ERASMUS PLUS
HIGHER EDUCATION CAPACITY BUILDING

PASO (Precision Agriculture Service Office) Business Plan

Erasmus+ Project
New and Innovative Curricula in Precision Agriculture / (NICOPA)

597985-EPP-1-2018-1-KZ-EPPKA2-CBHE-JP

Co-funded by the
Erasmus+ Programme
of the European Union

CONTENTS

1. Executive Summary

Title of the project: "New and Innovative Courses for Precision Agriculture" – NICOPA is a 3-year project co-funded in the framework of the Erasmus+.

NICOPA was developed by a large consortium composed of the 16 partner organizations (Universities, Governmental Agencies and companies) from the EU, Kazakhstan, Uzbekistan and Turkmenistan, and co-funded by the EC within the Erasmus+ Programme.

The following organisations are involved in the project consortium:

P1   Agro Technical University KATU (Coordinator), KZ
P2   Technische Universität Berlin TUB, DE
P3   Agricultural University Plovdiv AU, BG
P4   Ceska Zemedelska Univerztity v Praze CULS, CZE
P5   EXOLAUNCH GmbH, DE
P6   Kokshetau State University KokSU, KZ
P7   North Kazakhstan State University NKSU, KZ
P8   Turkmen Agricultural University TAU, TM
P9   The Turkmen State Architecture and Construction Institute TSACI, TM
P10   Turkmen Agricultural Institute TAI, TM
P11   National University of Uzbekistan NUUz, UZ
P12   Tashkent University of Information Technologies TUIT, UZ
P13   Tashkent Institute of Irrigation and Agricultural Mechanization Engineers TIIAME, UZ
P14   Ministry of Education and Science, KZ
P15   The State Inspection for Supervision of Quality in Education, UZ
P16   Ministry of Education of Turkmenistan, TM

NICOPA is aimed to modernize, restructure and internationalize the BSc/MSc studies in the field of Precision Agriculture using new technologies: Global Navigation Satellite Systems (GNSS) data, Remote Sensing (RS), Geographic Information System (GIS) technology and the latest achievements of space and information. The planned curricular reform will focus on content, structure, teaching methods and use of new teaching materials regarding the European modernization agenda for higher education.

The mission of the project is to develop NICOPA in PCs by creating educational environment to form highly skilled specialists demanded by labor market and in line with EU best practices and Bologna process.

Within the framework of the NICOPA project Service Office – "Precision Agriculture Service Office" (PASO) should be established in each target university with the support of non-academic organizations in university organizational form based on local conditions.

NICOPA Service Office's main mission is to create conditions for the development of the project results after its completion and to facilitate the flow of funds for maintenance and development created by the project laboratory facilities.

PASO can be considered as an integral part of new or existing student startups for innovative technology development enterprises, business incubators, technology parks or subdivisions.

Service Office can be based on new laboratories PAL and VCR in the frame of the project to expand its capabilities. PASO will implement the following tasks and activities:

- Marketing of needs in the field of Precision Agriculture and development of appropriate services for different target groups;

- Development and implementation of training courses and/or advanced training of different target groups;
- Periodical conducting of the University audit on existing training courses aiming to replace/ upgrade of outdated curricula and develop new ones;
- Marketing of the educational services market;
- Analysis of requirements of potential employers;
- Analysis of compliance of competencies/skills of the graduates regarding the requirements of employers;
- Analysis of needs of industrial enterprises in service training of professional personnel, searching for interested organizations and sponsors;
- Informational support.

2. General regulations

This Regulation defines the goals, objectives, functions and activities of the PASO Office Service:

1. PASO carries out activities related to the deep development of materials created within the framework of the project and updating the content of disciplines in the field of Precision Agriculture in accordance with the latest achievements in the target area.

2. The activities of PASO are carried out in collaboration with other services and structural units of the university, as well as with third parties within its competence.

3. PASO Office Management:

- PASO is headed by a Senior Office Manager with higher professional education;

- Senior Office Manager manages all the activities of PASO, is personally responsible for the timely and high-quality implementation of tasks and functions assigned to the office;

- Maintains necessary documentation;

- Provides statistical and other documentation about the activities of PASO;

- Participates in the long-term and current planning of the office activities;

- Develops an office work plan for each year and coordinates it with other departments of the university;

- Senior Office Manager has the right to sign documents on issues of the office activities falling within his competence.

3. PASO creation purpose

3.1. Transition to qualitatively new level of experts training in the field of precision agriculture meeting the international qualification requirements which will provide a transfer of technological innovations in all fields of professional activity on the basis of the development and carrying out the training courses and/or qualification upgrading courses of various target groups.

3.2. Development and educational and information technology strategy, scientific and methodical and material support.

3.3. Creation of the integrated educational and information environment providing the external and internal quality assurances of educational services where training process is directly integrated to the research activities, production and acquiring of fundamental knowledge, their use in applied developments of the new equipment and technology.

4. PASO main Tasks and Activities

Main Objectives of PASO

The main objective of PASO is the use of the PAL and VCR laboratories as a part of the training of MA students.

