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03. Estimating the counterfeit markets in Europe

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Introduction

- Counterfeiting is a global phenomenon that threatens the economic stability and sustainable growth of countries.
- This crime is characterized by the coexistence of several markets involving different products, dynamics and actors.
- Increasing the knowledge about the characteristics and the extent of these markets is crucial if this crime is to be tackled effectively.
- In particular, reliable estimates of the size of the counterfeit markets could improve the efficacy of counter-action by better orienting policies and interventions.
- A growing number of researchers, stakeholders, and public or private institutions have been producing a wide variety of studies and estimates on counterfeit markets.¹
- However, these studies are varied in scope and sometimes based on unclear methodologies. This prevents comparisons across time and space.²
- In recent decades, Transcrime has contributed to the development of transparent and rigorous methodologies for the analysis of illegal activities.³
- Sound methodologies produce better estimates and orient future developments by highlighting shortages in the existing data.
- This study presents an update of the approach used by Transcrime to estimate the size of the various counterfeit markets at EU level.⁴
- This document starts with a brief review of what is known about counterfeiting in the EU (i.e. routes, products, consumers and previous studies). It then proposes new estimates of the expenditures for ten different counterfeit markets in the 28 EU Member States using a demand-size approach. Finally, it discusses policy and research implications.

1. Definition of counterfeiting

- This study uses the definition of counterfeit products adopted by the European Commission.
- “Goods are counterfeits when they bear without authorization a trade mark which is identical to a validly registered trade mark, or which cannot be distinguished in its essential aspects from such trade mark” (Council Regulation [EC] 1383/2003).
- Counterfeit markets are conventionally divided between *primary markets*, where the fake products are sold to unsuspecting consumers, and *secondary markets*, in which the purchasers of counterfeits goods is fully aware.⁵

2. Counterfeiting as a transnational crime

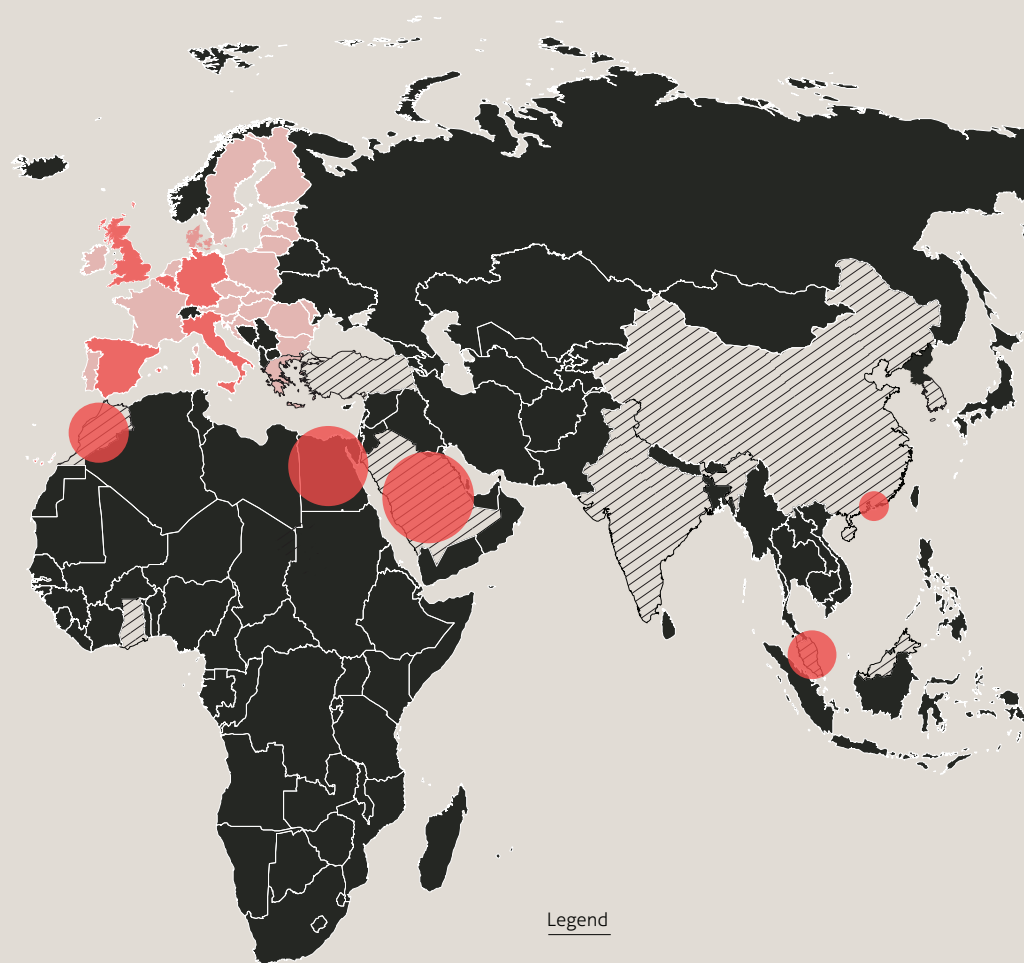
- Counterfeit markets are transnational. Although domestic production is increasingly important,⁶ most of the counterfeit goods sold in the EU Member States originate in countries outside Europe.⁷
- It is therefore important to track these flows and to tackle this activity at global level.
- Estimates of counterfeit markets should enable comparison among countries to monitor the evolution and the international connectedness of this crime.

