

INTELLECTUAL PROPERTY CRIME THREAT ASSESSMENT 2022



March 2022



INTELLECTUAL PROPERTY CRIME THREAT ASSESSMENT 2022

ISBN 978-92-9156-310-4 doi: 10.2814/830719 TB-08-22-009-EN-N

© European Union Intellectual Property Office 2022
Reproduction is authorised provided the source is acknowledged

FOREWORD

This latest assessment, produced jointly by EUIPO and Europol, confirms that Intellectual Property (IP) crimes are both a threat to the health and safety of consumers and economically damaging. It shows that imports of counterfeit and pirated goods in 2019 were worth EUR 119 billion, representing 5.8 % of all goods entering the European Union (EU).

While most counterfeit goods distributed in the EU are produced outside the EU, there are indications that the production of counterfeit and substandard goods increasingly takes place within Member States. The frequent seizure of counterfeit packaging materials and semi-finished products at the borders clearly points to the presence of manufacturing facilities within the EU – some for partial assembly and others running full production cycles.

The online and offline distribution of fake and substandard goods has been a key criminal activity during the pandemic. The health crisis caused by COVID-19 has highlighted the fact that criminal organisations recognise no borders and take advantage of the slightest weakness or lack of coordination to strengthen their grip.

This report shows that counterfeiting is a very lucrative activity for the criminals and criminal networks involved. This highlights the importance of the decision to once again make IP crime an enforcement priority in the fight against organised crime, and will further strengthen calls for coordinated action on the ground.

Europol's EU Serious and Organised Crime Threat Assessment (SOCTA) 2021 clearly identifies IP crime as one of the threats from serious and organised crime facing the EU. We believe that to effectively fight a criminal threat, we need to understand the nature and scope of that threat. This report assists those involved in the fight against IP crime by assessing this criminal activity.

The partnership between Europol and the European Union Intellectual Property Office (EUIPO) continues and strengthens the Member States' operational responses to IP crime, especially during the challenging times of the COVID-19 pandemic. We look forward to building on this partnership.



Catherine De Bolle
Executive Director
EUROPOL

Christian Archambeau
Executive Director
EUIPO



TABLE OF CONTENTS

Foreword	3
Table of Contents	4
Key developments	5
Background	7
Methodology	7
Introduction	8
Types of products	11
1 Clothes, accessories and luxury goods	11
2 Electronic/electrical devices, mobile phones and components	12
3 Food and drink	13
4 Perfumes and cosmetic products	16
5 Pesticides	18
6 Pharmaceutical products	20
7 Piracy	23
8 Tobacco products	26
9 Toys	29
10 Other commodities	30
11 Packaging materials	31
Horizontal issues	33
1 Intellectual property crime during the COVID-19 pandemic	33
2 Criminals and criminal networks	34
3 Money laundering and money flow	35
The impact of intellectual property crime in the EU	36
References	38

KEY DEVELOPMENTS

- IP crime continues to constitute a substantial threat to the health and safety of consumers. Furthermore, it negatively impacts the EU economy, with counterfeit and pirated goods worth EUR 119 billion imported into the EU in 2019, representing up to 5.8 % of EU imports. This is particularly concerning as the EU seeks to transition into post-pandemic economic recovery.
- While most counterfeit goods distributed in the EU are produced outside the EU, there are indications that production of counterfeit and substandard goods increasingly takes place within the EU. The frequent seizure of counterfeit packaging materials and semi-finished products on entry to the EU clearly points to the presence of manufacturing facilities in the EU – some for partial assembly and others running full production cycles.
- The COVID-19 pandemic has presented new business opportunities for the distribution of counterfeit and substandard goods. Criminal networks involved in IP crime have been highly adaptable in adjusting their business model by shifting product focus and marketing.
- Like many other criminal activities, counterfeiting now relies heavily on the digital domain to source components and distribute their products (both tangible and non-tangible) to consumers via online platforms, social media and instant messaging services. The COVID-19 pandemic has further entrenched this development.
- Although the financial dimension of the counterfeiting business operating in the EU largely remains an intelligence gap, there is evidence that counterfeiters launder their criminal proceeds by using both traditional and more sophisticated schemes that make use of technology, trade-based money laundering and offshore jurisdictions.
- The criminal networks organising the importation and distribution of counterfeit goods in the EU are believed to be based outside the EU, where most counterfeit goods production takes place. EU-based criminal networks distribute imported counterfeit goods and, in some cases, operate facilities that assemble semi-finished products.
- Clothes and clothing accessories are promoted via live-streaming sales, videos and sponsored advertising on social media, targeting customers with deceitful offers of discounts or low-price branded products.

- Counterfeiters are exploiting the global supply shortage in semiconductor chips. Mobile phones, their accessories and components are among the most affected commodities targeted by IP design and trade mark infringements.
- The production of illicit food products, especially drinks, is increasingly professional and sophisticated. Some counterfeiters operate an end-to-end business model, covering the whole supply and distribution chain. Violations of protected geographical indications cover a wide range of products and continue to be widely reported.
- IP right infringements related to perfumes and cosmetics relate to the production of everyday goods: mainly shampoo, toothpaste, cosmetics and detergents.
- The trade in illicit pesticides remains a low-risk, high-profit crime for the offenders sustained by high demand for illicit products and low sanctions for the offenders, generating substantial profit for a low initial investment.
- The production of illicit pharmaceutical products frequently takes place now in illegal laboratories within the EU. These are difficult to detect and supply multiple distributors. However, these products largely continue to originate from outside the EU.
- Websites illegally distributing audio-visual content are hosted on servers across Europe, Asia and the Middle East. The criminals involved are adept at using advanced technical countermeasures. In some cases, digital content piracy is linked to other cybercrime activities such as crypto-jacking or the distribution of malware. Pirates exploit new technologies to conceal digital traces and use proxy services to create resilient hosting networks. The online presence during the COVID-19 pandemic led to an increased offer of high-quality streaming devices and a variety of illicit content offers.
- Criminal networks involved in illicit production can maintain a criminal business model, establishing modern and professional production facilities closer to destination markets.

BACKGROUND

The joint EUIPO - Europol Threat Assessment is a strategic report that focuses on the most recent developments as well as the changes in IP crime since 2019. It assesses the threat posed by counterfeiting and piracy in several sectors. It sets out criminal *modi operandi*, enabling factors, the geographical and financial dimensions of IPR infringements, and emerging threats.

Europol and the EUIPO produced joint situation reports covering counterfeiting and piracy in the EU in 2015 and 2017, as well as a threat assessment in 2019⁽¹⁾. The current threat assessment builds on these reports as well as assessing counterfeiting and piracy in the EU in the context of the COVID -19 pandemic.

The European Multi-Disciplinary Platform Against Criminal Threats (EMPACT) is the main mechanism for prioritising crime threats and organising a coherent operational response. As part of the 2022 – 2025 EMPACT cycle, the Member States have selected various economic and financial crime phenomena, including intellectual property crime, as key priorities for the EU in tackling serious and organised crime.

METHODOLOGY

The report is based on contributions received by Europol from Member States, EU Agencies and other partners for strategic and operational purposes. These include the SOCTA 2021 and other recent collection exercises. The analysis relies on operational data covering IP crime available at Europol. This includes data on operations coordinated or supported by Europol. The statistical data referenced in the report was collected by the European Commission, the OECD and the EUIPO. Where appropriate and verified, open-source information has been used to complement the primary data.

The report lists the type of products primarily targeted by counterfeiters, covering the most threatened product sectors in alphabetical order. A list of threat indicators is used to identify the categories of threatened products. Some of these indicators are quantitative (overview of detections at the EU borders and the EU internal market), but they also include qualitative information from Europol's operations related to *modi operandi*, crime enablers and the involvement of criminals and criminal networks.

INTRODUCTION

Counterfeiting and piracy entail a range of illicit activities, generally relating to registered trade marks, patents, copyright and designs. These, together with violations of protected geographical indications, constitute the IP offences covered in this report. Counterfeiting and piracy are very lucrative criminal activities with relatively low detection risks. Moreover, sentences for counterfeiting are considerably lower than for many other criminal activities, such as drug trafficking or migrant smuggling.

Research conducted by the OECD and the EUIPO estimates that trade in counterfeit and pirated goods amounted to up to 2.5 % of world trade in 2019. Within this, imports of fake goods into the EU amounted to up to 5.8 % of all imports, with an overall value of EUR 119 billion (²).

In 2020, approximately 66 million fake items were seized by authorities in the EU. Almost 69 % of those items were seized in the EU internal market, while the remaining 31 % were seized at the EU border. The number of seized articles had decreased by more than 13 % from 2019, when 76 million units were seized (58 % within the EU and the rest at the EU's external border). The estimated value of the items decreased by almost 19 %, from almost EUR 2.5 billion in 2019 to EUR 2 billion in 2020. Between 2019 and 2020 there were some changes in the categories of items that were detained most often. Overall, the articles most often seized shifted from toys, cigarettes, clothing accessories, clothing and packaging materials, to clothing accessories, packaging materials, recorded CDs/DVDs, labels, tags, stickers, and clothing (³). It is worth mentioning that the difficulties some countries experienced in providing data in the context of the COVID-19 pandemic, and a reduced trade volume in the first months of the pandemic, may have influenced the overall results for 2020, particularly those referring to detentions in the internal market (⁴).

Counterfeit items increasingly enter the EU in the form of small parcels (⁵). In 2020, a decrease in the number of articles entering the EU via sea transport was reported, in parallel with an increase in entries by road, air express courier, post and rail transport. Nevertheless, the main transport modes for bringing articles into the EU are sea and road transport (⁶). In line with the past, in 2020, almost 76 %, of the fake goods detained corresponded to detections where at least one trade mark was infringed. Design infringements were the second most reported (23 %), followed by copyright (15 %) (⁷).

In 2019 and 2020, China (including Hong Kong) was the main country of origin for IPR-infringing goods seized at the EU's external border. The second most common non-EU countries of provenance were Pakistan (in 2019) and Turkey (in 2020) (⁸).

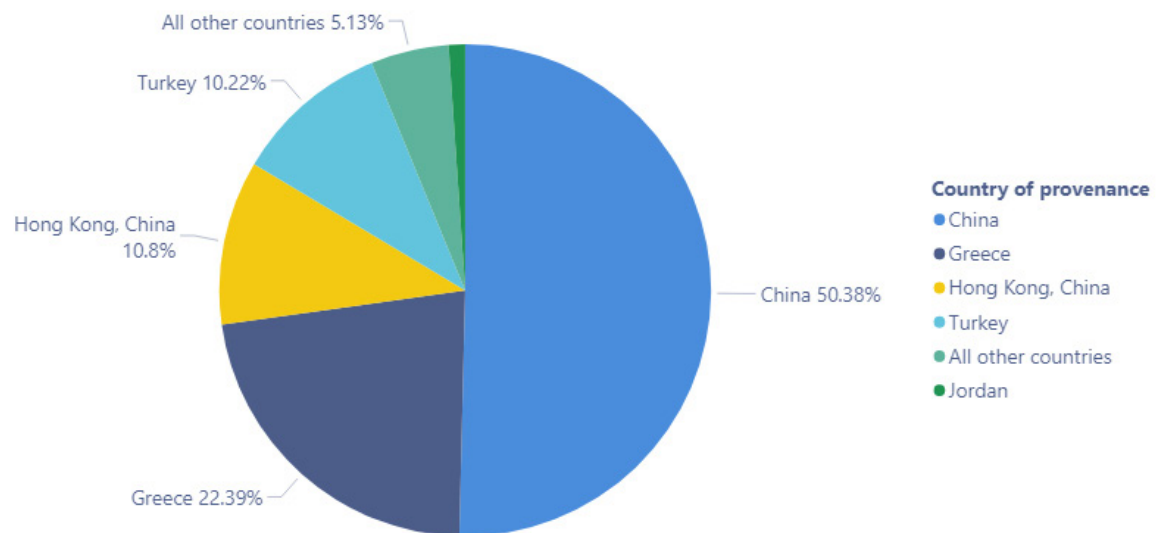


Figure 1.1: Country of provenance by number of articles 2020

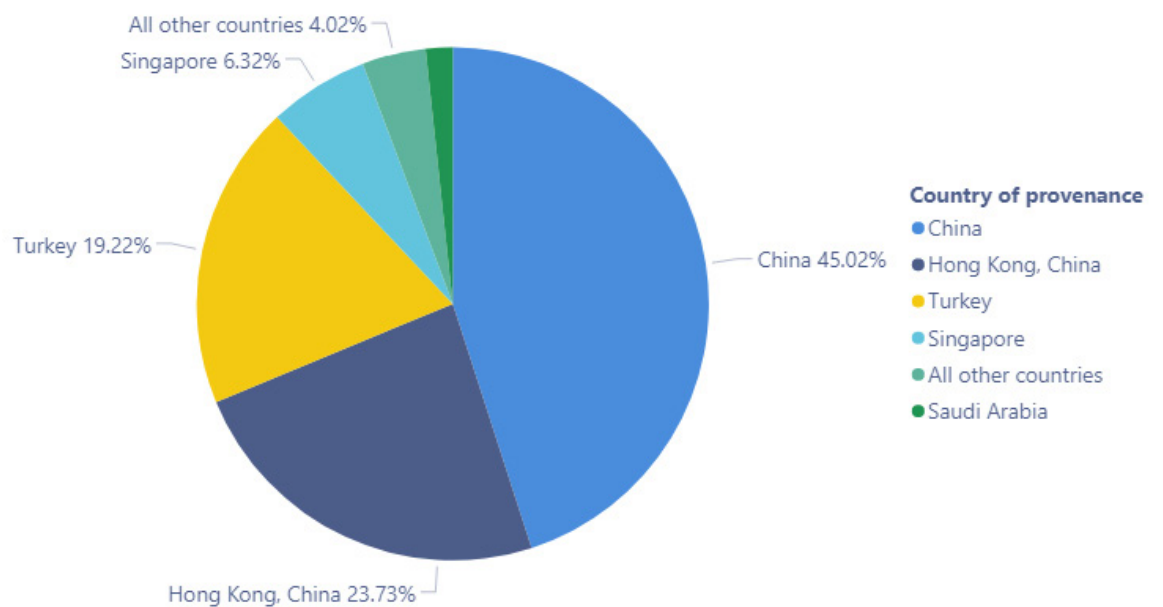


Figure 1.2: Country of provenance by value 2020

Most common categories of Intellectual Property Rights

- **Trade marks** (⁹) signal the origin of products to consumers.
- **Designs** (¹⁰) specify how products look.
- **Copyright** (¹¹) relates to artistic creations, such as books, music, paintings, sculptures and films.
- **Patents** protect technical inventions in all fields of technology.
- **Geographical indications (GI)** are distinctive signs used to identify a product whose quality, reputation or other characteristic is linked to its geographical origin.

The following chapters will focus on the most recent developments and changes in online and offline intellectual property crime in the EU. They will focus on specific product sectors, such as clothes, accessories and luxury goods, electronic/electrical devices, mobile phones and components, food and drinks, perfumes and cosmetic products, pesticides, pharmaceutical products, piracy, tobacco products, toys and other commodities. Transversal issues will also be analysed, including physical and online market places, routes, financial dimension and money flows, new criminal opportunities and modus operandi in the context of the COVID-19 pandemic, crime enablers, links with other criminal activities and the impact of IP crime. Specific examples will be included to better illustrate the different types of crimes.

