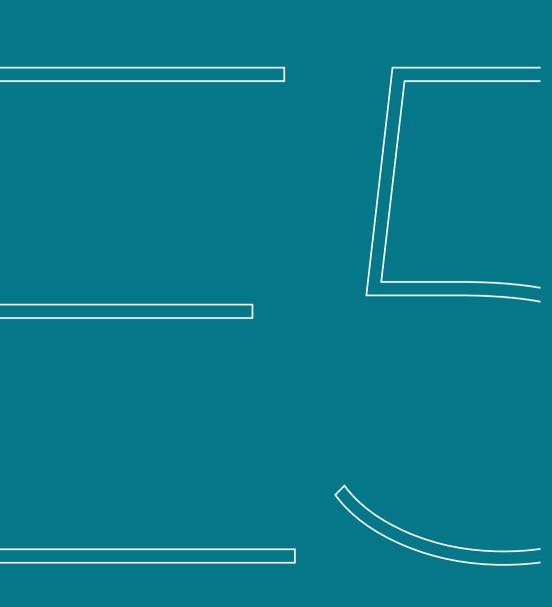
# **BULGARIA**

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### **ANALYSIS BEFORE**

## 1. Professionally oriented higher education

Professionally oriented higher education is still not introduced in the Bulgarian higher education system. However, dual education in high schools already exists. Usually, high school education covers two thematic directions: specialised, with theoretical subjects in the respective educational specialty; and general, including foreign languages, religion and sport. In class, students acquire theoretical knowledge and basic skills, whereas at the enterprise they develop practical skills. The classes have a duration from 8 to 12 hours a week. Teaching is organized in parts or in a block of activities. At the end of the school year, pupils receive a certificate which is also signed by the enterprise they worked at.

The experience accumulated throughout the period of implementation of dual education in the Bulgarian high school system as well as the support of the business organizations and certain higher education organizations (universities and colleges) is seen as a good ground to discuss with the public authorities and consequently introduce professionally oriented higher education study programs in higher education institutions.

### 2. General opinion of the parties

(universities, business organizations and public authorities) involved in the discussion concerning the introduction of professionally oriented higher education in Bulgaria before the pilot activities under WP6:

- I Advantages of professionally oriented higher education for the students:
- The student works in different positions at the enterprise and learns the work specifications in the various departments;
- The student alternates between lessons and practical work and thus receives variety and motivation;
- The knowledge gained at the university is complemented by real practical experience;
- Students receive payment during their training.
- II Disadvantages of professionally oriented higher education for the students:
- Students work on a more burdensome schedule because they have to reconcile working time with the necessary time to prepare for school lessons;

#### III Advantages for the enterprises

- The enterprise monitors and gathers information about the theoretical and practical skills of the student:
- If the student is consequently employed in the enterprise, no further training is required for the work he/she will perform;
- The students have already gained comprehensive knowledge of the various workshops and departments of the enterprise.

## IV Disadvantages for the enterprises

- First and second year students have insufficient practical experience related to the knowledge gained at university;
- Training of students might be associated with substantial costs:
- The enterprise has no guarantee that the student will continue to work at the enterprise after graduation;
- There is an insufficient amount of students for certain industries.
- V Professionally oriented higher education and traineeship – similarities and differences

During the past years, a number of scientific research projects and European initiatives, including the EDU-LAB project, were dedicated to the concept of profes-

sionally oriented higher education and higher education as a combination between teaching in class and training at an enterprise. A strict difference should be made between the terms "professionally oriented higher education" and "traineeship during the higher education". The typical feature of the professionally oriented higher education is the alternation of education within the higher education institution and working in an enterprise. Traineeship refers often to a voluntary or not strictly related engagement of the student in an enterprise that in most of the cases is not remunerated

### VI Legal framework

At present, Bulgarian legislation offers no regulation for professionally oriented higher education. The main legislation acts that would require certain adjustments for introducing the regulation of this type of education are The Higher Education Act and The Labour Code. In the past years, the Bulgarian legislator has been approached with requests and proposals for creating rules for defining and implementing professionally oriented higher education in Bulgaria. Throughout the activities of the EDU-LAB project we have established that the Bulgarian legislator and the Ministry of Education would support a sound and effective proposal for the intro-

duction of professionally oriented higher education study programs and the legal framework defining their scope, specifications and implementation.

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## **ANALYSIS AFTER**

The analysis "after" is prepared as a report. The report presents an evaluation of the state of higher education in terms of the quality of professional training received by graduates and its relevance for labour market demand: it also discusses the need to introduce dual education into higher education, as seen through the optics of three different parties who all have a stake in the training of specialists for the labour market: higher education institutions. business, and local authorities/administration. The report is specifically focused on changes in the evaluation "after" interventions, activities and the work for dissemination of goals and results of the EDU-LAB project.

The report is based on the online questionnaire study results. The questionnaire included three groups of respondents: employers, including entrepreneurs who have taken part in project activities; representatives of higher education institutions, students and graduates; representatives of local government and local municipal administrations.

The ratio of representatives in the three sectors: 52.9% business, 32.4% local government and municipal ad-

ministrations; 14.7% educational institutions.

The results show the presence of a serious problem regarding the quality of higher education in Bulgaria: a total of 96.1% of all respondents feel that the professional qualification of the higher education graduates in Bulgaria does not meet the needs of the labour market – whether partially, as is the more frequent case, or, in rarer cases, entirely, the existence of a discrepancy is a fact.