OC and the counterfeit markets

International and national law enforcement agencies have highlighted the link between organized crime and counterfeiting.⁸

Mafia and Camorra in Europe and the Americas, and the Triads and Yakuza in Asia traffic counterfeit products in addition to other traditional activities.⁹

Map 1 - The routes of counterfeiting



Legend

- ▨ Departure countries
- Main destination countries
- Other destination countries
- Transit countries

Departure countries

China and Hong Kong are the main departure countries of counterfeit goods commercialized in the EU. In 2013, 66.1% of total goods seized and 72.4% of total seizures show that China is the main source country (Map 1).¹⁰

Greece and Turkey are also important source countries. They rank third in terms of articles seized and number of cases, respectively.¹¹

Transit countries

Counterfeit goods flowing into Europe from the Far East and South East Asia transit through Egypt, Hong Kong, Morocco, Singapore, or the UAE. Traffickers often exploit the presence of Free Trade Zones and large transshipment hubs (Map 1).¹²

Destination countries

Among the EU Member States, the United Kingdom, Germany and Belgium register the highest numbers of seizures in terms of cases, whereas Italy, Spain and the United Kingdom register the largest numbers of articles seized (Map 1).¹³

Source: EU – TAXUD (2014) and UNODC (2010)

3. Products

Counterfeit products seized

Figure 1

- Certain products are more at risk of counterfeiting because of their specific characteristics.¹⁴

- Consequently, the size of counterfeit markets may vary according to the products involved (i.e. some markets are more important than others) and the country (i.e. counterfeit markets affect the economies of countries differently).

- Selecting the types of products to be considered and the most reliable sources of information is crucial for producing sound estimates.

- The most counterfeited products can be identified according to two different data sources: seizures and surveys on consumers.

- Data on seizures show which types of goods are detected at the European or national borders (*supply*).¹⁵

- Between 2012 and 2013, the number of cases of seizures and the number of articles seized in the EU decreased respectively by 4% and 10% (Figure 1).¹⁶

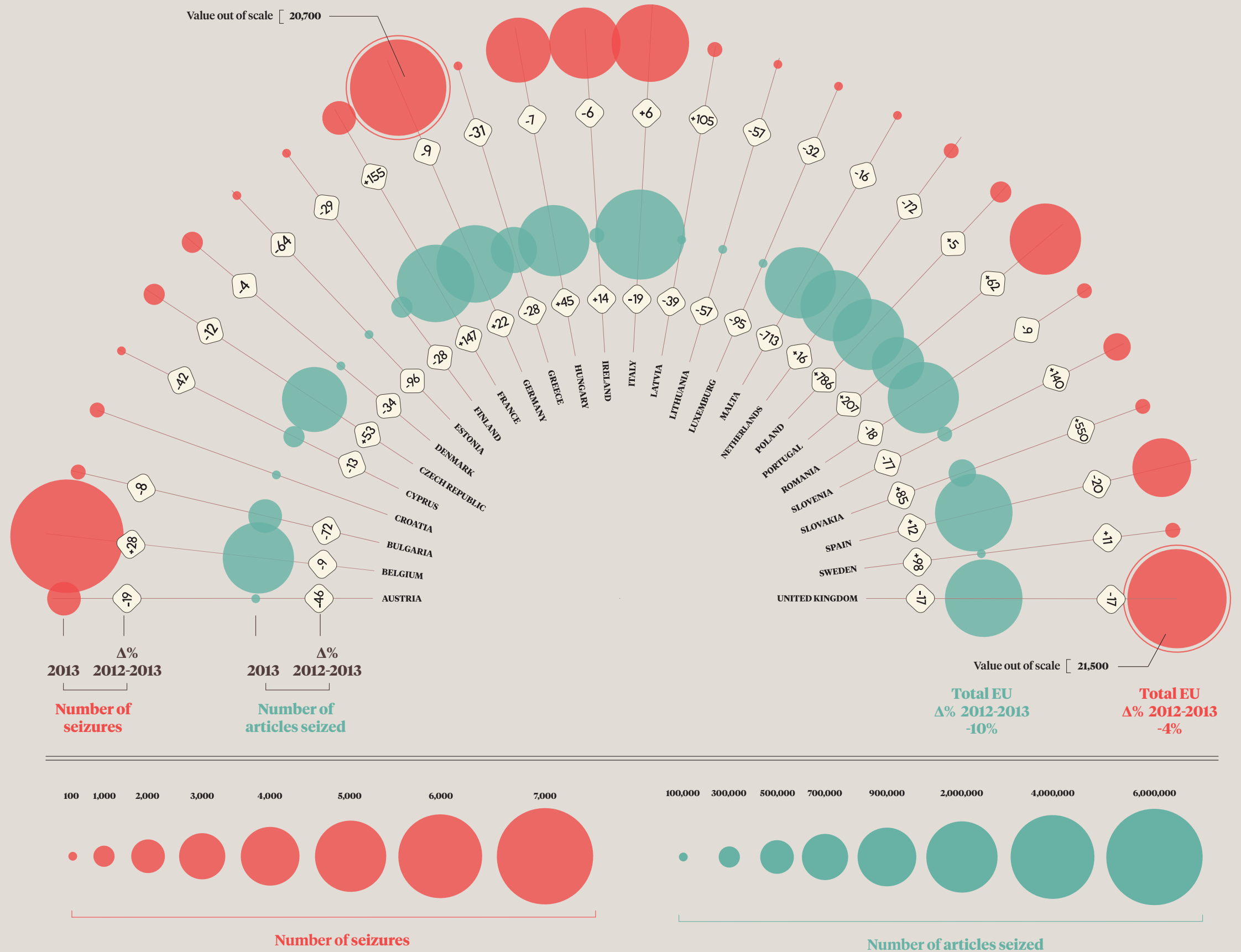
- The top three categories of articles seized in the EU are clothing (12.3%), other goods (11.1%)¹ and medicines (10.1%). Sport shoes (17.9%), clothing (17.3%) and bags, wallets and purses (13.2%) are the articles most seized in terms of number of seizures.¹⁷

- Surveys on consumers give information on the products that they are willing to buy or have already purchased (*demand*).¹⁸

- In 2010, fashion wear and accessories (46% of the total) were the counterfeit items most purchased in good faith in 21 out of 27 EU Member States (Figure 2).¹⁹ Perfumes (21%), music (20%) and films (16%) followed.

