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#### ROMANIAN PRIVATE FORENSIC JUDICIAL EXPERTISE, BETWEEN REALITY AND FICTION

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#### **ABSTRACT**

In this article, we present the results and conclusions flowing a thorough analysis of the national legislation governing Romanian private forensic judicial expertise, carried out in order to realize how is transposed into practice the adversarial principle of "equality of arms", between prosecution and defense, between upholding and combating claims, which must govern the activity of forensic judicial expertise, is applied.

The article refers to the manner, if and how the authorized independent forensic expert is involved, in accomplishment of the forensic judicial expertise, and how can he perform this kind of expertise at the request of the judicial bodies or the court; the manner in which the legal provisions regarding the establishment of private forensic laboratories or professional civil societies have been applied and put into practice, from 2011, until now; as well as the role, the importance and probative value of extrajudicial forensic expertise in criminal or civil proceedings..

**KEYWORDS:** expertise, expert, forensics, private, independent, authorized.

#### INTRODUCTION

Any criminal act, inevitably, produces changes in the environment where it was committed. These changes are considered as forensic traces only if they are causally related to the act and to the person of the offender and "are useful for forensic research."<sup>1</sup>

The traces that can be discovered at the crime scene are several. They can be created by people, animals, objects/tools, phenomena. There may be traces of contact, matter, peripheral or positional, or that reveal certain skills of the offender.

Several forensic methods and techniques are used to discover, collect, preserve and value traces, which must be used, taking into account, mainly, the nature of the trace and the object on which it was created.

Examination and interpretation of traces and material evidence are done either as the crime scene, or in the laboratory.

At the crime scene, the dialectical interpretation of traces helps to obtain valuable information about the operation mode used by the offender, the sequence of activities performed in the field of crime, the behavior of the offender, during and after the crime.<sup>2</sup>

The examination of traces and material evidence in the laboratory helps to clarify the most important "problem" of forensic investigation: person-

identification, animal-identification, object, or instrument, the phenomenon related to the criminal act

To examine material traces and evidence, to achieve forensic identification, the knowledge of specialists or experts specialized in a certain field is necessary: forensics, physics, chemistry, engineering, genetics, etc.

In most European countries, forensic specialists/experts work in a state forensic institution, in a private laboratory or on their own, as an independent; they don't interpret the law or analyze how it is applied.

They shall examine the evidence or material evidence made available and formulate opinions on those factual circumstances to clarify based on the knowledge that they possessed.

The rights, obligations of forensic experts and their ability to conduct forensic examinations are provided by national law<sup>3</sup>. Most countries provide requirements (education, training and/or certification) to be recognized as a forensic expert and for conducting forensic examinations in a particular field.

Forensic examinations can be performed in the context of criminal, administrative or civil trials, either as part of the pre-trial investigation (criminal investigation) or during the court investigation (trial).

The results of a forensic examination are

<sup>&</sup>lt;sup>1</sup> Lucian Ionescu – Couse notes, Bucharest, 2002, pag. 25

<sup>&</sup>lt;sup>2</sup> Gheorghe Popa -Forensic technique, University course, ProUniversitaria Publishing, Bucharest, pag. 40

<sup>&</sup>lt;sup>3</sup> Art. 175 of the Criminal Procedure Code and Law no. 156 of July 5, 2011 - for the amendment and completion of the Government Ordinance no. 75/2000 on the authorization of forensic experts who may be recommended by the parties to participate in the performance of forensic examinations

presented, in detail, in a forensic report which, according to the provisions of the Code of Criminal Procedure, is a means of proof.<sup>4</sup>

In this document, the forensic expert presents the results of a scientific study or a physical examination of a trace, object or situation to provide reasoned, scientifically reasoned answers to questions posed by the investigator, prosecutor or court.

#### IS PRIVATE FORENSIC JUDICIAL **EXPERTISE, A REALITY?**

The activity of forensic expertise is an important factor in increasing the efficiency of the judicial bodies, in the process of administering justice as it helps to "ascertain, clarify or evaluate facts or circumstances that are important to find out the truth."5

To perform this activity, the legislator established a double regulation: a general one (Criminal Procedure Code) and a special one (Law no. 156 of July 5, 2011 - for amending and supplementing the Government Ordinance No. 75/2000 on the authorization of forensic experts recommended by the parties to participate in the performance of forensic examinations), to which he brought additions regarding the competence of the institutions and the quality of the persons who can perform forensic examinations.

The additions to the legal provisions regarding the mentioned forensic expertise consist in the fact that:

- "is performed by authorized forensic experts private specialized working in laboratories<sup>6</sup>, established according to the legal provisions on the authorization of private laboratories of forensic expertise", "may be performed by official experts from laboratories or specialized institutions or by authorized independent experts from the country or from abroad, under the law."8

- the authorized forensic experts may exercise their activity individually or in professional civil societies, established according to the law, which have as object of activity to participate in the performance of forensic expertise, under the law."9

-,,the main parties and procedural subjects have the right to request that an expert recommended by them, to participate in the performance of the expertise. If the expertise is ordered by the court, the prosecutor may request that an expert (in our opinion independently authorized or officially) recommended by him to participate in the performance of the expertise"10,,,the parties and the main procedural subjects are informed that they have the right to request an expert recommended by each of them, who will participate in the performance of the expertise"<sup>11</sup>, "in the performance of the forensic expertise may also participate authorized forensic experts, appointed by the judicial bodies at the recommendation of the parties."12

The analysis of the mentioned legal texts reveals the fact that in Romania the activity of forensic expertise can be performed without problems, both in the private laboratories of forensic expertise and by authorized independent forensic experts.

At the same time, the authorized independent forensic experts can effectively participate in the performance of the expertise by the official expert who carries out his activity within some public forensic institutions (institutes, laboratories, services).

By the participation of the independent forensic expert authorized to perform the expertise by the official expert, it is understood that his presence at all phases/stages of examinations, experiments performed on material traces or evidence considered in litigation or comparison model.

The existence of legal norms regulating forensic judicial private expertise can lead to the idea that it is organized and unfolds in its fullness, so it is a reality.

#### IS PRIVATE FORENSIC JUDICIAL **EXPERTISE, A FICTION?**

It is assumed that the aim of regulations on forensic judicial expertise presented above was to respect the fundamental rights of persons involved in a criminal or civil trial by transposing into practice the principle of "equality of arms", as a formal guarantee of the right to a fair trial.

It is also assumed that these changes arose from the legislator's desire to strengthen the applicability of the adversarial principle, which implies respect for "equality of arms" between prosecution and defense, between upholding and combating claims, which must conduct the activity of forensic expertise.

<sup>&</sup>lt;sup>4</sup> Art. 97 Code of Criminal Procedure

<sup>&</sup>lt;sup>5</sup> Art 172 (1) Code of Criminal Procedure

<sup>&</sup>lt;sup>6</sup> Art. 1 (1) of Law no. 156 of July 5, 2011 - for the amendment and completion of the Government Ordinance no. 75/2000 on the authorization of forensic experts who may be recommended by the parties to participate in the performance of forensic examinations

<sup>&</sup>lt;sup>7</sup> Art. 1 (1) of Law no. 156 of July 5, 2011

<sup>&</sup>lt;sup>8</sup> Art. 172 (4) Code of Criminal Procedure

<sup>&</sup>lt;sup>9</sup> Art. 172 (4) Code of Criminal Procedure

<sup>&</sup>lt;sup>10</sup> Art. 10 (2) of Law no. 156 of July 5, 2011

<sup>&</sup>lt;sup>11</sup> Art 177 (4) Code of Criminal Procedure

<sup>&</sup>lt;sup>12</sup> Art. 1 (2) of Law no. 156 of July 5, 2011

In practice, the reality is different, as there is a major contradiction between what was wanted at the time of the amendment of the legislation and what is now manifested regarding the forensic expertise, by offering the possibilities for authorized forensic experts to exercise their activity individually, within private laboratories of forensic expertise or in professional civil societies.

In the argument of these statements, we make the following clarifications:

1. Carrying out forensic expertise by authorized individual experts is done sporadically, the judicial body (police, prosecutor's office) and the courts are considering that it is better to turn to official experts from public forensic institutions (National Institute of Forensic Expertise within the Ministry of Justice, with the inter-county laboratories, the National Institute of Forensics of the Romanian Police, Forensic Services within the County Police Inspectorates).

In this situation, the defenders of the persons involved in a criminal or civil trial often turn to the individual forensic expert authorized to perform an extrajudicial expertise, whose report is presented to the prosecutor or the court, in most cases, not as a means of proof, so as provided in the Code of Criminal Procedure, but as a document. In many cases the out-of-court expertise report is not accepted by the prosecutor or the court.

2. The authorized independent expert appointed by the parties shall not participate in the performance of the forensic examination by the official forensic expert within the public institutions.

He has only the right to make "observations on the object of the expertise and the questions formulated by the judicial body, to request their modification or completion, and on the expert report to object"<sup>13</sup>, provisions to which the Constitutional Court, by Decision no. 601/2016 regarding the rejection of the exception of unconstitutionality of the provisions of art. 7 para. (1) of Government Ordinance no. 75/2000 regarding the organization of the forensic expertise activity, was pronounced as constitutional.

In our opinion, based on a long experience in the field of forensics, the non-participation of the authorized independent expert appointed by the parties in the performance of the expertise by the official expert is a major impediment to objections to the forensic report because it did not directly observe the conditions and the stages in which the examinations, experiments, the results of which were the basis for the demonstrations and the formulation of conclusions, were carried out.

Moreover, now, when the quality management governs forensic activity, in general, and forensic expertise, in particular, through procedures specific to each activity, by not ensuring participation the authorized forensic expert appointed by the parties, he cannot know whether the procedures have been followed exactly.

- 3. Authorized forensic experts may not work in private laboratories of forensic. iudicial professional civil society expertise because the legislation has not been finalized and the chambers of commerce do not approve their establishment. For the establishment of private laboratories of forensic and judicial expertise, the Regulation on authorization was issued, annex to Law 156/2011, which is not applicable, because within 60 days from the law and regulation, the Ministry of Justice had to finalize the legislation by issuing the following normative acts:
- H.G. on the Regulation on the organization and functioning of the authorization commission;
- H.G. regarding the evaluation procedures of the laboratories, as well as the supervision of the authorized ones:
- Order of the Minister of Justice on the Regulation for acquiring the quality of authorized forensic expert and the procedure for withdrawing this quality;
- Common Order of the Minister of Justice and the Minister of Administration and Interior on the composition of the authorization commission;
- Common Order of the Minister of Justice and the Minister of Administration and Interior regarding the Deontological Code of the authorized forensic expert;
- Order of the Minister of Justice for the approval of the procedure regarding the evaluation of the private laboratories of forensic expertise to authorize.

Not finishing in time, the legislation, because the Ministry of Justice intentionally ignored the issuance of the mentioned normative acts, after the main legal framework, demonstrates that the Romanian private forensic judicial expertise, is to a large extent, fiction.

#### **CONCLUSIONS**

Considering the presented aspects, it can be stated, without fear of error, that the private forensic judicial expertise, in Romania, cannot be carried out in its fullness because the state does not want to finalize

<sup>&</sup>lt;sup>13</sup>Art. 7 (1) of the Government Ordinance no. 75/2000 regarding the organization of the forensic expertise activity

the legislation specific to the field and thus it can be considered that the adversarial principle of "equality of arms" between prosecution and defense, between the upholding and combating claims that must conduct the activity of forensic expertise, is not exactly respected.

For private forensic judicial expertise to become a reality in Romania, it is necessary: a) to amend the legislation to allow the effective participation of the independent forensic expert authorized to perform the expertise by the official expert from public institutions of expertise b) issuing the normative acts mentioned in the Regulation on the authorization of private forensic laboratories, c) establishing the College of Forensic Experts to manage the issue of acquiring the quality of authorized independent forensic expert, to pursue compliance of deontological code by the experts, ways of continuous training of experts for updating information, to permanently know the headlines in the field, both nationally and internationally level

#### **BIBLIOGRAPHY**

- Law no. 156 of July 5, 2011 for the amendment and completion of the Government Ordinance no. 75/2000 on the authorization of forensic experts who may be recommended by the parties to participate in the performance of forensic examinations;
  - Romanian Code of Criminal Procedure;
- Decision no. 601/2016 regarding the rejection of the exception of unconstitutionality of the provisions of art. 7 para. (1) of Government Ordinance no. 75/2000 regarding the organization of the forensic expertise activity;
- Regulation on the authorization of private laboratories of forensic expertise annex to Law 156/2011 for amending and supplementing Government Ordinance no. 75/2000 on the authorization of forensic experts who may be recommended by the parties to participate in the performance of forensic examinations;
- Emilian Stancu Forensic Treatise, Universul Juridic Publishing, Bucharest;
- Lucian Ionescu Course notes, Bucharest, 2002;
- Gheorghe Popa Forensic technique, university course, ProUniversitaria Publishing, Bucharest.

## SCIENTIFIC TRUTH - UTMOST IMPORTANCE FACTOR IN STRENGHTENING PUBLIC TRUST IN THE JUDICIAL SYSTEM

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#### **ABSTRACT**

Recent research has shown that forensic expertise in the European Union is particularly important for bodies with jurisdiction. More than ever, at this stage, the role of judicial experts must be constantly evolving, in a continuous change marked by cross-border legal and economic relations between European states, and knowledge of the conditions of each state is very important and necessary in harmonizing legislation, procedures, the initiation of common case law, harmonized with all policies.

Judicial expertise, as a fundamental act of evidence based on science, is evidence that highlights the scientific truth, indispensable in civil and criminal proceedings. At the crossroads of science, technology and law - increasingly controversial, forensic expertise is an interdisciplinary science, influenced by cross-border relations and which, at this stage, requires common standards, common procedures, a homogeneous European area based on trust, mobility, meant to contribute to the increase of the quality of the judicial act and at the same time of the citizen's trust in the judicial system.

As a consequence, the judicial expert, both in a civil trial and in a criminal trial, assumes a heterogeneous role, similar to that of auxiliary of justice, but which also gives him an important position, almost predominant, by the way highlights the scientific truth, by arguing the opinion, important elements to the judge who is to base his decision in elucidating the case.

The paper aims to present the importance of highlighting the truth through scientific evidence and complex interpretations that in many situations are interdisciplinary.

**KEYWORDS**: forensic expertise, evidence, judicial, scientific truth.

#### INTRODUCTION

As it is known, an efficient judicial system leads to the increase of the citizen's trust, to the consolidation of the social structure, but also to the progress of the society.

In this spiral, forensic expertise plays an important role being based on knowledge and judicious interpretation in elucidating the truth.

Judicial expertise is a fundamental act of evidence, motivated by the fact that it is based on knowledge, it is the evidence that brings in the image of the participants in the act of justice the scientific truth, indispensable in civil and criminal proceedings. At the crossroads of science, technology and law -

increasingly controversial, forensic expertise is an interdisciplinary science, influenced by cross-border relations and which, at this stage, requires common standards, common procedures, a homogeneous European area based on trust, mobility, meant to contribute to the increase of the quality of the judicial act and at the same time of the citizen's trust in the judicial system.

As a consequence, the judicial expert, both in a civil trial and in a criminal trial, assumes a heterogeneous role, similar to that of auxiliary of justice, but which also gives him an important position, almost predominant, by the way highlights the scientific truth, by arguing the opinion, important elements on which the judge is to base his decision in elucidating the case.

The more science advances, the more courts need experts to answer the multitude of scientific questions.

A study conducted in 1992 by the French Ministry of Justice notes that during 1991, in order to resolve the cases, at least 13% of them needed to resolve the expert opinion recorded in the forensic reports.

The development of society in the years following the process of globalization, highlighted the fact that this percentage is far exceeded. The role of judicial experts is constantly evolving, but also changing, this change being marked by cross-border legal and economic relations between European states.

With each passing day, the demand for well-qualified and experienced experts is growing, who must be able to use their skills at national, European, international level: technical expertise in various fields, technical expertise / technical-scientific tracing finding; tracing expertise; expertise of the traces left by the means of transport; expertise of the marks left by the cutting means and of the marks created by pressing or hitting; expertise of animal tracks; expertise for establishing the entire wood component; soil footprint expertise; expertise of forest fire traces; handprint expertise; expertise of papillary traces on the leaves; dendrochronological expertise; other types of expertise suitable to be performed in the case of crimes<sup>1</sup>.

Therefore, we find that one of the predominant factors in increasing citizens' trust in the justice system, in addition to the promoted reforms, is the increase in the quality of related services, both by promoting concepts of performance, knowledge, increasing scientific level, and, equally, through the existence of a common case law and a European area based on trust and mobility.

Therefore, it is very important that forensic experts as a whole work on the basis of common standards regardless of the field in which they operate.

The authors conducted a comparative study between the jurisprudence of Continental Europe, strongly influenced by the French jurisprudence, and the federal jurisprudence of the overseas states, which shows that in European legislation, at present, the framework governing international judicial cooperation does not include the field of expertise court.

#### JUDICIAL TRUTH

The specialized literature records several types of truth: a philosophical, psychological truth, a historical truth, a social truth, a scientific truth, an

absolute or relative truth, a judicial truth, as well as many other polysemantic aspects of this notion.

The part of truth that matters is the judicial truth, but it is based on argumentation all other types of truth, as well as the facts, the professional quality of counsel, the legislative framework and the wisdom of the judge.

In other words, judicial truth is based on a correct determination of the relevant facts, and the correct determination is based on evidence and evidence provided by judicial experts and specialists, on technical prescriptions and normative acts governing each field of science, therefore on scientific truth.

Tudor Vianu noted: "The beauty of scientific truth results from the form in which it is presented to us and it is precisely this form that conquers us and urges us to penetrate its content.

In the most insignificant scientific truth, obtained with much effort, something from the whole universe shines, something unspeakably beautiful.

Apparently, the scientist seems the furthest from any artistic preoccupation. And yet, at the end of the research, the scientist feels the same joy as the one who rewards the artist. Scientific truth, beauty and goodness grow from a common strain".

#### JUDICIAL EXPERTISE / JUDICIAL EXPERT

Judicial expertise is the means of proof by which the opinion of judicial bodies is brought to the opinion of experts / specialists regarding those factual circumstances for the clarification of which special knowledge is required. This opinion is formed on the basis of a concrete investigation of the case, the use of other evidence issued by certified laboratories, the interpretation and application of specialized data by the competent persons designated by the judicial body.

Therefore, the forensic examination represents the opinion of an expert / specialist expressed by the paper prepared with reference to the objectives established by the court, in order to clarify the full on technical, scientific, economic, forensic issues, etc. which are indispensable for the settlement of the dispute.

As a consequence, the judicial expert, both in a civil trial and in a criminal trial, assumes a heterogeneous role, similar to that of auxiliary of justice, but which also gives him an important position, almost predominant, by the way highlights the scientific truth, as well as regarding the organization / argumentation of the elements on which the judge is to base his decision in elucidating the case.

<sup>&</sup>lt;sup>1</sup> Ana Maria Grămescu, Ana Maria Daniela Barbu - Judicial Expertise means of proof - Ed MATRIX Bucharest 2020, ISBN 978-606-25-0544-8 - 454 pag.

Regarding the notion of forensic expertise, from a logical perspective, we can say that it is the evidence that allows to establish the value of truth or falsehood in terms of a statement or fact, relevant from a judicial point of view.

According to the French lawyer Jean Domat, the evidence is what convinces the mind about the existence of the truth. For the Greek reformist king Solon, the evidence was the rational reason to declare or deny something, for Ambroise Colin and Henri Capitant the evidence was the rational reason to point out what it means to establish a supposed reality and, according to Gerard Cornu, any proof is proof a fact or an act by the means provided by law.

In order to have a good judicial decision, any court must have a good way to use the evidence, to select it by its veracity in order to find and prove the real facts. Of major importance in the interpretation and selection of evidence is the competence in the administration of evidence, the choice of experts and specialists appropriate to the respective cases, proven by the preparation and the certificates obtained; a presentation of the activity of the expert in the requested field, proven by performance, is not excluded.

Ignorance of the fields / specializations of reference, of the legal framework with which the legal legislation must be corroborated, but also non-compliance with a code of professional ethics by experts or specialists appointed by the courts and who do not understand to withdraw when they do not have the required or unsolicited competence by studying the file, it can lead to unjustified deadlines from the courts and delay in resolving cases, to issuing court decisions that do not meet the conditions of application, to unjustified favoring of a party, or to additional and unjustified expenses of the parties, etc.

Starting from the Latin expression "expertus, experior", the forensic expert, through his specialized knowledge, but also the legal provisions, comes to try to prove a state of affairs which is a means of proof for solving civil or criminal cases.

The notion of forensic expert as a whole - expert witness, practiced in the system applied in Great Britain, United States of America and official expert appointed by the court (called "perito" in Italy, "forensic expert" in France, "sachverstaendiger" in Germany), is currently leading a great debate.

Romanian procedural law, both in civil and criminal matters, presents the judicial expertise in the chapter "Evidence and means of proof".

Although the legal provisions of a procedural

nature do not provide for a value hierarchy of evidence, we can appreciate that the forensic expertise has a higher degree of objectivity, compared to other evidence, both for the fact that it is administered by a specialist / expert with high professional standing. attested by the Ministry of Justice or on the list of specialists, but also for the fact that it bases its conclusions on its own scientific findings, on legal provisions in the respective field, making a contribution of the highest level to establishing the truth.

Referring to the mission of the judicial expert, the current provisions included in Government Ordinance No. 2/2000<sup>2</sup> - updated and completed, with reference to experience in the field of at least 3 years, makes us appreciate that this criterion reduces the requirement sine qua non to a high "professional attire", motivated by the fact that the etymology of this word implies: study, research, experience - that is the bases of the expert profession, which, as it is known, cannot be found in on the deepening of knowledge, on study, on competence acquired in time, through work, perseverance, passion and dedication.

Judicial expertise has an old tradition. In antiquity, it was used quite rarely, so, as it is known, in Roman law it was used timidly at first, but there is evidence of the request of specialists in solving legal cases. The Romans used the test with technical expertise, mainly to solve the problems of border, using border engineers known as "mensores", graphological expertise and agricultural expertise.

In the 18th century, the technical expert was increasingly used in criminal proceedings.

In France, the role of the technical expert is recorded in the Code of Civil Procedure (2007) and in the Code of Criminal Procedure - Le Code de Procédure Pénale (1959).

In Italy, the role of the technical expert is recorded in the Code of Civil Procedure (1940) and in the Code of Criminal Procedure (1942).

In Germany, the role of the technical expert is recorded in the Code of Civil Procedure (1879) and in the Code of Criminal Procedure (1877).

In the US, the role of experts and their views plays an extremely important role not only in the trial phase (before the court), but also in the pre-trial phase (which is called "discovery" in civil proceedings and "investigation" in court proceedings. criminal). Expert evidence is governed primarily by federal records (FRE). The rules were the product of a lengthy academic, legislative, and judicial review before they were officially promulgated in 1975. Although U.S.

