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ISO 56000:2020 AS A CONCEPTUAL FRAMEWORK FOR THE TERMINOLOGICAL SYSTEM OF INNOVATION IN CRIMINAL PROCEEDINGS

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Presently, within the criminal procedure context, the term "innovative technologies" is characterized by the absence of a consolidated theoretical framework for its understanding. This methodological ambiguity stems from a lack of conceptual uniformity in interpreting the foundational terms "innovation" and "technology," which consequently impedes the development of a synthetic definition for "innovative technology." The multifaceted nature of this issue is evident in the polysemic treatment of "innovation," which researchers variously construe as a process of novelty implementation, a system for managing change, a final product, or a commercial good. Conversely, "technology" is approached through distinct methodological lenses: as a body of theoretical knowledge (epistemological approach), a system of methods and procedures (procedural approach), or merely a collection of technical means (instrumental approach). This lack of clarity complicates the formation of a unified methodology for innovation assessment, impedes the effective implementation of technological innovations in pre-trial investigation, and ultimately obstructs the integration of international innovation management standards into criminal procedure practice. In academic discourse, theoretical issues related to terminology, application, and classification of technologies in criminal procedure have been addressed by H.K. Avdieieva, P.V. Bernaz, R.I. Blahuta, V.O. Konovalova, A.V. Movchan, V.Yu. Shepitko, V.M. Shevchuk, S.F. Denysiuk, N.Z. Rohatynska, among others. Their works substantiate the use of terms such as "criminalistic innovation" [1, p. 241], "criminalistic technology" [2, pp. 112–113], "innovative criminalistic product" [3, p. 50], and "scientific and technical means of criminalistics" [4, p. 13].

The consolidation of a conceptual foundation for constructing a terminological system of innovation in criminal procedure may be effectively grounded in international standards of innovation management quality, particularly ISO 56000:2020 "Innovation Management" (hereinafter – ISO 56000). According to ISO 56000, the term "innovation" is defined as "a new or changed entity that realizes or

redistributes value.” The notion of “entity” encompasses a product, service, process, model (organizational, business, operational), method (e.g., a management method), or any combination thereof. Value is understood as the benefit derived from meeting needs and expectations in proportion to the resources used (e.g., revenue, savings, productivity, sustainability, satisfaction, empowerment, engagement, experience, trust), meaning that value is not limited to financial metrics. Both novelty and value in innovation are relative and are determined by the perceptions of the organization and its stakeholders. It is important to emphasize that, in accordance with ISO 56000, innovation is conceptualized as a result — not as the activities or processes aimed at its development and implementation.

The core of the innovation concept in ISO 56000 — innovation as novelty, as the creation (or redistribution) of value, and as realization (result) — is universal across all domains of activity. The concept of “value redistribution” (i.e., innovation may not create new value but may alter the distribution of existing value) is particularly unique and significant for criminal procedure. Without this concept, many innovations would be undervalued, as they might appear to lack importance due to not generating “new” value. In criminal procedure, value redistribution occurs through the reallocation of resources, transfer of risk, and shift in advantage. For example, value is redistributed when innovative technologies transform fragmented data into systematized information — into value — that becomes substantive evidence. The party gaining new value (advantage) is the law enforcement agency (gaining informational superiority and qualitatively new, previously inaccessible evidence that enhances investigative success), while the party losing value (resource) is the offender (whose ability to conceal traces of the crime diminishes due to data complexity or volume, and whose risk of detection significantly increases).

A key element of ISO 56000 is the requirement that value must be “realized” — only those entities that demonstrably create value are considered innovations. This requirement compels law enforcement agencies to move beyond the mere acquisition of technologies toward measuring their impact on final performance indicators, such as increased crime clearance rates and reduced investigation timelines. Realized value in the domain of human rights, ethics, and privacy within criminal procedure is assessed through indicators of risk minimization and transparency/accountability, including reductions in instances of torture, opportunities for data manipulation, and the public disclosure of artificial intelligence algorithms.

