

References:

1. Human Rights in a New Era. Speech at the University of Geneva by UN High Commissioner for Human Rights Michelle Bachelet. 14 November 2018. URL: <https://www.ohchr.org/en/NewsEvents/Pages/DisplayNews.aspx?NewsID=23874&LangID=E>.
2. Convention for the Protection of Human Rights and Fundamental Freedoms (Convention) (1950). URL: <https://www.echr.coe.int/Pages/home.aspx?p=basictexts&c>.
3. Police's accessing of subscriber information associated with a dynamic IP address needed court order; Slovenian law lacked clarity ECHR 160 (2018) 24.04.2018. URL: <https://hudoc.echr.coe.int>
4. Benedik v. Slovenia. Judgment of the European Court of Human Rights of April 24, 2018. URL : <https://hudoc.echr.coe.int/eng#%7B%22itemid%22:%5B%22001-182455%22%5D%7D>].
5. K.U. v. Finland. Judgment of the European Court of Human Rights of December 2, 2008. URL: <https://www.juridice.ro/wp-content/uploads/2016/07/K.U.-v.-FINLAND-en.pdf>.
6. Tuomas Pöysti. Judgment in the case of K.U. v. Finland: The European Court of Human Rights Requires access to communications data to identify the sender to enable effective criminal prosecution in serious violations of private life. Digital Evidence and Electronic Signature Law Review, Vol 6, 2009. URL: <https://sas-space.sas.ac.uk/5452/1/1855-2575-1-SM.pdf>.
7. Ziemele I. Human Rights Violations by Private Persons and Entities : The Case-Law of International Human Rights Courts and Monitoring Bodies. EUI Working Papers. Academy of European Law. 2009. № 8. 25 p.
8. X. and Y. v. Netherlands. Judgment of the European Court of Human Rights of 26 March 1985. EHRR. Vol. 8. P. 235.

KHARITONOVA T. E.

National University «Odesa Law Academy»,
Head of the Department of Agrarian, Land and Environmental Law,
Doctor of Law, Associate Professor

PAVLYHA A. V.

National University «Odesa Law Academy»,
Student of the Faculty of Civil and Economic Justice

USE OF DRONES IN UKRAINE AS A METHOD OF DIGITALIZATION IN AGRICULTURE SECTOR

Key words: *agriculture sector, dronization, drones, digitalization.*

Until recently, agriculture was the most traditional economic sector. Any innovations here have taken root quite slowly. The development of modern technology forever changes our perceptions of the agricultural sector. The

most important technological phenomenon of modern times was the dronization of agriculture.

In Ukraine, as in the whole world, the most active use of unmanned technologies is the agrarian sector. The introduction of drones in agriculture solves a number of problems, for example, such as: monitoring of farmland for the presence of floodplains of the territory, control of uniformity of sowing, yield forecast, crop pest control, fertilizer spraying, irrigation, etc. The decision of all the above-mentioned problems has led to the appearance of such a term as – precision agriculture. Exact farming allows you to exploit the agrarian sector with maximum efficiency for its owner.

Drones are used in agriculture for a variety of purposes. The most popular ones are:

1) Creation of crop maps is the main and first task of the copters. The quadcopter's flight makes it possible to create high-precision maps, which determine the boundaries of fields, which quite often diverge from cadastral data. So, based on this data, it's easier to plan a sowing campaign, taking into account the features of the area.

2) Drones can also be used for planting seed material. All that the farmer needs is a few batteries, as well as special capsules with seeds. This type of seeding will significantly save time and money for any farmer who wants to hire special equipment and personnel.

3) Another important function is irrigation and the introduction of plant protection products; however, special agricultural models of an unmanned aerial vehicle (UAV), equipped with special liquid-reservoirs, will be needed for this. Such drums spray water or chemical preparations more often than the traditional method, in addition, they are able to control the amount of application. Again, saving time and money.

4) The control of the state of crops can also be carried out during the entire season. Such flights can be done once in each phase of plant development, this will be quite enough. With the help of special drone gauges, during the formation of the map, you can see the problem areas of the field, which require a specialist's departure. All other crops that are within the norm do not require additional control.

However, these methods of using UAVs are not limited. They are also used in horticulture, livestock breeding, the shooting of commercials for agrarian enterprises, etc. It all depends on what kind of drone and what is needed for a particular farm.

The use of drones without automation would result in fewer efficiency gains in the industries used because manual management immediately understands human-factor mistakes that would reduce the efficiency of the tasks. Therefore, when applying drones, one can draw a relationship between the efficiency of a drone, that is, its significance and its automation system. The automation system is more qualitative, more stable and more precise, thus becoming more effective in using drones. The second important step will be taking pictures of fields in infrared mode. It shows the so-called "thermal picture" of plants – the degree of heating and reflection of thermal radiation.

