**FOCUS GROUP REPORT**

**Croatia**

**June 2018**

**I. INTRODUCTION**

The present Focus Group Report (FG Report) is based on the results of the regional working groups meetings organized by PTP, with the partner companies within the framework of the European project titled **DYNAMIC – Towards responsive engineering curricula through Europeanisation of dual higher education** under ERASMUS + Program, Key Action 2.

The Focus Group Report was written in the context of the project background:

*“The project will address the need for more flexible routes for acquiring current industry-related skills necessary to boost and sustain innovation in the sectors identified by the national strategies of Smart Specialization and regional innovation in the new member states. For this purpose, regular practical phases in enterprises will be integrated in the ongoing engineering curricula to accelerate the update of knowledge traditionally provided by higher education institutions. To achieve that the project will apply a county-adapted model of dual higher education.*

*The aim of the DYNAMIC project is to develop, implement, test and validate 3 undergraduate programs in the field of Mechatronics and Robotics (Sibiu, Romania), Shipbuilding and Construction (Varna, Bulgaria) and Mechanical Engineering and Production (Pula, Croatia). In order to ensure successful implementation of the 3-dual program, the project will develop a toolkit documentation and assessment of the practical training for academic supervisors. To strengthen the training capacities of the enterprises involved in dual education, the project will develop materials for a presence training of industrial supervisors.*

*The main intellectual output of the project is “Methodological guidelines for design and implementation of practice-integrated dual higher education program in Science & Technology Studies” in the context of Bulgaria, Romania and Croatia. The output will satisfy the need for strategic approach in updating engineering curricula implicating the dual education model. The knowledge and experience gained within the project will be synthesized in this methodological document that will describe the different sets of methods employed at the different stages of the process.*

*The full commitment of 16 partners from Bulgaria, Romania, Croatia,* *Germany and Austria and the active involvement of key stakeholders will ensure sustainable long-term exploitation of project results beyond the project life-time.”*

**2.OBJECTIVES AND METHODOLOGY**

**2.1. Objectives of the Focus Group Report**

The present Focus Group Report (FG Report) aims at:

* analysing the results of regional working groups meetings organized by PTP with the partner companies;
* analysing the Croatian specific and legal requirements;
* review the curricula of the selected programmes;
* defining the content and organization of the practical phases and map the developed practical phases with ECTS;
* setting the criteria for student monitoring during practical phases;
* defining ways of contracting between student-industry-HEI`s;

**2.2. Methodology used**

The Report is based on the results of the focus groups.

Focus groups (FG) was organized in Croatia (at PTP), involving representatives of the higher institution involved in the project and the partner companies. Representatives of all participants were involved in the discussions in order to collect the significant data regarding the main objectives of the focus groups. Data were collected directly from the participants.

**3. SITUATION IN CROATIA**

Polytechnic Pula, College of Applied Sciences, has been established in 2000 by the Istrian County with support of the local companies. During all this year’s Polytechnic Pula ensures a successful cooperation between enterprises and education, in the way of involving experts from the economy in the teaching process and organizing student professional practice in companies and enterprises. Within professional practice students gain practical knowledge from resolving real industrial problems which contributes to their faster involvement in business production processes.

In December 2015. the Polytechnic Pula and 19 companiesfrom the Istrian County had established The Economic Council of Polytechnic Pula as a consultative body. Nowadays there are 25 members. Aims of the Economic Council are: Development of curricula, Implementation of joint projects, encouraging excellence in students’ research and work, Designing and facilitating student internships and Supporting further development of Polytechnic Pula.

The need for the development of dual education at PTP and support for implementation of dual education has came from the members of the Economic Council of Polytechnic Pula.

**4. PARTICIPANTS**

There were participants in the focus group representing different sectors:

* higher education;
* business;
* social partners;

**Higher education** was represented by:

* Teachers/academic mentors from the Undergraduate study program Polytechnic;
* Staff of PTP (dean of PTP, vice-dean for academic affairs, head of the Undergraduate study program Polytechnic, Deputy head of the Undergraduate study program Polytechnic, head of finance department)

**Business:** representatives of partner companies Holcim Hrvatska (LHC) and Uljanik Shipyard (JSC).

**Social partners**: representative of the Croatian Chamber of Economy (CCE) and Region of Istria (ROI).

**5. RESULTS FROM THE FOCUS GROUPS**

**5.1. Overview**

During the period of February and May 2018 at PTP have been held 4 Regional focus groups.

1st Regional focus group was organized on 26th of February 2018 with topics: Designing a dual educational plan and Organization of teaching process (academic studies) and practical work with two supporting documents (Introduction of Designing a dual educational plan and Calculation of hours per year)

2nd Regional focus group was held on 29th of March 2018 with agenda items: Designing dual study program and definition of mode for student payment in the context of Croatian legal regulations.

