



Erasmus+

Educational for Drone (eDrone)

(Project Number 574090-EPP-1-2016-1-IT-EPPKA2-CBHE-JP)

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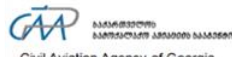
Internship promotion

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Belarusian State University

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Belarusian Federation of Unmanned Aviation



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2. Versioning and Contribution History

The following is the *document control* for revisions to this document.

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1	01/07/2020	First version	Saïd Mammar
2	21/08/2020	New version partially updated	Saïd Mammar
3	06/10/2020	Structured and updated version	Florin Nedelcuț

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1. Introduction / Foreword

Internship promotion represents an important pillar of the sustainability of *eDrone* project, since attracting new enterprises and making them aware of the opportunities of research collaboration can extend the duration of internship activities.

This report gives an overview of the local context of each partner country and common policies and best that can arise from the actions of each *eDrone* partner in Partner Countries (Armenia, Belarus, Georgia and Moldova) for their dissemination.

The report begins with a short description of the context of each partner from Partner Countries.

Subsequently, the report continues with the presentation of the specific actions carried out in the context of training courses organized by the 4 recently created OEDs (Offices for Education for Drones) within the activities of *eDrone* project.



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1. Partner Countries context and potential

This part of the report will develop for each Partner Country the internal structures of partners and country eco-system related to drones and particularly:

- Study streams and overall student numbers.
- The internal structures and faculties which are concerned by the aspects of drones, as well as the levels of training and staff concerned.
- The administrative structures that support learners in their search for internships.
- Economic social partner networks available.
- National and regional academic and industrial clusters (a special mention for those where the institution is involved).

1.1. Armenia

In the *eDrone* project were actively involved two partners from Armenia, respectively: National Polytechnic University of Armenia (NPUA) and Armenian State University of Economics (ASUE).

Concerning the Armenian State University of Economics (ASUE) the first edition of the CIA courses was launched on February 17th and was planned to be finished on April 7th, 2020, but unfortunately it was postponed because of the COVID-19 disease. The main reasons were the state of emergency announced in Armenia (on Mar 16) and consequently, the closure of the universities. The number of students is 9.

The first two classes (10 and 12 March) of the second edition of the CIA courses have been implemented before the university closure. The number of students is 6.



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The third group of CIA courses has also been constituted. Everything is ready and waiting for the universities to be opened in Armenia for launching the lessons with the attendees. The number of enrolled students is 10.

All the trainings concerned a joint cooperation at the level of several internal/local structures and faculties:

1. Mechanical Transport and Design Institute of National Polytechnic University of Armenia participated in the *eDrone* project. Training at NPUA is conducted by the staff of MTD Institute.
2. Training organized under the umbrella of the Centre for VET and Lectures Training of NPUA.

In Armenia, in the frame of the *eDrone* project, were developed the following two special Course Outline (educational programs):

- “Drones aerodynamics and architecture” and
- “Avionic systems for drones”.

Starting from the 1st of September, 2020 these subjects will be included in the “Aircraft aviation equipment” bachelor educational program under the “Aviation and rocket technics” specialty as minor courses.

The administrative structures that support learners in their search for internships are:

1. The *eDrone* project Armenian team (NPUA, ASUE) as well as Career Centre of NPUA in charge for searching internships.
2. According to the preliminary agreement between *eDrone* project Armenian team and private companies in the field of UAVs design, manufacture and maintenance trainees from (Instigate CSJC, UAV Lab LLC, Locator LLC, Air Worker LLC) had to do internships at these companies. At this moment it is postponed because of COVID-19.



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At the national level, the Disaster Risk Reduction National Platform is involved in our action. Unfortunately, no national clusters exist in Armenia and we are not a member of any regional ones.

1.2. Belarus

Two Belarus partners are also involved in the *eDrone* project: Belarusian State Technological University (BSTU) and Belarusian State University (BSU).

Drone pilots are trained by Belarusian State Academy of Aviation. Drone development can be learned at Belarusian State University, Belarusian National Technical University, Belarusian State University of Informatics and Radio Electronics. Drone applications can be learned at several HEIs.

For example, at BSU, Aerospace specialty: 22 – 25 students of the year course x 5 years = 110 – 125 students of the Faculty of Radio Physics and Computer Technologies (Bachelors).

Magister program is under development because it should be more complex in connection with other specialties.

Learners are supported in their search for internships by the universities and the Ministry of Education of the Republic of Belarus, Ministry of Civil Aviation.

