ERASMUS +

HIGHER EDUCATION CAPACITY BUILDING

Erasmus+ Project

Crisis and Risks Engineering for Transport Services
(CRENG)

Service Office Business Plan

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Executive Summary

The CRENG Project brings together Higher Education Institutions (HEI), industrial associations and social partners to establish a platform for European Cooperation in engineering activities in transport services which aim to reduce any risks and crisis. The Project is dedicated to support the development of Crisis and Risks Engineering for transport services (CRENG) to ensure sustainability transport systems in Ukraine, Azerbaijan and Turkmenistan for their integration into Global transportation network. In order to contribute to the development of CRENG in the partner countries, the project aims to create an environment for the education of highly qualified specialists that is in line with the labour market and complies with EU best practices and the Bologna Process.

The CRENG Project (Crisis and Risks Engineering for Transport Services) is implemented by a Partnership of 13 organisations from 7 countries representing Higher Education Institutions (HEI) and EU industry associations:

P1: Warsaw University of Technology (WTU); Warsaw/Poland
P2: Technische Universität Berlin (TUB); Berlin/Germany
P3: Université polytechnique des Hauts-de-France (UPHF); Hauts-de-France/France
P4: EXOLAUNCH GmbH (formerly ECM space technologies GmbH) (EXO); Berlin/Germany
P5: Pryazovskyi State Technical University (PSTU); Mariupol/Ukraine
P6: Dnipropetrovsk National University of Railway Transport named after Academician V. Lazaryan (DNURT); Dnipropetrovsk/Ukraine
P7: State University of Infrastructure and Technologies (SUIT); Kyiv/Ukraine
P8: Baku Engineering University (BEU); Baku/Azerbaijan
P9: Azerbaijan Technical University (ATU); Baku/Azerbaijan
P10: Azerbaijan Technological University (UTECA); Ganja/Azerbaijan
P11: Institute of Telecommunications and Information Technologies of Turkmenistan (ITIIT); Ashgabat/Turkmenistan
P12: International University for the Humanities and Development (IUHD); Ashgabat/Turkmenistan
P13: Turkmen State Architecture and Construction University (TSAKI); Ashgabat/Turkmenistan

In the framework of the CRENG project Service Office (CRENG SO) was established in each target University with the support of non-academic organizations based on local conditions.

CRENG SO'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.

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

CRENG SO can be based on new laborotories, created in the frame of the project to expand its capabilities.

CRENG SO main tasks and activities:

- Marketing of needs in the area of space exploration and intelligent robotic systems 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.

Concept

Organisation

1. CRENG SO carries out work related to the deep development of materials created within the framework of the project and updating the content of academic disciplines in the field of Crisis and Risks Engineering for Transport Services in accordance with the latest achievements in the target area.

2. The activities of CRENG SO are carried out in collaboration with other services and structural units of the university, as well as within its competence with third-party organizations.

3. CRENG SO is headed by a manager whose position is assigned to a person with a higher professional education.

4. Management Team:

- Manages all the activities of CRENG SO, is personally responsible for the timely and high-quality implementation of tasks and functions assigned to the office;

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

5. The head of the office has the right to sign documents on the office activities falling within his competence.

Main Objectives

The main objective of CRENG SO is to use the CRENG laboratory as part of the training of students and specialists, as well as engineering work.

CRENG SO implements:

- ✓ Analysis of company requirements for graduate students;
- ✓ Analysis of possible services offered to partner companies using CRENG SO;
- ✓ Organization of newsletters within the university and friendly organizations;
- ✓ Organization of introductory seminars with groups of students with a presentation of potential laboratory capabilities;
- ✓ Organization of short-term continuing education courses for students / teachers;
- ✓ Organization of monitoring of research projects of students and working groups potentially interested in using CRENG SO.

Main Functions

Main functions of CRENG SO:

- ✓ Development of guidelines for laboratory work in the framework of existing / implemented programs;
- ✓ Preparation of the necessary documentation for conducting scientific and practical seminars and advanced training courses in Crisis and Risks Engineering for Transport Services;
- ✓ Conducting continuing education courses and seminars for students, university graduates and mentors from partner enterprises;
- ✓ Carrying out engineering work at the request / order of interested persons / enterprises in relevant areas;
- ✓ Carrying out other functions within its competence in accordance with the goals and objectives of the university;

✓ Implementation of the laboratory in the training schedule.

Rights

CRENG SO has the right to:

- ✓ receive documents and other information materials coming to the university according to their profile of activity for familiarization, systematic accounting and use in work;
- ✓ communicate with other similar offices created at partner universities of the international ERASMUS + CRENG project;
- ✓ request and receive from the leadership of the university, departments and other structural divisions the information necessary to fulfill the tasks and functions assigned to it;
- ✓ make suggestions on improving the forms and working methods of CRENG SO and the university as a whole, and ensuring the necessary quality of education.

Management Team

The management team of CRENG SO is personally responsible for:

- ✓ Fulfillment of functions and tasks assigned to CRENG SO;
- ✓ Organization of CRENG SO work, timely and qualified execution of orders, instructions of the senior management of the university;
- ✓ Maintaining necessary documentation;
- ✓ Providing statistical and other information about the activities of CRENG SO.

Marketing

Enhance target groups awareness of CRENG SO's mission via email, web, and other media, and by supporting existing programs and identifying markets for new programs.

