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# **PROMOTING THE PARTICIPATION OF SMEs IN DUAL TRAINING IN THE CONTEXT OF REGIONAL DISPARITIES IN BULGARIA**

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**Abstract:** The aim of the paper is to make recommendations for the development of the dual system in Bulgaria in terms of increasing the participation of SMEs and taking into account the regional specificities of the educational structure of the population and youth unemployment. Financial incentives, a large-scale information campaign and visibility of participating enterprises are some of the important factors to encourage SMEs to become partners in the dual system. In order to ensure a wider participation of enterprises, it is important to gradually increase financial incentives (through support in the form of grants, tax relief, etc.). The existing differences between regions in Bulgaria suggest that a more substantial incentive for SMEs to become partners in dual training could be achieved by applying a regional criterion. When planning measures for the development of the dual training system in Bulgaria, efforts should be made to cover more persons at risk of dropping out of the education system and persons who will not enter higher education.

**Key words:** dual training, SMEs, NUTS 2, educational structure of the population, youth unemployment.

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## Introduction

Dual training is linked to the acquisition of a vocational qualification in a chosen profession and is organised through a partnership between an educational institution (vocational school or vocational training centre) and one or more employers. The advantage of this form of training is that it combines both practical training in a real work environment under the guidance of a mentor, and theoretical training related to the profession concerned, carried out in a vocational training institution. This model, which originated in Germany, Austria and Denmark, has proven its effectiveness and advantages, which has led to its gradual integration into the education systems of many EU Member States, including Bulgaria.

One of the main motives for expanding the dual system in Bulgaria is to provide young people with specific skills for the labour market and to address the problem of youth unemployment. The reasons for this are objective, but through the education system it can be positively influenced and the extent of its manifestation can be reduced by changing the quality of the workforce. Lamza-Maronić, Ivancic and Majstorovic (2014) point out in this regard that training in enterprises is expected to lead to a natural equalisation of labour supply and demand. Secondary vocational education is generally associated with easier initial integration into the labour market, which is widely proven and recognised in the academic literature (see Ryan, 2001; Biavaschi et al. 2012; Cahuc, Carcillo, Rinne and Zimmermann, 2013; Lamza-Maronić et al. 2014; Hall, 2016; Zimmermann et al. 2016; Brunetti and Corsini, 2018, among others). The dual system, which combines theoretical education in schools with practical training in the workplace, further increases the adaptability of the education system to the labour market. Brunetti and Corsini (2018), in their study of selected EU countries, show that vocational education often increases the employability of secondary school graduates compared to general education graduates, but in some cases the effect is not statistically significant, while systems with dual vocational education perform better.

The dual system undoubtedly has a number of advantages, but the willingness of enterprises to participate actively is crucial for its practical implementation. At present, about 90 enterprises are registered in an information database of employers providing on-the-job training. Although in practice more enterprises are involved in the dual system, its coverage in Bulgaria is low. Much more active involvement and participation of enterprises is needed for dual training to become widespread in secondary vocational education in Bulgaria.

Enterprises in Bulgaria should play an important and driving role in the expansion and consolidation of dual training and this is exactly what is at the

centre of the strategic vision for the development of the dual training system. In this sense, it is particularly important to attract and encourage smaller enterprises to become partners in the dual training system, which, according to the NSI data, will represent 99.8% of all non-financial enterprises in Bulgaria in 2022. Furthermore, according to NSI data for the same year, 74.4% of employees in the non-financial enterprise sector are employed in small and medium-sized enterprises (SMEs), and their importance in the economy is constantly growing. In this context, encouraging SMEs to participate in dual training is crucial for the success of the system in Bulgaria.

