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## SEARCH AND DETECTION OF CRIMINAL ASSETS: NATIONAL FEATURES AND INTERNATIONAL PRACTICES

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Abstract. The article is devoted to the study of the implementation in Ukraine the best practices and standards of the European Union in the field of detection, search and management of assets obtained from corruption and other crimes. A comparative analysis in the functional institutional models of authorities whose activities are aimed at the search and return of assets has been carried out. Emphasis is placed on informational-analytical and financial support of the Asset Recovery and Management Agency (ARMA). The regulatory framework for the formation and functioning of the Asset Recovery and Management Agency in Ukraine for the identification, search and management of assets obtained from corruption and other crimes is analyzed. The performance indicators of the ARMA and its institutional potential are considered through the prism of using the latter in order to meet the urgent needs of the pre-trial investigating authorities. It has been established that the state budget expenditures for the maintenance of the ARMA have a negative economic effect from its activities.

**Keywords:** cybercrime, cybercrime investigation, special knowledge, computer technology, investigator, specialist, expert, review, forensic examination.

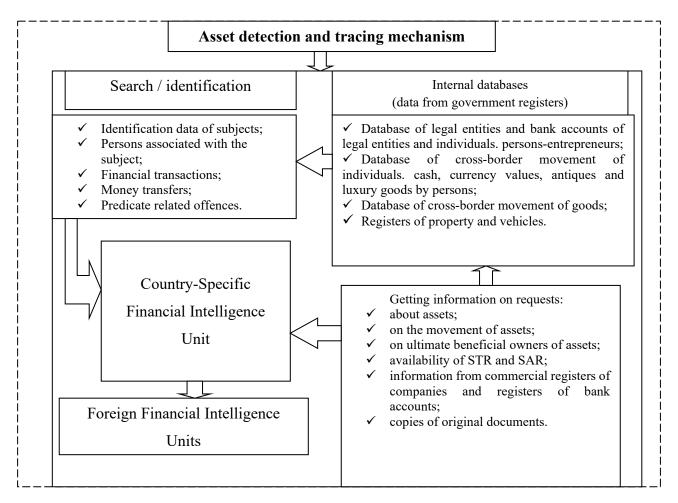
In Ukraine, the Asset Recovery and Management Agency (hereinafter referred to as ARMA) has been established and is functioning now. Firstly, it is an executive authority with a special status (a mandatory feature of the second model), and secondly, the obligation to identification and search of property in criminal proceedings are assigned to the prosecution (an obligatory feature of the first model), and the decision on the seizure of such property and its special confiscation is on the investigating judge and the court, respectively. It seems that the corresponding agencies of France and Romania became the prototypes of ARMA.

The functions of the ARMA are understandable for most countries of the world, but they are completely new in the system of state authorities of Ukraine. Today, for most European Union countries, the existence of agencies like the ARMA is a long established practice. In particular, Article 10 of the EU Directive No. 2014/42/EU of 03.04.2014 says that all EU Member States are obliged to take measures for the



effective disposal of seized assets, as well as the creation of special institutions responsible for the management of such assets in order to preserve them or to preserve their value [1].

The mechanism for detecting and searching for criminal assets can be reflected using fig. 1.



**Figure 1 -** The mechanism for identifying and searching for assets obtained as a result of corruption and other offenses

The investigation of financial crimes related to the legalization of criminal proceeds and the search for assetsin to which they are transformed is always accompanied by the need to gain access to a significant amount of information and its analysis. In order to ensure all elements of the asset recovery system, the possibility of obtaining valuable information from individuals and legal entities, as well as their property, information and communication systems at the national and supranational levels, as well as information and communication technologies, have been created and



continue to develop in European countries. To consolidate information about seized or confiscated property, specialized databases are being created that allow various law enforcement agencies, prosecutors, courts, ministries, etc. to keep records of such property, monitor the status of the confiscation process, and obtain information of a different nature.

Among the informatization trends, the indicator of ARMA effectiveness is the automation of information actions. Based on management tasks, when implementing the ARMA leading functions, the automation of information activities should be aimed at: analysis of any requests for the year, quarter, month; analysis of the number of requests in progress; processing of data on identified individuals and legal entities in the course of identifying and searching for assets; accounting for established assets in the context of their individual types and in the context of individual performers (or in a separate period); calculation of the volume of interdepartmental correspondence; accounting and analysis of criminal proceedings and assets established within the framework of detection and search; accounting for asset management operations; systematization of control and monitoring procedures in the control over asset management [2].

