

## Problems of Work Organization in Expert Institutions

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**Abstract.** One of the main responsibilities of public institutions is to ensure the safety of its citizens and protection of their rights. When addressing these challenges, particular importance is given to court expert investigations. The European Council raised the task: to create a unified European forensic science area until 2020. In order to carry out this task, it is necessary to achieve cooperation between different countries in the field of forensic science, to implement general forensic science standards. The aim of article is to examine the problems of criminalists' international cooperation. Lithuanian criminalists joined the process of guidelines implementation for the project of creation of European forensic science area and development of forensic science infrastructure in Europe. Researches of Mykolas Romeris University (MRU) are carrying out the related research since 2005. The article analyses the problems of work organization in expert institutions by analysing the possibility for Lithuania to join the common European forensic science area. The research results show that such work should be coordinated by specific legal acts.

**Keywords:** forensic science, information, European Forensic Science 2020, e-Justice, pre-trial investigation.

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## INTRODUCTION

In addition to the globalization of economy, the globalization of crime is also occurring in Europe and around the world. International terrorism, drug trafficking and organized crime structures are challenging the law and order. To disclose criminal acts, it is necessary to join the forces of law enforcement officers in different countries. Forensic investigations play an increasingly important role when carrying out investigations of criminal acts. With the negative trends in the dynamics of crime, new crime methods and measures, there is a significant increase in the need to use the latest research achievements for investigating crimes and administrative offenses. However, it can be stated that international cooperation opportunities for expert criminalists are limited (Pardo, 2010; Koehler, 2010). Effective development of information dissemination and exchange is possible through using the most advanced electronic means. Development principles of European judicial area are provided in the communiqué of the Commission of the European Communities *Towards a European e-Justice Strategy* (Commission of the European Communities, 2008). E-Justice defines the use of information and communications technologies for better access to justice for citizens and also to increase the effectiveness of judicial activities, i.e. any activities related to dispute resolution or criminal sanctions for certain activities.

When considering the creation of European forensic science area and development of forensic science infrastructure in Europe, the European Council noted that forensic science plays an important role in providing science-based, impartial and objective information, and that forensic science can significantly contribute to greater efficiency and effectiveness of law enforcement, to crime prevention, as well as fight against crime (Council of the European Union, 2011). An important role is given to the information exchange, including biometric and other data (Laurin, 2013). With the occurrence of negative trends in crime dynamics, new crime methods and measures, there is a significant increase in the need to use the latest research achievements in investigating crimes. European Union (EU) criminal area perspectives are analysed by such scientists as M. A. O'Neill (2011), E. Malkoc and W. Neuteboom (2007). For over ten years now, MRU researchers in Lithuania have been participating in the projects aiming is to analyse the perspectives of creating the EU forensic science area and the possibilities to integrate Lithuanian forensic science system into the common EU forensic science area. Part of their work results are provided in this article. The purposes of the article are to summarize the research results, to point out the key issues of international cooperation, to identify the opportunities for criminalists to work successfully in international area. The first part of the article presents the overall analysis of the problems related to the creation of the European Forensic Science Area. 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> parts present the results of different researches on this subject.

### 1. PROBLEMS OF THE CREATION OF THE EUROPEAN FORENSIC SCIENCE AREA

The European Union Council Framework Decision (Council Framework Decision, 2009) states that the European Union is setting an objective of developing and maintaining an area of freedom, safety and justice. Through the joint actions of the Member States, a high level of security must be ensured in the field of police and judicial cooperation in criminal cases. This objective must be achieved by preventing crime and fighting against it – through closer cooperation between the law enforcement institutions of the Member States. It is particularly important to exchange information and intelligence about crime and criminal activities, in order for the law enforcement institutions to be able to successfully prevent, disclose and investigate crime or criminal activities.

Scientists (Pardo, 2010; Koehler, 2010) analyze the main expert criminalists' cooperation issues. E. Malkoc and W. Neuteboom (2007) examine the necessity of forensic science laboratory accreditation in Europe for successful international cooperation.