BSU and Faculty of Radio Physics and Computer Technologies are involved into cooperation with:

- Several Companies from Belarusian Hi - Tech Park (<http://www.park.by/?lng=en>)
- **JOINT STOCK COMPANY “Integral”** through joint Branch Lab. <https://integral.by/en>
- Production Unitary Enterprise “Precise Electro Mechanic Factory” through joint Branch Lab. <https://en.ztem.by/>



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1.3. Georgia

Two partners from Georgia participate in the *eDrone* project. Namely Ilia State University (ISU) and Ivane Javakhishvili Tbilisi State University (TSU).

The drone applications field in Georgia is at its beginning and has to be developed.

At ISU, the courses were started late because the equipment tender that other University from Georgia was in charge of was delayed significantly. The first course was started in January and finished in late March. There are about 25 students involved in the course. All students are from Ilia State University and Tbilisi State University. There is a link between the course and the Engineering Department at ISU.

Support for students to find Internship is not really needed since it is very easy. Copter Company agreed to take the best students from our course for an internship in their company, which will start in May. There are no industrial clusters in Georgia.

On the other hand, at Tbilisi State University, the activity on Drones is wider and there are three faculties where Drone usage is very important and professionals in this direction are highly demanded.

- Faculty of exact and natural sciences, Geography, Geology, Computer sciences, electro and electro engineering stream is also very important target audience of the project.
- Faculty of humanities, as archaeologist nowadays need new technologies to research and study places that are hard to get closer. Georgia is one of the oldest countries in the world with numerous cultural heritage status and memorials, therefore more professional operators are highly valuable in this sphere.
- Faculty of Business and Economic is one of the largest faculties at Tbilisi State University. Only in these faculties there are approximately 3000 students. Besides, TSU students, there are vocational colleges and they are our targets as well.



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eDrone project is mainly administered by the department of Information Technology and there are close ties between faculties and administration. Trained staff are ready to share experience and knowledge to the colleagues. Also, our team is planning to have meetings in the framework of OED in order to plan the further needs.

TSU Career development center is working for students to support them fully integrated in University's life and develop social and Economic skills to be successful in life. Consulting is the main form of communication with students. They help to find proper internships and education programs through close relations with the Life-long learning Center of TSU.

Academic and Industrial Clusters are not very well promoted in Georgia, there are some tries to develop the clusters, but the no available impactful results yet.



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1.4. Moldova

From Moldova were involved in our *eDrone* project 5 partners, four of them being HEIs. They are Civil Aviation Authority (CAA), Police Academy “Stefan cel Mare” of Ministry of Internal Affairs (ACAPOL), Moldova State University (MSU), State Agrarian University of Moldova (SAUM) and Academy of Public Administration (ACAP).

1.4.1. Partner Universities (HEI) from Moldova

1.4.1.1. Moldova State University

The Moldova State University has a wide experience in carrying out international projects. However, taking into account the project objectives and respectively, project activities, the *eDrone* project was a special project for MSU *eDrone* team.

The *eDrone* project was assigned to the Faculty of Physics and Engineering. For the organization of ESTC recognition of both CTT and CIA courses the Department of Continuing Education was involved in the project activity within WP3. Another structure of the MSU - the Logistic Department was attracted in the *eDrone* project for the OED setting up. The *eDrone* team had the support of the MSU Rectorate for all the activities organized within the project.

1.4.1.2. State Agrarian University of Moldova

State Agrarian University of Moldova (SAUM) was founded in 1933 and it is the oldest university in the country. SAUM is the only University which trains specialists in agriculture - the most important sector of the economy.

At present, more than 3000 undergraduate students and master's degree students attend full-time and other 2000 – part-time studies at SUAM. Most of the students are from rural areas of Moldova. Last 2 years, at SAUM are enrolled students from abroad: Siria, Romania, China.



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There is a very modern saying “Drones and Agriculture: A Match Made in Heaven” – this is why 5 out of 6 Faculties at SAUM are directly concerned by aspects of drones:

- **Cadaster and Law** (drone policy/law use in agriculture, mapping, correcting the errors of land distribution, scanning the soil, supervising the irrigation infrastructure and water reservoirs, irrigation monitoring and management)
- **Agronomy** (Scouting land and crops, checking for weeds and spot treating plants, seed planting, Monitoring overall crop health, mapping, quality scanning the soil, etc)
- **Veterinary** (Real-time managing livestock, monitoring for health issues)
- **Horticulture** (Mapping, Design of new plantations, spot spraying, detecting infestations in orchards, grape plantations, monitoring the forestry)
- **Agricultural Engineering and Auto Transportation** (drone architecture, electronics, remote control, manufacturing, repairing, monitoring the roads)

Universities such as SAUM formed and acted a department of internship and enrolment that is leading the effort to enroll new students and manage the relationship with the private companies. Each of the Faculty is signing the internship contracts with representative companies from their area of study.

