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Use of Special Knowledge in Investigation of Crimes in Lithuania: New Challenges



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Lithuania should ensure strategic, integrated multi-level forensic analysis, rational and potential use of material by not only dealing with a variety of forensic issues, but also by the interpretation of criminal investigation and prevention on scientific, methodological, didactic and organizational levels. In most Member States of the European Union, as well as in the U.S., the integrated development programmes of scientific expertise are currently implemented in criminal investigations. Further analysis of the use of special knowledge for the procedural and organisational issues in investigation of crimes allows creating the scientific conception of the use of special knowledge in the investigation of crimes. This concept is consistent with major elements of forensic science of the European Union countries, in order to optimise the inception of the most advanced technologies in the investigation process of crimes and manage its legal framework for the purpose of developing an effective system of scientific and practical institutions, avoiding duplication and saving money. To this end, we organised a group of scientists, entitled “Scientific conception of applying special knowledge in the investigation of crimes and its implementation mechanism”, financially supported by the Lithuanian Scientific Council. Project is based both on results of previous empirical research accomplished in Lithuania, as well as on results of survey of officers from law enforcement institutions, on similar processes’ analysis in EU and USA, basic European Council resolution on “Accreditation of criminalistics laboratories” and a specially accomplished survey of specialists-criminalists from 35 countries. The purpose of the project is to formulate the scientific concept and realisation of special knowledge in the investigation of crimes in the direction of legal system reform. Project’s main ideas would correspond with Resolution 19/15 “International cooperation in the forensics field” of the Commission on Crime Prevention and Criminal Justice.

INTRODUCTION

Bearing in mind the objective set by the European Union (EU) of fostering and developing the Union as an area of freedom, security and justice (FSJ), whereby high-level safety is to be developed by common actions among EU Member States in the field of police and judicial cooperation, the

EU Council has highlighted the need to solve the problems that crime poses to EU societies in a harmonized, comprehensive and effective manner¹. During the discussions on the creation of a European area of forensic standards and the development of forensic science infrastructure in Europe, the Council has noted that forensic science

plays an important role in realising the goal of providing science-based, unbiased and objective information, that it can significantly contribute to making law-enforcement more efficient and effective, and in preventing and combating crime, inter alia, through increasing the possibilities for closer cooperation between law-enforcement authorities in EU Member States, at the same time respecting the principles and rules relating to human rights, fundamental freedoms and the rule of law on which the Union is based and which are common to all EU Member States. The Council highlights the need to create a European forensic science area that will be an area in which routine forensic processes for the collection, processing, use and delivery of forensic data are based on equivalent minimum forensic science standards, in which forensic service providers will work on the basis of a common approach to the implementation of these standards that fosters closer cooperation between them and the criminal justice systems by 2020. Such research of forensic, procedural and organizational challenges in the field of using special knowledge for crime investigation purposes would allow optimizing the introduction of advanced technologies into crime investigation processes, and adjusting the respective legal basis. It would help creating an effective network of competent science and expert institutions, avoiding lay-over of functions, saving financial resources and eliminating possible inter-departmental interest.

In many EU Member States as well as in the US, scientific programmes for complex development of application of special knowledge for crime investigation purposes are currently being drafted. The most competent scientific institutions are commissioned to draft them. For instance, the US Congress has commissioned the National Research Council of National Academies

to prepare a programme for promoting forensic science in the country. Availability of such documents is of top importance for Lithuania as well; hence a working group has been formed by Decree of the Prime Minister of the Republic of Lithuania of 28 January 2010 to examine this issue. In its conclusions, this working group has stated that the biggest challenge currently is the issue of management and organization of forensic expertise: the system of forensic science is in need of reorganization and the definition of a clear strategy and priorities for activity and development of forensic science institutions. This issue has to be tackled at government level, since the arising problems can not be solved at departmental level. Further analysis of forensic, procedural and organizational challenges in the field of application of special knowledge for investigating crimes would empower drafting a framework for scientific concepts on the use of special knowledge in the crime investigation procedure. This concept would be in line with general forensic science provisions of other EU Member States, would allow optimizing introduction of the most advanced technologies into crime investigation procedure, and adjusting the respective legal basis, would help creating an effective network of competent science and expert institutions.