<sup>&</sup>lt;sup>2</sup> GOVERNMENT ORDINANCE OF ROMANIA no. 2 of January 21, 2000 on the organization of the activity of judicial and extrajudicial technical expertise

states are free to adopt or maintain evidence other than federal rules, the vast majority have adopted codes in full or in part. based on FRE. Several specific rules governing the discovery and other procedural issues of witnesses and expert opinions can be found in the Federal Rules of Civil Procedure and the Federal Rules of Criminal Procedure.

#### JUDICIAL EXPERTISE IN ROMANIA

In Romania, forensic expertise has an old tradition. In the old Romanian law, the "Institution of the technical expert" is treated if we refer to the Ypsilanti Code, a code that included provisions regarding the determinants, or to Caragea's Legislation, which included notions regarding goods valuations included in the Organic Regulation.

In Romania, the judicial expertise is regulated by the Code of Civil Procedure, the Code of Criminal Procedure, Order no. 199/2010 of the Ministry of Justice<sup>3</sup> regarding the nomenclature of specializations of technical experts and Government Ordinance no. 2/2000 updated and completed by Law 208/2010. The registration of the expertises in the Code of Criminal Procedure demonstrates the importance given to them by their admission in the activity of judicial probation. However, the legislative framework is not updated with the current needs of society.

Government Ordinance no. 2/2000 at the date of issuance referred as a whole to the activity of judicial and extrajudicial expertise without references to the categories of judicial expertise, respectively: technical, accounting, forensic science, etc. - but, in the updated form of the ordinance, at the level of 2010, it contains new elements with reference to judicial technical expertise, the accounting expertise being adopted by the Ministry of Justice only through internal regulations issued by CECCAR, as a professional association, and forensic expertise being regulated by specific acts applicable exclusively, respectively, GO no. 75/2000<sup>4</sup> approved and updated by Law no. 488/2002 and Law no. 156/2011<sup>5</sup>.

The provisions of the Code of Civil Procedure and the Code of Criminal Procedure with reference to judicial expertise, the specific legislation governing the activity of judicial expertise, are considered by the authors to no longer contain some current issues and even with different applicability to areas of judicial expertise, motivated by the following aspects:

- the phrase "lack of topicality of the legislation" refers to the fact that in the meantime regulations specific to the specializations of extrajudicial technical expertise have been elaborated, other normative acts issued by other ministries in the field of legal technical expertise that make the specializations from the nomenclature higher education should not be found entirely in the fields of technical expertise;

- the fact that at present, the Ministry of Justice, through the attestation procedure for some competencies included in Order no. 199/2010 did not condition that at the examination the applicant has the attestation in the fields of line ministries (by law only specific professional attestations are regulated), in many cases legal effects may occur but may also contribute to the delay of cases when designating those who, through their competence, can administer the test, etc.

Failure to consider these aspects, corroborated with the current criteria for participation in the attestation exam as a forensic expert, will not be able to ensure in the future a high-performance system, which ensures the professional conduct of the works, the veracity of justice, the risk of errors and such an expert certified by the Ministry of Justice becomes vulnerable and prone to legal effects such as issuing a court decision without fully ensuring the conditions of application.

Eloquent, current examples are the cases aimed at "supplementing the neighbor's agreement in the case of a construction attached to the turbot", or cases concerning the conditions that were the basis of extrajudicial expertise prepared by MLPDA certified experts (Ministry of Public Works, Development and Administration) according to Law no. 10/1995 on "classification in seismic risk classes I".

In these situations, the use in question of the judicial experts certified by the Ministry of Justice in the field of resistance and stability of a construction and who do not possess the competence of expert certified by MLPDA according to Law no. 10/1995 updated and completed, may provide an unfounded opinion and at any time contested. These experts, attested in the field of strength and stability of constructions and who do not

<sup>&</sup>lt;sup>3</sup> ORDER of the Minister of Justice No. 199 / C of January 18, 2010 for the approval of the Nomenclature of specializations of judicial technical expertise

<sup>&</sup>lt;sup>4</sup> Government Ordinance no. 75/2000 on the authorization of forensic experts who may be recommended by the parties to participate in the performance of forensic examinations, published in the Official Gazette of Romania, Part I, no. 407 of August 29, 2000

<sup>&</sup>lt;sup>5</sup> Law no. 156 of July 5, 2011 for the amendment and completion of the Government Ordinance no. 75/2000 regarding the authorization of forensic experts who may be recommended by the parties to participate in the performance of forensic examinations, as well as of Law no. 567/2004 on the status of the specialized auxiliary staff of the courts and of the prosecutor's offices attached to them

have a certificate issued by MLPDA according to the provision of Law no. 10/1995, cannot provide an authentic, truthful proof, because these experts did not make in the professional activity a qualitative and analytical evaluation of the resistance structure of a construction, they never applied the qualitative and analytical evaluation in the analysis constructions, that regulates this field of civil engineering, such works being elaborated, according to the legislative framework, by persons who have MLPDA certified competence.

Moreover, in many cases, they are even obliged to meet the objectives set by the court by which they have to express their opinion on a technical expertise that was the basis for issuing an authorization or on the basis of which an authorization will be issued - in the conditions under which the court-appointed expert does not have this capacity.

Thus, the current condition imposed by the Ministry of Justice with reference to the attestation in this field, namely to hold the title of doctor, cannot replace the competence of MLPDA expert in the strength and stability of constructions. Similar cases are in the field of consolidation of historic monument buildings, the technical experts who provide solutions in this field being certified according to the provisions of Law no. 422/2001, the attestations being obtained, according to the legal provisions, based on a professional examination held at the National Heritage Institute, before a commission of specialists appointed by order of the minister and after the candidate proves the professional experience in the required attestation field, presentation of works actually executed in the field of attestation.

Instead, as the specialization "strength and stability of constructions" was structured within the Order no. 199/2010 issued by the Ministry of Justice, is a particularly good measure, motivated by the fact that these technical experts certified for this specialization, can administer the evidence with expertise for works performed or in progress for which the provisions of Law no. . 10/1995 updated and completed, which aims at the quality of the executed works, the observance of the legal provisions regarding the quality assurance in constructions, and only they can evaluate a damage produced by the non-observance of the legal provisions regarding the quality in constructions.

Similar situations are encountered in the experts in electrotechnical specialization certified by the Ministry of Justice and which, according to the specific legal provisions, should be certified by ANRE, in many cases the forensic technical expert being asked to rule in a field where ANRE is mandatory.

This aspect highlights the fact that the forensic

technical expert must be a very well trained person, and for the specializations for which there is a specialized legal framework to hold these attestations provided by special laws in order to be nominated in the administration of evidence with technical expertise in more complex which refer to the aspects presented above.

The legislation applied by categories of experts is differentiated. The differentiation is based on the fact that differentiated legislative provisions are applied to the judicial technical experts, without any legal regulations in this respect: even in the content of art. 24 al. 1 and 2 of O.G. no. 2/2000 is recorded differently: "The provisions of art. 15-23 also applies in the case of forensic accounting expertise", leaving it to be interpreted that other articles do not apply to forensic accounting expertise.

Judicial expertise, as an investigation of some factual circumstances necessary to establish the truth, can be performed only by experts certified by the Ministry of Justice, and in some cases, in the absence of experts certified in the required specialty may be required persons who have a training special in the field, certified training of competencies acquired from other ministries. It must be acknowledged that the legislative changes initiated and supported by the Ministry of Justice in the last period have brought essential changes, of major importance for the efficiency of the act of technical expertise.

Order no. 199/2010 of the Ministry of Justice for the approval of the Nomenclature of specializations in judicial technical expertise implements new specializations increasingly requested by the courts and other bodies with jurisdictional attributions.

These changes must be known by all participants in the act of justice: courts, lawyers, liquidators.

It is necessary that the experts or specialists interested in being recommended to administer the evidence with the forensic expertise before being registered as specialists on the lists of records of the Ministry of Justice should benefit from a legal training program absolutely necessary for the forensic expert in developing forensic technical expertise. in accordance with the Code of Civil Procedure and the Code of Criminal Procedure, OG no. 2/2000, but just as important is the updating of information in the field of strict specialization of judicial experts who are active and are currently appointed by the courts.

#### CONCLUSIONS

The above highlights the fact that judicial experts, through the mentioned competencies, carry out activities in the interest of public utility both in the field

of administration of evidence with judicial expertise, in order to solve cases in civil or criminal proceedings, at the request of courts and institutions the state, civil society or other entities interested in finding out the truth.

Because in forensic examinations, experts use scientific data to prove and explain factual circumstances, they are an important guarantee of the objectivity of probation. The conclusions presented synthetically exert a favorable influence on the activity of the judicial bodies, through the contribution they bring to the fast and objective resolution of cases.

In many situations, in solving civil or criminal cases, the judiciary faces a multitude of problems whose nature goes beyond the sphere of concern of a science, requiring the consultation of specialists from several fields, who formulate conclusions in the same expert report. technical. Thus, the judicial expertise acquires an interdisciplinary character, in the specialized literature being known as "complex expertise".

Because the activity of the judicial expert is carried out even at the stage of the administration of evidence, his activity must comply with the general principles underlying any judicial procedure that is intended to be in accordance with both the rules of a rule of law and the applicable provisions of the European Convention. of Human Rights (Convention).

The role of judicial experts in the current stage, which is in continuous progress but also in change, a change marked by cross-border legal and economic relations between all European states, is becoming particularly important.

#### SELECTIVE BIBLIOGRAPHY

- 1. Ana Maria Grămescu, Ana Maria Daniela Barbu Judicial Expertise means of proof Ed MATRIX Bucharest 2020, ISBN 978-606-25-0544-8 454 pages;
- 2. Ana Maria Grămescu Technical Expertise Inspection and assessment of construction damage Guide for technical experts, assessors, insurers Part I Roofs Ed MATRIX Bucharest 2018, ISBN 978-606-25-0455-7 349 pages;
- 3. Ana Maria Grămescu, A.M.Daniela Barbu "Guide of the technical expert" AGIR publishing

house Bucharest 2006, ISBN 973 - 720 - 042 - X, 328 pages;

- 4. Ionescu Victor, Ana Maria Grămescu The guide of the technical expert ed. CEPROHART Braila-1999 ISBN 973-98593-1 3 629 pag;
- 5. ORDINANCE OF THE GOVERNMENT OF ROMANIA no. 2 of January 21, 2000 on the organization of the activity of judicial and extrajudicial technical expertise, updated and completed to date;
- 6. ORDER of the Minister of Justice No. 199 / C of January 18, 2010 for the approval of the Nomenclature of specializations of judicial technical expertise;
- 7. GOVERNMENT ORDINANCE no. 75/2000 on the authorization of forensic experts who may be recommended by the parties to participate in the performance of forensic examinations, published in the Official Gazette of Romania, Part I, no. 407 of August 29, 2000
- 8. LAW no. 156 of July 5, 2011 for the amendment and completion of the Government Ordinance no. 75/2000 on the authorization of forensic experts who may be recommended by the parties to participate in the performance of forensic examinations, as well as of Law no. 567/2004 on the status of the specialized auxiliary staff of the courts and of the prosecutor's offices attached to them
- 9. ORDER Nr. 5376/2017 of October 19, 2017 on the approval of fields and specializations / university study programs related to economic sectors with growth potential in Romania;
- 10. Law no. 10/1995 regarding the quality in constructions republished in M.O. 765/2016 (30.09.2016);
- 11. Law 422/2001 updated and completed up to date with reference to the conservation and protection of historical monuments;
- 12. ORDER no. 364 of March 1, 2010 for the approval of the Regulation on the technical-professional attestation procedure of project verifiers, technical managers with execution and quality and extrajudicial technical experts for the assembly works of machinery, equipment and industrial technological installations M.Of. no. 335/20 May 2010.
  - 13. Code of Civil Procedure;
  - 14. Code of Criminal Procedure.

## MANAGEMENT OF COMBATING ORGANISED CRIME GROUPS SPECIALIZED IN ARMS TRAFFICKING

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#### **ABSTRACT**

A more accurate and complete understanding of the full range of Organized Crime Group (OCG) specialised in arms trafficking is, and will remain, among the highest priorities of law enforcement agencies, in order to prevent illicit import and export operations.

In this regard, improving abilities to obtain timely and accurate knowledge of adversary's methods and strategies constitute a key element for developing law enforcement policies. Another important aspect is represented by knowing at any moment the level of readiness and complexity of the OCG and to have a hierarchy of these, to concentrate institutional resources for dismantling the most dangerous ones.

This article presents a new method who analysis the main characteristics of an OCGs and created a model for establishing a hierarchy of the OCGs.

KEYWORDS: organized crime, arms trafficking, corruption, crime, hierarchy.

#### INTRODUCTION

In the context of the geopolitical, economic and social transformations currently facing the international community, organized crime is gaining new valences, extending its scope to an alarming level, which is of concern for the majority of states of the world and especially for those whose economies are in the process of transition, given the vulnerability of legislative systems and the fragility of democratic institutions in these countries.

In their work, transnational criminal organisations threaten national sovereignty and the authority of states, democratic values and public institutions, national economies and democratisation processes in countries recently released from under totalitarian regimes. These organisations are flexible, sophisticated, easily adaptable to the situation and act according to the strategy of multinational companies, continuously expanding their alliances and agreements in order to gain wider access to "know-how", ensuring a protection from national authorities, reducing risks and opening new channels for their illegal activities.

Moreover, criminal organisations specialising in arms trafficking lead risks at international level, given their interest in illegally transferring military products to areas subject to international embargo or restrictive measures international organisations (e.g. United Nations, NATO, OSCE). The interest in these areas of organised crime organisations lies in the very high price obtained on trafficked weapons in these states, given the very high demand and the low possibilities for obtaining these military products through ways based on an export licence.

In this context, the role of law enforcement agencies becomes essential for the dismantling of these extremely dangerous criminal networks, which appeal to all possible criminal means to achieve their objectives, namely trafficking to any interested person or group. That is why it is important to achieve models to achieve the characterisation of these criminal groups, with the highlighting of the main relevant indicators, the goal being to rank these high organised crime groups.

The ranking of organised crime groups specialising in trafficking in military products allows the correct allocation of institutional resources for the destruct of the OCGs, as a priority, those criminal networks that induce the greatest risk to national, regional and international security. In this respect, a method has been developed describing the main indicators of an organised crime group involved in arms trafficking and the algorithm by which these criminal networks can be ranked on a scientific basis.

#### **METHOD**

The analyses carried out have highlighted that criminal groups are trying to "adapt" to the specific activities carried out by the intelligence services and law enforcement institutions, by diversifying and "refining" the means, and operating methods.

In this context, information analysis structures were obliged to develop and adapt new tools that characterise criminal groups as faithfully as possible and achieve a ranking of them according to several objective factors.

The ranking methodology described in this

article is an analytical technique to rank groups organized by criminals according to their relative capabilities, limitations and vulnerabilities. The coefficients used in this analytical technique have been developed and used for the first time at the level of the analysis structure of an information service and constitute the contribution to the development of an analytical technique that corresponds to the specificities of the criminogenic phenomenon with military products and technologies.

This technique uses hierarchical sets of attributes for the comprehensive, structured and truthful measurement and comparison of relevant information on organised criminal groups specialising in arms trafficking. Each attribute is defined, evaluated, and has a set of defined values.

The purpose of this analytical technique is to "provide, for strategic analysis information and techniques to measure/assess the threats generated by organised crime groups specializing in illicit arms trafficking. The technique described in this article, in conjunction with extensive experience, allows strategic analysts to rank organized groups of criminals in an objective, comprehensive and systematic way. The result is an assessment of the relative threat posed by an organized criminal group to society/institutions/persons, through which we function as a society, the economy and the fundamental principles of justice on which a democratic civil society depends." 1

The main purpose of this analytical technique is to produce assessments based on which to recommend strategic law enforcement priorities and informative priorities to management factors (responsible for the implementation of normative acts).

In this context, by using this technique, "managers within the institutions responsible for preventing and combating organised crime can set national priorities for this area by highlighting criminal organisations that pose the greatest threat to public order and security and key persons involved in

criminal activities whose investigation, arrest and prosecution would destruct those groups."<sup>2</sup> These managers can then approve investigative projects and allocate the resources needed to act based on established investigative priorities.

This threat measurement technique facilitates the task of comparing organised criminal groups in a consistent manner when these groups are monitored and evaluated by different analysts. It also allows analysts to present to management factors the results and data that underpin the assessment in a clear and concise manner. The results are displayed visually, as an array that reveals hierarchical, ordered, array groups that use colour attribute encoding to indicate the reasons for that hierarchy.

"The ability to demonstrate that recommendations in an informative assessment are based on logical principles and objectives increases the degree of confidence that decision-makers give to the recommendations received."

#### WEIGHT OF ATTRIBUTES

The attributes are ranked according to their importance, in assessing the threat posed by organised crime groups specialising in arms trafficking against society. The place each attribute occupies in the ranking list is its weight.

The selected attributes specific to organised crime, in hierarchical order, depending on their severity, are:

**1. Corruption -** ongoing efforts to corrupt public figures, representatives of the licensing system, justice and leaders of the business world through influence trafficking, exploitation of their weaknesses and the use of blackmail. At the same time, criminal groups are interested in placing members and associates in sensitive positions within local and central public authorities in order to gain control of them.

	·
High	The criminal group has the capacity to corrupt officials or infiltrate law enforcement
	authorities, licensing authorities of military products, security forces or government
	structures.
Medium	There have been attempts to corrupt officials or infiltrate law enforcement authorities,
	licensing agencies, security forces or government structures.
Low	There is an intention at the level of the criminal group to corrupt officials or infiltrate law
	enforcement authorities, licensing agencies, security forces or government structures.
Zero	There is no concern of corruption or infiltration.

<sup>&</sup>lt;sup>1</sup> Results of a pilot survey of forty selected organized criminal groups in sixteen countries, September 2002, United Office on Drugs and Crime, p. 43.

<sup>&</sup>lt;sup>2</sup> R.T. Naylor, *Mafias, Myths and Markets: On the Theory and Practices of Enterprise Crime*, Transnational Organized Crime, Vol. 3, No. 3, p. 6.

<sup>&</sup>lt;sup>3</sup> Peter Reuter, *Disorganized Crime: Illegal Markets and the Mafia*, Cambridge: MIT Press, 1983, p. 75.

**2. Type of criminal network** – depending on the characteristic of the criminal group network, it can be determined how hermetic it is or its degree of

expansion at international level, being an important feature indicating the risk induced by the organised crime group specialising in arms trafficking.

High	The structure of the organised crime group is of a rigid hierarchy type characterized by a single leader (single command), distinct and well-defined hierarchy, high degree of discipline, a known organization with a distinct name, in most cases presents high social/ethnic identity, violence is an important factor for the conduct of illegal activities, exercises influence/control over a clearly
	defined territory.
Medium	The way of structuring the organised crime group is of a flexible/regional hierarchy type, characterized by: single management structure, centre command line, regional degree of autonomy, regional/geographical distribution, multiple criminal activities, is usually characterized by social/ethnic identity, violence is an essential factor for carrying out criminal activities.
Low	The structure of the organized crime group is clustered hierarchy, characterized by the fact that there are several criminal groups, there are strict regulations governing the activities of the criminal group, the cluster has stronger identity than constituent groups.
Zero	There is no well-defined hierarchy of organised crime.

**3. Violence** - the use of intimidation by threatening, explicitly or implied, with violence

against targets outside the criminal group.

High	Violence is used as an offensive tactic, an integral part of the group's strategy, applied in a
	measured, premeditated and continuous manner.
Medium	Violence used spontaneously as a short-term offensive tactic without strategic implications
	(without a strategy in this regard).
Low	Violence is used as a defensive tactic (exclusively for defence).
Zero	Violence is never used.

**4. Infiltration** of criminal elements within private organizations and companies carrying out legal activities. It is intended to control these entities for

carrying out illicit activities (e.g. money laundering, information collection, performing activities specific to highly specialized organised crime).

High	The criminal group has control of private organisations or companies in order to use them in illicit
	activities.
Medium	The criminal group has influence but does not have control of private organisations or companies
	they intend to use in the conduct of illicit activities.
low	The criminal group has links, but has no influence, at the level of private organisations or
	companies they intend to use in carrying out illicit activities.
Zero	The criminal group has no links or control or influence at the level of private organisations or
	companies for the purpose of using them in carrying out illicit activities. The criminal group may
	purchase products or services from these entities as a legitimate customer.

**5. Money laundering** - the process of legitimizing sums of money obtained from illicit activities. In fact, money laundering consists of

concealing the illicit origin and property of funds obtained through illegal activities.

High	The ariminal group applies combisticated methods of manay laundaring including manay
High	The criminal group applies sophisticated methods of money laundering, including money
	laundering by carrying out import-export operations or intra-community operations, loan-back
	schemes through the use of offshore companies, legitimate business investments especially on the
	retail floor, restaurants or real estate projects. Criminal grouping uses the expertise of specialized
	personnel (lawyers, notaries, accountants, investment advisers, etc.).
Medium	The criminal group uses basic methods, including bank accounts, promissory notes, holding
	businesses running large amounts of cash (e.g. casinos, restaurants, stores). The group may transfer
	certain amounts of money to other organised crime groups.

Low	The criminal group has limited money laundering capabilities. Profits from illicit activities are used
	to purchase luxury goods and other real estate used by the members of the group.
Zero	The criminal group has no money laundering capabilities. Proceeds from criminal activity are used
	to cover the operational expenses of the members of the group and there are no significant
	accumulations of financial assets.

**6.** Collaboration - expresses the degree of collaboration with other criminal groups.

High	The criminal group has strong links with other criminal groups, with which it carries out illicit
	activities in collaboration and/or carries out complementary activities with them.
Medium	Occasional links with other criminal groups, with which they engage in illicit activities in
	collaboration and/or carry out complementary activities with them.
Lowt	Ad hoc links with other criminal groups (e.g. supplier-retailer).
Zero	There are no links to other criminal groups.

**7. Isolation** - efforts to protect the leaders of criminal groups from being convicted of their crimes, by using various methods (use in the conduct of

criminal activities of subordinates, activities to conceal criminal actions, corruption and/or other means).

High	The leaders of the criminal group managed to escape conviction for wrongdoing. It is difficult to
	obtain information about the leaders of the criminal group.
Medium	The leaders of the criminal group are liable to be convicted, following long-term investigations and
	with a high degree of complexity. Information can be obtained about the group's mid-level leaders.
Low	The leaders of the criminal group are vulnerable to being convicted of criminal activities directly
	carried out. Information can be obtained about the leaders of the group.
Zero	The leaders of the group are directly involved in criminal activities carried out by the criminal
	group.

**8. Monopoly** - control of one or more criminal activities in a geographical area, showing intolerance for other organized crime groups. This does not

exclude cooperation with other partner criminal groups. The monopoly is achieved using violent acts and various methods of intimidation of rival groups.