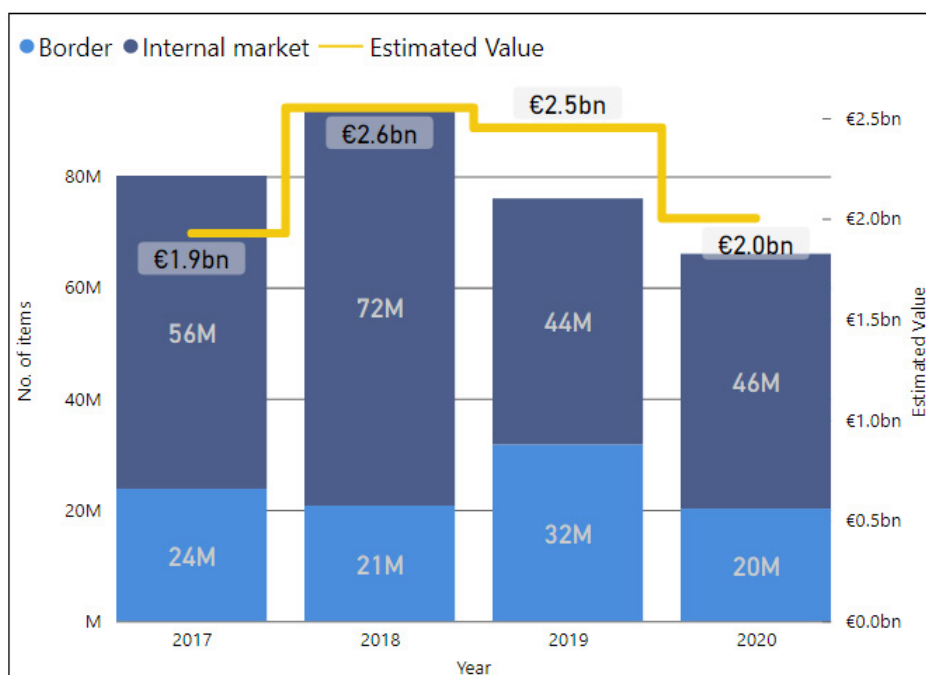


Figure 2: Reported quantity and estimated value of items detained in 2020

Source: EUIPO, OECD, 2021, 'Global Trade in Fakes – A worrying threat

TYPES OF PRODUCTS



1. CLOTHES, ACCESSORIES AND LUXURY GOODS

Clothing and accessories are still among the most common counterfeit goods encountered in the EU. In 2020, clothing accessories and clothing were among the top five categories of the approximately 66 million counterfeit items seized at the EU's external border and on the EU's internal market. Seized clothing accessories, clothing, watches, bags, wallets and purses were also predominant in terms of their estimated value, representing almost 60 % of the EUR 2 billion estimated value of all detentions reported during 2020 (¹²).

During the COVID-19 pandemic, counterfeiters were extremely active in promoting IPR-infringing goods on the web. Analysis of conversations on social media held between April and September 2020 showed that clothing, footwear and jewellery were the three categories of commodities most frequently mentioned in conversations, and linked to respectively 36 %, 21 % and 20 % of the overall conversations possibly related to counterfeit goods (¹³).

China (including Hong Kong) and Turkey remain the main countries of origin for counterfeit goods seized at the EU's external border in the categories of clothing and accessories, shoes, sunglasses, bags (including wallets and purses), watches and jewellery. These types of counterfeit goods are most frequently ordered online and discovered as part of postal shipments or on passengers entering the EU (¹⁴).

Counterfeit items in the categories of clothes, accessories and luxury goods are still commonly sold in physical markets and stores. A large number of items are seized in the context of sport events (¹⁵) and during the tourist season (¹⁶). Counterfeit items are sometimes seized in combination with other types of counterfeit goods (¹⁷) and drugs (¹⁸).

In addition to the counterfeiting and distribution of cheap items for daily use, counterfeiters still copy luxury goods and goods from well-known brands (¹⁹).

Counterfeit clothing components, such as branded buttons and zips, are often sent in multiple shipments, delivered at different times (²⁰). In some cases, counterfeiters produce items of very high fidelity, which are distributed to hundreds of outlet stores.

Criminal networks use social media and instant messaging services as well as online platforms to advertise and sell counterfeit clothes and clothing accessories. In some cases, hidden links posted to social media redirect or guide users to marketplaces based outside the EU.

Live-streaming sales promoting counterfeit goods on social media have been reported in recent years. 'Influencers' may feature in videos where counterfeit clothing and footwear items, also known as 'dupe' counterfeit goods, are advertised at the lowest price. These videos mainly target young consumers and can attract thousands of views (²¹). Vendors of counterfeit goods can also use sponsored advertising on social media to target customers with deceitful offers of discounts or low-price branded products offered for sale on external websites (²²).

Marketplaces dedicated to independent retailers and freelance creators can be misused as well. By offering for sale products that imitate or exploit products protected by copyright, design and trade mark rights, the sellers may infringe third parties' rights (²³).

Another increasing concern for IPR owners, particularly in the fashion industry, is cybersquatting. This practice involves bad faith registration and/or use of another company's trade mark, or another sign that has become a distinctive identifier for that company, in a domain name, without having any legal rights or legitimate interests in that domain name. Domain names registered by cybersquatters do not always contain the full legitimate trade mark or brand name, but rather a deliberately confusing variant, for example a slight misspelling or replacement of a letter by a digit. Many suspicious domain names have been registered, with most being registered in 2019 (²⁴).

2. ELECTRONIC/ELECTRICAL DEVICES, MOBILE PHONES AND COMPONENTS



Electronics and electrical devices are a key category of counterfeit products. This category includes audio/video apparatus, memory cards and sticks, ink cartridges and toners, and computer equipment (hardware) including all technical accessories and parts. The country of origin for most of the seized counterfeit electrical/electronic and computer equipment is China (including Hong Kong) (²⁵).

In addition, mobile phones, their accessories and components remain among the commodities most affected by IP infringements (²⁶) especially those involving designs and trade marks – and counterfeit electronic products are a multi-million euro business controlled by criminal networks. It is estimated that 184 million counterfeit phones are sold globally each year (²⁷). The mobile phone industry states presumed losses of billions of euros due to lost sales, with nearly one in five mobile phones sold being counterfeit (²⁸).

The overall results of detentions in 2020 show that mobile phones gained relevance in terms of estimated value (²⁹). The main countries of origin for counterfeit mobile phones and accessories seized in the EU are China (including Hong Kong) and Singapore (³⁰). The mobile phones market is of particular interest to counterfeiters due to the sustained and burgeoning demand for popular smart phones. The visual appearance of the counterfeit devices is very convincing, closely mimicking the external characteristics of the original phones. However, typically some features and software characteristics are missing and the International Mobile Equipment Identity (IMEI) is often fake. The use of cheap and substandard electric components, which can be found in fake batteries, headphones or chargers, poses safety risks. Counterfeit electrical components entering the manufacturing supply

chains are unreliable and pose serious risks of fire or electric shock. The software on these devices is often manipulated to allow the use of EU-compatible SIM cards (³¹).

Some of the most in-demand electronics products are at risk of being counterfeited and advertised on online marketplaces even before the genuine items are available for sale. Counterfeit models of newly announced wireless headphones and smart watches have been advertised prior to the release of the genuine articles. Illicit manufacturers manage to match the characteristics of redesigned models based only on the presentations of the new models (³²).

The growing global shortage of semiconductor chips is linked to the high demand for digital devices and manufacturing problems that emerged during the COVID-19 pandemic (³³). The electronics industry is facing a considerable demand for computers, components, mobile phones, tablets, gaming consoles and other devices. Counterfeiters may try to exploit this demand and supply shortages by introducing counterfeit semiconductors such as diodes to the market. Supply chains are global and vulnerable to the introduction of counterfeits since typically several distributors handle components before they reach the manufacturing sites. Tracing the original supplier of the counterfeit semiconductors can be difficult when trade marked counterfeit chips are verified by the semiconductor firms. Disruptions in supply chains and the possible introduction of counterfeit components has the potential to cause serious failures in critical infrastructures (³⁴). Semiconductors are an integral part of critical systems used in the healthcare sector, transport, defence, and trade. The risk of privately used electronic devices being affected is also high. Additionally, counterfeit electronic devices may also feature malware and other harmful software, adding the risk of data theft.

Counterfeit electronic devices are sold in great numbers during sales events such as Black Friday and Cyber Monday. It is estimated that overall expenditure on such sales day can reach up to EUR 9.5 billion (USD 11 billion) (³⁵). Product categories affected include hair straighteners, phone chargers, cables, travel adaptors, laser hair removers, headphones and other devices (³⁶).

Online marketplaces and platforms are popular distribution channels for counterfeit electronic devices and components and typically entail physical distribution via post and parcel services (³⁷).



3. FOOD AND DRINK

Criminal networks involved in IP crime continue to counterfeit food and drink. In 2020, foodstuffs (in particular cookies, pasta, crisps and sweets) were the second most commonly seized category of products at the EU's external border. In contrast, they were among the less commonly seized products on the EU's internal market in 2020 (³⁸). China and Turkey were among the most frequently reported non-EU countries of origin for counterfeit food and drink seized at the EU's external border in 2019 and 2020. Other common non-EU countries of provenance were Albania and Ukraine in 2019, and Jordan, Moldova and Panama in 2020 (³⁹).

Investigations by EU law enforcement authorities have detected IPR-infringing goods at illegal warehouses, and in laboratories (⁴⁰), stores, supermarkets, restaurants and transportation

companies (⁴¹). Criminal networks involved in this activity attempt to infiltrate the legal supply chain at various points, including during production, transportation and distribution. In some cases, criminals control the entire production and distribution chain, presenting themselves as legitimate suppliers to consumers and business partners.

Criminals develop marketing and distribution strategies, including online sales, and also attempt to infiltrate legal supply chains. In some cases, criminals trafficking in IP-infringing food and drink set up complex trade-based money laundering schemes (⁴²). Criminals counterfeit or manipulate food products or mislead consumers by altering labels, manufacturing processes (⁴³), geographical origins, or by replacing products.

Case example

ORO GIALLO – 150 000 LITRES OF FAKE EXTRA VIRGIN OLIVE OIL SEIZED (⁴⁴)

*In 2019, Italian and German law enforcement authorities arrested **20 individuals** and seized **150 000 litres of fake olive oil** violating geographical indications of origin, worth up to **EUR 8 million**. The criminals modified the colour of low-quality oils by adding chlorophyll, beta-carotene and soya oil. The criminal network was tampering with large quantities of sunflower oil in Italy, in order to sell it as extra-virgin oil on the German market including to restaurants and shops. The production at the olive oil mill was carried out in unsanitary conditions. Some of the workers were responsible for the production and packaging, while others were responsible for the delivery of the fake oil in lorries every two weeks. The ingredients to produce the counterfeit oil were partly imported from other Member States and partly from non-EU countries.*

Counterfeit food and drink products are often produced in settings with inadequate hygiene, using substandard and even harmful ingredients. As such, they constitute a significant risk to the health and safety of consumers.

All types of counterfeit food can contain adulterations. For instance, some counterfeiters add cheap corn syrup and sugarcane to genuine honey, producing large amounts of counterfeit product at a much lower price than the genuine one. Honey adulteration has been on the rise since high fructose corn syrup became widely available (⁴⁵). Corn syrup and sugarcane are cheaper than honey. They present an easy way to increase the volume of honey and thereby increase the profits illegally.

Food fraud in the EU increasingly involves seafood by falsely applying the designation of origin. In many cases this relates to illegal fishing (⁴⁶).

IPR infringements related to geographical indications are reported in significant numbers and target a wide range of products, such as oil and other condiments, chocolate (⁴⁷), spices (⁴⁸), alcoholic products (⁴⁹), meat products (⁵⁰), cheese and dairy products (⁵¹), vegetables (⁵²) and fruit (⁵³). Trade mark and copyright infringements are also detected regularly. Food fraud typically entails the falsification of origin, transit and administrative documents.

All types of illicit food products are increasingly marketed and sold online.

Case example

OPSON X - a Europol - INTERPOL joint operation against fake and substandard food and beverages (⁵⁴)

Since 2017, Europol and Interpol coordinated ten editions of Operation OPSON, a joint effort targeting fake and substandard food and beverages.

The last edition of the operation involved law enforcement authorities from 72 countries, including 26 EU Member States. The operation was supported by the European Anti-Fraud Office (OLAF), EC DG SANTE, EUIPO, national food regulatory authorities and private-sector partners.

The most recent operational results include operation led to:

- *the seizure of **15 451 tonnes** of illicit products with a value of about **EUR 53.8 million***
- *the disruption of **42 criminal networks***
- *other results*

IPR infringing foodstuffs and drinks detected by law enforcement include a very diverse range of cheap and luxury foods and drinks, both alcoholic and non-alcoholic.



The counterfeiting of alcoholic beverages remains a significant public health concern and has a substantial impact on both the legitimate sector and state revenue. Wine, spirits, distilled beverages, liqueurs and beer are all targets for counterfeiters. Indeed, counterfeit alcoholic beverages remain the most frequently seized item of fake food and drink (⁵⁵).

Enterprising criminals are able to adapt to meet emerging demand. In some cases, criminals involved in counterfeiting alcohol target recreational occasions and locations, such as festivals and public celebrations (⁵⁶).

With a sustained and constant demand for alcoholic products and a high level of market competition, the beverage industry is especially reliant on supply chain technology (⁵⁷). Alcohol counterfeiters need to rely on a functional and consolidated supply chain as well. This can include the use of legitimate delivery networks, such as, delivery vans and other legitimate traders (⁵⁸).

Counterfeit alcohol is often adulterated with artificial colours to make it look like the genuine product. The refilling of empty bottles is another frequently encountered *modus operandi*. Authentic bottles are usually refilled with cheap alcohol purchased online or at discount stores. Counterfeit capsules, corks, packaging films and false masking are all used to seal the bottles containing the counterfeit drinks. Counterfeiters obtain genuine product bottles by collecting empty authentic bottles or through the complicity of workers in the food industry. Fake bottles, imported with fake labels, are also misused and refilled, suggesting the presence of production facilities for counterfeit goods in the EU. Remarkably, packaging materials for juices were one of the most-seized fake goods at the EU's external border in 2020 (⁵⁹).

As with counterfeit food, the organised crime groups involved in producing counterfeit drinks have shown increasing sophistication in their production methods. Traditionally, they would primarily refill original bottles with counterfeit produce.

Law enforcement authorities regularly detect other types of counterfeit goods smuggled alongside counterfeit food and drinks, which highlights the involvement of criminal networks in the production of a range of different counterfeit goods.

Consumer demand for products bearing specific brands or protected designations of origin at lower prices drives the supply of counterfeit food. IPR infringements result in financial losses and reputational damage to legal producers, as well as the loss of tax revenue. Counterfeit food and drink is particularly dangerous for human health, because the quality is frequently substandard and production processes take place in unhygienic conditions. Some IP-infringing food products include dangerous ingredients such as methanol, mercury, fipronil, insecticides or pesticides (⁶⁰).

4. Perfumes and cosmetic products



In 2019, perfumes and cosmetics were the third most commonly seized IPR-infringing goods at the EU's external border (in terms of the number of seizure procedures). These counterfeit perfumes and cosmetics were valued at approximately EUR 40 million at the time of the seizure (⁶¹). A decrease in reported seizures of these commodities was observed in 2020, when only approximately EUR 20 million worth of counterfeit perfumes and cosmetics were seized (⁶²). Nonetheless, packaging materials for perfumes became one of the most-seized fake goods at the EU's external border in 2020 (⁶³).

In 2019, the cosmetic products and perfumes seized at the EU's external border were mainly from China, Turkey and the United Arab Emirates (^a), while in 2020 they were mainly from China and Turkey (⁶⁴). These products were mostly seized as part of post and parcel shipments and, to a lesser extent, on passengers crossing the border (⁶⁵). Items originating from Turkey are typically transported by road (⁶⁶).

