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Estonian Aviation Academy

ESTONIAN AVIATION ACADEMY DEVELOPMENT PLAN

2016 – 2020

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1. Introduction

Institutions of Professional Higher Education Act, the Universities Act, the Standard of Higher Education, the Statutes of Estonian Aviation Academy, the Estonian Lifelong Learning Strategy 2020, the Aviation Law and international aviation legal acts serve as the source documents of the present Development Plan.

Estonian Aviation Academy (EAVA, the Academy) is a state professional higher education institution founded in 1993 the aim of which is to educate and train aviation specialists. The Academy is situated at Ülenurme, Tartu County, operating in its own study centre completed in 2011.

The most characteristic feature of Aviation Academy is the integration of professional higher education and internationally certified aviation education. To ensure the quality of the study process top aviation specialists are engaged in teaching alongside with the Academy teaching staff, and practical training is done in aviation companies. The organisation of the study process is in compliance with the requirements of International Civil Aviation Organisation (ICAO), the European Commission and the European Aviation Safety Agency (EASA) which shall ensure the Academy graduates competitiveness both in Estonian and international labour market.

The Development Plan of Aviation Academy for 2013 – 2017 was drawn up after the resolution of higher education reform was adopted, whereas the forthcoming institutional accreditation and general development trends in aviation were taken account of. The development of the material-technical basis of the new study centre was also one of the most important goals.

EAVA has successfully passed institutional accreditation and has been awarded the quality label of the Estonian Higher Education Quality Agency. The structure of the curricula, the volume of training demand and the aviation companies' expectations in regard to the quality of formal education are in optimal balance and the current state budgeting enables to steadily develop both the curricula as well as the personnel.

Based on the measures of structural funds of previous periods the Academy has created an optimal material-technical basis meeting the needs of the Academy and satisfying international aviation requirements.

The majority of goals set by the Development Plan have been achieved; the goals not achieved yet shall be specified and further activities designed in the new Development Plan.

The mission of EAVA and its vision, and the SWOT analysis have been upgraded in the Development Plan for 2016 – 2020. The indicators of the goals set in the Development Plan have been presented in a separate table (See Appendix 2).

2. Mission

The mission of Estonian Aviation Academy as a professional higher education institution is to offer high-quality and efficient aviation education and training and provide development activities.

3. Vision

By 2020 the Academy is an internationally recognised higher aviation education institution and a cooperation partner of high esteem in the field of aviation proceeding in its activities from the needs of the society.

4. Strategic goals and activities

To achieve the vision formulated in the Development Plan three goals have been set to focus on during the forthcoming period. Strategic activities and the outcomes strived for serving as the indicators have been defined to achieve the goals set.

Goals:

- 1) Development of the study process with the aim of becoming a sustainable internationally recognised provider of aviation education;
- 2) Application of the Academy development capability to make it an aviation development gateway in Estonia
- 3) Ensuring the sustainability of Estonian Aviation Academy through efficient management system.

4.1 Development of the study process with the aim of becoming a sustainable internationally recognised provider of aviation education

The role of EAVA as a state professional higher education institution is to cover the need for the personnel of aviation companies operating in Estonia as well as to ensure the opportunities for lifelong learning. Considering the international nature of aviation entrepreneurship and the EU principle of free movement of the work force the study process has to enable gaining international experience in the course of formal studies or during in-service training.

Goals:

- The training needs and admission quota of specialities of formal studies have been analysed every year and approved by the Academy Council taking account of the Academy training capability.
- The study process relies on efficient admission and learner-centred approach. The student dropout rate is below 15%, the learning motivation has enhanced. The student counselling system functions efficiently.
- The Academy as a professional higher education institution and its study programme groups has been internationally accredited. Employers are included in the development of the curricula and in the organisation of practical training. Feedback given is taken account of.
- The study process of certified training organisations is in continued compliance with the requirements of the EASA.

