

Case study Lithuania

The future of vocational education and training in Europe Volume 4

Delivering lifelong learning: the changing relationship between IVET and CVET

By Vidmantas Tutlys, March 2022
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Part 1: Introduction IVET and the learning of adults

Vocational training programmes in Lithuania are designed for people of all ages and backgrounds. Initial vocational training is for young people aged 14 years and above, aiming to acquire their first qualification. Vocational training follows the vocational training programmes or modules approved and registered in accordance with the procedure established by the legislation of the Republic of Lithuania. The trainee acquires a qualification (or a part thereof) corresponding to a professional standard, or develops, modifies or acquires the competence necessary for the performance of a job or function regulated by law. The vocational training system includes: initial vocational training, continuing vocational training and vocational guidance. The VET programmes lead to qualifications at levels 2-4 of the European Qualifications Framework (EQF). These programmes provide vocational qualifications, in parallel to the primary or secondary education. Graduates of vocational education and training institutions can enter higher education after obtaining a secondary education certificate. Additional points are awarded for admission to higher education programmes in the same field of education. Vocational training in Lithuania is delivered in a school-based format, but practical and in-company training form the bulk of the curriculum. In initial vocational training, practical training accounts for 60-70% of the total number of hours spent on specialised subjects, of which 8-15 weeks (in total) must be spent in an enterprise or in a training establishment with realistic (including simulated) working conditions.

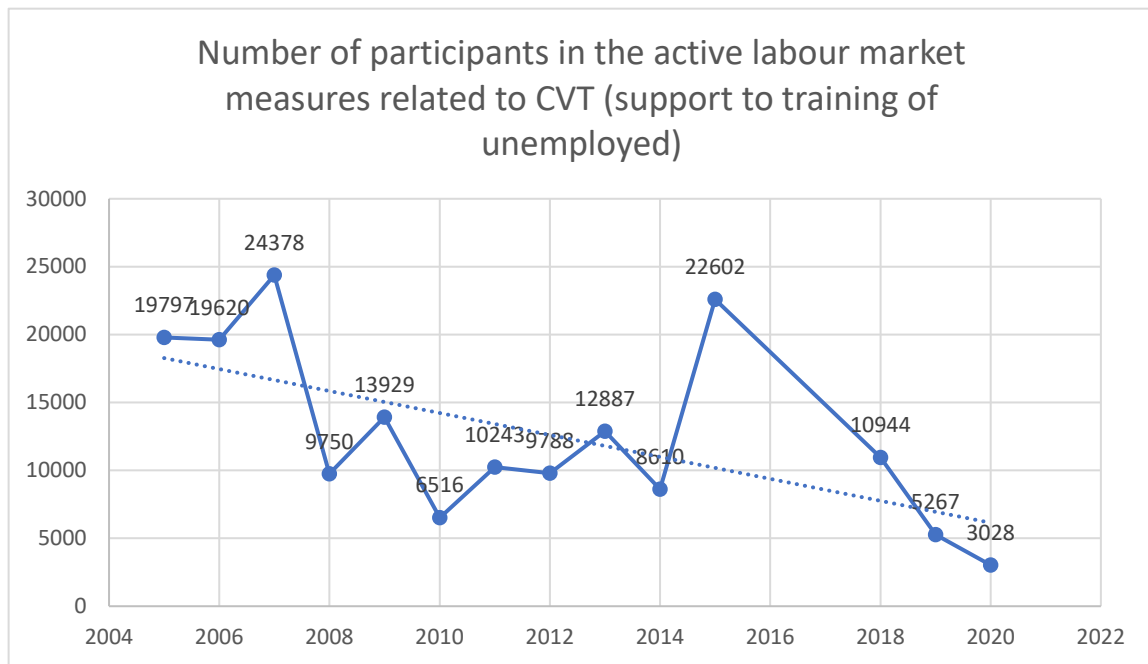
The purpose of continuing vocational training is to upgrade a person's existing qualifications, or to acquire other qualifications or competences required for the performance of a job or function regulated by law. Continuing formal vocational training programmes are designed for people with a wide range of educational backgrounds (from primary to post-secondary education). Learners may be required to have practical experience or a minimum qualification. The duration of the programmes is up to 1 year, leading to a state-recognised qualification at EQF levels 1-3.

Initial Vocational Training (IVT) is provided by 65 public and 2 private VET institutions and, according to 2015 data, there were around 46,500 students enrolled in IVT programmes in VET institutions. Continuing vocational training is provided by around 260 institutions including 65 public VET centres, which provide both initial VET and continuing VET courses and 5 labour market training centres providing only continuing VET courses. In total, around 450 qualifications are offered in the VET system. There is no accessible data on the market shares of VET centres in the CVET provision.

The learners in the programmes of continuing vocational training for adults (unemployed and working people) are studying in the continuing VET modular programmes, which are based on the national modular VET curricula.

The statistical information shows increase of the number of CVET learners after 2010. It concerns both employees and unemployed / job seekers. The number of employed persons participating in continuing vocational training courses increased from 18,6 percent in 2010 to 25,6 percent in 2015 (Statistics Lithuania, www.stat.gov.lt).

The dynamics of the participants in the CVET measures for unemployed reflects the socio-economic and labour market changes in the last decades, especially the fast economic development from 2004 to 2007 (increase of participation in CVET), economic crisis and subsequent dramatic increase of emigration in 2008-2010 (decrease of participation), post-crisis recovery and intensive support of CVET with the ESF after 2010 (till 2018) (increase of participation), and Covid-19 pandemics (decrease of participation).



Source: Lietuvos užimtumo tarnyba prie Socialinės apsaugos ir darbo ministerijos www.ldb.lt

Currently the Ministry of Education and Science of the Republic of Lithuania has the main responsibility for the development and implementation of vocational training policy, including the continuing vocational training. The Ministry of Economy of the Republic of Lithuania also participates in the implementation of the human resources development and continuing vocational training policy, and organises human resources demand forecasting studies.