Reform of a legal system calls for the development of a structure for specialist training and the assurance of availability of high qualification specialists for law-enforcement institutions, including specialists who have forensic knowledge and skills who are capable of working in various structures of forensic expertise. This should be done in line with higher education qualification requirements. Hence universities should pay more attention to this issue not only in gaining financial resources for their activity, but also seeking to implement their mission of increasing security of the society.²

MAIN PROBLEMS OF EXPERT ACTIVITY

One of the main obligations of the state to its citizens is to ensure their security and the protection of their rights. In performing these tasks, special prominence falls on forensic expertise. Forensic examinations become more and more important in the crime investigation processes. For the purposes of investigating the crimes that go beyond the borders of one state, for instance, terrorism, trafficking in human beings, money laundering or counterfeiting, it is of high importance to cooperate internationally. Such cooperations should be implemented at world-wide level.

In a study³ initiated by the European Network of Forensic Science Institute (ENFSI), a number of obstacles in achieving good results in crime investigation have been identified. Attention has been drawn to the fact that investigators in a general sense, courts and experts have difficulties in communication (fail to understand each other): public prosecutors fail to understand expert data, often they do not comprehend the fact that they may be able to recognize the research part of an expertise, whereas judges have no knowledge of expertise methods. The ENFSI study emphasizes the importance of cooperation, the need to share intelligence and database information. The issue of common training of experts has also been raised. The study team has developed a Forensic Cooperation Model. This model describes the flows of forensic information and knowledge – both inside individual states, as well as internationally. The study reaffirmed that effective international cooperation may be achieved only on the basis of forensic quality standards.

Intensified exchange of information regarding forensic evidence and increased use of evidence from one member state in the judicial processes of another stresses the need to establish common standards

for forensic service providers. Information originating from forensic processes in one member state may currently be associated with a level of uncertainty in another member state regarding the manner in which an item has been handled, what methods have been used and how the results have been explained. The accreditation of forensic service providers carrying out laboratory activities is an important step forward to a safer and more effective exchange of forensic information with the EU. Accreditation will help to establish mutual trust in the validity of the basic analytic methods used. However, accreditation does not state which method to use, only that the method used has to be suitable for its purpose.

Crime suppression and control requires complex reforms in the broadly comprehended law-enforcement system, including the reform in the preparation of the specialists who would be able not only to apply drafted techniques, methods and measures, but also to independently analyse and creatively apply the achievements of other sciences in investigating crimes, as well as to write original scientific research works in the field of forensics.⁴

Development of each structure calls for not only universal specialists-executors, professionals with narrow specialization, specialists-organizers in a particular field, but also for top-level specialists-analysts, who are capable of finding, adapting and applying the achievements of other branches of science, including those related to law-enforcement activity. Among those – forensic scholars, who would not only adapt these achievements, but would also be able to generate new original forensic techniques, methods, measures for identification, recording, examination and the use of exhibits.

At Western Europe universities, forensics techniques do not hold any proper position yet, despite the attempts to include it into

curricula. There are forensic institutes at German, Austrian and Swiss universities which develop forensic science. However, the fact that criminalistics is not included into the curricula as an individual subject or as an optional one, is considered as a regress by local lawyers. Hence, the discussion on the need to include a training on identification, recording, examination and evaluation of evidence is being raised exceptionally sharply.⁵ Due to shortsighted steps taken to eliminate forensic studies from universities, students of some Western European universities choose specialized studies on criminalistics at Eastern European universities following international student exchange programmes, whereas tutors raise their qualification here and gain scholar degrees in forensics.

It is worth noting that in the United States of America, as well as in a number of other countries, a rather high interest in studies of criminalistics and forensic science at universities is recently being noticed. Forensic science and its separate programmes get a lot of attention: various curricula are offered by 354 US universities, 29 universities in the UK, 14 in Canada, 23 in Australia, and e.g., in India the first institute of forensic science is established (Gujarat Forensic Science University).⁶

In December 2011, the EU Council drafted the vision on the Creation of European Forensic Science Area and the development of forensic science infrastructure in Europe⁷, stating that this area will also include the following aims:

- ▶ to support and facilitate cooperation between EU Member States in relation to forensic science, together with the sharing of results of forensic science activities and the quality of forensic science,
- ▶ to maintain and improve the quality of forensic science provided in EU Member States through the measures set out in the annex to the drafted vision,

- ▶ to support EU Member States in developing approaches that foster closer cooperation between their individual criminal justice systems and the providers of forensic services.

