

# MEASURES TO BALANCE THE LABOUR MARKET: AN INSTITUTIONAL PARTNERSHIP BETWEEN BUSINESS AND THE VOCATIONAL TRAINING SYSTEM\*

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**Abstract:** The study aims to identify imbalances, obstacles and opportunities for realizing the capacity of institutional partnership between employers and vocational education institutions (the case of Lviv region in Ukraine) to balance the labour market. The study is based on the general scientific methods of research – analysis, synthesis, logical generalization and decomposition, as well as special methods – sociological survey and the method of weighted harmonic mean. The methodological tools of the sociological survey include a three-part questionnaire aimed at identifying business

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needs for workers and business willingness to employ graduates of vocational education institutions (VEIs), as well as substantiating the opportunities for cooperation between VEIs. The study shows that there is a significant shortage of workers in the region (especially locksmiths, construction workers, turners, electricians, etc.) in such economic sectors as water supply, sewerage and waste management, agriculture, forestry and fishing, mining and processing industry, service sector, etc. The authors reveal a low level of cooperation between VEIs and businesses or that of a purely formal nature, which affects the extent to which enterprises are staffed by workers. They also identify a significant need for coordination between businesses and VEIs to meet the demand for workers and the specific occupational and qualification characteristics of graduates. The study reveals the main obstacles to the spread of dual education and substantiates promising areas for its modernization.

**Key words:** business, labour market, workforce, employers, dual education, region

**JEL:** I31, J21, O15, P23.

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### Introduction

Critically threatening imbalances have emerged and continue to develop in Ukraine's regional labour markets in the face of the full-scale war. They are caused by such trends as forced internal migration of refugees from the war zones and adjacent regions (many of whom are looking for work, thus increasing the supply of labour in western Ukraine and Lviv region in particular), weakening of the human resources capacity of business entities due to the mobilization of their personnel, external emigration of the population in the context of easing the visa regime, including from the western regions, the provision of comprehensive assistance to refugees from Ukraine, the relocation of businesses from central and eastern Ukraine to the west (which changes the characteristics of job supply and labour demand), etc.

These processes resulted in a situation where the structural characteristics of labour supply and demand are not balanced. Amid a general growth of the unemployment rate (the number of new job vacancies in the labour market decreased by almost half), the number of candidates per vacant job increased. At the same time, there is a shortage of specialists, and hence an unsatisfied demand for labour with decent working conditions and high wages.

There is a significant gap in the supply of workers when the needs of regional labour markets do not match the available labour supply.

As is known, the system of vocational education institutions (VEIs), which is the basis for efficient dual education, is a rather effective tool for

solving these problems. However, the current development of the vocational education system in Ukraine is classified as transformational. After some stagnation, several strategic and program documents on the measures and means of national vocational education modernization were approved. However, a whole range of problems related to insufficient funding and deterioration of logistical, financial and economic support for many VEIs have not yet been resolved. There are also changes associated with decentralization and a shift in funding for vocational education to the local level, where financial resources are smaller. In recent years, youth migration processes have also intensified, including external migration associated with young people choosing to study abroad (mainly in Poland, the Czech Republic, Slovakia and Romania). As a result of these and other processes, domestic enterprises do not receive enough high-quality labour resources, which further exacerbates the crisis of business-vocational education relations. This situation requires justification and implementation of new, more modern and effective forms of institutional cooperation between the government, business community and vocational education to meet common interests and needs in line with the development of the educational system and the national economy.

The purpose of this paper is to identify imbalances, obstacles, and opportunities for realizing the capacity of institutional partnership between employers and vocational education institutions (the case of Lvivska oblast of Ukraine) to balance the labour market.

The object of research is the process of partnership between employers and vocational education institutions in Lviv region of Ukraine.

Hypotheses of the research are as follows: *H. 1*: the local urgent need to attract workers to business (labour market shortage); *H. 2*: systemic willingness and intention of businesses to employ VEI graduates; *H. 3*: dual education and cooperation between VEIs and businesses have a great capacity leading to a structural and qualitative balance of the labour market.

## **1. Literature review**

The introduction of various instruments of institutional cooperation between business and educational institutions has become a real revolution in increasing the efficiency of the system of professional staff training for blue-collar occupations in Germany, and later in other industrialized countries of Europe and abroad, in particular in North America. Since then, both scholars

and practitioners have been conducting research aimed at extending the achieved best practices, as well as further increasing efficiency and introducing new forms of training, including dual training. Thus, the international experience of enhancing the effectiveness of vocational training is well covered (Asghar et al., 2016), aspects of practical development and cultivation of the foundations of dual apprenticeship are highlighted (Deissinger & Gonon, 2021), the policy of harmonizing and combining educational programs and practical training is summarized (Pilz & Furstenau, 2019), management approaches and practices of using production facilities as sites for practical training and training of students are studied (Mulska et al., 2022). Practical training coupled with inclusion in special programs can develop leadership skills in young people and help implement the labor market. (Kirilov, 2020; Kirilov, 2021).