- Fake consumer electronics devices are relatively most purchased in Latvia and Malta, whereas imitations of perfumes, sports equipment and music are the most frequently purchased items in Romania, Slovenia and Spain respectively.

- Comparable information about intentional purchases is not available at EU level.

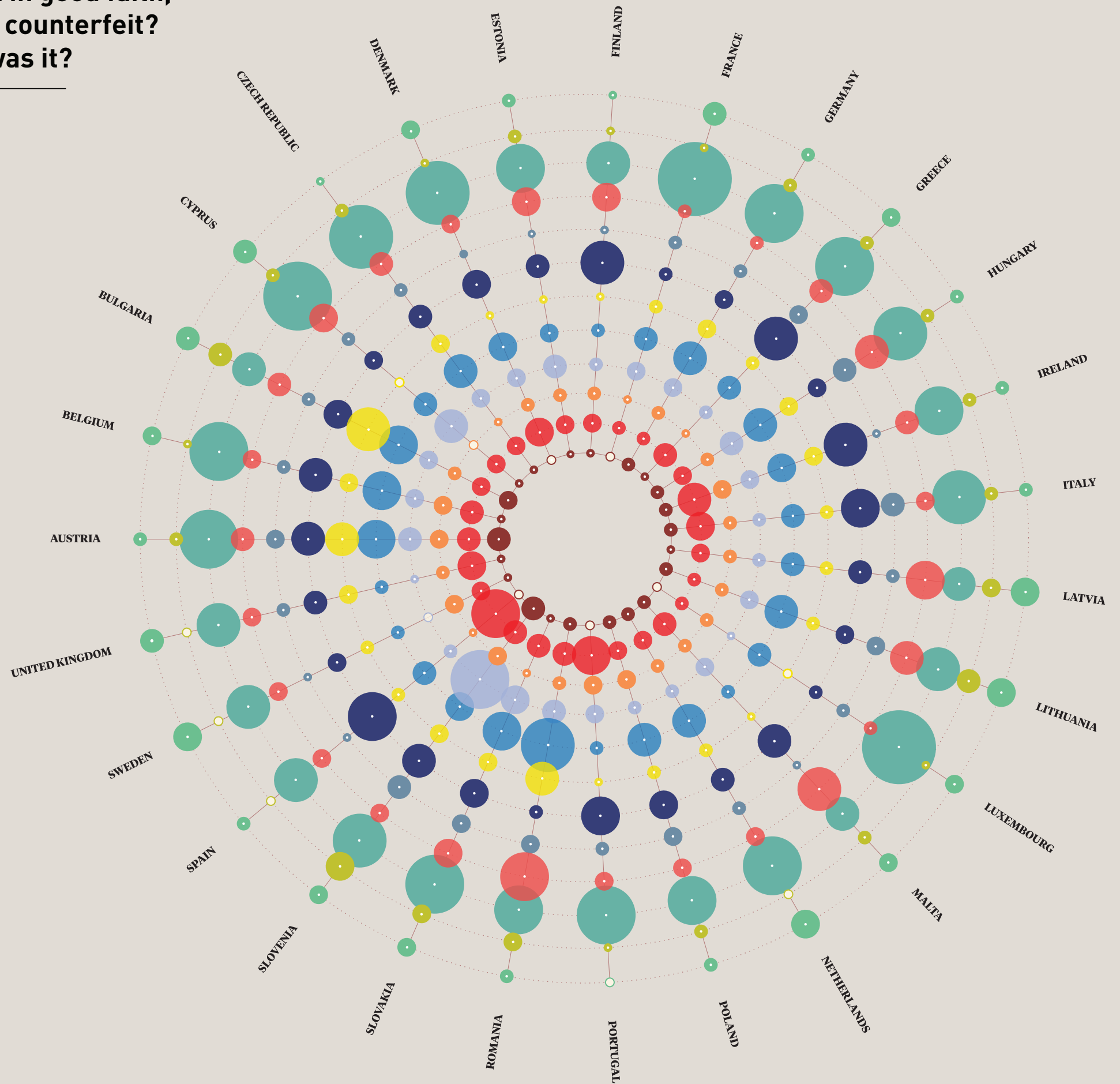
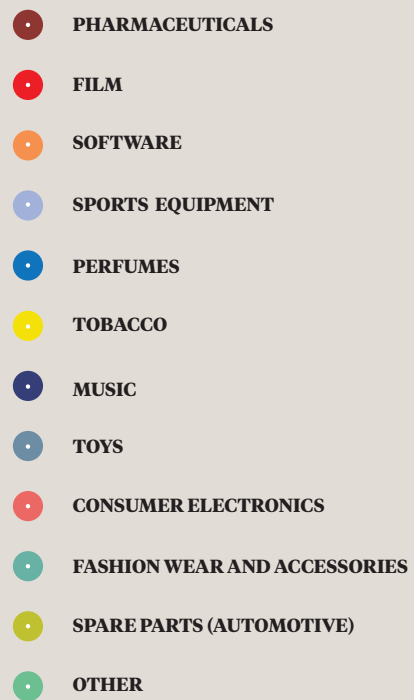
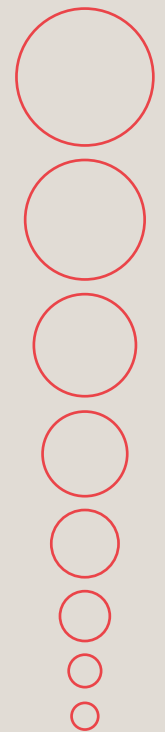


¹ The category "other goods" includes insecticides, shoe polish, light bulbs, glue, batteries, air fresheners, washing powder.