The benefits of developing the dual system are not only for the trainees, but also for the companies involved and generate many positive externalities for the country's regional development, the labour market and the economy as a whole. Dual system training is very important for those who do not plan to go on to higher education but will enter the labour market, as it can provide the necessary skills to start a working career to a higher degree than the acquisition of general secondary education. At the same time, attracting more small businesses from across the country to become partners in the dual system, and creating more employment and training opportunities, can go some way to counteracting the depopulation of areas of the country. The development of dual training can also help to address labour shortages in enterprises in some regions of Bulgaria. In addition, the employment of non-family workers can increase the flexibility of micro and small family enterprises, enable knowledge accumulation and increase their competitiveness (Yordanova, 2014).

The success of dual training in Bulgaria depends on the commitment of SMEs. In this context, well-planned measures are needed to promote the system and its benefits and to encourage enterprises to participate as partners. In designing these measures, it is also important to take into account the significant regional differences in the educational structure of the population and the specificities of the labour market in Bulgaria. The country is characterised by large regional disparities in the share of the population with tertiary education and secondary vocational education, as well as in the level of youth unemployment.

The aim of the paper is to provide recommendations for the development of the dual education system in Bulgaria in terms of increasing the participation of SMEs and taking into account the regional specificities of the educational structure of the population and youth unemployment. In order to achieve this objective, data from a recent micro-survey of SME owners in Bulgaria conducted by the authors' team, national strategic documents for SME development, trends and regional differences in the educational structure of the population and youth unemployment based on statistical information from Eurostat are analysed.

In order to achieve this objective, the paper is structured as follows. The next section presents the development of the dual training system in Bulgaria. The third part analyses some options to encourage SMEs to participate in dual training partnerships. The fourth part presents regional differences in the educational structure of the population and youth unemployment. The last part summarises the main conclusions of the analysis.

### **Development of the dual system in Bulgaria**

The principle of dual training was introduced in Bulgaria in July 2014 with amendments to the Vocational Education and Training Act. In August 2015, Ordinance No. 1 of the Minister of Education and Science of 8 September 2015 was adopted, which defines the rules and conditions for the implementation of dual training. Work-based learning applies to two groups of learners: students in vocational schools and persons aged 16 and over in licensed vocational training centres. In 2019, the legal framework for dual training was further developed through two important steps. First, an information database of employers entitled to provide on-the-job training has been created and is publicly available on the website of the Ministry of Economy and Industry. Registration is voluntary and free of charge. Second, at the beginning of April 2019, an order of the Minister of Education and Science approved a programme for training mentors in companies to provide on-the-job training. It identifies key topics for acquiring basic pedagogical knowledge, developing skills and competences for planning, organising, implementing and evaluating dual training.

The introduction of dual education in Bulgaria is taking place gradually. The first large-scale project to introduce the dual model in the country is the DOMINO project - Dual Education for the Modern Demands and Needs of Society, which was launched in 2015. Initially, it involved the Prof. Dr. Georgi Pavlov Professional School of Food Technology in Sofia and the Ivan Hadjigenov Professional School in Kazanlak. In 2015, 14 more schools joined and 60 Bulgarian and foreign companies are partners in the DOMINO project. In the 2018/2019 school year, 1 600 students in 32 vocational schools in 19 cities across the country studied the dual system in a total of 12 professions. By the end of the project, the number of partner companies reached more than 170.

After the academic year 2019/2020 and for the next three years, the dual training is funded by the Operational Programme "Science and Education for Smart Growth" with BGN 24.5 million. The project "Support for the dual education system" is implemented by the Ministry of Education and Science and aims to increase the relevance of vocational education to the needs of the