High	Establishing a high level of control of criminal activities carried out in each geographical area.
Medium	Carrying out illicit activities in a geographical area, but without its exclusive control.
Low	Poor control of criminal activities, one or more criminal groups operating in the same geographical
	area.
Zero	There is no specific control of criminal activities, with several criminal groups operating in that
	geographical area, without any information that there is competition between them.

9. Purpose - describes the geographical sphere of influence of an organized crime group.

High	The group acts at multinational level, its members being present in Romania and two or more
	countries.
Medium	The group operates in Romania and another state.
Low	The group operates exclusively on Romanian territory, but in two or more cities.
Zero	The group carries on local activity (within one locality).

**10.** Use of information/counterinformation means - the ability of criminal organisations to use informative/ counter-informative means and methods,

used to protect the grouping of law enforcement or influences exercised by rival groups, as well as to identify new criminal targets.

High	The use of information/counterintelligence equipment* (e.g. cryptographic means), as well as the
	use of qualified personnel expertise (e.g. former police officers or intelligence officers). Specific
	activities may include the use of databases/websites or the conduct of disinformation campaigns.

Medium	Use of basic equipment (e.g. cameras, high-performance GPS systems, state-of-the-art security								
	systems).								
Low	Basic information/counterinformation means. Do not use other sophisticated technologies except								
	mobile phones, radios and scanners.								
Zero	Do not use informative/counter-informative means.								

\*"From the analysis of Anglo-Saxon literature, counterintelligence can be defined as the intelligence obtained about the informative authorities and the capabilities of an adversary in order to thwart or annihilate its intentions to damage the state.

According to the same sources, counterintelligence has the following functions:

➤ gathering information about foreign intelligence services through the use of secret or open

sources (OSINT);

risk assessment of persons who are suitable for betraying or disclosing information the dissemination of which may affect national security;

> research and analysis activities on the structure, staff and operations carried out by foreign intelligence services;

> operations to counter disciplinary of hostile actions carried out by foreign intelligence services."

#### 11. **Diversification** - reflects the degree of diversification of criminal activities.

High	Multiple illicit activities, involving several areas simultaneously. For example, criminal grouping								
	may be involved in drug trafficking, prostitution and illegal gambling.								
Medium	Multiple illegal activities involving goods or interconnected businesses. For example, in addition								
	to the basic activity of arms trafficking, a criminal group can be involved in car theft and car								
	dismantling. Another example may be a criminal group involved in various drug activities (e.g.								
	production, import, marketing of several types of narcotics).								
Low	An established criminal zone with occasional involvement in other criminogenic areas. For								
	example, a group specialising in the trafficking of military products may occasionally be involved								
	in the marketing of stolen goods.								
Zero	Only one criminogenic area. For example: a group may only be involved in car thefts, drug sales								
	on the street or only in the export/import of military products.								

**12. Discipline** - means and methods used to maintain the structure of the criminal organization. These means include the use of violence, intimidation

and other sanctions or forms of coercion exerted on members of the group or associates.

High	The group uses murder or attempted murder against members, associates or family members.							
Medium	group imposes severe physical or financial penalties on members and associates.							
Low	The group exerts non-violent coercive means on members and associates.							
Zero	There are no specific measures to discipline the members of the group.							

**13. Group cohesion** - strong links at individual and group level aimed at creating solidarity between members of the group and joint protection of illicit actions carried out. These links can be created by

various factors: common background, blood links, financial links, common geographical or ethnic origins.

High	Members of the group have close bonds of blood, friendship, ethnic identity and joint group.						
Medium	There are certain links, although there is a large fluctuation in the members of the group.						
Low	There are certain conjunctural links, the members of the group carry out certain criminal activities,						
	after which the group falls apart.						
Zero	There is no group cohesion for criminal activities.						

<sup>&</sup>lt;sup>4</sup> R.T. Naylor, *Wages of Crime: Black Markets, Illegal Finance and the Underworld Economy*, Ithaca: Cornell University Press, 2002, p. 14-18.

**14. Means of communications** – depending on the degree of anonymisation of conversations between members of the organised crime group, it can be estimated how complicated it is to achieve their

interception by law enforcement agencies to support the process of dismantling the criminal network specialising in arms trafficking.

High	No electronic means of communications are used at the level of the criminal group, the relationship
	being carried out exclusively in formal meetings difficult to monitor information.
Medium	Members of the organised crime group use means of communication to ensure anonymisation of conversations between members of the criminal network (e.g. Darknet, conversations encrypted through dedicated software solutions).
Low	At the level of the organised crime group, encrypted means of communications existing on the market (e.g. email, social networks – Facebook, Telegram, WhatsApp) are used.
Zero	The grouping uses common communications (e.g. mail, mobile telephony, fixed telephony, fax).

15. Falsifying documents – in order to carry out illicit operations in the trafficking of military products, in many situations specialised criminal organisations use false documents to mislead licensing

or law enforcement authorities, sometimes using the corruption of officials within licensing authorities or customs officials.

High	The criminal group uses falsified documents specific to the field of export control, i.e. export							
	licences, final use certificates, delivery control certificates, etc.							
Medium	Members of the organised crime group use transport documents and forged commercial documents							
	(e.g. invoices) or not correctly reflecting exported/imported products.							
Low	At the level of the organized crime group, documents for the delivery of falsified goods are used.							
Zero	Grouping does not use falsified documents.							

Each attribute is defined to ensure that analysts in different institutions use the same operational definitions in their assessments when using this technique.

Each of the 15 attributes has five possible values, respectively: High (value: 5), Medium (4), Low (3), Zero (0) or Unknown (4). Each value is defined by providing indicators that information analysts can identify in informative and investigative reports and can use to correctly compare different groups.

The amount of 'Unknowable' shall be granted where insufficient or contradictory information (for which the true version has not been established) excludes their assessment (assessment). The fact that no data and information on a particular attribute are known constitutes a systemic vulnerability, for which value 4 was attributed, equivalent to the 'Average' risk level.

For example, these indicators indicate how the "Violence" attribute measures how and not how the group uses violence. Thus, a criminal neighbourhood group that frequently commits acts of violence (Environment) does not necessarily pose a threat to society, compared to an established organised criminal

group that wears out with a lower frequency of acts of violence to have greater effect, facts on which there is less chance of being prosecuted and sanctioned (High). A group that wears violence only defensively (only to defend itself) has limited capacities to increase the number of shares and profit in the market in competition with other organized crime groups.

#### **GROUP RANKING**

The best method identified to arrange groups in hierarchical order uses a table of numerically expressed impact factors. This table provides a specific numeric score for all values of each attribute. The table was generated to function according to the two variables that combine to compare groups: the weighting of each attribute and the values for each attribute. A "High" in Corruption is more important and has a higher score than a "High" for Violence, and a "High" level in Corruption is more important and has a higher score than "Medium" at the same attribute (Corruption).

No. Crt.	Attribute (A <sub>i</sub> )	Impact factor (Fi)
1.	Corruption	15
2.	Type of criminal network	14
3.	Violence	13
4.	Infiltration	12

5.	Money laundering	11
6.	Collaboration	10
7.	Insulation	9
8.	Monopoly	8
9.	Purpose	7
10.	Use of information/counter-information means	6
11.	Diversification (D)	5
12.	Discipline	4
13.	Group cohesion	3
14.	Means of communication	2
15.	Falsification of documents	1

*Table no. 1 – Impact factors allocated* to each attribute

#### PRESENTATION OF RESULTS

The groups that are compared are listed on one axis of the matrix and the attributes are listed in order (hierarchically) on the other axis. The matrix is filled in with the respective values for each attribute of each group. Attribute values (A<sub>i</sub>) are encoded in array colours, so that:

- a) High = Red(5)
- b) Medium = Orange (4)
- c) Low = Yellow (3)
- d) Zero = Green(0)
- e) Unknown = Blue (4)

The calculation formula for a grouping's global hazard factor (FGP) is as follows:

$$\textbf{\textit{FGP}} = \sum_{i=1}^{15} \text{Ai} * Fi = 15 * F1 + 14 * F2 + 13 * F3 + 12 * F4 + 11 * F5 + 10 * F6 + 9 * F7 + 8 * F8 + 17 * F9 + 6 * F10 + 5 * F11 + 4 * F12 + 3 * F13 + 2 * F14 + 1 * F15$$

The colours were chosen for their relative intensity, which helps to interpret and present the results. The matrix can also be presented using colours based on black and white when the technique does not allow otherwise but is less effective in this way. The colour presentation allows a presentation and comparison of data in a concise and comprehensive

manner. Figure 1 is an example of an array comparing organized crime groups specializing in trafficking in military products (organised criminal groups) with groups presented in hierarchical order.

Once the matrix has been completed, the result is a list of groups ordered according to the relative threat assessed (they present).

Figure no. 1 – Group ranking matrix

OCG	Corruption	Type of criminal network	Violence	Infiltration	Money laundering	Collaboration	Insulation	Monopoly	Purpose	Use meansinf./contrainf.	Diversification	Discipline	Group cohesion	Means comunicații	Forgery doc.	FGP	Group ranking
A	75	70	65	60	55	50	45	32	3 5	30	20	20	12	8	4	581	Ι
В	75	70	65	60	55	40	36	40	3 5	24	25	16	9	8	4	562	II
С	60	56	52	48	55	50	45	40	3 5	24	20	20	15	8	4	532	III
D	60	42	39	60	44	30	36	40	2 1	24	15	12	9	8	4	440	IV
Е	0	42	39	36	44	50	36	24	3 5	24	20	12	15	8	4	389	V

#### **EVALUATION OF RESULTS**

This analytical technique is used to help measure the efficiency of law enforcement operations, law enforcement bodies against organized criminal groups specialized in military goods trafficking. By regularly carrying out assessments of important (large) organised crime groups, including the group profile, we can track and illustrate changes in the capacities, limitations and vulnerabilities of those groups.

In the presentation, it takes the form of a coloured matrix such as the one above, which renders the sequential profiles of a group to indicate changes and/or the degree of stability over time.

The method was tested on real data on 5 organised crime groups specialising in arms trafficking, with the resulting data used to be presented to management, which ordered measures to target institutional resources for the priority destruct of the first three groups.

#### **CONCLUSIONS**

It's not all about the matrix that plays the groups in hierarchical order. This technique achieves a framework for prioritising by comparing the capabilities, limitations and vulnerabilities of the criminal group. The same applies to an array that shows changes in the capabilities of a group over time. This framework must be highlighted in the context of a strategic analytical assessment explaining the details and significance of the comparison. The set of

attributes is used as a framework of the evaluation information search plan and as a clear illustration of the hierarchies and reasons behind analysts' recommendations.

The technique of ranking organized crime groups provides a comprehensive and transparent method to help develop and present analytical recommendations, as well as supporting products informative manner in a concise and coherent manner. This analytical method facilitates the use of information in operational planning by informing managers (officers with senior positions) in their work to choose strategies and prioritise operations against organised crime specialized in the trafficking of military products.

#### **REFERENCES:**

- 1. Results of a pilot survey of forty selected organized criminal groups in sixteen countries, September 2002, United Office on Drugs and Crime;
- 2. R.T. Naylor, *Mafias, Myths and Markets:* On the Theory and Practices of Enterprise Crime, Transnational Organized Crime, Vol. 3, No. 3, p. 6;
- 3. Peter Reuter, *Disorganized Crime: Illegal Markets and the Mafia*, Cambridge: MIT Press, 1983, p. 75;
- 4. R.T. Naylor, *Wages of Crime: Black Markets, Illegal Finance and the Underworld Economy*, Ithaca: Cornell University Press, 2002, p. 14-18.

#### THE CAPTIVE STATE

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ABSTRACT: A state can be captive only as a result of corruption actions at any organizational level of the state, which, in fact, is created to serve the interests of the citizen. By corruption the employees of the state actually act against the interests of the people and the country. Corruption is a deviation from the rational-legal values and principles of the modern state, and the basic problem is the low responsibility of the governors. In particular in authoritarian countries, the legal bases, against which corrupt practices are usually evaluated and judged, are weak and furthermore subject to downright encroachment by the rulers.

KEYWORD: captive, captivity, corruption, state, interest groups, mafia clans, slavery, crime.

#### **INTRODUCTION**

Aristotle considered that "each city is a determined community and that each community was formed for a determined good, for all act in the name of what seems to them to be good" [1, p.33]

In DEX, from a legal point of view, the definition of the state is represented as "the superstructural institution, main tool of political and administrative organization through which the functionality of the social system is exercised and human relations are regulated; the territory and population over which this organization exercises his authority; country [2].

So, from an organizational point of view, the state is seen as a sum of governing institutions and has certain main features. The state is a set of institutions distinct from the rest of society, which creates public and private spheres.

From the point of view of authority, the state is a supreme and sovereign power, as well as legislative in a certain territory. In order to be able to exercise these forms of manifestation of power, the state has a monopoly on the use of coercion, exercising its power through a bureaucratic apparatus paid from taxpayers' taxes, and which has the obligation to ensure peace, prosperity and social welfare for the entire population of the country through an orderly organizational management of care for its citizens and providing high

quality social services among which we mention: education, health, culture, defense, scientific research, etc., the state having the obligation to care for and protect its citizens.

In this respect, the State, as an entity, distinguishes itself from officials holding certain positions at a given time in its bureaucratic apparatus and, from this point of view, the state has sovereignty over them as well. State officials mean any dignitary, including the president, prime minister, ministers, etc. [3, p.13].

The types of states are:

- 1. Unitary state a single government that exercises its activity over the entire territory;
- 2. Federal state composed of several non-sovereign states with a central leadership (USA);
- 3. Confederal state consisting of sovereign states.

The law that defines the functions of the state is the Constitution. In the Constitution of Romania, in art. 1, which refers to the Romanian State, it is specified that Romania is a national, sovereign and independent state, unitary and indivisible, the form of government being the republic, organizing itself according to the principle of separation and balance of legislative, executive and judicial powers within constitutional democracy, observance of the Constitution, its supremacy and the laws being mandatory. The same article in paragraph (3) states that Romania is a rule of law, democratic and

social, in which human dignity, the rights and freedoms of citizens, the free development of the human personality, the justice and the political pluralism are supreme values, in the spirit of the democratic traditions of the Romanian people and of the ideals of the Revolution of December 1989, and are guaranteed by the state [4].

The Constitution of the Republic of Moldova, in art. 1, with reference to the State of the Republic of Moldova, establishes that the Republic of Moldova is a sovereign and independent state, unitary and indivisible, the form of government being the republic, affirming in paragraph (3) that the Republic of Moldova is a rule of law, democratic, in which the human dignity, the rights and freedoms, the free development of human personality, the justice and political pluralism represent supreme values and are guaranteed by the state [5].

In other words, by State we mean the political organization that has the exclusive right to use of the intransigence and elaboration and application of the right resulting from the laws created by the legislature, an organization that is exercised in a human community on an established territory.

A plastic image of the state, we find in Plato, who believes that: "The state can resemble the head, the seat of intelligence, and the younger guards, with their eyes on the top of their heads, who, turning their searching eyes, inspects all that is going on in the state, and the observations made entrust them to memory, communicating to the oldest the movements in the country. While they compare to intelligence, since they think, predict, deliberate and, with the support of young people, ensures the preservation of the state [...]. It seems appropriate to oblige the guardians of our state to develop an exact notion first about the common note of the four species of virtue, namely of the courage, temperance, justice, and prudence, which we have agreed to properly call virtue." [6, pp.371-372].

Therefore, from the very beginning, the virtue of the state apparatus was defined and alleged to it, which was considered as an aspect that was essential for the progress of the state, of the country, of the respective society.

The state is based on democratic laws and actions, or at least that is the aspiration that civil society demands of the state, a democracy in the name of which the state implements its policies.

The state is an institution that contains three elements: the population, the territory (premises for the existence of the state) and the political power, the concept of state being considered par excellence a political concept, and the concept of country being a real social-geographical concept.

#### THE INFLUENCE TRAFFICKING

The problem of influence peddling arises when the original purpose of the state is parasitized by the intentions of different clans or political or apolitical groups, which, for the purpose pursued, to obtain as many gains as possible from the State or with the consent of the State, which bring harm on the rights of a society who has high and democratic expectations from the state, to create and implement effective policies for raising the standard of living, providing equal opportunities for society as a whole. The supreme organs of the state are elected by vote, by the population, at intervals, which then organize the other state bodies subordinated to them. The purpose for which voters decide who to vote for should no longer be treated as a bargain, as a delusion with promises made for the time being during the election campaign and then forgotten by those elected, but, but, the population chooses the organs that serve the people, to bring them the peace, social peace, well-being, prosperity to each and every citizen together, these being the principles for which the vote of the population was established and those were the purposes for which the purpose of the state was intended.

Unfortunately, once the state bodies are installed, once seen in office, they forget what their real role is and for which the population chose them. In Latin, "ministra" has the notion of maids, helpers, the one who executes, "mĭnistĕrĭum" has the notion of function, service, occupation, preoccupation, fulfillment, and "ministro" means to serve, to serve at the table, to occupy, to administer, to execute, to supply, to procure [7, p.436].

Existence of a monopoly over all the main institutions of the state: education, research centers, forensic centers, etc., for the social good, if the state cannot allocate enough money to operate at the perfect parameters, has as a correct solution the option to grant their independence, liberalizing them, freeing them from the monopoly of the state, these separating from those belonging to the state. Also, in order to avoid trafficking in influence over decisions of certain bodies that constitute a state monopoly, some of them would be much more appropriate to receive a liberal state, coming out from under the state monopoly.

The Caracal case regarding the disappearance of some girls, and the manner to track/cover of the traces due to political interests proves that it is necessary to be liberalized some instituitions of research and of expertisation of traces.

In Hungarian law, the criminal law allows the applicant to continue the investigation on his own if the prosecutor waives to the criminal investigation and

closes the case, the evidence sought and found by the plaintiff through his own investigation is admitted to court if it proves to be true.

The most natural and strong feeling that the population of a country feels towards the state institutions is the feeling of security, when, through its activity, civil society feels protected, and the feeling of insecurity occurs when through its actions or inactions the state does not protect the peace, security, tranquility or rights of its citizens.

The Influence groups on the state can seek to undermine the state power through actions for to compromise of it by contaminating the behavior of some state officials, by corruption.

In general, the economic interests are pursued by a number of profiteers, all the more so as the organizational management is distorted towards obtaining criminal results to which the state closes its eyes or, which, through many officials of the state apparatus, produce a huge gain for an interest group lobbying the state organs, based on the understanding, silent acceptance and feeling of inertia of the population, who finally begins to feel the feeling of insecurity that was created by carrying out the actions taken by the influence groups on the state organs.

Almost all countries experience feelings of unrest and insecurity among the population when groups of influence and power reduce the power of state organs to zero, undermining the state power. There are "non-profit" organizations, international companies, groups (clans) at macro and micro state level, who pursue their own interests through trafficking (under the eyes of the state and with its tacit consent) drugs, human beings, weapons and the list is infinitely longer. And, in these situations, where do we find the "long arm of the law"? To quote Caragiale: "It exists, but it is completely missing".

The permissiveness of the laws is precisely made to be in favor of the clans acting on the territory of the state. Speaking of the permissiveness of the law, we cannot fail to note that the legislature rightly considered that it is right that the law punishing murder should not be subject to the limitation period, so that the killer can answer for to the law at any time, because there can be many factors that need to be found and proven in order to find and punish the offender and this result may be possible even after a long period of criminal prosecution and forensic investigation, due to the imprescriptibility of the deed.

#### TRAFFICKING IN HUMAN BEINGS

To the same extent, it is incomprehensible why trafficking in human beings is subject to the limitation

period, as long as it concerns human life, the most precious good, which, although it may not have been suppressed yet, victimei i s-a interzis dreptul de a trăi într-un mod uman, i s-a interzis dreptul la fericire. Trafficked persons (girls, boys, children - the invaluable value of a country because it represents its future) are used for prostitution or begging, or for to sale of their organs, activities that bring huge profits to the respective criminal clans that coordinate these crimes, the amounts being downright considerable, which the Romanian state does not have the courage to tax or confiscate, although we notice a huge shortfall in the state budget. In this regard, see the case of Tăndărei, in which, offenders in the UK network have been convicted of trafficking in human beings, being a part of the network that initiated child trafficking from Romania, instead for criminals from the corresponding criminal clan living in Romania and who trafficked 168 children, the statute of limitations for the crime of child trafficking, which was brought to trial, intervened, the criminals receiving back the money that had been confiscated as evidence for the court, the AK-47 automatic weapons, defying the European police forces seeking to find evidence linking them to the brutal trafficking industry, and at the same time, public opinion has already learned from the media about payments on hand, intimidation of corrupt witnesses and investigators.

Another more recent case of corruption is in Caracal, in which the conduct of research is astonishing in its aspects and which demonstrates a huge emotional involvement on the part of the population, due to the actions of the criminal investigation bodies to cover up the truth, not to reveal the traffic systems operating there, due to the actions of the criminal investigation bodies to cover up the truth, for not to reveal the traffic systems operating there, facts that have become obvious, so as to prevent the conduct of the investigation by endeavoring to cover clans and their possible links with persons of the state apparatus involved in this type of crime.

For such corrupt state employees, and who are proven to be corrupt, the solution is not to rotate the staff, rather, the most effective solution is emergency release, because by wrongdoing, they worked against the interests of the state, respectively against citizens who pay their salaries and pensions.

The state budget suffers from large budget shortfalls, which could be covered by the taxation of these criminal/mafia clans. In this regard, honest assessors can evaluate the grand palaces, villas and luxury cars of members of the mafia clan and then the state can ask them to prove (undisguised!) documents the origin, the legal gain they can prove, proof that they

have obtained those amounts lawfully, if they have paid their taxes in full to the State for those amounts, the unjustified difference may constitute for the state a justified basis for the imposition and execution of the respective amounts, the state budget can be greatly eased in its task of achieving the objectives for which it was established.

In art.139 paragraph (2) of the Romanian Constitution, it is specified that "Taxes, local taxes are established by local or county councils, within the limits and in accordance with the law" [4]. All taxes must focus on raising the standard of living for all citizens of the country.

We can emphasize that the efficiency of these taxes that are imposed on the population, and which are paid to the state budget, must also return to the population in the form of high quality services, and not to broaden the scheme of the state apparatus and the creation of individual facilities for them or for special groups and persons unduly favored by law.

In fact, we need to define human trafficking as a way of modern slavery, which brings huge profits to traders and exploiters of human beings, and this proves to be a cruel and undeserved reality of modern times that slides on the slope of an unexpected moral degradation.

If hundreds of years ago the captured people were sold as slaves to the cotton plantations and other exhausting labor, the slavery revived under the eyes of the permissive authorities, which, under the umbrella of fundamental human rights, they give the right to some middleman of life to destroy the society and to capture the state by corrupting white-collar workers, by bribery, blackmail, or by force, by armed attack on some representatives of the state organs in order to take revenge, or to intimidate or to impose their own decisions.