# Professionally oriented education: opinions and assessments

- Professional training is widely applied at present in secondary education, so it is necessary to introduce a greater amount of professionally oriented study programmes/dual training in the sphere of higher education as well: this is the opinion of 95.1% of the respondents
- 2. The future of professionally oriented education in Bulgaria is linked to in a more active commitment of local government in establishing this kind of education, an opinion shared by 91.2% of respondents.

 The respondents emphasize the need for a broad awareness campaign among senior high school students and among Bulgarian society in general, with regard to the benefits of professionally oriented education.

#### **Basic conclusions**

- The quality of professional training in the sphere of higher education at present does not correspond to labour market needs.
- The introduction of the dual form of education into higher education is a way of overcoming this mismatch.
- 3. The analysis of the attitudes towards dual education "after" the intervention and activities under the EDU-LAB project shows growing awareness of the benefits of professionally oriented education and growing positive attitudes towards more professionally oriented study programmes in higher education. One of the pillar activities within WP6 was to organize a collaboration between representatives of the industry and higher education institutions in the sphere of professionally oriented higher education in Bulgaria. After several discussions, three pilot sectors were chosen, namely: Mechatronics and Automation, Chemical Industry and Tourism. It was argued that these sectors are important for the Bulgarian industrial development and competitiveness. Also, the

- Bulgarian Industrial Association, a national employers' organization, has serious experience in the assessment of the competencies needed for the competitiveness of Bulgarian companies. Following this, the next steps were taken:
- investigation of more than 100 companies, members of BIA, regarding their attitude towards the professionally oriented higher education, their desire and their possibilities to get involved in the EDU-LAB pilot activities;
- In three companies from the sectors of Mechatronics, Chemistry and Tourism, three key positions were analyzed and key competencies were studied.
- 4. The stakeholders are committed to introducing professionally oriented education, as they have already undertaken concrete practical steps in this direction, for instance through the inclusion of business organizations and companies from into the education process. Work groups in Mechatronics and Automation, the Chemical Industry, and Tourism were established. The representatives from the related companies, branch organizations and professors from related universities have worked in close collaboration. They have passed through all the steps presented in the Policy Guide "How to start -implementing the new Danubian Governance Model". The models developed are oriented to the main competencies of the

- analyzed key positions in the pilot companies. The published results of their work and expertise were discussed, analyzed within the Bulgarian "Coordination point" and passed to the representatives of the partner universities and the Ministry of Education and Science to be used in their practice.
- The local government feels less engaged in the education process and hence, less committed to establishing professionally oriented study programmes.
- 6. Stakeholders assess dual education positively and expect it will bridge the gap between the skills and qualifications of graduates and the labour market requirements; but this is in contrast with the lack of an adequate legal regulation of this form of education.
- 7. There is a clear imbalance between business expectations of higher education and labour market relevance on the one hand, and the real situation and the policy in both areas, on the other. The main obstacle met in our work is the procedure of accreditation. To overcome this situation the Higher Education Act obviously needs changes in this direction as well. These facts argued the decision to propose to the Ministry of Education and Science to establish joint Advisory Council for professionally oriented higher education in Bulgaria as a possibility to initiate the changes in the Higher Education Act and to facilitate practical

- actions on the way to professionally oriented higher education in Bulgaria as soon as possible.
- 8. The surveys show the need for a broader awareness campaign regarding the nature and benefits of professionally oriented education; this need corresponds to the goals and tasks of the EDU-LAB project and confirms the usefulness of such projects and activities, which develop the participants' institutional capacity and intensify their mutual dialogue.
- 9. It is necessary to further extend the intensive dialogue of the three groups business, local administration and higher education, launched within EDU-LAB, in order to exert further positive pressure to amend and supplement the relevant legislative and regulatory base in Bulgaria: Higher Education Act, Labor Legislation, Vocational Education and Training Regulation, etc.

#### **OUTCOMES**

### Initiation, establishment, institutionalization and functioning of a "Coordination Point" in Bulgaria

In-depth discussion on the implementation of EDU-LAB with a main emphasis on the practical application of the guidelines on the procedures for introducing the new way of managing the compliance of higher education with the requirements of the labour market with the participa-

- tion of representatives of the Ministry of Education and Science of Bulgaria, the management of BIA and Municipality of Vratsa.
- Presented and popularized the positive experience and "good practice" of dual training of higher education specialists for the needs of the Volkswagen plants in Slovakia.
- 3. Participation of over 30 representatives of three universities: Sofia University, University of Chemical Technology and Metallurgy, Technical University of Sofia, four sector organizations, companies from the mechatronics sector, chemical industry, tourism, services.
- 4. Presented results of the work of three expert groups with representatives of industry and higher schools in the field of mechatronics, chemical industry and tourism. Three pilot enterprises have been identified in which competencies of specialists in key positions were analysed and the frameworks for the provision of practical training courses have been proposed at the Technical University, Sofia, Sofia University and the Chemical Technology and Metallurgical university for acquiring the "Professional Bachelor" degree.
- Suggested options for sustainable operation of the "Coordinating Point" after the project completion:

- Advisory Board to the Minister of Education and Science: proposal for its establishment;
- Association/Academy for vocationally oriented higher education in Bulgaria;
- 6. Announcements for the seminar on BIA's website and interview with Veronika Hanulova on the national "Darik Radio".
- 7. Printed and presented materials from the work of three expert groups, including proposals for the models of preparation of educational documents for vocationally oriented education for a Bachelor degree:
- 8. Proposals for the possible implementation of the professionally oriented study for the representatives of the pilot companies into the practice of the Bulgarian Universities in 2019/2020 school year have been done and given to the representatives of the Universities, partners in EDU-LAB project in Bulgaria.