For 2011, the European Council prepared a *project for the creation of the European forensic science area and development of the forensic science infrastructure in Europe* (Council of the European Union, 2011), which provides the following objectives of the European forensic science area:

- “to support and facilitate cooperation between Member States in relation to forensic science, together with the sharing of the results of forensic science activities and the quality of forensic science,
- to maintain and improve the quality of forensic science provided in Member States through the measures set out in annex,
- to support the Member States in developing approaches which foster closer cooperation between their individual criminal justice systems and the providers of forensic services”.

There are Lack of literature analyzing the same problem in Europe. Scientists-criminalists usually analyzes the specific of different examinations. Interdepartmental cooperation issues are solving by practitioners. Lithuanian researches of Mykolas Romeris University (MRU) examine the forensic work organization in close cooperation with practitioners (Kurapka at al., 2007, 2012; Juodkaitė–Granskienė at al., 2011).

The European Council states that it is necessary to create the European forensic science area until 2020, where general forensics intended for gathering and managing forensics data, and for the use and submission of such data, would be carried out under equal and the most necessary forensic science standards, and where subjects carrying out the forensics would perform their functions in accordance with a common approach to the implementation of these standards, and this would encourage closer cooperation between them and the criminal justice systems. These problems are analyzed by scientists of Lithuania (Bilevičiūtė et al. 2014) and other countries (O'Neill, 2011).

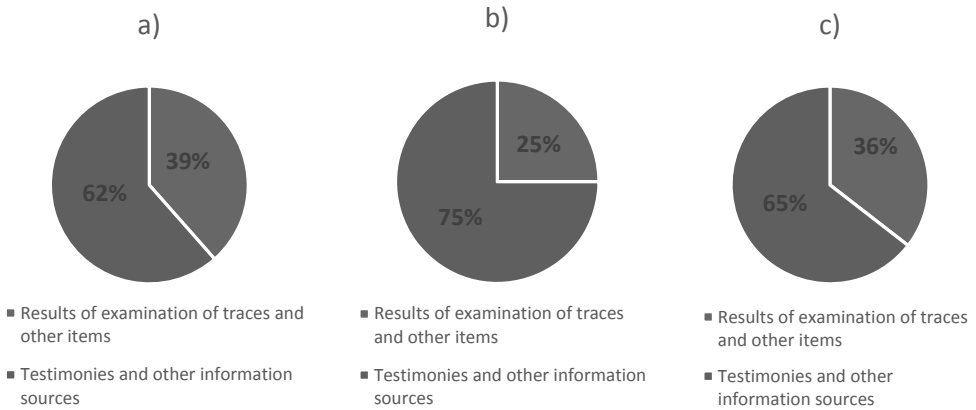
Therefore, the need is emphasized to determine commonly accepted and the most necessary forensic science standards for the gathering and management of forensics data related to DNA characteristics, as well as dactyloscopic and other biometric data, and for the use and submission of such data, and to prepare the European Union to address new challenges occurring in the field of advanced technologies and cybercrimes (Prainsack, Toom, 2010, 2013; Butler, 2015). However, it is not enough to simply change the technologies. Legal professionals also require a new scientific approach which could facilitate the connection of separate law enforcement and law-making links (Pardo, 2010; Gabel, 2014; Luif, 2010; Widener, 2012; Wilson at al., 2014).

Lithuanian researches of MRU during the last 10 years performed a series of studies when analyzing the situation of forensic science and practice in Lithuania, as well as the international cooperation opportunities. Part of the results were examined in paragraphs 2, 3 and 4.

## **2. ANALYSIS OF THE PROBLEMS OF THE APPLICATION LEVEL OF FORENSIC SCIENCE METHODS IN LITHUANIA**

The use of special knowledge is an integral part of effective and qualitative disclosure of criminal activities, particularly when investigating and making decisions regarding serious and very serious crimes. The entire investigation process is very dynamic and flexible. There is no doubt that both the investigator and the prosecutor must organize their work flexibly and creatively in order to achieve optimal results through flexible cooperation (Harvey, 2009).

MRU scientists carried out a survey with officers investigating violent crimes (Threats of crime and human security, 2010). Respondents were provided with a question: what information sources are particularly important when investigating murders, bodily injuries and sexual offenses. Survey analysis results have shown that the results of the examination of traces and other items have the greatest probative value (see Figure 1).



**Figure 1. Importance of information sources: a) particularly important when investigating murders; b) particularly important when investigating bodily injuries; c) particularly important when investigating sexual offenses**

Source: compiled by the authors.