Universities collaborate with Economic and social partners such as modern private companies that are implementing innovative technologies in agriculture: ElitAgrotehnologie ltd, Bayer Crops ltd,

They also participate to national and regional academic and industrial:

- European University Association, Council of Rectors of the leading agricultural universities in the CIS (since 1995);
- Agency of the Francofon Universities (AUF) (since 1997);
- International Association “Agrarian University Complex” (since 2013);
- Danube Rectors’ Conference (DRC) (since 2014);
- Central and South Eastern Europe Network (CASEE) (since 2018),



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The industrial cluster is in an incipient stage.

1.4.1.3. Police Academy „*Ștefan cel Mare*” of Ministry of Internal Affairs (ACAPOL)

“EDUCATIONAL FOR DRONE” (*eDrone*) is one of the first international projects in which the Academy participates. Participation in this international research project has added value to the Academy and made it more attractive for students. It is a great opportunity of earning experience and getting pieces of advice.

The opportunity to research and use drones in police activities is an important milestone of the development of technical capabilities of the MIA subdivisions in ensuring public order and citizen’s security. As a result of training in the field of drones, the police officers should act more quickly and efficiently in preventing and combating crimes.

The project team of the “Ștefan cel Mare” Academy identified the most important areas of applying the drones in the police system / activities:

1. Patrol police;
2. Border police;
3. Rescuers and fire brigades.

With the creation of the „Drone Education Office” at the State University of Moldova and the accreditation of the „drone education” professional training course, two training editions will be carried out, and the third one is currently in progress for the registered audiences at these courses.

Thus, the “*Ștefan cel Mare*” Academy identified for the training several police officers who showed a special interest for these courses. During the first edition of the courses were also trained



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collaborators of the National Patrol Inspectorate, the General Inspectorate of Border Police, the National Inspectorate of Investigations; in total from the Ministry of Interior were trained 5 persons.

At the same time, during the third edition of the courses, which is in progress, two groups were trained; one of them consisted of border police collaborators (10 persons), and the other group was created with collaborators of the National Patrol Inspectorate, the National of Investigations Inspectorate and Chisinau Municipal Police Department (10 persons).

Considering the importance of using drones in police activity, we can highlight the following situations of using drones in police activity:

- online monitoring of tactical police operations;
- monitoring different cases of mass disorders or mass protests;
- usage in case of special investigations;
- monitoring of country borders;
- providing security for some objectives;
- preventing attacks;
- monitoring and research of the road;
- police training etc.

These domains of drones' applications within the MAI were reprinted as a research topic for students of the 2nd, 3rd, and 4th cycle within disciplines such as: forensics, special investigation, special techniques, border surveillance and integrated border management.

At the same time, the students of the “*Stefan cel Mare*” Academy, specializing in „border police” carry out their practice in the structures of the border police, a subdivision that exercises its legal duties, including the use of drones for the guarding and surveillance of the state border. Thus, students posted to the practice are familiar with the types of drones used, as well as the methods and procedures used by border guards in the process of surveillance and guarding the state border.



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2. Actions conducted during the project

This part of the report will develop for each country the actions conducted during the project and particularly:

- Method used for identifying companies in the ICT and in the civil application sector of drones.
- Advertising activities for promoting the training courses to companies.
- Method for collecting internship offers on positions in local ICT companies in and in the civil application sector of drones.
- Methods for advertising students regularly on the open internship offers.
- Organization of forums.
- Participation in forums.
- Training in internship research (CV, cover letter, preparation for interviews).
- Involved teachers and administrative staff.

2.1. Armenia

The main method is the correspondence of the interests of OED laboratory students from one side and the main directions of the companies in the ICT from another side, because this will lead to generate real added value both for the trainees and for the companies.

Promotion has been conducted through meetings, announcements and dissemination events. Partners also subscribed to the news of the ICT companies, getting emails from them regarding the internships. Students are informed on the open internship positions via emails, website news & announcements. ASUE organized a job fair/forum where *eDrone* dissemination materials have been presented. Students are helped for writing CV and conducting interviews. Ten teachers and administrative staff were involved in these actions.



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2.2. Belarus

Normal procedures for identifying companies in the ICT and in the civil application sector of drones are as follows:

- Through regional industrial clusters:
 - Several Companies from Belarusian Hi - Tech Park (<http://www.park.by/?lng=en>)
 - **JOINT STOCK COMPANY** “Integral” through joint Branch Lab. <https://integral.by/en>
 - Production Unitary Enterprise “Precise Electro Mechanic Factory” through joint Branch Lab. <https://en.ztem.by/>
- Free shared constantly updated database of potential employers <https://cv.bsu.by/>.
- Regular Career days.
- Free shared constantly updated database of graduate students

<https://cv.bsu.by/catalog/>.

Starting from 2018, there is a mandatory requirement of the Ministry of Education that all students undergo practical training only at enterprises (not at the universities). Several actions have then been launched and reinforced.

