

Forensic-Legal Analysis of Ukraine's Draft Law 'on the Right to Civilian Firearms' in the Context of European Legal Standards

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This article presents a comprehensive forensic-legal analysis of the Draft Law of Ukraine «On the Right to Civilian Firearms» (No. 5708), with a focus on its compatibility with international legal standards and, in particular, with the provisions of EU Directive 2021/555 on the control of the acquisition and possession of firearms. The study examines the draft law through the lens of legislative harmonization, assessing its regulatory framework in key areas such as civilian firearms marking, registration, traceability, information exchange, secure storage, distance selling, and access restrictions. Special emphasis is placed on the role of forensic examination and criminal proceedings in ensuring effective firearms control. The article identifies legal inconsistencies and structural gaps that hinder alignment with European Union law and argues for targeted revisions to enhance compliance. The analysis is situated within the broader post-war security context in Ukraine and considers the country's obligations under the EU-Ukraine Association Agreement as a driving force for legal convergence and institutional reform.

Keywords: Draft Law No. 5708; civilian firearms; international standards; EU Directive 2021/555; legislative harmonization; firearms control; security; forensic examination; criminal proceedings.

Research Problem Formulation

In the context of the full-scale armed aggression launched by the Russian Federation against Ukraine, the issue of robust and effective control over the circulation of firearms, ammunition, and explosives has acquired unprecedented urgency. The ongoing war has triggered a dramatic surge in the volume of weapons in circulation, primarily due to large-scale international military assistance and the mobilization of national defense resources. While essential for Ukraine's self-defense, this influx of arms simultaneously generates heightened risks of diversion into the illicit market, fueling organized crime, regional destabilization, and transnational threats.

Under such conditions, the prevention of illegal possession, transfer, and trafficking of firearms and their components transcends the boundaries of traditional criminal justice. It becomes a strategic imperative for national security, public safety, and post-war stabilization. One of the gravest threats in this regard is the smuggling of firearms, ammunition, and essential parts, which may be exploited for terrorist acts, paramilitary violence, or the erosion of state authority in vulnerable regions.

Addressing these challenges requires more than reactive enforcement – it demands a proactive, systemic approach grounded in a coherent legal framework, interagency coordination, and the modernization of national legislation in line with evolving security realities. In this regard, the analysis of international legal standards – particularly the provisions of Directive (EU) 2021/555 on the control of the acquisition and possession of firearms – gains critical relevance. This Directive outlines comprehensive measures for marking, registration, traceability, informa-

tion exchange, and the regulation of civilian access to firearms, all of which are essential for building a resilient arms control regime.

Therefore, aligning Ukraine's legal framework with EU firearms control standards is not merely a technical exercise in legislative harmonization. It is a vital component of Ukraine's broader strategy to reinforce internal security, prevent the proliferation of illicit weapons, and fulfill its obligations under the EU-Ukraine Association Agreement. In the long term, such harmonization will also contribute to Ukraine's institutional readiness for European integration and its capacity to participate in joint security and justice initiatives within the EU legal space.

Analysis of Essential Researches and Publications

Within the framework of research on international standards aimed at preventing the illicit circulation of firearms, ammunition, and explosives – and in the broader context of aligning Ukrainian legislation with European legal approaches – numerous aspects of criminological, criminal law, and security regulation of arms circulation have been the subject of sustained scholarly attention in Ukraine. A robust body of academic literature has emerged, offering in-depth analyses of the legal qualification of arms-related offenses, the criminalization of illicit trafficking, offender typologies, and the effectiveness of preventive and punitive mechanisms. Notable contributions in this domain have been made by Ukrainian scholars such as L. Arotsker, A. Hetman, V. Holina, V. Zhuravel, O. Kaplina, I. Kozachenko, O. Lytyvynov, M. Panova, V. Terentiev, E. Simakova-Yefremyan, N. Filipenko, and V. Shepitko, among others¹. Their work has laid the

1 See more: Журавель В. А., Шепітько В. Ю. Розвиток криміналістики та судової експертизи в Україні: наближення до єдиного європейського простору / Правова наука України: сучасний стан, виклики та перспективи розвитку : монографія. Харків, 2021. С. 651–669 ;

theoretical and methodological foundations for understanding the dynamics of arms-related criminality and for shaping national policy responses.

In parallel, international scholarship has played a pivotal role in the development of global standards and best practices in arms control. Researchers such as Aleksandar Ivanović, Keith Krause, Nicolas Florquin, Eric Berman, Glenn McDonald, Brian Wood, Peter Batchelor, James Bevan, Pablo Dreyfus, Sarah Parker, Aaron Karp, Frank Slijper, Guy Lamb, and Holger Anders have produced influential studies on the structure and regulation of the global small arms and light weapons (SALW) market. Their work encompasses the development of risk indicators, the evaluation of national control systems, and the implementation of key international instruments, including the UN Firearms Protocol, the UN Programme of Action on Small Arms and Light Weapons (UN PoA), and Directive (EU) 2021/555. These instruments collectively form the backbone of the international legal framework for combating illicit arms trafficking and enhancing transparency, accountability, and traceability in arms transfers.