Have you ever bought a product in good faith, only to find out later that it was counterfeit? If yes, what kind of product(s) was it?

Figure 2

(Percentage)



4. Consumers

- Estimates of counterfeit markets should consider that consumers are likely to differ in their motivations and characteristics.

- Buyers of counterfeit products can be distinguished between: unwitting consumers, who purchase fake products in good faith (*primary markets*) and aware consumers, who intentionally purchase counterfeit articles (*secondary markets*).

Unwitting consumers

- A survey conducted at EU level revealed that 20% of interviewees had purchased counterfeit products unintentionally.²⁰
- With little gender variation, around 50% of respondents aged between 15 and 39 years old said that they had unknowingly bought counterfeit goods.²¹
- The EU MS reporting the largest amount unwitting consumption are Romania, Lithuania, Latvia, Slovakia and Hungary.
- The main targets of unwitting purchases are products with prices lower than those of genuine ones, and luxury goods.

Aware consumers

- Individuals who intentionally buy counterfeit articles are mostly young (15-34 years old) males.²²
- The main driver of the intentional purchase of counterfeit articles is the price. The relative majority (27%) of EU consumers agree that it is acceptable to buy counterfeit products when the prices of the original goods are too high.²³
- The highest rates of tolerance for counterfeit products pertain to citizens from South-Eastern Europe and the Baltic States.
- This is a general profile describing the personal characteristics of the aware consumer (*personal propensity*).
- The propensity to buy counterfeits can be also driven by social, cultural and availability factors (*contextual propensity*) or by the types of product counterfeited (*market specific propensity*).
- These latter are fundamental for understanding the different sizes of counterfeit markets by countries and products.

Actual and potential consumers

- The contextual propensity to buy counterfeits can be evaluated by considering the percentage of witting consumers regardless of their personal characteristics and the types of market.

- They can be distinguished between:

Actual consumers, who have already purchased counterfeit articles.

Potential consumers, who would be willing to purchase counterfeit articles if specific conditions occur.

- The findings of a survey²⁴ at EU level show that, in general, where the percentage of citizens that actually consume counterfeits is higher, then also the percentage of potential ones is higher.¹¹

- However, the gap between these figures is not equal for all the EU MS. The higher the ratio between the two percentages, the lower the amount of unfulfilled potential demand (figure 3).

- Romania, Spain, Latvia and Lithuania are the countries with the largest ratio between actual and potential consumers, whereas Slovakia, the Netherlands and Hungary have the lowest ratios.

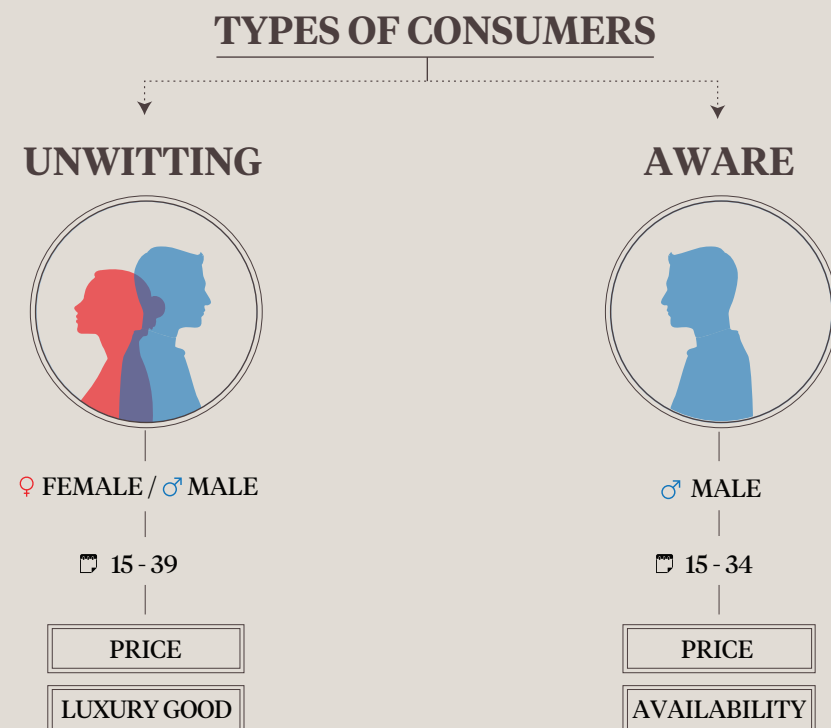
- Various factors can explain this gap:

Moral: the consumers find the purchase of counterfeits acceptable, but do not want to break the law.

Risk: the risks of using counterfeit products exceed the economic benefits.