The Centre for the Development of Qualifications and Vocational Training (KPMPC) organises the development of professional standards. The KPMPC also collects and analyses information on vocational training, prepares methodologies for the development of vocational training, assesses and develops the quality of vocational training, and performs the functions of the National Reference Point for Quality Assurance of Vocational Training and of the National Qualifications Coordination Point.

The advisory bodies play an important role in the formulation and implementation of policies on vocational training and the qualifications system, the most important of which are the Lithuanian Council for Vocational Training, the Central Vocational Committee and the Sectoral Vocational Committees.

The social partners are mandated to initiate the development of new qualifications, standards and vocational training programmes. Since 2003, the final qualification assessment has been separated from the training process. Since 2012, competences have been assessed by bodies accredited for this function: social partners, enterprises, employers' associations.

Employers' representatives are involved in designing the content of vocational training programmes, assessing the relevance of programmes to labour market needs and organising training. They may also participate in the management and shareholding of vocational training institutions. At present, the social partners, enterprises and municipalities are directly involved in the management of around a quarter of initial vocational training institutions with public body status.

Providers of non-formal adult education and continuing education in Lithuania are entitled to provide non-formal adult education and continuing education programmes in accordance with the procedure established by the Minister of Education, Science and Sport. Non-formal adult education and non-formal vocational training programmes are developed by natural and legal persons, one of whose activities is qualification development/vocational training: state and municipal budgetary institutions (education centres and other educational aid institutions); educational institutions (pre-school and general education institutions, vocational training providers); institutions subordinated to the Ministry of Education, Science and Sport (National Education Agency, Centre for the Development of Qualifications and Vocational Training etc. higher education institutions providing teacher training and/or continuing professional development programmes; other legal persons acting as governmental organisations, non-governmental organisations, public bodies, public limited companies, private limited companies; natural persons registered as sole traders.

Part 2: Further analysis of the selected policy development and the direction of travel

This part further elaborates on the selected policy. It aims to understand better the context of the policy and the drivers behind the policy development, both within the VET system and outside of the VET system.

The focus of this chapter is on the policy seeking to promote lifelong learning approaches in the field of VET in the context of development of the national system of qualifications. Implementation of this policy has started in 2010 and it consists of implementation of the competence-based occupational standards, modularization of the IVET and CVET curricula, promotion of apprenticeship and implementation of the recognition of informal and non-formal learning.

Problem statement and objective of the reform/ change

During the first two decades of the independent state after 1990 the provision of the IVET and CVET was rather strictly separated in the institutional, legal and processual sense. The IVET provision was concentrated in the public initial VET schools providing the first vocational qualification for the youth. The CVET was provided either by enterprises (for employees), or by the employment training centres (Labour Market Training centres) responsible for the

provision of continuing training courses for the unemployed and job seekers. There was no particular link or effective substitution in the activities of these two fields of vocational training. Labour market training centres were coordinated by the Labour Market Training Authority under the Ministry of Social Security and Labour, while the initial VET was under the responsibility of the Ministry of Education and Science. All the processes of training provision were also separated: curricula were developed on the basis of the different types of VET standards, there were different regulations of the provision of training and didactics (like training duration), as well as of assessment approaches and methods. The provision of CVET in the enterprises was largely informal and non-formal, without any external assessment and recognition of acquired competencies (with the exception of the few state regulated training courses, such as work safety and security courses). After the accession to the EU with the beginning of the implementation of the EU accession driven policies, such situation did not conform to the new policy priorities, related to implementation of the LLL in VET and development of the competence-based national system of qualifications. With the progress of implementation of the EU funded projects of investment in the infrastructure of IVET and CVT systems, especially in the period of 2004-2010, there were economic reasons to integration of the 2 subsystems, when, for example, it became evident that investments in the two training centres providing the same type of qualifications in the same geographic area cannot be justified economically. Reducing number of the VET students (demographic change) and challenges in recruiting and sustaining the VET teaching staff also contributed to these policy decisions.

The following main objectives of this policy change can be identified:

- 1) Making the VET attractive choice of skill formation and career pathway for young people by opening further learning and development perspectives through better permeability with HE and CVT (lifelong learning).
- 2) Increasing of the CVT accessibility and provision in coping with the challenges of skill shortages caused by the demographic situation (including emigration).
- 3) Improving of the quality of the IVET and CVET provision by following the policies and guidelines of the EU policies and strategies: coping with skill mismatches and optimisation of the IVET and CVET provision (development of apprenticeship and WBL, involvement of business stakeholders in the development of the system of qualifications and governance of public VET providers); implementation of the competence-based qualifications and curricula.

These objectives rather well respond to the above described challenges. Systemic approach of reforms can be noticed to the challenges which tackle all relevant processes, being the following:

- Firstly, institutional development (merger of the IVET and CVET providers and consolidation of the governance of the CVT and IVET provision under Ministry of Education and Science after 2010, transformation of the status of public VET and CVET providers into public entities by opening access for other stakeholders to their governance, etc.).

- Secondly, curriculum design (implementation of the unified modularised competence-based curricula for IVET and formal CVET as a part of implementation of the LTQF).
- Thirdly, organization of the provision of training (implementation of the apprenticeship and WBL in the CVET and IVET, establishment of the sectoral practical training centres in 2015-2018).
- Fourthly, competence assessment (efforts to strengthen assessment of non-formal informal and experiential learning in VET).

These processes will be analysed in the next chapter of the report.

Change process and (institutional) context

As it has been mentioned above, the changes of CVET after 2010 have taken a systemic character and covered wide areas and different processes: 1) institutional development, 2) curriculum design, 3) organization of the provision of training, 4) competence assessment. Here we provide more detailed overview of these changes.