The Council highlights the need to create a European Forensic Science Area in which routine forensic processes for the collection, processing, use and delivery of forensic data would be based on equivalent minimum forensic science standards, and in which forensic service providers would work on the basis of a common approach to the implementation of these standards, thus fostering closer cooperation between them and the criminal justice systems by 2020.

The authors of this article have carried out a research on the status quo and the demand of using special knowledge for crime investigation purposes in an international background.

THEORETICAL VALIDATION AND INSTRUMENTS OF RESEARCH

This research has been performed on the basis of document analysis, descriptive, analytical-critical methods, scientific literature analysis, historic analysis, systematic analysis, comparative, resource content analysis, meta-analysis and similar methods. Definitions of the use of special knowledge for crime investigation has been investigated through systematic analysis, operationalisation, deduction and modeling, as well as by extracting typical characteristics. After extracting typical features of special knowledge applications for the investigation of different types of crimes, a matrix of the use of special knowledge was drawn on the basis of comparison, induction and modeling to define the importance of special knowledge for investigating crimes. On the basis of the analysis of activity of law-enforcement

institutions, based on document content analysis, mathematical statistics analysis, interview and modeling, the influence of special knowledge application for crime investigation, the formation of crime investigation techniques, their tendencies and development have been interpreted. For research purposes, the widest possible geographic, institutional, positional sample has been taken by the authors, who have joined empirical research with legal bases, analysis of theoretical concepts and their implementation, used their own research, the practice of participation in various working groups and committees, as well as information gathered in the course of discussions with officers and colleagues.

Additionally, survey has been conducted by circulating an English questionnaire. Twenty questions have been formulated. Also, on separate sheets of paper, the respondents have expressed their personal opinions, thus supplementing the pre-formulated questions. The main purpose was to analyse the mechanisms of quality assurance and accreditation of examinations in foreign scientific expert institutions, and to determine the presence of special training at universities.

Questionnaires were circulated at the symposium in Bratislava⁸ on 27–30 October 2011. 130 questionnaires were distributed and 89 returned. The population surveyed were experts and crime investigators, scholars and practitioners from the following countries: Austria, Australia, Azerbaijan, Belorussia, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, France, Germany, Greece, Hungary, India, Ireland, Latvia, Lithuania, Montenegro, the Netherlands, Norway, China, Poland, Portugal, Macedonia, Romania, Russia, Slovakia, South Africa, Spain, Turkey, Ukraine, UK and USA.

For data processing the SPSS package has been used. Correspondence of respondents' opinions has been analyzed by calculating Kendall's coefficient of concordance (W). Compatibility of respondents' opinions on all questions and question groups has been observed. Highest correspondence of opinions has been on Q5, Q6, Q7, Q10, Q11, Q12 (W = 0.567; p = 0.000); Research error $\Delta = 0.1$.

Factor analysis of individual variable groups has been performed. The analysis allows to distinguish several groups in an array of variables, called factors. Variables that highly correlate with each other or that have weak or no correlation with other variables, forming other factors, may be joined into one factor. Pearson criterion χ^2 is used to identify links between different variables.

SEVERAL GROUPS OF QUESTIONS MAY BE DISTINGUISHED:

Group one

The questions Q1, Q3, Q4, Q8 and Q9 define problems related to experts-criminologists training and their qualification development:

- ▶ Q1: Do universities have specialized qualification development courses for experts, specialists? Is criminalistics taught? Most respondents (76.4 per cent) have given a positive answer and 23.6 per cent – negative answer to these questions. This shows that much attention is given to teaching criminalistics and development of expert qualification.
- ▶ Q3: Is a strategy on forensic science and curricula drawn? Here most respondents (76.4 per cent) answered positively, 20.2 per cent – negatively, and only 3.4 per cent had no opinion. That shows that the development of forensic science is performed in a purposeful directed manner.
- ▶ Q4: Is there an institution in your country

that supervises study standards and accreditation of criminalistics curricula at higher education schools? In this case, opinions of the respondents have split into nearly equal parts: 33.71 per cent answered positively, 35.96 per cent – negatively, 30.34 per cent had no opinion. This indicates that the studies of criminalistics are not regulated properly.

