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TTT4WBL – Testing New Approaches to the Training of VET and Workplace Tutors Regarding Work-based Learning (WBL)

D 5.6 REPORT "MAPPING THE CLUSTERS OF SMEs AROUND VET AND INVOLVING NEW SMEs IN WBL IN LITHUANIA"

WP Number	WP 5
WP Title	Evaluation of Joint Training approach and related results
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Introduction

This report is based on the project work package No 5 “Evaluation of Joint Training Approach and Related Results” prepared by Kaunas Chamber of Commerce, Industry and Crafts. The report aims at providing the information on the mapping situation (and improvement) of VET schools and enterprises on the implementation of WBL.

Main areas the report is focused on:

1. Preconditions for cooperation

2. SMEs’ involvement follow-up

3. Support for clusters

4. Visions for the future development of cooperation

The main target groups of the project to which this document refers:

- Policymakers and stakeholders

- Project partners

- Lead trainers of WBL tutors and VET teacher trainers

- WBL tutors: VET schools and the representatives of enterprises

Consultations on this document with

- External evaluator

The analysis was executed by applying the following methods:

1. Data analysis of the Lithuanian Department of Statistics

2. Contents analysis of the feedback questionnaires received during the training of tutors, minutes of partners meetings and discussions, quality (internal and external) assurance reports.

3. Interviews of tutor groups (three conducted by the Chamber at the request of the project Researcher) during the training in Lithuania.

2. Mapping of clusters

In 2019, there were 76 VET providers in Lithuania.

Source: The Lithuanian Department of Statistics

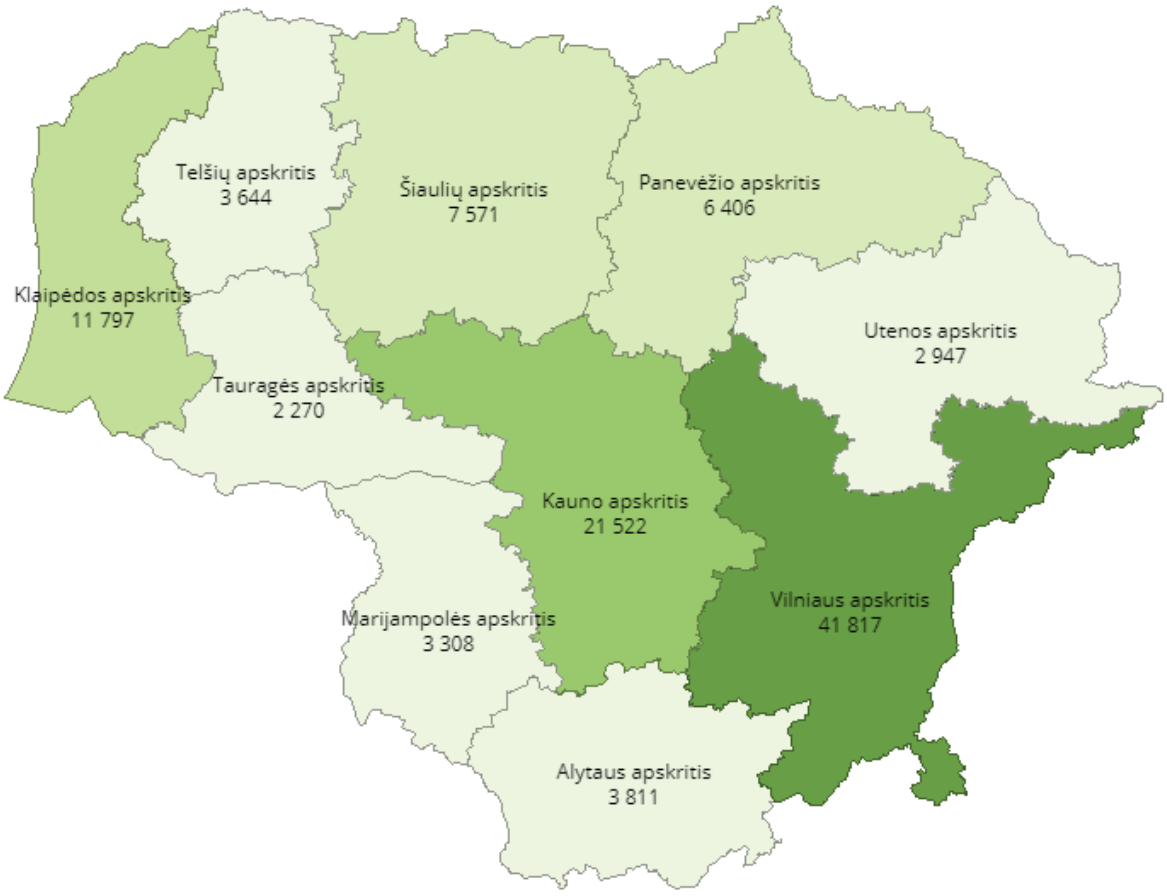
During the years of 2017–2018, 42101 IVET students graduated in these 76 schools, 25 % of students graduated in Vilnius and Kaunas counties.