Against this intellectual and regulatory backdrop, the forensic-legal analysis of Ukraine's Draft Law «On the Right to Civilian Firearms» (No. 5708) acquires particular relevance. It enables a critical assessment of the draft law's compliance with European legal standards – especially those

enshrined in Directive (EU) 2021/555 – and facilitates the identification of normative gaps, enforcement challenges, and opportunities for legislative harmonization. By situating the draft law within both national academic discourse and international regulatory paradigms, this study contributes to the development of a coherent, security-oriented, and legally sound framework for civilian firearms regulation in Ukraine – one that is aligned with the country's European integration trajectory and its obligations under the EU-Ukraine Association Agreement.

Article Purpose

The objective of this study is to carry out a thorough forensic-legal examination of Directive (EU) 2021/555 in the context of international efforts to prevent the illicit circulation of firearms, ammunition, and explosives. It aims to assess the extent to which the directive's core provisions have been reflected in Ukrainian legislation, with particular attention to the challenges posed by the current security environment and the imperative of aligning national legal frameworks with European Union standards. This analysis is situated within the broader framework of Ukraine's European integration process and its obligations under the EU-Ukraine Association Agreement, highlighting the strategic importance of legal harmonization in the field of civilian firearms control.

Шевчук В. М. Європейський вектор розвитку сучасної криміналістики. *Адаптація правової системи України до права Європейського Союзу: теоретичні та практичні аспекти* : мат-ли VI Всеукр. наук.-практ. конф. (Полтава, 29.09.2022). Полтава, 2022. С. 320–323. URL: <http://pli.nlu.edu.ua/wp-content/uploads/2022/12/Збірник-29.09.pdf> (date accessed: 11.12.2025) ; Антонов К. В., Діденко С. В., Філіпенко Н. Є. Правові та організаційно-тактичні основи попередження і розкриття злочинів, пов'язаних із застосуванням вибухових речовин чи бойових припасів : монографія. Херсон, 2008. 188 с. ; Філіпенко Н. Є., Діденко С. В. Щодо визначення поняття «оперативно-розшукова характеристика злочинів, пов'язаних із застосуванням вибухових речовин або бойових припасів». *Науковий вісник Львівського державного університету внутрішніх справ. Спецвипуск*. 2007. № 1. С. 174–186 etc.

Research Methods

General scientific methods are used: observation, comparison, abstraction, analysis, synthesis, modeling, etc.

Main Content Presentation

Ukraine, like any democratic and rule-of-law state, consistently declares its commitment to ensuring the effective protection of the natural and inalienable rights of every individual, including the right to life, personal security, bodily integrity, and protection from violence. These rights hold the highest legal authority, being enshrined in the Constitution of Ukraine (Articles 3, 27, and 28)², as well as in international legal instruments ratified by Ukraine, such as the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, and the European Convention on Human Rights.

However, despite their formal recognition in national legislation, the practical implementation of these rights often remains inadequate. Existing law enforcement mechanisms – particularly the functioning of the police, judiciary, and public order institutions – frequently prove ineffective, inconsistent, or too slow in responding to real and immediate threats to citizens' lives and safety. As experts note, *«this is especially evident in the context of rising crime rates, the proliferation of illicit firearms and explosives, organized criminal activity, and domestic violence – all areas where the state is not always capable of providing timely, adequate, or sustained protection»*³.

This systemic vulnerability is further exacerbated by institutional overload, limited resources, and the erosion of public trust in law enforcement – factors that col-

lectively undermine the state's ability to fulfill its constitutional duty to protect life and personal security. In many cases, victims of violence or imminent danger are left without effective recourse, while perpetrators exploit legal loopholes and enforcement delays. In the context of full-scale armed aggression – where millions of citizens face direct and prolonged threats to their lives, and where law enforcement agencies are largely focused on military and defense-related functions – the issue of personal security becomes even more acute. Under such extraordinary circumstances, individuals are often left alone in the face of danger, lacking effective, lawful, and accessible means of self-defense – even in situations of extreme necessity or imminent harm.

This reality underscores a critical truth: the formal recognition of fundamental rights is not sufficient in itself. The state must also ensure the existence of real, functional, and predictable mechanisms for their enforcement – mechanisms that are not merely declarative, but operational in practice. One such mechanism is the legislative regulation of the right to possess and use firearms for self-defense. Properly designed, this legal framework would empower citizens to protect themselves and others in situations where state assistance is unavailable, delayed, or structurally incapable of responding.

Contemporary challenges – including the escalation of violent crime, the destabilizing effects of war, the circulation of unregistered weapons, and the growing activity of organized criminal groups – require the state to fundamentally reconsider its approach to guaranteeing the right to self-defense. A key step in this direction is the adoption of a dedicated law that would comprehensively regulate the exercise of

2 Конституція України : Закон України від 28.06.1996 р. № 254к/96-ВР (зі змін та допов.). URL: <https://zakon.rada.gov.ua/laws/show/254k/96-вр#Text> (date accessed: 11.12.2025).