- ▶ Q8: Is the procedure of expert qualification development regulated in your country? Over half of the respondents (62.9 per cent) responded positively, 24.7 per cent – negatively, 12.4 per cent had no opinion. That proves that the process of qualification development is regulated, but not enough.
- ▶ Q9: Is there a system in place in your country for specialist training and their qualification development? About half of the respondents (52.8 per cent) answered this question positively, 30.3 per cent negatively, 16.9 per cent of the respondents had no opinion. That shows that systematical expert training is only partially implemented.

Factors that influence the problems of training and qualification development of experts-criminalists were defined on the basis of the method of factor analysis of variables (Q1, Q3, Q4, Q8, Q9). KMO and Bartlett's Test results show that the data were suitable (KMO = 0.529, p-level = 0.000) for factor analysis. Based on criteria of Kaiser and Catell screen there are two factors that explain 59.62 per cent of general dispersal of the variables. Rotated Component Matrix provides the opportunity to define the main factors that influence problems in the training and qualification development of experts-criminalists. In this case, the first factor is the expert training system (this factor is related to variables Q3, Q8, Q9). The second factor is expert training standards (this factor is related to variables Q1, Q4).

The results of the analysis may be summarized: the problems of training and qualification of experts-criminalists mainly depend on two factors, namely the expert training system and the expert training standards. Analysis of the variables related to these factors shows that the science of criminalistics is developed purposefully; experts' qualification development is regulated, but not enough; systematical expert training is only partially implemented (expert training system); tutoring criminalistics and expert-qualification development receive a lot of attention everywhere; the studies of criminalistics are not regulated enough (experts training standards).

Group two

The questions Q5, Q6, Q7, Q10, Q11 and Q12 define problems associated with control of expert activity:

- ▶ Q5: Is there a board (or similar service) for coordination of forensic experts' activity in your country? Over a half of the respondents (66.3 per cent) answered this question negatively, only 19.1 per cent of the respondents – positively, 14.6 per cent had no opinion. That shows that expert activity is barely coordinated.
- ▶ Q6: Who coordinates and controls the activity of private experts? One third of the respondents (38.2 per cent) indicated that the activity of private experts is coordinated by governmental organizations, 20.2 per cent answered that the coordination is performed by other organizations, 14.6 per cent named a coordinational expert board, 12.4 per cent – individual expert organizations, 11.2 per cent – none, 3.4 per cent – an union of private experts. That shows that the activity of private experts is mainly coordinated centrally.
- ▶ Q7: Is external control applied on expert examinations? Over a half of the re-

spondents (64 per cent) answered this question negatively, only 6.4 per cent – positively, and nearly a third of the respondents (29.6 per cent) gave no opinion. That shows that expert examinations are barely subject to external control.

- ▶ Q10: Is there an examination quality control system in place in your country? Over two thirds of the respondents (67.4 per cent) answered this question positively, only 18 per cent – negatively, and 14.6 per cent had no opinion. That shows that an examination control system is not sufficiently set.
- ▶ Q11: Are there mandatory laboratory accreditation standards in place? The biggest part (85.4 per cent) of the respondents answered this question positively, only 11.2 per cent negatively, and 3.4 per cent gave no opinion. That shows that laboratory accreditation standards are established strictly enough.
- ▶ Q12: Are there mandatory expert (criminalist) certification standards in place? Over a half of the respondents (66.3 per cent) answered this question positively, 23.6 per cent – negatively, 10.1 per cent had no opinion. That shows that mandatory certification standards are applied insufficiently.

Factors that impact problems of expert activity control were defined on the basis of factor analysis of variables (Q5, Q6, Q7, Q10, Q11, Q12). KMO and Bartlett's Test results show that the data was suitable (KMO = 0.568, p-level = 0.000) for factor analysis. Based on criteria of Kaiser and Catell screen there are two factors that explain the 62.91 per cent of general dispersal of the variables. Rotated Component Matrix provides the opportunity to define the factors that influence the problems of training and qualification development of experts-criminalists. In this case, the first factor is expert activity control (this factor is related to variables Q7, Q10, Q11, Q12). The se-

cond factor – expert activity coordination (this factor is related to variables Q5, Q6).