In addition to ready-to-use IPR-infringing goods, product components, such as aroma compounds, fixatives and solvents, are increasingly being seized. These components are used to create the final counterfeit products in illegal laboratories within the EU (⁶⁷). In some cases, the laboratories operate on a large scale – assembling, packaging and labelling IPR-infringing products.

a Stated origin of goods, ordered by size of the share of goods seized on entry to the EU.

Case example

FAKE PERFUMES MANUFACTURING SITE DISMANTLED IN ITALY (⁶⁸)

*The Italian Carabinieri, supported by Europol, dismantled a criminal network involved in the trafficking of counterfeit goods, including counterfeit perfumes, produced in countries neighbouring the EU. The 'Action Day' in June 2021 led to the dismantling of a clandestine site used for the packaging of cosmetics. More than **2 000 counterfeit items**, including several perfumes, famous brand labels and cash, as well as components needed for production, were seized. The criminal network was operating throughout Italy, maintaining close links to producers in countries neighbouring the EU, and using tankers to import perfumes in bulk. The underground point of creation of the fake perfumes was difficult to detect, because the counterfeiters created a sophisticated supply chain.*

Some counterfeiters employ the 'fake perfume tester scam'. As part of this scam, criminals sell counterfeit versions of well-known perfume brands at low prices, which they justify by claiming the products are tester versions of the genuine product, not suitable for regular retail. The fake tester bottles are even marked as 'not for sale', as if they were genuine testers (⁶⁹).

Counterfeiters continue to exploit established and emerging online platforms. The increase in the number of sales of counterfeit goods online is a continuing trend (⁷⁰). The OECD and the EUIPO have recently conducted an analysis on seizures registered by EU customs authorities as being related to online sales. They found that in recent years the share of detentions of cosmetics and perfumes related to online sales has exceeded 70 % (⁷¹). Online marketplaces remain the chief distribution channels for counterfeit goods in the EU, including cosmetics and perfumes. These types of commodities are widely distributed in small parcels (⁷²). IPR-infringing items from the cosmetics industry also appear on darknet marketplaces, with discounts of up to 90 % of the retail price of the authentic product (⁷³).

Cheaper production methods and improved technology have prompted counterfeiters to move into the production of daily use items, including over-the-counter medicines, shampoo, toothpaste and cosmetics (⁷⁴). IPR-infringing cosmetics and perfumes are often side seizures in operations originally targeting other commodities (⁷⁵).

Case example

OPERATION 'HYGIEA' (⁷⁶)

*During this operation, coordinated by OLAF, with the support of Europol and the Asian and EU customs authorities, targeted physical or X-ray controls were carried out on several hundred selected sea container shipments. These checks uncovered a wide array of counterfeit goods and yielded almost **200 000 items** of counterfeit perfumes, toothpaste and cosmetics. In addition, **120 833 kg** of counterfeit detergent, soap, shampoo and nappies were seized. Several shipments of tobacco products – either counterfeit or smuggled – containing **44 062 kg** of water pipe tobacco and a total of **77 million cigarettes** were seized, as were **4 million** pieces of other counterfeit items (battery cells, footwear, toys, tennis balls, shavers, electronic devices, etc.).*

The distribution of counterfeit cosmetics and perfumes raises significant health and safety concerns. Applied directly on cutaneous tissues, illicit perfumes, cosmetics and personal care products can pose serious health threats. Laboratory tests have shown that counterfeit perfumes often contain harmful chemicals (⁷⁷). Fake cosmetics can contain toxic levels of chemicals and harmful substances such as arsenic, mercury and lead; fake toothpaste can contain poisonous substances, such as diethylene glycol.

5. PESTICIDES



Pesticides eliminate harmful organisms in or on plants. As a combination of active and inert ingredients, pesticides are among the most highly regulated goods (⁷⁸), undergoing careful assessments before entering the market.

The EU features a large agricultural market. Germany, Spain, France and Italy are among the 15 countries with the highest agricultural production output in the world. In 2019, Germany and France were among the 10 biggest importers of pesticides globally. Together with Belgium, Spain, Italy and the Netherlands, Germany and France were also among the biggest exporters of pesticides (⁷⁹).

Illicit pesticides are categorised as counterfeit and fake pesticides, or substandard products. Counterfeits and fakes are associated with IPR infringements. Substandard pesticides are not authorised, registered or certified for use by the regulatory authorities, as they do not meet required standards. Illegal products also include those entering the EU by misuse of parallel import, which sees legitimate products replaced by illegal copies. Some farmers use these products without being aware of their illicit status.

The trade in illicit pesticides is a low-risk, high-profit crime. As with other goods, there is a demand for cheaper pesticides or for products that are not on the legal market. Often, consumers are unaware of the risks associated with illicit products, especially when criminals present themselves as legitimate suppliers. A litre of illicit pesticide can be purchased outside the EU, for EUR 15-20 per litre and can be sold in Europe for EUR 80 to EUR 100 per litre. The low penalties applied to those found guilty of trading in illicit pesticides – mainly administrative sanctions – are generally not an effective deterrent.

Investigations into the trade in illegal pesticides can be very complex, due to the many levels of the production and supply chain. Shipping documents do not always contain sufficient information on the shipment's country of origin, transit and destination. Despite the common EU regulatory framework on pesticides, there are differences in implementation at a national level. The parallel trade system is also abused. The most common techniques for illegal importation include standard smuggling methods, such as disguising the product, splitting containers into small batches, or changing the weight of a shipment. There are also more sophisticated techniques, based on fraudulent and forged declarations, or missing labels (⁸⁰). Some criminals produce illicit pesticides from legally imported active ingredients, return seized stocks and banned pesticides, reuse original pesticide containers and blend or dilute products. Illicit pesticides are also relabelled or repacked – including in containers intended for other goods – to meet small-scale demand (⁸¹). The use of blank bottles, products sold after expiry and infringements linked to the parallel trade system are encountered regularly in the EU (⁸²).

Case example

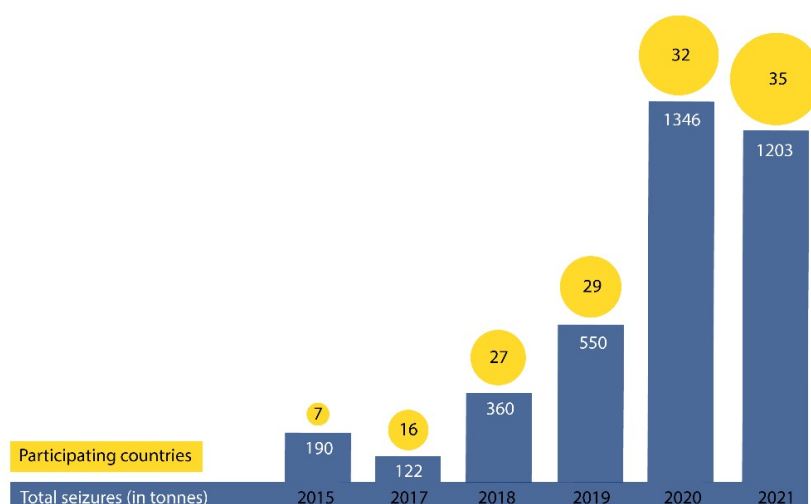
OPERATION SILVER AXE – A GROWING EFFORT AGAINST ILLICIT PESTICIDES

(⁸³)

In 2015, Europol launched Operation Silver Axe targeting the illicit pesticide trade. Silver Axe is organised annually together with the European Union Intellectual Property Office (EUIPO), Member States, third countries and third parties from the public and private sectors. Cooperation with private industry remains crucial to tackling this criminal activity. The European Anti-Fraud Office (OLAF) joined Operation Silver Axe II and has since then provided Europol and Member States with intelligence on suspicious containers of pesticides shipped into the EU.

Six editions of Operation Silver Axe led to the seizure of **3 771 tonnes** of illegal pesticides. The operation has evolved over time to shift focus from checks at major seaports, airports and inland borders to targeting parcel deliveries, online markets and production and repackaging facilities in the EU. In 2020 and 2021, Silver Axe operations resulted in the seizure of **2 549 tonnes** worth up to **EUR 174 million**.

Operational outcomes of 6 editions of Operation Silver Axe



Source: Europol information of Operation Silver Axe

Criminals rely on fraudulent documents to import and transport illegal goods. The abuse of legal business structures is integral to the trade in counterfeit goods as retail channels, to facilitate the movement of goods, and to launder illegal profits (⁸⁴). Both on and offline infrastructures are exploited in the production and supply process. Sophisticated equipment to increase production output is frequently used. Warehouses have been found containing empty packages, precision scales and plastic packaging sealing devices, with stocks of counterfeit and fake products. Online sales via mainstream communication applications and websites are increasing. Criminals rely on social media and online platforms to sell products and create networks of clients.

The geographical dimension of the trade in illegal pesticides shifts, following patterns of demand and reacting to enforcement actions. Large seaports are major entry points for illicit pesticides and toxic components transported into the EU. Increasingly, illicit pesticides ordered online arrive in small post and parcel shipments (⁸⁵).

The information available on the criminals involved is limited. The criminal networks active in this profitable trade display a high degree of expertise, flexibility and adaptability with the aim of maximising profit and minimising detection risks. The criminal networks organising the production and importation of counterfeit goods to the EU are mainly based outside the EU (⁸⁶). Some act as agents or brokers in the counterfeit product supply chain. Products traded through illegal parallel trade are smuggled inside the EU.

Some criminal networks trading in illicit pesticides are also involved in other criminal activities, such as money laundering, tax fraud, VAT fraud and import fraud, as well as excise fraud, food fraud and environmental crimes. Illegal pesticides can also be used as precursors for Home Made Explosives (HME) (⁸⁷).

The use of illegal pesticides is harmful to health, the economy and the environment. Farming communities and those living adjacent to them may face long-term health risks from the use of illicit pesticides (⁸⁸). Illegal pesticides have not had their impact on human health tested. Furthermore, their residues could be carried into harvested food and pose serious health risks for consumers and farmers as well as being dangerous for the environment. The industry loses approximately EUR 1.3 billion of revenue annually because of counterfeit pesticides in the EU, corresponding to 13.8 % of the sector's sales (⁸⁹). Losses of public fiscal revenue in the EU are estimated at EUR 238 million, and the loss of employment at approximately 2 600 jobs (⁹⁰). Illegal pesticides may damage crops, causing financial loss and reputational damage for farmers. Residues of aggressive pesticides can remain in the environment for a long time. In the framework of the European Green Deal and the EU Biodiversity Strategy for 2030, the European Commission adopted the Farm to Fork Strategy (⁹¹). A more environmentally sustainable use of pesticides is part of the EU's ambitions. Stricter regulation of chemical products will be applied in this industry.

6. Pharmaceutical products



Pharmaceutical goods infringing IP rights are a substantial threat to the EU and affect most, if not all, Member States (⁹²). The trade in counterfeit pharmaceutical products in the EU has been increasing over recent years. The number of counterfeit medicines and other goods seized by EU customs authorities reached 1 172 076 units in 2019, entering the top 10 list of seized products by number of articles. The trend was confirmed in 2020, with medicines appearing as the seventh most-seized products at the EU's external border. Nevertheless, the number of customs procedures increased between 2019 and 2020, from 192 to 600 (⁹³). China, India and Singapore were the countries of origin most commonly detected in 2019, while in 2020 Singapore and India were replaced by Turkey and, to a lesser extent, Vietnam (⁹⁴). Iran, Switzerland and the United States are identified as transit points for fake pharmaceuticals shipped to the EU (⁹⁵). Criminals rely primarily on post and parcel services to

ship counterfeit pharmaceutical products, which are mainly traded online. Weak links in global supply chains are exploited by counterfeiters of pharmaceuticals. This is particularly so when imports involve different countries, importers, retailers and distributors (⁹⁶). Free trade zones are also misused in the trade in counterfeit products (including pharmaceuticals) due to their lighter regulations and limited customs control (⁹⁷).

In some cases, the production of illicit pharmaceutical products takes place in illegal laboratories based in the EU, which are difficult to detect. Clandestine laboratories can be set up with relatively few resources. Furthermore, experience with chemical production is not always needed to produce counterfeit medicines. In most cases, criminal networks operate these labs and supply multiple distributors. Some individual criminals run small-scale labs on their own (⁹⁸).

Diversion of legal supplies and theft of pharmaceuticals have also been observed in the EU. Illegal diversion occurs when a genuine pharmaceutical is approved and intended for sale in one country, but is illegally intercepted and sold in another country, often with the use of false statements, declarations (⁹⁹) and prescriptions. Some thefts are facilitated by insiders, such as employees, doctors and pharmacists (¹⁰⁰). In other cases, professional thieves specifically target locations for the theft of medicines. Thefts occur anywhere along the supply chain: at the site of manufacture, during transit, in distribution centres, warehouses, pharmacies, or hospitals (¹⁰¹).

The distribution of counterfeit pharmaceutical products has shifted from physical to online markets, relying on dedicated platforms, such as online pharmacies, as well as some of the most widely used social media platforms. Most trading activity is believed to take place on the surface web. Some pharmaceutical products are also distributed via dark web platforms (¹⁰²). The dark web allows for anonymous transactions between manufacturers, distributors and consumers. Online pharmacies selling counterfeit medication online typically pose as legitimate vendors (¹⁰³). The number of unauthorised and unregulated online pharmacies selling counterfeit pharmaceutical products is continuously growing.

Counterfeit pharmaceuticals are widely advertised and offered for sale on social media platforms. These online sales typically involve prepaid credit card and cryptocurrency payments (¹⁰⁴). Online trade offers criminal networks some operational security, including encrypted email traffic and instant messaging applications (¹⁰⁵).

Criminal groups active in pharma crime counterfeit an increasingly wide range of medicines for the treatment of various health issues (¹⁰⁶). Law enforcement authorities have seized fake anti-cancer drugs (¹⁰⁷), analgesics, antioestrogens, antivirals, antihistamines (¹⁰⁸), anxiolytics (¹⁰⁹) and psychiatric drugs (¹¹⁰), erectile dysfunction medicines (¹¹¹), anabolic substances (¹¹²), metabolic regulators, and self-testing kits for HIV (¹¹³) and other infections.

Case example

OPERATION SHIELD (¹¹⁴)



Between March and September 2020, Europol coordinated Operation Shield, a global effort to target the trafficking of counterfeit and misused medicines and doping substances. The Operation was led by Finland, France, Greece and Italy and involved 27 countries (19 EU Member States and 8 third-party countries), OLAF, and the private sector.

*The Operation led to the disruption of **25 criminal networks**. It resulted in nearly **700 arrests** and the seizure of more than **25 million** units of counterfeit anti-cancer drugs, erectile dysfunction medicines, pseudoephedrine, various doping substances, analgesics, antioestrogens, antivirals, hypnotics, antihistamines and anxiolytics,. The seizures were worth nearly **EUR 73 million**. In addition, **10 clandestine laboratories** were seized, **453 websites** shut down and another **4 009** monitored. As part of the Operation, **536 doping inspections** were performed, as well as controls on **650 athletes**.*

*Operation Shield also highlighted how emerging pharma crime is linked to the COVID-19 pandemic, with the seizures of almost **33 million** medical devices, **8 tonnes** of raw materials, chemicals and antivirals and **70 000 litres** of hygienic sanitisers.*

The COVID-19 pandemic has presented new opportunities for criminals attempting to capitalise on the high demand for certain goods and the insecurity felt in the wake of the virus' spread. The distribution of counterfeit and substandard goods, including pharmaceutical products, has been one of the key criminal activities during the pandemic (¹¹⁵). The illicit sale of medical and personal protective equipment products has increased significantly both online and offline, utilising various online platforms and standard door-to-door sales methods (¹¹⁶). In some cases, counterfeiters were able to infiltrate legal supply channels to introduce counterfeit and substandard goods into the supply chain. Pharma crime also targets the global vaccination effort to halt the spread of COVID-19. Falsified COVID-19 vaccines from approved distributors have been identified. The falsified products are illicitly refilled vials of used and discarded COVID-19 vaccines (¹¹⁷).