- The students are satisfied with the Academy study process, learning environment and counselling.
- The Academy modules of speciality studies are applied in cooperation to train aviation specialists of the Defence Forces.
- The development of international cooperation takes place both as the two-way academic mobility and the continuous development of the courses delivered in English. International cooperation with top aviation higher education institutions functions efficiently.
- The number and qualification of the EAVA graduates meets the employers' needs and expectations and ensures the fulfilment of the goals established by the Ministry of Education and Research. The employment of the graduates satisfies the expectations of the society.
- The regional training needs for lifelong learning in the field of aviation have been mapped and the list of in-service training courses offered by the Academy meets the expectations of the target group.

The following activities have been designed to fulfil the goals set:

- Employers' feedback on their need for work force is collected on a regular basis;
- The Academy training capability shall be developed in line with the development of the labour market;
- Computer-based professional aptitude pre-selection tests are used on admission which enables to increase the number of testees and select the most suitable candidates;
- Extra attention shall be paid to students drop out – student counselling made more efficient and student-centred approach employed;
- The students and graduates shall be provided counselling for employment to ensure they find work after graduation;
- The Academy continues and develops cooperation with Estonian aviation enterprises: in the development of the curricula through Curriculum Councils, in conducting practical training, and in supervising or consulting graduation theses and research papers;
- The capabilities of EAVA aviation training organisations shall be developed with the further aim of conducting international studies;
- Active cooperation takes place in training the officers of the Defence Forces – EAVA provides for aviation education included in the ENDC curricula. Cooperation is developed in line with the needs of the state;
- Opportunities for the English medium formal education and in-service training meeting the expectations of the target group shall be created by developing the curricula;
- Within the framework of the mobility programme the Academy students shall be ensured a variety of opportunities for participating in academic mobility;

- Development and strengthening of cooperation both with the present as well as with the new cooperation partners, incl. the engagement of foreign visiting teaching staff in conducting curricular studies;
- Continuous improvement of the knowledge of English of the Academy teaching staff, facilitating their participation in academic mobility, and recognition for furthering international cooperation;
- Current monitoring of the quality of teaching carried out by cooperation partners (UT, EULS, TUT), and the development of the contents of subject courses in line with the changing needs;
- The teaching staff shall be provided support in honing their digital competence and in its application in the study process;
- Students' enterprise is advanced by the spin-off programme and by a more practical application of subject courses on entrepreneurship;
- Active communication takes place between the Academy and the stakeholders interested in in-service training;
- In-service training courses shall be planned and organised according to current commission contracts taking account of the cooperation partners' feedback and considering the capability the Academy has to organise these courses;
- In-service training courses shall be delivered by the lecturers with appropriate qualification and necessary working experience – by the teaching staff of the Academy and of other higher education institutions, Estonian and international practicing specialists.
- Feedback surveys are made to inquire about the satisfaction with in-service training courses and to establish the training needs.

4.2 Application of the Academy development capability to make it an aviation development gateway in Estonia

The role of EAVA as a partner and coordinator of development activities is to cover the needs of the state for development in the field of aviation, and bring aviation related development projects into Estonia coordinating their realization in the region.

Goals:

- Estonian Aviation Academy shall become a recognised partner in its field of competence in development activities both to enterprises as well as to educational institutions through aviation related cooperation and integration of study process and development activities.
- By 2020 the Academy shall be the centre of studies and development in the field of remote controlled aircraft technology (RPAS) in its region, expanding the cooperation with partners from private and public sector both nationally and internationally. This would facilitate the increase in the Academy competitiveness and capability to serve the society in the field of aviation and in the fast developing areas of smart specialisation (aviation machinery, communication, navigation and surveillance systems).

- The Academy shall support the engagement of its staff and students in research and development activities (R&D). Annual contests of student research papers and staff members' application projects are held, more and more students are engaged in application projects (course projects, practical training, graduation theses, spin-off entrepreneurship).
- Optimal planning and revenues from economic activities shall ensure additional opportunities for the development of a modern infrastructure of the study centre and for motivating the staff. The cost of updating, certifying and maintenance of the machinery and equipment shall be covered by the financial resources received from the shared use of the equipment.