2.1 Institutional reforms of CVET

With the Resolution No 161 of the Government of the Republic of Lithuania of 17 February 2010 the property and non-property rights and obligations of the State shareholder (owner) of the labour market training centres under the responsibility of the Ministry of Social Security and Labour are transferred to the Ministry of Education and Science. The implementation of this Resolution makes it possible to merge the training centres for vocational training of adults with the vocational schools, as well as to unify the governance of the IVET and CVET provision (including curriculum design, organisation and provision of training, competence assessment). The institutional integration of the IVET and CVET provision have not led to the overall and complete integration of all labour market training centres into the initial VET centres. A part of these centres continue working as public CVET providers for job seekers and employees. Higher levels of continuing vocational training have been maintained in vocational training establishments with a higher share of students in initial vocational training and in vocational training establishments that have taken over the latter through the merger of initial vocational training and labour market training (e.g. In 2012, the Alytus Vocational Training Centre and Alytus labour market training centre were merged; in 2013, the Klaipėda Labour Market Training Centre was reorganised into the Klaipėda Vocational Training and Rehabilitation Centre and in June 2016, the Klaipėda Construction School was merged into the Klaipėda Vocational Training Centre). Other public providers of continuing vocational training use the training facilities of vocational training institutions to provide certain competences. Another important institutional change concerns the status of the IVET and CVET providers. This process started in 2003 with the decentralization reforms of VET aiming to increase autonomy of VET providers and to strengthen involvement of the private stakeholders in the governance of VET and CVET. Then the VET providers and labour market training centres were given a right to become a public entity opening the possibility to enrol private stakeholders in the governance. The Amendment of the Law on VET in 2017 introduced obligatory introduction of

public entity status for all public VET providers. This law aimed to change the governance and financing of vocational schools to attract more social partners and encourage the attraction of additional funding. It also introduced the obligation for VET providers to implement quality assurance systems to raise the profile of vocational training. VET institutions are responsible for quality and will be required to have internal quality assurance systems, to carry out an annual self-assessment and to publish the results of the assessment, to carry out an external institutional evaluation every five years, and to ensure that the VET system meets international quality standards. At the same time, the governance and financing of the VET system is being changed to attract more social partners, increase the involvement of municipalities and ensure efficient and transparent use of public funds. The Vocational Training Law provides for the transformation of vocational training institutions into public bodies, allowing social partners and municipalities to become shareholders, providing vocational training institutions with additional income and support, and promoting their efficient operations. It provides that natural persons and legal persons other than the Government or its authorised bodies or municipalities may be shareholders of a public or municipal vocational training institution. It also introduces broader roles and responsibilities for the councils of vocational training institutions, including representatives of the social partners and municipalities, thus promoting not only greater accountability to the public, but also a more regional and business-oriented approach to vocational training institutions.

2.2. Reforms and changes in curriculum design

One of the core areas of this integration of IVET and CVET provision is curriculum design. Implementation of the national modular VET curricula on the basis of the occupational standards in 2013-2015 brought unification of the initial and CVET curricula. Both initial and continuing VET is provided by following the national modular VET curricula with some slight differences. Continuing education programmes provide training for adults who often already have qualifications and work experience and need either to develop some competencies or to acquire new qualification. As a result, some modules of the national modular curriculum (introductory module for familiarisation with the occupation and the curriculum, general modules, optional modules) are not covered in these programmes.

Modular VET programmes make it easier to organise continuing vocational training and give learners more autonomy and choice. As non-formal VET programmes are not designed to provide a full qualification, but only part of it, their content can be made up of individual modules and various combinations of modules. In the design of VET programmes, modules do not need to be re-designed and described, but can be taken from approved formal VET curricula and can be combined in various ways to help learners acquire competences relevant to the labour market and to validate them as part of a qualification. The move towards modular programmes in vocational training has led to a move away from training in contact hours or self-directed work to training in credits. This assessment of volume allows learners to adapt their learning more flexibly to their personal needs, to combine work and learning activities, and to choose flexible forms and methods of learning. A credit in the formal vocational training programme makes 27 learner hours. These hours include contact time between the learner

and the teacher, tutorials, as well as independent individual learning, information-seeking or other activities not directly related to learning. Since it is simpler and more convenient to calculate the volume of programmes in terms of learning credits, it is recommended to calculate the volume of non-formal VET programmes in terms of learning credits as well, estimating how long it could take an average learner to acquire a given competence. The recommended length of a non-formal vocational training programme is no more than 30 learning credits.

The credit structure of initial and continuing vocational training differs: in continuing training programmes, 18 hours are devoted to contact work and 9 hours to independent learning. This distribution reflects the fact that more tasks can be done at home. Continuing education programmes can be personalised by tailoring the curriculum to the specific needs of the specialisation, through distance learning and daily or independent learning. Modular training programmes allow learners to take credit for previously acquired competences, where appropriate and possible.

2.3 Organization of the provision of training

Unification of the initial and continuing VET also took place in the field of organization of the training provision. One of the key areas of such unification could be practical training and work-based learning. Here we can distinguish such institutional interventions as establishment of the 42 sectoral practical training centres on the basis of the chosen VET centres in the period of 2015-2018 and the efforts to implement dual apprenticeships.

The Sectoral Centre for Practical Training is a vocational training institution equipped with modern practical training facilities, providing initial and continuing practical vocational training for all Lithuanian citizens: vocational school students, college and university students, employees of companies upgrading their qualifications, and jobseekers retraining and improving their competences under programmes regulated by the Employment Service.

Modern practical training facilities better meet the needs of potential users of the services, thus increasing the number of users of vocational training services. The high level of training technology installed in training institutions better responds to the economic situation in the country and to the requirements of employers, thus increasing the demand for continuing training services. In line with the concept of a sectoral practical training centre, these training centres train highly qualified workers with sufficiently good practical skills to be able to go straight into the labour market. The centres give trainees the opportunity to work with the latest machinery and to acquire the practical skills they need for their professional careers.