The results of the analysis may be summarized: the problems of training and qualification development of experts-criminalists depend on two factors that may be called expert activity control and expert activity coordination. Analysis of the variables related to these factors shows that external control is barely applied to expert examinations; examination control system is established insufficiently; mandatory laboratory accreditation standards are set relatively strictly; mandatory expert certification standards are applied insufficiently (expert activity control); expert activity is barely coordinated; the activity of private experts is mainly coordinated centrally (expert activity coordination).

Group three

The questions Q14 and Q15 define statutory regulation of expert activity:

- ▶ Q14: Is there a law on forensic examination adopted in your country? Over a half of the respondents (59.6 per cent) answered this question positively, 33.7 per cent – negatively, and 6.7 per cent had no opinion. That shows that only half of the countries have a law on forensic examination adopted.
- ▶ Q15: What is your opinion on current problems with statutory regulation of forensic examination (please indicate the most important ones)? The respondents identified the following problems: 28.1 per cent – organizational and ethical problems (approval and introduction of methodic recommendations, cataloging, limiting/fixing expert work, code of experts ethics); 15.7 per cent – problem of the legal status of the head of expert institution; 14.6 per cent – expansion of subjects entitled to commission examination (e.g., does the defender have the right to submit evidence, does he have

the right to decide on his own the issue of whether to perform an examination independently from an investigator or a prosecutor, does he have the right to demand additional or repeated examinations, are examinations obligatory to be performed in state institutions and when); 13.5 per cent – other problems; 11.2 per cent – regulation of complex examination procedures; 10.1 per cent – obligatory cases subject to examination (mixed norm that would indicate obligatory cases subject to examination and formula allowing to expand the list of such cases); 6.7 per cent – have not responded. That shows that there are various problems with legal regulation of forensic examination: legal, ethical, organizational.

Group four

The questions Q18, Q19 and Q20 define financial problems with expert activity:

- ▶ Q18: Is there a common tariff system for expert activity in state expert institutions in place? Somewhat less than half of the respondents (46.1 per cent) answered this question positively, nearly the same number of respondents (40.4 per cent) – negatively, and 13.5 per cent of the respondents gave no opinion. That shows that only the smaller part of the countries have tariff system established.
- ▶ Q19: Is there a common tariff system for private experts in place? Over a half of the respondents (53.9 per cent) answered this question negatively, only 24.7 per cent – positively, and 21.3 per cent gave no opinion. That shows that in most countries, there is no common tariff system for private experts set.
- ▶ Q20: Do pre-trial investigation judges have financial resources for examinations at their disposal? Nearly half of the respondents (43.8 per cent) answered this question negatively, only 22.5 per cent – positively, and 33.7 per cent had no opin-

ion. That shows that pre-trial investigation judges have barely any financial resources for forensic examinations.

Factors that impact legal regulation of expert activity and financial problems of expert activity were defined on the basis of the method of factor analysis of variables (Q14, Q15, Q18, Q19, Q20). KMO and Bartlett's Test results show that the data was suitable (KMO = 0.548, p-level = 0.000) for factor analysis. Based on criteria of Kaiser and Catell screen there are two factors that explain the 65.58 per cent of general dispersal of the variables. Rotated Component Matrix provides the opportunity to define the factors that influence legal regulation of expert activity and financial problems of expert activity. In this case, as might have been expected, the first factor is legal regulation of expert activity (this factor is related to variables Q14, Q15). The second factor – financial problems of expert activity (this factor is related to variables Q18, Q19, Q20).

The results of the analysis may be summarized: legal regulation of expert activity and financial problems of expert activity are the two main factors. Analysis of the variables related to these factors shows that law on forensic examination is adopted only in half of the countries, and that a diverse range of problems of statutory regulation of expert activity is observed: legal, ethical, organizational (statutory regulation of expert activity); common tariff system for expert services is set only in the smaller part of the countries, for private expert services the number is even lower, pre-trial investigation judges have barely no financial resources for commissioning examinations (financial problems of expert activity).