Some criminals offer unlicensed pharmaceutical products for the prevention of COVID-19, particularly online.

The distribution and use of counterfeit medicines and medical supplies can cause significant direct harm to the health of victims. Some fake medicines contain less/no active ingredients compared to the genuine products. In some other cases, counterfeit pharmaceuticals contain more potent ingredients or greater concentrations that can have extreme consequences for human health (¹¹⁸). In some cases this has caused death by overdose when the counterfeit medicines are laced with fentanyl. Fake pharmaceutical products are often manufactured in unsanitary or dangerous conditions. Clandestine illicit laboratories harm the environment by producing chemical waste that is not disposed of properly. Pharma crime also harms the legitimate pharmaceutical sector and reduces the funds available for research and development and product innovation (¹¹⁹).

7. Piracy

Piracy is the sale of goods that infringe copyright or design rights. It concerns both physical and digital goods (¹²⁰). Piracy entails illegally copying and selling physical goods such as copies of copyright content in the form of CDs and DVDs; replica design objects; Technological Protection Measures (TPM) circumvention devices; TV decoder smartcards; fully loaded set-top boxes or sticks; digital content, such as copied software, activation keys for software, video games or databases; hacked accounts for streaming services; Computer-Aided Design (CAD) files; and e-books (¹²¹). Piracy is now almost exclusively a digital crime as the distribution of physical copies of audio-visual content has almost entirely disappeared (¹²²).

Digital content is now widely available via a variety of applications and platforms. The media consumption preferences of a large share of consumers have shifted towards using streaming services. An increasing number of consumers choose digital content platforms over traditional television offerings. While improving digital infrastructures is making the EU more competitive in the global market, faster and more widely available internet connections also increase the availability and accessibility of pirated content. Legal digital content platforms have been widely successful, driven by the rapid growth of the number of subscriptions and the broad range of content on offer. The accessibility and availability of these competitively priced legal offers has resulted in a slight decrease in the number of users accessing, downloading or streaming content from illegal online sources (¹²³). However, a growing volume of available content continues to be illegally accessed online. A large number of websites provide unlawful access to copyrighted content such as films, music, TV programmes, games, e-books and software.

The distribution of illegal Internet Protocol Television (IPTV) services is an increasing concern for intellectual property rights holders. IPTV is a technology that allows live and on-demand streaming of television content online. Criminals have taken advantage of this expanding market by selling access to illegal IPTV platforms to an increasing number of subscribers. They also generate profit by providing free access to illicit digital content and from advertisements on the website (¹²⁴).

The websites illegally distributing audio-visual content are hosted on servers across Europe, Asia and the Middle East. Copyrighted material is also shared via peer-to-peer (P2P) networks using Torrent or Direct Connect protocols. The cost of offshore hosting is low and hosting companies sometimes operate as shell companies registered in non-EU countries (¹²⁵). Hosting servers have been located in jurisdictions such as China, India, Turkey, and, increasingly, in the EU.

Criminal networks are involved in the copyright-infringing distribution of content via illicit streaming services. Copyright-protected audio-visual content is more vulnerable in digital format, and is often the target of illicit content wholesale resellers.

Pirated goods also include illegal software licences. Unlike other copyrighted digital content, software is subject to the rule of exhaustion, also known as the first sale doctrine, and the resale of second-hand software is legitimate. However, the rule of exhaustion does not apply to back-up copies of computer programs. Therefore, back-up copies offered for sale to third parties should be considered

illegal. Activation keys for software and video games, and hacked access accounts to online streaming services or databases, are further examples of pirated digital goods that have progressively replaced the sale of illegal copies of copyrighted content on physical support (CD, DVD, etc.). The sale of Computer-Aided Designs (CAD) for the 3D printing of objects protected by design rights or other IP rights is also emerging (¹²⁶).

Case example

One of the biggest online piracy groups in the world taken down (¹²⁷)

*A criminal network responsible for pirating films and hosting illegal digital content worldwide since 2016 was dismantled in a coordinated action between US authorities and their counterparts in **18 countries** around the world, with the support of Europol and Eurojust. A total of **60 servers** were taken down in North America, Europe and Asia, and several of the main suspects were arrested.*

The company obtained DVDs and Blu-ray discs of unreleased content and compromised the discs' copyright protections to reproduce and upload the content publicly to online servers. Members of the company made several material misrepresentations and omissions to wholesale distributors. On many occasions, they claimed to be DVD and Blu-ray disc retailers and promised not to sell the content prior to the retail release date. Once they received the products, the members of the group used special software to crack the copyright protections and then reproduced and encoded the content in high-definition format. This content was then disseminated and shared via streaming platforms and peer-to-peer networks.

When a subscription is requested for access to digital content, the price offered is attractive compared to those offered on the legal market. Some websites provide free access to content and profit is made via advertising. Pirated content and illegal content supply services are advertised on social media platforms (¹²⁸). Payments are requested through online payment providers – often in cryptocurrency.

During the COVID-19 pandemic, millions of people in lockdown looked to digital entertainment to cope with social isolation. Criminals quickly responded to this burgeoning demand by offering high-quality streaming services at a time when legitimate providers had agreed to reduce streaming quality to avoid EU broadband overload. Illegal providers offered a variety of content, and lured customers with special discounts, using attractive terms such as 'free', 'cheap' and 'fast'. Fraudulent advertisements on illicit websites, messaging applications and social media offered low-cost subscription access to illegal IPTV services (¹²⁹). An analysis of online communications identified a notable increase in piracy-related discussions during the months at the start of the pandemic in early 2020 (¹³⁰). Nonetheless, despite this increase detected in film piracy in the spring of 2020, the overall decline of digital piracy continued during the pandemic, with a decreased by 6 % in 2019 and by 34 % in 2020 (¹³¹). Streaming websites and apps could expose younger viewers to inappropriate content (¹³²).

The market for illicit streaming devices (ISDs) such as set-top boxes is expected to grow over the coming years (¹³³). Such devices are distributed via retailers and online platforms. Many consumers buy these boxes unaware of the copyright infringement and of the danger these devices can pose

to their safety. Users illegally stream content and undermine copyright infringement without paying the appropriate subscriptions. ISDs can cause interference with radio frequencies used by maritime radio, aeronautical radar or mobile and wireless military communications. In addition, there are risks associated with electrical safety since irregularities such as poor socket connections or overheating entail the risk of fire.

Case example

Operation 'In Our Sites' takes down 21 910 websites selling counterfeit goods and pirated items (¹³⁴)

Operation In Our Sites (IOS) is a recurrent global operation, launched in 2014 against websites selling counterfeit goods and pirated items.

In 2021, IOS XII has seen a remarkable increase from the previous edition. The joint international operation was facilitated by Eurojust, INTERPOL and involved the US National Intellectual Property Rights Coordination Centre and law enforcement authorities from 30 countries including EU Member States and third parties.

Operational results:

- **12 suspects arrested**
- **EUR 2.6 million worth of counterfeit goods seized**
- **Value of total cash seizures: EUR 460 468**
- **494 516 websites taken down**
- **48 criminal cases opened**

Seizures:

- **42 055 counterfeit articles (shoes, clothes and multiple accessories)**
- **181 445 boxes of counterfeit medical products**
- **11 fake artworks being sold via online auction sites**
- **37 cars and one motorcycle**

Law enforcement authorities from 26 Member States (MS) and third parties, have seized together with Europol and the US National Intellectual Property Rights Coordination Centre have seized over 21 910 domain names offering counterfeit and pirated items online. More than EUR 2.5 million worth of such products have been seized, including counterfeit pharmaceuticals and pirated films, illegal television streaming devices, music, software and other bogus products.

Tackling the website domains selling counterfeit commodities, or involved with online piracy, has become a growing concern for all law enforcement bodies due to the versatility of the criminals, who can easily make large profits and delete their internet trail in a very short period of time.

Digital piracy is a lucrative market for criminals with limited risk of detection and low penalties. Criminals providing illegal IPTV services generate nearly EUR 1 billion in unlawful revenue for the EU (¹³⁵). Piracy affects financially creative industries and deprives artists, creators and media distributors of revenues (¹³⁶). Users, who stream or download illicit content online, face the risk of malware infections and criminals accessing their personal and financial information (¹³⁷).

The criminals involved are adept at using advanced technical countermeasures to avoid law enforcement. In some cases, digital content piracy is linked to other cybercrime activities such as crypto-jacking or the distribution of malware (¹³⁸). Criminals are involved in these activities as part of a number of roles, such as customer support, website and server administrators, content collectors, storage and network infrastructure experts. Much of the criminal profit is generated by online advertising, paid subscriptions and malware attacks. Websites offering pirated content accept donations via torrent sites (mainly in cryptocurrencies).

8. Tobacco products



Counterfeit tobacco products are highly lucrative illicit products for the criminals trading in them. This trade has a significant financial impact on Member State' budgets due to the substantial loss of excise revenue it entails. Counterfeit cigarettes are illegally manufactured and are illicitly packaged, replicating reputed brands (¹³⁹).

Tobacco consumption has seen a continuous decrease over the last years in the EU. However, the share of illicit consumption remains high, representing 7.8 % of total cigarette consumption and a loss of EUR 8.5 billion in tax revenues. 30 % of illicit consumption in the EU in 2020 was driven by counterfeit products (¹⁴⁰). The number of seized counterfeit cigarettes significantly increased in 2020 compared to 2019 (by 4.8 billion cigarettes or 87 %), continuing a trend seen since 2016 (¹⁴¹).

Tobacco is among the top 20 industries targeted by counterfeiters (¹⁴²). In 2019, cigarettes were one of the most frequently reported counterfeit goods and the second most frequently seized counterfeit items at the EU's external border (¹⁴³). In 2020, cigarettes represented the ninth most-seized counterfeit item. Notwithstanding, there was a surge in the seizure of lighters, which appeared among the top five categories of seized items (¹⁴⁴).

The EU has introduced the Excise Movement and Control System (EMCS) which provides Member States with an electronic system to monitor the movement of excise goods in real-time, thereby ensuring that duties are properly levied at the final destination. The existing system will be supported by the traceability system, according to which all packets of tobacco products will be required to be marked with a unique identifier. Although the track and trace system became operational in 2019, it will only be fully accessible in the coming years (^b).

b. The traceability system and security features should have been in place by 20/05/2019 for cigarettes and loose tobacco, and by 20/05/2024 it should be in place for all other tobacco products (such as cigars, cigarillos and smokeless tobacco products).

The increase in the volume of counterfeit cigarettes detected in the EU has been partially attributed to the presence of illegal tobacco factories within the EU. Illicit tobacco products are increasingly produced in the EU, in modern and professional production facilities, established closer to destination markets (¹⁴⁵). Illicit flows between Member States increased by 1.5 billion in 2020 (¹⁴⁶). Illicit production facilities have been detected in several Member States including Belgium, Bulgaria, Germany, Spain, Hungary, the Netherlands, and Poland.

Some of the illicit cigarette production facilities discovered in the EU had the capacity to produce up to one million cigarettes per day. This amounts to an estimated tax loss for a Member State of more than EUR 200 000 per day and millions of euros in criminal profit. Forced labour in tobacco production is demonstrated by the working and living conditions of the workers of the illicit factories (¹⁴⁷).

Case example

Four metres underground: illegal cigarette factory uncovered in a bunker in Spain (¹⁴⁸)

In February 2020, the Spanish Civil Guard (Guardia Civil) dismantled an organised crime group involved in illegal cigarette manufacturing and drug trafficking. Spanish law enforcement officers uncovered a manufacturing facility hidden in a bunker four metres underground. In the facility, believed to have been operating since 2019, workers made and packed counterfeit cigarettes. This was a complete production line under one roof. Beds and living quarters for the workers were also found underground. Workers there were forced to work in extremely dangerous and toxic conditions. This is the first underground factory to have been discovered in the EU.

*Over **2 million counterfeit cigarettes** were seized, produced in unsanitary conditions using low-quality components. The criminal network was estimated to make criminal profits of **EUR 625 000** per week.*

The machinery, raw tobacco and non-tobacco materials used for the production of illicit tobacco products are non-excisable goods and therefore not regulated at EU level. The number of seizures of smuggled raw tobacco has increased. Illicit tobacco production lines are usually set up in large warehouses in remote industrial areas, close to transportation hubs like motorways, border crossing points or ports or in unusual settings, such as populated urban areas.

Criminals take countermeasures to avoid the detection of their facilities and change locations regularly to avoid attention. They may split the illicit production process (cutting, production, packaging, etc.) between different locations.

China and Russia are the main countries of origin for counterfeit cigarettes smuggled into the EU. The most popular destination markets are those that feature high retail prices for tobacco products. Illicit tobacco products also transit through the EU to large markets such as the United Kingdom.

Illicit tobacco products are also trafficked in containers passing through major international ports and free economic zones. Following their arrival at seaports, shipments of illicit tobacco products are transported to their final destinations using lorries. Large illicit cigarette shipments have been seized

in recent years. Belgian customs confiscated a record seizure of 126 million counterfeit cigarettes at three locations in and around Antwerp in January 2020. The counterfeit cigarettes originated from South-east Asia (¹⁴⁹).

OLAF reported seizures of nearly 370 million illegal cigarettes in 2020; of these 132 500 000 cigarettes were seized in non-EU countries (primarily Albania, Malaysia and Ukraine), while 235 534 640 cigarettes were seized in EU Member States. OLAF estimates that this averted losses of around EUR 74 million in excise duties and VAT (¹⁵⁰). New railway border control points were established as part of the development of the Eurasian railway freight corridors that have been used for smuggling of tobacco products.

The online trade in illicit tobacco products has seen a moderate increase. Illicit tobacco products sold online are shipped using regular post and parcel services.

Criminal networks involved in excise fraud demonstrate operational resilience. Those involved in illicit production are able to maintain a criminal business model from the initial supply of equipment and raw tobacco to the setting up of the illicit production process and the distribution on the market.

Transport and shipping companies are targeted by infiltration attempts. The same networks are also involved in the management of payments and the corresponding financial flows.

The cross-border traffic restriction imposed during the COVID-19 pandemic had an impact on the operations of criminal networks involved in the smuggling of illicit tobacco products, causing a temporary reduction. However, the illicit trade continued and the illicit market was flexible enough to adapt. The well-established illicit production of counterfeit tobacco products within the EU might have been seen as the solution. However, illicit production facilities in the EU probably experienced difficulties in sourcing non-tobacco materials and/or raw tobacco. Increased taxes on tobacco products and shortages in the availability of illicit tobacco products likely stimulated demand and prompted an increase in the market prices for counterfeit cigarettes and tobacco (¹⁵¹).

Criminals involved in smuggling counterfeit tobacco products saw an opportunity in COVID-19 to enter other sectors: for example supplying COVID-19 related PPE (¹⁵²).

Case example

12 arrested in France in latest hit against tobacco smugglers (¹⁵³)

*In 2021, a criminal network of tobacco smugglers was fully dismantled in France. Over **75 tonnes of counterfeit cigarettes** were imported and distributed throughout France, causing an estimated loss to the French budget of close to **EUR 22 million**.*

*In the latest phase of the operation, five individuals were arrested and **250 000 counterfeit cigarettes** seized in a series of raids in only one city. Earlier operations in the same year saw seven other members of the criminal network arrested in the cities of Nantes, Rodez and Montpellier. On this occasion, close to **five tonnes** of counterfeit cigarettes were seized, along with **EUR 37 000** in cash.*

This organised crime group received the illegal cigarettes from two criminal networks based abroad. They arranged for their storage in various cities in France and then managed their subsequent distribution through a number of criminal wholesalers – mainly Georgian, Armenian and Ukrainian nationals – onto the French black market. The same organised crime group was also involved in the management of payments and the corresponding financial flows.