However, the international experience contains a much wider range of positive practices in the development and application of means of institutional partnership between businesses and VETs to balance supply and demand in the labour market (Levytska et al., 2022). These include, for instance, Germany with its model of practical on-the-job training and consideration of the vocational training system as a basic link for further acquisition of knowledge and skills at the level of higher education institutions (Martin-Artiles et al., 2019; Baethge & Wolter, 2015); Hungary with its college-university clusters (Kovacs & Torok, 2016); Spain with its even higher level of vertical integration, when vocational education starts from school, smoothly moving to the level of colleges and then to the level of sectoral universities (Marhuenda-Fluixa et al., 2019); Finland with its additional opportunities in the form of paid on-the-job training with subsequent employment (with full salary), which counts as studying at an educational institution along with passing exams in a number of professional disciplines (Melin et al., 2016); Poland with its opportunities in terms of combining theoretical knowledge and paid on-the-job training in partner enterprises (Wołodzko et al., 2021).

One should also understand that both the successes in the development of institutional cooperation and the crystallization of certain forms of cooperation inherent in each country largely occur due to the significant initiatives and interest of business, especially enterprises in the manufacturing sector, rather than the good management of the national educational system and its institutions. For example, Ilyash et al. (2021) argue for the duality of interconnections and mutual influences of the market of innovations and technologies on vocational education and vice versa;

Martin Artiles et al. (2020) summarize the practical aspects of organizing cooperation between VEIs, businesses and social partners; Vantuch & Jelinkova (2020) highlight the specifics of the legislative framework for quality standards in vocational education, practical aspects of training students during work and the specifics of involving qualified personnel from production in teaching.

Moreover, as evidenced by the results of a number of studies, direct and indirect links in the training of personnel purely for specific sectors of the economy, such as industry (Ilyash et al., 2021; Burns & Chopra, 2017), agriculture (Ivaniuk, 2014) and tourism (Shpak et al., 2023; Bondarenko et al., 2021), and even support for the development of rural settlements, communities and integral territories (Hrynkevych et al., 2023) have become the determinants in terms of spreading positive impulses and proactive influence of business on the emergence and development of dual education practices and modernization of the system of training of professional staff in blue-collar occupations.

Currently, there is an active scientific discourse on the international transfer of vocational education and training (Li & Pilz, 2021), institutional research and consulting, the spread of progressive forms of dual education within economic and political unions, in particular the EU (Martínez-Izquierdo & Sánchez, 2022), further improvement of professional skills (Maurer & Gonon, 2014), development of professional competencies in curricula such as the CSED Curriculum at UKM (Mutalib et al., 2013), and cultivation of different types of cooperative education models in higher vocational education (Shin et al., 2013).

These and other progressive approaches to the modernization of the system of vocational education are widespread in Ukraine to varying degrees, both in theory and partially in practice. We are talking about the adaptation of Ukrainian VEIs to the realities of the full-scale war (Didenko, 2023), the implementation of the European model of collective skills development in Ukraine (Graf & Marques, 2022), the development of smart infrastructure in Ukrainian educational institutions (Stepura & Kuzmak, 2023), consideration of specific requests of enterprises for the content and quality of vocational education, changes in the structure of training of workers in accordance with changes in their demand during the war and at the stage of post-war reconstruction of the national economy of Ukraine (Vasylytsiv et al., 2022), and implementation of a wide range of institutional frameworks, norms, and standards of European educational policy in Ukraine (Zaunstock et al., 2021).

## 2. Methodology

The capacity to balance the labour market with tools for the development of partnerships between business and labour training institutions through the tools for the implementation of dual education is explored through a sociological survey of employers in the region (the case of Lvivska region in Ukraine). Its tasks included: (1) identification of employers' needs for skilled workers – VEI graduates; (2) summarizing the work experience and characteristics of employers' satisfaction with the professional qualifications of VEI graduates; (3) identification of problematic aspects of cooperation between employers and VEIs; (4) substantiation of effective tools for cooperation between employers and VEIs and improvement of the quality of VEI services.

The sociological survey instrument is a questionnaire structured into three blocks: business need for workers; willingness of businesses to hire VEI graduates; cooperation between business and VEIs in the development of vocational education and balancing the demand and supply of labour for VEI graduates. The questionnaire was distributed to employers in Lviv region using Google Forms. The survey covered only managers of business entities and leading specialists related to the production (technological) process, etc., and therefore familiar with the needs and specifics of attracting workers and their work, as well as specialists from HR services of enterprises.

The sample size for the target groups of the survey is 103 respondents (1 representative per business entity). The distribution of the business entity is presented in Table 1.

*Table 1.*

*The distribution of a business entity: a sociological survey of the sample*

Criteria by	Characteristic	Amount, %
Types of economic activity	Manufacturing	31.8
	Construction	15.7
	Wholesale and retail trade; repair of motor vehicles and motorcycles	12.0
	Transportation, warehousing, and postal and courier activities	10.0
	Agriculture, forestry, and fishing	6.5
	Water supply; sewerage and waste management	5.6
	Mining and quarrying	4.5
	Art, sports, entertainment, and recreation	4.5
	Temporary accommodation and catering	3.7
	Another	5.7
Size	Large business (more than 250 employees)	24.1
	Medium-sized business (50-250 employees)	19.3
	Small business (10-50 employees)	34.3
	Microenterprises (up to 10 employees).	22.2

The field stage of the research lasted in November 2022. The coefficient of variation of the sample relative standard error not exceeding 10% with a 95% probability rate has been selected as the main reliability characteristic of the survey. The sociological results are processed based on the weighted harmonic mean, which helps to transform the output values of the obtained sociological estimates into empirical ones.

### 3. Research results

The study shows that 37.0% of enterprises experience a significant shortage of workers, especially during the war; 17.6% of respondents indicate that their business is fully staffed with blue-collar workers, and another 30.6% that it is partially staffed (depending on the seasonality of production).