Group five

The questions Q2, Q13, Q16 and Q17 will be analyzed separately:

- ▶ Q2: Is there a scholar institution of criminalistics (institute for scientific research, university department, etc.) in your country? The majority of the respondents (83.1 per cent) answered this question positively, only 10.1 per cent – negatively, and 6.7 per cent had no opinion. That shows that in most of the countries, there are scholar institutions of criminalistics and that criminalistics are regarded as a separate branch of science.
- ▶ Q13: Is there a code of experts' professional ethics adopted in your country? Over a half of the respondents (57.3 per cent) answered positively, 31.5 per cent – negatively, and 11.2 per cent had no opinion. That shows that experts' professional ethics is given much attention – with several exceptions in some countries.
- ▶ Q16: Do your expert institutions perform identical examinations (are examinations overlapping)? More than half of the respondents (56.2 per cent) answered this question positively, 30.3 per cent – negatively, 13.5 per cent of the respondents gave no opinion. That shows that many expert institutions perform identical examinations.
- ▶ Q17: Is 24/7 response of specialists-criminalists ensured in your country? Nearly two thirds of the respondents (60.7 per cent) answered that nearly always a 24/7 response of specialists-criminalists is ensured, 21.3 per cent claimed that it is only sometimes ensured and 10.1 per cent of the respondents skipped this question. That shows that in most cases, specialists-criminalists arrive to crime scenes at any time.

IDENTIFICATION OF LINK BETWEEN VARIABLES

The link between answers to the survey questions was identified by applying Pearson's χ^2 (Pearson chi-square) criterion. The decision was made after the evalua-

tion of significance level p-level of the observed criterion. The significance level chosen was $\alpha = 0.05$.

ANALYSIS IN GREATER DETAIL

It is interesting to analyze the outcomes in greater detail:

1. To questions Q1 – “Do universities have specialized qualification development courses for experts, specialists?” – and Q3 – “Is a strategy on forensic science and curricula drawn?” – most of the respondents answered positively (Q1 – 76.4 per cent of answers, Q3 – 76.4 per cent of answers). However, the statistical analysis shows that these variables are independent. Therefore, experts do not associate education with the science of criminalistics. It is possible to say that there is not only a big reserve with respect to the creation of an expert system, but also a significant lack of approach.
2. There is a statistical link between the answers to questions Q1 – “Do universities have specialized qualification development courses for experts, specialists?”, Q4 – “Is there an institution in your country that supervises study standards and accreditation of criminalistics curricula at higher education schools?”, Q5 – “Is there a board (or similar service) for coordination of forensic experts' activity in your country?”, Q9 – “Is there a system in place in your country for specialist training and their qualification development?”, Q10 – “Is there an examination quality control system in place in your country?”. It can be concluded that the training of experts is interconnected with its control and regulation. There is no statistical relevance between questions Q1 – “Do universities have specialized qualification development courses for experts, specialists?” – and Q8 – “Is the procedure of experts' qualification development regulated in your

country?”. That means that scholar and statutory regulation of expert training are not connected. This has also been stated by foreign respondents.

3. Despite the fact that question Q12 – “Are there mandatory expert (criminalist) certification standards in place?”, and question Q13 – “Is there a code of experts’ professional ethics adopted in your country?”, have been answered positively by 66.3 per cent and 57.3 per cent of the respondents respectively, no statistical relevance between the answers to questions Q1, Q12 and Q13 could have been identified. That means that expert training is not linked with expert (criminalist) certification and professional work of experts. That might be identified as one of the problems in need of a reform.
4. There is a statistical link between the answers to questions Q1 – “Do universities have specialized qualification development courses for experts, specialists?” and Q16 – “Do your expert institutions perform identical examinations (are examinations over-lapping)?”. That shows that expert training is focused on the unification of examinations.
5. There is also a statistical link between the answers to questions Q1 – “Do universities have specialized qualification development courses for experts, specialists?”, and Q19 – “Is there a common tariff system for private experts in place?” and Q20 – “Do pre-trial investigation judges have financial resources for examinations at their disposal?”. However, there is no statistical relevance between question Q1 and Q18 – “Is there a common tariff system for expert activity in state expert institutions in place?”. It might be possible to say that services provided by highly competent experts are also highly payable, but there is no unified tariff system for the same services performed by experts from state expert institutions.
6. There is a statistical link between the answers to questions Q4 – “Is there an institution in your country that supervises study standards and accreditation of criminalistics curricula at higher education schools?”, and Q5 – “Is there a board (or similar service) for coordination of forensic experts’ activity in your country?” as well as Q8 – “Is the procedure of experts’ qualification development regulated in your country?” and Q9 – “Is there a system in place in your country for specialist training and their qualification development?”. Accordingly, expert training, activity coordination and qualification development issues are inter-connected.
7. There is no statistical relevance between the answers to questions Q4 – “Is there an institution in your country that supervises study standards and accreditation of criminalistics curricula at higher education schools?”, and Q13 – “Is there a code of experts’ professional ethics adopted in your country?”. That means that study standards and higher education criminalistics curricula are not interconnected with a code of professional ethics. Such a situation forces doubt about the efficiency of a code of ethics, however the need of such code is unquestionable.
8. There is a statistical link between the answers to questions Q4 – “Is there an institution in your country that supervises study standards and accreditation of criminalistics curricula at higher education schools?”, and Q16 – “Do your expert institutions perform identical examinations (are examinations over-lapping)?”, Q18 – “Is there a common tariff system for expert activity in state expert institutions in place?” as well as Q19 – “Is there a common tariff