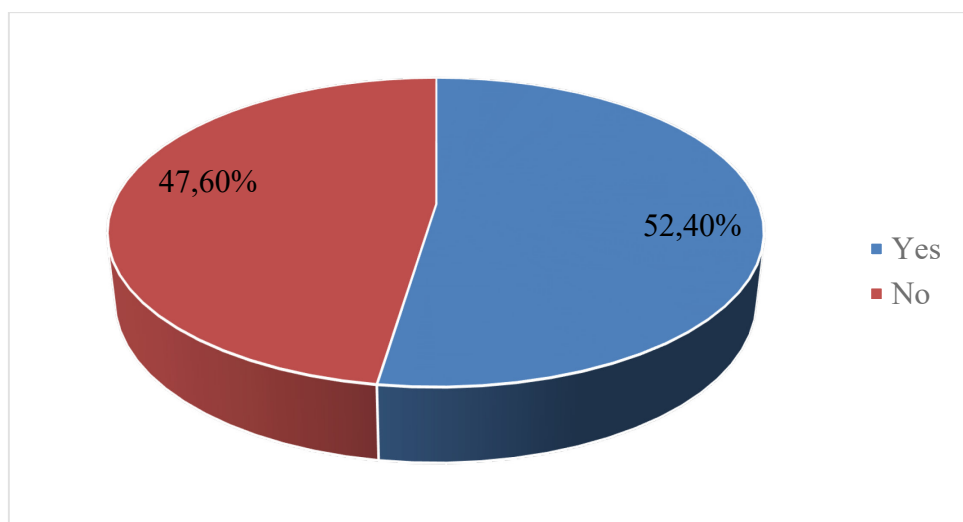
labour market by creating opportunities to improve the qualifications of the future workforce in professions that are key to the country's economy. In 2021, more than 130 vocational schools participated in the project "Support for the dual training system". In 2022, the total number of students enrolled in the dual system exceeded 11 000, of which 2 106 are enrolled for the school year 2022/2023. In the school year 2023/2024, just over 11 500 students are in dual education in Bulgaria.

In September 2023, the VET Advisory Council adopted a Strategic Vision for the Development of the Dual Training System, which sets out four strategic development objectives: to fully integrate dual VET into the education system; to make business the driving force of the dual system; to expand the social and regional reach of dual training; and to institutionally strengthen and expand partnerships with stakeholders. For each of these strategic objectives, the document proposes instruments and programme measures. The next steps include the development of a detailed action plan for the reform and implementation of dual vocational training on the basis of the adopted strategic vision. It is planned to change the legal framework in this field, to provide the necessary funding and to improve the administrative capacity at national and regional level for a wider implementation of the dual form.

### **Ways to encourage SMEs to participate in dual training partnerships**

The 2023 micro-survey explored, through an online questionnaire, the awareness of dual training and the factors for involving micro and small enterprises as partners.

The highest proportion of respondents came from the services sector (61.9%), followed by manufacturing (19%). An equal proportion (4.8%) of respondents came from the transport, design, trade and construction sectors. The results show that the majority of participants are aware of the specifics of the dual system (Figure 1). Although the majority of micro and small enterprises surveyed were aware of the dual form of training, only 19% of them participated as partners by providing a workplace and a prepared mentor for practical training, and 81% of respondents were not partners in dual training.

