



# DRIVING THE CHANGE: AN EU BARRIER MODEL TO PREVENT AND DISRUPT VEHICLE CRIME

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Organised property crime, particularly motor vehicle theft (MVT), presents a persistent and complex challenge for law enforcement within the European Union (EU). The EU has recognised the gravity of this issue by designating MVT as a key EMPACT priority under its 2nd Policy Cycle for the fight against serious and organised crime. While vehicle theft rates have declined across the EU in recent years, the average value of stolen vehicles has risen as criminal groups target high-end cars and employ sophisticated ICT tools. At the same time, recovery rates for stolen vehicles have decreased, highlighting the ongoing difficulties EU law enforcement agencies face in combating MVT.

As a complementary measure to traditional criminal law approaches, the administrative approach and barrier models have emerged as potential tools for preventing and tackling serious and organised crime. This new approach utilises administrative and regulatory mechanisms while employing a multidisciplinary approach that engages a broad range of stakeholders. This brief presents an **EU-wide barrier model** and outlines five prioritised barriers with the greatest potential for feasibility, efficiency, and impact in a comprehensive European strategy to combat MVT. The model draws upon case studies from six countries: Belgium, Bulgaria, Germany, France, Italy, and the Netherlands.

## Vehicle Crime in the EU

The latest Eurostat data reflects a consistent decrease in vehicle crime across the EU. However, the theft of motorised vehicles continues to be closely associated with cross-border organised and itinerant crime groups. Many stolen vehicles and their components find their

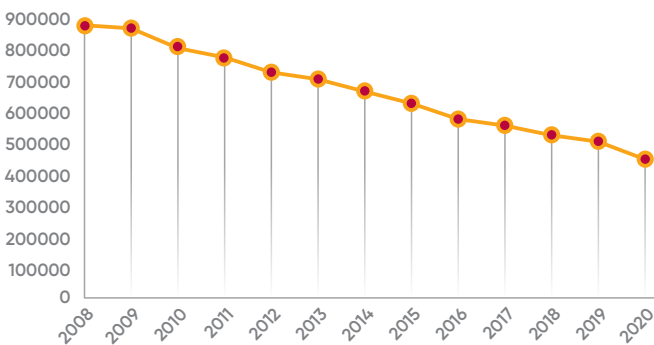
### KEY POINTS

- **Traditional criminal justice tools face limitations** in addressing organized vehicle crime.
- The **EU barrier model** is a promising complementary approach to significantly improve the prevention and disruption of the business model employed by organized groups involved in motor vehicle theft (MVT) crimes.
- Five notable barriers have been identified:
  - **EU-wide data-driven ANPR system**, involving the sharing of Automatic Number Plate Recognition (ANPR) data and analytical methods at the EU level.
  - Conducting an **inventory of the car sale process in Member States** to enhance police officers' ability to recognize signs of vehicle crime more effectively.
  - **Enhancing Customer Due Diligence** by introducing a legal obligation for the registration of (online) buyers/traders of second-hand auto parts and establishing minimum requirements for maintaining purchase records.
  - **Marking car parts** to prevent and disrupt the trade in stolen parts, either through factory marking or post-production micro-dotting.
  - **Strengthening cooperation between police and the insurance sector**, emphasizing shared responsibility for crime prevention and empowering vehicle owners to take preventive measures.



way to Africa or Eastern Europe, while a smaller part is transported to Asia and the Middle East.

**Fig. 1 Theft of a motorized land vehicle in the EU (number of police recorded offences)**



Source: Eurostat (crim\_off\_cat)

Three primary modi operandi are distinguishable, depending on the stolen vehicles’ destination and subsequent trade. The first is the **‘Hit and Run’ method**, where criminals swiftly enter, steal a vehicle, and promptly leave the country. The stolen cars are then driven across borders to neighbouring countries.

The second modus operandi is the **Eastern European approach**. In this scenario, mobile organised crime groups (MOCG) enter the target country using public transport, airplanes, or their own means of transportation and stay for a few weeks. These groups steal multiple cars by employing more sophisticated methods like relay attacks and GPS jamming. The stolen vehicles are subsequently transported by road, primarily via trucks and containers, often destined for countries such as Poland, Ukraine, Belarus, Lithuania, or Russia.

The third common modus operandi involves **Central and South African networks**. These criminal groups are already residing in the target country. They steal cars based on demand from abroad, often utilising information and communication technology (ICT) tools. Stolen cars or car parts are typically transported through Central and South African ports, such as Lomé in Togo and Cotonou in Benin.

## The European Barrier Model

The cross-border character of motor vehicle thefts, coupled with the utilisation of advanced ICT tools and the involvement of organised crime, presents significant challenges for law enforcement in the EU. Conventional criminal justice tools encounter limitations that hinder their effectiveness in addressing this complex crime. Proposing a complementary approach, the EU barrier model stands out as a viable strategy to significantly enhance the prevention and disruption of the business model employed by organised groups perpetrating MVT crimes.

The European barrier model is grounded in a thorough examination of the modus operandi, techniques, and tools employed by criminal groups to perpetrate vehicle theft and fencing of stolen cars and auto parts. This comprehensive analysis has enabled the identification of the typical crime script of car thefts in the EU, the distinct factors that facilitate vehicle theft, the signals that indicate potential theft, the intentional and unintentional facilitators of theft, the key institutions and private sector partners involved in tackling vehicle theft, and promising practices from various EU member states that hold the potential to disrupt the business model of the criminal groups behind these crimes.