Collection of internship offers is conducted through several procedures:

- Through agreements with Enterprises for regular student practice.
- Through **letters at the enterprise with a proposal to take students to practice.**
- Through regional industrial cluster partners.

Students are also trained in internship research including writing CV and preparation for interviews.

In parallel, students are advertised on the open internship offers through:

- Free shared constantly updated database of potential employers.



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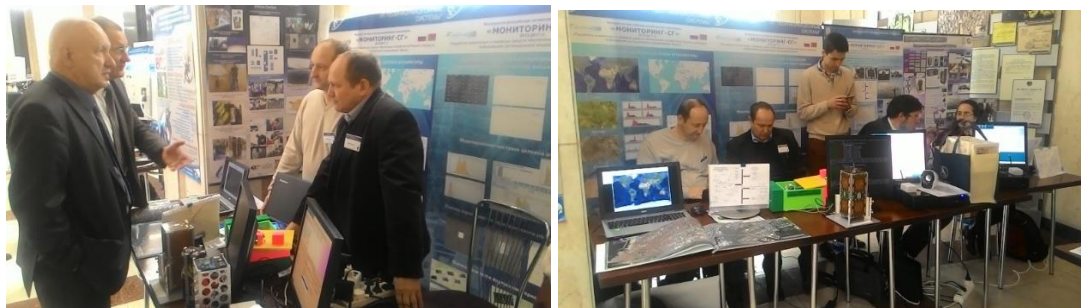
- Regular Career days.
- Free shared constantly updated database of graduate students.
- Organization of forums.
- Annual Career days.
 - Career Forums 2018 and 2019 presented new forms of work with graduates to improve their personal and professional competences, allowing young technical specialists to have advantages in the labor market.



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▪ VII Belarusian Space Congress, 24 – 26 October 2017



Students are finally trained for entrepreneurial aspects through seminars:

- Seminar 1: Legal Aspects of Startups "Technological entrepreneurship" The basics of business organization for physics students: just about important in the right» - 19/10/2018.
- Seminar 2: Intellectual Property Protection in IT "Technological entrepreneurship" The basics of business organization for physics students: just about important in the right» - 22/11/2018.



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2.3. Georgia

The number of companies involved in drones is very limited in Georgia and there are very small ones. For identification of companies acting in civil application of drones were used the internet media, social media, info mails. Training courses were promoted through emails and sms to the target audience. For companies mainly the physical visits and meetings for identifying the needs and demands.

TSU career development center is regularly making consultations for students how to apply for different internships and jobs, how to make cover letters and prepare for interviews.

In the framework of *eDrone* project TSU has three trained staff for conducting training. OED has an administrative assistant who is responsible to spread the word, make consultancy and find new opportunities for graduates of the courses.

OED Administrative assistant is working to connect CIA attendees and industrial partners and scientists to collaborate and work together. The great news is that the software that was purchased within the framework of *eDrone* project is very demanded among the experts of the field and they want to collaborate with the laboratory and plan and carry out the projects. Thus, OED laboratory has the potential to be the vital linkage body for universities and industry collaborations.



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2.4. Moldova

2.4.1. Universities

2.4.1.1 Moldova State University

MSU *eDrone* team was involved in all project activities, more over the CTT courses had been held at the Moldova State University OED and as host organization for this activity MSU *eDrone* team did their best (see the link: <http://usm.md/?p=19341&lang=ro>).



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Another successful activity within the *eDrone* project was the new Program of continuing professional education “Education for Drone”.

In the first edition of the CIA courses were involved associated partners of *eDrone* project and other organizations that had participated in the survey on needs analysis on drone education.

A group of 20 professionals from different areas of activity was instructed during the first edition. This aspect helped us to identify the core areas needed in the program of continuing professional education “Education for Drone”: agriculture, mass media, security, drone construction, cadaster, archeology, meteorology etc. (<http://eDroneproject.org/index.php/news/164-26-november-2018-cia-courses-started-at-moldova-state-university>)

The second edition of the CIA courses was attended by professionals from different areas of activity as agriculture, security, engineering, from drone construction start-up. (<http://eDroneproject.org/index.php/news/170-monday-march-4th-2019-start-of-the-2nd-edition-of-the-eDrone-cia-courses-at-the-moldova-state-university>)

Another two editions of the CIA courses began in December 2019 and proved the real importance of *eDrone* project for the professionals from different areas.