3 Антонов К. В., Діденко С. В., Філіпенко Н. Є. Зазнач. твір. С. 28.

citizens' right to actively defend their own life and health, as well as the life and health of others, in situations of extreme necessity – including through the lawful use of firearms.

Such a law should clearly define the legal grounds, limits, and procedures for the use of firearms in self-defense, establish safeguards against abuse, and ensure accountability through transparent oversight mechanisms. At the same time, it must harmonize the broader regulatory framework governing civilian firearms circulation with the Constitution of Ukraine, international human rights standards, and the legal practices of established democracies – particularly those of the European Union. Provided that appropriate legal safeguards, licensing procedures, and institutional oversight are in place, firearms can serve as a legitimate and vital tool for citizens to exercise their constitutional right to self-defense – not as a substitute for state protection, but as a complementary safeguard in times of crisis or institutional failure. However, for more than three decades of Ukraine's independence, the issue of civilian firearms circulation has remained outside the scope of systematic legislative regulation. The absence of a dedicated law has resulted in legal uncertainty, fragmented and inconsistent regulation through subordinate acts of the Ministry of Internal Affairs, and the expansion of the shadow arms market – a phenomenon that poses serious risks to public safety, national security, and the rule of law.

The Draft Law of Ukraine «On the Right to Civilian Firearms» (No. 5708) ⁴, submitted to the Verkhovna Rada in 2021, marks a renewed and more structured legislative initiative aimed at establishing a coherent and legally sound framework for the regulation of civilian firearms circulation. Un-

like previous fragmented efforts, this draft law aspires to codify the legal foundations for the acquisition, possession, use, and lawful transfer of firearms by Ukrainian citizens – while simultaneously safeguarding the delicate balance between the individual's right to self-defense and the state's constitutional obligation to ensure public order and collective security.

Ukraine's legislative history in this domain reveals a series of unsuccessful attempts to introduce comprehensive firearms regulation. Draft laws submitted in 2008, 2015, and 2017 failed to gain parliamentary approval – largely due to political volatility, institutional inertia, and the absence of a consolidated public consensus regarding the permissibility of civilian firearm ownership in peacetime. However, the full-scale invasion by the Russian Federation in 2022 has radically altered the national security paradigm. Millions of Ukrainians have been mobilized into territorial defense units, acquired practical skills in handling firearms, and experienced firsthand the fragility of personal and collective safety in the face of external aggression and internal disorder. In this transformed context, the question of legal access to firearms for self-defense has emerged as a matter of both individual survival and national resilience.

At the same time, the post-conflict environment presents a complex array of risks – including the uncontrolled proliferation of weapons, cross-border smuggling, the emergence of illicit arms markets, and a potential surge in violent crime. These challenges underscore the urgent need for a robust, transparent, and enforceable system of civilian firearms governance – one that ensures accountability, traceability, and compliance with both national and international legal standards.

4 Проект Закону про право на цивільну вогнепальну зброю від 25.06.2021 р. № 5708. URL: <https://itd.rada.gov.ua/billinfo/Bills/Card/27190> (date accessed: 11.12.2025).

In response to these realities, Draft Law No. 5708 introduces a comprehensive regulatory architecture encompassing a wide spectrum of control measures. Among its key provisions are: the creation of a Unified State Firearms Register; mandatory marking and digital traceability of all firearms and essential components; the establishment of integrity-based eligibility criteria for firearm ownership; detailed procedures for the safe storage, lawful use, transfer, and deactivation of firearms; the criminalization of unauthorized possession and trafficking of firearms, ammunition, and parts; and the legal regulation of cross-border movements, including transit, re-export, and international data exchange.

A defining feature of the draft law is its explicit orientation toward European legal harmonization. The text draws extensively on the normative framework of Directive (EU) 2021/555⁵, integrating its core principles into the Ukrainian legal context. This alignment not only enhances the effectiveness of domestic firearms control mechanisms but also reinforces Ukraine's commitment to fulfilling its obligations under the EU-Ukraine Association Agreement. In doing so, the draft law contributes to the broader process of legal approximation with the European Union – a process that is essential for Ukraine's institutional modernization, democratic consolidation, and long-term integration into the European legal and security space.

Prior to undertaking a detailed comparative analysis of Ukrainian and European legal frameworks aimed at preventing the illicit circulation of firearms, ammunition, and explosives, it is essential to first outline the core characteristics of the European Union's most authoritative legal instrument

in this domain – Directive (EU) 2021/555 on the control of the acquisition and possession of firearms. This Directive constitutes the cornerstone of the EU's regulatory architecture governing civilian firearms, establishing a harmonized legal framework across Member States. Directive 2021/555 provides a comprehensive classification of firearms into distinct categories based on their technical features and potential risk to public safety. It sets out uniform conditions for the lawful acquisition, possession, storage, and transportation of firearms, while also mandating robust mechanisms for marking, registration, and traceability. Furthermore, the Directive introduces obligations for Member States to facilitate systematic information exchange, enhance oversight of distance sales, and implement safeguards against the diversion of firearms into the illicit market. As a result, the Directive serves not only as a binding legal instrument within the EU but also as a normative benchmark for third countries seeking to align their national legislation with European standards – particularly in the context of international cooperation on arms control, border security, and transnational crime prevention.