Sometimes the judiciary manages to close such a thief, but it turns out that neither the offender nor the criminal clan to which he belongs (the group to which he belongs) not understood punishment as a way of reeducating of the character of the offender, because we have cases of thieves who were expected at the penitentiary gate with the red carpet, fireworks, music and champagne by their clans, already becoming a vogue or a way of defying the state, the country and civil society. From this we deduce that the prison is insufficiently remunerative if the punishments are so lenient that the offender's re-education fails by forming a correct attitude towards the rule of law and the rules of social coexistence, conclusion that makes us consider it is imperative necessary to increase the prison sentence.

In this sense, it is worth quoting Plato, who

brings some explanations about the laws: "Among the laws, there are some made for good people and they have no other purpose than to teach them the art of living in union and peace with their fellow-citizens; others are meant for bad people, which a good education has failed to correct them, endowed with a sticky nature and not softened by any means, to prevent them from indulging in all evil. The following laws are for the latter; they are somewhat their authors, for only by their deeds does the legislator legislate for them, and they wish there was no need to ever use them" [6, pp.289-290], [14, pp.110-125]..

The rights and freedoms of individuals must not be interpreted solely in favor of the offender, because the victim must not be left out of the law enforcement system, because we believe that first and foremost the individual's rights and freedoms must be addressed. It is appropriate that the penalties be more severe and applied as a matter of priority for the protection of the victim and society, the state having the role of protecting its population and the territory of the country.

Art. 182 of the Romanian Criminal Code regarding the exploitation of a person, gives concrete definitions regarding this crime: "Exploitation of a person means: a) submission to the execution of a work or performance of services, by force; b) being held in a state of slavery or other similar procedures of deprivation of liberty or enslavement; c) forcing the practice of prostitution, pornographic manifestations in order to produce and disseminate pornographic materials or other forms of sexual exploitation; d) the obligation to practice begging; e) taking organs, tissues or cells of human origin illegally". This article is corroborated with art.209 on trafficking exploitation of vulnerable persons (Putting or keeping a person in slavery, as well as the slave trade, is punishable by imprisonment from 3 to 10 years and the prohibition of the exercise of certain rights), with art. 210 on trafficking in human beings [(1) Recruitment, transportation, transfer, housing or reception of a person for the purpose of its exploitation, committed: a) by coercion, abduction, misleading or abuse of authority; b) taking advantage of the impossibility to defend or express one's will or the state of obvious vulnerability of that person; c) by offering, giving, accepting or receiving money or other benefits in exchange for the consent of the person who has authority over that person, shall be punished by imprisonment from 3 to 10 years and the prohibition of the exercise of certain rights. (2) Trafficking in human beings committed by a civil servant in the exercise of his duties is punishable by imprisonment from 5 to 12 years. (3) The consent of the victim of trafficking is not a justifiable cause], with art.211 regarding the

trafficking of minors [(1) The recruitment, transport, transfer, accommodation or reception of a minor, for the purpose of his exploitation, is punishable by imprisonment from 3 to 10 years and the prohibition of the exercise of certain rights. (2) The penalty is imprisonment from 5 to 12 years and a ban on exercising certain rights when: a) the deed was committed under the conditions of art. 210 para. (1); b) the deed was committed by a civil servant in the exercise of his duties; c) the act endangered the minor's life; d) the deed was committed by a family member of the minor; e) the act was committed by a person in whose care, protection, education, guard or treatment the minor was or by a person who abused his position of trust or authority over the minor. (3) The consent of the victim of trafficking is not a justifiable cause], with art.213 regarding pimping [(1) Determining or facilitating the practice of prostitution or obtaining patrimonial benefits from the practice of prostitution by one or more persons shall be punished by imprisonment from 2 to 7 years and the prohibition of the exercise of certain rights. (2) In the case of determination at the beginning or continuation of the practice of prostitution was made by coercion, the punishment is imprisonment from 3 to 10 years and the prohibition of the exercise of certain rights. (3) If the acts are committed against a minor, the special limits of the punishment are increased by half. (4) Practicing prostitution means having sexual intercourse with different people in order to obtain patrimonial benefits for oneself or for another.], with art.214 regarding the exploitation of begging [(1) The act of the person who determine a minor or a person with physical or mental disabilities to repeatedly appeal to the mercy of the public to ask for material help or benefit from patrimonial benefits from this activity is punishable by imprisonment from 6 months to 3 years or fine. (2) If the deed is committed in the following circumstances: a) by the parent, guardian, curator or by the caregiver of the person which begging; b) by coercion, the penalty is imprisonment from one to 5 years], with art.215 regarding the use of a minor for the purpose of begging [The act of an adult who, having the ability to work, repeatedly appeals to the mercy of the public, requesting material assistance, using for this purpose the presence of a minor, is punishable by imprisonment from 3 months to 2 years or a fine], with art.216 regarding the use of the services of an exploited person [The act of using the services provided in art. 182, provided by a person about whom the beneficiary knows that he is a victim of human trafficking or trafficking in minors, shall be punished by imprisonment from 6 months to 3 years or by a fine, if the act does not constitute a more serious crime], with

art.216<sup>1</sup> regarding the use of child prostitution [The execution of any act of a sexual nature with a minor who practices prostitution is punishable by imprisonment from 3 months to 2 years or a fine, if the act does not constitute a more serious crime].

Analyzing these articles, we see that the punishments for these crimes are infinitely lower compared to the indelible traumas of the souls of people who have been such victims, and perhaps that is why there is this courage of those who are guilty of these crimes to commit and repeat them: such a small penalty that attracts a short-term criminal liability statute that works in favor of the offender, are encouraging factors for human traffickers, so something changed in the law is required: longer sentences and unlimited statute of prescription, as for murder, because the life and unrecoverable trauma of the victims must be taken into account.

Therefore, the Criminal Code and the Code of Criminal Procedure contain sufficient indications for the punishment of these crimes regarding the trafficking and exploitation of vulnerable persons, but also with regard to economic crimes, but, illogically, the aim is to abolish many such crimes (including influence peddling), which harm the interests of the state and to favor interest groups or mafia clans, which pejoratively can be called by their real name: criminal gang, gangster, clique, gang, sleazy.

We believe that the phenomenon of trafficking in human beings must be strongly discouraged, by all means, even by discouraging consumers' demand for sexual benefits. In this way, we can follow the model of Norway and Sweden, which have not banned prostitution, but which discourages the demand for these sexual services, the applicant for such services being fined 2700 Euro or imprisonment from six months to one year. After all, the human character can be educated towards the civilized part even by coercion.

#### THE DRUG TRAFFICKING

Speaking of trafficking, we must not lose sight of drug trafficking, which has experienced an unimaginable scale.

Almost uncontrollable, drug trafficking has reached and remains on the Romanian market through various channels, being increasingly infiltrated in Romanian society, which is encouraged to be a consumer market. Although some quantities of drugs are discovered and confiscated by DIICOT, these drug trafficking channels prove to be supported by influential people from the moment they pass in large quantities and much too easily through customs filters. Drugs are used in almost all clubs (the question is who

is behind the business in those clubs?), but the controls at these clubs are much too low and too much announced in advance. Unfortunately, the drug use has also entered and in the schools, with some students becoming addicted, to the despair of parents who see with indefensibility that the school and implicitly the state has not protected children.

Unfortunately, although state bodies do not want to acknowledge their helplessness in the face of the phenomena that capture and hold them captive, the truth is recognized and felt by civil society that conventionally obeys the laws and fulfills its duties to the state. The state, however, has a duty to properly fulfill its duties to all its citizens.

But it must be recognized and to rectify this state of fact not to deny the reality that every citizen sees and feels, because, no matter how many taxes are levied on the taxpayer company, it cannot cover the damage suffered by the siphoning of public money to tick companies, who consider themselves entrepreneurs, businessmen, but which are paid out of state money, collected from honest people who pay their donations to the state in a fair and timely manner.

A new political management is needed to be applied by all political parties because the parties and organs of the state should work together only for the good and prosperity of the people, not to quarrel and offend each other by forgetting the interest of the people.

The organs of the state are obliged to act not for the destruction of the people for personal or party interests, which means that an organizational change of the public sector is needed without the accumulation and application of negative adverse phenomena on the capacities of the citizens, being necessary programs that are oriented towards solving the social problems. In other words, the government must reset its management program.

Romania is confronting with the problem of mafia clans that smuggle in unimpeded way people, drugs, influence, etc., but, as in most other states, the capture of the state is increasingly evident in the economic field.

#### THE STATE AND ITS FUNCTIONS

Let us remember and distinguish: The state represents the form of administrative organization of a territory occupied by a certain population justified by its temporal presence in a delimited and historically legitimized space..

The state institutions, paid from the taxpayers' taxes, have the obligation to be at the service of the citizens, to ensure their personal and territorial security,

to protect and defend them, in this sense pursuing their supreme good. To be faithful to the employment of an employee within the state system (paid from taxpayers' money regardless of the institution in which they carry out their activity), it means being faithful to the citizens of the country. This implies honor, fairness, honor and abnegation on the part of state bodies and public employees, in a word, moral virtue.

Only in this way is the state independent, without being enslaved to various interest groups that tend to hold it captive to interests contrary to the purpose for which the state was established.

In the absence of these characteristics, most state employees prove to be corrupt and defiant, leaving interest groups to make the state captive to the interests of those influential groups, defying citizens with their actions. (in addition to the economic interest groups contrary to the country's interests, in Romania there are also mafia clans with interests that threaten the lives of the citizens).

Article 2 of the Romanian Constitution states that "The national sovereignty belongs to the Romanian people, which exercises it through its representative bodies, constituted by free, periodic and correct elections, as well as by referendum. No group or person can exercise sovereignty in their own name" [4].

If the state bodies are elected by the people for a good, correct and honest administration and organization of the country, the country instead constitutes the historically delimited territory together with its afferent population. In other words, the state is in the service of the people for a correct administration, that is why the elected ones of the state are voted and take the oath to take all the diligences for the well-being and prosperity of the country.

Let us remember that art.82 paragraph (2) of the Romanian Constitution contains the oath that the state elected officials must take at the beginning of the exercise of their function: "I swear to give all my strength and skill for the spiritual and material prosperity of the Romanian people, to respect the Constitution and the laws of the country, to defend democracy, fundamental rights and freedoms of citizens, sovereignty, independence, unity and territorial integrity of Romania. So God help me!" [4].

We consider that it would not be bad to add an amendment to the Constitution to establish the obligation of any employee of the state, regardless of the job, to take an oath of allegiance to the country but also to the citizen, as mentioned above, to be aware that he will be in the service of the country and of the citizen.

The Explanatory Dictionary of the Romanian Language presents the explanation regarding politics: "1. The science and art of governing a state; form of

organization and management of human communities, which maintains the internal order and guarantees the external security of those communities. § Expr. Doing politics = take an active part in discussing and resolving state affairs. • Superstructure of the social system, including political consciousness, political relations, political institutions and organizations. 2. Tactics, strategy, methods and means used by the organs of power in order to achieve the fixed objectives; the ideology that reflects this activity. 3. Fig. Dexterity, ability to achieve a goal. II. Adj. 1. Which belongs to politics (I), which refers to politics, politics; polite 1 \dot Political rights = the rights of citizens to participate in the conduct of state affairs. Political level = degree of preparation of someone in matters of general policy; fair guidance in such matters. Politician (and, inv., Substantivized, m.) = Person who has an important role in political activity, who carries out his main activity in the field of politics (I 1). ♦ (Noun, n.) Appearance, political element (II 1), political life. 2. Who has or who expresses a skillful behavior; clever, cunning. - From lat. politicus, ngr. politikós, fr. politique" [8].

We can add that the policy means the management method for the institution on which the respective strategy is applied.

Inge Amundsen opens a rather difficult subject to digest for those who cannot accept and correct their mistakes, explaining that, in particular, corruption, favoritism and institutional ambiguity as political risks are dangers with prospects of manifesting the concept. of neopatrimonialism [9, p.3].

Ideally, in the view of Inge Amundsen, states provide security to do business in a legal institutional framework on which companies can rely. State institutions operate in a legal-rational, predictable and efficient way. In the OECD (Organization for Economic Co-operation and Development), this is a constellation often taken for granted. However, in many countries around the world, the reality is different. The private actors take over the public institutions and processes in order to realize their particularist interests of accumulating power and private wealth. To this end, it "systematically abuses, passes, ignores or even adapts" the formal institutions to their own needs in order to accumulate power and a lot of wealth, capturing the state in their interest. [9, p.3].

That is why the interests of the state must be separated from the interests of private companies.

### THE PHENOMENON OF THE CAPTIVE STATE

Helman et al., analyzing the phenomenon of the captive state, finds that corruption in particular has

recently reached the top of the development agenda, especially in transition economies. However, existing empirical research has been hampered by the lack of detailed and comparative data on the issue, using data from the Enterprise Environmental and Performance Sounding (BEEPS) to separate corruption into its specific constituent components and to examine the causes and their specific consequences. In addition to conventional measures of administrative corruption, the measurement of corruption has been separated for to focus in particular on two corrupt strategies that firms can use in their interactions with the state. Firstly, the capture of the state, defined by the efforts of companies to outline the institutional environment in which they operate and, secondly, the corruption of public procurement, the payment of withdrawals to ensure public contracts [10].

A characteristic picture is the state as a "grabbing hand" that discriminates against lowbargaining firms to extract bribes through the discretionary imposition of bureaucracy. Businesses are being extorted by powerful politicians or some arbitrary bureaucrats who form the regulatory regime to maximize their private rents. The other image represent the strong firms with the ability to "capture" the state, in doing so, to extract potentially substantial rents for such firms at a high social cost. Except of fact that it implicitly or explicitly suggests that the corrupt link between the state and the firm originates with the first, most corruption studies rarely differentiate between these highly contrasting relationships - turning all forms of corruption into a generic, one-dimensional phenomenon. However, the roots of these very distinct relations between the state and the firm, as well as their consequences for both the firm and the wider economic environment, differ. Disaggregating the concept of corruption could provide a richer basis for understanding the dynamics of corruption and for political advice. Part of the problem is rooted in a curious bifurcation in the political economy literature on corruption and the state capture. [10].

A general government capture index can be constructed based on firms' responses to the extent that the following five forms of corruption (measured in the BEEPS sounding) have had a direct impact on their business:

- Sale of parliamentary votes on laws to private interests;
  - Sale of presidential decrees to private interests;
- Mismanagement of funds from the Central Bank;
  - Sale of court decisions in criminal cases;
- Contributions paid by private interests to political parties and election campaigns [10].

Johannes Leitner and Hannes Meissner explain that such forms of "state capture" are associated with weak state institutions, legal uncertainty, rampant (corrupt) corruption and the harmful behavior of ruling elites, which favor their own business interests ("favouritism"), while harming independent enterprises. These are specific political risks that international companies face when operating in the affected countries. Political risks include any occurrence in the context of international affairs in which public actions or non-state actors active in the host country of international activities interfere with private international enterprises and adversely affect the performance of the international operation. The results are a wide range of negative effects on businesses, from lost opportunities to the total confiscation of corporate assets in the worst case. This is the constellation of actions that focus on interest groups that aim to capture the state for their benefit. There are a number of political risk factors that are characteristic of state capture given current political science, such as state captures and international affairs in nine countries in the Black Sea Region: Armenia, Georgia, Azerbaijan, Russia, Ukraine, Moldova, Turkey, Romania, Bulgaria [11]

#### THE CORRUPTION

Corruption in general can be defined as the misuse of public authority, and political corruption can be defined as corruption in which political decisionmakers are involved. There are various forms of corruption: bribery, embezzlement, fraud and extortion, blackmail, tacit participation in crime by failure to perform duties, which is reflected in Article 17, paragraph (6) Romanian Criminal Code which states that in the case of those crimes there is guilt and when "The act consisting in an action or inaction constitutes a crime when it is committed intentionally. The act committed through guilt constitutes a crime only when the law expressly provides for it", and art.265, paragraphs (1) and (2), establishes that "The official who, taking note of the commission of an act provided by the criminal law in connection with the service in which he performs his duties, omits the immediate notification of the criminal investigation bodies, shall be punished by imprisonment from 3 months to 3 years or by a fine. When the act is punishment through guilt, the committed imprisonment from 3 months to one year or a fine", and art.17 regarding the committing of the commission crime by omission specifies that "The commission offense that involves the production of a result is also considered committed by omission, when: a) there is a legal or contractual obligation to act; b) the perpetrator of the omission, through a previous action or inaction, created

for the protected social value a state of danger that facilitated the production of the result" [12].

### "EXTRACTIVE" CORRUPTION AND "REDISTRIBUTIVE CORRUPTION"

There are two alternative theories of corruption ("extractive" and "redistributive") that illustrate the effects of corruption in different types of regimes, with a number of causes and effects of corruption, especially from an economic and political point of view.

Transactions with a high risk of corruption are affected by bribes, with illegal commissions being payments for facilitation that can take place in an endless variety of transactions and scenarios. Joint transactions include government tenders and concessions - routine public procurement of services for large public infrastructure concessions or extractive projects is prone to bribery influence. Bribes are usually paid to compromise formal selection criteria and processes for the benefit of a particular bidder.

Regulatory approvals and audits involve interactions with licensing authorities, tax, customs and other regulatory authorities, all of which are frequently subject to the influence of bribery and illegal commissions. Bribes may be paid to regulators to receive approvals that would not otherwise have been granted or to disregard violations. For example, tax authorities in some countries will require bribes to disregard or reduce corporate or individual tax obligations.

Even ordinary contracts for the purchase and sale of services or goods may be subject to bribery. An illegal bribe or commission may be offered to the buyer for violating purchasing standards or criteria set by any organization. Again, many international and local laws prohibit this form of bribery.

Redistributive corruption is the set of practices, levers, relationships, even laws, which allow the diversion of surplus-value flows. The diversion of foreign-class agents who use the economy of accumulated capital to unproductive destinations, pumping through this accumulation with forced tempo, "plus-value "of national labor, transferring all capitalized income across the border, and in any case, even the accumulated part remaining in the country, results only in the strengthening of this foreign element with all the consequences of this fact. [13, p.503].

For a state to free itself from the status of captivity in which it has indulged in attracting the entire state system and population to the lack of state prosperity, but only customized only for a few people or interest groups, all state functions need to be reset, dismissal of all corrupt individuals, cancellation of

contracts based on bribery, corruption and influence peddling, creating a clean state system, which is really in the service of the people working for the supreme interest of them, of the country. Unfortunately, all parties prove that they are hungry for positions only for their own interest or the interest of the party, which has nothing to do with the interest of the country. The population, in whose name they receive well-paid jobs from the taxes of the right people, is forgotten and ignored by all those for whom the Constitution stipulates that they must serve the state.

#### **CONCLUSIONS**

At first glance, it seems that the business environment in most states, implicitly in Romania, has changed at a high rate over the last decade, there is a period of liberal economic reforms and a fight against corruption. Over time, the states of the countries have set out to present themselves as followers of successful economic and administrative reform in order to attract foreign investors. At the same time, observers have repeatedly expressed concern about elite corruption, property rights violations and political pressure on companies. Often, these divergent assessments create a contradictory picture of the principles underlying the rule of law

In order to understand these phenomena that capture the state, the question arises as to whether and how the selected risk factors for enterprises and for certain cross-border or cross-border crime have changed, pointing out that the state has become captive to influence groups, slavery has reappeared, fact which was considered eradicated, but we are witnessing its rebirth in the form of economic slavery and slavery proper, which involves trafficking, exploitation or sale of human beings, lacking a national or international framework and uncorrupted state bodies to deal with these crimes and which affects the rule of law and the sovereignty of the state, proving that, in particular, in the formal and informal institutional framework of the states that shape the world's political risk factors, there are peculiarities that allow institutional ambiguity, systemic corruption and systematic favoritism.

#### **Bibliography**

- 1. Aristotel, *Politica*, Editura IRI, București, 2001.
- 2. DEX, https://dexonline.ro/definitie/stat
- 3. Dunleavy Patrick, Margetts Helen Margetts, Bastow Simon, Tinkler Jane, New Public Management Is Dead Long Live Digital-Era Governance, in *Journal of Public Administration Research and Theory* 16(3), July, 2006.

- 4. The Romanian Constitution, in its initial form, was adopted at the meeting of the Constituent Assembly on November 21, 1991, was published in the Official Gazette of Romania, Part I, no. 233 of November 21, 1991 and entered into force following its approval by the national referendum of December 8, 1991. The Constitution of Romania, as amended according to the national referendum of October 18-19, 2003, (republished in 2003), published in M. of. of Romania.
- 5. The Constitution of the Republic of Moldova adopted by the Parliament on July 29, 1994 and entered into force on August 27, published in the Official Gazette No. 1 of August 12, 1994, republished with subsequent corrections in the Official Gazette No. 78 of March 29, 1016, published in Alphabet Publishing, Chisinau, 2018, 80 p.
- 6. Platon, *Laws*, Publishing Univers Enciclopedic Gold, Bucureşti, 2010.
- 7. 7. \*\*\* Romanian-Latin Dictionary, Publishing Ştiinţifică, Bucureşti, 1962.
- 8. https://dexonline.ro/definitie/politica
- 9. Amundsen Inge, Political Corruption: An Introduction to the Issues, WP 1999: 7, in *Chr. Michelsen Institute Development Studies and Human Rights*, ISBN 82-90584-40-7.
- 10. Hellman Joel S., Jones Geraint, Daniel Kaufmann, Seize the State, Seize the Day, An empirical analysis of State Capture and Corruption in Transition, Paper prepared for the ABCDE 2000 Conference, Washington, D.C., April 18th 20th, 2000.
- Leitner Johannes, Meissner Hannes, State Capture, Political Risks and International Business. Cases from Black Sea Region Countries, 1st Edition, 254 pages, Routledge, London, eBook ISBN 9781315308630.
- 12. The criminal code of Romania.
- 13. Bădescu Ilie, Cucu-Oancea Ozana, *Dictionary of rural sociology*, Publishing House MICA VALAHIE, București, 2011.
- 14. Tudor Vasilica-Leontina, The historical continuity of the ways of extinguishing the conflicts, until the appearance of the first forms of normative mediation in different states and in the Romanian countries. Elements of comparative law, publ. in vol. "Protection of human rights: national and international mechanisms, Roundtable materials with international participation, dedicated to the International Day of Human Rights, Chisinau, December 8, 2016, under the auspices of the Government of the Republic of Moldova and the Academy of Public Administration, Chisinau: "Elan Poligraf", 2017, pp.110-125, ISBN 078-9975-66-565-0.

#### PUNISHMENT VS. REINTEGRATION OF THE JUVENILE DELINQUENT

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#### **ABSTRACT**

We see more and more often on television minors who commit more or less severe crimes. "Irrecoverable minors" are those minors who perpetrate very serious crimes or who persist in the perpetration of crimes even if they have had non-custodial sanctions.