2.4.1.2 State Agrarian University of Moldova

The State Agrarian University of Moldova (SAUM) uses the Web site of State Agrarian University of Moldova (www.uasm.md), where the press releases about participation of the team members at the events in Partners countries. Also, the site contains the short description of the *eDrone* Project and rolling *eDrone* banners/icon;



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Fig. 1 - Screenshot of the SAUM webpage with eDrone logo

Other actions concerned:

- **Press releases** that have been released after each participation of P10 eDrone team at the events organised by other Partners of the project;



- **Leaflets** of the project have been distributed to each of the event organised by P10 *eDrone* team and during the participation to other events and workshops. Leaflets have been part of the information dissemination package containing additionally a pen and a block note;



Fig. 2 - eDrone leaflet distributed to participants to the events

- **Participation in the events and workshops.** P10 *eDrone* Team members participated in multiple events related to ICT and civil application of drone organised by other institutions



and international donors, ensuring the synergy for promoting application of drone technologies in civil sectors.

- Advertising activities for promoting the training courses to companies.
 - When P10 *eDrone* Team performed Drone State of the Art assessment, a number of 7 companies have been involved and being invited to the OED Training Courses: Crama Domnească Ltd; Dîngenarul Ltd; Glia-Vito Ltd; SC Agro Girtla Ltd; S.C. Nova-Geea Ltd; Vindex-Agro Ltd; „Vivaj-Agro” Ltd.
 - P10 *eDrone* Team sent out the invitation letters to these companies inviting the representatives of the companies to take part in the *eDrone* training courses.



Fig. 3 - Invitation letter to the companies to attend the *eDrone* training courses



- Also P10 e Drone Team is promoting the Training course when participating in the events together with the companies from Ag. Sector. We can refer to such events those organised on:
 - **December, 14th, 2018**, at the Department of Horticulture of SAUM, when has been organised the workshop on Innovations and Workforce development in Table Grape VC. Dr. Stiopca presented *eDrone* project activities training courses for several companies presented at the event: Glia-Vito ltd; Elvitis Com ltd; Daion Service ltd; Fructmer ltd.
 - **February 13, 2019**, at the National Agricultural Library of Moldova located at SAUM, has been organized the workshop on Library Resources on *eDrone* Technologies and Drone use in Horticulture. Dr. Stiopca presented *eDrone* project activities training courses for several companies presented at the event: Vindex-Agro jr. Ltd, DNT Association, Belyy Most Association of Small Farmers, Proentranse NGO, Pomrubus ltd, WeTrade ltd, Visniovca FF.
 - **June, 14th, 2019**, Dr. Stiopca, P10 *eDrone* Project coordinator, participated in the seminar “Employability and Internationalization” organized at State Agricultural University, where 5 potential employers have participated at the event. Dr. Stiopca presented OED courses and encouraged the students and companies to participate in this course.



Fig. 4 - Bayer Crops Company presenting their internship offers for SAUM students during the seminar “Employability and Internationalization”

In order to collect internship offers on positions in local ICT companies in and in the civil application sector of drones, several actions were performed.



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- Inviting guest speakers from the local ICT companies was the main method of collecting the internship offers. In this context, during the Information Day organised on **October 1st, 2018**, representative of DNT Association (members of this Association are ICT leader companies from Moldova) presented the internship opportunities at the ICT companies for students of Ag. Engineering Department and those of Cadastre and Law.



Fig. 5 - Doina Iatisin, presenting ICT companies internship opportunities during the Informational Day at SAUM

Students are regularly advertised on the open internship offers through:

- Distributing leaflets about the internship opportunities at the Faculties billboards;
- Using e-mail list of Moodle platform of SAUM;
- Student participating in forums together with the private companies;

Such examples are:

- Agrobiznes: „Exemple de succes pentru tinerii din Moldova”



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(<https://uasm.md/ro/noutati/2713-participarea-studentilor-uasm-la-primul-eveniment-agrobiznes-dedicat-tinerilor-ce-si-fac-studiile-in-agricultura>);

▪ AgTech: Digitalizarea agriculturii în Moldova” (<https://agrobiznes.md/live-video-se-desfasoara-evenimentul-agtech-digitalizarea-agriculturii-in-moldova.html>)

- Guest speaker lectures and forums like the seminar “Employability and Internationalization” organized at State Agricultural University, where 5 potential employers have participated at the event and presented their current internship and employment opportunities.

In addition, several participations to forums and fairs have been achieved

- Forums

▪ On **October, 1st, 2019**, Mr. Valeriu Seinic, member, trainer of P10 eDrone Project implementation team participated at conference “Cluster support for digital transformation in Agro Food Sector”. Mr. Seinic have presented a presentation entitled “Use of drones in the agricultural sector” for 51 participants at the event.

▪ On **February 25th, 2020**, Mr. Valeriu Seinic, participates at the forum AgTech: Digitalizarea agriculturii în Moldova”. Mr. Seinic offered a small TV interview on use of drones and GPS systems in Agriculture:

<https://www.jurnaltv.md/news/5e0e5948fa07781e/digitalizarea-o-noua-etapa-a-agriculturii.html>) – 0:50 min;

<https://www.facebook.com/watch/?v=861112827671938> – 2:26 min;

<http://tvrmdova.md/ro/economic/tehnologii-moderne-in-agricultura-din-republica-moldova?fbclid=IwAR1imiCfINMvMTx1v07VkrqibGvfb90M8nLTFchmeARzwnj7WjoPiOOtq4> – 1:48 min.