These enterprises are involved in most types of economic activity, including water supply; sewerage and waste management (100% of responses to this question), agriculture, forestry and fishing (66.7%), and mining and quarrying (50.0%) (Table 2). In almost all industries of the real sector of the regional economy, the share of enterprises experiencing a significant shortage of workers is at least 25-30%.

**Table 2.**  
*Staffing levels of business entities in blue-collar occupations in Lviv region by types of economic activity, %*

Options		Is your business fully staffed with workers?			
		Yes	Partially (depending on production volumes, seasonal labor, etc.)	No, the enterprise trains its own employees	The enterprise is experiencing a significant shortage of workers, especially during the war
Main types of economic activity	Agriculture, forestry and fishing		16.7	16.7	<b>66.7</b>
	Mining and quarrying	50.0			<b>50.0</b>
	Manufacturing	13.0	<b>43.5</b>	8.7	<b>30.4</b>
	Water supply, sewerage, waste management				<b>100.0</b>
	Construction	23.5	<b>29.4</b>	11.8	<b>35.3</b>
	Wholesale and retail trade, repair of motor vehicles and motorcycles	23.1	<b>23.1</b>	23.1	<b>30.8</b>
	Transportation, warehousing, postal and courier services	25.0	<b>25.0</b>	25.0	<b>25.0</b>
	Temporary accommodation and catering	25.0	25.0	25.0	<b>25.0</b>
	Financial and insurance activities			<b>100.0</b>	
	Health care and social assistance	50.0	50.0		
	Arts, sports, entertainment and recreation	100.0			

Representatives of business entities in most types of economic activity indicate that the VEI graduates employed by them have an average level of training, and this requires the creation of conditions for additional training in their enterprises (Table 3). In particular, in water supply, sewerage and waste management, this response option is 100%, while it varies from 40% to 67% for other types of economic activity. At the same time, a significant part of the respondents (the answers range from 23% to 50%), especially representatives of manufacturing, construction, trade, and transportation and communications, note that the training of VEI graduates is at a sufficient level, but they undergo additional training directly at the enterprise.

*Table 3.*

*Satisfaction of business entities in Lviv region with the level of training of VEI graduates by type of economic activity, %*

Options		To what extent is the enterprise management satisfied with the level of training of VEI graduates?			
		Specialists have the necessary knowledge	Sufficient level, but they were trained directly at the enterprise	Medium level, which required the creation of conditions for additional training at the enterprise	Not satisfied with the level of training
Main types of economic activity	Agriculture, forestry and fishing	16.7	16.7	66.7	
	Mining and quarrying		50.0	50.0	
	Manufacturing	4.4	34.8	39.1	17.4
	Water supply, sewerage, waste management			100.0	
	Construction	5.9	29.4	41.2	11.8
	Wholesale and retail trade, repair of motor vehicles and motorcycles		23.1	46.2	
	Transportation, warehousing, and postal and courier services		50.0	50.0	
	Temporary accommodation and catering			50.0	25.0
	Financial and insurance activities				
	Health care and social assistance				
	Arts, sports, entertainment and recreation		50.0		50.0



Preferences for certain professions are undoubtedly influenced by the sectoral structure of the surveyed enterprises. However, the region has the greatest shortage of workers in the construction and manufacturing industries (Fig. 1). Specifically, 9% and 8.4% of surveyed employers report an urgent need for locksmiths and welders, and 7.8% and 7.2% - for turners and production line operators. Interestingly, the regional labour market is defined by a shortage of construction workers, tractor drivers, locksmiths, electricians and mechanics.