The establishment of sectoral practical training centres is an integral part of the competence-oriented reform of vocational training, as modern technology opens up opportunities for the development of new vocational training services, encourages vocational training institutions to update their curricula and to move towards more flexible, modular training that is more adult-friendly. Sectoral centres for practical training should also contribute to the development of dual apprenticeships.

Continuing vocational training was the area where launched experimentation was launched of the implementation of dual apprenticeship in Lithuania.

In 2013-2015, the Labour Market Training Centres implemented the ESF project “Vocational training in the form of apprenticeships in Labour Market Training Centres”, coordinated by the Vilnius Jeruzalės Labour Market Training Centre. Through apprenticeship training, 311 enterprises trained more than 1,100 employees in 50 vocational training programmes. The project developed guidelines for the organisation of apprenticeships. Vocational training institutions implementing formal vocational training programmes for the first qualification did not participate in the project, but they have access to the methodological material developed during the project to help them plan and organise the training and work process. As apprenticeships were used in short vocational training programmes (up to 1 year), the project's experience can only partially be transferred to longer vocational training programmes or to vocational training programmes implemented in conjunction with general education programmes.

According to the Law on VET (1997-2020)¹ the formal CVET is funded from the state budget, municipal budgets, EU structural funds, private financing and other sources. Non-formal CVET is financed by the purchaser of training services (private/physical or juridical person), it can also be funded from the state, municipal budgets, ESF structural funds, employers/private funds. The CVET of employees of enterprises, farmers and farm workers is funded by the enterprises, farms and learners themselves. The Law also foresees that CVET of employees can be financed /co-financed from the state and municipal budgets, EU structural funds, the state funds for the training of unemployed persons (Employment Fund), when the CVET is provided for unemployed persons according to the Law on Employment. The state funding for the assesment of competencies is foreseen for unemployed registered at the national employment service.

The Law also foresees exclusions from the allowance of state funded IVET and CVET. These exclusions are valid for :

- 1) persons who have obtained two or more than two qualifications at public expense, and persons who have obtained three qualifications, if they have obtained the first vocational qualification in combination with basic education and have obtained the second vocational qualification in combination with secondary education, or have obtained a higher education qualification, either by continuous education (or by not having left education), if more than half of the credits of the higher education qualification have been obtained at the expense of the state budget, except in the case of vocational training provided by providers of vocational training for correctional officers and vocational training for the internal affairs, providers of vocational training for persons covered by the Employment Act and the Act on Social Integration of Persons with Disabilities;
- 2) persons who already hold one higher education qualification and are simultaneously enrolled in two or more vocational training or higher education

¹ <https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.45299/asr>

postgraduate or vocational study programmes, provided that at least one of these programmes is financed by the State budget;

- 3) persons applying for a second time for a continuing vocational training programme or a module thereof leading to a qualification, except in the case of vocational training provided by providers of vocational training for correctional officers, providers of vocational training for the internal affairs and providers of vocational training for persons covered by the Employment Act and the Act on Social Integration of Persons with Disabilities.

2.4. Competence assessment

Regarding competence assessment in CVET the biggest changes are related with development of assessment of informal and non-formal learning.

On 11 December 2012, the Minister of Education and Science of the Republic of Lithuania adopted Order No V-1710 "On the Approval of the Description of the Procedure for the Assessment of Competences Acquired by a Person". On 14 January 2015, the Minister of Education and Science of the Republic of Lithuania approved a new description of the procedure for the assessment of competences acquired by a person by Order No V-15. Both of these descriptions regulate the organisation and conduct of the assessment of competences acquired by a person in the pursuit of a qualification or a part of a qualification (a module), through formal or non-formal vocational training programmes, work-based activities or informal learning. Amendments to the "Description of the Procedure for the Crediting of Prior Learning Achievements" and, as an annex to this document, the form of the conclusion on the recognition of competences acquired through non-formal education and informal learning, approved by Order of the Minister of Education and Science of the Republic of Lithuania No. V- 643 dated 9 July 2018. The description of the procedure for crediting prior learning achievements defines the possible evidence of competences acquired through non-formal and informal learning: documents attesting learning achievements and/or work experience or copies certified in accordance with the legislation, references (if any) and documents attesting the professional and other activities (if any) related to the competences to be assessed. The Regulation stipulates that competences acquired through non-formal or informal learning shall be assessed by vocational teachers appointed by order of the head of the vocational training provider. The document drawn up by these assessors is the recognition of competences acquired through non-formal and informal learning. It can contain four possible conclusions: the applicant's competences meet all the competences of the qualification sought; the applicant's competences meet the competences of a specific module; the applicant's competences meet the competences of the qualification sought or of a part of a module; the applicant's competences do not meet any of the competences that are recognised by the State. Any of the four conclusions is concluded with a proposal on how the applicant's learning or competences should be further recognised.

Until 2018, the assessment and awarding of competences acquired through non-formal and informal learning was not very common in vocational schools. The situation changed on 6

June 2017. The Seimas of the Republic of Lithuania added to Article 36 of the Law on Employment of the Republic of Lithuania the provision that the recognition of competences acquired through non-formal and informal learning can be a tool to support the unemployed person's learning. The Law on Employment declares that the purpose of any support for learning is to help unemployed and employed persons to acquire qualifications, to upgrade existing qualifications, to acquire competences in formal vocational training programmes included in the Register of Studies, Training Programmes and Qualifications or in non-formal adult education programmes, and/or to acquire other work skills, or to recognise the competences acquired through non-formal and informal learning, if this is necessary for the purpose of obtaining a job vacancy or becoming self-employed. Following the adoption of this and other provisions of the Law on Employment, the Order of the Minister of Social Security and Labour of the Republic of Lithuania No AI-348 of 30 June 2017 "On the Approval of the Conditions and Procedures for the Implementation of Measures to Support Employment" approved the Conditions and Procedures for the Implementation of Measures to Support Employment, which also addresses the possibility and procedure of recognition of the competences acquired through non-formal education and informal learning. The knowledge, skills, competences and abilities acquired by the unemployed through non-formal and informal education can be assessed and recognised by means of a diploma or a certificate of competence in the relevant vocational qualification, if this is necessary for the unemployed person's admission to a job vacancy or self-employment. The Employment Service undertakes to provide payment for the recognition of competences. In most cases, these funds must also be sufficient to cover the cost of the unemployed person's participation in the qualification examination.