During the workshop organized for students, a special part of the agenda was on writing the CV, cover letter and preparation for the interview.

Among such events, we can list:

- On **March 27, 2019**, at the department of Ag. Engineering has been organised a workshop on Drone technology,



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- On **December, 11th, 2019**, P10 *eDrone* team organised a workshop “Drone Applications in Agriculture and Environment” for 29 students and faculty of the Department of Agronomy
- On **February 10th, 2020**, P10 *eDrone* team organised a workshop “Drone Design and Models used in Agriculture and Environment” for 8 students of Electrical Engineering Department.

- Fairs

- On **May 12, 2018**, P10 *eDrone* Team volunteers participated in " Day of Europe ", an event held in the European Town in the "Stefan cel Mare" Public Garden. The *eDrone* volunteers promoted the *EDrone* activities and OED courses by distributing advertising *eDrone* leaflets and informing the public about the planed activity and anticipated results



Fig. 6 - Volunteers of P10-SAUM eDrone Team distributing the leaflet of eDrone Project to participants at “Day of Europe” fair

- On **May 13, 2019** the P10 *eDrone* Team participated in the *European town* organized in Chisinau by the Delegation of the European Union to the Republic of Moldova to celebrate Europe Day. Within this event were presented the international projects, which are being carried out at the university, including Education for Drones Project. Dozens of attendees and participants at the event have been exposed to the information about *eDrone* activities and OED courses that have



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been planned to be organised as part of the project. P10 *eDrone* volunteers distributed the leaflets of *eDrone* Project to participants at the event.



Fig. 7 - Volunteers of P10 *eDrone* Team distributing the leaflet of *eDrone* Project to participants at "Day of Europe" fair

Finally, 6 SAUM staff were actively involved in *eDrone* activities. Also a big help is provided by the bookkeeping department of SAUM and top management of the University. In addition, other professors from different departments took part in P10 *eDrone* events.

2.4.1.3 Police Academy „Stefan cel Mare” of Ministry of Internal Affairs

Several activities involving staff and students were performed within the project.

- On 16.03.2018, inside the „Stefan cel Mare” Academy there was organized a round table with the generic title „Drones in police activity”, organized within the project „Educational for drones (*eDrone*)” supported by the Erasmus + Program, with the participation of the students of the Law faculty, 3rd cycle. The students discussed issues related to the police areas worldwide, where unmanned flying aircraft are applied, including the possibilities of deploying drones in the police activity in the Republic of Moldova.



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- On 29 November 2019, inside „Ștefan cel Mare” Academy was organized the scientific-practical student conference with the generic: „The use of the drones in the activity of combating and preventing crime”, organized within the project „Educational for drones (eDrone)” supported by the Erasmus+ Program, with the participation of the students of the Law, Civil Security and Public Order Faculty, 3rd cycle. Students met to discuss the issue of drone application in law enforcement institutions. Also, to research the legislation in the field, to examine in all respects the achievements of the technique in the given field and to elaborate some conclusions and concrete proposals regarding the application of drones in the activity of combating and preventing crime. Taking into account that, at the contemporary stage, the Republic of Moldova is on the path of independent political and social-economic development, this, undoubtedly, also entails making legislative and technological changes. In the context of these changes, it appears the need to approach and discuss the problems regarding the application of modern technologies (Drone), in order to contribute to the discovery, investigation and prevention of crimes.



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The main objectives of the conference were:

- Regulation of the concept of non-pilot aircraft (Drone);
- Revision of the essence, conditions, grounds and order of the drone application at international level;
- Highlighting the role of technical means in the activity of law enforcement bodies;
- To exemplify the good international practices for the use of non-pilot aircraft in the activity of combating and preventing crime.

Students discussed issues related to police areas worldwide, where unmanned flying aircraft are applied, the consequences of drone application in the absence of legal regulations, including the possibilities of drone implementation in police activity: drone application when directing and monitoring road traffic, monitoring of the state border, drone application when conducting on-site research, drone application monitoring mass disorders, drone application conducting the reconstitution of the fact and experiment in criminal procedure.

- **On February 21, 2020**, during the Basic Management courses held at the Professional Development Directorate, was held the public lesson with the theme. Using drones to maintain public order and investigating crimes”. This was presented by PhD Iurie Odagiu, first vice-rector for studies and quality management, chief commissioner and coordinator of the “Educational for *eDrone*” project.