The quality of the investigation of the scene of the event can be ensured if a specialist is invited to participate in the investigation. 100 pre-trial cases of violent crimes were examined during the research. During the analysis of pre-trial investigation material, it was determined that in as much as 83 percent of cases a specialist is called out to participate in the investigation of the scene of the event, who helps to properly examine the scene of the event and properly find, collect and establish any found traces and items with a probative value. These data revealed the great importance of forensic investigations and the work of specialists-criminalists during the crime investigation process.

In 2005–2008, scientists of Mykolas Romeris University carried out a research on the knowledge of forensic science and forensics, and their application level in Lithuania (Kurapka at al., 2007). Respondents represented pre-trial (including the police) institutions, the prosecutor’s office, expert institutions, courts, the bar, etc. It was formed representative random stratified sample. A total of 693 forms with respondent answers were processed during the entire research period. An estimated sample error is  $\Delta = 0.023$ . When analysing the reasons for the ineffective work of police officers in Lithuania when solving crimes, first positions were given to: 29 % - imperfect legislation; 17 % – weak legal knowledge; 8 % – problems with law; 9 % – weak forensic and forensic knowledge; 2 % – problems with guidelines and without the use of forensic expertise institutions opportunities; 11 % – poor organization of work and cooperation between services; 26 % – poor organization of work and cooperation between services; 4 % – lack of ethics and lack of motivation (see Table 1).

Table 1

Evaluation of reasons for the ineffective work of police officers in Lithuania when solving crimes

	1st priority	2nd priority	3rd priority	4th priority	5th priority	6th priority	7th priority	8th priority	9th priority
Imperfect legislation	29%	12%	10%	8%	9%	6%	5%	12%	1%
Weak legal knowledge	17%	16%	14%	12%	10%	6%	9%	5%	1%
Poor organization of work and cooperation between services	26%	21%	9%	8%	8%	8%	12%	4%	0%
Problems with law	8%	12%	19%	13%	14%	13%	8%	2%	0%
Weak forensic and forensic knowledge	9%	12%	13%	21%	17%	8%	8%	2%	0%
Problems with guidelines and without the use of forensic expertise institutions opportunities	2%	8%	13%	15%	15%	22%	10%	5%	0%
Poor organization of work and interdepartmental cooperation	11%	8%	10%	9%	11%	14%	20%	6%	0%
Lack of ethics and lack of motivation	4%	8%	6%	5%	4%	9%	13%	41%	0%
Other	2%	0%	0%	0%	0%	0%	1%	1%	9%

Source: compiled by the authors.

The study showed that the most important problems of reasons for the ineffective work of police office in Lithuania when solving crimes - it's imperfect legislation, poor organization of work and cooperation between services, weak legal knowledge. The expert criminalists qualifications and ethics were evaluated by officers as well, they do not constitute it as a problem. When evaluating the importance of problems in points (1 priority – 9 points, 9th priority – 1 point), the averages of the evaluation of the importance of problems can be calculated (see Fig. 2). It can be seen that the evaluation of the importance of nearly all problems is more than 5 points. Calculation results also showed that the most important are the above-mentioned problems. But enough important are and internal problems of expert's work. The research has revealed the necessity to improve the work of officers in Lithuania. However, the most is needed the external legal and administrative regulation.

The research has shown that Lithuania has expert and forensic activity problems related to the accreditation of forensic laboratories and implementation of the personnel certification standard. This is also confirmed by the processes and factors occurring in Europe. It is necessary “to ensure that the results of laboratory activities carried out by accredited forensic service providers in one Member State are recognised by the authorities responsible for the prevention, detection and investigation of criminal offences as being equally reliable as the results of laboratory activities carried out by forensic service providers accredited to EN ISO/IEC 17025 within any other Member State” (Council Framework Decision, 2009).

