **Trends**
  - Stimulant market IN EU robust but...
  - Khat probably will not compete with main stimulants & trend is towards synthetic substances
  - But some diffusion possible – need for monitoring & research
  - The chemical group is becoming increasingly important in the growing new synthetic drugs market
- **Reponses**
  - Whole area of drug use among migrant and ethnic communities becoming increasingly important at EU level
  - Do not know much about problems associated with Khat use
  - Generally care model for stimulant users is poorly developed in EU (but now changing)
  - Control policies the trend is to become increasingly convergent & Khat is problematic from an EU perspective





European Monitoring Centre  
for Drugs and Drug Addiction

[www.emcdda.europa.eu](http://www.emcdda.europa.eu)

---