Although ISO 56000 originates from an economic understanding of innovation quality, its conceptual framework is significantly broader and more suitable for the public sector than other approaches. It introduces a value-oriented methodology that enables adaptation to law enforcement activities. This value-oriented approach allows for the integration of economic, organizational, and legal dimensions of innovation into a unified conceptual framework, wherein evidentiary reliability, investigative efficiency, officer safety, and the protection of citizens’ rights and freedoms are treated as specific values of law enforcement practice. This makes ISO 56000 an optimal

methodological foundation for formulating theoretical principles for defining innovation in the context of criminal procedure.

In light of the above, the term “innovation in criminal procedure” is understood as a multi-stage process encompassing the development, procedurally lawful implementation, and adaptation (including transfer from other domains) of new or substantially improved technologies, methods, tools, or organizational solutions into the practical activities of criminal justice actors. This process generates additional procedural value by enhancing the effectiveness of establishing the circumstances of a criminal offense, safeguarding the rights of participants in criminal proceedings, and ensuring compliance with standards of admissibility and reliability of evidence.

The proposed definition integrates and adapts key elements from ISO 56000, thereby addressing the critical challenge of rethinking innovation not merely as an economic (commercial) phenomenon, but as a law enforcement-oriented concept. It reconceptualizes innovation as a multidimensional socio-legal phenomenon encompassing not only economic, but also normative, procedural, and ethical dimensions, where success is measured by improved judicial effectiveness and strict adherence to procedural safeguards. Innovation must conform to the principle of procedural form and must not infringe upon the rights of participants in criminal proceedings. The definitional element “additional procedural value” refers to a realized and measurable improvement in the quality of criminal proceedings resulting from the implementation of innovation. This improvement is objectively confirmed through comparative indicators of procedural outcomes, efficiency in the use of procedural resources, compliance with procedural guarantees and human rights, and minimization of procedural risks and errors — provided that gains in judicial effectiveness do not entail unacceptable reductions in standards in other domains, particularly human rights protection. The definitional element “compliance with standards of admissibility and reliability of evidence” distinguishes innovation in criminal procedure from other types of innovation: it must meet the legal requirements governing the admissibility of evidence. It is important to note that the proposed definition avoids reductionism, as the elements derived from ISO 56000 have been reinterpreted and adapted to the unique nature of criminal procedure.

In view of the above and based on the proposed authorial definition of “innovation in criminal procedure,” we define innovative technology in criminal procedure as a systemically organized sequence of methods, algorithms, technical or software-based tools that are qualitatively new or substantially improved for the practice of pre-trial investigation bodies. These technologies are implemented in compliance with procedural form and generate or redistribute measurable value by enhancing the accuracy of establishing factual circumstances, safeguarding the rights of participants in proceedings, reducing investigation timelines, or optimizing the use of resources in the investigation of criminal offenses.

The validity of this definition can be illustrated through the example of unmanned aerial vehicles (UAVs). 1. UAVs represent a complex and structured system comprising multiple interrelated components: Product - The UAV itself, high-

resolution camera, stabilizer, GPS module, batteries, controller, and software; Process - Pre-flight preparation (route planning, restriction checks), aerial photography along a predefined route, storage of photographic materials with metadata (coordinates, time, altitude), and image processing (generation of orthophotoplans and 3D models); Method - Methodology for aerial documentation of a crime scene using UAVs; methodology for constructing 3D models of the scene from photogrammetric data; methodology for measurements on orthophotoplans; Algorithm - Structure-from-Motion (SfM) algorithm — automatic reconstruction of the 3D structure of a scene and camera positions using software such as Agisoft Metashape or Pix4D; Mesh generation algorithm — creation of a three-dimensional mesh from a point cloud to produce a 3D model of the crime scene; Organizational Subsystem - Specialist training (pilot instruction), UAV certification, coordination of flights with aviation authorities; Legal Subsystem - Regulatory framework for UAV deployment, procedural documentation of results, and liability for violations of flight regulations.

2. UAVs as Qualitatively New or Substantially Improved Tools for Pre-Trial Investigation: UAVs constitute a qualitatively new or significantly enhanced tool for the practice of pre-trial investigation bodies. Unlike traditional ground-based photography, UAV-based documentation of crime scenes introduces a fundamentally new mode of fixation — aerial imaging from multiple angles, the creation of a 3D digital twin of the crime scene, and coverage of extensive areas, including hazardous, hard-to-reach, or inaccessible zones for forensic experts.