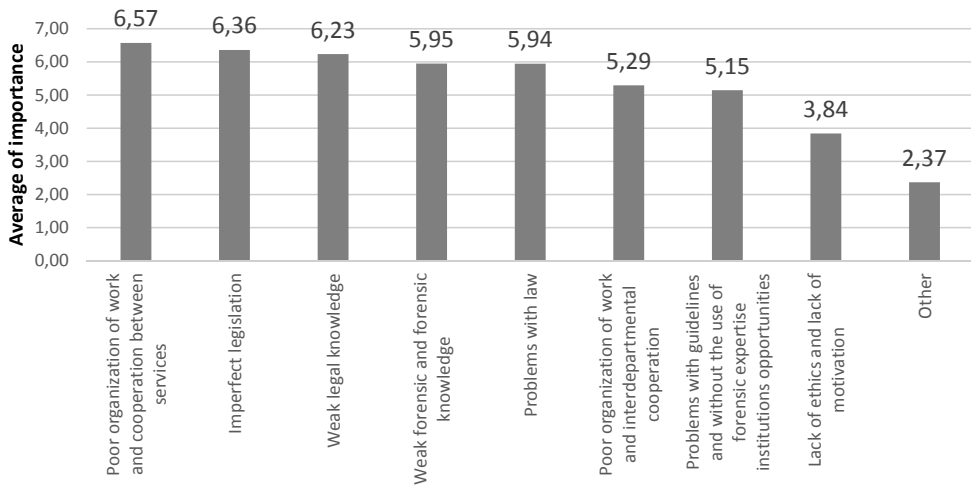


Figure 2. Evaluation of reasons for the ineffective work of police officers in Lithuania when solving crimes

Source: compiled by the authors.

### 3. INTERNATIONAL ORGANIZATION AND REGULATION OF THE WORK OF CRIMINALISTS

Scientific integrated development programmes for the use of special knowledge when investigating crimes are prepared in most of the European Union countries, as well as the USA (National Research Council, 2009). In 2011, MRU scientists began to carry out a new scientific research programme “Scientific Concept of Application of Special Knowledge in Crime Investigation and its Realization Mechanism”. The researchers examined the results of earlier studies. Research (Final Report, 2007) initiated by the European Network of Forensic Science Institutes (ENFSI) found a lot of obstacles that interfere with achieving good results when solving crimes. The research points out the importance of cooperation and the necessity to share information and databases. The issue of the equal preparation of experts is raised. A group of researchers created an *Expert Cooperation Model*, which helped to determine the possibilities of international cooperation in the field of forensics:

- mutual support among forensics institutions in order to achieve an appropriate level of preparation when presenting the work of experts;
- mutual support among forensics institutions after major incidents or a terrorist attack;
- sharing of forensics information in databases;
- transfer of forensics expert conclusions to another country, by supporting criminal prosecution;
- arrival of forensic experts from another country.

The research has once again confirmed that effective international cooperation is possible only based on the forensic science quality standards. The intensified exchange of information related to forensic evidence, and the increasing use of evidence acquired in one Member State and used in the court proceedings carried out in another Member State point out the need to establish common standards for forensic service providers. The accreditation of forensic service providers is an important step in order to exchange forensic information within the EU more safely and more effectively.

MRU investigators conducted a questionnaire survey. The aim of the survey was to analyse the quality assurance of research carried out by foreign scientific expert institutions and accreditation mechanisms, and determine whether there is any special training provided in universities. The questionnaires were distributed in the forensic science symposium in Bratislava<sup>1</sup>. Answers from 89 questionnaires were obtained. Target population: experts and criminalists, scientists and practitioners from the following countries: Austria, Australia, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, France, Germany, Greece, Hungary, India, Ireland, Latvia, Lithuania, Montenegro, Netherlands, Norway, China, Poland, Portugal, Macedonia, Romania, Russia, Slovakia, South Africa, Spain, Turkey, Ukraine, United Kingdom, United States. The match of opinions between the respondents is analyzed by calculating the *Kendall* concordance coefficient *W*. It can be observed that the opinions of respondents were similar on all problems ( $W = 0,567$ ;  $p = 0,000$ ). Several question groups can be distinguished in the questionnaire. Factor analysis was additionally carried out in the question groups.

*Group 1.* Expert criminalist preparation and qualification improvement problems. The results of the analysis revealed that these problems depend on two factors: expert preparation system and expert preparation standards ( $KMO = 0,529$ ,  $p\text{-level} = 0,000$ ). The analysis of variables revealed that there is a target development of forensic science; expert qualification improvement is regulated, but not sufficiently; expert preparation is only partly systematized; a lot of attention is paid to forensic science development and expert qualification improvement; forensic science studies are not sufficiently regulated.