The main topics focused on: the use of drones in maintaining public order and safety, in investigating crimes and combating crime, in following people suspected of committing crimes, monitoring and preventing fires and assessing their severity, in liquidating the consequences of calamities, in carrying out special investigations.

At the same time were discussed the issues regarding the implementation of drones in the monitoring and research of road traffic, by rapidly unblocking the streets with the help of radar drones to determine the speed of the vehicle. Drones can also be used to monitor the protests by establishing



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the approximate number of participating people in protests and identifying the challengers, fixing the places where the attacks on law enforcement can take place.

The public lesson was organized with the purpose of introducing the MIA employees about the opportunities of access to the new competences related to the use of drone technologies in police activities. The use of drones by professionals will open scenarios that require practical and theoretical knowledge that are beyond the simple management and maneuverability of drones: mechanical characteristics, detection equipment, processing and use of the information obtained.

In this context, the CIA “Educational for *eDrone*” courses are organized periodically in the OED of USM, the beneficiaries of which were the employees of the Academy and the Border police.

Concerning the Academy of Public Administration (ACAP), the partner conducted within the work package the following actions

- - *Consultation of public institutions*: identifying institutional approaches, translation of the questionnaire, developing the list of potentially interested institutions.
- - *Interviewing public institutions regarding* drones currently used or future drone use possibilities.
- - *Presentation of the report*: analysis of collected information, processing, submission of results to partners.

public institutions (authorities) were interviewed:

- 6 – have responded positively
- 2 – refused to collaborate,
- 4 – did not answer.



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3 Achieved outcomes

The purpose of this section is to detail the quantitative aspects of the actions undertaken, in particular in terms of:

- Number of companies identified and sectors of activities.
- Number of fairs and forums.
- Number of internship subjects collected and distributed.
- Number of students contacted and supported.
- Number of students in internships in companies and companies concerned.
- Number of teachers and administrators involved.
- Number of internships leading to a fixed-term or indefinite employment contract.

Unfortunately, the Covid-19 crisis has impacted the potential outcomes of the actions as the containment has been declared in several European countries.

3.4 Armenia

Number of companies identified and sectors of activities	5 companies and 2 sectors
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Number of fairs and forums	1
Number of internship subjects collected and distributed	8 (Problem of Covid-19)
Number of students contacted and supported	N/A (Problem of Covid-19)
Number of students in internships in companies and companies concerned	N/A (Problem of Covid-19)
Number of teachers and administrators involved	10
Number of internships leading to a fixed-term or indefinite employment contract	N/A (Problem of Covid-19)

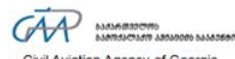
3.5 Belarus

Number of companies identified and sectors of activities	4 companies and 2 sectors
Number of fairs and forums	4
Number of internship subjects collected and distributed	3
Number of students contacted and supported	12
Number of students in internships in companies and companies concerned	25
Number of teachers and administrators involved	8
Number of internships leading to a fixed-term or indefinite employment contract	5



Belarusian State University

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3.6 Georgia

Number of companies identified and sectors of activities	1 company and 1 sector
Number of fairs and forums	1
Number of internship subjects collected and distributed	
Number of students contacted and supported	25
Number of students in internships in companies and companies concerned	6
Number of teachers and administrators involved	8
Number of internships leading to a fixed-term or indefinite employment contract	

3.7 Moldova

2.4.1 Partner Universities (HEI) from Moldova

The main outcomes of the *eDrone* project for the MSU:

- The OED is setting up and become a true platform for Moldovan partners collaboration in this project: Civil Aviation Authority, Police Academy “Stefan cel Mare”, Academy of Public Administration, State Agrarian University of Moldova and the Association Partners: the drone construction start-up “Icevo Consulting SRL”, the Governmental Agency “Moldsilva”, Tiraspol State University.
- In the collaboration with all Moldovan partners in *eDrone* project four editions of the CIA courses were developed.



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- The ICT platform – MOODLE platform for CIA courses “Education for Drone” (<http://moodle.usm.md/moodle/course/index.php?categoryid=208>) is the place where all actors work together: teachers from five organizations, attendees and experts.

The State Agrarian University of Moldova (SAUM) got the outcomes listed in the table below

Number of companies identified and sectors of activities	11 companies in agricultural sector and 6 institutions
Number of fairs and forums	5 fairs and 8 workshops
Number of internship subjects collected and distributed	2
Number of students contacted and supported	168
Number of students in internships in companies and companies concerned	24 students and 6 farmers
Number of teachers and administrators involved	21
Number of internships leading to a fixed-term or indefinite employment contract	N/A

Additionally, at two events: “AgTech: Digitalizarea agriculturii în Moldova” – 101 participants as total, including 38 agricultural companies and 9 IT companies, and “Cluster support for digital transformation in Agro Food Sector” have been participated 50 participants as total (the number is not desegregating the number of students).