KEYWORDS: minor, criminal, sanctions, reintegration.

### IS IMPRISONMENT SUFFICIENT FOR MINOR OFFENDERS?

At present, both in Romania and in the European Union, the issue of the most beneficial solution for minors perpetrating crimes is raised. Two categories are identified here:

First of all, we think that prison is not efficient for the recovery of the minor who has perpetrated crimes. The main argument is that prison is not efficient for the recovery of the minor who committed crimes. A main argument is that in prison minors learn new methods to commit crimes, because they come into contact with various "experienced" criminals. In other words, the prison is the place where, in the present case, offending minors are specialized in the perpetration of new crimes. Another argument is that of the conditions in the penitentiary and social environment. For minors, these are quite harsh, as prison environment does not offer the minor an actual re-education; it is not conducive to such an activity. And, of course, the minor will be stigmatized in the community he/she will return to after serving the sentence.

Second of all, we can talk about the efficiency of prison only for minors who have committed very severe crimes — "irrecoverable minors". From our point of view, we look at detention's efficiency not from the perspective of the reeducation and reintegration of the minor in society, but also from the perspective of protecting the society from certain social dangers. Practically, there are many cases when there is no other option for the minor than to be sent to prison.

In conclusion, the prison punishment is sufficient only for these minors who commit very severe crimes, or who persist in the perpetration of crimes.

### FROM WHAT AGE CAN A MINOR BE HELD ACCOUNTABLE?

One of the most difficult programs that criminal justice faces is the age from which a minor who has committed a crime can be held accountable. At present, the increase in the number of individuals who commit crimes from an early age, who mature early, is quite high.

The minimum age for criminal accountability has varied over the years. In the Romanian criminal code in 1936, the age when the minor could be held criminally liable was 8, provided that it was proven he had insight and at the time the crimes foreseen by criminal law were committed, and the complexity of the crime. As this was quite an early age, 1969 Criminal Code adopted a three-way structure that is present in current regulation as well, that is that minors can be held criminally liable starting with 14 of age. Minors between 14 and 16 are criminally liable only if they had insight at the time the crime was committed, and between 16 and 18 years of age they are criminally liable according to the law.

Making a comparison with the regulations of other states, we ascertain that most of them have set the special sanctioning regimen for minors from the age of 15, and common-law from the age of 18. But there are exceptions, such as Sweden and Switzerland where the minor is criminally liable from the age of 7, or Scotland from the age of 8 years old<sup>1</sup>.

In Great Britain, criminal liability of the minor start at 10 years, in Greece and Hungary at 12 years. In the French criminal code, the criminal liability age coincides with the coming of age, that is turning 18 years old, but in certain circumstances it may be lowered to 13 years old.<sup>2</sup>

In 1926, the Spanish criminal code fixed legal age between 15 and 18 years old, setting a special

<sup>&</sup>lt;sup>1</sup> Lode Walgrave, Jill Mehlbye, *Confronting Youth in Europe: Juvenile Crime and Juvenile Justice*, AFK PH, 1998, pg. 5-6.

<sup>&</sup>lt;sup>2</sup> Bouloc Bernard, *Droit pénal général,Ed.22-a*, Dalloz, 2011, Paris, pag.390 and following.

mitigating circumstance, and in 1995 the age limit for the engagement of criminal liability was raised from 16 to 18 years. In Germany criminal liability age coincides with the legal age, that is 18, but may be lowered in certain circumstances.

#### **DETAINED MINOR**

Specialized doctrine<sup>3</sup> following the analysis of various national provisions on juvenile delinquency, that law systems prefer applying one of the following sanctioning methods for underage criminals<sup>4</sup>

- The traditional penal method in which minors were held responsible for the crimes committed;
- Tutelary method setting the application of educative or protection methods, since it considers that juvenile delinquents are in danger and implicitly need help or guidance<sup>5</sup>;
- Mixed model comprised of punishments and educative measures.

The mention should be made that most law systems abided by the provisions of treaties and conventions in the field of juvenile delinquency, thus regulating the age limits at which the minor may be held responsible.

Romanian criminal code regulates two educative custodial methods, namely: admission in a detention center and admission in an educational center. Both penal custodial measures are applied with a well-defined purpose<sup>6</sup>: maintaining the relationship of the admitted individual with the family and community, as well as involvement in the recovery endeavors adapted to the psychosomatic particularities and development needs of the individual.

By enforcing these two custodial methods the aim is to reintegrate the individuals admitted into society and make them more responsible so that they undertake their own actions and prevent the perpetration of new crimes.<sup>7</sup>

According to art.125 Criminal code, the educative measure of detainment center admission means the admission of the minor in an institution specialized in the recovery of minors, guarded and supervised, where the minor will take programs for social reintegration and programs for school education

and professional training according to his/her skills<sup>8</sup>. Thus, the freedom deprive of a juvenile delinquent should be considered a last resort measure and should be applied for a short period of time<sup>9</sup>.

Therefore admission in a detention center is a measure with educational- preventive effect that may be ordered as a last resort when very severe crimes are committed, or when the court considers that the other educative measure cannot lead to the reeducation of the minor criminal.

The Penitentiary for Minors and Youth Craiova is the only penitentiary dedicated to minors in Romania, the rest of penitentiaries having special wards for this type of criminals. We should mention that for some minors, the penitentiary is a transit location between the police arrest and location where they are to serve their punishment or educative measure after the case is solved, so not all minors who are detained in a prison are serving a punishment based on a final decision. We think that minors in prison learn various different methods and techniques to commit other crimes from the other inmates.

A quite important and current problem is that of minors that went to an education institution before the arrest. During the investigation and trial while under arrest, the minors may miss the conclusion or start of a school year, and then, if they are not sentenced to be admitted in a reeducation center or prison for the underage they do not have where to continue their education up to a certain level, so the education process of the minor is interrupted for months or even years, enough for the minor not to be allowed to register with any high-school because of his/her age.

Based on an investigation run we met minors who were positively or negatively influenced by detention. Most minors considered that the experience in itself helped them truly appreciate the value of freedom, and not return there. Many minors state that they understood they should no longer commit crimes. One of the main reasons is the lack of freedom, the breaking of the relationship with family, friends, the strict rules in the penitentiary, as well as conduct of other detained minors.

<sup>&</sup>lt;sup>3</sup> Jean Pradel, *Droit penal compare, 4e edition,* Editura Dalloz, Paris, 2016, pag.670.

<sup>&</sup>lt;sup>4</sup> Andrei-Lucian Puşcaşu, *Sancţiunile aplicabile infractorilor minori*, Universul Juridic PH, Bucharest, 2019, pg. 32.

<sup>&</sup>lt;sup>5</sup> Phelippe Bonfils , *Chronique de droit penal des mineurs*, in the international criminal law magazine no. 1/2009, Eres Publishing house, pg. 308.

<sup>&</sup>lt;sup>6</sup> Marcel Ioan Rusu, *Drept execuțional penal*, Hamangiu PH, Bucharest, 2015, pg.326.

<sup>&</sup>lt;sup>7</sup> Art. 135-138 Law no.254/2013 on the execution of custodial punishments and measures ordered by judicial bodies during the criminal trial.

<sup>&</sup>lt;sup>8</sup> Alexandru Boroi, Tudorel Toader, Costică Bulai ş.a., *Explicațiile noului Cod penal*, Vol.II, Art. 53-187, Universul Juridic PH, Bucharest, 2015, pg.363

<sup>&</sup>lt;sup>9</sup> Recommendation CM/Rec (2008)11 on European norms for minor delinquents that are the objects of sanctions or measures, adopted by the Committee of Ministers on 5th November 2008.

#### CONCLUSIONS AND SUGGESTIONS

In conclusion, depending on the age when the crime was committed, the minor may or not be held criminally liable. One of the purposes of this study was to identify the methods of improving the status of minor criminals' justice.

In the process of improving criminal provisions regarding custodial measures, we consider that the following suggestions may be taken into consideration:

- 1. Specialization of legal system staff that deal with underage criminals;
- 2. Creation of new mechanisms and community institutions to offer supervision, assistance and counseling services for minors who have committed crimes;
- 3. Development of a new strategy on juvenile delinquency by involving minors in various reeducation programs;
- 4. Prevention of juvenile delinquency by introduction legal education in school (presentation of shows for pre-school and school children, watching films on this topic);
- 5. International cooperation in the field of juvenile delinquency prevention;

6. Improvement of conditions in Romanian penitentiaries.

#### **Bibliography**

- 1. Alexandru Boroi, Tudorel Toader, Costică Bulai ş.a., *Explicațiile noului Cod penal*, Vol.II, articles 53-187, Universul Juridic PH, Bucharest, 2015;
- 2. Andrei-Lucian Puşcaşu, *Sancţiunile aplicabile infractorilor minori*, Universul Juridic PH, Bucharest, 2019;
- 3. Bouloc Bernard, *Droit pénal général,Ed.22-a*, Dalloz PH, 2011, Paris;
- 4. Jean Pradel, *Droit penal compare, 4e edition,* Dalloz PH, Paris, 2016;
- 5. Lode Walgrave, Jill Mehlbye, *Confronting Youth in Europe: Juvenile Crime and Juvenile Justice*, AFK PH, 1998;
- 6. Marcel Ioan Rusu, *Drept execuțional penal*, Hamangiu PH, Bucharest, 2015;
- 7. Phelippe Bonfils, *Chronique de droit penal des mineurs*, in the international magazine for criminal law no.1/2009

# CLASSIFICATION AND FORENSIC CHARACTERISTICS OF ROAD TRAFFIC ACCIDENTS: THEORETICAL AND PRACTICAL REFLECTIONS

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#### **ABSTRACT**

Road safety is an issue of interest to all citizens, and the creation of road safety conditions for all categories of participants, the reduction of traffic accidents and their serious consequences are preconditions that contribute to creating a sense of security in society in general.

Starting from the importance of human life and the responsibilities of the state in this respect, following the signing by the Republic of Moldova of the United Nations General Assembly resolution Declaring the Decade of Action for Road Safety 2011-2020, by Government Decision no. 1214 of December 27, 2010, was approved the National Strategy for Road Safety (SNSR), and on December 21, 2011, by Government Decision no. 972 of 21.12.2011, the Action Plan on SNSR implementation was approved.

In this context, it is worth mentioning that the road traffic safety activity is complex and requires the involvement of the central, local authorities, but also of the civil society. These concerns are all the more necessary as the increase in the number of accidents is relatively directly proportional to the increase of the motor index, to the improvement of the performance of the vehicles, first of all the speed of travel, which is a priority in the causes of road events.

**KEYWORDS:** means of transport, road traffic accident, forensic feature, motor vehicles, public road, collision, technical condition, objective factors, subjective factors, forensic model.

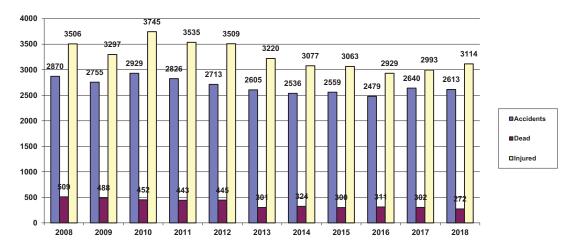
#### 1. INTRODUCTION.

The development of automotive industry, the fast growth of the car fleet has determined in an objective manner the intensification of concerns, of efforts made on multiple levels in order to ensure the safety of road traffic [1, p. 615]. However, the necessity to direct and control traffic in order to prevent a fairly large number of accidents becomes more and more imperative [2, p. 641].

These concerns are rather topical since the increase in the number of accidents is relatively

directly proportional to the increase in the motorization index, with an improvement in the specifications of vehicles, and first of all, the travel speed, a priority element of the road accidents cause. The special degree of danger of road traffic accidents is evidenced by the fact, that worldwide more than 30% of all deaths and injuries of a violent, involuntary nature accrue to car accidents, to which is added a significant material damage caused by such accidents. [1, p. 615].

Diagram 1. Frequency of road traffic accidents in the Republic of Moldova for 12 months periods of the years 2008 – 2018



According to the analysis of the accident incidence rate, for the period from **01.01.2018** to **31.12.2018**, there has been observed a slight decrease in the number of accidents and deaths in the dynamics of the number of injured, compared to the same period of previous year. Respectively, during the reporting period, **2,613** (approximately **2,640**; -1.02%) accidents were registered in the country, in which **272** (approximately **302**; -9.93%) people had died, and the remaining **3114** (approximately **2993**; + 4.04%) had received various injuries.

# 2. STUDY OF FACTORS AFFECTING THE PERCEPTION OF HAZARD TRAFFIC SITUATIONS

The study of factors affecting the perception of hazardous situations by traffic participants has a paramount importance for the investigation of road traffic accidents. The objective capabilities of perception are determined by the climatic conditions, day or night periods, by the results of certain technical processes, by the presence of artificial lighting sources, their intensity, the intensity of noise and congestion on-site, s.o. The subjective conditions include, first and foremost, the individual qualities and abilities of a person, that influence his abilities to perceive and appreciate the event.

### Causes of accidents.

Table no. 1

		2017			2018			Grand to	tal
Accident cause	A	D	T	A	D	T	A	D	T
	7	0	0	8	0	0	14.29	0	0
Violations committed by a passenger	1	0	1				-100	0	-100
Other violations committed by drivers	43	6	35	60	2	70	39.53	-66.67	100
Other violations committed by pedestrians	13	3	9	14	2	12	7.69	-33.33	33.33
Other causes related to the road	2	0	3	1	0	1	-50	0	-66.67
Other technical faults	1	0	1	2	0	3	100	0	200
Driving in the oncoming lane	36	7	76	26	8	55	-27.8	14.29	-27.63
Unsatisfactory road conditions	1	0	1	1	1	0	0	100	-100
Reckless driving	106	2. 3	108	98	17	108	-7.55	-26.09	0
Driving under the influence of drugs	1	1	0				-100	-100	0
Technical faults in the steering mechanism of a vehicle				1	0	1	100	0	100
Technical faults in the braking system of a vehicle	2	0	2	4	0	5	100	0	150
Technical faults in the lighting-signaling system	1	0	2	1	1	0	0	100	-100
Technical faults of the state of tires	1	0	1	4	0	4	300	0	300
Offside overtaking	37	9	49	35	3	70	-5.41	- 66.67	42.86
Exceeding of the prescribed speed limit	68	16	74	98	2.3	99	44.12	43.75	33.78
Pedestrians walking on the ongoing side of the road	2	0	2	2	1	1	0	100	-50
Slippery road (low nonskid quality)	1	0	2	2	0	7	100	0	250
Damaged road				1	0	1	100	0	100
Improper use of lighting devices	4	0	4	2	0	2	-50	0	-50
Reckless behavior of teenagers (14-16 years)	1	0	1	1	1	0	0	100	-100
Reckless behavior of teenagers (16-18 years)	1	0	1				-100	0	-100
Reckless behavior of children (7-14 years)	2	0	2	6	1	5	200	100	150
Lack of specific arrangement (parapets, slides, etc.)				1	0	1	100	0	100
Lack of traffic signs	1	0	2				-100	0	-100
Failure to give priority to other vehicles	366	9	531	281	14	387	-23.2	55.56	-27.12
Failure to give priority to pedestrians	358	19	350	367	13	372	2.51	-31.58	6.29

Failure to change lane or direction of travel, incorrect turn	325	10	367	310	10	390	-4.62	0	6.27
Failure to keep the distance between vehicles	191	3	219	145	1	191	-24.1	-66.67	-12.79
Failure to follow traffic lights	5	0	5	13	4	27	160	100	440
Non-supervision of minors (up to 7 years)	2	1	1	2	1	1	0	0	0
Unmarked obstacles	2	0	2	1	0	0	-50	0	-100
Incorrect stopping, parking	58	1	56	63	0	66	8.62	-100	17.86
Pedestrian lying on the traffic lane	1	1	0	1	1	0	0	0	0
Pedestrians without reflective vest	1	0	1	1	1	0	0	100	-100
Illness, driving under the influence of medications	2	1	1				-100	-100	-100
Alcohol intoxication, falling asleep at the wheel	89	12	106	127	19	154	42.7	58.33	45.28
Advanced fatigue, falling asleep at the wheel	19	11	34	21	5	2.3	10.53	-54.55	-32.35
Improper technical condition of the means of transport	5	0	5	4	1	4	-20	100	-20
Pedestrians standing on the traffic lane	1	1	0	2	2	1	100	100	100
Improper crossing of the road by pedestrians	197	24	171	175	13	163	-11.2	-45.83	-4.68
Improper crossing of the railway	1	1	0	4	3	4	300	200	100
Inappropriate speed considering the visibility, conditions, traffic situation	685	143	768	728	124	886	6.28	-13.29	15.36
		302	2993	2613	272		-1.02		4.04

Thus, the analysis of data from the Automated Information System "State Register of Road Traffic Accidents" in comparison with the same period of the

last year reveals a *decrease in the number of deaths* as a result of road accidents committed due to the following reasons, given in the tables below:

### Advanced fatigue, falling asleep at the wheel (- 54.55 %)

Table no. 2

Accident cause		2017			2018		Gr	and total	(%)
	A	D.	T	A	D.	T	A	D	T
Advanced fatigue, falling asleep at the wheel	19	11	34	21	5	2.3	10.53	-54.55	-32.35

### Improper crossing of the road by pedestrians (- 45.83 %).

### Table no. 3

•	). J									
	Accident cause		2017	2017 2018 Grand total (%)		(%)				
		A	D.	T	A	D.	T	A	D	T
	Improper crossing of the road by pedestrians	197	24	171	175	13	163	-11.2	-45.83	-4.68

### Failure to give priority to pedestrians (- 31.58%).

### Table no. 4

Accident cause		2017 2018 Grand total (%		(%)					
	A	D.	T	A	D.	T	A	D	T
Failure to give priority to pedestrians	358	19	350	367	13	372	2.51	-31.58	6.29

## Offside overtaking (- 66.67%).

## Table no. 5

Accident cause		2017			2018		Gr	and total	(%)
	A	D.	T	A	D.	T	A	D	T
Offside overtaking	37	9	49	35	3	70	-5.41	- 66.67	42.86

In this context, with the reference to the *increase in number of deceased persons*, it should

be mentioned that there was a significant increase in deaths as a result of road events caused by:

## Improper crossing of the railway (+ 200%).

Table no. 6.

_											
			2017			2018		Grand total (%)			
	Accident cause	A	D.	T	A	D.	T	A	D	T	
	Improper crossing of the railway	1	1	0	4	3	4	300	200	100	

## Alcohol intoxication, falling asleep at the wheel (+58.33 %).

Table no. 7

		2017			2018		Gra	and total	(%)	
Accident cause	A	D.	T	A	D.	T	A	D	T	
Alcohol intoxication, falling asleep at the wheel	89	12	106	127	19	154	42.7	58.33	45.28	

### Exceeding of the prescribed speed limit (+43.75%).

Table no. 8

		2017			2018		Grand total (%)			
Accident cause	A	D.	T	A	D.	T	A	D	T	
Exceeding of the prescribed speed limit	68	16	74	98	2.3	99	44.12	43.75	33.78	

Thus, according to the data from the Automated Information System "State Register of Road Traffic Accidents", there was noted an increase

in the number of road accidents resulting in deaths and injuries due to conditional factors that contributed to their occurrence, and namely:

Table no. 9

		2017			2018		G	rand tot	tal
Conditional factor	A	D	Т	A	D	Т	A	D	T
Unsatisfactory road conditions	32	5	47	46	8	63	43.75	60	34.04
Technical defects of tires	3	0	5	4	2	5	33.33	100	0
Offside overtaking	42	11	68	44	9	86	4.76	18.18	26.47
Exceeding of the prescribed speed limit	82	28	83	123	34	133	50	21.43	60.24
Pedestrians walking on the right side of the road	4	0	4	9	3	7	125	100	75
Slippery road (low nonskid quality)	15	1	21	20	8	29	33.33	700	38.1
Damaged road				5	0	5	100	0	100
Reckless behavior of children (7-14 years)	5	0	5	12	2	10	140	100	100
Lack of specific arrangement (parapets, slides, etc.)	2	1	2	1	0	1	-50	-100	-50
Lack of traffic signs	1	0	2				-100	0	-100
Lack of reflective signaling for horse-drawn vehicles				3	1	3	100	100	100
Failure to give priority to other vehicles	85	5	129	175	13	234	105.88	160	81.4
Failure to give priority to pedestrians	131	9	124	266	14	269	103.05	55.56	116.94
Failure to follow traffic lights	3	0	3	7	2	11	133.33	100	266.67
Unmarked obstacles	1	0	1				-100	0	-100
Incorrect stopping, parking	2	0	2	16	0	16	700	0	700
Pedestrian lying on the traffic lane	1	1	0	4	1	3	300	0	100
Pedestrians without reflective vest	9	4	5	10	7	3	11.11	75	-40
Alcohol intoxication, falling asleep at the wheel	127	17	159	172	32	211	35.43	88.24	32.7

Advanced fatigue, falling asleep at the wheel	26	12	54	21	5	27	-19.23	58.33	-50
Improper crossing of the road by pedestrians	42	11	30	126	16	114	200	45.45	280
Improper crossing of the railway	1	1	0	5	4	5	400	300	100
Y									
Inappropriate speed considering the visibility, conditions, traffic situation	569	131	685	633	116	818	11.25	11.45	19.42

# 3. STAGES OF THE ROAD TRAFFIC ACCIDENT MECHANISM.

Certain stages can be distinguished in the mechanism of a road traffic accident. First of all, at the initial stage of a road transport situation arise factors that affect the functional balance and require additional measures from the vehicle driver to maintain safety conditions. These factors can be either external in regard to the movement of the vehicles (behavior of pedestrians in the immediate vicinity of a public road; worsening of climatic conditions; special traffic regime on certain sections of the road, etc.), or internal (malfunction of a vehicle; inadequate psychophysiological state of the vehicle driver, etc.). The appropriate response in relation to these factors still does not go beyond the appropriate driving

capabilities, although sometimes there are required maximum energy and additional efforts (increased attention, physical efforts) to prevent dynamic processes associated with driving in safe conditions. The driver, having detected a potential danger, can reduce the speed, can give a signal, warning another road user about the danger.

The next stage of the mechanism of road traffic is characterized by the occurrence of an accident situation. This is where the factual "contradiction" appears, which affects functional links in the road traffic. In these circumstances, the reaction of a vehicle driver does not determine an appropriate behavior of other road users in the situation created. As a result, such driver, wholly or partially, loses his ability to influence or to prevent the dangerous event on his own [3, pp. 644-645].