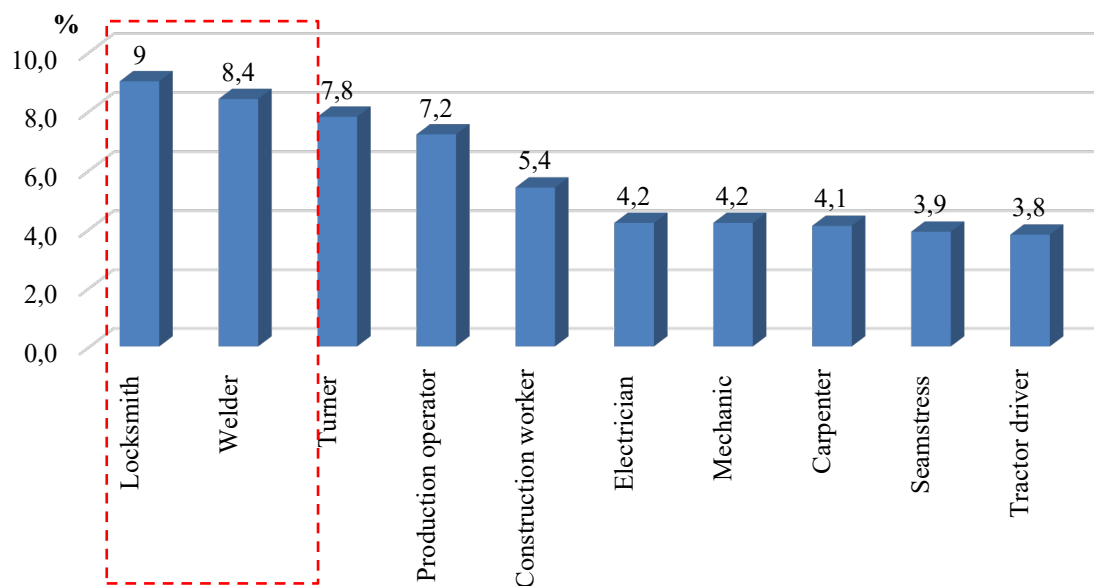
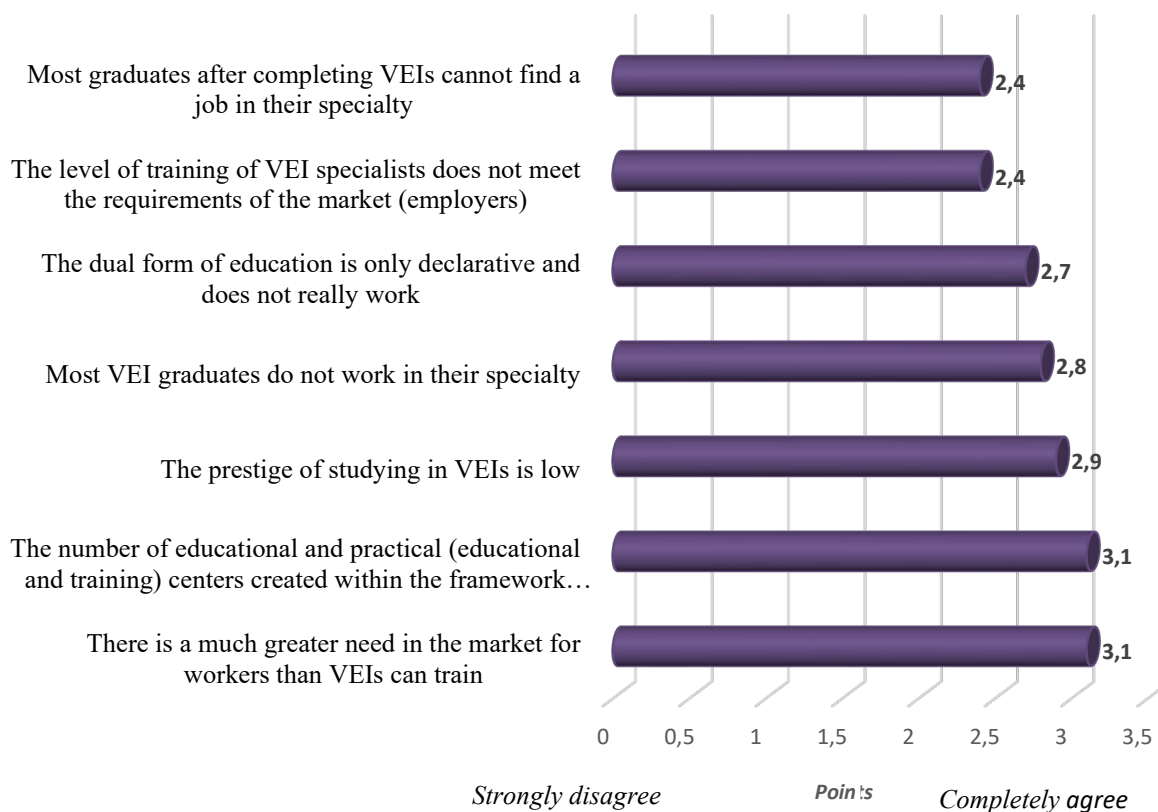


Figure 1. Top 10 most popular blue-collar occupations in Lviv region, %

The labour market in Lviv region has imbalances between the demand and supply of workers both in terms of the volume and professional and occupational structure (Figure 2). This is proven by the results of the survey, in particular, the average score of the statement “There is a much greater need for workers in the market than VEIs produce” is 3.1 (on a scale where 0 – strongly disagree, 2 – partly agree and partly disagree, 3 – agree to some extent, 4 – strongly agree). It is important to pay attention to other structural problems related to the training and employment of VEI graduates: most VEI graduates work outside their specialty (average score 2.8); most graduates cannot find a job in their specialty after graduating from VEIs (2.4); the level of training of VEI specialists does not meet the requirements of the market (employers) (2.4); the prestige of training at VEIs is low (2.9); the dual form of education is only declarative and does not really work (2.7).



*Figure 2. Employers' assessments of labour market imbalances of Lviv region: focus on blue-collar occupations, points*

It is worth noting that the largest share of construction (19.4%) and manufacturing (16.7%) enterprises are ready to actively employ VEI graduates (Table 4). Business entities in mining and social assistance sector prefer specialists with work experience, so they are not ready to employ VEI graduates without prior training.

On the other hand, enterprises in agriculture, forestry and fishing, as well as in wholesale, retail trade and car and motorcycle repair, intend to hire VEI graduates immediately after graduation (8.3% and 2.8% of surveyed employers, respectively) subject to on-the-job training (4.6% and 9.1%, respectively) and additional training (5.6% and 2.8%, respectively). Therefore, the willingness to employ VEI graduates is the highest in manufacturing and construction, but only if they have completed either on-the-job training or additional training. The respective shares of enterprises willing to employ VEI graduates in these types of economic activities are 52.3% and 32.1%.