According to the Centre for the Development of Qualifications and Vocational Training, in 2018, more people have started to turn to labour market training centres to validate their non-formal and informal learning, but most of them are directed to this process by employment services. In some cases (so far very rarely), labour market training centres have agreements with enterprises and these enterprises send their employees to have the qualifications actually acquired in the enterprise validated through the recognition of skills acquired through non-formal and informal learning, or new employees of the enterprise have the qualifications required by the enterprise validated if they do not have a certificate of education but have the practical experience required for the qualification.

Labour market training centres face various problems and difficulties in this area: there are different approaches to assessment of the evidence of practical experience for the qualification to be validated, there is no common understanding of how to verify that a person has indeed acquired the theoretical and practical skills, competences and knowledge required for the qualification before being allowed for qualification examination, and there are differences in the timeframes of period of time within which the competences acquired through non-formal or informal learning must be verified. The decisions taken by the staff of the labour market training centres in the event of a failure to pass the initial qualification tests organised by the training institution differ. The training centres also differ in the way they organise the preparation of the applicant for the initial examinations organised by the training centre and for the qualification examinations themselves. Unemployed people living in smaller towns in the

country, where there is no vocational training institution, find it quite difficult to benefit from public support to validate their non-formal and informal learning qualifications. Besides, the amount of money set aside to pay for the non-formal and informal learning validation service is often insufficient, and therefore the non-formal and informal learning validation service often becomes a source of financial losses for the training institutions. It may be for these reasons that labour market training centres are not always able and willing to provide a quality validation service for non-formal and informal learning that is guaranteed to lead to the desired qualification.

Almost €60 million has been allocated for the development of non-formal adult education in 2014-2016. It is aimed at strengthening the following areas: the acquisition of general competences and the development of positive learning attitudes, the development of lifelong learning opportunities in vocational training institutions and higher education institutions, and the creation of a system of financial and organisational incentives for adult learning. (Review of the State of Education in Lithuania 2013-2016). On 28 June 2017, the Minister of Education and Science approved the Lifelong Learning Development Action Plan 2017-2020 for the implementation of the above-mentioned Government Programme for the Development of Non-formal Adult Education and Continuing Learning 2016-2023. As part of the continued investment in non-formal adult education, EUR 0.29 million from the state budget is allocated for the development and implementation of non-formal adult education and lifelong learning programmes in 2017 and EUR 0.66 million per year in 2018-2020.

Results and impact of the policy

Looking at the process of integration between initial vocational training centres and labour market training centres, it can be said that this integration has been only partial. In the field of continuing vocational training (consisting of labour market training for unemployed persons and the CVT [provided for the employees of enterprises]) a rather small range of vocational training programmes is dominant in such fields as transport (truck drivers), metalworking (welders), services (beauty services, hairdressing). While the VET centres provide the training courses for adults (including the courses for unemployed persons), the survived 5 public labour market training centres do not provide initial vocational training programmes.

The reform of the VET curriculum in 2013-2019 with the introduction of competency-based occupational standards and national modular VET programmes should increase the transferability between initial and continuing vocational training, but the concrete results of this reform will be seen in future. For example, it is expected, that modular VET curricula will help the VET graduates and employers to plan the updating and development of competencies during the working career, as well as will enhance the participation of the adults in the continuing vocational training by choosing modules relevant for the skills needs in the labour market. However, the results of these changes are not yet fully visible for several reasons:

- 1) The implementation of the modular curricula in the practices of VET and CVET requires more time, because of profound changes of training practices, new requirements for the skills and competencies of VET teachers and trainers.

- 2) The full scale launching of the modular VET curricula started only in 2019 and so far there are no many graduates of these programmes, who could continue their training by taking modules of the CVET.

The assessment and recognition of non-formal vocational training and prior learning achievements is not yet sufficiently developed, linking this process to national-level occupational standards and modular vocational training programmes. On 17 January 2022, the first assessments of the theoretical part (knowledge) of a person's acquired competences for a qualification started under the updated description of the procedures for the assessment of a person's acquired competences. As in the past, the assessment of competences consists of an assessment of the theoretical part (knowledge) and an assessment of the practical part (competences). However, under the new procedure, the assessment of the theoretical part will be carried out centrally by means of electronic testing, while the practical part will be carried out at the base of a vocational training provider equipped with the necessary technical equipment and tools to perform the task or at an actual workplace equipped with the necessary technical equipment and tools. More than a thousand assessments are planned for 2022.

The provision of continuing vocational training in VET centres depends to a large extent on social participation and cooperation between the VET institution and local enterprises. It is noticeable that the sectoral practical training centres are not yet used intensively for continuing vocational training.

One of the most important impulses for the development of continuing vocational training is the financial support provided by EU programmes.

Looking to the implementation of reforms and views of the stakeholders of this process, the reforms are gradually leading to the envisaged results. The attractiveness of the initial and continuing VET is gradually increasing, the involvement of the VET centres in the provision of the CVET is also expanding. The main challenges are related to the sustainability of the existing CVET practices and the involvement of employers in the CVET, which are very much dependent on the EU funding.