### Records of road traffic accidents by type.

Table no. 10

		2017			2018		G	al	
Types of road traffic accidents	A	D	T	A	D	T	A	D	T
Collision with pedestrians moving on the contraflow lane	35	5	34	38	6	30	8.57	20	-11.76
Collision with pedestrians moving along the traffic direction	183	36	156	151	31	132	-17.49	-13.89	-15.38
Collision with pedestrians in places intended for their movement (sidewalks, markings, islands, etc.)	365	20	359	377	13	384	3.29	-35	6.96
Collision with pedestrians crossing the road in a wrong place, or standing on the roadway.	414	73	333	380	49	337	-8.21	-32.88	1.2
Inversion	176	22	215	227	30	308	28.98	36.36	43.26
Fall of a car from a height (from a bridge, viaduct, embankment, etc.)	1	1	1	4	1	3	300	0	200
Other accidents involving a vehicle	34	2	33	21	1	20	-38.24	-50	-39.39
Collision with an obstacle situated on the roadway	20	2	25	44	5	51	120	150	104
Collision with an obstacle situated off the road	216	43	276	205	31	233	-5.56	-27.91	-15.58
Collision with an obstacle as a result of skidding	29	7	34	41	8	47	41.38	14.29	38,24
Collision with a cyclist	66	12	54	110	13	101	66.67	8.33	87.04
Collision with an animal (including saddle and riding animals)	2	0	2	4	0	3	100	0	50
Fall of a passenger into a vehicle	61	1	61	95	1	97	55.74	0	59.02
Fall of a passenger from a vehicle	21	3	18	8	0	8	-61.9	-100	-55.56

Accidents caused when getting on or off a moving vehicle				5	1	3	100	100	100
"Rear end collision", including vehicles stopped as a result of the traffic situation	205	9	226	189	7	270	-7.8	-22.22	19.47
Other accidents involving several vehicles	8	4	18	10	0	10	25	-100	-44.44
Collision with parked vehicle	13	0	21	34	2	51	161.54	100	142.86
Collision with a vehicle parked as a result of skidding	3	0	2	3	0	3	0	0	50
Head-on collision (from opposite directions)	143	40	259	166	39	329	16.08	-2.5	27.03
Side collision	604	17	815	444	21	605	-26.49	23.53	-25.77
Sideswipe collision (as a result of failure to keep lateral distance)	15	1	21	2. 3	1	36	53.33	0	71.43
Successive collisions in the vehicle fleet	10	0	12	7	0	20	-30	0	66.67
Collision with horse-drawn vehicles	15	3	18	21	8	27	40	166.67	50
Collision of vehicles with locomotives	1	1	0	6	4	6	500	300	100
Grand total	2640	302	2993	2613	272	3114	-1.02	-9.93	4.04

#### 4. ROAD TRAFFIC ACCIDENT SITUATIONS

Referring to road traffic accidents, the researcher M. Gheorghita claims that this notion means an event, which happens on public roads and consists in the collision of two or more vehicles (cars, motorcycles, bicycles, trolleybuses, tractors, etc.) or of one vehicle with a fixed obstacle, pedestrian knockdown or hitting, vehicle rollover, etc., resulting in injury to bodily integrity or even death of a person, destruction of property or obstruction of traffic on the respective part of the road [4, p. 846].

For the road users, road accident situations can be simple (obvious) or latent (non-obvious). Initiation of simple situations is not surprising for the parties involved in the event. They have the opportunity to observe at the right time the signs of danger. The actual detection of a catastrophic development of an event depends on the subjective perception of the nature of situation during the process. Due to inattention, negligence, self-confidence, overestimation of the degree of proficiency, the driver cannot consider the onset of the danger state in due time.

Otherwise, in a latent emergency situation, there are certain conditions that objectively do not allow traffic participants to timely identify the state of danger in the process of emergence and development. Latent materialization of an emergency situation does not exclude the guilt and responsibility of road users, although it requires a thorough and detailed study of the dynamics of events, environmental features that can limit the observation and assessment of dangerous conditions [3, p. 646].

The analysis of the data processed regarding the road traffic accidents by the method of comparison with the analogical period of 2017 with 2018, reveals an *increase in the number of persons who died* in accidents such as:

Collision with horse-drawn vehicles (+166.67 %).

Table no. 11

	2017			2018			Grand total (%)		
Type of a road traffic accident	A	D	T	A	D	T	A	D	T
Collision with horse-drawn vehicles	15	3	18	21	8	27	40	166.67	50

## Collision with an obstacle situated on the roadway (+150 %).

Table no. 12

	2017			2018			Grand total (%)		
Type of a road traffic accident	A D. T		A	D.	T	A	D	T	
Collision with an obstacle situated on the roadway	20	2	25	44	5	51	120	150	104

Table no. 13

	2017			2018			Grand total (%)			
Type of a road traffic accident	A D. T			A	D.	T	A	D	T	
Inversion	176	22	215	227	30	308	28.98	36.36	43.26	

In this context, with reference to the *rise in the number of injured persons*, it should be mentioned that this increase was registered as a result of:

Collision with parked vehicle (+ 142.86 %).

Table no. 14

	2017			2018			Grand total (%)		
Type of a road traffic accident	A	D.	T	A	D.	T	A	D	T
Collision with parked vehicle	13	0	21	34	2	51	161.54	100	142.86

Collision with a cyclist (+ 87.04%).

Table no. 15

		2017			2018			Grand total (%)		
Type of a road traffic accident	A	D.	Т	A	D.	Т	A	D	T	
Collision with a cyclist	66	12	54	110	13	101	66.67	8.33	87.04	

from the road traffic (severe and light).

# 5. DIVISION OF THE ROAD TRAFFIC ACCIDENTS

The forensic science divides road traffic accidents into: a) collision; b) knockdown (crash); c) overturn [3, 641].

Depending on the nature and severity of the consequences, road traffic accidents are subdivided into two main categories: 1) criminally sanctioned; 2) other violations of traffic rules qualified as misdemeanors.

Among the most frequent and dangerous accidents, which refer to the first group, can be mentioned: a) hitting and knockdown of pedestrians; b) collision (crash) of two or more moving vehicles; c) overturn of vehicles; d) collision of vehicles with other obstacles; e) fall of passengers from the moving vehicles.

Road traffic accidents falling under the Criminal Code can be caused by various factors that are subdivided into *subjective* and *objective*. The category of subjective

factors includes: speeding, overtaking, non-conformance to colors of the electric traffic light and signals and gestures of traffic police officers or other agents authorized to direct the traffic, failure to give a sign intending to change direction, driving being tired, ill, drowsy, or under the influence of alcohol or drugs.

Frequent also are the road accidents caused by objective factors, especially by road conditions and inappropriate technical condition of vehicles. The deplorable situation of public roads, their degrading pavement, dangerous intersections, lack of signs or the presence of confusing ones, low visibility of the roadway, as well as poor technical condition of vehicles involved in road traffic can damage transport and, consequently, induce to a serious road traffic accident [5, pp. 618-619].

Dividing the severe and minor accidents, produced on the routes, according to the territorial principle, they were registered as follows in **table no. 21**:

Table no. 21.

		2017			2018		Grand total			
Registration body	A	D	T	A	D	T	A	D	Т	
Anenii Noi	26	3	37	15	7	34	-42.31	133.33	-8.11	
Basarabeasca	2	0	2	7	2	5	250	100	150	
Balti	8	3	6	12	4	9	50	33.33	50	
Bender (Varnita)				1	1	0	100	100	0	
Briceni	5	2	2	5	1	5	0	-50	150	

Cahul	10	1	11	28	3	30	180	200	172.73
Cantemir	9	3	9	8	2	14	-11.11	-33.33	55.56
Calarasi	24	1	26	18	2	27	-25	100	3.85
Causeni	13	2	26	12	2	20	7.69	0	-23.08
Cimislia	31	10	21	31	6	32	0	-40	52.38
Criuleni	20	2	27	25	2	36	25	0	33.33
Donduseni	5	2	8	3	1	3	-40	-50	-62.5
Drochia	12	3	15	4	2	8	-66.67	-33.33	-46.67
Dubasari (Ustia)				5	0	12	100	0	100
Edinet	7	4	12	7	2	10	0	-50	-16.67
Falesti	26	4	41	20	4	30	-23.08	0	-26.83
Floresti	20	5	28	15	0	18	-25	-100	-35.71
Glodeni	9	1	10	5	3	17	-44.44	200	70
Hincesti	29	9	35	19	5	30	-34.48	-44.44	-14.29
Ialoveni	21	8	15	41	6	56	95.24	-25	273.33
Leova				4	3	1	100	100	100
Chisinau mun.	62	13	86	43	4	68	-30.65	-69.23	-20.93
Nisporeni	16	4	24	13	1	26	-18.75	-75	8.33
Ocnita	13	4	12	9	2	18	-30.77	-50	50
Orhei	61	16	97	61	15	89	0	-6.25	-8.25
Rezina	6	0	10	4	0	7	-33.33	0	-30
Riscani	10	6	6	10	6	14	0	0	133.33
Singerei	20	4	20	14	6	14	-30	50	-30
Soroca	10	1	15	11	1	15	10	0	0
Straseni	25	6	28	24	7	28	-4	16.67	0
Soldanesti	3	3	3	2	0	2	-33.33	-100	-33.33
Stefan-Voda	13	7	14	13	9	36	0	28.57	157.14
Taraclia	13	8	2.3	8	1	10	-38.46	-87.5	-56.52
Telenesti	29	10	41	31	6	46	6.9	-40	12.2
UTA Gagauzia	69	8	69	59	13	58	-14.49	62.5	-15.94
Ungheni	25	9	28	27	4	24	8	-55.56	-14.29
Grand total	652	162	807	614	133	852	-5.83	-17.9	5.58

### 6. CAUSES OF ROAD TRAFFIC ACCIDENTS

Traffic accidents are mostly caused by drivers and pedestrians and, to a lesser extent, happen due to unforeseen technical failures, improper road conditions or atmospheric causes [2, p. 641].

Accidents due to the human factor have an overwhelming share representing about 90% of all traffic events, which leads to the statement that "the accidents are not caused by cars, but by the car drivers." Among the causes of accidents that happen due to human factors first place takes speeding, inattention of pedestrians, offside overtaking and driving under the influence of alcohol.

Then come accidents that happen due to technical factors, related to the vehicle, such as those caused by

the failure or malfunction of the braking, steering, driving and signaling systems. The location of technical malfunctions among the causes of road accidents sometimes needs to be correlated with human factors in sense of the lack of concerns about the configuration, maintenance and proper repair of vehicles.

Let's also analyze accidents related to road factors specific for the functional and planning features of communication routes (roads, highways, motorways). For example, poor condition of the asphalt covering, lack of visibility, narrow bridges, intersections between busy highways with a high-density traffic, obstacles in the immediate vicinity of the carriageway, etc. are important sources of danger for the movement of vehicles and pedestrians [1, p. 617].

# Causes of minor / severe accidents on national roads for the period of 12 months of year 2018

Table no. 23

	2017				2018		Grand total		
Accident cause	A	D	Т	A	D	T	A	D	Т
Violations committed by a passenger	1	0	1				-100	0	-100
Other violations committed by drivers	17	5	12	7	1	7	-58.82	-80	- 41.67
Other violations committed by pedestrians	7	1	5	4	1	3	-42.86	0	-40
Other causes related to the road	1	0	2	1	0	1	0	0	-50
Other technical faults				1	0	2	100	0	100
Driving in the oncoming lane	11	2	34	13	5	33	18.18	150	2.94
Unsatisfactory road conditions				1	1	0	100	100	0
Reckless driving	34	10	34	30	9	39	-11.76	-10	14.71
Driving under the influence of drugs	1	1	0				-100	-100	0
Technical faults in the braking system of a vehicle				1	0	1	100	0	100
Technical faults in the lighting-signaling system	1	0	2	1	1	0	0	100	-100
Technical faults of tires				3	0	3	100	0	100
Offside overtaking	25	8	36	14	2	37	-44	-75	2.78
Exceeding of the prescribed speed limit	37	10	39	49	12	52	32,43	20	33.33
Pedestrians moving along the traffic direction	1	0	1	1	0	1	0	0	0
Slippery road (low nonskid quality)				1	0	6	100	0	100
Damaged road				1	0	1	100	0	100
Improper use of lighting devices	3	0	3				-100	0	-100
Reckless behavior of teenagers (16-18 years)	1	0	1				-100	0	-100
Reckless behavior of children (7-14 years)				1	1	0	100	100	0
Lack of traffic signs	1	0	2				-100	0	-100
Failure to give priority to other vehicles	46	6	67	42	8	68	-8.7	33.33	1.49
Failure to give priority to pedestrians	34	4	29	31	3	27	-8.82	-25	-6.9
Failure to change lane or direction of travel, incorrect turn	51	2	78	55	5	94	7.84	150	20.51
Failure to keep the distance between vehicles	40	2	58	30	0	44	-25	-100	-24.14
Failure to follow traffic lights				3	2	2	100	100	100
Incorrect stopping, parking	2	0	2				-100	0	-100
Pedestrian lying on the traffic lane	1	1	0	1	1	0	0	0	0
Pedestrians without reflective vest	1	0	1	1	1	0	0	100	-100
Illness, driving under the influence of medications	1	1	1				-100	-100	-100
Alcohol intoxication, falling asleep at the wheel	2.3	2	28	29	7	33	26.09	250	17.86
Advanced fatigue, falling asleep at the wheel	18	10	34	13	4	16	-27.78	-60	-52.94
Improper technical condition of the means of transport	2	0	2	2	1	2	0	100	0
Pedestrians standing on the traffic lane	1	1	0	2	2	1	100	100	100
Improper crossing of the road by pedestrians	14	6	7	13	3	10	7.14	-50	42.86
Inappropriate speed considering the visibility, conditions, traffic situation	277	90	328	263	63	369	-5.05	-30	12.5
Grand total	652	162	807	614	133	852	-5.83	-17.9	5.58

Referring to the cause of road traffic accidents on national routes, resulting in the death of persons, we can note that we have a significant increase (+250%) in the compartment of driving a vehicle in a state of intoxication, (+150%) in cases of change of the lane or direction of travel and (+150%) driving in the oncoming lane, and still the most common cause of road accidents remains an inappropriate speed considering the visibility, conditions, traffic situation.

# 7. THE FORENSIC FEATURES OF ROAD TRAFFIC ACCIDENTS

The forensic features of the road traffic accidents include the complex of mutually determined general, particular and individual traits, reflected primarily in the mechanism of a crime, in certain methods, particularities, circumstances and means it's committed, as well as in the personal traits of its participants.

In the light of the forensic features of such crimes, the main element is the mechanism of a crime, but not the method it's committed, as the case with other categories of crimes may be. The method a road traffic accident is committed, having its own specific features, plays a secondary role compared to the mechanism and other elements of the forensic features of the road traffic accidents.

At the same time, by the mechanism of road traffic accidents we mean the cumulation of those states and processes, which generate consequences regarding the subjects in mutual interaction in material aspect within the pre-accident, accident and post-accident stages of a road traffic accident [6, p. 641].

The vast majority of traffic accidents, as it is known, are committed recklessly. Only a small percentage of them can be used as a method of killing people, disguised as a road traffic accident.

# 8. THE FORENSIC MODEL OF THE ROAD TRAFFIC ACCIDENTS

The forensic model of the road traffic accidents includes a totality of general and particular features, which are mutually conditioned and which, in principle, are manifested in the following substantial elements: a) data on the mechanism of the road traffic accident; b) data on the place and time of the accident; c) data on the traces and consequences of the road traffic accident; d) data on the subject of crime; e) data on the victims and material damages of the road traffic accident; f) data on causes and circumstances

that facilitated the accident; g) data on the concurrence of crimes [4, p. 848].

An important forensic feature of road accidents is the production of various categories of changes at the crime scene: traces that can serve as unequivocal evidence regarding the nature and mechanism of the road traffic accident, road situation in which the accident occurred, means of transport and persons involved, other conditions that facilitated the occurrence of accident and its consequences.

# 9. TRACES SPECIFIC TO DIFFERENT CATEGORIES OF ROAD TRAFFIC ACCIDENTS.

In this context, it should be mentioned that for each category of accidents certain traces are specific. Thus, in case of pedestrians hitting and knockdown, at the crime scene remain traces:

- 1) On the road: a) traces of blood, clothing (constituting the parts of clothes), the victim's corpse and various objects that were at the critical moment on it; b) traces of tires and body-frame of the involved vehicle, including braking tracks, parts of the body-frame of the vehicle and the load it carries; c) paint particles, drops, splashes or stains of petrol, oils and other substances used, as well as traces of soil, which, in some cases, are proper for the criminal investigation.
- 2) On the vehicle: traces constituting the deformation of metal of the body-frame in the place of contact, the traces of breaking of windshield, windows, headlights or position lamps; biological stratifications of human origin (blood, soft tissues, epidermis, hair, etc.).
- 3) On the victim's body and clothing: accumulation of soil, oils and, of course, damage to clothing and footwear and, according to them, personal injury caused by the parts of the car that stroke this person, the imprint of the anti-skid tire pattern.

In case of collision (clash) of two vehicles or one vehicle with an obstacle, there should be formed traces constituting the deformations and damage to the bodyframe, lighting systems, bumpers, radiators; on the part of the road representing the crime scene, can be found shards of glass, fragments of plastic, traces of petroleum products, oils, paint films on the obstacle object, as well as on the ground around it.

### 10. CONCLUSIONS

Actions of the persons guilty of road traffic accidents are mostly determined by their psychological and physical condition. In particular, a

relatively large number of road traffic accidents is caused by drunk driving. In the process of investigation of criminal cases on violation of safety rules for the operation of vehicles, it is necessary to establish: a) in the violation of which actions are reflected the actions of the culprit, which entailed the onset of socially dangerous consequences; b) where, when, and under what circumstances, or in what manner the road traffic accident occurred; c) what are the consequences of a road traffic accident; e) if there is a causal relationship between the violation of safety rules and the operation of vehicles and the consequences arising from; f) what is the form of guilt of the person who committed the crime, and namely his actions or inactions determined the onset of socially dangerous consequences; g) who directly committed the act of crime that resulted in violation of traffic safety rules and operation of vehicles; h) what specific circumstances contributed to the crime and what circumstances are subject not only to clarification, but also to elimination both during the

investigation of the criminal case and after its completion.

### 11. BIBLIOGRAPHIC REFERENCES.

- [1] Emilian STANCU. *Tratat de criminalistica. Editia a IV-a* [Treatise on forensic science. 4th Edition]. Bucharest: Universul Juridic Publ., 2007.
- [2] Camil SUCIU. *Criminalistica* [Forensic science]. Bucharest: Didactica si Pedagogica Publ., 1972.
- [3] L. Ja. DRAPKIN, V. N. KARAGODIN. Kriminalistika. Uchebnik [Forensic science. Textbook]. PROSPEKT Publ. M., 2007
- [4] Mihail GHEORGHITA. *Tratat de criminalistica* [Treatise on forensic science]. Chisinau, 2017.
- [5] Simion DORAS. *Criminalistica* [Forensic science]. Chisinau: Cartea Juridica Publ., 2011.
- [6] Kriminalistika. Uchebnik. Pod redakciej N. P. JABLOKOVA. [Forensic science. Textbook. Edited by N.P. YABLOKOV]. BEK Publ., M., 1997.

# NEW INVESTIGATIVE TECHNIQUES: REGULATORY PROVISIONS AND PRACTICAL POSSIBILITIES

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#### **ABSTRACT**

The effectiveness of investigations carried out by judicial bodies largely depends on the investigative techniques with which they are endowed. Techniques that should be organically integrated into the relevant regulatory framework, representing the result of the best achievements in the field. Their normative consecration, being the culmination of indepth scientific approaches, supported by practical achievements. Conversely, at the risk of distorting the investigative process, its purpose would not only not add value to this activity, but on the contrary could create a number of impediments.

**KEYWORDS:** criminal trial, evidence, means of evidence, probative procedure, special investigative measures, control body, finding body, investigation officer.

#### 1. INTRODUCTION

According to some authors, the whole criminal process is dominated by the question of evidence [5, p. 421], an opinion under which we subscribe and consider welcome any debate on this subject, especially when the institution concerned is the target of legislative changes. The effectiveness of investigative techniques to be assessed in particular from the perspective of the efficiency with which the evidence is managed. Thus, although relatively stable, in recent times the criminal procedural evidentiary undergone a number of changes, according to us quite essential that raises several problems not only of a technical nature. Changes that although aimed at equipping judicial bodies with new investigative techniques, are unlikely to achieve this goal, due to legislative inadequacies, after new unresolved at the moment.

## 2. NEW INVESTIGATIVE TECHNIQUES, ACCORDING TO THE CHANGES MADE IN THE CRIMINAL PROCEDURAL LEGISLATION

For beginning, we want to mention that as rightly mentioned in the literature the aspects involved in the evidence carried out in the criminal trial consist of the object of the evidence, the burden of proof and the administration of evidence, aspects that are to answer the questions: 1) What must be proved in a trial to be able to settle the case; 2) Who should bring the evidence; 3) How to proceed so that the factual aspects contained in the evidence produce appropriate legal effects following their retention as true by the judicial bodies [4, p. 341]. In the context of the subject under consideration, given that they are actually interested in

the last two questions, these issues need to be clarified in relation to the legislative interventions mentioned.

However, if in the initial version of the current code of criminal procedure, both aspects of the task, as well as the burden of proof was relatively straightforward, being undertaken with virtually no changes in the Code of criminal procedure in its version of the year in 1961, then with the changes, even though it has been kept in the system is limited [3, p.449] of the nature of the evidence, however, that it has been subject to significant changes. Thus by law nr. 66 dated on 05.04.2012, in the code of Criminal Procedure was introduced Section 5-a special investigative activity, a first change in the traditional algorithm of Criminal Procedural evidence occurred. Accordingly, in the appeared not only nominated algorithm investigative officer of specialized subdivisions as a subject endowed with the burden of proof in the criminal process, but also underwent changes including the procedure for administering evidence, introducing into the criminal procedural legislation investigative measures, including completion of art. 93 CPP RM, with a new means of evidence - procedural acts in which the results of special investigative measures are recorded and annexes to them, including shorthand, photos, records and others.

Evolution that continued with the legislative changes made by law nr. 49 dated on 30.03.2017, as a result of which in the criminal procedural legislation were introduced provisions on the recovery of criminal property, including the obligation of the criminal prosecution body according to the provisions of art. 257 (3) the CPP of Republic of Moldova, to order, by delegation, the agency for the recovery of Criminal Assets to carry out parallel financial investigations in order to track criminal assets, accumulate evidence on them and make them unavailable in the cases provided for in art.229<sup>2</sup> (2) CPP RM. The agency for the recovery

of criminal property as a result of the execution of this delegation shall inform the criminal prosecution body of the measures taken by means of the minutes recording the results of parallel financial investigations. The time limit for the execution of the delegation ordered to the criminal property Recovery Agency may not exceed the reasonable time limit of the criminal prosecution, the criminal prosecution body shall be notified every 60 days of the results of parallel financial investigations carried out with a view to the recovery of criminal property. At the same time, art. 93 CPC RM was modified by introducing a new means of proof - the minutes of recording the results of parallel financial investigations.

