Europol Report on the Impact of Robotics and Unmanned Systems on Law Enforcement

eucrim
European Law Forum: Prevention • Investigation • Prosecution

News

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Preprint eucrim 2025, Vol. 20(4)
ISSN: 1862-6947
https://eucrim.eu

Recent conflicts, including the ongoing Russian war of aggression against Ukraine, have accelerated the development and deployment of advanced unmanned systems. The lessons learned from the use of these systems are of particular relevance to European law enforcement agencies as they prepare for an evolving operational environment.

On 8 December 2025, Europol's Innovation Lab published a report providing an in-depth analysis of how unmanned systems may reshape society, criminal activity, and law enforcement. The report addresses, *inter alia*, the following:

- The increasing use of unmanned systems;
- Technical and regulatory challenges arising from their deployment;
- Emerging security threats;
- The need to ensure public trust through appropriate regulatory frameworks;
- The implications of operating in a three-dimensional environment encompassing air, ground, and underwater domains.

The report identifies 2022 as a turning point, marking the year in which organised crime began using unmanned systems across all domains with a new form of "crime-at-a-distance" emerging from today's "crime-as-a-service".

The report sets out the following challenges for legal regulations and practical reactions by the police:

- Unmanned systems are operating over increasingly vast distances;
- They are acting with growing autonomy and coordination;
- They are becoming progressively more capable;
- They increase rapidly in number and variety.

With regard to the current use of unmanned systems in law enforcement, the report highlights the deployment of drones, robots, and other autonomous technologies for surveillance and reconnaissance, crime scene mapping and forensic analysis, search and rescue operations, and the disposal of explosive ordnance and hazardous materials. The limitations of existing systems include their restricted level of autonomy, task-specific specialization, limited battery life, and, importantly, a lack of independence from industrial suppliers.

Concerning the threat from unmanned systems, the report notes that law enforcement's capability to counter the use of unmanned systems by criminals at scale remains limited. The disparity between the evolving

threat and the capacity to mitigate and protect against it has widened into a significant gap. This gap is not only technological in nature but also extends to regulatory frameworks, training, data sharing, and infrastructure.

In its final chapter, the report outlines a series of recommendations for European law enforcement authorities. It concludes that the rapid integration of increasingly capable unmanned systems will profoundly transform society and law enforcement, expanding the scope of policing and challenging traditional practices. While these technologies present new security risks and may be exploited by criminal actors, they also offer significant operational benefits if supported by robust regulation, public trust, and strategic investment. To ensure technological autonomy and achieve desirable outcomes, European stakeholders must act proactively, strengthen research and innovation, and adapt decision-making to the pace of technological change.

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The project is co-financed by the Union Anti-Fraud Programme (UAFP), managed by the European Anti-Fraud Office (OLAF).

Co-funded by
the European Union