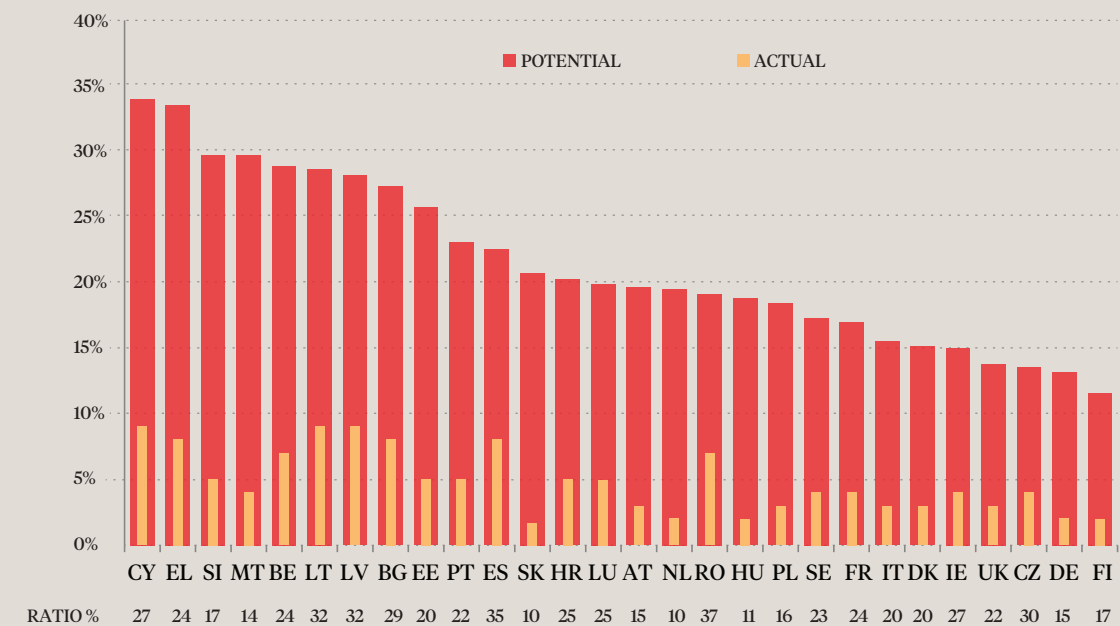
Economic: the saving on the counterfeit purchase is lower than expected.

Systemic: the actual supply or the market conditions do not meet the demand.



Source: Eurobarometer (2011) and OHIM (2013)

Figure 3 – Percentage of actual and potential consumers of counterfeit products



Source: Transcrime elaboration on Eurostat (2010) and OHIM (2013)

¹¹ Linear correlation coefficient = 0.925, p<0.01

5. Measuring counterfeit markets

- Counterfeiting is a crime perpetrated on multiple different markets. However, most of the existing studies have either focused on estimates of the counterfeit market as a whole, or they have considered individual markets.

- Previous research on counterfeiting has mostly conducted on qualitative analyses of case studies and descriptive analyses of impacts, actors, routes, and the supply chain.²⁵

- A limited number of studies have developed quantitative estimates of the "size" or "magnitude" of the counterfeit markets.

- However, there is no common definition of which aspects of markets should be considered. Estimates may focus on:

- Volume or value of the trade in counterfeit goods;²⁶
- Economic and social impact of this crime (losses or costs);²⁷
- Turnover of the traffickers;²⁸
- Consumers' expenditure.²⁹

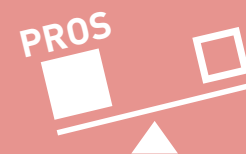
- Furthermore, there is a lack of agreement on the methodology with which to estimate the size of counterfeit markets.

- Some studies adopt a demand-side approach, using data on consumer surveys,³⁰ whereas others focus on the supply of counterfeit products using data on seizures.³¹

- Existing studies also differ in terms of the product categories considered.

- This study aims at estimating the potential and actual expenditures of the aware consumers (*secondary markets*) of ten different markets in 28 EU Member States using a demand-side approach.

Using seizures or surveys to produce estimates?

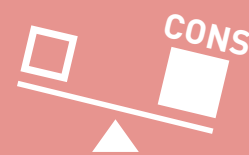


Seizures

- recorded by official sources
- periodically available at country level

Surveys

- information on actual consumption
- less biased by LEA activities
- comparable estimates across countries



Seizures

- affected by LEA operations and effectiveness
- influenced by the detectability of the product
- the location of the seizures may not be the final destination of the products

Surveys

- representativeness of the samples
- accuracy and honesty of the responses

6. A demand-based estimate of the EU counterfeit markets

- This study uses a demand-side approach to estimate how much money EU citizens currently and potentially spend on the purchase of different types of counterfeit products.

- It provides two types of estimates:

- The actual expenditure
- The potential expenditure

- The first estimate is based on data on consumers who intentionally purchased counterfeit articles in the last 12 months.³²

- The second estimate focuses on the size of the potential demand, using data on consumers' attitudes towards counterfeit products.³³

- Both estimates consider the demand of a specific counterfeit market (see below). The markets selected are those most vulnerable to counterfeiting.³⁴

- The final estimates for each country and each market are obtained by multiplying the data on total household consumption^v by the share of people who have consumed (estimate 1) or who

are willing to buy (estimate 2) counterfeit products.

- These components make it possible to consider the contextual propensity to buy counterfeits in each country.

- The results are then multiplied by the propensity to purchase a specific type of counterfeit product.^v This latter adjustment makes it possible to include the market specific propensity of consumers.

$$AE_{ij} = HC_{ij} * C_i * P_j$$

$$PE_{ij} = HC_{ij} * PC_i * P_j$$

Where:

AE_{ij} = actual expenditure on intentional consumption of counterfeit products in country i for market j

PE_{ij} = potential expenditure on intentional consumption of counterfeit products in country i for market j

HC_{ij} = total household consumption in country i of market j

C_i = percentage of actual consumers of counterfeit products in country i (*actual contextual propensity*)

PC_i = percentage of potential consumers of counterfeit products in country i (*potential contextual propensity*)

P_j = propensity to consume counterfeit products related to the type of product j (*market specific propensity*)

Markets considered

Clothing



Footwear



Food and non-alcoholic beverages



Games, toys and hobbies



Information and communication technology



Recording media



Household appliances



Jewellery, clocks, watches



Perfumes and articles for personal care



Pharmaceutical products and medicaments



³² In particular, sensitive products are identified on the basis of OHIM (2013), Eurobarometer (2011) and the GTRIC-P index elaborated by the OECD (2008, p. 124).

^v Data on total household consumption are collected through Household Budget Surveys (HBSs) conducted by Eurostat in 2010.