For Ukraine – a state currently engaged in a full-scale armed conflict and simultaneously pursuing deep legal and institutional convergence with the European Union – the effective transposition of Directive 2021/555 into domestic law is of strategic significance. It represents a critical step toward strengthening national security, enhancing the rule of law, and fulfilling the obligations undertaken under the EU-Ukraine Association Agreement. Moreover, the Directive's implementation offers a structured pathway for Ukraine

5 Directive (EU) 2021/555 of the European Parliament and of the Council of 24 March 2021 on control of the acquisition and possession of weapons (codification). *Official Journal of the European Union*. OJ L 115. 6.4.2021. Pp. 1–39 / EUR-Lex : web. URL: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021L0555> (date accessed: 11.12.2025).

to modernize its firearms control regime in line with best practices adopted by EU Member States, thereby reinforcing its capacity to prevent the proliferation of illicit weapons in both wartime and post-conflict contexts.

Directive (EU) 2021/555 is the European Union's primary legal instrument governing the control of the acquisition and possession of firearms by civilians⁶. Directive (EU) 2021/555 serves as the European Union's principal legal instrument for regulating civilian access to firearms. It establishes minimum standards for acquisition, possession, storage, marking, registration, and cross-border movement of firearms, while also promoting transparency, traceability, and international cooperation. For Ukraine – currently navigating both wartime exigencies and the path of European integration – alignment with this Directive is not only a legal imperative but a strategic necessity. Draft Law No. 5708, registered in 2021, represents Ukraine's most recent attempt to codify a comprehensive legal framework for civilian firearms circulation. However, a detailed analysis reveals significant gaps that must be addressed to ensure compliance with international standards and to build a resilient, accountable arms control system.

1. Classification of Firearms: From Functional to Risk-Based Models

Directive 2021/555 introduces a three-tier classification system – Categories A (prohibited), B (subject to authorization), and C (subject to declaration) – based on the level of risk posed by different types of firearms. This model is mandatory for EU Member States and recommended for candidate countries. In contrast, Ukraine's current classification, rooted in Ministry of Internal Affairs Order No. 622, is functionally

based (e.g., hunting, sporting, service) and lacks a coherent risk-based logic. Although Draft Law No. 5708 proposes a four-tier system (Categories A–D), it does not fully align with the EU model and omits detailed regulation of ammunition, components, and modifications. Moreover, the legal regimes governing each category remain undefined, undermining legal clarity and enforcement.

2. Marking and Traceability: Technical Precision and Digital Oversight

International instruments such as the UN Firearms Protocol and Directive 2021/555 mandate unique, durable, and legible marking of all essential firearm components, along with digital traceability through centralized electronic registries. While Draft Law No. 5708 references marking and proposes a Unified Civilian Firearms Register, it lacks specificity regarding which components must be marked, the technical parameters of marking, and the requirement to mark firearms upon import, modification, or repair. The proposed registry does not define the scope of data to be recorded, fails to mandate registration of all transactions, and lacks integration with other state databases. These deficiencies pose serious risks to traceability, legal accountability, and evidentiary reliability in criminal proceedings.

3. Unified Firearms Register: Infrastructure Without Legal Backbone

Although Ukraine established a Unified State Firearms Register in 2023, its legal status, functionality, and interoperability remain underdeveloped. Draft Law No. 5708 does not enshrine the register as the sole legal source of firearms records, nor does it define its structure, access protocols, or integration with other critical databases (e.g., criminal convictions, medical records, customs).

⁶ Directive (EU) 2021/555 URL: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX-%3A32021L0555> (date accessed: 11.12.2025).

Without real-time access for law enforcement and clear liability for data manipulation or omission, the register risks becoming a symbolic rather than functional tool.

4. Eligibility Criteria: Integrity Screening and Ongoing Oversight

Directive 2021/555 and the UN Firearms Protocol require that firearm ownership be restricted to individuals who meet strict criteria related to age, criminal history, mental health, and integrity. Ukrainian legislation currently lacks a unified mechanism for verifying these conditions. Draft Law No. 5708 does not define «integrity, » omits periodic license reviews, and fails to mandate integration with relevant registries (e.g., domestic violence, psychiatric, debtors). This creates systemic vulnerabilities, including the issuance of permits to high-risk individuals and the absence of mechanisms for revocation when risk factors emerge.

5. Secure Storage: Technical Standards and Enforcement Mechanisms

Safe storage is a cornerstone of responsible firearms ownership. While Directive 2021/555 and the UN PoA recommend minimum technical standards and inspection protocols, Ukrainian law remains vague. Draft Law No. 5708 refers to secure storage but lacks detailed specifications (e.g., safe construction, alarm systems), inspection procedures, and differentiated requirements based on firearm category. Without enforceable standards, the risk of unauthorized access, theft, and misuse remains high ⁷.