Data of Research and Higher Education Monitoring and Analysis Centre (other institutions also included in this research) every 2 years prognosticates the needs of future VET training programmes according to the needs of the sectoral business. Calculations are made for Lithuania, unfortunately, there is no data of prognostication for every region.

The comparison of VET schools' network with the network of business entities shows that the biggest concentration of both networks is in Vilnius and Kaunas counties.

In Lithuania, apprenticeship and WBL implementation are based on good cooperation between enterprises and schools. Lack of employees changes the attitude of employers and encourages to participate more willingly in VET activities.

The project of tutors training did not concentrate only on the biggest regions of Lithuania. Equal possibilities to participate were given to all VET schools in Lithuania as well as to all the interested enterprises. Support of regional Chamber network, Ministry of Education, Science and Sports of the Republic of Lithuania, and Association of VET providers helped to reach very good cooperation results.

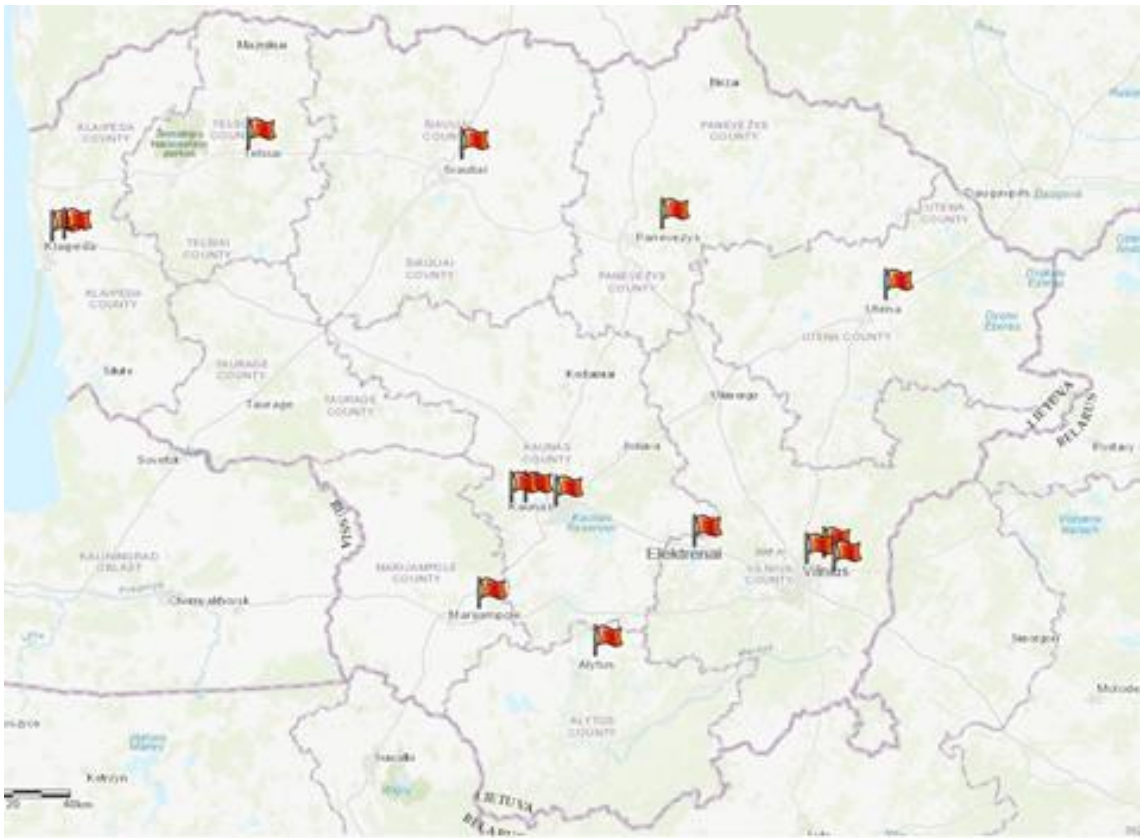


At the beginning of 2019, in Lithuania, there were 105,093 acting business entities.