3rd Regional focus group was held on 26th of April 2018 with tasks: making a draft syllabus of student practical work teachers in collaboration with industrial mentors, Content of contract proposal between company – student – PTP and introduction of criteria for student selection.

After 3 Regional focus group there was a need to maintain another (4th) Regional focus group for concluding started arrangements on Contract proposal between company-student-PTP in accordance with the Croatian specific and legal requirements, coordination of professors and industrial mentors for finalizing syllabus for courses included in dual study program. This Regional focus group was held on 17th of May 2018.

**5.2. Analysis**

During the 4 Regional focus group organized in Croatia there were set 4 topics:

**Topic 1: Which are current legal regulations in Croatia**

There was described current situation in Croatia for support of dual education, listed responsible institutions, analyzed current legal frameworks. After the analysis it was established that there are NO legal regulations for dual education in Croatia. All partners saw an opportunity and possibility for introducing dual education in current legal framework through:

* The law on Quality Assurance in Science and Higher Education article 20.
* The rules on the content of the permit and the conditions for issuance of a permit for performing higher education activities, the conduct of a study program and the reinstatement of higher education institutions
* Conclusion of the National Council for Higher Education (Class: 003-08 / 11-09 / 0006; no. 355-02-01-11-9) from 16th January 2012
* Conclusion of the National Council for Higher Education (Class: 003-08 / 11-09 / 0006; no. 355-02-01-11-9) from 16th January 2012
  + *Changes up to 20% of the content of the study program are made by the Academic Council of HEI`s*

**Topic 2: Study program adaptation to dual model of education**

A few courses from undergraduate study program Polytechnic (duration of 3 years and 180 ECTS) will be offered as a dual course.

Courses involved in dual study program will be from 2nd and 3rd year selected in agreement with industrial partners in accordance with learning outcomes and required competencies.

These courses are: Material Technology I, Teamwork and Practicum III, Electronics II, Material Technology II, Teamwork and Practicum IV, Project Management, Professional Training, Teamwork and Practicum V, Teamwork and Practicum VI and Bachelor Thesis. Total number of ECTS involved in dual education are 43 ECTS.

Professors and industrial mentors will work together on designing dual study program and to develop syllabus for each course involved in dual study program Polytechnic at PTP.

**Topic 3: Organization of theoretical and practical phases**

Students will participate at a PTP during teaching process and after that they will take a practical part in company.

Students will be at practical phases:

* In 2nd year – total aprox. 8 weeks (February 2019 / June 2019 / September 2019)
  + In 3rd year – total aprox. 10 weeks (February 2020 / June 2020 / September 2020

There will be set equal scoring on all courses and in both companies, which will be written in a book for monitoring the student.

**Topic 4: Contractual definition of dual education between PTP – industry - student**

Industry partner together with PTP will sign the contract on practical work with student which will list obligations of all parties in implementation of dual education

Industrial partner will sign another contract with student for scholarship. This contract will define amount of monthly payment during the pilot project

**6. Conclusions and recommendations**

In the project there will be implement dual study program at PTP in Undergraduate study program Polytechnic, duration is 3 year and has 180 ECTS.

As in Croatia for now, there is NO legal framework for implementation of dual education in HEI`s PTP together with partners from Croatia has saw possibility for realization of pilot project DYNAMIC and implementation of dual education in selected study program, in Conclusion of the National Council for Higher Education (Class: 003-08 / 11-09 / 0006; no. 355-02-01-11-9) from 16th January 2012 that says: „*Changes up to 20% of the content of the study program are made by the Academic Council of HEI`s“.*

In the adaptation of dual model of education at PTP and Undergraduate study program there will not be made changes in the content of the study program, but only part of teaching process of selected courses will be held in companies from industrial partners.

Surely in Croatia there is the need for legal adoption and regulations of dual education in HEI`s.

Selected courses which will be offered to the students and performed together with industrial partners are:

* From 2nd year: Material Technology I, Teamwork and Practicum III, Electronics II, Material Technology II, Teamwork and Practicum IV,
* From 3rd year: Project Management, Professional Training, Teamwork and Practicum V, Teamwork and Practicum VI and Bachelor Thesis.

Total number of ECTS involved in dual education are 43 ECTS.

During the semester students will participate at a PTP during teaching process and after that they will take a practical part in company:

* In 2nd year – total aprox. 8 weeks (February 2019 / June 2019 / September 2019)
* In 3rd year – total aprox. 10 weeks (February 2020 / June 2020 / September 2020).

PTP – industrial partner – student will sign the contract on practical work.

Industrial partner – student will sign the contract of scholarship.

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