6. Cross-Border Movement: Licensing, Oversight, and International Exchange

International standards require robust control over the import, export, and transit of firearms. Ukraine's current legal framework does not clearly regulate civilian cross-border

movement, lacks a unified licensing procedure, and is not integrated with international databases such as INTERPOL's iARMS. Draft Law No. 5708 fails to address these issues, leaving Ukraine vulnerable to illicit trafficking and non-compliant with its international obligations.

7. Reporting and Transparency: Public Trust and Global Accountability

Regular reporting to international bodies and public access to aggregated data are essential for transparency and oversight. Ukraine currently lacks legal provisions for reporting to the UNODA or for publishing national firearms statistics. Draft Law No. 5708 does not designate a reporting authority, define reporting indicators, or mandate public disclosure. This undermines public trust, impedes international cooperation, and limits the state's ability to evaluate policy effectiveness.

8. International Cooperation: From Isolation to Integration

Ukraine's limited participation in international firearms control mechanisms – due in part to its non-ratification of the UN Firearms Protocol – hampers its ability to engage in cross-border investigations, data exchange, and joint enforcement. Draft Law No. 5708 does not provide for cooperation with Europol, FRONTEX, or SEESAC, nor does it establish a competent authority for international coordination. This omission isolates Ukraine from the European security architecture and weakens its capacity to combat transnational arms trafficking.

9. Digitalization: Efficiency, Security, and Interoperability

Directive 2021/555 emphasizes the digitalization of firearms control systems, including electronic registries, online licensing,

⁷ Directive (EU) 2021/555 URL: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX-%3A32021L0555> (date accessed: 11.12.2025).

and integration with other state databases. While Ukraine's Unified Firearms Register operates partially in digital format, Draft Law No. 5708 does not mandate electronic document flow, digital identification, or data protection standards. The absence of a designated authority for digital infrastructure further impedes modernization and increases the risk of administrative inefficiency and corruption⁸.

10. Forensic Examination as a Prerequisite for Full Traceability

A fundamental prerequisite for aligning Ukraine's firearms legislation with the standards of Directive (EU) 2021/555 is the formal incorporation of forensic examination data into the Unified State Firearms Register. This requirement is not only a logical step from the standpoint of national security and public safety, but also a legal necessity for fulfilling Ukraine's international commitments within the framework of European integration.

Directive 2021/555 establishes a comprehensive framework for the traceability of civilian firearms, obliging EU Member States to ensure that every firearm and its essential components can be tracked throughout their entire life cycle – from manufacture or lawful import to final deactivation or destruction. This obligation is articulated through a set of interrelated provisions, particularly Articles 4, 5, and 7, which collectively define the technical, procedural, and institutional foundations of the EU's firearms control regime.

Article 4 mandates that *«all firearms and essential components be marked with*

a unique, clear, and permanent identifier. This marking must include the name of the manufacturer or brand, the country or place of manufacture, the serial number, and the year of production (if not part of the serial number). For imported firearms, the marking must also include the country of import and the name of the importer. The marking must be applied to an essential component and be visible without disassembly. This ensures that each firearm can be individually identified and linked to its origin, thereby preventing the circulation of untraceable weapons»⁹.

Article 5 requires that *«Member States ensure the maintenance of detailed records of all firearms and essential components. These records must include information such as the type, make, model, caliber, serial number, and the names and addresses of both the supplier and the recipient. The data must be preserved for a minimum of 30 years and be accessible to competent authorities. This long-term retention is essential for retrospective investigations and for maintaining the integrity of the traceability system over time»¹⁰.*

Article 7 reinforces the need for a modern, centralized, and secure data infrastructure. It obliges *«Member States to establish and maintain a computerized data-filing system – either centralized or decentralized – that enables competent authorities to access the information referred to in Article 5. The system must allow for the immediate identification of a firearm and its owner, including all transfers and modifications. Access must be restricted to designated authorities and comply with applicable data protection rules»¹¹.*

In this context, forensic examination plays a key role. We fully agree with

8 Directive (EU) 2021/555 URL: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX-%3A32021L0555> (date accessed: 11.12.2025).

9 Ibid.

10 Ibid.

11 Ibid.

experts¹² who point out that forensic examination is a specialized form of criminalistic investigation that allows: the type, caliber, and manufacturing method of a weapon; assess its operability and technical condition; detect tampering, falsification, or erasure of markings; and reconstruct the circumstances of its use – including the number of shots fired, direction, distance, and timing. These capabilities are indispensable not only for criminal investigations (as regulated by Articles 242–244 of the Criminal Procedure Code of Ukraine)¹³, but also for administrative oversight, international information exchange, and the prevention of illicit manufacture, modification, and trafficking.

Moreover, forensic examination serves as a critical quality control mechanism in the civilian firearms market. It enables the detection of counterfeit or substandard weapons, the identification of unauthorized modifications that may compromise safety, and the verification of compliance with technical standards. Without such oversight, the risk of accidents, malfunctions, and criminal misuse increases significantly – particularly in a post-conflict environment where large volumes of weapons are re-entering civilian circulation.