During the research of information support in the field of searching and identifying criminal assets, the capabilities of the Financial Crimes Enforcement Network (Fin CEN) deserve attention – a bureau of the United States Department of the Treasury that collects and analyzes information about financial transactions in order to combat money laundering in the United States and abroad, about the financing of terrorism and other financial crimes

The Fin CEN AIS software allows automatic scanning of 60 government and commercial databases and simultaneously analyzes disparate information about one object (organization, individual) located in various US institutions. In addition to processing a financial database containing confidential information for almost 25 years, Fin CEN uses "artificial intelligence" to prepare certificates, codenamed "criminal activity forms." Such forms are added to Fin CEN in cases where banks, inspectors from the Ministry of Finance, the tax service and other regulatory authorities



discover transactions that are suspicious from the legal point of view [3].

Asset tracing investigations can be greatly facilitated by combining semantic search with the wealth of intelligence publicly available on news websites, government watch lists, property declarations of public officials, and commercial data sources [4].

IBM i2 is an overview of economic, legal and IT criminal solutions. The main task of IBM i2 is to search for hidden relationships and patterns among a large number of subjects who can use its services for economic and internal security, risk management and investigation management [5].

IBM i2 works at the intersection of three areas: anti-fraud, IT and economic security, and makes the analysis process simple and straightforward. The IBM i2 system can be designed with various components that can be installed and used in different combinations, depending on the tasks at hand. iBase is a component that allows to collect and analyze data from different sources. iBase is a central node complex that uses information storage and analysis. This component also manages accounts and access rights for functional systems. The iBase software product allows to: design the database while the information is collected; formulate rules for importing data from third-party sources; control access to data and check the distribution of such access; store the results of the analysis centrally.

iBridge is another component of the IBM i2 system, incorporating search/query databases into enterprise databases to return data ready for analysis [6].

Summing up, we note that a system of this class allows to get real information about deviations from IT data using operational analytical data.

Based on the study of the holistic process of creating ARMA information technologies and their individual stages, a number of principles can be distinguished on which information support is based, namely: compliance with the algorithm (fuzzy inference), which is the foundation for the creation of a certain information technology; modularity and consistency (subsystems are created in the form of separate modules according to their functional purpose, which can be used both independently and in combination); adaptability in modern operating systems and other software products; the possibility of translation into another programming language (including the



language of subsequent generations); easiness and reliability.

We believe that the formation of public and local subsystems takes place in accordance with the following principles: functional purpose, regulatory support, compliance of indicators and actual data, expediency of implementation and operation, growth and development.

There are problematic issues in the field of information support of the ARMA. In particular, today Ukraine has not signed or ratified an agreement on the possibility of joining the International Convention on Access to Accounts of Non-Residents, which would allow public authorities to have access to residents' accounts in foreign banks. At the same time, 101 states and almost all offshore jurisdictions have signed this convention. These tasks require urgent solutions to improve the work of the agency.

At the same time, having assessed the volume of state budget revenues and the volume of state budget expenditures for the maintenance of the ARMA, it was determined that the cost of financial support for the activities of ARMA is 6.5 times higher than the volume of revenues to the budget and has a negative economic effect from the activities of the ARMA, and this does not take into account the risks of compensation for improper asset management in the future [7].

Cash management is a separate institution for managing seized assets, which acts simultaneously in the interests of the owner of funds and the state, ensuring their safety and preservation of economic value. ARMA's deposit portfolio consists of: funds directly transferred to ARMA for management in cash and non-cash forms in hryvnias, dollars, euros; proceeds from the sale of seized assets.

Expenses related to asset management (services for organizing events related to valuation, accounting and asset management) in 2023 amounted to 273.5 million UAH, while 41.8 million UAH were transferred to the State Budget of Ukraine from the management of seized assets, which is 6.5 times less than the volume of budget expenditures for asset management [8].

Thus, the general requirements, in particular, determine (paragraph 4) that performance indicators must be socially significant, that is, highlight the effect obtained by the economy and society due to the activities of the main manager (i.e. the



ARMA). It has been established that such socially significant performance indicators of the ARMA, as the number of identified assets, the value of assets sold during 2017-2018, were not determined in the passports of the budget program for the KPKVK 6431010 and, accordingly, in the reports on their implementation. And the indicators that are in the passports do not have a clear and unambiguous interpretation. Under such conditions, it is impossible to really monitor and control the targeted and effective use of budget funds.