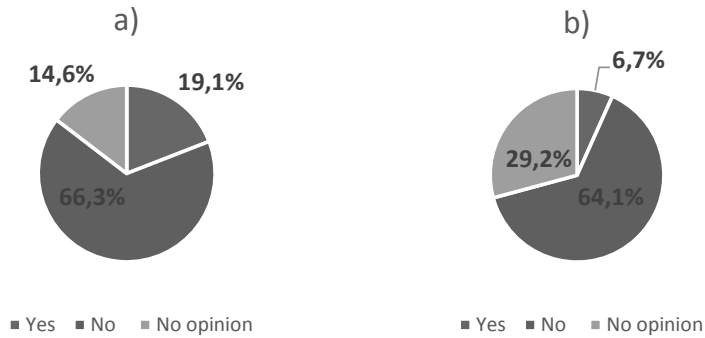
*Group 2.* Problems regarding the legal regulation of expert activities. Respondents described various problems: 28,1 percent – organizational and ethical; 15,7 percent – legal status of the head of an expert institution, 14,6 percent – circle of subjects with the right to assign an expert examination, 13,5 percent – other problems, 11,2 percent – regulation of the execution of complex examinations, 10,1 percent – assignment of necessary examinations. The analysis of variables revealed that the Law on Forensics in adopted in only half of the countries.

*Group 3.* Financial problems regarding expert activities. The analysis of variables revealed that the general expert service pricing system is established only in the smaller part of the countries. Almost no general expert service pricing system was determined among private experts, and pre-trial investigators have almost no funds to carry out the examinations.

*Group 4.* Problems regarding expert activity control. Results of the analysis have shown that these problems depend on two factors: expert activity control and expert activity coordination ( $KMO = 0,568$ ,  $p\text{-level} = 0,000$ ). The analysis of variables revealed that external control is almost never applied on expert examinations; examination control system is established insufficiently; mandatory laboratory accreditation standards are established rather strictly; mandatory expert certification standards are applied insufficiently; expert activities are almost uncoordinated; private expert activities are mostly coordinated centrally. Only 19,1 percent of respondent indicated that their country has a forensics expert activity coordination council (or a similar institution), 6,7 percent of respondents indicated that external control is applied on expert examinations (see Fig.3).

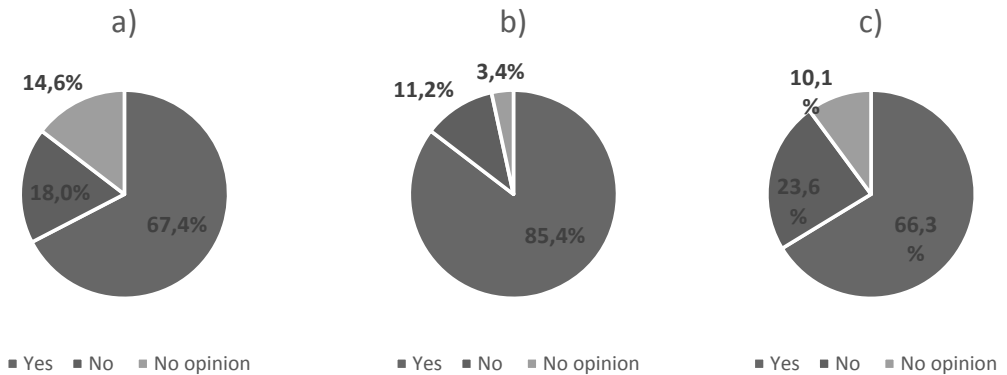
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<sup>1</sup> 10th International Symposium of Forensic Sciences, 2011 09 27-31, Bratislava.



**Figure 3. Foreign expert answers: a) their country has a forensics expert activity coordination council (or a similar institution); b) external control is applied on expert examinations**  
 Source: compiled by the authors.

However, 67,4 percent of respondents stated that their countries have an established examination quality control system, 85,4 percent - mandatory laboratory accreditation standards are established, 66,3 percent - mandatory expert (criminalist) certification standards are established (see Fig 4.). This shows that a lot more attention is paid to examination certification than examination control and coordination.