Despite its critical importance, the Draft Law of Ukraine «On the Right to Civilian Firearms» (No. 5708)¹⁴ does not currently mandate the inclusion of forensic

examination results in the Unified State Firearms Register. This omission creates a significant gap in the traceability system, undermining the Directive's core objective of ensuring continuous and verifiable control over firearms. The absence of registry data on forensic examinations – including their dates, institutions, findings, and conclusions – weakens the evidentiary chain, complicates interagency coordination, and limits Ukraine's ability to participate in international data-sharing mechanisms such as INTERPOL's iARMS.

Although the term «forensic examination» is not explicitly articulated in Directive (EU) 2021/555 or in other foundational international instruments, its functional equivalents – namely technical identification, verification, and analytical assessment – are deeply embedded in the global legal architecture governing arms control. These functions, which are central to forensic science, underpin the operationalization of traceability, accountability, and international cooperation in the regulation of firearms.

The UN Firearms Protocol (2001)¹⁵, adopted as a supplement to the UN Convention against Transnational Organized Crime, establishes a robust framework for preventing and combating the illicit manufacturing of and trafficking in firearms, their parts, components, and ammunition. Article 8 mandates that States Parties

12 Гусак А. П. Сучасні методи аналізу зброї та боеприпасів для судово-балістичних досліджень. Вісник Одеського науково-дослідного інституту судових експертиз Міністерства юстиції України. 2025. Вип. 17. С. 15–25. DOI: [10.32782/2522-9656/2025-17-2](https://doi.org/10.32782/2522-9656/2025-17-2) (date accessed: 11.12.2025).

13 Кримінальний процесуальний кодекс України від 13.04.2012 р. № 4651-VI (зі змін. та допов.). URL: <https://zakon.rada.gov.ua/laws/show/4651-17#Text> (date accessed: 11.12.2025).

14 Проект Закону ... № 5708. URL: <https://itd.rada.gov.ua/billinfo/Bills/Card/27190> (date accessed: 11.12.2025).

15 Protocol against the illicit Manufacturing of and Trafficking in Firearms, their Parts and Components and Ammunition, supplementing the United Nations Convention against Transnational Organized Crime : adopted on 31 May 2001, New York / United Nations Treaty Series : web. URL: https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XVIII-12-c&chapter=18&clang=_en (date accessed: 11.12.2025).

ensure the marking of firearms at the time of manufacture and import, thereby enabling their identification and traceability. Article 11 requires the verification of authorizations and documentation during international transit, while Articles 13 to 15 obligate states to engage in systematic information exchange concerning serial numbers, technical characteristics, and known methods of falsification or tampering. These provisions presuppose the existence of technical and forensic capacities capable of detecting altered markings, authenticating weapon origins, and supporting cross-border investigations.

The Arms Trade Treaty (ATT) further reinforces these obligations¹⁶. Article 11 requires States Parties to take measures to prevent the diversion of conventional arms to unauthorized end-users or illicit markets, including through post-delivery verification and risk mitigation strategies. Article 13 mandates annual reporting on national control systems, including mechanisms for ensuring traceability and oversight. These reporting obligations inherently rely on the availability of forensic tools and expertise to monitor, verify, and document the movement and status of firearms throughout their life cycle.

In parallel, the UN Programme of Action on Small Arms and Light Weapons (UN PoA)¹⁷ – a politically binding framework adopted in 2001 – calls upon states to develop and maintain comprehensive systems for the detection, tracing, and destruction of illicit small arms and light weapons. These systems are functionally dependent on forensic analysis, particularly in the context of post-conflict disarmament,

criminal investigations, and the identification of weapons used in acts of violence or terrorism.

Taken together, these instruments establish a clear normative expectation: that states must possess the institutional and technical means – including forensic infrastructure – to ensure the traceability of firearms and to prevent their diversion into illicit circulation. Forensic examination is thus not a peripheral or optional element of arms control, but a structural component of effective implementation. For Ukraine, the integration of forensic examination into the legal and administrative framework governing civilian firearms is essential not only for domestic enforcement and public safety, but also for fulfilling its obligations under international law and aligning with the standards of the European Union and the broader global security regime.

The urgency of integrating forensic examination into Ukraine's firearms control regime has only intensified since the onset of Russia's full-scale invasion. The unprecedented volume of weapons in civilian circulation has generated a host of challenges: the uncontrolled return of firearms from combat zones, smuggling and black-market activity, improvised modifications, and the criminal misuse of weapons. In this context, the development and institutionalization of advanced forensic tools – particularly forensic genomic analysis – has become essential. The ability to identify individuals involved in firearms-related crimes, detect biological traces on weapons or at crime scenes, and match genetic profiles with national and international databases significantly enhances investigative capacity

16 The Arms Trade Treaty / United Nations. Digitallibrary : web. 2013. URL: <https://digitallibrary.un.org/record/746683?v=pdf> (date accessed: 11.12.2025).

17 Programme of Action to Prevent, Combat and Eradicate the Illicit Trade in Small Arms and Light Weapons in All Its Aspects: a strategy for further implementation : working paper / submitted by the President // Ibid. 2006. URL: <https://www.un.org/disarmament/convarms/salw/> (date accessed: 11.12.2025).

and supports the prosecution of organized crime, terrorism, and war crimes.