^v The market specific propensity is calculated by taking into account the ratio between the yearly illegal average expenditure on a product and the yearly legal average expenditure on the same product by a consumer. The data used pertain to a survey conducted in Spain by ANDEMA (Asociación Nacional para la Defensa de la Marca, 2013). To the authors' knowledge, this is the estimate of the illegal average purchases of each consumer by type of product.

7. The counterfeit markets in Europe

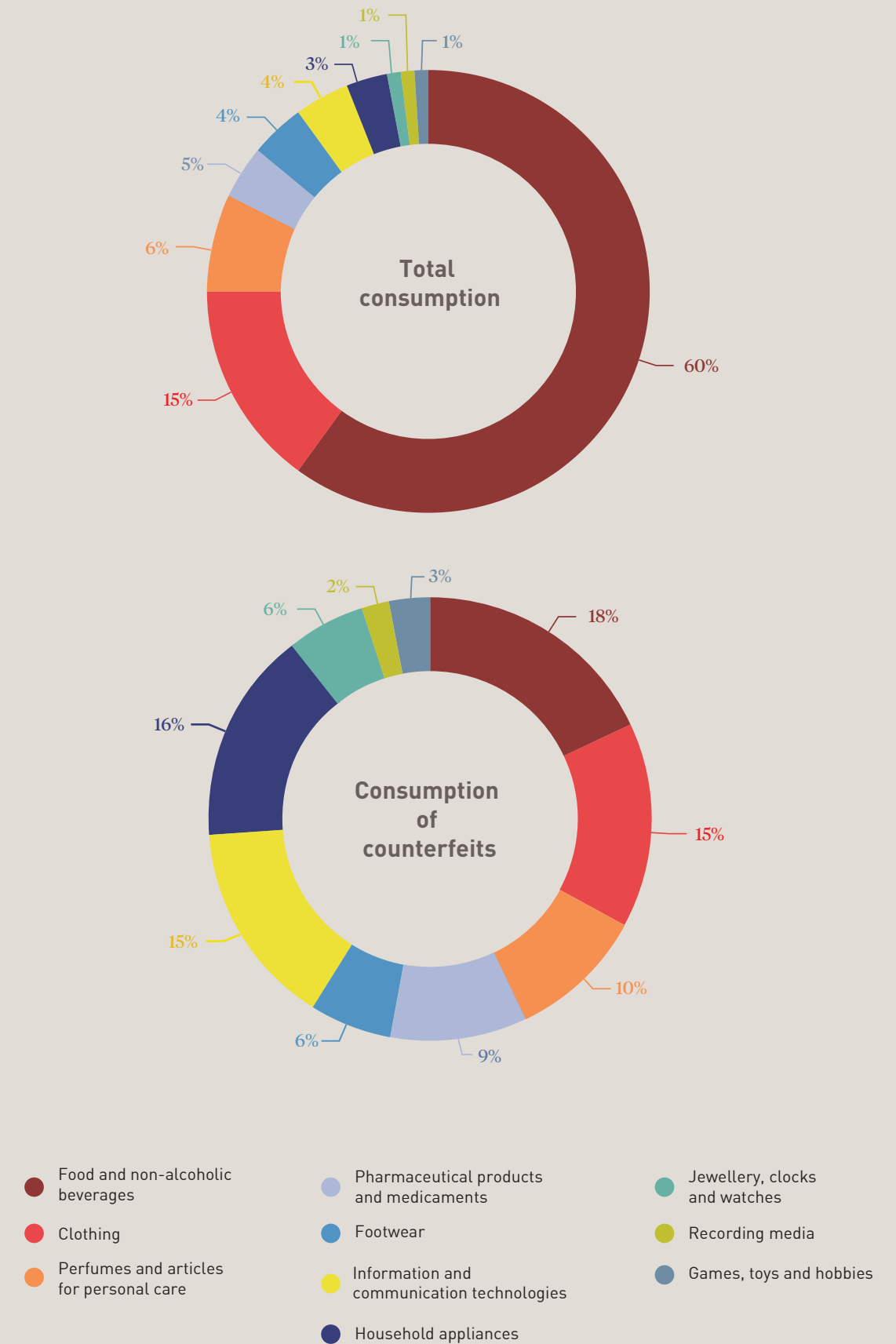
- At EU level, the largest counterfeit markets is food and beverage. It is estimated at 1.6 billion EUR for actual expenditure and 7.0 for potential expenditure. Conversely, the smallest market is represented by recording media (0.2 and 1.0 million EUR if, respectively, actual and potential expenditure are taken into account) (table 1).
- Summing all these markets, the total expenditure by EU citizens on counterfeit products^{vi} is estimated at 9.0 billion EUR in terms of consumption, and 40.8 billion EUR in terms of potential demand.
- This corresponds respectively to 0.07% and to 0.32% of the EU GDP.
- EU citizens who purchase counterfeit products spend 528 EUR per capita per year.^{vii}
- In terms of shares of expenditure, food and beverages come first with around 18%, followed by household appliances (16%), clothing (15%) and information and communication technologies (15%).

- EU consumers privilege the consumption of certain types of fake articles. Indeed, the distribution of the total consumption of goods is different from the distribution of the consumption of counterfeit products (figure 4).
- There are several and interrelated reasons for the differences among consumption distributions. For example:
 - Products with higher prices have a greater impact on the total expenditure (i.e. household appliances, information and communication technologies).
 - The higher the demand for a product, the lower the probability that consumers can satisfy it through the illegal market. Consequently, markets with everyday consumption are more likely to have lower shares of expenditure on counterfeits.
 - This dynamic also characterises markets with a lower elasticity of demand to prices (i.e. where lower prices do not correspond to a higher number of products purchased).