*Table 4.  
Willingness to employ VEI graduates by business entities in Lviv region by type of economic activity, %*

Options		Does your enterprise have the intention and willingness to actively employ VEI graduates?				
		Yes, definitely	Yes, subject to preliminary on-the-job training at the enterprise	Rather, yes, but on condition that the VEI graduate undergoes additional training at the enterprise	Rather, no, we prefer specialists with experience	No, definitely not
Main types of economic activity	Agriculture, forestry and fishing	<b>8.3</b>	<b>4.6</b>	<b>5.6</b>		
	Mining and quarrying		4.6		14.3	
	Manufacturing	<b>16.7</b>	<b>27.3</b>	<b>25.0</b>	28.6	
	Water supply, sewerage, waste management	2.8				
	Construction	<b>19.4</b>	<b>18.2</b>	<b>13.9</b>	14.3	
	Wholesale and retail trade, repair of motor vehicles and motorcycles	<b>13.9</b>	<b>9.1</b>	<b>13.9</b>		50.0
	Transportation, warehousing, postal and courier services		4.6	8.3		
	Temporary accommodation and catering	<b>2.8</b>	<b>9.1</b>	<b>2.8</b>		
	Financial and insurance activities		4.6			
	Health care and social assistance				28.6	
	Arts, sports, entertainment and recreation		4.6	2.8		

About one-fifth of employers in the region plan to employ VEI graduates soon, especially welders, 13.6% of respondents plan to employ locksmiths, and 12.6% plan to employ cooks, confectioners, and bakers (Fig. 3). Meanwhile, soon, 11.7% of business entities in Lvivska oblast are willing to employ construction workers (bricklayers, plasterers, etc.), machine operators, and drivers of various categories; 10.7% – mechanics (repairs and maintenance of machines and equipment), turners, and carpenters; less than 8% of the employers – electricians.

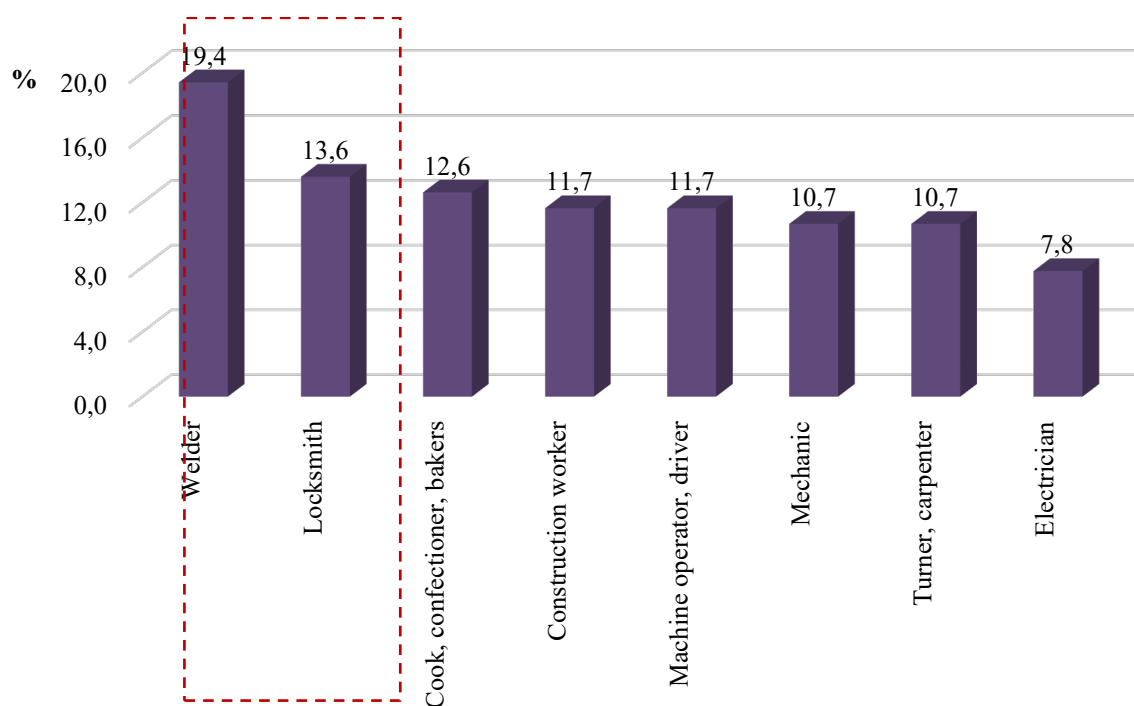


Figure 3. “In what occupations do you plan to employ VEI graduates in the near future?”, %

The lack of cooperation between VEIs and businesses is a problem both for employers in the recruitment process and for educational institutions in the process of finding jobs for graduates. The interaction between VEIs and business entities is of existential importance both for the development of human capital and economic growth in the region, as well as for the effective division of labour and productivity. In particular, 58.3% of the surveyed employers state that they have no experience of cooperation with VEIs, and 16.7% indicate that they have only formal contractual relations with VEIs. A quarter of the surveyed employers in Lviv region confirm that their enterprises cooperate with VEIs in the form of on-the-job training and employment of graduates. Interestingly, the most common form of cooperation between enterprises and VEIs in terms of staff training is on-the-job training (33.3%). More than 5% of the enterprises in Lviv region order the training of specialists (Fig. 4), and 4.6% of each are stakeholders or members of supervisory boards of VEIs, participate in discussions of curricula, ensure the development of VEI material and technical base, and invest in VEI fixed assets.