The growth of the e-cigarette/vaping market in recent years has entailed a subsequent increase of counterfeit vaping products entering the EU market (¹⁵⁴). Many of these counterfeit e-cigarette products and parts lack quality controls and do not meet safety and health requirements, posing a risk to consumers.



9. Toys

Toys infringing IP rights are frequently detected and seized both within and on entry to the EU (¹⁵⁵). At 9.6 % of the articles seized at the EU's external border, in 2019 toys were the fourth most frequently seized category of counterfeit products (¹⁵⁶). In 2019, EU authorities seized 3 488 282 articles with an estimated value of EUR 15 332 034 (¹⁵⁷). The trend in 2020 was similar, with toys being the sixth most common category of seized products (¹⁵⁸). The majority of counterfeit toys seized in the EU are believed to originate from Argentina, China (including Hong Kong), and Turkey (¹⁵⁹). Counterfeit toys are sold by physical retailers and via online platforms, and delivered by post and parcel services. In 2019, 18 % of the detected counterfeit toys in the EU were delivered via postal traffic (¹⁶⁰).

Counterfeit toys seized in the EU include toy cars, board games, dolls and many other varieties of toy. Counterfeit toys often imitate toys based on popular children's TV shows. Authorities typically note a spike in the number of seizures leading up to and during festive seasons.

In some cases, counterfeit toys are very similar to the real products and it is very difficult to distinguish between them. However, they typically lack any indication of origin and/or Declaration of Conformity ('CE' markings), which allow for the product to be traced to the manufacturer or the authorised traders in the EU. More frequently, the quality of counterfeit toys is low and they easily fall apart or do not work properly.

Counterfeit toys do not comply with safety rules (¹⁶¹). They expose children to serious health risks as some counterfeit toys contain hazardous materials or toxic chemicals (¹⁶²). The absence of quality control means that they might be improperly packaged, may include small parts and lack proper age grading and recommendations. Small parts can be dangerous for certain ages (¹⁶³). Some electronic toys exceed legal decibel limits for toys which could permanently damage a child's hearing. The presence of chemicals in counterfeit toys intended for babies presents a danger as babies chew and suck them. These substances can cause severe health issues (¹⁶⁴).

Moreover, the toy industry suffers significant income losses due to the illegal distribution of counterfeit toys.

Case example

Operation LUDUS

Between October 2020 and January 2021, Europol led the first edition of Operation LUDUS with the support of OLAF and EUIPO. The operation targeted counterfeit toys and involved the participation of 24 countries.

The operation led to:

- **close to 5 million toys seized for a total value exceeding EUR 16 million**
- **4 768 inspections carried out**
- **44 127 samples tested in laboratories**
- **125 judicial cases opened**
- **11 individuals arrested**

10. Other commodities



Law enforcement authorities have increasingly noted the appearance of converted and rebranded firearms. Counterfeit firearms are converted from non-lethal and lethal firing weapons, which are then manipulated to imitate well-known firearm brands. The main origin of these conversions are Turkey and the Western Balkans region. Counterfeit pistols and semi-automatic pistols have been seized alongside fake medicines and packaging material (¹⁶⁵).

Spare car parts are also being counterfeited (¹⁶⁶). In 2019 and 2020, China (including Hong Kong) was the main country of origin for IPR-infringing items in the category of 'vehicles, including accessories and parts' seized at the EU's external border. Turkey is the second most common country of origin for these items (¹⁶⁷). In part a consequence of the disruption in the supply of spare parts during the COVID-19 pandemic, garages and motorists have increasingly sought to source parts through alternative channels. Counterfeit parts are increasingly appearing on the market, particularly online (¹⁶⁸). Illicit mechanical parts, such as counterfeit bearings, infringe the rights of IP owners and also seriously threaten the safety of consumers. Bearings are used in all kinds of machines allowing them to move efficiently at high speed and to carry significant loads (¹⁶⁹).

Counterfeiters also develop websites that have similar designs and appearances to legitimate companies' official websites, and use similar email addresses (¹⁷⁰). These websites impersonate legitimate companies to use their trade mark or their name without authorisation and sell counterfeit products.

11. Packaging materials

In 2019, packaging materials were the third most frequently encountered counterfeit articles seized at the EU's external border, continuing the trend from 2018 (¹⁷¹). In 2020, it was the top category (¹⁷²). In 2020, packaging materials were also among the five most frequently encountered categories of counterfeit articles seized in the internal market, together with the category of labels, tags and stickers (¹⁷³). The most commonly infringed IP violation in relation to packaging materials detained in 2020 were 'trade marks' (53 %) and 'designs' (46 %) (¹⁷⁴).

In 2019, the main non-EU countries of provenance for these types of counterfeit products were China (¹⁷⁵), followed by India and Turkey (¹⁷⁶). India and Turkey did not appear as countries of provenance in 2020, while China (including Hong Kong) still appeared in 2020. Moldova is a source country for packaging materials for cigarettes. Packaging materials, logos and labels are usually shipped separately from the counterfeit goods (¹⁷⁷). These production materials are not monitored or regulated at national or EU level.

The packaging shape and dimensions as well as the fidelity of the product labelling can be an indicator of counterfeit products (¹⁷⁸). However, in many cases, the counterfeit packaging is indistinguishable from the genuine product, which means that some IPR infringements go unnoticed (¹⁷⁹).

Counterfeit products are mainly produced outside the EU and are imported as finished products. However, the frequent seizure of counterfeit packaging materials on entry to the EU clearly points to the presence of manufacturing facilities within the EU. The importation of semi-finished products and packaging components has been increasing (¹⁸⁰). The recurrent appearance of packaging material in the top three of the most detained counterfeit items at the EU external borders (¹⁸¹) indicates that certain goods are eventually assembled and distributed in the EU. Taking advantage of the cheaper production methods and improved technology, counterfeiters have moved into the production of everyday goods (¹⁸²).

Production sites have been discovered in many Member States and include laboratories producing pharmaceutical products, factories labelling counterfeit clothing and luxury goods, facilities producing and repackaging illicit pesticides, facilities producing illicit cigarette, factories refilling both authentic and fake empty bottles of alcoholic beverages, facilities producing and packaging fake food products and clandestine factories repackaging fake perfumes. Authorities have also discovered machinery such as high-tech printers used to print copied labels and packaging material with high-quality resolution, cutting machines, and press machines.

This trend explains the large seizures of counterfeit labelling and packaging materials at the EU's external border (¹⁸³) and the discovery of printing equipment (¹⁸⁴). Counterfeit items are often completed following several production steps carried out at different locations within the EU in order to reduce the risk of detection (¹⁸⁵). However, the components are typically supplied from non-EU countries as part of legal trade.

Criminals develop marketing and distribution strategies, including online sales, and also attempt to infiltrate legal supply chains.

HORIZONTAL ISSUES

1. Intellectual property crime during the COVID-19 pandemic

The COVID-19 pandemic has presented new business opportunities for criminals attempting to capitalise on the high demand for certain goods. The distribution of counterfeit and substandard goods has been one of the key criminal activities during the pandemic. Throughout the pandemic, criminal networks involved in IP crime have been highly adaptable in adjusting their business model by shifting product focus and marketing (¹⁸⁶), based on the developments of the pandemic and the changing needs of individuals, and public and private sector organisations.

Legitimate suppliers were initially unable to meet the sudden increase in demand for personal protective equipment and sanitary products, which resulted in opportunities for criminals (¹⁸⁷). In parallel, the rapid spread of infections and increasing number of deaths obliged EU public authorities to seek out additional healthcare equipment, sanitary products and pharmaceuticals where available. This also led to the acceleration of certification processes for facemasks, sanitisers, ventilators and medicines originating outside Europe (mainly from China). EU imports of healthcare products from China grew by 900 % in the second quarter of 2020 compared to the previous year, prior to the escalation of the pandemic (¹⁸⁸). Criminals exploited this momentum to engage in the production and trafficking of unsafe and/or fake goods. The persistent demand for certain goods stimulated their illicit supply throughout the pandemic.

The pandemic has reinforced developments taking place prior to its beginning. Sales of illicit products have significantly increased via various online platforms and through standard door-to-door shipping methods. Individuals, companies, pharmacies and medical practitioners have been specifically targeted. The pandemic accelerated an expansion of e-commerce towards new firms, customers and types of products. It has also boosted the growth of business-to-consumer (B2C) e-commerce. In fact, between 2018 and 2020, online retail sales, a subset of the B2C total, increased by 41 % in major economies, compared to less than a 1 % rise in total retail sales (¹⁸⁹). This surge in e-commerce corresponded to an unprecedented increase in growth in small shipments, handled primarily through postal services. While in terms of value counterfeits trafficked by container ships are dominant, in terms of number of seizures those trafficked by small parcels, and mostly sent by post, prevail (¹⁹⁰).

While some product offers for counterfeit goods related to the COVID-19 pandemic have appeared on the dark web, the surface web still hosts the main distribution platforms for counterfeit goods. Dedicated websites have been set up specifically to sell counterfeit sanitary and pharmaceutical products, often disappearing shortly after receiving negative reviews by defrauded customers. Targeted ads on social media platforms, web shops and instant messaging services have been used

to promote sales (¹⁹¹). An analysis of conversations on social media held between April and September 2020, revealed a noticeable increase of exchanges related to the pharma category, particularly in the lockdown period (spring 2020), and to a lesser extent in the summer, upon relaxation of the lockdown (¹⁹²).

IPR-infringing facemasks and other pharmaceutical products related to COVID-19 were also seized in the context of operations targeting other types of counterfeit commodities. For instance, during the joint INTERPOL – Europol operation OPSON IX in 2021, law enforcement authorities seized almost 2 000 tonnes of IPR-infringing or substandard medical products (¹⁹³). Fake COVID-19 home-test kits and fraudulent prescription medicines for its treatment also appeared on the market (¹⁹⁴).

The potential distribution of fake vaccines is a major public health concern that is closely monitored by law enforcement authorities. Counterfeit or substandard vaccines could emerge on illicit markets, both on and offline, or could be possibly introduced into the legal market.

The use of substandard medical equipment supplied by criminals poses a significant threat to public health, undermining the efforts of governments to control the spread of the virus. The incorrect disposal and destruction of used vials carries additional risks for criminal infiltration. The WHO alerts countries on reused and refilled vials which may sometimes be identified by thorough physical examination (¹⁹⁵).

At EU level, the supply of counterfeit and substandard medical equipment as well as sanitary and pharmaceutical products increased significantly both on the surface and dark web during 2020 (¹⁹⁶). At national level, some countries reported a surge of up to 20 % in IP crime for 2020 in comparison to 2019. This was not only related to pharmaceutical and medical products but to other commodities as well (¹⁹⁷).

COVID-19 lockdown measures entailed a surge in online streaming. Analysis of piracy-related conversations on social media revealed a temporary increase immediately upon the introduction of lockdowns in 2020, and a return to normal levels in June 2020 (¹⁹⁸).

2. Criminals and criminal networks

The criminal networks organising the importation and distribution of counterfeit goods in the EU are believed to be based outside the EU.

Chinese criminal networks are heavily involved in the criminal activity referred to in this report. These networks maintain warehouses across the EU, mostly in industrial locations and close to transportation hubs. EU-based criminal networks are responsible for the distribution of imported counterfeit goods and, in some cases, operate facilities that assemble semi-finished products (¹⁹⁹). Distribution in the EU is primarily an online business. Counterfeiters use online platforms on the surface and, to a lesser degree, the dark web to advertise and sell their goods, often relying on cryptocurrency payments. Some counterfeiters operate websites impersonating genuine companies abusing their trade mark

without authorisation. These websites closely imitate their genuine counterparts and are also used to sell counterfeit items.

Mafia-style criminal networks are extensively involved in IP crime. IP crime generates substantial criminal profits and offers opportunities to launder illicit profits. The 'agromafia' organises the production, packaging, transport and distribution of counterfeit food products (e.g. olive oil) within and outside the EU (²⁰⁰). These criminal networks are also involved in the production and distribution of counterfeit pharmaceutical products (²⁰¹).

Legal business structures are an essential component of IP crime. Criminal networks rely on legal business structures to obscure their operations and distribute counterfeit products. Retail outlets continue to be one of the primary distribution channels for these goods in the EU.

Some criminal networks operate using a strict division of tasks between their members with some organising transportation, providing technical and technological expertise or taking care of distribution or money laundering (²⁰²).

Criminal networks involved in the production of counterfeit items are constantly monitoring consumer preferences and adapt their products to meet emerging demands. Criminal networks involved in IP crime rely on a variety of experts including IT workers, graphic designers, chemists, doctors, pharmacists, technicians, financial advisers and others.

Furthermore, individual actors are involved in IP crime; they may be conscious, unconscious or occasional offenders that operate merely for profit, characterised by a lack of criminal awareness and the abuse of legal business structures.

Counterfeiters often make use of the 'drop shipping business model' (^a), so orders are transferred to the wholesaler or another retailer that will ship the goods directly to the requesting customer (²⁰³).

3. Money laundering and money flows

The financial dimension of the counterfeiting business operating in the EU largely remains an intelligence gap (²⁰⁴). Counterfeiters launder their criminal proceeds using money remittances, cryptocurrency exchangers, cash-intensive businesses and by purchasing property and high-value goods. Criminals use trade-based money laundering schemes to hide illicit funds by integrating them into normal commercial flows and avoid tracing and detection. Money laundering structures have become more sophisticated and often incorporate brokers and financial advisers. Money flows often lead investigators to offshore jurisdictions. Criminals switch accounts frequently to obscure money trails. Cryptocurrencies are increasingly used by counterfeiters as part of their money laundering efforts (²⁰⁵).

a. Drop shipping is a business model that allows entrepreneurs to start an online business and sell products to their buyers without ever actually stocking the items themselves. Instead, when a drop shipping store sells a product, it purchases the item from a third party and has it shipped directly to the customer.

The impact of intellectual property crime in the EU

Intellectual property crime negatively impacts the economy, the natural environment and the health and safety of EU citizens.

A recent study carried out by the EUIPO and the OECD has estimated that counterfeit and pirated goods worth EUR 119 billion were imported into the EU in 2019, representing up to 5.8 % of EU imports (²⁰⁶).

Most of the companies whose IP rights are infringed by counterfeiters are located in countries featuring highly innovative economies. Almost 39 % of customs seizures performed in 2017-2019 related to products that infringed the IP rights of US rights holders, immediately followed by EU rights holders from France (18 %), Germany (16 %) and Italy (9.8 %) (²⁰⁷).

In a series of sectorial studies, the EUIPO has estimated lost sales amounting to more than EUR 83 billion per year, during the period 2013-2017, as a result of counterfeiting. This corresponds to estimated losses of EUR 15 billion in tax revenue and of 671 000 jobs in total (²⁰⁸).

IP crime causes reputational damage to legal producers, while damaging fair production and distorting market competition. Furthermore, certain IP crimes, such as pharma crime, reduces the funds available for research and public innovation (²⁰⁹).

IP crimes are a substantial threat to the health and safety of consumers in the EU, especially those that involve counterfeit and fake medicines, food and beverages, cosmetics, electrical household goods and toys. These categories of products accounted for more than 15 % of the total amount of articles seized at the EU's external border (²¹⁰).