## Summary and conclusions.

Based on the study in the field of detection, search and management of assets obtained from corruption and other crimes, conclusions can be drawn that have theoretical and practical value.

- 1. A study of European experience in the creation and functioning of asset recovery authorities allows us to state that Ukraine has a mixed institutional model for the creation and operation of authorities authorized to return assets obtained by criminals. Note that the most common today is the model of special asset recovery agencies that are subordinate to or cooperate with ministries (Romania, France).
- 2. Achieving high performance in identifying, searching and managing assets, as well as their return from foreign jurisdictions in cooperation with pre-trial investigation, court authorities, foreign partners, as well as the business community, citizens, requires the ARMA to introduce not only modern information technologies, but also high-quality informational and analytical support of these processes.
- 3. In the context of the informational and analytical support of the ARMA, there are significant gaps that increase the time lags in the process of financial investigations of criminal assets. In particular, the lack of access to the database of export-import transactions makes it impossible for the ARMA to analyze information about companies involved in foreign economic activity from around the world; to carry out an operational search for connections between residents and non-residents for activities with assets in the field of foreign economic activity; trace the origin of assets involved in criminal schemes; reveal hidden links between the subjects of criminal proceedings and economic activity.



4. In the course of the study, it was revealed that the lack of the ARMA reports on the reflection of statistical performance indicators is the lack of data on the number of: assets with distribution by types of offenses for which the ARMA took measures to search, identify and manage assets; assets by type from the number of those who were wanted and which were subsequently arrested in the framework of criminal proceedings; assets that were in the management of the ARMA, from which the arrest was lifted or seized by a court decision.

Accounting for such quantitative indicators would provide an assessment of both the effectiveness of the activities of the ARMA and a critical assessment of the activities of law enforcement agencies in the implementation of measures in criminal proceedings aimed at ensuring compensation for damage, confiscation and special confiscation of assets, in particular, for the reliability of the statements of the heads of these authorities for the implementation events during the reporting year.

- 5. The philosophy of the ARMA's functioning characterizes the antagonism between the amount of funding from the state budget for the administration of the ARMA and the receipt of funds from asset management. The study found that the state budget expenditures for the maintenance of the ARMA have a negative economic effect from its activities. It was established that the costs associated with asset management (services for organizing the implementation of activities related to the assessment, accounting and asset management) in 2021 amounted to 273.5 million UAH, while managers transferred to the State Budget of Ukraine from the management of arrested assets 41.8 million UAH, which is 6.5 times less than the volume of budget expenditures for asset management.
- 6. In order to form a source of covering the expenses of the state budget for the financial support of the ARMA, it is advisable at the legislative level to revise the current asset management model in terms of transferring accrued interest to the state budget in the form of monthly deductions on the seized funds placed on deposit accounts and funds received from the sale of seized property.



## References:

- 1. Directive 2014/42/EU of the European Parliament and of the Council on the freezing and confiscation of instrumentalities and proceeds of crime in the European Union) (2014, April 3), accessed, Marc 2, 2022, <a href="http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L.2014.12-">http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L.2014.12-</a>
- 2. C. Woodbury "IBM i Security Administration and Compliance", MC Press, 2016 pp. 327.
- 3. R.A. Kalyuzhnyy, V.O. Shamray, M.YA. Shvets', V.D. Havlovs'kyy, M.V. Hutsalyuk, R.L. Kovpak, V.S. Tsymbalyuk, YU.V. Yatsyshyn, A.S. Lastovets'kyy "Information support of managerial activity in the conditions of informatization: organizational and legal issues of theory and practice", Kyiv, Ukraine, 2002, 296 p.
- 4. S. Mazuryk "The concept of information support and classification of information in the prosecutor's office", *Current issues of jurisprudence, Information and law*, vol. 7, no 3, pp. 30-34, 2016.
- 5. J. Buck, J. Fottral "Mastering IBM i: The Complete Resource for Today's IBM i System", pp. 563-567, 2011.
- 6. C. Woodbury "IBM i Security Administration and Compliance", MC Press, 2016 pp. 329.
- 7. The National Agency of Ukraine for detection, investigation and management of assets obtained from corruption and other crimes. Report on the use of budget funds, accessed, Marc 10, 2022, <a href="https://arma.gov.ua/report-on-budget">https://arma.gov.ua/report-on-budget</a>
- 8. Report on the activities of the National Agency of Ukraine for finding, tracing and management of assets derived from corruption and other crimes for 2022, accessed, Marc 1, 2023, https://arma.gov.ua/files/general/2021/04/15/20210415121225-12.pdf