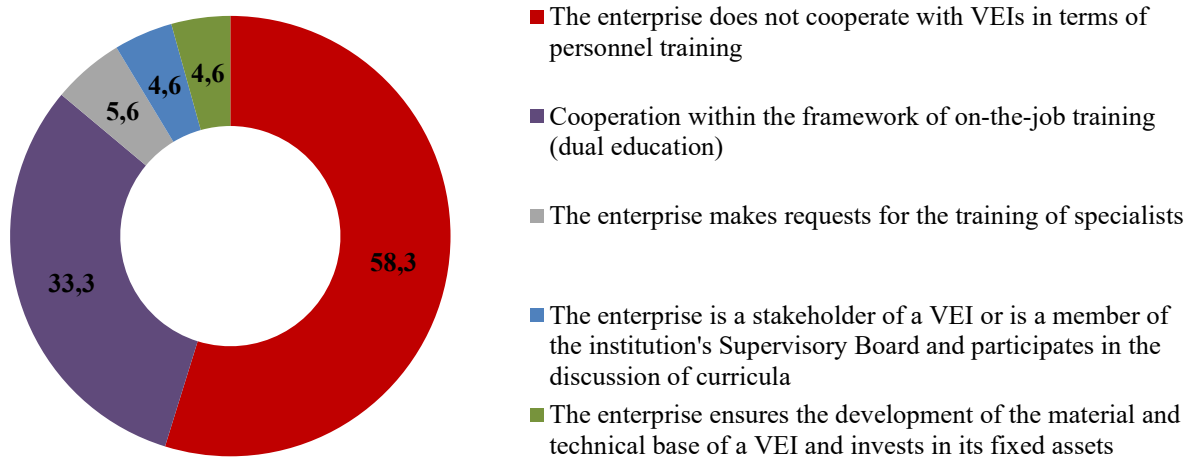


Figure 4. Forms of cooperation between employers and VEIs in staff training in Lviv region, %

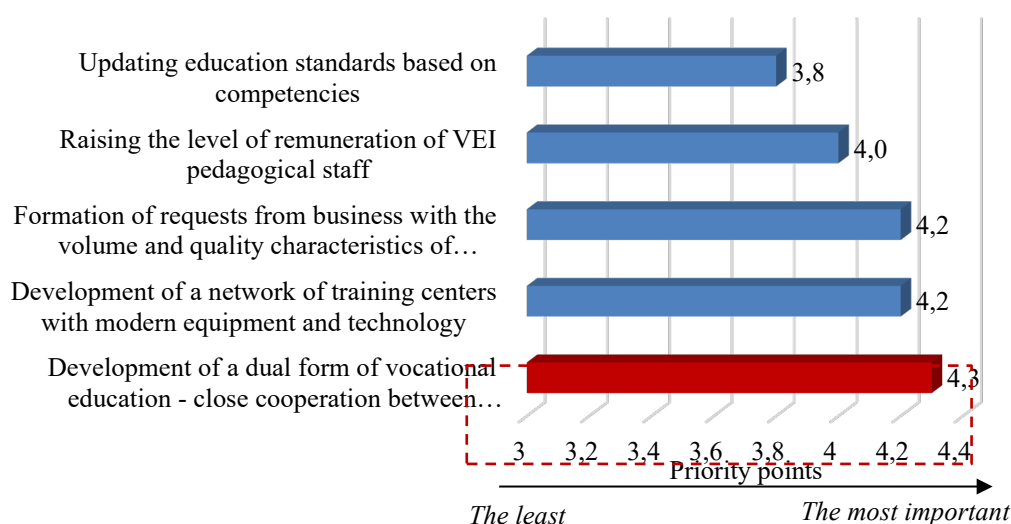
The distribution of employers' responses regarding the experience of cooperation with VEIs in terms of the level of satisfaction of enterprises with the level of training of VEI graduates is interesting. Thus, about 44% of enterprises that cooperate with VEIs believe that the professionalism of the graduates is sufficient, and 45% of employers who have no experience of cooperation with VEIs are convinced that the specialists are of an average level of training and this requires the creation of conditions for additional training (Table. 5).

Table 5.

Experience of employers' cooperation with VEIs in recruitment in terms of satisfaction with the level of training of graduates, %

Options		Does your enterprise have any experience of cooperation with VEIs in terms of staffing?		
		There is cooperation (on-the-job training with further employment)	Contractual relations (formal only)	No cooperation
To what extent is the enterprise's management satisfied with the level of training of VEI graduates?	The specialists have the necessary knowledge to carry out their current work and have a high (sufficient) level of training.	8.0	5.6	
	The professionalism is at a sufficient level; however, the graduates are trained directly at the enterprise.	<b>44.0</b>	<b>44.4</b>	23.3
	The specialists have an average level of training, which requires the enterprise to create conditions for additional training.	<b>48.0</b>	16.7	<b>45.0</b>
	We are not satisfied with the level of training in VEIs.		16.7	13.3
	VEI graduates have never been employed.		16.7	13.3

The combination of practical aspects and theoretical training in VEIs creates additional opportunities for training skilled workers for the needs of the region's economy. Meanwhile, the region should ensure the functioning of an efficient mechanism of cooperation between education and business, in particular by introducing a dual form of education, as well as simplifying and improving the mechanism for on-the-job training. Thus, the development of the dual form of vocational education is defined by employers as a priority tool for improving the quality of VEI training and the supply of workers (4.3 points) (Fig. 5). Employers have given a high rating (4.2 points out of a maximum of 5) to such tools as "Development of a network of training centres with modern equipment and technology" and "Formation of requests from business with volume and quality characteristics of specialists".