Counterfeit medicines and sanitary products can seriously damage the health of consumers. They are often produced in unhygienic conditions, by unqualified personnel and can contain high levels of toxic ingredients, the wrong active ingredients, the wrong amounts, or no active ingredients at all. The COVID-19 pandemic has prompted a boost in the production of and trade in some illicit and fake medical and sanitary products (²¹¹) and further exacerbated the threat from IP crime.

The counterfeiting of food and drinks is also a significant concern. The counterfeit products are mostly of substandard quality and can contain dangerous or hazardous materials. Criminals counterfeit a wide range of both luxury and everyday food products, provided they are profitable (²¹²).

Counterfeit and fake toys, electronic devices and vehicle parts also pose threats to human health and safety. Fake toys are not subject to the rigorous safety tests required by law and have no warnings or advice on the packaging. Illicit electronic products, such as set-top boxes, risk overheating and suffering electrical faults. Irregularities, such as poor socket connections, can cause fires.

Counterfeit and substandard pesticides pose a significant and growing threat to EU environmental security, as these products can heavily contaminate agricultural land, the foodstuff grown on it, air, water for a long period. Additional risks are present in the improper storage and disposal of chemical products (²¹³), such as illicit pesticides and pharmaceutical products. IP crime poses a high risk to the natural environment, to human health and safety and to the legal economy.

REFERENCES

- 1 EUIPO & Europol 2019, 'Intellectual property crime Threat Assessment 2019', accessible at <https://www.europol.europa.eu/media-press/newsroom/news/new-threat-assessment-confirms-links-between-counterfeiting-and-organised-crime-in-eu>
- 2 EUIPO, OECD, 2021, 'Global Trade in Fakes – A worrying threat', accessible at <https://www.oecd.org/publications/global-trade-in-fakes-74c81154-en.htm>
- 3 () EU Commission & EUIPO 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market, 2020', accessible at https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf; EUIPO 2021, 'EU Enforcement of intellectual property rights: overall results of detentions, 2019', accessible at <https://euipo.europa.eu/ohimportal/en/web/observatory/observatory-publications>
- 4 EU Commission & EUIPO 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market, 2020', accessible at https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf. The gaps in information from EU-wide Enforcement Authorities who did not report in 2020 compared to 2019 were estimated at around 2.3 million items (not) reported as detained, out of which 2.1 million related to Brexit
- 5 EUIPO 2020, '2020 Status Report on IP Infringement: why IP rights are important, IPR infringement and the fight against counterfeiting and piracy', accessible at <https://euipo.europa.eu/ohimportal/web/observatory/status-reports-on-ip-infringement>
- 6 EU Commission & EUIPO 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market 2020', accessible at https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf
- 7 EU Commission & EUIPO 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market 2020', accessible at https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf
- 8 EU Commission 2020, 'Report on the EU customs enforcement of intellectual property rights - Results at the EU border, 2019', accessible at https://ec.europa.eu/taxation_customs/intellectual-property-rights-facts-and-figures_en; and EU Commission & EUIPO 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market, 2020', accessible at https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf
- 9 Directive (EU) 2015/2436 of the European Parliament and of the Council of 16 December 2015 to approximate the laws of the Member States relating to trade marks (Recast), accessible at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02015L2436-20151223>
- 10 Relevant legal texts on Design are available at <https://euipo.europa.eu/ohimportal/en/community-design-legal-texts>
- 11 Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC, accessible at <https://eur-lex.europa.eu/eli/dir/2019/790/oj>
- 12 EU Commission & EUIPO 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market, 2020', accessible at https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf

- 13 EUIPO 2021, 'Monitoring and analysing social media in relation to IPR infringement Report', accessible at <https://euiipo.europa.eu/ohimportal/en/web/observatory/observatory-publications?keywords=social%20media>
- 14 EU Commission & EUIPO 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market, 2020', accessible at https://euiipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf
- 15 ANSA.it 2021, 'Merchandising motoristico contraffatto, Gdf sequestra 3 000 capi', accessible at https://www.ansa.it/emiliaromagna/notizie/2021/09/18/merchandising-motoristico-contraffatto-gdf-sequestra-3.000-capi_0c9b2d-ca-9ab1-4b8b-bef0-2d079fa697a1.html
- 16 La Gazzetta del Mezzogiorno 2020, 'Bari, vendono in spiaggia vestiti contraffatti: sequestrati 100 capi', accessible at <https://www.lagazzettadelmezzogiorno.it/news/bari/1242976/bari-vendono-in-spiaggia-vestiti-contraffatti-sequestrati-100-capi.html>
- 17 Europol 2019, '30 506 internet domain names shut down for intellectual property infringement', accessible at <https://www.europol.europa.eu/newsroom/news/30-506-internet-domain-names-shut-down-for-intellectual-property-infringement>
- 18 Irish Examiner 2020, 'Gardaí seize € 50 k of counterfeit clothes and drugs in Co Louth', accessible at <https://www.irishexaminer.com/news/arid-31008068.html>
- 19 Europol information
- 20 Chamber of Commerce of Milan, 'Monza-Brianza, Lodi and Osservatorio sulla criminalità organizzata (CROSS), 2021, La contraffazione in provincia di Milano. Aspetti conoscitivi e proposte di intervento', accessible at <https://cross.unimi.it/?s=contraffazione>
- 21 EUIPO 2021, 'Vendor accounts on third party trading platforms', accessible at <https://euiipo.europa.eu/ohimportal/en/web/observatory/news/-/action/view/8981655>
- 22 EUIPO 2021, 'Vendor accounts on third party trading platforms', accessible at <https://euiipo.europa.eu/ohimportal/en/web/observatory/news/-/action/view/8981655>
- 23 EUIPO 2021, 'Vendor accounts on third party trading platforms', accessible at <https://euiipo.europa.eu/ohimportal/en/web/observatory/news/-/action/view/8981655>
- 24 EUIPO 2021, 'Focus on cybersquatting: monitoring and analysis', accessible at <https://euiipo.europa.eu/ohimportal/en/news/-/action/view/8718311>
- 25 EU Commission 2020, 'Report on the EU customs enforcement of intellectual property rights - Results at the EU border, 2019', accessible at https://ec.europa.eu/taxation_customs/intellectual-property-rights-facts-and-figures_en
- 26 () EU Commission & EUIPO 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market, 2020', accessible at https://euiipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf
- 27 Deviceatlas.com 2019, 'Counterfeit smartphones and the threats they pose', accessible at <https://deviceatlas.com/blog/counterfeit-smartphones-and-the-threats-they-pose> & ITU & EUIPO 2017, 'The economic cost of IPR infringement in the smartphones sector', accessible at <https://euiipo.europa.eu/ohimportal/web/observatory/ipr-infringement-smartphone-sector>
- 28 Deviceatlas.com 2019, 'Counterfeit smartphones and the threats they pose', accessible at <https://deviceatlas.com/blog/counterfeit-smartphones-and-the-threats-they-pose> & ITU & EUIPO 2017, 'The economic cost of IPR infringement in the smartphones sector', accessible at <https://euiipo.europa.eu/ohimportal/web/observatory/ipr-infringement-smartphone-sector>

29 EU Commission & EUIPO 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market, 2020', accessible at https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf

30 EU Commission & EUIPO 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market, 2020', accessible at https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf

31 Europol information

32 Securingindustry.com 2021, 'Counterfeiters pre-empt another upcoming Apple launch' accessible at <https://www.securindustry.com/electronics-and-industrial/counterfeiters-pre-empt-another-upcoming-apple-launch/s105/a13814/#.YT8cbI5LhPY>; Ezamine.net, 2021, 'Los clones de Apple Watch Series 7 surgen en China', accessible at <https://www.ezanime.net/los-clones-de-apple-watch-series-7-surgen-en-china/>

33 Forbes 2021, 'The Global Chip Shortage Won't Ease Soon', accessible at <https://www.forbes.com/sites/forrester/2021/05/06/the-global-chip-shortage-wont-ease-soon/?sh=d6e1230185f4>

34 IP Crime Group 2020, 'Intellectual Property Office, IP Crime and enforcement report, 2019', https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/913644/ip-crime-report-2019-20.pdf

35 Forbes 2021, 'Prime Day Spending Expected To Top \$ 11 Billion, Adobe Predicts', accessible at <https://www.forbes.com/sites/joanverdon/2021/06/16/prime-day-spending-expected-to-top-11-billion-adobe-predicts/?sh=3af-b9a807742>

36 IP crime group & Intellectual Property Office 2020, 'IP Crime and enforcement report, 2019', accessible at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/913644/ip-crime-report-2019-20.pdf

37 Europol information

38 EU Commission & EUIPO 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market 2020', accessible at https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf

39 EU Commission 2020, 'Report on the EU customs enforcement of intellectual property rights - Results at the EU border, 2019', accessible at https://ec.europa.eu/taxation_customs/intellectual-property-rights-facts-and-figures_en; and EU Commission & EUIPO 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market, 2020', accessible at https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf

40 INTERPOL – Europol 2021, 'OPSON IX Analysis Report', accessible at <https://www.europol.europa.eu/publications-documents/operation-opson-ix-%E2%80%93-analysis-report>

41 Europol, EUIPO, 2020, 'IP CRIME AND ITS LINK TO OTHER SERIOUS CRIMES Focus on Poly-Criminality', accessible at <https://www.europol.europa.eu/publications-documents/ip-crime-and-its-link-to-other-serious-crimes-focus-poly-criminality>

42 Europol 2021, 'A spice worth its weight in gold: a multi-million euros fake saffron trafficking scheme uncovered', accessible at <https://www.europol.europa.eu/newsroom/news/spice-worth-its-weight-in-gold-multi-million-euros-fake-saffron-trafficking-scheme-uncovered>

- 43 Europol 2021, 'European Serious and Organised Crime Threat Assessment (EU SOCTA), 2021', accessible at <https://www.europol.europa.eu/socta-report>
- 44 Europol, EUIPO, 2020, 'IP CRIME AND ITS LINK TO OTHER SERIOUS CRIMES Focus on Poly-Criminality', accessible at <https://www.europol.europa.eu/publications-documents/ip-crime-and-its-link-to-other-serious-crimes-focus-poly-criminality>
- 45 Research and Markets, 2021, 'High-Fructose Corn Syrup (HFCS) Market - Growth, Trends, COVID-19 Impact, and Forecasts (2021 - 2026)', accessible at https://www.researchandmarkets.com/reports/4827977/high-fructose-corn-syrup-hfcs-market-growth?utm_source=GNOM&utm_medium=PressRelease&utm_code=6zxq6g&utm_campaign=1573843+-+Worldwide+High-Fructose+Corn+Syrup+Industry+to+2026+-+North+America+Holds+the+Major+Market+Share&utm_exec=jamu273prd
- 46 INTERPOL – Europol, 2021, 'OPSON IX Analysis Report', accessible at <https://www.europol.europa.eu/publications-documents/operation-opson-ix-%E2%80%93-analysis-report>
- 47 La Repubblica, 2021, 'Il cioccolato di Modica era falso, sequestrate 20 mila confezioni', accessible at https://palermo.repubblica.it/cronaca/2021/06/16/news/il-cioccolato_di_modica_era_falso_sequestrate_20_mila_confezioni-306325825/
- 48 Europol, 2021, 'A spice worth its weight in gold: a multi-million euros fake saffron trafficking scheme uncovered', accessible at <https://www.europol.europa.eu/newsroom/news/spice-worth-its-weight-in-gold-multi-million-euros-fake-saffron-trafficking-scheme-uncovered>
- 49 Europol, 2020, 'Fake wines sold under expensive Italian labels off the market', accessible at <https://www.europol.europa.eu/newsroom/news/fake-wines-sold-under-expensive-italian-labels-market>
- 50 S. Subramanian, The Guardian, 2021, 'Food fraud and counterfeit cotton: the detectives untangling the global supply chain', accessible at <https://www.theguardian.com/news/2021/sep/16/food-fraud-counterfeit-cotton-detectives-untangling-global-supply-chain>
- 51 M. Vassallo, 2021, 'Corriere della Sera, Made in Italy, ecco 5 eccellenze del cibo imitate all'estero', accessible at <https://www.corriere.it/cook/news/cards/made-italy-ecco-5-eccellenze-imitate-all-estero/mozzarella.shtml>
- 52 TRM TV, 2021, 'Agropirateria: il Peperone di Senise e la Melanzana rossa di Rotonda tra i 50 prodotti "più contraffatti"', accessible at https://www.trmtv.it/attualita/economia/2021_09_18/294481.html
- 53 B. Cassel, M. Pelloli, O. Plichon, 2019, 'Le Parisien, Alerte aux faux kiwis français', accessible at <https://www.leparisien.fr/economie/consommation/alerte-aux-faux-kiwis-francais-24-03-2019-8038731.php>
- 54 Europol, 2021, '15 000 tonnes of illegal food and beverage off the market', accessible at <https://www.europol.europa.eu/newsroom/news/15-000-tonnes-of-illegal-food-and-beverages-market>
- 55 INTERPOL – Europol, 2021, 'OPSON IX Analysis Report', accessible at <https://www.europol.europa.eu/publications-documents/operation-opson-ix-%E2%80%93-analysis-report>
- 56 D. Allison, BBC, 2018, 'Fake booze and the festive spirit', accessible at <https://www.bbc.com/news/uk-scotland-42322590>
- 57 A. Bansal, Forbes, 2020, 'Chain Reaction: How Supply Chain Technology Impacts The Alcohol Industry', accessible at <https://www.forbes.com/sites/forbestechcouncil/2020/04/30/chain-reaction-how-supply-chain-technology-impacts-the-alcohol-industry/?sh=50e26fd723a0>
- 58 J. Spencer, N. Lord, C. Flores Elizondo, 2020, 'Alcohol Change UK, Distribution and consumption of counterfeit alcohol: Getting to grips with fake booze', accessible at <https://alcoholchange.org.uk/publication/the-distribution-and-consumption-of-counterfeit-alcohol>

59 EU Commission & EUIPO, 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market, 2020', accessible at https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf

60 Europol, 2021, 'European Serious and Organised Crime Threat Assessment (EU SOCTA), 2021', accessible at <https://www.europol.europa.eu/socta-report>

61 EU Commission, 2020, 'Report on the EU customs enforcement of intellectual property rights - Results at the EU border, 2019', accessible at https://ec.europa.eu/taxation_customs/intellectual-property-rights-facts-and-figures_en

62 EU Commission & EUIPO, 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market, 2020', accessible at https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf

63 EU Commission & EUIPO, 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market 2020', accessible at https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf

64 EU Commission & EUIPO, 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market 2020', accessible at https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf

65 EU Commission, 2020, 'Report on the EU customs enforcement of intellectual property rights - Results at the EU border, 2019', accessible at https://ec.europa.eu/taxation_customs/intellectual-property-rights-facts-and-figures_en

66 EUIPO, OECD, 2021, 'Global Trade in Fakes – A worrying threat', accessible at <https://www.oecd.org/publications/global-trade-in-fakes-74c81154-en.htm>

67 Il Mattino, 2021, 'Profumi falsi sequestrati a Napoli, scoperto il laboratorio della truffa', accessible at https://www.ilmattino.it/napoli/cronaca/profumi_falsi_sequestrati_a_napoli_oggi_ultime_notizie-5757523.html

68 Europol, 2021, 'Fake perfumes assembly site dismantled in Italy', accessible at <https://www.europol.europa.eu/newsroom/news/fake-perfumes-assembly-site-dismantled-in-italy>

69 Fanpage.it, 2019, 'Profumi falsi, l'ultima frontiera della contraffazione', accessible at <https://napoli.fanpage.it/profumi-falsi-lultima-frontiera-della-contraffazione-finti-tester-venduti-per-originali/>