PASO implements:

- ✓ Marketing of learning services, studying the requirements of employers, studying of knowledge compliance of university graduates to employers' requirements.
- ✓ Analysis of company requirements for graduate students;
- ✓ Analysis of possible services offered to partner companies using PASO;
- ✓ Organisation of newsletters within the university and friendly organisations;
- ✓ Organisation of introductory seminars with groups of students with a presentation of potential laboratory capabilities;
- ✓ Organisation of short-term continuing education courses for students/teachers;
- ✓ Organisation of monitoring of research projects of students and working groups potentially interested in using PASO;
- ✓ Compilation and updating of the list of possible target groups (enterprises, scientific and non-profit organisations) for the dissemination of information about the project and its results and for identifying interested parties in receiving the information about the project results and in participating in the project activities, drawing up an agreement University – Enterprise Cooperation.

Main Functions of PASO

- ✓ Developing recommendations and plans on modernization of existing and introduction of new courses/disciplines in the educational process;
- ✓ Development of necessary documentation for practical works and advanced training courses in Precision Agriculture;
- ✓ Informing students about trainings on developing personal and social competencies;
- ✓ Conducting advanced training courses and seminars for students and graduates;
- ✓ Providing support of the internship on enterprises and organizations in the region where the university is located;
- ✓ Interacting with the university Career Center on operative informing students and graduates about vacancies in the target and related applied fields.
- ✓ Conducting other activities according to the objectives and needs of the university;
- ✓ Integration of the laboratory usage in the curricula.

The activities of the PASO Office will include roundtables with top managers of large companies in every partner country. As a result, different contracts should be signed with

international companies for the execution of technical tasks. Together with the companies, they will prepare a plan for cooperation.

At all partner institutions, regular job fairs will be organized to maintain the link with the labor market and regional companies. There will be regular meetings organized between professors and representatives of the target sector and small & medium-sized enterprises. Teachers of the department will be able to take part in internships in enterprises, and the department will conduct training of specialists of enterprises.

NICOPA PASO network will execute additional function, except those which are described above: to connect universities and enterprises in order to upgrade curricula in line with labor market requirements; to support graduates employment by providing links and being in touch with the future employer; to organize refreshing courses for graduates; to support connection between science and enterprises by consulting in creation of business start-ups.

Due to successful business model, university will be updated about the current state of the job market, and at the same time will attract attention of different stakeholders to development of high-quality education at universities.

5. Rights of PASO

PASO has a right to:

- ✓ Receive documents and other informational materials sent to university in order to systematize them and use in work;
- ✓ Establish connections with similar offices, which were created in the partner universities of NICOPA;
- ✓ Inquire and receive information which is necessary for the office to implement its work, from the university top management, chairs and other institutions;
- ✓ Make suggestions regarding the improvement of the forms and methods of work of PASO and the university, the improvement of the quality of education.

6. PASO Marketing Plan Summary

Develop your marketing plan and proposed execution:

- ✓ Promotion: nature of your marketing and promotional activities (marketing message, marketing venues, emotional appeal etc.);
- ✓ Maintain an excellent media, print and electronic media coverage of PASO activities;
- ✓ Develop appropriate promotional materials and media to facilitate dissemination of PASO information;
- ✓ Relevance: applicability of your marketing techniques to the target market;
- ✓ Annual and long-term strategy and goals;
- ✓ Enhance target groups awareness of PASO's mission on a wide range of channels, in order to maximize impact and to reach all target audiences;
- ✓ Provide needs assessment and market research to support PASO planning and improvement.