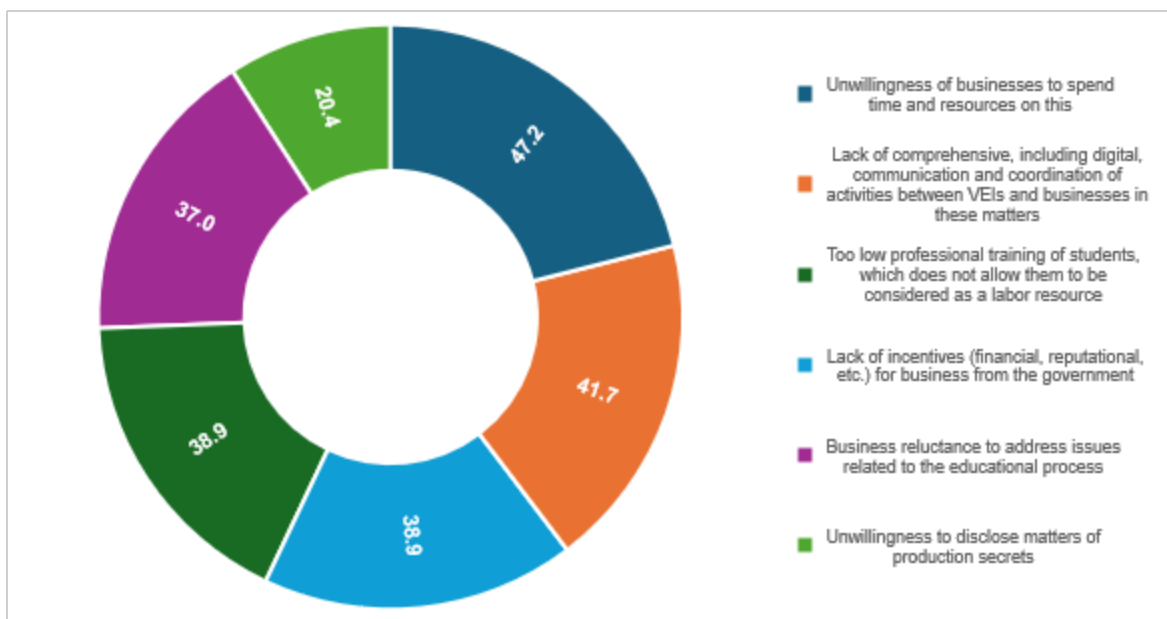


*Figure 5. Priority tools to improve the quality of VEI training services and the supply of workers: assessment by employers, points*

Despite the recognition of the potential of dual education and its positive impact on improving the quality of training of VEI graduates, business representatives understand that there is a wide range of unresolved problems in this regard, which is confirmed by the significant variation in responses regarding the awareness of obstacles to the spread of dual education, where 5 options are supported by 37% to 47% of respondents. These are mainly the unwillingness of businesses to spend time and resources (47.2% of respondents see this as the main obstacle), the lack of appropriate coordination and communication within the framework of establishing and developing cooperation between VEIs and businesses (41.7%), the unwillingness of businesses to address issues related to the educational process (37.0%), the lack of incentives (material and reputational) for businesses from the authorities (38.9%), and the low level of professional training of students and the unwillingness of businesses to consider them as

a labour resource (38.9%) (Fig. 6). In general, 2 groups of causes can be clearly identified among the answers received: (1) of a purely coordinating nature, (2) related to the still insufficient awareness of the benefits and direct need (as a direct tool for forming one's own highly professional human resources) for such cooperation, which has long been recognized by the experience of developed economies, where the system of vocational education is built on the principles of duality.

Business representatives quite clearly identify promising areas for the development of dual education. Among the responses received, two areas for improvement were identified. These are (1) establishing the necessary dialogue and cooperation between educational institutions and enterprises (mentioned by every second (53.7%) respondent) and (2) creating appropriate conditions (workplaces equipped with modern equipment and technologies) directly in enterprises for on-the-job training of VEI students (44.4%). Other responses were also quite common, and they also refer in one way or another to either coordinating cooperation between VEIs and enterprises or improving the willingness (and taking appropriate "steps forward") of the business itself.