The Academy of Public Administration (ACAP) has reviewed in depth 6 institutions

The details of the 6 institutions that have been reviewed is given below. The description covers



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- Identifying institutions;
- Overview of drone-using institutions;
- Overview of institutions willing to use drones;
- Areas of cooperation.

These companies are:

- Geodesy, Technical Prospects and Cadastre (INGEOCAD): Products: Maps and topographical plans, Atlases, Digital Terrain
- Institute of Forest Research and Development (ICAS): Forestry design and fitting, Drawing up thematic maps
- Ministry of Agriculture and Food Industry (MAIA): Mission – to promote state policy in the agro-industrial sector
- State budget - FNDAMR-starting with 2017
- Ministry of Transport and Infrastructure (MTID): Mission – elaboration, promotion and implementation of state policy in the field of transportation and road infrastructure.
- Tourism Agency: Mission – development and implementation of the legislative and normative framework, state strategies and policies in the field of tourism, development of domestic tourism and promotion of the country as a tourist destination abroad, protection of the rights of the subjects of legal relations in the field of tourism, as well as ensuring the rendering of tourism services at international standards.
- Moldsilva Agency: Mission – Promoting the state policy in the designated field by carrying out works of expansion, regeneration and conservation, ecological reconstruction, rational use of forest resources, guarding, protection and development of the national forest and hunting fund.

Representatives from these institutions participated in two events organized by the Academy of Public Administration:

- Round table "Drones: Between experiment and necessity", Chisinau, APA, October 3, 2017
<http://aap.gov.md/ro/article/evenimente-events>



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- Workshop "Application of drones: interference between public and private sectors", December 5th, 2018 <http://aap.gov.md/ro/news/atelier-de-lucru-privind-aplicarea-dronelor-desf%C4%83%C8%99urat-la-academia-de-administrare-public%C4%83>

2.4.2 Police Academy „Stefan cel Mare” of Ministry of Internal Affairs

The *eDrone* team project has achieved some outcomes, such as:

- Participating within the Workshop on *eDrone* Technology in Tbilisi (Georgia) / Yerevan (Armenia), July 10-15, 2017;
- Between November 4-7, 2018, at the State University from Minsk, Belarus, held the next workshop „*eDrone* Technology” within the consortium of the Erasmus + project „Capacity Building for Higher Education” entitled „Educational for drones (*eDrone*)”
- During the period September 18-21, 2019, at the State University of the city. Minsk, Belarus, held the next workshop „*eDrone* Technology” within the consortium of the Erasmus + project „Capacity Building for Higher Education” entitled „Educational for drones (*eDrone*)”.
- Participating within the Workshop on *eDrone* Technology in Yerevan (Armenia), February July 6-7, 2020

At the same time, 2 conferences were held at which 20 students were involved who made short incursions regarding the utility of drones.

Between September 22 - October 6, 2018, at Evry University, France, took place courses of training trainers in the field of the use of small drones. The general objective of the professional retraining program is the theoretical and applicative training in the professional field that would allow it to train the necessary skills for an engineering specialist, especially in relation to the piloting, maintenance and regulation of drones. One person was delegated From ACAPOL.

Educational for drones (*eDrone*) project team – „*Stefan cel Mare*” Academy of MAI (ACAPOL) is constituted by 6 staffs.



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3 Conclusion and perspectives

This report has highlighted the different activities of the partner countries within the framework of the *eDrone* project. We can see a very dynamic activity with different actions which are carried out at different levels for students, companies, institutions and partners.

However, the initial situation from one country to another on the Drone activities is very different. The main objective of the *eDrone* project is to provide the higher education institutions in the partner countries with effective tools for setting up the Drone Training Centers (OEDs), for the transfer of all the above-mentioned knowledge to the professionals from each partner country during the professional and educational studies. Thus, each beneficiary country will create a Training Center (OED) on the use of Drones and the beneficiaries of the training services will study: drone architecture; piloting techniques; drone equipment for measurement and monitoring activities; processing of the data obtained; maintenance of drones; the legal aspects of the use of drones; risk analysis and prevention; flight certification and approval.

The main impact of this proposal is the creation, in partner countries, of specific skills and skills to create, on the one hand, new opportunities in the labor market, and on the other hand, professionals able to properly manage and maintain them. drones.

At the same time, results such as the creation of special leaflets, banners, calendars, pens were achieved and obtained. But a major achievement is the editing of the „Education for drone” course support with the help of the team of trainers from the project, as well as the editing of the materials of the student conference from 29.11.2019, which will constitute a veritable bibliography in the process of subsequent training.

In this context, areas for improvement through cross-study will be provided at country level and all partners’ level.



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We can also point out the involvement of all the partners in the successful completion of the project as can be seen from this report.



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