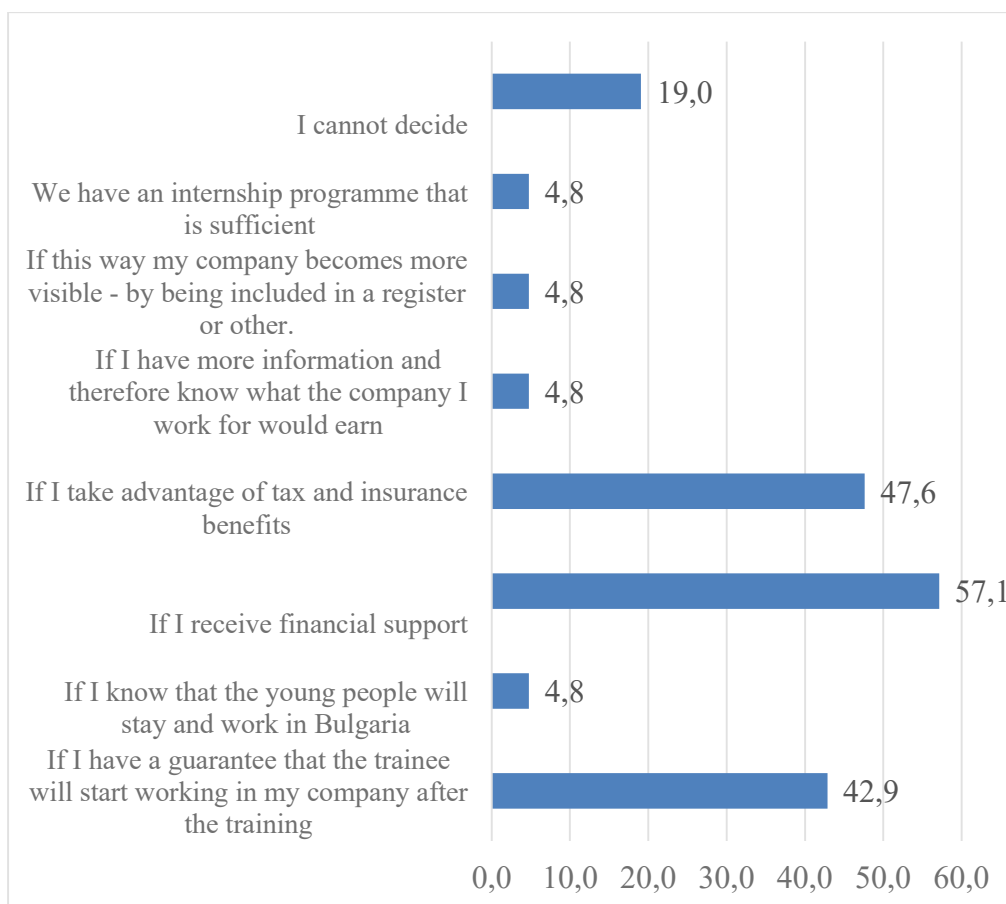


*Figure 1. Response to the question: Do you know the specifics of dual training?*

Source: November 2023 survey data.

The survey of the conditions under which enterprises would provide training shows that the most serious interest in joining the dual training system would be triggered by the offer of financial incentives (financial support, subsidies or tax or social security benefits). Another important incentive for enterprises is the retention of trained personnel in the company. 42.9% of respondents said that it was important for them to know that the money invested in the training would guarantee that the trainee would be kept on after formal completion of the training (Figure 2).

A representative of one of the companies interviewed stated that an important condition for providing vocational training is that the company is visible as a partner in dual training through publicity and inclusion in accessible registers. This shows that for some SMEs participation in the dual system is a step towards building an image as a socially responsible employer. It is interesting to note that 19% of the respondents were unable to formulate specific conditions under which they would provide training in their company. This could be due to a lack of knowledge about the dual system as well as a lack of motivation to participate (Figure 2).



**Figure 2. Responses to the question: Under what conditions would you offer work experience in your company?**

**Source:** November 2023 survey data.

The conditions that encourage enterprises to participate in the dual training system point to the reasons why their participation in the system is still low. Possible obstacles to the participation of smaller enterprises could be sought in several directions. Firstly, the lack of free financial resources in companies to ensure the organisation of the training (training of a mentor, costs for the trainee, etc.). Secondly, the lack of guarantees for the return on investment in the training of individuals through the retention of trained personnel. In addition to the information provided by the survey, other obstacles to integration can be identified. The lack of trained mentors who meet the requirements of the current regulations and also the number of trainees who can be accepted for practical training in smaller companies could be an obstacle.

Certain measures are planned in the country to encourage more enterprises to participate in the dual system, which to some extent address the

identified constraints. These include the assumption by the state budget of compulsory social and health insurance for students enrolled in work-based learning by employers from 01.04.2024. This change was introduced by Article 17a6 of the Vocational Education and Training Act. In addition, the National Strategy for Small and Medium Enterprises 2021-2027, under the fourth impact area Digitalisation and Skills, includes a specific measure 4.4. Promoting the participation of SMEs in dual training (learning by doing). Actions planned under this measure include: further development and maintenance of an information database of employers eligible to participate in dual training partnerships; support for SMEs providing dual training in the process of their participation in national and EU-funded programmes; establishment and awarding of annual prizes to SME employers with achievements in the field of dual training; establishment of a dual training system brand/trademark to distinguish all participating employers.