Source: The Lithuanian Department of Statistics

In Lithuania, training took place at the period of November 2017 – November 2018. During Phase 1, 54 tutors participated in the training, while during Phase 2 – 258 tutors. In total, 312

tutors were trained in Lithuania (185 tutors from VET institutions and 125 tutors from business entities). In total, there were 15 trainings in 10 cities of Lithuania. The places of the training were chosen regarding the potential of business (7 trainings in Vilnius and Kaunas counties).



Cities of training

2.1. Preconditions for cooperation

Initiatives of cooperation and networking between the SMEs and VET providers were widely discussed during the training sessions and group interviews with participants. The project team found that in many successful examples of cooperation VET providers are still more active. There are many good examples of long-lasting cooperation for students practice period and participation in final qualification exams. Lack of employees in the whole Lithuania (2019 1st quarter, 16,000 free workplaces) is changing employers' attitude. Apprenticeships and WBL are becoming a new way to find an employee and solve the problems of unemployment and ageing.

were interested especially in the legitimation of cooperation between VET and enterprises.

It was found that during training, discussions and group interviews, WBL is impossible if an enterprise and a VET provider do not participate in curriculum design, planning, realizing and assessing work-based learning.

Training of tandem tutors has revealed the importance of quality assurance in all steps. Participants of training have pointed out that mutual trust is one of the key factors for successful cooperation.

Clustering initiatives in the WBL were regional and were based on existing bilateral partnerships between SMEs and VET providers. The participants of the training were VET tutors from 70 VET schools. Lithuanian VET association directly addressed each VET school asking to invite their partners to the training. Regional Chambers of Commerce, Industry and Crafts were inviting new enterprises which would be interested in mutual cooperation and implementation of WBL.

Geographically, the network of VET providers covers the whole Lithuania. Each year, more than 40,000 students are graduating formal IVET programmes, nevertheless, employers feel huge lack employees, especially in the industry sector. Enterprises of this sector are the most motivated for the implementation of new initiatives. Sectors of tourism and transport do also support the implementation of WBL.

The implementation of WBL initiatives during training has been widely discussed. For the procedures being unclear, having no legal base and financial motivation mechanism for SMEs participation in WBL, allows the supposition that the decisions for WBL and apprenticeship implementation promotion are still in need.

In group discussions, enterprises' tutors have indicated many benefits for cooperation, however, a VET provider is still seen as the active actor for networking. The reference point for providing the information could be regional Chambers and regional branches of the Association of VET providers.

The training experience has shown that Lithuanian regions have very different potential for WBL implementation. VET providers and enterprises' readiness and capacity are much higher in bigger counties.

2.2. SMEs' involvement follow-up

Before the training, the involvement of representatives of SMEs towards the cooperation and networking in the field of WBL was not planned. According to the project Researcher's recommendation, after 6 months of training, all tutors received a questionnaire for giving feedback, including better cooperation skills. Besides the research results, the Lithuanian

project team planned many national dissemination events, made a video about the potential of WBL to make big impact on national involvement of SMEs in WBL.

The regional chamber has noticed the increased interest of trained workplace tutors on the implementation of WBL and apprenticeship, especially on legislation aspects (the Order specifying the implementation should be ready in 2019).

70 % of SMEs that participated in the training, already have cooperation experience with VET schools, which encourages to believe that the created network will work for future cooperation.

2.3. Support for clusters

SMEs and VET providers during the project training were clustered in 15 teams geographically, covering all sectors. During training, there were many discussions that the implementation of WBL and apprenticeship in Lithuania requires governmental level support:

- Legislation (the establishment of clear requirements and order)
- Financial support for SMEs (at least for tutors' salaries)
- The participants of the training have also indicated that there is a need in Lithuania for the optimization of VET providers' network. The level of VET providers is very different, best capacity, intellectual resources and infrastructure are developed at sectoral VET centres (42 in Lithuania), these centres have clear profiles (specialization) and are attractive for cooperation.
- The readiness of SMEs to participate in the training was identified as low (there are no created quality criteria for enterprises that want to implement WBL and/or apprenticeship).
- Intermediate regional organizations have to be involved in supporting, quality assurance and supervising activities. Schools and SMEs cannot be left without any supervision.

Obstacles for the establishment of such clusters and partnerships are related to legislation, responsibilities of governmental institutions, funding and assurance of quality.

2.4. Visions for the future development of cooperation

Future development of cooperation and networking between the SMEs in the field of WBL are possible only when support questions are solved.