The urgency of integrating forensic examination into Ukraine's firearms control regime has grown exponentially in the wake of Russia's full-scale invasion. The war has not only transformed the security landscape but has also triggered an unprecedented surge in the circulation of firearms among civilians. This phenomenon has introduced a complex array of challenges: the uncontrolled return of weapons from the frontlines without proper registration; the proliferation of illicit trafficking and smuggling routes; the widespread use of improvised or modified firearms; and the increasing involvement of such weapons in criminal activity, including homicides, robberies, and acts of domestic or political violence.

In this context, the development and institutionalization of advanced forensic tools – particularly forensic genomic analysis – has become not merely desirable but essential. Traditional ballistics and traceological methods remain indispensable for identifying weapons and reconstructing shooting incidents. However, they must now be complemented by modern molecular techniques capable of addressing the evolving nature of firearms-related crime in a post-conflict society.

According to scientists¹⁸, forensic genetic analysis, as a specialized branch of forensic medicine, allows investigators to:

1. Identify individuals who have handled or discharged a firearm by detecting and analyzing biological traces (e.g., skin cells, blood,

sweat, saliva) left on weapons, ammunition, or crime scenes;

2. Establish genetic profiles from trace DNA and compare them with national and international databases (e.g., CODIS, INTERPOL's DNA Gateway);
3. Link suspects to specific weapons or incidents, even in the absence of eyewitnesses or conventional evidence;
4. Distinguish between multiple users of the same weapon, which is particularly relevant in cases involving shared or trafficked firearms;
5. Detect contamination, tampering, or staged crime scenes through the analysis of mixed DNA samples.

In Ukraine, the need for such capabilities is especially acute. The return of thousands of firearms from the battlefield – often without systematic documentation or inspection – has created a legal and operational vacuum. Many of these weapons may have been used in combat, subjected to unauthorized modifications, or diverted into criminal networks. Without a robust forensic infrastructure, including genomic analysis, the state lacks the tools to verify the provenance, usage history, and lawful status of these weapons.

Moreover, the Ukrainian legal framework currently lacks explicit provisions for the integration of forensic genomic data into the national firearms control system. While the Law of Ukraine «On Forensic Examination» (Articles 7, 10, 13)¹⁹ and the Criminal Procedure Code (Articles 242–

18 Nechyporiuk M., Filipenko N., Juodkaitė-Granskienė G., Ivanović A. Particular Aspects of International Cooperation of Ukrainian Forensic Science Institutions with Foreign Specialists in Collecting, Studying and Processing Human Genomic Information and Conducting Molecular Genetic Analysis during Military Aggression against Ukraine. Ch. 2 / The Challenges and Opportunities in Law: Ukrainian Case under the Conditions of War : monograph // Ed. By T. Davulis, L. Gasparėnienė. Kraków, 2023. Pp. 89–211. DOI: [10.12797/9788381388887.02](https://doi.org/10.12797/9788381388887.02) (date accessed: 11.12.2025).

19 Про судову експертизу : Закон України від 25.02.1994 р. № 4038-XII (зі змін. та допов.). URL: <https://zakon.rada.gov.ua/laws/show/4038-12#Text> (date accessed: 11.12.2025).

244)²⁰ provide for the use of forensic expertise in criminal proceedings, these norms are primarily reactive and case-specific. They do not extend to the proactive, systemic use of forensic data for administrative control, registry integration, or preventive monitoring.

By contrast, international best practices – reflected in instruments such as the UN Firearms Protocol, the Arms Trade Treaty, and the UN Programme of Action on Small Arms and Light Weapons – increasingly emphasize the importance of traceability, identification, and information exchange. Although these documents do not explicitly reference «genomic analysis», their operational logic presupposes the use of all available scientific methods to ensure the integrity of arms control systems. The ability to trace a weapon to its last lawful owner, to verify its technical and biological history, and to link it to specific criminal events is central to the goals of transparency, accountability, and public safety.

Therefore, Ukraine's Draft Law No. 5708 must be revised to reflect these realities. Specifically, it should:

- Mandate the inclusion of forensic examination results – including genomic findings – in the Unified State Firearms Register.
- Define the types of biological and genetic data that may be collected, stored, and used for investigative and administrative purposes, in compliance with data protection standards.
- Establish protocols for the secure transfer of forensic data between law enforcement, forensic institutions, and registry administrators.
- Enable interoperability with national and international DNA databases to facilitate cross-border investiga-

tions and the identification of weapons used in transnational crimes.

- Provide legal safeguards to ensure the ethical use of genomic data, including informed consent, proportionality, and judicial oversight where appropriate.

Incorporating forensic genomic analysis into Ukraine's firearms control system is not a marginal technical upgrade – it is a strategic imperative. It enhances the evidentiary power of investigations, strengthens the credibility of the registry, and equips the state to respond to the complex threats posed by organized crime, terrorism, and war crimes. Most importantly, it aligns Ukraine's legal and institutional architecture with the evolving standards of international law and forensic science, reinforcing its trajectory toward European integration and democratic resilience.