Table 1 – Expenditures for the total consumption and the counterfeit markets (million EUR)

MARKETS	Total consumption	Actual expenditure on counterfeits	Potential expenditure on counterfeits
Food and non-alcoholic beverages	793,319	1,581	6,986
Clothing	201,457	1,325	5,964
Perfumes and articles for personal care	78,306	888	4,005
Pharmaceutical products and medicaments	58,728	853	3,973
Footwear	57,619	580	2,554
Information and communication technologies	55,839	1,315	6,235
Household appliances	37,679	1,429	6,494
Jewellery, clocks and watches	15,135	563	2,533
Recording media	11,906	195	952
Games, toys and hobbies	10,828	241	1,106
TOTAL	1,320,817	8,967	40,803

Figure 4 - Total consumption and consumption of counterfeit products in the EU by types of products (%)



^{vi} Only for the products considered in this study.

^{vii} Under certain market conditions, i.e. if the price of the original product is too high, if it concerns luxury products, if the quality of the product does not matter, and if the original product is not available where they live (see OHIM, 2013, p. 46).

8. Counterfeit markets at country level

Map 2 - Counterfeit markets with the highest actual expenditure as % of GDP per each EU MS

• In most EU countries (10 out of 28), counterfeit food and beverages are the largest counterfeit market in terms of percentage of GDP. Household appliances and information technologies are the markets most affected by counterfeiting in 6 out 28 MS (map 2).

• The largest counterfeit market in Luxembourg is jewellery, clocks and watches, whereas in Cyprus and Spain it is clothing (map 2).

• Lithuania presents the largest market of counterfeit food and beverages as a percentage of GDP among all the other European countries (0.09%). The same country also registers the highest values at EU level for the footwear (0.03%) and

information and communication technology (0.03%) markets (figure 5).

• In many markets, Cyprus registers the highest percentages of GDP with respect to the other EU countries (clothing (0.05%); household appliances (0.05%); perfumes and articles for personal care (0.03%); games, toys and hobbies (0.01%)).

• Counterfeit pharmaceutical products and medicaments register the highest percentages of the national GDP in Bulgaria (0.09%), whereas jewellery, clocks and watches do so in Luxembourg (0.02%).

• Figure 6 summarises the results for each country and each market.