system for private experts in place?” and Q20 – “Do pre-trial investigation judges have financial resources for examinations at their disposal?”. That result indicates that qualification development of experts is related to salary.

CONCLUSIONS

At European and world-wide levels, globalisation not only of the economy, but of criminality as well is observed. International terrorism, drug trafficking, development of organised crime structures, etc., challenge law enforcement. Crime investigation often requires joining the powers of law enforcement institutions from different countries. At the same time, it might be said that participating of expert-criminalists in crime investigation processes is rather low, even on the national level, let alone the possibility for international cooperation.

Our quantitative analysis revealed that problems related to the training and qualification development of expert-criminalists mainly rely on two factors that might be defined as the expert training system and expert training standards. Analysis of the variables related to these factors shows that the development of the science of criminalistics has a direction; expert qualification development is regulated, though insufficiently; expert training is only partially systemised (a need to develop the expert training system is noticeable); attention is given to tutoring criminalistics and to improve expert qualification in all countries; studies of criminalistics are not sufficiently regulated (a need of standardisation of criminalistics studies is observed).

Problems regarding expert activity control depend mainly on two factors that might be defined as expert activity control and expert activity coordination. Analysis of the variables related to these factors shows that external control is basically not applicable to expert activity; expert

activity control system is set insufficiently; however, there is a relatively strict establishment of mandatory laboratory accreditation standards but application of mandatory expert certification standards is insufficient (there is a need of a stricter control of expert examinations); expert activity is nearly uncoordinated; the coordination of the activity of private experts is mainly performed centrally (expert activity coordination is insufficient).

Statutory regulations of expert activity and financial problems with expert activity – are two individual factors. Analysis of the variables related to these factors shows that a law on forensic examinations is adopted only in half of the countries. There is a wide spectrum of problems, related to legal regulations of forensic examinations: legal, ethical, organisational (there is a need of precise legal regulation of expert activity). A common tariff system for expert services is set only in the minor number of countries, common tariff system for private expert services is set in fewer countries. Pre-trial investigation judges have nearly no financial resources at their own disposal to commission forensic examinations (financial problems with expert activity might have a negative effect on the performance of forensic examinations).

In most of the countries, scholar institutions of criminalistics are present. Criminalistics is regarded as an individual, specialized branch of science. However, often expert institutions perform identical examinations. In most of the countries, a 24/7 response and arrival of specialist-criminalists to crime scenes is ensured.

Analysis of links between variables revealed that there is not only a strong reserve with regard to the creation of expert system, but also a substantial lack of approach. Expert training is related to its control and regulation of training. Scholar regulation of training is not related to legal

regulation of this process. That has been confirmed by foreign respondents. Expert training does not have any link with expert (criminalist) certification and professional work of experts. That might be evaluated as one of the problems requiring a reform. Expert training is mainly focused on the unification of examinations. The work of well-trained, highly qualified experts is usually highly paid. However, there is no common tariff system for the same work performed by experts from state institutions. Expert training, activity coordination and qualification development issues are inter-connected. Study standards and criminalistics curricula at higher education schools are not related with the code of professional ethics of experts. This fact casts doubt on the efficiency of such a code, while at the same time, the need of

such codes is unquestionable. Standardisation of work within expert institutions is related to the evaluation of expert activity. Expert qualification development is related to remuneration for work.