Part 3: Changed epistemological and pedagogical perspective

This part will analyse the perspective of developments and changes over time in the CVET programmes in Lithuania by focussing on the 2 types of these programmes: 1) labour market training programmes based on the VET standards, which were designed in 1997-2008 for the training of unemployed, and, 2) modular CVET programmes developed on the basis of the national modular VET curricula introduced in 2019 and applied for the training of unemployed and employees (CVET for enterprises). A central question is the following: **How did the changes in the role VET centres play in providing learning to adults, as influenced by the implementation of modular VET curricula, affect the content of learning and the way adults are trained?**

Description of the selected programmes

Delivery of the CVET in the metalworking and retail trade faces similar challenges of the shortage of skilled workforce. However, the reasons of these shortages are slightly different: in the case of the retail trade, one of the key reasons is a lack of attractiveness and precariousness of work, while in case of metalworking there is inertia of the social image of the work in this sector, which does not correspond to the current technological, ergonomic and economic changes of the work processes. The responses of the employers to these challenges are quite similar. In case of metalworking, an increased attention of the enterprises in providing work-based learning and apprenticeship is noticed (both company-based and dual – provided in cooperation with VET or labour market training centres). Metalworking sector companies actively participate in the CVET programmes and projects supported by the ESF. Here are several exemplary cases (see box).

1. The company CNC Baltec established own training centre for continuing training of employees and company-based apprenticeship. One of the main training programmes at the company's training centre is the development of software operator skills, which provides on-the-job training. The company, which has 135 employees, trains between 20 and 30 employees a year.

On 18 May 2018, Baltec CNC Technologies started the project "Training of employees of the organisation in the form of apprenticeship for the acquisition of part of the qualification" (No. 09.4.3-ESFA-K-827-02-0005) within the framework of the implementation of the measure No. 09.4.3-ESFA-K-827 under the Operational Programme of the European Union Funds for Investment 2014-2020, Priority 9 - "Education of the Public and Increasing the Human Resources Potential". The project is financed by the European Union Structural Funds.

The objective of the project is to ensure the continuous maintenance of the level of qualification of the workers, their professional mobility and their ability to rapidly reorient themselves towards activities in the manufacturing sector. The project aims to train production workers on the basis of the non-formal training programme 'Software Operator Training Programme' developed by the organisation, which is based on the formal vocational training curriculum 'Metalworking Machine Operator Training Curriculum' (national code: 440071505).

In order to address the skills shortage in the metalworking sector, the project aims to train the organisation's production staff. The training will not only address the objectives of the organisation but also market demand. After all the practical activities and self-directed tasks foreseen in the programme under real working conditions, the labour market will be prepared for the production of higher qualified workers according to the skills required for the specific job. The project is carried out in cooperation with the licensed vocational training institution "Kaunas Technical Vocational Training Centre".

The apprentices will be able to gain qualifications or modules, knowledge, competence, new skills, which will be useful for further work in the company, as well as for finding new

employment opportunities, while the company will receive employees trained according to the requirements of the specific workplace. In order to ensure the continuity of the project, it is planned that, after the completion of the apprenticeship activities, the trained workers will be given full-time employment contracts for a minimum period of 6 months to perform the functions in accordance with the competences acquired during the training. The period of implementation of the project activities is from 18.05.2018 to 18.05.2020, the project implementation period has been extended until 18 May 2021.

Source: <http://www.baltec-cnc.com/projektai-18>

2. Partnership between the company Arginta Engineering, Vilnius Jeruzalé labour Market training centre and Territorial Employment Service.

The Vilnius Jerusalem Labour Market Training Centre and UAB Arginta Engineering has been working together with the Vilnius Territorial Employment Service for several decades. These partners work together to train welding specialists for engineering, construction, energy and other sectors of the economy (adult training). The main target group of this programme – unemployed and persons seeking to acquire new qualification in the field of metalworking. The theoretical part of the training and provision of the basic vocational skills takes place at the Vilnius Jerusalem Labour Market Training Centre. Afterwards the training is continued in the company – Arginta Engineering. There, on-the-job training takes place. 15 company professionals work with the apprentices in the workplace training. The company's specialists are trained to work with apprentices. Labour Market Training Centre and Arginta Engineering work together and review the requirements of the training programme together, update competences, because at the end of the course, the learners take examination and can be awarded with the qualification.

Arginta Engineering UAB trains around 200 students, VET teachers and tutors per year. Training is carried out through apprenticeships. A tripartite contract is concluded and apprentices receive wages. Some apprentices receive an international welder's certificate.

Source: https://qualityplacements.eu/wp-content/uploads/2020/10/LT_Companies_of_Excellence.pdf

What concerns retail trade sector, several key pathways of CVET can be noticed: 1) modular CVET training programmes provided by the VET centres, labour market training centres (for unemployed) and private training providers; 2) company-based on the job training courses providing such qualifications, as cashier. Some large retailers also establish their own training centres where the training is provided for the job applicants having no vocational qualifications of the retail trade sector. Here is one example in the box.

Maxima, Lithuania's largest supermarket chain, has started to organise 5-day employee training centrally in Vilnius from 2020.

The training centre has been set up to help new employees to adapt more easily when they start working in stores. For those who have never worked in sales, it provides knowledge and skills and the opportunity to learn how to work at the cash desk or to try their hand at a variety of other daily tasks, under the supervision of training consultants.

Training for Maxima's store staff consists of theoretical and practical skills building, with new recruits trying out different job roles. Initially, employees receive a safety briefing and learn key information about the company. They are introduced to the motivational system, which offers the opportunity to earn extra money, and the requirements of customer service standards and their practical application. This is followed by training at the cash desk and basic skills in the weighing department display and sales floor. Finally, the staff are certified by monitoring their ability to perform the trained job functions independently.

Source: <https://www.maxima.lt/naujienos/darbuotoju-mokymu-centrai-naudingi-ir-naujokams-ir-darbdaviams-streso-maziau-ziniu-ir-motyvacijos-daugiau>

This analysis of programmes in both sectors involves 2 types of CVET programmes: 1) CVET programmes developed on the basis of VET standards designed in the period of 1997-2008 and/or functional analysis of the occupations, and, 2) the modular CVET programmes designed on the basis of the competence-based occupational standards developed in the period of 2013-2018.