The following activities have been designed to achieve the goals related to development activities and cooperation:

- The capability, goals and strategy of the Academy R&D activities shall be established. The resources and competences of the Academy R&D shall be mapped.
- The current EAVA Procedure for R&D, the principles of calculation of the employees' R&D activities and the connected motivation system shall be analysed. The R&D volume of the Academy staff shall be planned in individual work plans of the staff members.
- Increase in the training and development capability of the technologies under development (RPAS) shall be financed from international and national programmes and projects (ASTRA, Horizon 2020).
- R&D activities shall be recorded as required in the document management system in use at the Academy and systematically entered into the register of Estonian Information System (EIS).
- Framework documentation shall be drawn up for the spin-off programme. The opportunities of spin-off entrepreneurship shall be introduced to the Academy membership. The first spin-off enterprises of the Academy shall be registered.
- Strategic partners in aviation related development activities of the region shall be mapped (possible partners, enterprises, higher education institutions) as well as their resources and competences.
- To increase the volume of development activities cooperation between the Academy and its partners shall be deepened.
- The Academy shall regularly organise cooperation seminars with aviation enterprises and aviation related organisations.

4.3 Ensuring the sustainability of Estonian Aviation Academy by efficient management system

EAVA management system comprises the management of the processes of the academic structure and the support structure the quality of which has been ensured by the application of the uniform conformity assessment system and by cooperation with the stakeholders. To ensure the sustainability of the Academy it is essential to optimise the management processes and establish the development goals in a way that would ensure the development of the organisation in line with the expectations of the parties interested.

The following subgoals and activities have been established for achieving these goals:

Goals of administrative and personnel management:

- EAVA activities are in compliance with education and aviation acts of law;
- The international certificates of training organisations are continually kept valid, and the accreditation of study programme groups has successfully been passed;
- The goals of the Academy have been introduced to the employees and the individual goals set for staff members are clear and measurable and have been fulfilled;
- Feedback shall be collected from cooperation partners, staff members, students and alumni;
- At least 70% of the Academy staff actively participates in conducting the study process and visiting teaching staff from enterprises is also engaged;
- EAVA academic staff members are motivated being competent and recognised lecturers both in Estonia and in Europe;
- The ratio of regular teaching staff meets the needs. The development of the new generation teaching staff, rise in the qualification level and increase in the competences of the teaching staff is ensured.
- The ratio of the teaching staff holding the master's or doctoral degree meets the requirements and needs.

The following activities have been planned to achieve the outcomes striven for:

- The management system shall be upgraded taking account of the development of the field of education and aviation, and the organisational culture shall be developed;
- The motivation system based on annual key performance indicators (KPI) shall be applied;
- The system of task management shall be applied: assignment / monitoring of fulfilment of tasks;
- The system of feedback and satisfaction surveys shall be advanced;
- The system of conformity assessment and safety management shall be elaborated;
- The competences of the staff shall be evaluated and based on the results speciality specific personal development programmes are drawn up;
- Development of the knowledge of foreign languages, contemporary teaching skills and digital competences of the personnel;
- Optimisation of the structure and composition of the staff of the Academy, ensuring the high level of the teaching staff. Training of administrative staff and their engagement in the study process;
- Sending employees to enterprises with the aim of acquiring specialist experience or for in-service training;

- Facilitating the staff members' Master's and Doctoral studies.

Administrative and financial management:

General goal:

EAVA is a sustainable higher education institution operating successfully by combining the state allocated activity support with the revenues earned from provision of training services and from other economic activities. The increase in the capabilities shall be achieved by optimising the activities and by the increase in the own resources earned which helps to keep the state financial burden stable.

Activities planned:

- Active marketing of the services offered by EAVA;
- Optimization of the expenditures by covering the administrative cost of the material-technical basis with the revenues received from the provision of services of the Academy laboratories and simulators;
- Overall optimization of administrative costs and expenditure on infrastructure by applying all the possible methods for it;
- Environmental policy – reduction of environmental damage by a more extensive application of digital learning technologies and by updating practical training.