The steps taken and the measures planned by the public authorities in the country can be assessed positively. Taking over the contributions of employees in dual training will reduce the burden on enterprises and is expected to increase their motivation to join the system. The last two planned actions under measure 4.4 of the National Strategy for Small and Medium-sized Enterprises 2021-2027 are also important as they will allow enterprises participating in dual training to become more visible and improve their image, which may also motivate them to participate as partners in dual training. The strategy's encouragement of SMEs providing dual training to participate in programmes will also provide financial support to enterprises, which is important to motivate them to become partners.

Despite the measures introduced and planned in the country so far, it is necessary to gradually increase efforts in different directions. The measures foreseen in the National Strategy for Small and Medium Enterprises 2021-2027, which aim to differentiate enterprises involved in the dual system, should be complemented by a broad information campaign to promote the benefits of participation for enterprises. Digitalisation should be used very intensively to promote dual training (Toneva, 2022). The digital environment is well suited for such a broad information campaign among SMEs to raise their awareness of the benefits of participating in work-based learning partnerships. It is equally important for the success of dual training to promote its benefits among parents and students, especially in areas with high drop-out rates and low graduation rates.

There are good examples in some Central and Eastern European countries of the introduction of more substantial measures to support SMEs to participate in dual training. In Croatia, for example, grants are provided to SMEs and scholarships to trainees to encourage participation in vocational training and



learning of crafts. As a result, SMEs in the country have a strong interest in participating in the grant scheme. In Slovakia, incentives have also been put in place, targeting both training providers (direct payments, tax relief) and successful trainees.

Undoubtedly, financial incentives are the most important aspect in any motivational scheme for the development of dual training. This is confirmed by the results of the micro-survey, the experience of other countries and the direction of recent measures taken by Bulgarian institutions. In this respect, in order to ensure a broad participation of SMEs, financial incentives need to be extended through support in the form of grants, tax relief, etc. However, this should be done with some differentiation on a regional basis by means of a preliminary assessment of the specificities in terms of the needs of the economy, the labour market, the drop-out rate from education and training, the educational structure of the population, as there are differences between the regions of the country in these areas. In this respect, in order to complement the recommendations for measures to develop dual training in Bulgaria, it is necessary to take into account some aspects and regional specificities of the labour market related to youth unemployment and the educational structure of the population in Bulgaria.

### Regional differences in the educational structure of the population and youth unemployment in Bulgaria

Reducing the number of early school leavers is a very important policy challenge in this area.