Analyses performed showed that further development of management and organisation in the forensic examination subject area is needed. That would be in accord with the main provisions of criminalistics of EU states and would allow better introduction of advanced technologies into the investigation procedure of crimes and administrative law violations, as well as for adjustment of its legal bases. It would also provide for a possibility to create an efficient system of scientific and expert institutions helping to avoid over-lapping of functions and consequently save resources.

¹ European Council 2009.

² Kurapka/Malevski 2005.

³ European Network of Forensic Science Institute 2007.

⁴ Kurapka/Malevski 2000.

⁵ Grzeszyk 2000.

⁶ <http://www.forensicpage.com/new05.htm> 05/10/2012.

⁷ European Council (2010).

⁸ 10th International Symposium of Forensic Sciences, 27-31/09/2011, Bratislava.

Sources of information

European Council (2009). Council Framework Decision 2009/905/JHA of 30 November 2009 on Accreditation of forensic service providers carrying out laboratory activities, Official Journal, L 322, 0014–0016.

European Council (2010). European Council conclusions on the vision for Eu-

ropean Forensic Science 2020 including the creation of a European Forensic Science Area and the development of forensic science infrastructure in Europe, Official Journal, C115, 04/05/2010, 1.

European Network of Forensic Science Institute (2007). Final Report – Study of Obstacles to Cooperation and Information – sharing among Forensic Science Laboratories and other Relevant Bodies of Different Member States and between these and Counterparts in Third Countries Contract JLS/D1/2007/025: <http://www.enfsi.eu/projects/finalised-projects/project-terrorism.html>.

Grzeszyk, C. (2000). Etiologia i symptomatologia zagrożeń przestępczością w Polsce, Problemy współczesnej kryminologii, T 3, Warszawa.

Kurapka, E./Malevski, H. (2000). Kriminologijos mokslas vykdančios teisės reforma

Lietuvoje. Jurisprudencija, Vilnius.

Kurapka E./Malevski H. (2005). Kriminologijos mokslas an Universitäten – Notwendigkeit, Realität oder Problem?, Kriminalistik (1), 47–50.

Further Literature and Links

Ackermann, R. (2007). Handbuch der Kriminalistik: Kriminalistik für Praxis und Ausbildung, Stuttgart.

Bilevičiūtė, E./Bilevičienė, T. (2011). Korupcinio pobūdžio nusikalstamų veikų ryšio su socialiniais ir ekonominiais veiksniais analizė, Vilnius, 184–195.

Holyst, B. (2007). Kryminalstyka. Wydanie X zmienione, Warszawa, 2007.

Houck, M./Siegel, J. (2006). Fundamentals of Forensic Science, London/San Diego.

Houck, M. (2007). Forensic science: modern methods of solving crime, London.

Justickis, V./Kurapka, E./Malevski, H.

- (2004). *Strategische Richtungen der Kriminalitätsprävention und deren Harmonisierung im sich vereinenden Europa*, in: Köck, H. *Die Umsetzung des Gemeinschaftsrechts im innerstaatlichen Rechts*, Linz.
- Krikščiūnas, R./Matulienė, S. (2011). *Peculiarities of averment stages in cases of administrative offences*, Vilnius, 659–674.
- Kube, E./Störzer, H. U./Timm K. J. (1992). *Kriminalistik, Band 1*, Stuttgart u.a.
- Kube, E./Störzer, H. U./Timm K. J. (1994). *Kriminalistik, Band 2*, Stuttgart u.a.
- Kurapka E. (2004). *Tendencies of the Development of Criminalistics in Lithuanian Science and Practice. Jurisprudence: Scientific Works. Law University of Lithuania*, 50 (42), 45–54.
- Kurapka, E. V./Bilevičiūtė, E. et al. (2010). *Nusikalstamumo grėsmės ir žmogaus saugumas. Monografija*, Vilnius.
- Kurapka, E. V./Bilevičiūtė, E./Matulienė, S. (2011). *Forensic science in Lithuania: nowadays and reforms*, Riga, 282–294.
- Malevski, H./Kurapka, E./Juškevičiūtė, J. (2003). *Crime Science Examination and Investigation: a New Model of Criminalistic Conception*, *Forensic Science International* 136 (1), 18–19.