3. UAVs as Instruments of Value Creation and Redistribution in Establishing Factual Circumstances: UAVs create or redistribute measurable value by enhancing the accuracy of establishing factual circumstances. The value created consists of verified, objective, and quantifiable information, as well as comprehensive documentation of the crime scene — a level of completeness previously unattainable. The redistribution of existing value occurs through a shift from subjective, unilateral control by the investigator or forensic expert (mitigating human error, overcoming limitations of ground-based imaging angles, and reducing risks of disturbing the integrity or spatial arrangement of evidence) to objective completeness. This is achieved through precise geospatial referencing of all documented objects, which significantly increases the evidentiary value of the data compared to visual protocols or manual photography.

4. UAVs as Instruments of Value Creation and Redistribution through Time Reduction and Resource Optimization: UAVs create or redistribute measurable value by significantly reducing the time required for crime scene examination and optimizing the use of investigative resources. The deployment of UAVs for scene inspection reduces the duration from several hours (typical for ground-based surveys) to approximately 20–30 minutes, while ensuring comprehensive documentation of the scene. The coverage area ranges from 5,000 to 50,000 m², depending on flight altitude. UAV deployment is more rapid and cost-effective compared to helicopters or fixed-wing aircraft. Moreover, UAVs enhance the safety of law enforcement personnel by eliminating the need to approach hazardous zones during the inspection of disaster sites or other dangerous environments.

The proposed definition is grounded in a systemic approach, emphasizing technology as a structured sequence of interdependent elements. This reflects the complexity and multidimensionality of contemporary criminal investigations, where the establishment of truth requires coordinated application of criminalistic, procedural, information-technical, and organizational components. Simultaneously, the definition integrates a normative-legal approach by establishing a mandatory requirement for the implementation of technologies in compliance with procedural safeguards: legality of application grounds, respect for the rights of participants in proceedings, proper documentation of procedural actions, and the guarantee of judicial oversight and appeal mechanisms. Furthermore, the definition incorporates the empirical-verification approach enshrined in ISO 56000, requiring empirical confirmation that the technology in question actually creates or redistributes value for the process and its participants. This shifts the evaluation of innovation into the domain of evidentiary, objectively verifiable outcomes. The definition synthesizes three methodological pillars: Systemic methodology - technology as an integrated system; Normative-legal approach - procedural legitimacy as a necessary condition; Empirical-verification approach - measurable realized value as a criterion of success.

The fundamental distinction of the proposed approach lies in its treatment of systemicity not as an end in itself, but as an instrumental characteristic for generating measurable value. The definition operationalizes systemicity by requiring that the structured interaction of elements must demonstrably lead to increased accuracy in establishing facts, protection of procedural rights, or optimization of time and resource use. This integrates the systemic approach with the ISO 56000 concept of realized value: a technology qualifies as a system not merely by virtue of having multiple components, but because their organized interaction produces emergent properties - forms of value unattainable by the components in isolation. The definition also establishes procedural legitimacy as a system-forming condition: all elements of the technology must comply with the requirements of legality and the protection of participants' rights in criminal proceedings. This renders procedural form not an external constraint, but an internal parameter of the technological system itself. Thus, the proposed definition synthesizes: Systemic structure - how the technology is organized; Axiological criterion - what value it creates; Normative boundaries - under what conditions it is permissible. This synthesis forms a coherent methodology for evaluating innovative technologies in criminal procedure - one that is capable of distinguishing technologies that genuinely contribute to the modernization of justice, the protection of human rights, and the effective fulfillment of the objectives of criminal proceedings.

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PECULIARITIES OF "GUILT" CONCEPT AND ITS CATEGORIES IN GERMAN CRIMINAL LAW

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Abstract. The article examines the concept of guilt in criminal law, focusing on its key categories such as content, essence, form, and degree. Special attention is paid to the interpretation of guilt in the Criminal Code of the Federal Republic of Germany. The study highlights that the content of guilt reflects the offender's mental attitude toward the objective elements of a criminal offense, while its essence lies in the negative attitude toward protected social relations. The article also analyzes the German approach to intent and negligence, the legal significance of various degrees of guilt, and the circumstances under which guilt may be excluded due to immaturity or mental disorders. Furthermore, it outlines the differentiation between minor, medium, and serious guilt and explains the legal consequences of establishing an especially