Concerning the 1st type of the CVET programmes, currently there are 13 such programmes accessible in the field of air conditioning equipment, usage of fire extinction systems and equipment with environmentally hazardous gases, drivers of cargo road transport means and drivers of passenger road transport means (published on the site of the Centre for Development of Qualifications and Vocational Education and Training <https://www.kpmc.lt/kpmc/profesinis-mokymas-3/programos-ir-istekliai/profesinio-mokymo-programos/>). For the comparison the programme of working with air conditioning equipment is selected.

Regarding the modular CVET programmes, currently there are 290 formal CVET programmes for the different sectors of economy (<https://www.kpmc.lt/kpmc/profesinis-mokymas-3/programos-ir-istekliai/modulines-profesinio-mokymo-programos/>), and 66 of modular programmes for non-formal training (<https://www.kpmc.lt/kpmc/neformaliojo-profesinio-mokymo-programos/>) approved and published on the site of Centre for Development of Qualifications and Vocational Education and Training. There are 3 programmes of this type selected for analysis:

- Modular formal CVET programme of the mechatronic of automated systems, leading to the acquisition of vocational qualification referenced to the level 4 LTQF/EQF, 70 credits, accession requirement – secondary education.

- Modular formal CVET programme of the sales assistant-cashier, leading to the acquisition of vocational qualification referenced to the level 3 LTQF/EQF, 50 credits, accession requirement – basic general education.
- Modular non-formal CVET programme of the sales assistance and work with electronic cashiers, leading to the acquisition of competencies/units of qualification references to LTQF/EQF level 3, 30 credits, accession requirement – basic general education.

The orientation of the programme (1. VET leading to acquisition of specific vocational/ occupation-specific skills and not leading to a formal qualification; or 2. VET leading to a formal qualification)

The CVET programme for working with air conditioning and cooling equipment, thermal pumps operation developed in 2009 leads to the acquisition of specific set of competencies needed for the operation of air conditioning, cooling equipment and thermal pumps. *(After successfully passing the final examination candidates shall be entitled to execute the installation, operation, maintenance or servicing of air conditioning and heat of refrigeration, cooling and heat pump equipment with an OAM or F-gas on the isothermal trucks and trailers, refrigeration plant, stationary refrigeration, or servicing, decommissioning, leakage from equipment containing at least one ODS or F-gas 5 tonnes of CO₂ equivalent or more and that gas is not contained in foam (unless such equipment is hermetically sealed, appropriately labelled and containing less than 10 tonnes CO₂ equivalent of F-gas), and the inspection of such collection of ODS or F-gases. (Category I). They shall be issued with the State recognised certificate (code 3105, 3106).*

The formal modular CVET programmes of the operators of mechatronic of automate systems and sales assistant-cashier lead to the acquisition of corresponding formal qualifications: mechatronic of automated systems (LTQF/EQF level4) and sales-assistant cashier (LTQF/EQF level 3).

The modular non-formal CVET programme of the sales assistance and work with electronic cashiers leads to the acquisition of competencies/units of qualification referenced to LTQF/EQF level 3, such as acceptance and storage of goods, serving the customers.

The source of legitimacy of the programme (1. Legitimacy derives from formal IVET/HE system; or 2. Legitimacy derives from value of the credential in the occupational and professional fields)

In the all provided examples the core legitimacy of the programmes derives from the formal VET system. In case of the CVET programme for working with air conditioning and cooling equipment this legitimacy is based on the reference to the national and EU norms and regulations for the vocational education and training in the field, as well as national regulations of the curriculum design in the formal VET.

In case of the modular CVET programmes (both formal and non-formal) the main source of legitimacy is reference to the corresponding occupational standards approved by the Centre for Development of Qualifications and Vocational Education and Training.

The main target group of the programme (It is mainly for young people and may adults participate; or is it a specific programme for adults; or a specific group of adults)

The CVET programme for working with air conditioning and cooling equipment, thermal pumps operation developed in 2009: adult employees, technical staff working with the air conditioning and cooling equipment of the different transport means.

The formal modular CVET programmes of the operators of mechatronic of automate systems and sales assistant-cashier: both young people and adults seeking to acquire qualification.

The modular non-formal CVET programme of the sales assistance and work with electronic cashiers: adults seeking to acquire or update qualification, e.g., job seekers registered at the national employment service.

The duration of the programme

The CVET programme for working with air conditioning and cooling equipment, thermal pumps operation developed in 2009: 2 weeks (60 hours).

The formal modular CVET programme of the operators of mechatronic of automate systems: 70 learning credits (1 credit – 27 hours).

The formal modular CVET programme of the sales assistant-cashier: 50 learning credits

The modular non-formal CVET programme of the sales assistance and work with electronic cashiers: 30 learning credits.

The organisation and governance of the providers offering the programmes (the providers are under some form of State governance (State governed); the providers operate with a high degree of autonomy (Non-State governed))

In case of all programmes there is a division of responsibilities in the organisation of training: the VET / labour market training centres provide the theoretical training (provision of vocational knowledge and basic vocational skills), whereas practical skills are trained at the workplaces of enterprises. The providers (both VET centres and enterprises) must comply to the formal requirements set by the State concerning the qualification of teaching staff and infrastructure of the training provision.

Differences between the programmes and the changes over time.

VET programmes based on the VET standards targeted specific skills and competencies needed for the workplace with no parallels with the corresponding competencies provided in the initial VET programmes due to the strict separation between the IVET and CVET in the field of curriculum design (separate curricula for IVET and labour market training), provision of training (separate operation and governance of IVET centres and labour market training centres). Modular VET curricula developed since 2015 and based on occupational standards are the same for both IVET and CVET with the exception, that CVET curricula do not include

introductory (orientation) module and concluding module dedicated to introduction to the labour market (career guidance).

Differences between the sectors and reasons why there are differences (or similarities).

There are no particular differences between the sector in terms of the governance of the programmes. The main differences appear in the duration of training, levels of provided qualifications and access requirements and they depend on the qualification requirements.