The last changes in this sense being operated by law nr. 179 dated on 26.07.2018, by which the minutes of recording the opinion of the state control body of the entrepreneurial activity, issued according to the provisions of art.2761 CPP RM, if not stated in a control report, but also the Control report, drawn up within the framework of the state control over the activity of Entrepreneur, another control/administrative act of a decision-making nature, drawn up by a control body as a result of a control carried out in accordance with the special legislation in force. At par. (3) art. 93 CPP RM as subjects empowered with the acquisition of samples were also added state control bodies. Amendments that perpetuated by law nr. 49 of 01.10.2018, when in the category of subjects on whose account the burden of proof was placed were also introduced the finding bodies. Law by which changes were also made to art. 273 par. (2) CPP of the Republic of Moldova, mentioning the fact-finding documents drawn up by those bodies as evidence.

# 3. INTEGRATION OF NEW INVESTIGATIVE TECHNIQUES INTO THE CRIMINAL PROCEDURAL ALGORITHM

The analysis of the mentioned law changes highlights on the one hand the concern of the legislator to ensure the judicial bodies with the necessary instruments for the successful investigation of criminal cases, or in other words new investigation techniques, and on the other hand the episodic and non-systemic character of these approaches. Approaches that are in line with the proposed solutions raise a number of no less important problems, on the resolution of which the success of the implementation in practice of the mentioned legislative interventions depends to a large extent.

Thus, following the logical sequence of the legislative changes stated above, we can see that they aimed only at modifying the list of means of proof and

the subjects in charge of which the burden of proof was placed.

At the same time in accordance with the provisions of art. 99 CPP RM, evidence in criminal proceedings consists in the invocation of evidence and the proposal of evidence, their admission and administration for the purpose of ascertaining the circumstances that are important for the case. Since evidentiary is the fundamental element that leads to finding out the truth in the criminal case and respectively to the resolution of the process, the procedural-Criminal legislation regulates in detail both its content and its mechanism. Moreover, the Code of Criminal Procedure contains several mandatory rules, the failure to comply with which would make it impossible to use the evidence in question, obliging the judicial body to exclude them from the file, such as, for example, the provisions of art. 94 CPP, to which we will man stop along the way.

The way in which the evidence is to produce effects in the criminal case, and the subjects involved in this activity are described in art. 100 of the CPC of the RM, the norm states that the evidence is in the use of evidence in the criminal case, which involves the collection and verification of evidence, in favour and to the detriment of the accused, the defendant, by the criminal investigation body, at the request of the other participants in the process, as well as by the court, at the request of the parties.

These are just a few of the provisions of the Criminal Procedure, which refer to the criminal procedural evidence, unaffected by the mentioned legislative amendments, in addition to many other rules that concern this subject, the result of the mentioned interventions being according to us, in these conditions rather unclear.

To argue the above statement, we think it necessary to start from the term of evidence, which is the central element in the criminal procedural evidence. Evidence is that indispensable element of every process of knowledge, the criminal process here being no exception, without which finding out the truth would be compromised.

As N. Volonciu mentions in the work treatise on Criminal Procedure-the criminal process constitutes a process of knowledge, in which the judicial body must come to find out the truth. In the work of establishing the truth the elements that lead to the realization of knowledge are the evidence [4, p. 333]. The notion being the synonym of proof, or from the Explanatory Dictionary of the Romanian language it follows that proof is the fact or thing that shows, demonstrates something; convincing proof. At the same time, proof

means confirmation of a truth, proof; testimony in support of someone or something [6].

According to the provisions of art. 93 CPP RM, the evidence is elements of fact acquired in the manner established by this code, which serve to establish the existence or non-existence of the crime, to identify the perpetrator, to find guilt, as well as to establish other important circumstances for the fair settlement of the case. Basically, the same definition is attributed to the notion of evidence and in art. 6 CPP of the Republic of Moldova, where evidence means factual elements acquired in the manner provided for in this code, which serve to ascertain the circumstances that are important for the fair settlement of the criminal case.

The functionality that evidence has in the criminal process carries a double character. On the one hand it is an instrument of knowledge, by means of which the judicial body is the truth, or evidence, to serve on the finding of the existence or non-existence of the crime, identify the perpetrator, the finding of guilt, as well as to determine other circumstances important for fair settlement of the case.

Evidence is an extra-procedural entity (it exists outside the criminal process) that, however, concerns the object of the process (the act and the perpetrator to which it relates). By their administration in the conduct of criminal proceedings they acquire a procedural character. Otherwise it cannot be evidence but only their appearance, or the data communicated by the witness, who declares that he knows nothing, or the information resulting from the documents attached to the file, which however does not refer to the criminal case, cannot be considered evidence in a case. On the other hand, however, evidence exists regardless of whether its existence is either not known by the judicial body or whether it was or was not administered by the appropriate means of evidence [4, p. 333].

Based on the mentioned above, the first question is regarding the new techniques for the investigation arises in connection with the proceedings in which shall be recorded the results of a special investigation among the means of the trial, after the new major, and the remainder at the time outstanding, by the legislature, and of the subject authorized to carry out the activity in question. Thus, beyond the fact that according to the ASI law, the Special Investigation activity is a procedure, and from the provisions of 132<sup>1</sup> CPP RM, it follows that this represents the totality of criminal prosecution actions in both cases carried out by investigation officers, it is not clear why the same definition of the concept was not used in the legislative acts invoked. However, the necessary conclusion is the unsuccessful definition of the special investigative activity in the criminal process. Moreover,

the way the legislator defined the special investigative activity in the criminal procedural legislation practically erases the difference between it and the special investigative measures, the former being equated with the sum of the latter. At the same time the rules of Criminal Procedure that regulate more or less issues related to evidence in criminal proceedings such as, those to which we referred but also art. 28, 55, 56, 57, 100 CPP RM, refers only to the criminal prosecution body as a subject with powers in the field, and from the provisions of art. 93 of the 3rd CPP of the Republic of Moldova, it clearly follows that the factual elements can be used in the criminal process as evidence if they were acquired by the state control bodies, the criminal prosecution body, the finding body or another party in the process, with the reservations of rigor to which we will stop further. Referring to the provisions of art. 94 par. 1 pct. 4 of the CPC of the RM, according to which, in a criminal proceeding cannot be admitted in evidence, and, therefore, should be excluded from the case file, may not be presented in a court of law, and may not be available on the basis of the judgment or any other judgment data that have been obtained by a person who does not have the right to carry out procedural actions in the criminal case, with the exception of the control bodies and to other parties to the proceedings referred to in art. 93 par. (3) CPP, it follows that the entire legislative construction oriented towards the involvement of investigative officers in criminal procedural evidence becomes unnecessary [2].

In the same register it is easy to notice that once there is no criminal prosecution body according to art. 253 CPP RM, no finding body according to art. 173 CPP, and neither party to the process according to the provisions of art. 6 p. 29 CPP RM, the agency for the recovery of criminal property, it is not clear, how substantiated was the introduction in art. 93 CPP RM of the means of proof the minutes of recording the results of parallel financial investigations, without the rigorous changes of the entire relevant regulatory framework. Further it is incomprehensible even the inclusion in art. 258 paragraph (3) CPP RM, of the mechanism of interaction between the criminal prosecution body and the agency for the recovery of criminal property. Or the relevant criminal procedure rule, not only refers to the territorial competence of the prosecution bodies, but also regulates only the interaction between them, being incidental for the prosecution phase. The provision of art. 258 par. (3) the CPP of the Republic of Moldova, as well as that the criminal prosecution body orders, by delegation, the agency for the recovery of Criminal Assets to carry out parallel financial investigations in order to pursue criminal assets, accumulate evidence on them and make them unavailable in the cases provided for in art.229<sup>2</sup> par.(2) the CPP of the Republic of Moldova, on the one hand, has nothing in common with the territorial jurisdiction to which, as mentioned above, the relevant norm refers, and on the other hand, not only obliges the criminal prosecution body to collect evidence, outside the Criminal Procedure framework but also through entities that are not criminal prosecution bodies.

The situation reiterating but already obviously outside the criminal procedural framework by introducing as a means of proof the minutes recording the opinion of the state control body of the entrepreneurial activity, issued according to the provisions of art.276<sup>1</sup> CPP RM, if not stated in a control report, but also the control report, drawn up within the framework of the state control over the activity of entrepreneur, another control/administrative act of a decision-making nature, drawn up by a control body as a result of a control carried out in accordance with the special legislation in force. Here after us, in fact the legislator decided to give Criminal Procedural value to extra-procedural activities, for which there was already a formed practice. Without going into too many details that would certainly go beyond the scope of this study, I consider it necessary to refer to the Romanian legislator who taking the ECtHR position on the occasion of examining the case of Argintaru V. Romania [6, p. 350], in which the pre-prosecution phase was equated with the criminal process (in terms of procedural guarantees offered), gave up the recognition as means of evidence of the documents of discovery, they remain simple documents of referral.

### 4. CONCLUSIONS

In the recapitulation of those mentioned, a fundamental issue to which we want to stop refers to the nature of the acts that reflect the results of the activity of the new investigative techniques, and which according to the provisions of the Criminal Procedure are means of evidence. In this regard, we believe that the opinion presented by professor Volonciu N. is relevant, who argues that the circumstances directly known by the judicial bodies are to be proved, since it could reach arbitrariness, not being able to establish on objective grounds how the body's conviction on the facts withheld was formed [4, p. 350]. However, if looked at from this perspective we may not have the large an objection in respect of procedural acts in which he shall record the results of a special investigation, because of the mechanism of carrying out these shall be governed by the laws of the criminal process, and the

records of the judicial body, in the proceedings in question may be proved by the data given in the process of carrying out special measures of investigation, with respect to the rest of the techniques for the investigation of the aforementioned situation, it is a little bit different. Thus, both the minutes recording the results of the parallel financial investigations and the minutes recording the opinion of the state control body of the entrepreneurial activity, represent the acts in which are reflected the findings of the respective bodies performed in extra-procedural activities, the situation becoming paradoxically, when in a criminal trial the data obtained can be used as evidence, through activities not regulated by the criminal procedural legislation. Situation to which if we add the valence attributed by the legislator to the opinion of the control body, without establishing certain benchmarks on the basis of which it would be formed and verification mechanisms, then a natural question arises that would be the need to conduct criminal proceedings under the existing normative framework. how certain circumstances can be proved by activities carried out outside it. Inadvertencies that according to us are to be solved by adapting the new investigation technique to the criminal procedural normative framework, otherwise their effectiveness remains illusory.

#### 5. BIBLIOGRAPHIC REFERENCES

- [1] Code of Criminal Procedure of the Republic Of Moldova, adopted by the Parliament of the Republic Of Moldova on 14.03.2003. In: Official Gazette of the Republic Of Moldova, 2003, no.104-110. In force since 12 June 2003, p. 4-208.
- [2] Ion COVALCIUC. Special investigative measures authorized by the prosecutor in the criminal process. Ph. D. thesis. Chisinau, 2018. http://www.cnaa.md/files/theses/2018/53408/covalc iuc ion thesis.pdf.
- [3] Ion NEAGU, Mircea DAMASCHIN. Treaty of Criminal Procedure. The special part. In light of the new code of Criminal Procedure. Ed. The Legal Universe. Bucharest, 2015.676 p.
- [4] Nicolae VOLONCIU. Treaty of Criminal Procedure. General part, vol.I, Ed.III, p.341
- [5] G. LEVASSEUR, A. CHAVANNE. Criminal law and Criminal procedure. Sirey. Paris 1972, p. 98, in Neagu I., Damaschin M. Treaty of Criminal Procedure. The special part. In light of the new code of Criminal Procedure. Ed. The Legal Universe. Bucharest, 2015. 676 p.
- [6] http://www.dex.ro.

# THEORETICAL AND PRACTICAL REFLECTIONS ON THE USE OF AUDIO AND VIDEO RECORDINGS IN THE CRIME SCENE INVESTIGATION

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#### **ABSTRACT**

Crime scene investigation is the opening act of the investigations, having a clear significance in all the concerns devoted to solving a criminal case. It implies the immediate, direct and complete knowledge of the place where the criminal act was committed. The field investigation is carried out when the direct finding is necessary in order to determine or clarify certain factual circumstances which are important for establishing the truth, as well as the direct finding of the factual circumstances. Being an action of criminal prosecution, with a wide resonance in the whole of the concerns devoted to the solution of a specific criminal case, the field investigation also represents one of the most complicated and important procedural actions and actions of forensic tactics, the results of which usually condition not only the determination of direction, but also certain procedural or special investigative activities. The field investigation presents a number of characteristic elements, which distinguish it from other procedural activities carried out for the investigation of a criminal case. Following the field investigation, the body invested in carrying out this action will look for answers to the questions that are always the are tasks of the criminal investigation activity.

**KEYWORDS**: crime scene investigation, criminal prosecution action, criminal prosecution officer, minutes, planning, audio recording, video recording, forensic technique, technical means, tactical procedures, organizational measures, error, completion, declaration, suspected, accused.

#### 1. INTRODUCTION.

Field investigation represents a procedural action, which consists in a direct inspection by the criminal prosecution body of the open area or premises where the deed took place or in the perimeter of which its consequences have manifested, the objects that compile its ambiance in order to detect, establish and collect traces of the crime and other material evidence necessary to establish the nature of the crime, to establish the identity of the offender, the method and circumstances under which he acted [3, p. 295]. Field investigation, as a crime investigation, gains significance only if its results are documented in accordance with the provisions of the criminal procedure law [2]. Field investigation must be drawn up in the form of a report, which sets out in detail all the circumstances, the course and the results of this procedural action, the specific features of the technical means used. The form of this report is not strictly prescribed by law. It simply indicates that the records should describe all the actions of the criminal prosecution officer, as well as all the facts that were revealed during the field investigation, in that sequence, in which the investigation was held, and in that condition, in which they were discovered in the process of investigation [4, pp. 405-406]. Since the criminal prosecution body has the possibility to investigate directly the crime scene and to assess the consequences of the crime, to establish the

circumstances of the criminal act and to establish the identity of the offender - by detecting, establishing, collecting and making forensic analysis of traces, material evidences - this effectively contributes to the achievement of the goal of the criminal proceedings [6, p. 323].

Forensic video and audio recording is carried out using one of the methods of fixing the results of the field investigations, which have become essential in special cases (murder, destruction as a result of explosions and fires, railway accidents, air crashes, etc.) [7, p. 74]. This is one of the modern methods of fixing the results of the field investigations [6, p. 339]. And moreover, since such recordings (especially video records) can reproduce the facts in all their complexity and dynamicity, they serve as an excellent means of testing all other types of evidence, and even as an element that is rather difficult for an accused or defendant to protest in case if his guilt was proven [5, p. 147].

# 2. RATIONALITY OF APPLYING VIDEO RECORDINGS IN CRIME SCENE INVESTIGATIONS.

Video and audio recordings, like any other evidence, are intended to establish the truth and to prove the circumstances that preceded, accompanied or followed the crime, to find its participants, the degree of their participation, things that served as objects of criminal activity, means used to carry out their criminal intention, etc. [1, p. 182].

Applying the video recordings during a criminal investigation is rational in the following cases: a) if the investigation of the crime scene begins before the fixed event ends (for example, fire event), when the circumstances under investigation change; b) in case of an urgent need to eliminate the consequences of certain facts that may entail changes in the content of the original crime scene (in case of transport crimes, violation of technical safety rules, etc.); c) if the change in the circumstances of the crime scene is necessary for the detection of traces of the crime and material evidence; d) to reflect the complex dynamics of the crime mechanism, which is difficult to describe in the minutes of the field investigation; e) when, for a detailed analysis of the fixed actions and their better perception, it is necessary to reproduce them in a slowmotion or accelerated mode; f) when, for reasons determined by unfavorable climatic conditions (rain, fog), or for other reasons, persists the risk of disappearance or deterioration of the crime traces, and it is necessary to fix them promptly comprehensively; g) when the crime scene represents a complex and large territory

Video recording makes it possible to reproduce and attach the materials to the field investigation minutes immediately after the circumstances of the crime scene have been established and the criminal investigation has been carried out. The availability of audio recording makes it possible to comment on the recorded moments [9, pp. 26-27]. Considering the high technologies used in the recording and reproduction of sounds and images, compared to other means of evidence, we can express the opinion that audio or video recordings are likely to give the judicial authority more confidence in their authenticity and the ability to exactly reflect the reality. [5, p. 147].

# 3. PROCEDURES APPLIED DURING THE VIDEO RECORDING OF THE CRIME SCENE.

The law provides for the use of a wide variety of procedures and scientific and technical means, including the graphic representation of a confined space, photographing its ambience, collection of crime traces by modeling and copying them, video recording of field investigation activities, etc. [3, pp. 315-316].

In the process of crime scene video recording a general, medium, volumetric and detailed plan is used. A general plan is usually used to capture objects together with the circumstances of the crime scene from a remote video recording point. It has an orientation-synthesizing character, covering the entire

location of the investigation. Medium plan is used to reflect certain objects taken apart from the crime scene circumstances. It is a part of a whole, detailing a set of information on a general plan, representing certain objects with a certain number of details. The volumetric plan is intended to highlight the most important part of the object being filmed. A detailed plan is the one that captures the most important features of the object being filmed, which can only be observed from a short distance. The use of technical means in the process of video recording (special procedures and additional means of lighting) should be aimed at the most accurate, consistent and detailed recording preserving and transmitting the facts that may have evidentiary value.

In order to reflect correctly the reality in a video record, first of all it is necessary to ensure the correct compositional structure of the images. The main procedures performed to ensure an appropriate compositional structure of images include: 1) selecting the point from which the video recording will be made, and its direction; 2) a graduated ruler is used in order to fix the static objects in the process of video recording, which should be placed in the immediate vicinity of the object filmed, or on its surface to determine its dimensions; 3) the appropriate location of the objects removed. In order to make video record clear and easy for perception, it is necessary to place the recorded objects correctly during the field investigation; 4) providing the depth of the recorded objects and their relevant lighting; 5) panoramic shooting with a video camera in motion (panoramic shooting can be circular, linear, static, dynamic, vertical or horizontal). Static panorama supposes rotation of camera around its axis without changing the point from which the video is recorded. By sequentially rotation of the camera around the horizontal axis, we get a vertical panorama, and, accordingly, when rotating it around the vertical axis, we get a horizontal panorama. Video recording with simultaneous change of the camera position is called dynamic. It consists in moving the operator with the camera in parallel (along) to the filmed object in cases where it has a large space-in-space (for example, when fixing the length of a wall or traces of vehicle braking, etc.); 6) passing over from one shooting plan to another. Using the capabilities of cameras, the operator has the opportunity, without stopping the recording process, to put into the frame things that he wants to capture at a certain moment, to enter into the frame or exclude from it certain objects and circumstances while maintaining the clarity of images; 7) accelerated recording is used to capture fast moving processes or actions; 8) slow-motion recording is used

in cases when it is necessary to reflect the evolutionary phases of a long process in a relatively short period of time; 9) ambient sound. All cameras provide simultaneous video and sound recording [9, p. 28-29].

The forensic technical and tactical video recording assumes, as in the case of judicial photography, orientation videos, sketches in all their variants, and namely, recording of main objects, traces and details, including large-scale ones [6, p. 339]. There are some aspects worth mentioning when it comes to video registration. First of all, starting the recording, it is very important to synchronize the watches of all forensic experts and the leader of the field investigation team, as well as the date and time on the video camera. This is a security measure related to the fact that subsequently, to the extent that the suspect, the victim or any of the parties wants to view the recording, the time on various traces or objects found will correspond to the time, recorded in field investigation minutes. Secondly, it is recommended, as far as possible, to make just no-sound video records, so as not to capture any talks between the members of the investigation team at the crime scene that are not related to the case. As for the video recording techniques, it is important to note that the forensic expert must wait at least three seconds before changing the camera's orientation, shooting angle, or focus. In addition, during filming, all people and any used equipment must be removed from the recording area. At the same time, it is recommended to move the camera exclusively in the situation when it serves to capture an overview of the path of steps, or the way in which the offender(-s) got to or left the crime scene, or, for example, in case of murder, moved the corpse. In this case, each detected trace will be highlighted on the record, as well as the moment it was found [7, pp. 74-75]. The forensic record, like the video recording, is edited in order to carry out the investigation process and assumes approximate and sketch records of main objects and details. Since the use of filming or video recording equipment at a crime scene requires some specific technical skills, it is recommended to assign this activity to a specialist and, at the same time, it must be under the control of the person leading the field investigation team. [3, p. 327].

# 4. ORGANIZATIONAL MEASURES FOR CRIME SCENE VIDEO RECORDING.

In the forensic, technical and tactical report, special attention should be paid to the verification and arrangement of forensic scientific and technical means that will be used during the investigation [6, p. 325]. In connection with the organization of field

investigation, the body authorized to carry out these activities will select, depending on the nature and circumstances of the case, an appropriate kit, will check whether the equipment and tools to be used are in god condition. It is advisable to carry out the operation in stages and in the following sequence: the stage of judicial photo and video recording; the stage of lighting sources; the stage of detecting and evidencing the traces and objects of material evidence; the stage of the tools necessary for a draft plan of the crime scene, etc. [3, p. 306-307]. The category of main organizational measures taken by the criminal prosecution officer prior to begin the investigation of a criminal case with the use of video recording includes: a) determining the recorded actions and objects; b) inviting a specialist and explaining the purpose of the ongoing criminal case using video recording; c) drafting a plan (director's script) of a video film. These general rules should be applied when using video to fix the process of field investigation.

As for the audio recording, it must be made simultaneously photographing the images from the crime scene. Recording of sounds (voices) after capturing images is allowed in cases where it is difficult to obtain a high-quality synchronized phonogram in the process of investigating a crime scene: when recording video during a strong wind or rain; on streets with heavy traffic; in places with high noise levels, etc. [9, p. 29-30]. Mobile forensic laboratories are used to carry out research with a higher degree of complexity, which, in addition to forensic medical examination kits, have the following more important scientific and technical means: a) photo and video equipment, analog or digital, to obtain shots of the crime scene, as well as to record the testimony of victims, witnesses or suspects; b) various detection equipment; c) technical means of identifying persons by external signals; d) own sources of electricity [7, p. 52].

# 5. ADVANTAGES OF APPLYING VIDEO RECORDING TO THE CRIME SCENE INVESTIGATION.

The advantages of applying this form of registration in case of field investigation are the following: it objectively records the ambience of the crime scene in its entirety, i.e. without previous selection of traces and objects possibly related to the given action, as it is usually done in case of fixing the crime scene with the help of procedural means (minutes) and certain techniques (sketching and photography); captures the field investigative

activities in their dynamic development, having a special importance for a fair appreciation of the results of this initial procedural act of criminal investigation; makes possible the reproduction of records at a moderate pace in order to specify the details and circumstances to which, for objective or subjective reasons, less attention was given at the crime scene, etc. Video recording allows to immediately verify the completeness and accuracy of main findings made in the field investigation minutes [3, p. 327; 8, pp. 31].