Conclusions

The Draft Law of Ukraine «On the Right to Civilian Firearms» (No. 5708) has the potential to become a foundational legal act that, for the first time, systematically regulates the civilian circulation of firearms at the legislative level. If properly revised and adopted, it could establish a transparent, accountable, and secure framework for firearm ownership – one that addresses Ukraine's urgent post-conflict realities while aligning with its international obligations under European and global arms control regimes.

However, in its current form, the draft remains largely declarative and structurally fragmented. Without the full incorporation of key international standards – particularly those enshrined in Directive (EU) 2021/555 – it risks being ineffective in practice and disconnected from the

20 Кримінальний процесуальний кодекс ... URL: <https://zakon.rada.gov.ua/laws/show/4651-17#Text> (date accessed: 11.12.2025).

evolving demands of national and international security. To transform the draft into a robust and future-oriented legal instrument, several core principles must guide its refinement.

These include: institutional transparency and public accountability; the establishment of a centralized, electronic Unified State Firearms Register with real-time access and interoperability; mandatory marking and digital traceability of all essential firearm components; preventive control mechanisms based on rigorous integrity screening, periodic license renewal, and enforceable storage standards; and full harmonization with EU and UN norms regarding classification, cross-border movement, and international cooperation.

Crucially, the law must also recognize forensic examination – not only ballistic and technical, but also genomic – as a structural pillar of effective firearms control. In the aftermath of Russia's full-scale invasion, Ukraine faces an unprecedented volume of weapons in civilian circulation, many of which have returned from the frontlines without proper documentation. This has created serious risks of smuggling, illicit modification, and criminal misuse. In this context, forensic science – particularly forensic genomic analysis – has become indispensable. It enables the identification of individuals who have handled or discharged a weapon, the detection of biological traces on firearms and ammunition, and the matching of genetic profiles with national and international databases. These capabilities significantly enhance investigative capacity and support the prosecution of organized crime, terrorism, and war crimes.

Yet, Ukraine's current legal framework does not provide for the systematic use of forensic data in administrative firearms control. While the Law of Ukraine «On Forensic Examination» and the Criminal

Procedure Code regulate the use of expert analysis in criminal proceedings, they do not extend to registry integration or preventive monitoring. This legal fragmentation undermines coherence, operational effectiveness, and compliance with international standards. By contrast, global instruments such as the UN Firearms Protocol, the Arms Trade Treaty, and the UN Programme of Action on Small Arms and Light Weapons emphasize the importance of traceability, identification, and information exchange – functions that inherently rely on forensic expertise.

Therefore, Draft Law No. 5708 must evolve beyond a domestic regulatory instrument. It should become a strategic tool of legal modernization, external accountability, and democratic resilience. Its refinement is not merely a legislative task – it is a vital investment in Ukraine's secure, lawful, and European future.

**Кримінально-правовий аналіз
законопроекту про право
на громадянську зброю в контексті
європейських правових стандартів**

**Наталія Філіпенко,
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Здійснено комплексний кримінально-правовий аналіз законопроекту про право на цивільну вогнепальну зброю (№ 5708) з акцентом на його узгодженості з міжнародними правовими стандартами, зокрема положенням Директиви (ЄС) 2021/555 про контроль за набуттям і володінням вогнепальною зброєю. Законопроект розглянуто крізь призму гармонізації законодавства з охопленням правового регулювання за такими основними напрямками, як маркування цивільної вогнепальної зброї, ведення реєстрів, забезпечення простежуваності руху зброї на всіх етапах її життєвого циклу, організація обміну інформацією між уповноваженими

органами, вимоги до умов зберігання зброї, правові механізми контролю за дистанційним продажем зброї, а також обмеження доступу до окремих категорій вогнепальної зброї. Особливу увагу акцентовано на ролі судової експертизи та кримінального провадження в забезпеченні дієвого контролю за обігом вогнепальної зброї. В українському законодавстві виявлено розбіжності й недоліки структури, що унеможливають його гармонізацію із законодавством Європейського Союзу. Наведено аргументи на користь цілеспрямованих змін для підвищення рівня узгодженості релевантних нормативно-правових актів. З огляду на загальний безпековий контекст повоєнного періоду України гармонізацію законодавства розглянуто як необхідну передумову реалізації зобов'язань України в межах Угоди про асоціацію з ЄС, поступової юридичної конвергенції та впровадження відповідних інституційних реформ.

Ключові слова: законопроект № 5708; цивільна вогнепальна зброя; міжнародні стандарти; Директива ЄС 2021/555; гармонізація законодавства; контроль за обігом зброї; безпека; судова експертиза; кримінальне провадження.

Фінансування

Це дослідження не отримало жодного спеціального гранту від фінансових установ у державному, комерційному або некомерційному секторах.

Відмова від відповідальності

Засновники не грали жодної ролі у розробленні дослідження, добиранні й аналізуванні даних, рішенні про публікацію або підготовку рукопису.

Учасники

Автори зробили свій внесок винятково в інтелектуальну дискусію, що є основою цього документа, дослідження судової практики, написання та редагування, і беруть на себе відповідальність за її зміст і тлумачення.

Декларація щодо конфлікту інтересів

Автори заявляють, що у них відсутній конфлікт інтересів.

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