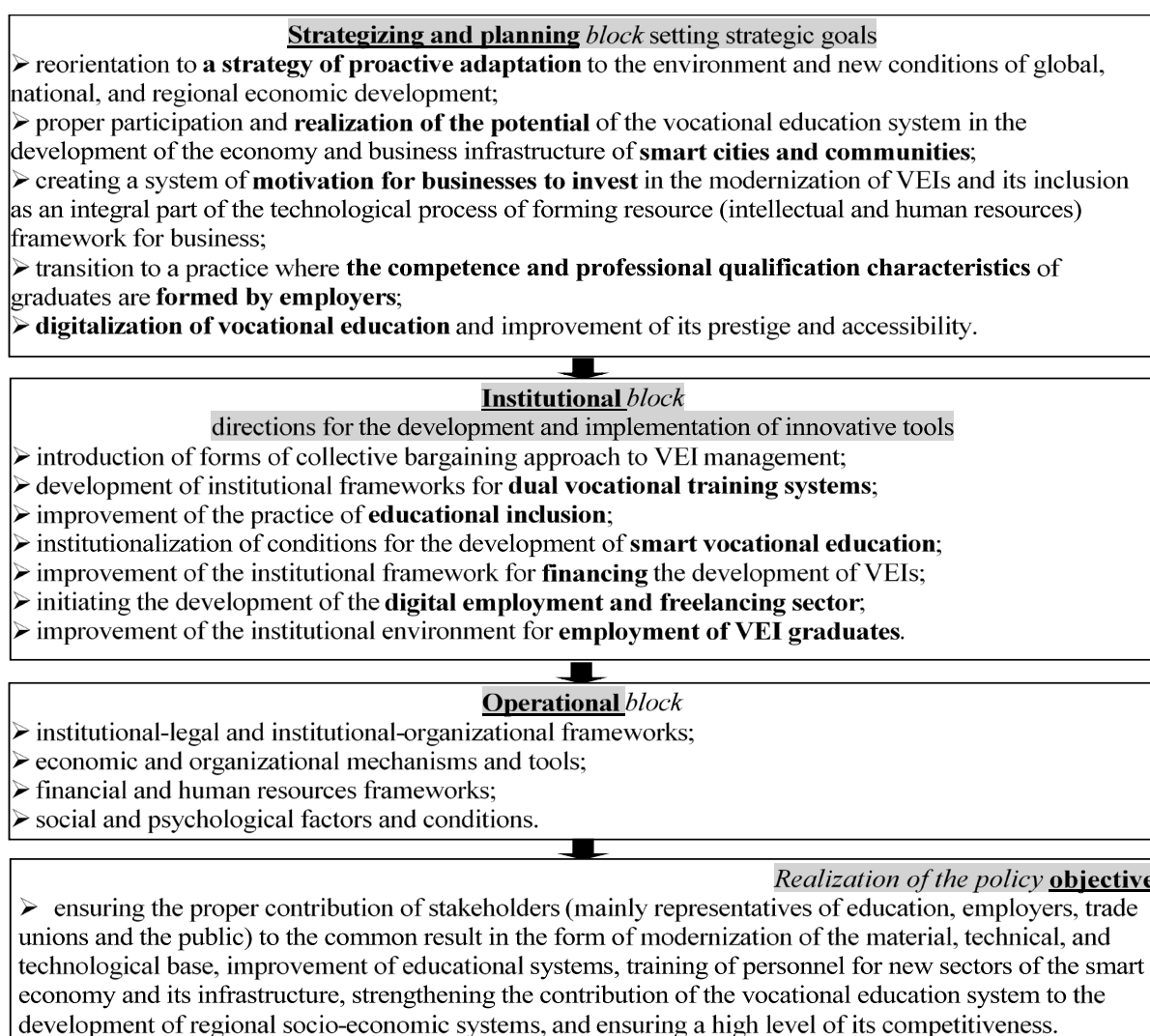
Note: multiple responses are possible

Figure 6. Main obstacles to the spread of dual education, %

#### 4. Discussion

Regional authorities, including the departments of education and science of regional state administrations, as well as NGOs specialized in supporting the development and modernization of the education system and its institutions

should intensify their activities to inform representatives of VEIs, businesses and the public about the possibilities of creation, advantages and the opportunities for institutional forms of cooperation to attract potential participants, mainly leading regional enterprises, business associations (Fig. 7), etc., as well as for providing organizational and other support for using the potential of dual education. In the future, it is possible to create an association of supervisory boards in the region as a structure for allocating information about the development of this instrument, its achievements, problematic aspects, common practices for the development of VEIs, infrastructure of the graduate employment system, development of the labour market for blue-collar occupations, and convergence of the education and production system (the real sector of the regional and local economy).



**Source:** compiled by the authors

*Figure 7: A conceptual model for the development of an instrument of institutional partnership between business and the training system for specialists in blue-collar occupations*



## **Conclusions**

The results of the study show that there is a significant shortage of workers in the region (especially locksmiths, construction workers, turners, electricians, production line operators, etc.) in such sectors of the economy as water supply, sewage and waste management, agriculture, forestry and fishing, mining and processing, service sector, etc. According to employers, the level of professional training of VEI graduates is moderate (average), which requires enterprises to create conditions for additional training directly at the workplace or to give preference to specialists with work experience due to the lack of practical skills of VEI graduates; there is a low level of cooperation between VEIs and businesses in the region, or it is purely formal, which affects the extent to which enterprises are staffed with workers (less than 10% of respondents place requests for training, are VEI stakeholders or members of the supervisory boards of institutions); there is a need to establish cooperation between business and VEIs to harmonize the scope and structure of professions and specific professional qualifications (skills) of graduates; the main obstacles to the spread of dual education include the lack of full communication, including digital, and respectively, coordination of activities between VEIs and business in these matters, as well as the unwillingness of business to spend time and resources on this, even though they understand the relevance of dual education and its positive impact on improving the quality of training and solving the problem of staffing enterprises with workers; promising areas for ensuring dual education in the region include (1) developing partnerships with businesses, involving employers in the learning process, and establishing an effective dialogue with VEIs and (2) creating appropriate conditions for practical training and providing workplaces and laboratories with modern equipment and technologies.

Prospects for further research will be focused on identifying mechanisms for overcoming other challenges to the functioning of the Ukrainian labour market in the conditions of war, such as migration challenges, including for highly specialized professionals, social and labour integration of demobilized persons, war veterans, and persons affected by hostilities, and the growing need for personnel important during the war and for post-war recovery, which transforms the professional structure of the labour market, etc.

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