# 6. ERRORS MADE DURING THE VIDEO RECORDING OF THE CRIME SCENE.

Typical errors made in the course of recording the field investigation results include: a) ignoring the above recommendations; b) quick movements of camera during video recording; c) lack of backup batteries for autonomous video recording; d) recording the discussions and images that have nothing in common with investigative actions at the crime scene; e) violation of the rules for storing video; f) noncompliance with the requirements of the criminal procedure legislation regarding the completion of the field investigation [9, p. 31].

# 7. AUDIO RECORDING AT THE CRIME SCENE INVESTIGATION.

The Criminal Procedure Code does not regulate the use of audio recordings in the field investigation. At the same time, it can be recommended instead of making notes and mentions, which will allow more detailed drafting of the field investigation minutes, so as not to skip some important details of the case. The use of audio recordings helps the criminal prosecution officer to reflect the results of the investigation and the explanations of the participants in this action, to file with the minutes, to record the results of the initial interrogation (hearing) of eyewitnesses, data on potential witnesses, as well as other useful information for the investigation and disclosure of crimes on fresh tracks.

# 8. CONDITIONS OF APPLYING THE AUDIO RECORDING AT THE CRIME SCENE.

If, however, in the course of field investigation, the witness, the suspected, the accused taking part in this criminal investigation manifest a desire to make certain statements, then, beside filling the hearing minutes, a decision of the criminal prosecution officer should be made, as well as, at the request of the afore-

named persons, audio recording can be applied. At the same time, the following provisions of the criminal procedure law must be fulfilled: 1) the persons whose statements are recorded must be informed about the use of audio recordings prior giving appropriate explanations; 2) the audio recording must fully reflect the content and course of the submitted statements. It is forbidden to record only part of the readings or to repeat them on the record; 3) the following information must be stated at the beginning of the audio recording: the place and date of the criminal investigation, the function and personal data of the investigation officer (including other participants in the criminal investigation), the information related to the use of audio recording, its beginning, the technical means used for audio recording; 4) upon completion of the criminal proceedings, the audio recording is reproduced to the persons providing explanations; 5) after the reproduction of the audio recordings the changes should be made in an appropriate way, representing, in fact, the continuity of the phonogram made in the course of the criminal investigation; 6) the audio recording ends with a statement of the interviewed person confirming the authenticity of the record, indicating the moment (time) the investigation ended. All technical characteristics of audio recording equipment must be reflected in the field investigation minutes [9, pp. 32-33].

# 9. ADVANTAGES OF APPLYING AUDIO RECORDING IN THE CRIME SCENE INVESTIGATION.

During the investigation of the scenes of serious crimes, as well as of accidents with significant consequences, the sound recording can be also practiced, the usefulness of which in this procedural action is revealed in two different levels: as a means of preliminary recording of information provided to the authority that arrived at the crime scene by persons who have already realized the act or its consequences, and as a means of fixing the conclusions made during the examination of the crime scene. Obviously, both the first and the second aspects of sound recording represent only a technical way of working. Their tactical significance lies, first of all, in the fact that they have a beneficial effect on the organization and further or immediate implementation of other procedural or non-procedural actions (listening to witnesses, tracking and arresting the offender, etc.). Practice shows that the presence of such a record of statements made at the crime scene does not allow a witness, for example, to easily obey someone else's statements or lie. Secondly, the sound recording of the

results of the crime scene examination and the objects in its environment is superior to the recordings made in writing by the head of the investigation team, and therefore effectively contributes to drafting the field investigation report, ensuring a complete and accurate description of the actual situation. [3, pp. 327-328].

### 10. CONCLUSIONS.

Given the high technology used in the process of recording and playing sounds and images, compared to other means of proof, we can express the opinion that audio or video recordings are likely to provide the judicial body with greater certainty about their authenticity and ability to faithfully render reality. As the on-site application of filming or video recording equipment requires certain special technical knowledge, it is advisable that this activity be attributed to a specialist but, at the same time, remain under the control of the person in charge of the crime scene investigation team.

The advantages of applying video recording in the case of on-site research are the following: it objectively records the ambiance of the crime scene in entirety; captures on-the-spot investigative activities in their dynamic conduct, with particular importance for assessing, at their fair value, the results of this initial criminal investigation procedure; makes it possible to reproduce the recordings at a moderate pace in order to specify the details and circumstances to which, for objective or subjective reasons, less attention has been given on the spot, etc. The tactical importance of audio (sound) recordings lies, first of all, in the fact that they beneficially influence the organization and further or emergency conduct of other procedural or extra-procedural activities (listening to witnesses, following and detaining the perpetrator, etc.). Secondly, the sound recording of the findings of the crime scene examination, of the objects in its environment, is superior to the notes made in writing by the head of the investigation team and therefore effectively contributes to drafting the on-site investigation report, ensuring a complete and accurate description of the facts.

#### 11. BIBLIOGRAPHIC REFERENCES.

- [1] Vasile BERCHESAN. Cercetarea penala (criminalistica teorie si practica). Indrumar complet de cercetare penala. [Criminal research (forensics theory and practice). Complete criminal investigation guide]. Bucharest; ICAR Publishing House and Printing House, 2002.
- [2] \*\*\* Criminal Procedure Code of the Republic of Moldova: Law of the Republic of Moldova no. 122-XV of March 14, 2003. In: Official Gazette of the Republic of Moldova, 2003, no. 104-110. Effective June 12, 2003.
- [3] Simion DORAS. *Criminalistica* [Forensics]. Chisinau: Cartea Juridica Publ., 2011.
- [4] Mihail GHEORGHITA. *Tratat de criminalistica* [Treatise on forensic science]. Chisinau, 2017.
- [5] Alexandru SAVA. *Aprecierea probelor în procesul penal* [Assessment of evidence in criminal proceedings]. Iasi; Junimea Publ., 2002.
- [6] Emilian STANCU. *Tratat de criminalistica*. *Editia a IV-a* [Treatise on forensic science. 4<sup>th</sup> Edition]. Bucharest: Universul Juridic Publ., 2007.
- [7] Emilian STANCU, Teodor MANEA. *Tactică criminalistică (I). Curs universitar* [Forensic tactics (I). University course]. Bucharest: Universul Juridic Publ., 2017.
- [8] LEVI A. *Videozapis' i kinos#emka*. *Spravochnik sledovatelja* [Video recording and filming. Investigator's Handbook]. M., 1990.
- [9] Osmotr mesta proisshestvija. Prakticheskoe posobie. Pod redakciej A. I. DVORKINA [Inspection of the crime scene. A practical guide. Edited by A. I. DVORKIN.]. YURIST Publ., M., 2001.

# THERMAL INSULATION OF BUILDINGS IN CASE OF FIRE. COMPARATIVE EXPERIMENT.

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#### **ABSTRACT**

The construction materials intended for the isolation of buildings should only be used if, from a technical and legal point of view, they comply with technical compliance agreements issued by the institutions empowered in relation to the Romanian legislation in force, in accordance with the requirements of the European Community.

**KEYWORDS:** Night Club, Fire Outbreak Initiation, Fire Outbreak Development, Thermal Insulation, Pub, Fire Outbreak Propagation, Fire.

### 1. Specific and related terminology

**Backdraft** - phenomenon with physicochemical nature, generated due to the manifestation in closed spaces of smoke and hot gases resulting from fires, in conditions of limited ventilation, which materializes by the explosion of accumulated superheated gases, due to the input of air introduced from outside to inside these spaces / premises, in relation to time and space.

**Flash-over** - phenomenon with a physicochemical nature that is generated in closed spaces, in which there are sufficient amounts of oxygen being characterized by the sudden transition from localized / punctual combustion to generalized combustion of all existing combustible materials in a room / in that space; identical wording, generalized combustion.

**Fire** - combustion that initiates, develops and propagates uncontrollably in time and space in a construction, installation, so on.

**Enclosure** - space with a predefined destination in a construction / building, in which a controlled combustion / combustion takes place or, as the case may be, an uncontrolled combustion / combustion (fire); in the sense of interior space, destination of a construction, so on.

**Thermal insulation** - ability (property) of a building structure or a construction, to reduce in a controlled way the heat flow transmitted (generated)

in a closed environment, or in an open environment to a construction, installation, so on.

**Standardized fire test** - fire test performed in relation to international standards, European standards or, as the case may be, Romanian standards harmonized according to international standards and / or European standards.

Thermal insulation material - material used in construction by means of which thermal insulation is made; this category includes all insulation materials for construction, which allow for the coefficient of thermal conductivity  $\lambda$ , with numerical values  $\lambda < 0.25W/(m \cdot K)$ .

**Fire resistant** - ability of parts or construction elements to maintain for a precisely defined period of time the load-bearing capacity, thermal insulation and tightness; these requirements are determined by experimental determinations (standardized tests).

**Reaction to fire** - behavior of a material which, by its own physico-chemical decomposition or together with other combustible materials, fuels an outbreak of combustion or fire, to which it is exposed (subjected) under precisely defined conditions (specified).

**Enclosed space** - space (part of a building) with a precisely defined destination, made constructively as being watertight in relation to the environment and / or the external environment.

**Open space** - space (part of a building) with a precisely defined destination, which from a

constructive point of view, communicates with the external environment.

Enclosed space exactly defined by fire - space that admits known destination established from the project phase in relation to the existence of a building; it may be, as the case may be, open or closed in relation to the place of manifestation of a fire or of a combustion; in the sense, space / room / enclosure in which a fire occurs.

Ventilation - technical means of air circulation by means of pipes constructed in relation to precisely defined standardized requirements or, as the case may be, by means of glazed spaces, doors, unprotected technical openings, vents, so on; the phenomenon is achieved in order to generate overpressure mechanically and / or automatically or as appropriate by using the natural environment (through air circulation); from a technological point of view, ventilation can be performed in forced mode or in natural mode.

# 2. General and specific elements related to the thermal insulation of buildings

Because thermal insulation, intrinsically corresponds to characteristics determined by the "thermal conductivity coefficient"  $(\lambda)$  defined by the physical quantity which needs to be as small as possible as a numerical value and which, from a phenomenological point of view, involves the simultaneous reporting to the three fundamental forms of heat transfer (radiation, convection, conduction), following the initiation, development, propagation of fire outbreaks inside buildings with different destinations.

In this sense, an experimental stand was made for the case study, through which, it is permissible to compare the controlled combustion (combustion) from a physico-chemical point of view from a model built to scale (1:50) in the ratio with that of a full-scale fire (for a construction, considered by the signatories of the article, as having a club destination), for which a dual-purpose thermal insulation, thermal insulation and sound insulation were made.

# 3. General elements regarding the classification of construction products in relation to the concept called "fire behavior"

The concept called "fire behavior" is technically a holistic concept that simultaneously involves two concepts, the fire resistance of construction products and the reaction to fire, which unlike fuel, includes in addition to the behavior of fire / combustion a series of parameters such as, for example, the heat flow, the emission of smoke and flue gases (defined as effluents), the thermal radiation, the propagation of the field of flames in time and space, so on.

According to the provisions of the joint order, M.D.L.P.L.-M.I.R.A. no. 269/431/2008, the old combustibility classes defined in the normative act P 118-99 have been replaced with the current reaction classes to fire, depending on the expected final use of the construction material or element.

The classification of construction products is made in relation to the FIGRA index, as follows: incombustibles A1; practically incombustible A2; practically non-flammable B; hard flammable C; flammable medium D; highly flammable E; highly flammable F.

Table no. 1 shows the Euroclass reaction to fire.

Table no. 1 - Euroclass reaction to fire
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Current Number	Euroclass Reaction to Fire	FIGRA [kW/s]	Flashover Production Time
1.	A1	Less than 0,15	Does not produce flashover
2.	A2	Less than 0,15	Does not produce flashover
3.	В	Less than 0,5	Does not produce flashover
4.	С	Less than 1,5	Flashover after 10 minutes
5.	D	Less than 7,5	Flashover (2-10) minutes
6.	Е	More than 7,5	Flashover in less than 2 minutes
7.	F	No determined performance	

# 3.1 Thermal insulation materials used in construction. Classification

In relation to the nature of their components, thermal insulation materials are classified into inorganic materials and organic materials.

Thermal insulation materials are identified by a product code, according to the European methodology and are classified according to European Community rules as follows: mineral wool thermal insulation - MW code; cellular glass thermal insulation - CS code; expanded perlite thermal insulation - EPB code;

extruded polystyrene thermal insulation - XPS code; expanded polystyrene thermal insulation - EPS code; rigid polyurethane foam thermal insulation - PUR code; phenolic foam thermal insulation - PF code; cork thermal insulation - ICB code; thermal insulation based on wood fibers - WF code; wood wool thermal insulation - WW code.

## 4. Experimental determinations. Case Study

The fire behavior of two of the most frequently used construction materials for the interior insulation of some premises, pubs, so on, the mineral wool with a thickness of 50 mm and the polyurethane sponge with a thickness of 50 mm, which will be exhibited fire in a house-type model, made of gypsum boards.

Clamping / fixing the plates, was made with metal profiles type UD and CD, for which the dimensions of the room / enclosure (L  $\times$  W  $\times$  H) mm, are defined by (2600  $\times$  1200  $\times$  1200) mm.

# 4.1 Interior insulation of the ISOVER type mineral wool model

Mineral wool is a very good technical solution, because it insulates very well, both in the case of low

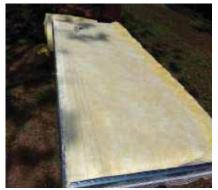


Figure no. 1 - Gypsum board

outside temperatures and in the case of high temperatures, due to the fact that it is a porous material composed of substances that "control" from a phenomenological point of view very well the heat transfer.

The parameter through which the level of energy efficiency of an insulation product is evaluated is the thermal conductivity.

The lower the characteristic numerical value, the better the product is insulating.

It turns out that glass mineral wool with good properties tends to have a thermal conductivity close to that of air, which has the value of  $\lambda = 0.025W/(m \cdot K)$ , which corresponds to a heat transfer that is approximately zero through cotton wool.

The optimization of the transfer phenomenon depends on the quality of the glass mineral wool, the thickness of the insulating layer and the thermal stress to which it is subjected over time.

For the beginning, the gypsum boards were covered with Isover mineral wool 50 mm thick.

The fixing of the mineral wool on the gypsum boards was made with CT 180 Ceresit adhesive and with black type screws and over the wool, for an efficient fixation, a fiberglass mesh was added (Figures no. 1 and 2).



Figure no. 2 - Fixing insulation on the gypsum board

After all the sides of the model were isolated, the plates were joined to obtain the model, as can be seen in Figures no. 3 and 4.



Figure no. 3 - Wall joint view model



Figure no. 4 - Assembled model

After the constructive realization of the model, inside it, the hearth consisting of combustible elements (fir wood) was arranged, arranged at 2/3 of the measured distance from the middle of the model, orthogonally from the entrance to its interior.

The initiation of the combustion / combustion phenomenon was done using a quantity of approximately 5 g of xerox sheet paper, the ignition being made with a match flame.

The fire focus was made so that, its initiation, to develop on the principle of the factor (coefficient) of massiveness.

The model was subjected to a controlled fire or a controlled burning / combustion for about 15 minutes

During this time, the temperature of the indoor hearth increased from 20.18  $^{0}$ C (ambient temperature) up to the value of 1095  $^{0}$ C.

As can be seen in Figure no. 5, in a time approximately equal to 12 minutes, the maximum temperature was reached.



Figure no. 5 - The focus of the fire generated inside the model

After extinguishing the outbreak, the mineral wool with which the model was insulated and the

gypsum were not damaged. This fact results from the views shown in Figures no. 6 a), b), c) and d).



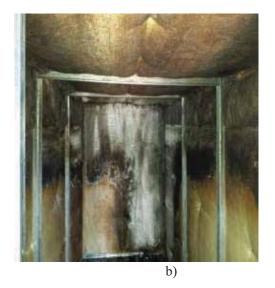






Figure no. 6 - Effects of fire on the mineral wool insulation layer

Following the evaluation made through this experiment, it is estimated that mineral wool insulation is very effective, because the material burns very hard, it can be used as a "thermal barrier" in relation to the phenomenon of fire propagation in / from rooms / enclosures.

# 4.2 Interior insulation of the model with polyurethane sponge

For the beginning, the inner cladding of the sponge model was made, this being fixed from a constructive point of view with the same type of adhesive as mineral wool and then, fastened with screws (see Figure no. 7).



Figure no. 7 - Interior wall cladding with polyurethane sponge

After isolating the model, it was subjected to the same type of fire as mineral wool.

In Figure no. 8 shows how the sponge on the ceiling of the model ignites instantly and the space /

enclosure is then completely engulfed in flames, in less than 1 min. (Figure no. 9).



Figure no. 8 – The ignition of the sponge on the ceiling of the model



**Figure no. 9 -** Widespread fire inside the insulated model

After about 6 minutes of continuous combustion, the temperature inside reaches 954 °C.

The state of facts is revealed by the results of the measurements made using in this sense, infrared thermography (Figure no. 10).



Figure no. 10 - Reaching the maximum temperature inside the insulated model of the burning model

After about a few seconds from reaching the maximum temperature of 954 °C, inside the room / enclosure, it is observed how the sponge that was used

for insulation, melted, and on the gypsum wall it is observed the total detachment and the destruction by burning of the insulating material (Figure no. 11).



Figure no. 11 - Total detachment and destruction by burning of the insulating material

# 5. Conclusions regarding the realization of the experiment

The main conclusion from the experiment corresponding to the case study is that the polyurethane sponge is not suitable for use as thermal insulation and consequently as sound insulation, regardless of the purpose of the rooms to be built, because it ignites (initiates) very quickly and due to its chemical composition, it melts immediately and generates combustion / combustion, "drops" which in turn become sources of initiation (ignition) that have the thermal capacity to ignite (initiate) different compositions of combustible materials on which they fall under the action of the gravitational field, or with which they come into contact, the result being the generation or appearance (initiation) of new ignition points and their multiplication from a physical point of view, simultaneously with the generation of noxious substances (effluents) extremely toxic (smoke and flue gas compounds).

The phenomenon materialized by a "rain of drops" in combustion (burning) in the case of the use of polyurethane sponge or assortments that have the same physico-chemical properties, can generate a very large number of victims, especially if the destinations are overcrowded.

The use of insulations that contain mineral wool from the category of the one used in the experiment, generates real and much safer possibilities having as immediate correspondent, the actions that involve the intervention of staff (performing specific activities) in relation to such spaces, respectively for the intervention which is performed by firefighters, in the sense of the concept of "fire protection".

Thus, the consequences identified and assessed as having an axiomatic nature, in accordance with the current objective reality, which reside for the occupants, intervention personnel, constructions (buildings) and goods, are mainly:

- combustion is delayed much in time and space in the case of mineral wool; in this way, staff in the workplace have much more time to evacuate;

- combustion is delayed, the risks thus residing (risk of intoxication, risk of accident, etc.), appropriate for each occupant, considered individually (punctually) and holistic so that they can be evacuate with their own forces and means, respectively to save themselves, are controllable and easy to achieve; from this point of view, it can be stated that the risk is easy to control if the other cases determined by the observance of the measures, rules, procedures, endowments, so on, are known, applied and used accordingly;

Personnel carrying out specific activities in the workplace, participating in the organization of cultural events, so on, must be trained in how to intervene and must also be aware of the risks that may arise for buildings;

The risks that may arise are controllable in accordance with the fire phenomenon, if the provisions of the legislation in force are complied with, so that the spaces / destinations need to correspond to them, fire

safety authorizations, which involve the correlation of certain concepts such as operational safety, fire stability, noise safety, fire safety, physical safety of personnel, so on.

In relation to the concept of fire prevention, the buildings and / or destinations for which fire safety permits have been issued, are considered to have ensured the endowment with installations, means of prevention and extinguishing of fires, in accordance with the provisions of the regulations in force (sprinkler extinguishers, drenchers, indoor fire hydrants, outdoor fire hydrants, so on).

### 6. Selective Bibliography

## 6.1 Bibliography of authors

- [6.1.1] Mateescu, F. *Thermal insulation of homes*, (in Romanian), 2<sup>nd</sup> Edition Bucharest: M.A.S.T. Publishing House, 2008.
- [6.1.2] Lambă, B., Darie, E., Pavel, D. *Interior insulation of clubs and bars*, (in Romanian), The XIII<sup>rd</sup> Session of Scientific Communications of Students from the Faculty of Firefighters "SIGPROT-2016", Bucharest, Romania April 21, 2016, Matrix Rom Publishing House, Bucharest, 2016.
- [6.1.3] Lambă, B., Darie, E., Pavel, D. *Interior insulation of clubs and bars*, (in Romanian), "*Alexandru Ioan Cuza*" Police Academy Faculty of Firefighters, 18<sup>th</sup> Session of Scientific Communications with International Participation "SIGPROT-2016", Bucharest, Romania (2-3) June 2016, volume SIGPROT-2015-2016-2017", Matrix Rom Publishing House, Bucharest, 2019 (article presented in the plenary of the conference, unpublished).
- [6.1.4] Lambă, B. Fire behavior of thermally insulated construction structures, Bachelor's Thesis

- (in Romanian). "Alexandru Ioan Cuza" Police Academy Faculty of Firefighters. Bucharest. 2016.
- [6.1.5] Lambă, B., Darie, E., Pavel, I. Interior insulation of clubs and bars, (in Romanian), Firemen's Bulletin no. 1/2016, Ministry of Internal Affairs, Bucharest, 2016.

# 6.2 Bibliography. Technical and legal regulations

- [6.2.1]\*\*\*P118-99, Fire safety regulations for buildings, (in Romanian), I.P.C.T. Publishing House, Bucharest, 1999.
- [6.2.2]\*\*\* Order no. 1822 of 07.10.2004 for the approval of the Regulation on the classification and compliance of construction products based on fire performance (in Romanian), published in the Official Monitor no. 90 of 27.01.2005.
- [6.2.3] Grosshandler W., Bryner N., Madrzykowski D., Kuntz K. \*\*\*NIST NCSTAR 2: vol. I, Report of the Technical Investigation of the Station Nightclub Fire 2005.

### 6.3 Bibliography of internet addresses

- [6.3.1]\*\*\*http://www.scritub.com/tehnica-mecanica/FAZELE-INCENDIULUI1956182323.php. accessed on March 9, 2016.
  - [6.3.2]\*\*\* https://ro.wikipedia.org/wiki/Izolare accessed on March 9, 2016.
- [6.3.3]\*\*\*https://ro.wikipedia.org/wiki/Incendi ul din clubul Colectiv- accessed on March 9, 2016.
- [6.3.4]\*\*\*http://stirileprotv.ro/stiri/actualitate/tr agedie-in-bucuresti-un-club-a-explodat-mai-multe-persoane-sunt-resuscitate.html accessed n March 9, 2016.





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