**Fig. 2 Typical crime script of motor vehicle theft**



	ENTRY	STAY	INFRASTRUCTURE	PREPARATION	CRIME	POST-CRIME	STORAGE	TRANSPORT	TRADE	PROFITS
Opportunities	Easy intra-EU travel for criminals.	Staying anonymously in tourist lodgings.	Exploiting less monitored roads and ports.	Online tutorials for vehicle theft.	Few night-time police patrols and keyless technology vulnerabilities.	Open borders and distrust between LEAs and the private sector.	Anonymous storage facilities and legal loopholes.	Less monitored transport across borders.	Lucrative used-car market and document forging.	Blending into the cash economy and the grey market.
Signals	Suspicious luggage.	Unusual behaviour in lodging establishments.	False number plates.	Suspicious online activity and unfamiliar vehicles in the neighbourhood.	Deviant patterns in vehicle usage and possession of theft tools.	Suspects with previous criminal activity identified by police.	Use of GPS jammers and prolonged parking.	False documentation and vehicles stacked in lorries or containers.	Missing documents and lower than usual prices of cars or parts.	Display of unjustified income and large cash transactions.
Facilitators	Airports and car rental companies.	Accommodation providers and online platforms.	Ports and public transport.	Social media channels providing online resources for car theft.	Providers of know-how and tools for car theft.	Car dealerships, car repair or chop-shops.	Unwitting landlords.	Third-country customs and harbour authorities.	Online sales platforms and used car dealerships.	Accountants and front businesses.
Partners	Car rental companies and airports.	LEAs and accommodation providers.	LEAs.	Europol, Interpol, local communities, and media.	National police and municipal authorities.	Insurance companies and customs authorities.	Tax authorities and storage facility owners.	Police and customs authorities.	Used-car and salvage yard owners.	Tax administrations and financial services providers.
Barriers	Data sharing between LEAs and the private sector (rentals, airlines).	Verifiable registration of tenants and visitors (digital night register).	<b>EU-wide data-driven ANPR system.</b>	Hot-spot policing.	<b>Strengthening cooperation between police and the insurance sector.</b>	<b>Strengthening cooperation between police and the insurance sector.</b>	Hot-spot policing and signal jamming detection.	<b>Inventorying the car sale process in Member States.</b>	<b>Enhancing KYC enforcement by online traders and marking of car parts.</b>	Enforcing KYC regulations on money transfers and asset tracing.

## What's next

The European barrier model for combating vehicle theft provides a comprehensive overview of potential interventions against organised vehicle crime, all aimed at crime prevention and intervention at the EU level. In the short and medium term, five barriers emerge as particularly feasible, relevant, and impactful:

1. **EU-wide data-driven ANPR system:** The proposed barrier involves sharing Automatic Number Plate Recognition (ANPR) data and analytical methods at the EU level. Each country would be required to establish and maintain an ANPR list of red-flagged vehicles (stolen, suspicious, or high-risk brands) based on a common list of offences. This barrier facilitates tracking and tracing stolen vehicles, detecting cloned vehicles, and boosting intelligence-led policing through risk profiles.
2. **Inventorizing the car sale process in Member States:** This barrier aims to increase awareness among law enforcement agencies across the EU regarding the legal requirements for purchasing, selling, and registering a car in each member state. Providing law enforcement personnel with comprehensive information on these diverse procedures enhances their ability to recognise signs of vehicle crime (theft or fraud) more effectively.
3. **Enhancing customer due diligence:** This barrier proposes the introduction of a legal obligation for the registration of (online) buyers/traders of second-hand auto parts, along with minimum requirements for maintaining purchase records. It also includes a ban on selling parts with damaged or deleted serial numbers. The measure could be further extended to include requirement of postal companies to expedite theft-prone goods only upon the sender presenting a valid digital registration. Implementation necessitates harmonising legislation across Member States, linking national registers for data exchange, and connecting them with police registers for stolen goods. The barrier aids the early identification of stolen auto parts, hindering criminal's access to postal services and raising awareness among customers to purchase only marked parts.
4. **Marking car parts:** This barrier aims to prevent and disrupt the trade in stolen parts through factory marking or post-production micro dotting. Initially focusing on the most frequently stolen auto parts, this requirement would apply to all EU manufacturers, car part dealers, and online trading platforms. Implementation involves creating a common EU register or linking existing databases, such as the FADA database (Fahrzeugdatenabfrage) in Germany, and ensuring law enforcement agencies have access.
5. **Strengthening cooperation between police and the insurance sector:** This barrier emphasises the need for increased public-private partnership between police and insurance companies. Police can encourage insurance companies to launch awareness campaigns among vehicle owners of frequently targeted brands, providing regular alerts about new crime trends and practical advice on vehicle safety. Implementation involves engaging EU and international insurance associations, introducing trend detection systems by insurance companies in member states, and establishing standard criteria for sending alerts. The positive outcomes include shared responsibility for crime prevention and empowering vehicle owners to take preventive measures independently.



V-BAR seeks to analyse the dynamics of the **criminal markets of motor vehicle theft and stolen vehicle parts** in the EU. Based on logistical analyses of these markets in 6 EU Member States, V-BAR will develop a **European barrier model** of organised vehicle theft and stolen vehicle parts.