**Figure 4. Foreign expert answers: a) their country has an established examination quality control system; b) mandatory laboratory accreditation standards are established; c) mandatory expert (criminalist) certification standards are established**  
 Source: compiled by the authors.

The study showed that there is a lot of joint expert work organization problems. Expert’s professional development, criminalists’ studies are insufficiently regulated. Not all countries have legal regulation on the activities of experts. There is no common expert services pricing system, there is the lack of funds for the examinations. Expert examinations are almost uncontrolled by external control, although a lot of emphasis on testing for certification. It was found, that there are fundamental differences in the organization and con-



trol of forensic examinations in different countries. It is necessary to harmonize expert work standards when organizing continuous data exchange. Otherwise, it is impossible to realize the possibilities of international cooperation in the field of forensics that link ENFSI experts.

#### 4. PREPARATION OF THE LITHUANIAN FORENSIC SCIENCE SYSTEM FOR INTEGRATION INTO THE EU

The organization and control of the forensics field is the main problem in Lithuania. The carried out international research on the condition and need of using special knowledge when investigating criminal activities helped create the concept of Lithuania's expert examinations, and should also be helpful in the future by more actively including the Lithuanian expert forensic science system into the international arena, especially when implementing the vision for European forensic science 2020. Lithuanian scientists carried out a SWOT analysis according to the project "*Conception of the vision for European Forensic Science 2020 implementation in Lithuania*". SWOT analysis enables to analyse the strong and weak points of the organization by evaluating its ability to adapt to external changes. Respondents were provided with a thematic SWOT analysis questionnaire. Questions will be based on theoretical analysis. Respondents evaluated the importance of factors of the Lithuanian forensic science system in points from 1 (completely unimportant) to 5 (very important). Activity results in this area were evaluated in points from 1 (completely unsatisfactory activity) to 5 (great activity). The list of external factors (opportunities and threats) is provided in Table 2, and the list of internal factors (strengths and weaknesses) is provided in Table 3. 103 respondents were surveyed – law enforcement officers: investigators, specialists, experts and prosecutors. Questionnaire reliability was evaluated by applying the *Cronbach alpha* coefficient ( $\alpha = 0,958$ ), the questionnaire was prepared appropriately.

Averages of the evaluation of factors were calculated when analysing the results of the carried out research. The list of external factors (opportunities and threats) is provided in Table 2. Evaluation results are provided in Figure 5.

Table 2

##### External factors (opportunities and threats)

Ext 1	Need for international cooperation and sharing of best practices with foreign investigating bodies
Ext 2	Response to international crime
Ext 3	Need for accreditation
Ext 4	Need for creating a common database among all EU Member States
Ext 5	Regulation of unanimous evidence collection in the EU Member States
Ext 6	Joint forensic science exercises of several Member States
Ext 7	Need for involvement of other areas of scientists in the development of criminal investigations tools and methods
Ext 8	Need for continuous update of criminal investigations methodologies
Ext 9	Need for the renewal of criminal investigations tools, appliances, equipment and infrastructure

Source: compiled by the authors.

It can be observed that the importance of all the external factors was averagely evaluated by more than 3 points. The most important factors – "*Need for international cooperation and sharing of best practices with foreign investigating bodies*" and "*Need for the renewal of criminal investigations tools, appliances, equipment and*

*infrastructure*". Results of all the factors were evaluated lower than the importance of problems. However, by taking into account the evaluation of factor importance, it is possible to determine what part of the evaluation of importance is comprised of the evaluation of activity results. It can be stated that part of the evaluation of the activity result of all the factors comprises more than 50 percent of activity importance. This means that all the indicated factors can be evaluated as opportunities (see Figure 5). Research results show that a lot of work is required in order to realize the *Conception of the vision for European forensic science 2020* in Lithuania and to improve international cooperation, even though specialists evaluated Lithuania's potential fairly well.

The importance of external factors depends on three factors ( $KMO = 0,898, p\text{-level} = 0,000$ ). Factor 1 (Ext 1, Ext 3) – international cooperation, factor 2 (Ext 8, Ext 9) – update and renewal of investigation methodologies and tools, factor 3 (Ext 2, Ext 4 – Ext 7) – unanimous crime investigation and data collection regulation.