5. Summary

The EAVA Development Plan is designed for the period of five years based on which the application plan for each and every calendar year is drawn up. The application plans are coordinated by the Academy Council and approved by the Rector.

The fulfilment of the application plan is assessed by the Academy Council and the results of fulfilment are covered in the Academy annual report which is compiled by March 31 of the current calendar year at the latest.

Appendix 1 Performance indicators

Goal: development of the study process with the aim of developing into a sustainable internationally recognised educator in aviation (focus: the study process)				
Indicator/metrics		2016¹	2018	2020
1	Ratio of graduates employed or continuing their education (%)	90	92	95
2	Number of foreign visiting teaching staff engaged in speciality studies	0	5	10
3	Number of graduates per annum	42	49	50
4	Curricula comprising Speciality Module conducted in English	0	2	4
5	Ratio of interrupters	15	17	15
6	Number of foreign visiting students in speciality studies	0	4	10
7	Student satisfaction with the curriculum and organisation of studies (on a 5-grade scale)	4.0	4.1	4.2
8	Satisfaction of the alumni with the curriculum and quality of studies (on a 5-grade scale)	3.7	4.0	4.1
9	Employer satisfaction with the curriculum and quality of studies (on a 5-grade scale)	3.9	4.0	4.2
10	Number of in-service training courses offered	35	38	40
11	Number of participants in in-service training courses	510	530	580
Goal: Become an aviation development gateway in Estonia				
12	Number of international partners in development projects	1	2	3
13	Number of partners in development projects in Estonia	5	7	15
14	Number of registered spin-off enterprises at the Academy	0	1	2
Goal: Ensuring the sustainability of Estonian Aviation Academy (focus: development of the organisation)				
15	Ratio of the turnover earned from economic activities to the state allocated activity support	5	10	15

¹ The data from the Annual Report 2015, the action plan and the directive on allocating activity support have been taken as the baseline level

	(%)			
16	The proportion of non-academic staff engaged in teaching	60	65	70
17	The teaching staff having experience in participating in the activities of academic mobility (%)	10	30	50
18	Student satisfaction with the teaching staff (on a 5-grade scale)	4.4	4.4	4.5
19	Proportion of teaching staff with aviation competences and experience in speciality studies (on a 5-grade scale)	70	80	85
20	The proportion of teaching staff holding the Master's or Doctoral degree (%)	55	60	65

Appendix 2 SWOT analysis

S – strengths	W – weaknesses
<ul style="list-style-type: none"> ● close cooperation with both the public and private sector employers; ● high-quality studies certified pursuant to European requirements on a wide scale of aviation specialities; ● broad-scale preparation that would ensure high employment rate of the graduates; ● a small and flexible higher education institution; ● competent teaching staff; ● engagement of practicing specialists; ● a well-functioning system of practical training; ● modern learning environment; ● cooperation with other higher education institutions; ● traditions and image; ● student-centeredness. 	<ul style="list-style-type: none"> ● high dropout rate during the first years of studies; ● limited capability for conducting in-service training; ● uneven distribution of the teaching staff work load; ● no active marketing of in-service training courses; ● dependence on cooperation partners (EULS, UT, TUT); ● the motivation system requiring further development; ● underused material-technical basis (labs, equipment); ● unrealised capacity development; ● international formal education not developed.

O – opportunities	T – threats
<ul style="list-style-type: none"> ● expanding cooperation with aviation enterprises; ● continued cooperation with other higher education institutions; ● more efficient communication and marketing activities; ● increase in the needs for in-service training and retraining; ● increased cooperation with the military sector; ● entering the international education market, in-service training included; ● systematic development of the teaching staff competences; ● continued and more extensive engagement of the alumni in the development of the study process; ● a more extensive application of the material-technical basis in development activities and in providing various services. 	<ul style="list-style-type: none"> ● rearrangement of higher education space; ● fall in the overall educational level of school leavers and their little interest in natural sciences and technology; ● possible reduction in state funding; ● enterprises have no clear vision of their actual needs for personnel; ● economic difficulties of the cooperation partners of importance to the Academy.