All enterprises were interested in WBL and have admitted that participated in the training mainly because they really needed employees and saw every possibility of cooperation with any VET provider beneficial. Geographical distance is not a problem anymore, pick-up buses are organized.

Regarding the quality of clustering, there are still many issues to be solved at the level of policymakers.

3. Conclusions

Clustering of SMEs around each VET provider is beneficial from the regional perspective. Greater capacity and infrastructure are provided in sectoral VET centres, however, they are mainly situated in Vilnius and Kaunas counties. In these counties, there are acting more than 50 % of all enterprises. To enable clusters (giving support) in the whole Lithuania, clear decisions by policymakers must be done, such as the implementation of WBL and apprenticeship – whether it is a sectoral (42 sectoral VET centres) or regional approach (counting all schools). Good examples of cooperation between VET and enterprises are showing that the sectoral approach works better than regional.

4. Good examples of cooperation between VET and enterprises

The training of VET teachers and WBL tutors in the enterprises in Lithuania disclosed different obstacles for the implementation of the work-based learning from the perspective of VET teachers and representatives of enterprises:

Categories of obstacles and problems	Obstacles for the development of work-based learning from the perspective of VET teachers	Obstacles for the development of work-based learning from the perspective of enterprise representatives
Related to the lack of mutual trust in the intentions and capacities of partners.	Distrust in enterprises and their intentions to implement WBL, lack of trust in the quality of work processes offered by the enterprises.	Insufficient supply of potential apprentices from the VET schools
Related to the role and support of the Government.	Felt lack of support from the Government.	The need for clarification of economic and legal regulation of the WBL. Lack of financial support and the motivation for the enterprises to engage in WBL.
Lack of conceptual understanding, know-how and experience.	A rather narrow idea about the scope of WBL, lack of understanding of the relationships between competency-based education and WBL.	Lack of motivation for the engagement of WBL tutors in enterprises; young age of tutors and lack of experience and authority amongst apprentices. Need for sharing concrete experience and examples of successful dealing with the problems of WBL.
Organizational and human resources' problems.	Lack of interest to engage in WBL and apprenticeship	Lack of trust in the capacities of enterprises to ensure the

	schemes due to the overall reduction in workload and payment.	quality of WBL and the productivity of the graduates of WBL / apprenticeship courses (suggestion for the Government to compensate / subsidize the wage (a part of it) of a graduate in 6 months after graduation.

Surprisingly, sectoral practical training centres and their potential for the implementation of WBL are almost invisible in this discourse.

To target these issues, the following cases of beneficial experience can be suggested:

1. Work-based learning processes developed at the training centre of the enterprise (*CNC Baltec*)

The analyzed enterprise produces different metal parts and elements with the CNC operated equipment. This enterprise has implemented apprenticeship training combining the theoretical training at the special training centre (up to 1 month), practical training at the workshop of training centre (from 1 to 3 months) and work-based training at the workplaces (from 3 to 6 months). Work-based training is smoothly integrated with the production process when the planning of work-based training is executed by the Production Planning Department and quality management is ensured by the Production Quality Control Department.

Enterprise has established its own competency framework of 10 levels linked with the other sub-systems of human resources management, such as remuneration and career management. This instrument permits to rationalize and optimize different processes of human resource management and development, including work-based training and learning or competency assessment.

At the initial steps of training, when the apprentice is working together with a trainer the priority is given to the requirements of work safety, quality, acquisition of underpinning technological knowledge and basic practical skills. Competent and autonomous performance of the CNC operator involves usage of knowledge and skills related to the main two fields: 1) mastering (control) of the work process: to design and adjust a simple programme of the process, to design and produce simple tooling, to work in the automated and manual operation regimes, to calculate and adjust regimes of cutting, to apply the know-how to the technological process, tolerance, qualities and surface roughness, to read drawings and to start processing programme from any point of the code of the programme; 2) training and consultations for the workers of lower level of qualification.

The intermediate competency proficiency levels are aligned with the increasing complexity of technological work tasks. Also, there are increasing requirements of responsibility for the management of work processes, such as suggesting improvements in work processes, making independent decisions in the technological process and manufacturing of tools and instruments. Also, the complexity of quality assessment and control tasks is increasing – measurement of parts, application of the principles of dealing with non-conformities.

These advanced levels of competent performance also involve reflectivity of a more deep, complex and wider scope of the work processes which encompass products, applied technologies, quality control and organization of the work processes. In the project, the training focuses on the acquisition of advanced technological skills and tacit knowledge from the independent execution of work processes and communication with colleagues and superiors.