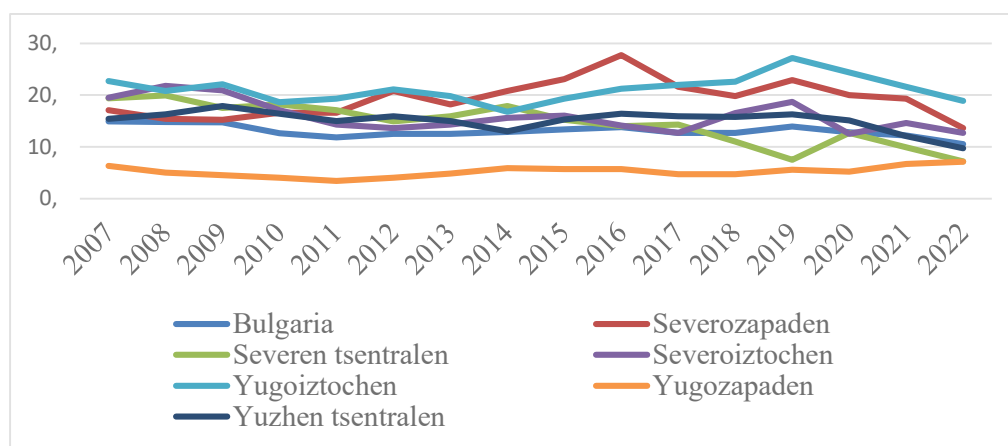
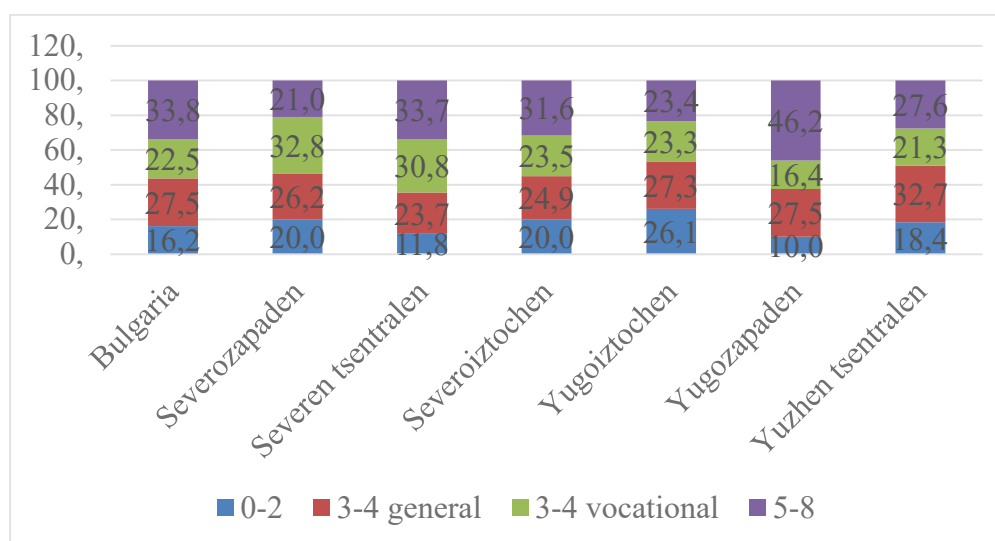


Figure 3. Early school leavers in Bulgaria by NUTS 2 regions, 2007-2022, in %

Source: Eurostat

Bulgaria has one of the highest rates of early school leavers in the EU. Since 2020, all regions except Yugozapaden report a decrease in this indicator, but the share of early school leavers is still quite high. In 2022, the regions with the highest levels above the national average are Yugoiztochen, Severozapaden and Severoiztochen (Figure 3).

The next feature of the education system that should be taken into account when planning measures for the development of the dual training system are the differences in the educational structure of the population by region, which are significant in Bulgaria. There are large differences in the share of the population with tertiary education and the weakness of secondary vocational education, as well as in the share of the population with primary and lower education. The Yugoiztochen region has the highest share of population with primary and lower education, a predominance of population with general secondary education and the lowest overall share of population with vocational secondary and higher education. The Severozapaden region has the lowest proportion of people with tertiary education, but also a predominance of vocational secondary education over general education (Figure 4).



*Figure 4. Educational structure of the population (25-34) in Bulgaria by NUTS 2 regions, 2022, in %*

Source: Eurostat

Youth unemployment figures also show serious regional disparities in Bulgaria. Traditionally, the Yugozapaden region performs best, while the Severozapaden region shows the worst trends, with significant differences in the indicator values between regions. In the regions of Severen tsentralen and

Yugoiztochen, youth unemployment is also higher than the national average after 2020 (Figure 5).

The differences identified between the regions in Bulgaria suggest that a more substantial incentive for SMEs to participate as partners in dual training could be achieved by applying a regional criteria. When planning measures for the development of the dual training system in the country, efforts should be made to cover more people at risk of dropping out of the education system. This approach will, on the one hand, support the expansion of the dual system and, on the other hand, increase the chances of initial and long-term labour market integration of these individuals. This is also important in view of the projected trends towards a reduction in the need for low-skilled or unskilled workers in the context of the dual transition to a green and digital economy (Stefanova, 2024). Another important target group for dual training is those who will not continue their education in higher education. For them, the acquisition of more specific knowledge for a particular occupation is important for a more successful initial and subsequent realisation on the labour market.