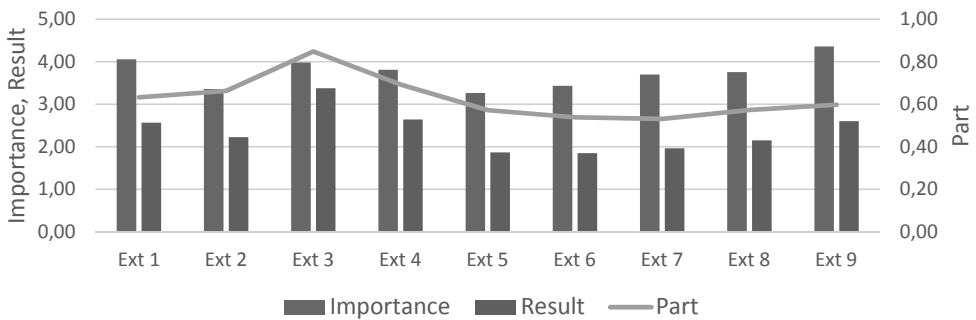


Figure 5. External factors (opportunities and threats)

Source: compiled by the authors.

The list of internal factors (strengths and weaknesses) is provided in Table 3. Evaluation results are provided in Figure 6. It can be observed that the importance of only three internal factors was averagely evaluated by less than 3 points. These factors are: "Need to have institution to coordinate the activities of all forensic science and forensic institutions", "Activities of the Coordination Council", "Implementation of research on Vision 2020". The importance of other internal factors was averagely evaluated by more than 3 points.

Table 3

Internal factors (strengths and weaknesses)

Int 1	Need to have institution to coordinate the activities of all forensic science and forensic institutions (need for scientific institution)	Int 14	Level of communication and cooperation between the Lithuanian Police Forensic Science Centre and Lithuanian Forensic Examination Centre and other judicial and law enforcement authorities
Int 2	Part of specialists travelling to conferences and business trips abroad	Int 15	Duration of expert examinations
Int 3	Motivation for professionals	Int 16	Appointment of re-examinations
Int 4	Qualification level (need for continuous in-service training)	Int 17	English language proficiency level for investigating officers

Int 5	Need for compulsory forensic studies, wider studies, more practical workshops	Int 18	Implementation of research on Vision 2020
Int 6	Need for long-term financing for the implementation of the Vision 2020 program	Int 19	Avoidance of application of expert bodies
Int 7	Workload of employees of expert institutions and officials of pre-trial investigation	Int 20	Bridging the gap between science and practice of forensic science
Int 8	Competitiveness of remuneration	Int 21	Reduction of human resource shortages
Int 9	Condition of forensic police station premises	Int 22	Public attitudes to the work of investigating officers and crime investigation
Int 10	Timely payment for forensic services by the courts	Int 23	Need for university-level programs that focus on the preparation of relevant experts in Lithuania
Int 11	Activities of the Coordination Council	Int 24	Need for political decisions on the improvement of law enforcement activities
Int 12	Legislation regulating the procedure for the appointment of private expert examinations and their legal effect	Int 25	Need for database update and rearrangement of Lithuanian expert examination institutions
Int 13	Financing of criminal investigation of offenses		

Source: compiled by the authors.

Results of all the problems were evaluated lower than the importance of problems. By taking into account the evaluation of problem importance, it is possible to determine what part of the evaluation of importance is comprised of the evaluation of activity results. It can be stated that part of the evaluation of the activity result of all the factors comprises more than 50 percent of activity importance. This means that all the indicated factors can be considered as strengths (see Figure 6). The research enabled to determine the main problems, the solution of which will help implement Lithuania’s integration into the common European forensic science area.