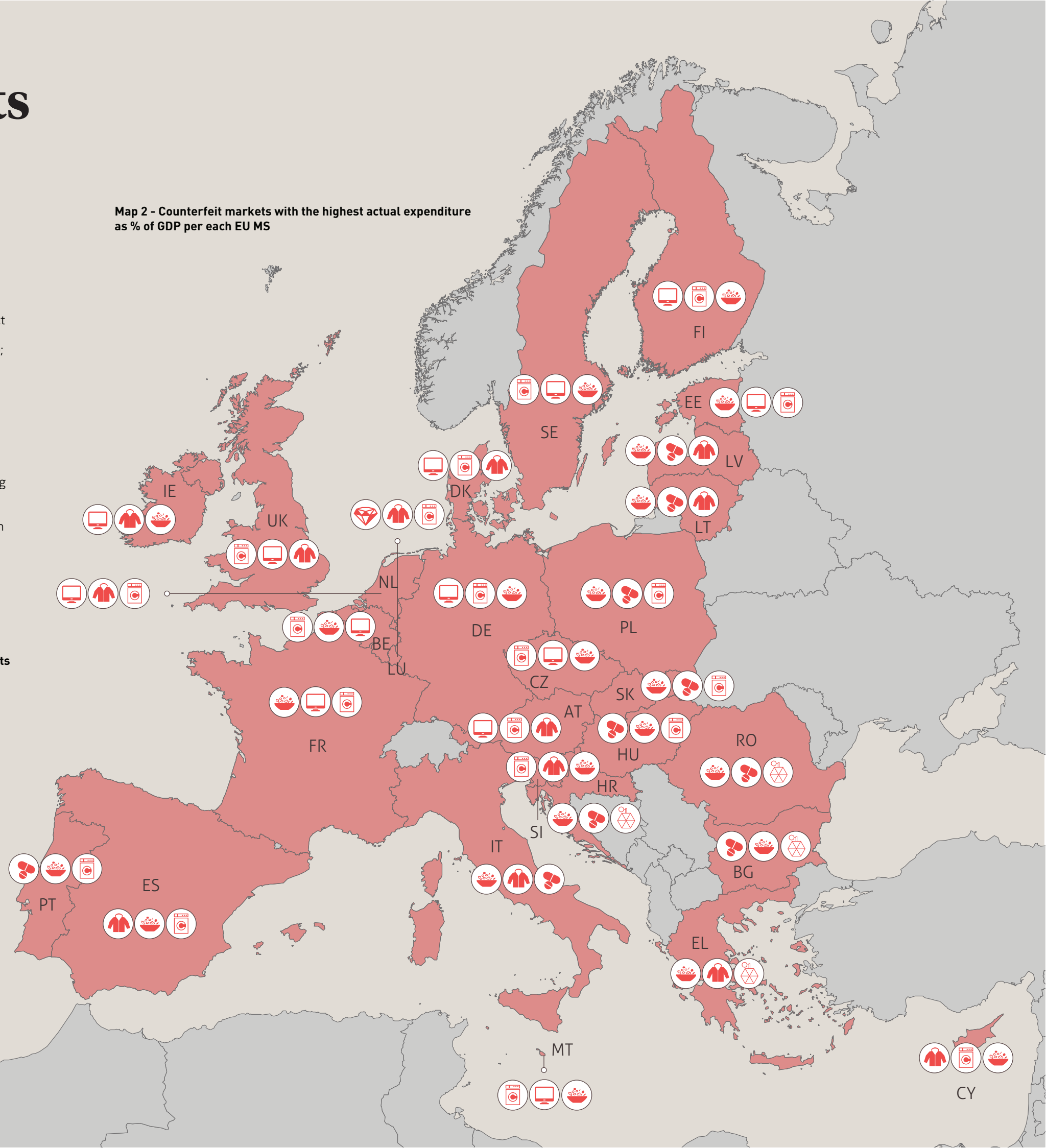
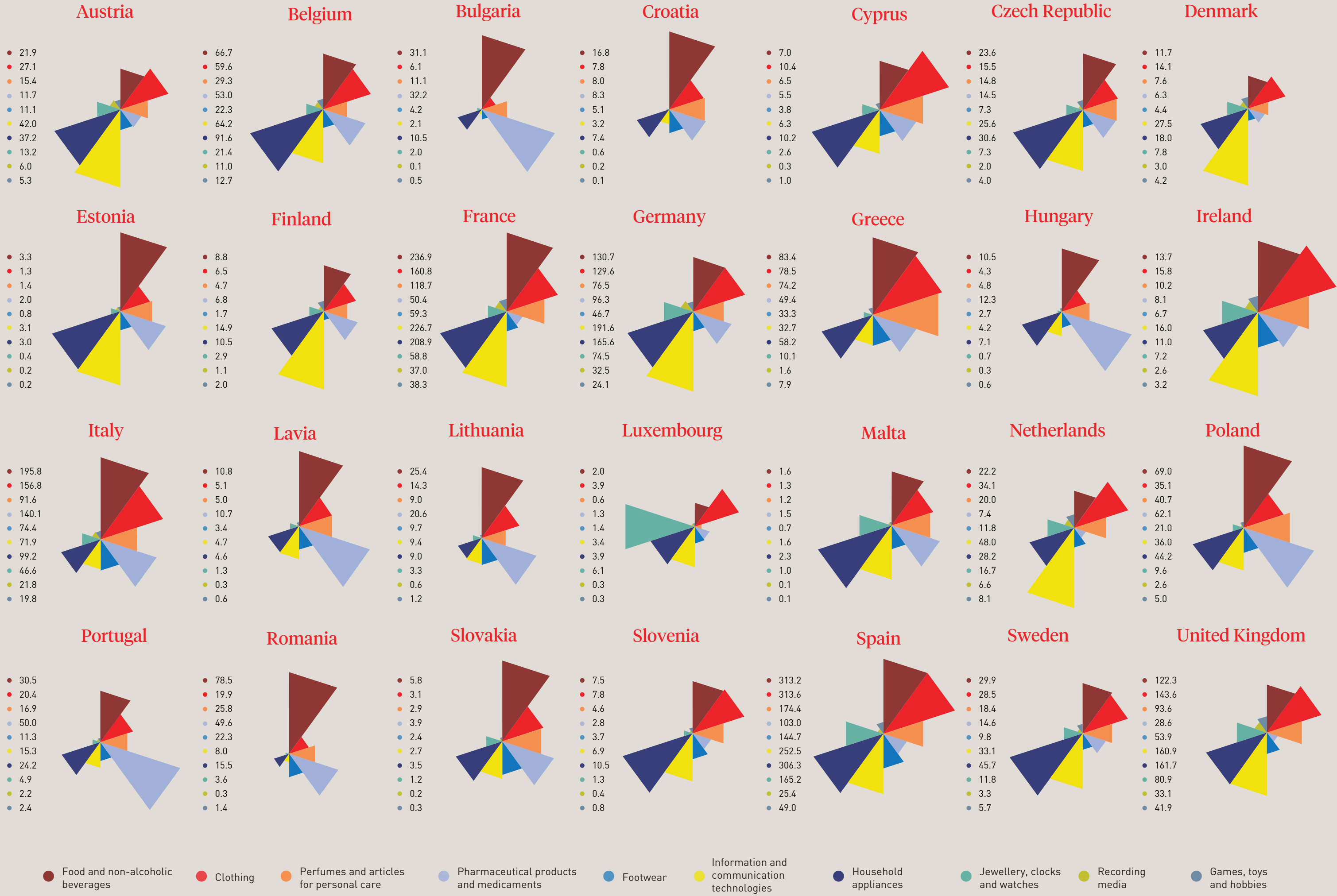


Figure 5 - EU MS with the highest actual expenditure on counterfeits as % of GDP by markets



Figure 6 - Counterfeit markets per each EU Member States (actual expenditure in million EUR)



Conclusions

- This study is one of the first attempts to create a consolidated and comparable methodology to estimate the counterfeit markets in the EU Member States using a demand-based approach.
- These results provide a new perspective in the analysis of counterfeit markets.
- They show that the EU Member States are differently affected by this crime and suggest that the counteracting strategies should be targeted according to the specific situation of each country.
- Furthermore, this study provides a general overview of counterfeiting at EU level, thus allowing identification of, and comparisons among, regional and sectorial patterns of this crime.
- Finally, the comparison between the actual and potential expenditure highlights that the counterfeit market could grow further beyond the actual situation in all the EU Member States.
- This is particularly worrying given the economic difficulties of several European countries, which could boost purchases of counterfeits at lower prices.
- However, the methodology used in this study has some limitations, largely due to the limited availability of data.
- First, the analysis is restricted to certain markets, and it only considers the demand-side at retail level.
- Second, this methodology assumes that the percentage of consumers who have purchased or would be willing to purchase fake articles is constant with each country.
- Third, the market-specific propensity is calculated on the basis of a Spanish survey and then extended to the other countries as well.^{viii}
- Future research should fill these gaps by collecting more detailed data allowing more refined estimates.
- This will facilitate the detection of differences in purchasing counterfeits among countries.
- Better information can also be useful for effective risk assessments on the most jeopardized product categories and implement preventive measures.
- In addition, targeted awareness campaigns could help consumers understand the potential harm of counterfeit products. This especially concerns products that may be dangerous for consumers' health, such as food and beverage, toys, perfumes and cosmetics.

^{viii} To the knowledge of the authors, this was the only available information with which to determine a market-specific propensity.

Endnotes

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