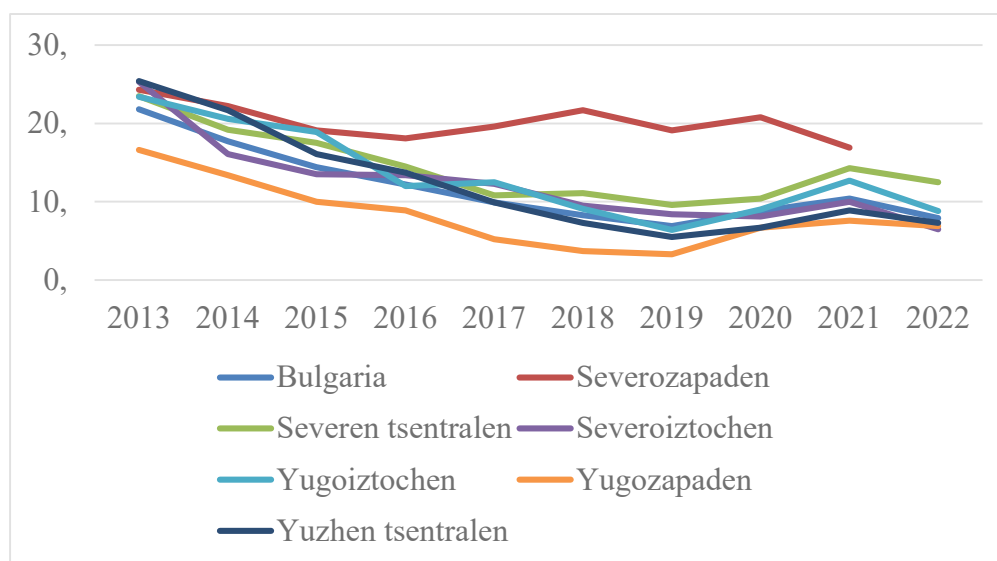


Figure 5. Youth unemployment 15-29 by NUTS 2 regions, 2013-2021

Source: Eurostat

Taking into account the recommendations for priority target groups for dual training and also the identified regional differences, it can be concluded that efforts to develop dual training by stimulating the involvement of SMEs can be prioritised in the regions of Yugoiztochen and Severozapaden. The Yugoiztochen region has the highest proportion of early school leavers in Bulgaria, as well as the highest share of the population with primary and lower

education. It is appropriate to attract these people into dual training through attractive scholarships and subsidised wages, thus supporting their integration into the labour market. In addition, the Yugoiztochen region has one of the lowest shares of people with tertiary education, so a concerted effort should be made to provide the necessary skills for a working career through secondary education.

Although labour market realisation depends not only on labour supply but also on labour demand, the acquisition of certain more specialised skills in the education system increases the chances of a more successful transition from the education system to the labour market. It is through dual training that more specialised and business-oriented vocational skills can be acquired. The Severozapaden region has the lowest share of population with tertiary education and also one of the highest shares of early school leavers and of population with primary and lower education. It is characterised by the highest share of the population (25-34 years) with secondary vocational education in the country. This suggests that dual training could develop rapidly and demonstrate its benefits there, and should therefore also be prioritised in the introduction of wider measures to incentivise SMEs to enter the dual training system.

### **Conclusion**

Undoubtedly, SMEs should be encouraged to participate in the dual system, not only for the benefits to themselves and the trainees, but also for the positive externalities that will result for the economy. Widening the scope of the dual system to include more SMEs in addition to large enterprises will help to establish it as a form of training and employment provision. Although a number of measures have already been taken at national level to stimulate enterprises, further incentives for enterprises on a regional basis should be considered, combined with a broad information campaign among SMEs. This campaign should also be combined with measures to increase the willingness of students to engage in this type of training, which aims to facilitate the transition and successful integration of people with secondary vocational education into the labour market.

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