The fact is that such an image allows us to assess the state of plants before they can see the visual changes that will fix the "traditional" photo or video camera. For example lack of moisture in the stems and leaves, defeat by pests or diseases, deficiency of the required trace elements. Thus, an agronomist can begin to solve this problem even before it affects the appearance of the plant [1].

Drone (UAV) has long been an excellent solution in the agro-industrial complex. According to the European Agricultural Technical Association, depending on the manufacturer, model, and generation of the device, on average, unmanned aerial vehicles can cover up to 12 square meters. km of fields in less than 50 minutes, rising to a height of 50-100 m. In this case, the accuracy of the image that removes the drill can vary up to several centimeters per pixel. For comparison, satellite images are made only once a week or even a month, and their quality often depends on weather conditions [2]. Also, the most up-to-date and innovative in this area, on May 23, 2019, iForum in Kiev is a test version of a plane drones from the Ukrainian company Abris with the possibility of vertical take-off. This, in turn, will provide even more accurate photography, since its range of software-controlled activities covers 120 km (60 km in one direction and 60 km in the other), and the lifting height reaches 3 km.

As to the advantages of using drones, one can distinguish the following:

- 1) Save time. The drone can sow 10 square meters in three hours. km of forest seed, while a person needs this day for this. Also, the drone transmits multispectral crop images to a special program on a computer that analyzes the situation and detects problems. A person will go somewhere a day, and the drone will be able to analyze it in an hour;

- 2) Save staff. Agricultural companies lack personnel, especially in landing and harvesting seasons, while drone workers can work around the clock;

- 3) Involvement of young specialists in the agricultural sector. Since the younger generation reluctantly goes to the village, and on the contrary only leaves it, there is a likelihood that with the advent of new technologies the interest and prestige of this industry will increase;

- 4) Nature protection. For example, in Indonesia, dragons are used as an economically efficient way to monitor orangutan populations, which is reduced by monitoring the deforestation [3].

However, the use of drones is not without flaws, because it is a rather costly process. In the coming years, it will be possible to start a farmer's drone, only large and developed companies – others, unfortunately, the new technology will not yet be on the pocket. Also, a significant drawback will be the imperfection of its work during rain, strong wind, hail, low temperature, as there is still no reliable protection of drones from this, which greatly limits the possibility of exploiting unmanned mechanisms.

Thus, the use of drones in Ukraine gives a serious impetus to the development of the agro-sector and brings it to a new level. Today, Ukrainian companies and startups are trying to apply the latest technologies in the agro-industry, reducing costs and increasing efficiency, yields by drones.

The good news is that domestic developments go to the foreign market, which in turn lures new investors for further development and economic development in Ukraine.

References:

1. Agricultural high-tech: how Ukraine will become an agrarian superpower [Electronic resource] – Access mode to the resource: http://texty.org.ua/pg/article/editorial/read/66446/Silskogospodarskyj_khajtek_jak_Ukrajina_stane_agrarnuju_nadderzhavuju.
2. Klyuchnikova N. Drones in the agricultural sector: methods of application [Electronic resource] / Natalia Klyuchnikova. – 2017. – Access mode to the resource: <http://agroportal.ua/publishing/analitika/drony-v-agrosetkore-sposoby-primeneniya/#>.
3. Drones: Six Ways to Run it Effectively [Electronic Resource]. – 2019. – Access mode to resource: <https://www.bbc.com/ukrainian/features-47610874>.

DYKYI O. V.

National University «Odesa Law Academy»,
Acting Dean of Faculty of Cybersecurity and Information Technologies,
PhD in Law

THE SPECIFICITY OF MONEY LAUNDERING WITH THE USE OF CRYPTOCURRENCIES: THE UKRAINIAN EXPERIENCE

The target of the article is to study the place of the cryptocurrencies in the process of money laundering. The subject of the article is to investigate the ways and means of the use of cryptocurrencies for money laundering.

Key words: *cryptocurrencies, money laundering, criminal investigation.*

In today's world, the threat of cyber security is becoming more and more complex, as computer systems are becoming increasingly interdependent, and the number of cyber attacks has grown up steadily. This necessitates the development and improvement of mechanisms and means of effective counteraction to new challenges. So, some countries have developed a new or adapted (criminal) legislation after the signing and ratification of international agreements such as the Cybercrime Convention (2001) [5], while other countries have joined forces and have developed regional platforms such as the European Cybercrime Centre, which began working in 2013, and aims to strengthen the cross-border cooperation and exchange of information.

One of the latest inventions in the world over the past decades was the creation of cryptocurrencies, which are already quite actively used. However, in addition to the positive sides, there are still negative ones, for example, the legalization of proceeds from crime through the use of cryptocurrencies.