Objectives:

- ✓ Maintain an excellent media, print, and electronic presence of CRENG SO activities;
- ✓ Design and maintain a dynamic, accessible, interactive, navigable, and client- centric (i.e., including students, faculty, departments, schools, businesses, government, etc) website;
- ✓ Develop appropriate materials and media to facilitate dissemination of CRENG SO information;
- ✓ Provide needs assessment and market research to support CRENG SO planning and improvement;
- ✓ Provide email, web, and other marketing and technical support for CRENG SO.

Market Analysis

To ensure that CRENG SO will be able to successfully build its business model/plan, the following steps should be considered:

Market 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;
- Analysing the questionnaires to find out which particular educational services can correspond to and solve educational needs.

Market 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 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 to find out about their expectations and requirements towards potential employees (e.g. graduates, students, future students, pupils, other social groups).

Business Model

SWOT analysis

Before creating a business model, university should conduct a SWOT analysis. A SWOT analysis organizes top strengths, weaknesses, opportunities, and threats into an organized list. The main goal is to turn weaknesses into strengths and threats into opportunities.
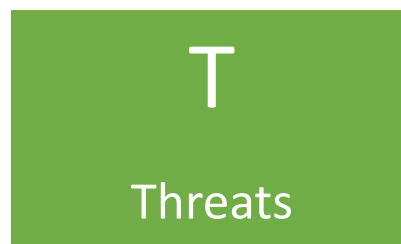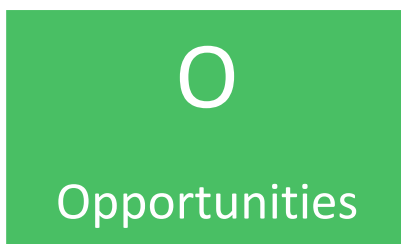
Strengths

Strengths are internal, positive attributes of CRENG SO:

- ✓ What services/activities of CRENG SO are successful?

- ✓ What assets do the management team has, such as knowledge, education, network, skills, and reputation?
- ✓ What physical assets do CRENG SO has, such as customers, equipment, technology?
- ✓ What competitive advantages do CRENG SO has?

Weaknesses

Weaknesses are negative factors that detract from strengths. These are things that the management team might need to improve to stay competitive.

- ✓ What CRENG SO processes need improvement?
- ✓ Are there tangible assets that your company needs, such as money or equipment?
- ✓ Are there gaps on management team?
- ✓ Is your location ideal for your success?
- ✓ Are education courses and seminars complying with latest technology and knowledge?

Opportunities

Opportunities are external factors in CRENG SO environment that can bring CRENG SO more success and potential development.

- ✓ Is the number of interested employers growing? What can stimulate them?
- ✓ Is the number of students and graduates who use services of CRENG SO growing?
- ✓ Are there upcoming events that CRENG SO may be able to take advantage of to grow the target audience?
- ✓ Are there upcoming changes to regulations that might impact CRENG SO positively?
- ✓ If CRENG SO is up and running, do customers think highly of it?

Threats

Threats are external factors, it is important to consider them if they occur.

- ✓ Could future developments in technology change CRENG SO processes?
- ✓ Is target group's behaviour changing in a way that could negatively impact CRENG SO work?
- ✓ Are there market trends that could become a threat?
- ✓ What other risks can interfere with CRENG SO activities implementation?

Business Model

To create a business model, the following questions based on the concept of CRENG SO should be answered in each target university:

Key Activities

What key activities does CRENG SO perform?

Outcomes

- What are the aims of CRENG SO?
- What are the most important outcomes?
- How should we measure the outcomes of the CRENG SO activities?
- What benefits does CRENG SO bring to the university?

Organization

- What kind of staff should CRENG SO have?
- What are the criteria of staff selection?
- What requirements to rooms where CRENG SO 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 CRENG SO get, keep, and grow the target groups?
- Which relationships with target groups has CRENG SO already established?

Market Needs

- What needs and problems of target groups does CRENG SO help to solve?
- What services does CRENG SO deliver to the target group?
- What services does CRENG SO offer to the target group?
- What services will be the most valuable/popular to the target group?

Channels

- Through wchich channels can CRENG SO reach target groups?
- Which ones are the most efficient?
- How does CRENG SO learn about 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 CRENG SO? Through what activities?

Financial Plan

Created in the framework of the CRENG project, further financial support of CRENG SO will be carried out at the expense of the university's budget. Considering the office activities, there are further opportunities for attracting financial recourses, such as:

- ✓ Conducting continuing education courses and seminars for students, university graduates and mentors from partner enterprises;
- ✓ Carrying out engineering work at the request / order of interested persons / enterprises in relevant areas;
- ✓ Carrying out other functions within its competence in accordance with the goals and objectives of the university.

Possible monthly expenses required to maintain CRENG SO:

- Staff wages;
- Training activities;
- Office equipment;
- Repairs and maintenance;
- Utility connections and bonds;
- Phone/internet connection;
- Computer software;
- Motor vehicle expenses;
- Marketing & advertising;
- Printing.

Conclusions

Checklist for Business Plan

	Done? (✓)
Define the opportunities	
Define the target groups	
Prepare the market analysis summary	
Discuss the marketing plan	
Write CRENG SO activities and management summary	
Prepare SWOT analysis	
Write the financial plan	
Write an executive summary	