The highest levels of competent performance of CNC operators are focused on the product design and development of the technological and work processes.

Currently, the training centre of the enterprise is preparing a skilled ("efficient") operator within approx. 10–12 months by passing through the steps of trainee (1 month of training at the training department and workshop), apprentice (1–3 months of training in the real workplace with guidance and supervision of a tutor from the training centre, and efficient operator (3–6 months of training at the workplace with the supervision of a tutor).

2. Dual apprenticeship schemes developed through the cooperation of the VET centre and established regional enterprises (Alytus VET centre)

For a couple of years, Alytus Vocational Education Centre has been successfully applying the form of apprenticeship training, when, after concluding trilateral and apprenticeship work contracts, practical training is carried out in the workplaces of enterprises, institutions, organizations, and new, specific knowledge is acquired in the educational institution. The trainee is given an individual training plan so that the person can study, work and get paid.

Responsible partnership with businesses helps to ensure the quality of peer learning and to prepare employees for competitiveness.

Representatives of enterprises that work with the centre recognize that specialist's training is their common goal. It is particularly important that the company's representatives understand not only the benefits of apprenticeship but also the pedagogical requirements of this form of training, the importance of professional knowledge, the role and responsibility of vocational teachers in apprenticeship schemes.

The active participation of the company's representatives in the management of the training centre contributes to this understanding. The executive director of the company participates in the activities of the school council, the director represents the Association of Engineering Industry Enterprises at the meetings of the training centre shareholders, the positions (opinions) of the business institution are significant in the preparation and implementation of the strategic documents of the training centre, educational plans and vocational training programmes. Enterprise managers and representatives participate in conferences and discussions on the activities of the engineering industry practical training centre, equipment, curriculum development, assessment of pupils' achievements and competences, human resources development and operational efficiency.

It is also very important for the enterprise to participate in the development of VET competencies by organizing long-term and short-term teacher placements in the company. Based on teacher-based teacher training programs, in collaboration with the enterprise's engineering staff, teachers develop technological skills and economic thinking.

3. Dual apprenticeship schemes developed through the cooperation of the VET centre and Lithuanian enterprises (Visaginas technology and business vocational education and training centre)

Visaginas Technology and Business Vocational Education and Training Centre started vocational training in the form of apprenticeship in 2015. In 2019, 9% of students are studying under this form of vocational training. The Centre organizes apprenticeship training in a mixed way: there are cases where training is organized for the whole group, or this form of training is applied to individual pupils in groups.

The Centre establishes apprenticeship in communication with companies. The curriculum requirements and parts of the curriculum are coordinated in companies with tutors. The planned process of apprenticeship training is also discussed. Before concluding the individual learning plan of the apprentice, the Center identifies the competencies the student has. At this stage, enterprises take part and indicate their needs, expectations of the apprentice's existing or missing competencies needed to perform the job functions.

Before starting the apprentice's practical training in the company, the responsible staff of the Centre goes to the company – the future venue for practical apprenticeship. The apprentice's workplace suitability for seeking skills and qualification of the training program is evaluated; the needed competencies of the apprentice are discussed.

The successful implementation results of VET apprenticeship in the Centre are determined by the fact that students are only sent to the enterprises where the workplaces meet or are very close to the curriculum.

Complementing theoretical knowledge with practical training of the apprentices at the Centre is carried out using the distant learning environments, such as *Classroom manager*, *Moodle*. The school has a unique self-directed learning platform, which they willingly share with all educational institutions.

The organization of the apprenticeship training process necessarily requires cooperation between company tutors and school tutors. They communicate on issues of coordination and preparation of tasks and are constantly exchanging information.

The most important achievement of the training institution in organizing the apprenticeship vocational training is that the Centre is trusted and it cooperates with advanced enterprises as *Intersurgical*, *Biovela*, *SBA* (*JSC Visagino linija*), *JSC Baltijos Informacinės sistemos*.

VET centre crossed geographical borders and cooperates with enterprises from the whole Lithuania as keeping regional approach with mechatronics sector, in their case, would not be successful. Moreover, Visaginas centre is very active in communicating and visiting enterprises to offer an apprenticeship to their employees.

The case shows that for Lithuania the match of VET schools and enterprises on regional approach would not be sufficient. According VET school specialization and taking into account total amount of enterprises in Lithuania, it is more effective to consider the country as one region. As not all VET schools have concrete specialization (representing 4–5 sectors), some misunderstanding related to the school identity in the eyes of enterprises occurs.