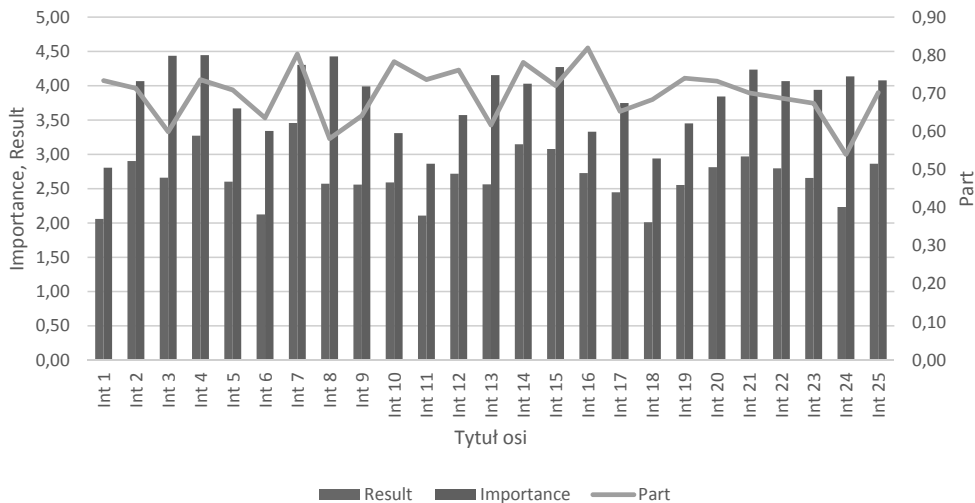


Figure 6. Internal factors (strengths and weaknesses)

Source: compiled by the authors.

The importance of internal factors depends on three factors ( $KMO = 0,810$ ,  $p\text{-level} = 0,000$ ). Factor 1 (Int 1, Int 5, Int 6, Int 11, Int 17 – Int 19) – coordination of expert activities, factor 2 (Int 2 – Int 4, Int 8, Int 21, Int 23 – Int 25) – human resource control, factor 3 (Int 7, Int 9, Int 10, Int 12 – Int 16, Int 20, Int 22) – legal regulation of expert activities.

The research has shown that Lithuanian forensic science has not yet reached the required level (evaluation of activity results is lower than the evaluation of activity importance). However, all external factors can be evaluated as opportunities, and all internal factors – as strengths. Lithuanian forensic science has great potential to join the common EU forensic science area.

## CONCLUSION

It is necessary to improve pre-trial investigation effectiveness in order to ensure the safety of people when investigating criminal activities. Scientific recommendations system must be harmonised in forensic science and should include modern forensic science achievements, the legal base for the investigation of criminal activities and pre-trial investigation practices.

Law enforcement institutions are currently using the data of forensics carried out by EU Member States on a cross-border level, however these data are entered into the electronic data systems used across the entire Europe, without following any recognized quality standards. Therefore it is necessary to increase the trust for mutual standards, applied for the collection, management, use and submission of forensics data. It is necessary to establish common quality requirements based on which such data could be considered as acceptable for use by police and judicial authorities. Subjects carrying out forensics in Member States can act as branches of law enforcement institutions or as independent public or private organizations and persons. Data exchange between the EU countries requires data unification, as each country applies its own forensic science data systems which complicates cooperation and data exchange automation.

Most of the objectives of the European Forensic Science 2020 vision can be achieved only on the basis of scientific research carried out by a wide circle of scientists. Based on the carried out research in Lithuania and the world, it is suggested to optimize the activities of expert institutions in the country by combining them into certain institutes, and formulate a scientific concept of application of special knowledge in crime investigation and its realization directions.

Our carried out research and SWOT analysis enabled to analyse the strengths, weaknesses, threats and opportunities of the Lithuanian forensic science system. The research has shown that, both due to external and internal factors, all the activity results were evaluated lower than the importance of factors. This shows the necessity to improve the organization of the Lithuanian forensic science system and the work of criminalists. However, when determining what part of the importance evaluation is comprised of the evaluation of the activity result, it can be stated that due to all the factors it comprises more than 50 percent. This means that practically all the analysed factors can be considered as strengths and opportunities. And this also means that Lithuanian criminalists have a good chance of integrating into the common European forensic science area. The following factors can be distinguished as the main strengths: “*Workload of employees of expert institutions and officials of pre-trial investigation*”, “*Qualification level (need for continuous in-service training)*”, “*Level of communication and cooperation between the Lithuanian Police Forensic Science Centre and Lithuanian Forensic Examination Centre and other judicial and law enforcement authorities*”, “*Duration of expert examinations*”. Main opportunities: “*Need for accreditation*”, “*Need for creating a common database among all EU Member States*”, “*Response to international crime*”. However, it is necessary to strengthen the largest part of

the external and internal factors. Research results will be used for the implementation of the second stage of the project “*Conception of the vision for European Forensic Science 2020 implementation in Lithuania*”.

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