70 EUIPO Europol, 2019, 'Intellectual Property Crime Threat Assessment', accessible at https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/reports/2019_IP_Crime_Threat_Assessment_Report/2019_IP_Crime_Threat_Assessment_Report.pdf

71 OECD & EUIPO, 2021, 'Misuse of E-Commerce for Trade in Counterfeits, Illicit Trade', accessible at <https://doi.org/10.1787/1c04a64e-en>

72 Europol, 2020, 'Operation In Our Sites takes down 21 910 websites selling counterfeit goods', accessible at <https://www.europol.europa.eu/newsroom/news/operation-in-our-sites-takes-down-21-910-websites-selling-counterfeit-goods>

73 EUIPO, 2021, 'Vendor accounts on third party trading platforms', accessible at <https://euipo.europa.eu/ohimportal/en/web/observatory/news/-/action/view/8981655>

74 EUIPO, 2020, 'Report on the EU internal market enforcement of intellectual property rights: results of detentions in EU Member States, 2019', accessible at <https://euipo.europa.eu/ohimportal/en/news/-/action/view/8426198>

- 75 INTERPOL – Europol, 2021, 'OPSON IX Analysis Report', accessible at <https://www.europol.europa.eu/publications-documents/operation-opson-ix-%E2%80%93-analysis-report>
- 76 Europol, 2019, 'Europol helps partners seize millions of counterfeit goods in OLAF – coordinated operation', accessible at <https://www.europol.europa.eu/newsroom/news/europol-helps-partners-seize-millions-of-counterfeit-goods-in-olaf-coordinated-operation>
- 77 Europol information
- 78 Relevant legislation on Plant Protection Products (PPPs) and Pesticides is available at https://ec.europa.eu/food/plants/pesticides/legislation-plant-protection-products-ppps_en and https://ec.europa.eu/food/plants/pesticides/maximum-residue-levels/eu-legislation-mrls_en
- 79 Faostat, accessible at <http://www.fao.org/faostat/en/#data/RT>
- 80 UNEP and GRID-Arendal, 2020, 'The Illegal Trade in Chemicals', accessible at <https://www.unep.org/resources/assessment/illegal-trade-chemicals>
- 81 UNEP and GRID-Arendal, 2020, 'The Illegal Trade in Chemicals', accessible at <https://www.unep.org/resources/assessment/illegal-trade-chemicals>
- 82 Europol information
- 83 Europol, 2021, 'Pesticides worth up to € 80 million in criminal profits seized during Operation Silver Axe VI', accessible at <https://www.europol.europa.eu/newsroom/news/pesticides-worth-to-%E2%82%AC-80-million-in-criminal-profits-seized-during-operation-silver-axe-vi>
- 84 Europol, 2021, 'European Serious and Organised Crime Threat Assessment (EU SOCTA), 2021', accessible at <https://www.europol.europa.eu/socta-report>
- 85 Europol, EUIPO, 2019, 'Intellectual Property Crime Threat Assessment, Public', accessible at https://euiipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/reports/2019_IP_Crime_Threat_Assessment_Report/2019_IP_Crime_Threat_Assessment_Report.pdf
- 86 Europol, 2021, 'EU Serious and Organised Crime Threat Assessment (SOCTA), 2021', accessible at <https://www.europol.europa.eu/socta-report#fndtn-tabs-0-bottom-1>
- 87 Europol, OHIM, 2015, 'Situation Report on Counterfeiting in the European Union', accessible at <https://www.europol.europa.eu/publications-documents/2015-situation-report-counterfeiting-in-european-union>
- 88 European Parliament, 2021, 'European Parliament, Policy Department for External Relations, Directorate General for External Policies of the Union, The use of pesticides in developing countries and their impact on health and the right to food, PE 653.622 - January 2021', accessible at [https://www.europarl.europa.eu/thinktank/en/document.html?reference=EXPO_STU\(2021\)653622](https://www.europarl.europa.eu/thinktank/en/document.html?reference=EXPO_STU(2021)653622)
- 89 EUIPO, 2017, 'The economic cost of IPR infringement in the pesticides sector', accessible at <https://euiipo.europa.eu/ohimportal/en/web/observatory/ipr-infringement-pesticides-sector>
- 90 EUIPO, 2017, 'The economic cost of IPR infringement in the pesticides sector', accessible at <https://euiipo.europa.eu/ohimportal/en/web/observatory/ipr-infringement-pesticides-sector>
- 91 European Commission, Food Safety, 'REFIT - Evaluation of the EU legislation on plant protection products and pesticides residues', accessible at https://ec.europa.eu/food/plants/pesticides/refit-evaluation-eu-legislation-plant-protection-products-and-pesticides-residues_en
- 92 OECD, EUIPO 2020, 'Trade in Counterfeit Pharmaceutical Products, Illicit Trade', accessible at <https://doi.org/10.1787/a7c7e054-en>

- 93 EU Commission, 2020, 'Report on the EU customs enforcement of intellectual property rights - Results at the EU border, 2019', accessible at https://ec.europa.eu/taxation_customs/intellectual-property-rights-facts-and-figures_en; and EU Commission & EUIPO, 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market 2020', accessible at https://euiipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf
- 94 EU Commission, 2020, 'Report on the EU customs enforcement of intellectual property rights - Results at the EU border, 2019', accessible at https://ec.europa.eu/taxation_customs/intellectual-property-rights-facts-and-figures_en; and EU Commission & EUIPO, 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market, 2020', accessible at https://euiipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf
- 95 OECD, EUIPO, 2020, 'Trade in Counterfeit Pharmaceutical Products, Illicit Trade', accessible at <https://doi.org/10.1787/a7c7e054-en>
- 96 OECD, EUIPO, 2020, 'Trade in Counterfeit Pharmaceutical Products, Illicit Trade', accessible at <https://doi.org/10.1787/a7c7e054-en>
- 97 OECD, EUIPO, 2020, 'Trade in Counterfeit Pharmaceutical Products, Illicit Trade', accessible at <https://doi.org/10.1787/a7c7e054-en>
- 98 Europol 2019, 'Keeping sport safe and fair: 3.8 million doping substances and fake medicines seized worldwide', accessible at <https://www.europol.europa.eu/newsroom/news/keeping-sport-safe-and-fair-38-million-doping-substances-and-fake-medicines-seized-worldwide>
- 99 PSI, 'Measuring Pharma Crime', accessible at <https://www.psi-inc.org/pharma-crime>
- 100 Europol 2020, '48 arrested and 6 organised crime groups dismantled in medicine trafficking operation', accessible at <https://www.europol.europa.eu/newsroom/news/48-arrests-and-6-organised-crime-groups-dismantled-in-medicine-trafficking-operation>
- 101 PSI, 'Measuring Pharma Crime', accessible at <https://www.psi-inc.org/pharma-crime>
- 102 Europol 2021, 'European Serious and Organised Crime Threat Assessment (EU SOCTA) 2021', accessible at <https://www.europol.europa.eu/socta-report>
- 103 Packaging Europe, 2021, 'What does the e-commerce boom mean for pharma supply chain security?', accessible at <https://packagingeurope.com/e-commerce-boom-pharma-supply-chain-security/>
- 104 Europol 2019, 'Keeping sport safe and fair: 3.8 million doping substances and fake medicines seized worldwide', accessible at <https://www.europol.europa.eu/newsroom/news/keeping-sport-safe-and-fair-38-million-doping-substances-and-fake-medicines-seized-worldwide>
- 105 Europol, EUIPO, 2020, 'IP CRIME AND ITS LINK TO OTHER SERIOUS CRIMES Focus on Poly-Criminality', accessible at <https://www.europol.europa.eu/publications-documents/ip-crime-and-its-link-to-other-serious-crimes-focus-poly-criminality>
- 106 OECD, EUIPO, 2020, 'Trade in Counterfeit Pharmaceutical Products, Illicit Trade', accessible at <https://doi.org/10.1787/a7c7e054-en>
- 107 The Guardian 2019, 'WHO warns of fake cancer drug made from paracetamol', accessible at <https://www.theguardian.com/society/2019/feb/12/fake-cancer-drug-made-from-paracetamol-world-health-organization>
- 108 Europol 2020, '48 arrested and 6 organised crime groups dismantled in medicine trafficking operation', accessible at <https://www.europol.europa.eu/newsroom/news/48-arrests-and-6-organised-crime-groups-dismantled-in-medicine-trafficking-operation>

- 109 BBC News 2021, 'Fake pills' leave several seriously ill in Swansea hospital', accessible at <https://www.bbc.com/news/uk-wales-57750448> BBC News 2021, 'Fake pills' leave several seriously ill in Swansea hospital', accessible at <https://www.bbc.com/news/uk-wales-57750448>
- 110 Europol 2021, '9 million fake sedative pills removed from circulation by Hungarian and Norwegian Police', accessible at <https://www.europol.europa.eu/newsroom/news/9-million-fake-sedative-pills-removed-circulation-hungarian-and-norwegian-police>
- 111 Europol 2021, 'Eight arrests for selling potentially dangerous food supplements online', accessible at <https://www.europol.europa.eu/newsroom/news/eight-arrests-for-selling-potentially-dangerous-food-supplements-online>
- 112 Europol 2019, 'Keeping sport safe and fair: 3.8 million doping substances and fake medicines seized worldwide', accessible at <https://www.europol.europa.eu/newsroom/news/keeping-sport-safe-and-fair-38-million-doping-substances-and-fake-medicines-seized-worldwide>
- 113 Europol 2020, 'Rise of fake "Corona cures" revealed in global counterfeit medicine operation', accessible at <https://www.europol.europa.eu/newsroom/news/rise-of-fake-%E2%80%99corona-cures%E2%80%99-revealed-in-global-counterfeit-medicine-operation>
- 114 Europol 2020, 'Medicines and doping substances worth EUR 73 million seized in Europe-wide operation', accessible at <https://www.europol.europa.eu/newsroom/news/medicines-and-doping-substances-worth-%E2%82%AC73-million-seized-in-europe-wide-operation>
- 115 Europol 2021, 'European Serious and Organised Crime Threat Assessment (EU SOCTA) 2021', accessible at <https://www.europol.europa.eu/socta-report>
- 116 Europol 2020, 'How COVID-19 related crime infected Europe during 2020', accessible at <https://www.europol.europa.eu/publications-documents/how-covid-19-related-crime-infected-europe-during-2020>
- 117 World Health Organisation, 2021, 'Medical Product Alert N°7/2021: Falsified COVID-19 Vaccine AstraZeneca', accessible at <https://www.who.int/news/item/04-11-2021-medical-product-alert-n-7-2021-falsified-covid-19-vaccine-astrazeneca> and 'Medical Product Alert N°6/2021: Falsified Pfizer-BioNTech COVID-19 Vaccine', accessible at <https://www.who.int/news/item/04-11-2021-medical-product-alert-n-6-2021-falsified-pfizer-biontech-covid-19-vaccine>
- 118 BBC 2021, 'Fake prescription drugs left my son brain damaged', accessible at <https://www.bbc.com/news/uk-wales-57396496>
- 119 Europol 2021, 'European Serious and Organised Crime Threat Assessment (EU SOCTA) 2021', accessible at <https://www.europol.europa.eu/socta-report>
- 120 EUIPO 2021, 'Vendor accounts on third party trading platforms', accessible at <https://euiipo.europa.eu/ohim-portal/en/web/observatory/news/-/action/view/8981655>
- 121 EUIPO 2021, 'Vendor accounts on third party trading platforms', accessible at <https://euiipo.europa.eu/ohim-portal/en/web/observatory/news/-/action/view/8981655>
- 122 Europol 2021, 'European Serious and Organised Crime Threat Assessment (EU SOCTA) 2021', accessible at <https://www.europol.europa.eu/socta-report>
- 123 EUIPO 2019, 'ONLINE COPYRIGHT INFRINGEMENT IN THE EUROPEAN UNION MUSIC, FILMS AND TV (2017-2018), TRENDS AND DRIVERS', accessible at https://euiipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/online_copyright_infringement_in_eu_en.pdf
- 124 EUIPO, 2019, 'IPTV crime in the European Union', accessible at https://euiipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/reports/2019_Illegal_IPTV_in_the_European_Union/2019_Illegal_IPTV_in_the_European_Union_Full_en.pdf
- 125 Europol information.
- 126 EUIPO 2021, 'Vendor accounts on third party trading platforms', accessible at <https://euiipo.europa.eu/ohim-portal/en/web/observatory/news/-/action/view/8981655>

- 127 Europol 2020, 'ONE OF THE BIGGEST ONLINE PIRACY GROUPS IN THE WORLD TAKEN DOWN', accessible at <https://www.europol.europa.eu/print/newsroom/news/one-of-biggest-online-piracy-groups-in-world-taken-down>
- 128 Europol 2021, 'European Serious and Organised Crime Threat Assessment (EU SOCTA) 2021', accessible at <https://www.europol.europa.eu/socta-report>
- 129 Europol information
- 130 EUIPO 2021, 'RISKS AND DAMAGES POSED BY IPR INFRINGEMENT IN EUROPE', accessible at <https://euipo.europa.eu/ohimportal/web/observatory/risks-and-damages-posed-by-irp-infringement-in-europe>
- 131 EUIPO 2021, 'ONLINE COPYRIGHT INFRINGEMENT IN THE EUROPEAN UNION MUSIC, FILMS AND TV (2017-2020), TRENDS AND DRIVERS', accessible at https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf
- 132 Europol website <https://www.europol.europa.eu/covid-19/covid-19-illegal-streaming>
- 133 Businesswire.com, 2021, 'Set-top Box Market to Grow by Almost \$ 4 Billion Despite Pandemic | Technavio', accessible at <https://www.businesswire.com/news/home/20210104005831/en/Set-top-Box-Market-to-Grow-by-Almost-4-Billion-Despite-Pandemic-Technavio>
- 134 Europol 2020, 'OPERATION IN OUR SITES TAKES DOWN 21 910 WEBSITES SELLING COUNTERFEIT GOODS', accessible at <https://www.europol.europa.eu/media-press/newsroom/news/operation-in-our-sites-takes-down-21-910-websites-selling-counterfeit-goods>
- 135 EUIPO 2019 'Illegal IPTV in the EU', accessible at https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/reports/2019_Illegal_IPTV_in_the_European_Union/2019_Illegal_IPTV_in_the_European_Union_Full_en.pdf
- 136 Europol 2021, 'European Serious and Organised Crime Threat Assessment (EU SOCTA) 2021', accessible at <https://www.europol.europa.eu/socta-report>
- 137 Europol 2021, 'European Serious and Organised Crime Threat Assessment (EU SOCTA) 2021', accessible at <https://www.europol.europa.eu/socta-report>
- 138 Europol 2021, 'European Serious and Organised Crime Threat Assessment (EU SOCTA) 2021', accessible at <https://www.europol.europa.eu/socta-report>
- 139 KPMG 2021, 'Illicit cigarette consumption in the EU, UK, Norway and Switzerland', accessible at <https://www.stopillegal.com/docs/default-source/external-docs/kpmg-report---illicit-cigarette-consumption-in-the-eu-uk-norway-and-switzerland---2020-results.pdf>
- 140 KPMG 2021, 'Illicit cigarette consumption in the EU, UK, Norway and Switzerland', accessible at <https://www.stopillegal.com/docs/default-source/external-docs/kpmg-report---illicit-cigarette-consumption-in-the-eu-uk-norway-and-switzerland---2020-results.pdf>
- 141 KPMG 2021, 'Illicit cigarette consumption in the EU, UK, Norway and Switzerland', accessible at <https://www.stopillegal.com/docs/default-source/external-docs/kpmg-report---illicit-cigarette-consumption-in-the-eu-uk-norway-and-switzerland---2020-results.pdf>
- 142 EUIPO OECD, 2021, 'Global Trade in Fakes – A worrying threat, 2021', accessible at <https://www.oecd.org/publications/global-trade-in-fakes-74c81154-en.htm>
- 143 EUIPO 2021, 'EU Enforcement of intellectual property rights: overall results of detentions, 2019', accessible at <https://euipo.europa.eu/ohimportal/en/web/observatory/observatory-publications>
- 144 EU Commission & EUIPO, 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market 2020', accessible at https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf

- 145 Europol 2021, 'European Serious and Organised Crime Threat Assessment (EU SOCTA), 2021', accessible at <https://www.europol.europa.eu/socta-report>
- 146 KPMG 2021, 'Illicit cigarette consumption in the EU, UK, Norway and Switzerland', accessible at <https://www.stopillegal.com/docs/default-source/external-docs/kpmg-report---illicit-cigarette-consumption-in-the-eu-uk-norway-and-switzerland---2020-results.pdf>
- 147 Europol 2019, Strategic report, 'Illicit tobacco production facilities in the EU'.
- 148 Europol 2020, 'Four metres underground: illegal cigarette factory uncovered in a bunker in Spain' accessible at <https://www.europol.europa.eu/newsroom/news/four-metres-underground-illegal-cigarette-factory-uncovered-in-bunker-in-spain>
- 149 The Brussels Times 2020, 'Counterfeit cigarettes seizures in January alone nearly topple 2019 record', accessible at <https://www.brusselstimes.com/belgium/90035/counterfeit-cigarettes-seized-in-january-near-2019-record/>
- 150 OLAF 2021, 'Illicit tobacco trade: nearly 370 million cigarettes seized in 2020', accessible at https://ec.europa.eu/anti-fraud/media-corner/news/14-01-2021/illicit-tobacco-trade-nearly-370-million-cigarettes-seized-2020_en
- 151 Europol 2020, 'Monitoring the impact of the COVID-19 pandemic on serious and organised crime and terrorism in the EU'
- 152 KPMG 2021, 'Illicit cigarette consumption in the EU, UK, Norway and Switzerland', accessible at <https://www.stopillegal.com/docs/default-source/external-docs/kpmg-report---illicit-cigarette-consumption-in-the-eu-uk-norway-and-switzerland---2020-results.pdf>
- 153 Europol 2021, '12 ARRESTED IN FRANCE IN LATEST HIT AGAINST TOBACCO SMUGGLERS', accessible at <https://www.europol.europa.eu/newsroom/news/12-arrested-in-france-in-latest-hit-against-tobacco-smugglers>
- 154 Grand view research, 2021, 'E-cigarette And Vape Market Size, Share & Trends Analysis Report By Distribution Channel (Online, Retail), By Product (Disposable, Rechargeable), By Component, By Region, And Segment Forecasts, 2021 – 2028' accessible at <https://www.grandviewresearch.com/industry-analysis/e-cigarette-vaping-market>
- 155 Europol 2021, 'European Serious and Organised Crime Threat Assessment (EU SOCTA), 2021', accessible at <https://www.europol.europa.eu/socta-report>
- 156 EU Commission 2020, 'Report on the EU customs enforcement of intellectual property rights - Results at the EU border, 2019', accessible at https://ec.europa.eu/taxation_customs/intellectual-property-rights-facts-and-figures_en
- 157 EU Commission 2020, 'Report on the EU customs enforcement of intellectual property rights - Results at the EU border, 2019', accessible at https://ec.europa.eu/taxation_customs/intellectual-property-rights-facts-and-figures_en
- 158 EU Commission & EUIPO, 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market, 2020', accessible at https://euiipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf
- 159 EUIPO, OECD, 2021, 'Global Trade in Fakes – A worrying threat, 2021', accessible at <https://www.oecd.org/publications/global-trade-in-fakes-74c81154-en.htm>
- 160 Directive 2009/48/EC of the European Parliament and of the Council of 18 June 2009 on the safety of toys, accessible at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02009L0048-20210521>
- 161 Directive 2009/48/EC of the European Parliament and of the Council of 18 June 2009 on the safety of toys, accessible at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02009L0048-20210521>
- 162 EUIPO, 2019, 'Qualitative Study on risks posed by counterfeits to consumers', accessible at https://euiipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/reports/2019_Risks_Posed_by_Counterfeits_to_Consumers_Study/2019_Risks_Posed_by_Counterfeits_to_Consumers_Study.pdf
- 163 Diario de Tarragona, 2021, 'Salou: 42 detenidos y 30 000 objetos falsificados intervenidos' <https://www.diaride-tarragona.com/costa/Intervienen-mas-de-30.000-objetos-falsificados-y-detienen-a-42-personas-en-un-operativo-policial-en-Salou-20210825-0012.html>

- 164 EUIPO, OECD, 2021, 'Global Trade in Fakes – A worrying threat, 2021', accessible at <https://www.oecd.org/publications/global-trade-in-fakes-74c81154-en.htm>
- 165 Europol information
- 166 EUIPO, OECD, 2021, 'Global Trade in Fakes – A worrying threat, 2021', accessible at <https://www.oecd.org/publications/global-trade-in-fakes-74c81154-en.htm>
- 167 EU Commission, 2020, 'Report on the EU customs enforcement of intellectual property rights - Results at the EU border, 2019', accessible at https://ec.europa.eu/taxation_customs/intellectual-property-rights-facts-and-figures_en; and EU Commission & EUIPO, 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market 2020', accessible at https://euiipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf
- 168 IP Crime Group 2020, 'Intellectual Property Office, IP Crime and enforcement report, 2019', accessible at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/913644/ip-crime-report-2019-20.pdf
- 169 OLAF 2020, '370kg counterfeit mechanical components seized in Italy thanks to OLAF' information, accessible at https://ec.europa.eu/anti-fraud/media-corner/news/23-11-2020/370kg-counterfeit-mechanical-components-seized-italy-thanks-olaf_en
- 170 Marketscreener.com 2021, 'Canaan: Notice Regarding Counterfeit Website Impersonating Canaan Inc.', accessible at <https://www.marketscreener.com/quote/stock/CANAAN-INC-76482411/news/Canaan-Notice-Regarding-Counterfeit-Website-Impersonating-Canaan-Inc-36381364/>
- 171 EU Commission 2020, 'Report on the EU customs enforcement of intellectual property rights: results at the EU border, 2019', accessible at https://ec.europa.eu/taxation_customs/intellectual-property-rights-facts-and-figures_en
- 172 EU Commission & EUIPO, 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market, 2020', accessible at https://euiipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf
- 173 EU Commission & EUIPO, 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market, 2020', accessible at https://euiipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf
- 174 EUIPO 2021, 'EU Enforcement of intellectual property rights: overall results of detentions, 2019', accessible at <https://euiipo.europa.eu/ohimportal/en/web/observatory/observatory-publications>
- 175 EU Commission, 2020, 'Report on the EU customs enforcement of intellectual property rights: results at the EU border, 2019', accessible at https://ec.europa.eu/taxation_customs/intellectual-property-rights-facts-and-figures_en
- 176 Europol information
- 177 Europol information
- 178 Ministero della Salute, 2013, 'Contraffazione dei cosmetici', accessible at https://www.salute.gov.it/portale/temi/p2_6.jsp?lingua=italiano&id=3848&area=cosmetici&menu=presentazione
- 179 Il Mattino, 2021, 'Profumi falsi sequestrati a Napoli, scoperto il laboratorio della truffa', accessible at https://www.ilmattino.it/napoli/cronaca/profumi_falsi_sequestrati_a_napoli_oggi_ultime_notizie-5757523.html
- 180 Europol, 2021, 'European Serious and Organised Crime Threat Assessment (EU SOCTA), 2021', accessible at <https://www.europol.europa.eu/socta-report>

- 181 EU Commission, 2020, 'Report on the EU customs enforcement of intellectual property rights - Results at the EU border, 2019', accessible at https://ec.europa.eu/taxation_customs/intellectual-property-rights-facts-and-figures_en; and EU Commission & EUIPO, 2021, 'EU enforcement of intellectual property rights: results at the EU border and in the EU internal market 2020', accessible at https://euiipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/quantification-of-ipr-infringement/online-copyright-infringement-in-eu/2021_online_copyright_infringement_in_eu_en.pdf
- 182 EUIPO, 2020, '2020 Status Report on IP Infringement: why IP rights are important, IPR infringement and the fight against counterfeiting and piracy', accessible at <https://euiipo.europa.eu/ohimportal/web/observatory/status-reports-on-ip-infringement>
- 183 EUIPO, OECD, 2021, 'Global Trade in Fakes – A worrying threat, 2021', accessible at <https://www.oecd.org/publications/global-trade-in-fakes-74c81154-en.htm>
- 184 Europol, 2021, 'Fake clothes and luxury items worth € 16.5 million seized in Spain', accessible at <https://www.europol.europa.eu/newsroom/news/fake-clothes-and-luxury-items-worth-%E2%82%AC-165-million-seized-in-spain>
- 185 Europol, 2021, 'European Serious and Organised Crime Threat Assessment (EU SOCTA) 2021', accessible at <https://www.europol.europa.eu/socta-report>.
- () Europol, 2020, 'Viral marketing – counterfeits, substandard goods and intellectual property crime in the COVID-19 pandemic', accessible at <https://www.europol.europa.eu/newsroom/news/viral-marketing-counterfeits-in-time-of-pandemic>; Europol, 2020, 'How COVID-19 related crime infected Europe during 2020', accessible at <https://www.europol.europa.eu/publications-documents/how-covid-19-related-crime-infected-europe-during-2020>
- 186 () Europol, 2020, 'Viral marketing – counterfeits, substandard goods and intellectual property crime in the COVID-19 pandemic', accessible at <https://www.europol.europa.eu/newsroom/news/viral-marketing-counterfeits-in-time-of-pandemic>; Europol, 2020, 'How COVID-19 related crime infected Europe during 2020', accessible at <https://www.europol.europa.eu/publications-documents/how-covid-19-related-crime-infected-europe-during-2020>
- 187 Europol, 2021, 'European Serious and Organised Crime Threat Assessment (EU SOCTA) 2021', accessible at <https://www.europol.europa.eu/socta-report>
- 188 OLAF, 2021, 'The OLAF Report 2020', accessible at https://ec.europa.eu/anti-fraud/about-us/reports/olaf-report_en
- 189 OECD & EUIPO, 2021, 'Misuse of E-Commerce for Trade in Counterfeits, Illicit Trade', accessible at <https://doi.org/10.1787/1c04a64e-en>
- 190 OECD & EUIPO, 2021, 'Misuse of E-Commerce for Trade in Counterfeits, Illicit Trade', accessible at <https://doi.org/10.1787/1c04a64e-en>
- 191 Europol, 2020, 'How COVID-19 related crime infected Europe during 2020', accessible at <https://www.europol.europa.eu/publications-documents/how-covid-19-related-crime-infected-europe-during-2020>
- 192 EUIPO 2021, 'Monitoring and analysing social media in relation to IPR infringement Report', accessible at <https://euiipo.europa.eu/ohimportal/en/web/observatory/observatory-publications?keywords=social%20media>
- 193 INTERPOL – Europol, 2021, 'OPSON IX Analysis Report', accessible at <https://www.europol.europa.eu/publications-documents/operation-opson-ix-%E2%80%93-analysis-report>
- 194 Europol, 2020, 'How COVID-19 related crime infected Europe during 2020', accessible at <https://www.europol.europa.eu/publications-documents/how-covid-19-related-crime-infected-europe-during-2020>
- 195 World Health Organisation, 2021, 'Medical Product Alert N°7/2021: Falsified COVID-19 Vaccine AstraZeneca', accessible at <https://www.who.int/news/item/04-11-2021-medical-product-alert-n-7-2021-falsified-covid-19-vaccine-as-trazeneca>

196 Ministère de l'Économie, des Finances et de la Relance, 2021, 'Lutte contre les contrefaçons : le nouveau plan de la douane française pour 2021-2022', accessible at <https://www.economie.gouv.fr/lutte-contre-les-contrefacons-le-nouveau-plan-de-la-douane-francaise-pour-2021-2022>, and AP Analyst, 2021, 'German customs: sharp increase in seizure value in 2020', accessible at <https://www.karg-und-petersen.de/anti-piracy-analyst/en/german-customs-sharp-increase-in-seizure-value-in-2020/>

197 Ministère de l'Économie, des Finances et de la Relance, 2021, 'Lutte contre les contrefaçons : le nouveau plan de la douane française pour 2021-2022', accessible at <https://www.economie.gouv.fr/lutte-contre-les-contrefacons-le-nouveau-plan-de-la-douane-francaise-pour-2021-2022>, and AP Analyst, 2021, 'German customs: sharp increase in seizure value in 2020', accessible at <https://www.karg-und-petersen.de/anti-piracy-analyst/en/german-customs-sharp-increase-in-seizure-value-in-2020/>

198 EUIPO, 2021, 'Monitoring and analysing social media in relation to IPR infringement Report', accessible at <https://euipo.europa.eu/ohimportal/en/web/observatory/observatory-publications?keywords=social%20media>

199 Europol information

200 H. Roberts, 2018, 'Financial Times, How the mafia got to our food', accessible at <https://www.ft.com/content/73de228c-e098-11e8-8e70-5e22a430c1ad>

201 F. Pinotti, 2019, 'Corriere della Sera, Farmaci contraffatti e riciclaggio, le farmacie diventano «lavanderie» della criminalità organizzata', accessible at https://www.corriere.it/cronache/19_gennaio_24/farmaci-contraffatti-riciclaggio-sol-di-sporchi-ndrangheta-mafie-e30b491c-1fb0-11e9-bb29-037a280df036.shtml

202 Europol information

203 Europol, 2021, 'European Serious and Organised Crime Threat Assessment (EU SOCTA), 2021', accessible at <https://www.europol.europa.eu/socta-report>

204 Europol information

205 Europol information

206 EUIPO OECD, 2021, 'Global Trade in Fakes – A worrying threat, 2021', accessible at <https://www.oecd.org/publications/global-trade-in-fakes-74c81154-en.htm>

207 EUIPO OECD, 2021, 'Global Trade in Fakes – A worrying threat, 2021', accessible at <https://www.oecd.org/publications/global-trade-in-fakes-74c81154-en.htm>

208 EUIPO, 2020, '2020 Status Report on IP Infringement: why IP rights are important, IPR infringement and the fight against counterfeiting and piracy', accessible at <https://euipo.europa.eu/ohimportal/web/observatory/status-reports-on-ip-infringement>

209 Europol, 2021, 'European Serious and Organised Crime Threat Assessment (EU SOCTA), 2021', accessible at <https://www.europol.europa.eu/socta-report>

210 EU Commission, 2020, 'Report on the EU customs enforcement of intellectual property rights - Results at the EU border, 2019', accessible at https://ec.europa.eu/taxation_customs/intellectual-property-rights-facts-and-figures_en

211 Europol, 2021, 'European Serious and Organised Crime Threat Assessment (EU SOCTA), 2021', accessible at <https://www.europol.europa.eu/socta-report>

212 INTERPOL – Europol, 2021, 'OPSON IX Analysis Report', accessible at <https://www.europol.europa.eu/publications-documents/operation-opson-ix-%E2%80%93-analysis-report>

213 OECD and EUIPO, 2020, 'Trade in counterfeit pharmaceutical products', retrievable at <http://www.oecd.org/gov/trade-in-counterfeit-pharmaceutical-products-a7c7e054-en.htm>

INTELLECTUAL PROPERTY CRIME

THREAT ASSESSMENT 2022

ISBN 978-92-9156-310-4 doi: 10.2814/830719 TB-08-22-009-EN-N

© European Union Intellectual Property Office 2022
Reproduction is authorised provided the source is acknowledged