7. Steps for Development of a Business Model

Before creating a business model, university should conduct a SWOT analysis. The main goal is to turn weaknesses into strengths and threats into opportunities.
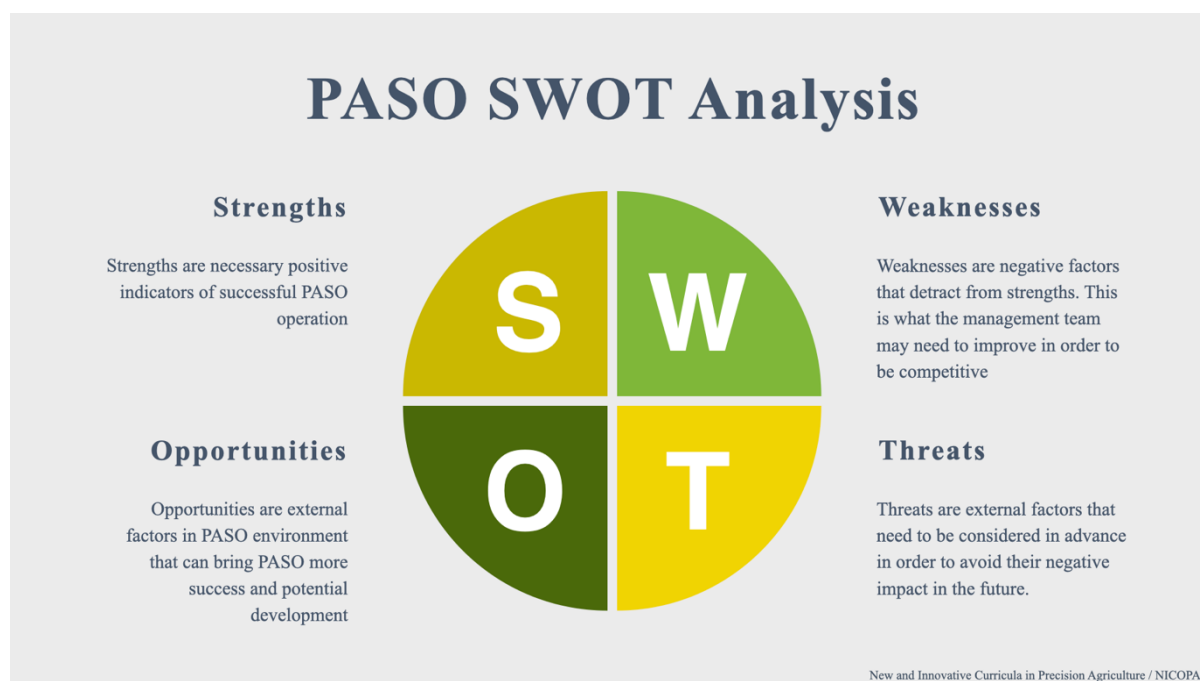
For a Service Office to be able to successfully build its business model/plan, the following steps should be considered:

1. Marketing analysis of educational needs in regions:

- Creation of questionnaires for students, graduates, pupils, teachers, lecturers etc. (all social groups) in order to find out about their educational needs.

- Conducting an analysis of the questionnaires in order to find out which particular educational services can correspond to and solve educational needs.

2. Marketing analysis of the job market in regions:

- Establishing contacts with representatives of the industry, enterprises, scientific research centres, government organizations and services.

- Conducting an analysis of the profiles of such organizations in order to be able to attract their attention to projects or problems the university wants to solve with their assistance.

- Creating a questionnaire for such organizations in order to find out about their expectations and requirements towards potential employees (e.g. graduates, students, future students, pupils, other social groups).

In order to create a business model, the following questions should be answered:

Key Activities	- What key activities does the PASO perform?
Outcomes	- What are the aims of PASO? - What are the most important outcomes?

	- How should we measure the outcomes of the PASO activities? - What benefits does PASO bring to the university?
Organization	- What kind of staff should PASO have? - What are the criteria of staff selection? - What requirements to rooms where PASO operates should there be?
Key Target Groups	- What are our target groups? For whom are we creating the value? - What are the most important target groups?
Relationship with Target Groups	- How does PASO get, keep, and grow the target groups? - Which relationships with target groups has PASO already established?
Market Needs	- What needs and problems of target groups does PASO help to solve? - What services does PASO deliver to the target group? - What services does PASO offer to the target group? - What services will be the most valuable/popular to the target group?
Channels	- Through which channels can PASO reach target groups? - Which ones are the most efficient? - How does PASO learn about the needs of target groups? - Does it use online sources and tools enough? - How do target groups communicate with each other?
Financing	- How to attract additional financing for PASO? What activities should be carried out?

8. Business Model Summary

Step 1: Business Idea Summary

The following components should be considered when creating a business concept:

- ✓ The uniqueness of the business idea
- ✓ Viability of the business idea (solidity and feasibility)
- ✓ Relevance of the business idea (market relevance, market demand, attainability, etc.)
- ✓ Capability of the management (relevance of the skillsets and experience level)
- ✓ Attractiveness for other lenders and investors

Step 2: Product & Services Summary

Define your product/service by demonstrating its compliance with the target market:

- ✓ Description of the product and/or service
- ✓ Impact on the existing market

✓ Market need for your product/service (physical/emotional/financial or otherwise).

Step 3: Competitors Analysis Summary

Identify and evaluate competitors and potential threats to your business plan:

✓ Description of competitors' profiles (maturity level, years of existence in the target market, corporate size, local vs. franchise etc.)
✓ Competitive positions
✓ Review of competitors' prices and your price offer
✓ Quality and delivery review of competitors and your product/business
✓ Existing strategic opportunities (neglected demographic or niche, malperformance by competitors, untapped market etc.)

9. Financial Plan

In order to further commercialize the results and thus self-financing the infrastructure after the suspension of the project financing, each target university should organize training programmes/seminars/workshops based on those established by the PASO Office. The target groups of such programmes are employees of industrial enterprises and technical staff looking for work.

PASO will be used to provide commercial services in the development and verification of new products in target universities. PASO will also carry out other functions within its competence in accordance with the goals and objectives of the university.

The established PASO network will continue its work after the completion of the project, involving an increasing number of target groups inside and outside the NICOPA project consortium. This network will serve as a link between universities and the labor market and improve training programmes.

Possible Startup Costs & Financials required to maintain PASO:

New and Innovative Curricula in Precision Agriculture / NICOPA