Learning provision (ideally comparing the situation before and after the policy development)

Where was the learning programme delivered (Mainly on the job/work-based learning in real work contexts; Multiple learning sites (e.g. some form of duality); Mainly in classrooms with some practical experiences or workshops)?

The CVET programme for working with air conditioning and cooling equipment, thermal pumps operation developed in 2009: multiple learning sites – the theoretical training provided by the labour market training centre, whereas the practical skills developed at the workplaces of enterprises.

For the formal modular CVET programmes of the operators of mechatronic of automate systems and sales assistant-cashier there are several options: 1) school-based training option, when the theoretical training is provided the VET centres / labour market training centres, and practical training in the enterprise takes place at the end of training course; 2) apprenticeship option, when the majority of training time (70 percent) takes place at the enterprise, whereas theoretical training is provided at the VET centre or labour market training centre.

The modular non-formal CVET programme of the sales assistance and work with electronic cashiers: the training can take place in the VET centre, labour market training centre, practical training can be provided at the enterprise or at the sectoral practical training centre.

What was the use of digital learning environments (Digital/simulated learning environments; physical/real learning environments)?

The CVET programme for working with air conditioning and cooling equipment, thermal pumps operation developed in 2009: mainly physical/real learning environments in the labour market training centres and enterprises.

The formal modular CVET programmes of the operators of mechatronic of automate systems: balanced usage of physical and simulated learning environment, the latter being provided at the sectoral practical training centres (the case of Visaginas VET centre, which developed dual training programmes in mechatronics together with international companies “Continental” (<https://www.statybunaujienos.lt/naujiena/Continental-ir-Visagino-profesinio-mokymo-centras-pradedam-dualinio-pameistrystes-modelio-mokymo-programa/15314>) and “Intersurgical”). **Cooperation between UAB Intersurgical and the Visaginas Vocational Training Centre for Technology and Business in on-the-job training in the Metalworking sector.**

Intersurgical is a global developer, manufacturer and supplier of a wide range of medical products for the respiratory tract. Over 30 years of experience in this field has helped the company to understand the needs of its customers and the changes and demands of the clinical environment. The overall internal philosophy is to respond quickly and efficiently to the needs of the customers and to continuously meet their requirements. Innovation is an important aspect of the company's business in all areas. It helps to deliver high quality products and services, and to provide cost-effective solutions to meet today's needs. In the case of large-scale, continuous production, quality must be ensured in all aspects of production, from the idea to the delivery of the final product, including automated testing to ensure product integrity. The company's products are designed and manufactured in accordance with BS, ISO and EU standards. One of the company's factories is located in Pabrade (Švenčionys district). The company employs 2 346 people. This year, the construction of a plant in Visaginas municipality started. In 2021, this plant is planned to be opened and to start producing medical devices. The company has signed a cooperation agreement with the Visaginas Technology and Business Vocational Training Centre. As the company is very large and growing year by year, the need for skilled workers is increasing. Some of the new employees, who are not yet qualified, join the Visaginas TVET Centre to obtain the necessary qualifications. Long-term employees who are interested in updating or improving their knowledge and skills also choose to acquire new qualifications. To meet these needs of the company and the employees, a form of apprenticeship training was chosen. The choice to train employees at the Visaginas TVPMC, located 100 kilometres away from the company, was due to the modern training facilities at the training centre and to the availability of vocational trainers who are able to provide the appropriate competences. In 2016, 25 UAB Intersurgical employees (apprentices) enrolled at the Visaginas TVPMC. The vocational training programme for mechatronics technicians in the operation of automatic systems lasted 2 years. 24 persons completed the programme and obtained the qualification. In 2017, 15 Automatic Systems Operation Mechatronics Technicians and 12 Locksmith Repairers enrolled. Both programmes lasted 2 years. 14 Mechatronics Technicians and 12 Locksmiths graduated. In 2018, 25 Mechatronics Technicians enrolled (2-year programme). In 2019, 28 Mechatronics Technicians (2-year programme) and 14 Metalworking Machinists (1-year programme) enrolled. The MDV focuses on competences related to the future qualification and on the content of the modular vocational training programme. The qualification of mechatronics technician in the operation of automated systems provides an introduction to automated production equipment, various drives and their control systems. Metalworking machinists and locksmiths are trained in the use of machine tools. The company has experienced master craftsmen for the training of apprentices,

who are in regular contact with the training centre's vocational trainers. The master craftsmen are familiar with the vocational training programme, have completed a minimum course of pedagogical knowledge and have obtained certificates. In the company, depending on the scope of the module and other circumstances, 4 to 5 professionals act as foremen. Apprentices learn on the job. The masters explain the technological processes, emphasising the content of the training programme. According to a set schedule, the foremen gather a few apprentices for intermediate knowledge and skills tests. A special training classroom is set up for this purpose, equipped with specific training equipment. Due to the specific nature of the company (24/7 operation), it is not possible to learn the individual elements of the production equipment while production is in progress. However, the training facility of the Energy Sector Practical Training Centre at the Visaginas TVPMC is the most suitable for practical training. Apprenticeship training is carried out on a 30/70 basis, i.e. the apprentice spends 30 % of the training time at the training centre and 70 % at the company. The company ensures that the apprentices arrive at the training centre according to a fixed and pre-agreed schedule. A bus is provided for this purpose and the employees (apprentices) are released from their work at the company. In addition, their wages are not affected and they are paid a daily subsistence allowance in accordance with the procedures laid down by the LRG. In addition to the apprentices, several school-age students from Visaginas TVPMC do an apprenticeship (final module) at the company every year. Some of them stay with the company and successfully join the automation and innovation departments. The company's management is very responsible towards its employees, carries out social actions and contributes to the life of the region. All these factors encourage the training centre to maintain a high quality of training and to improve the competences of its teachers.

In case of the sales assistant-cashier and modular non-formal CVET programme of the sales assistance and work with electronic cashiers still physical/real learning environments are dominant, with the exception of increased provision of online training courses during the Covid-19 pandemics.

What regards the learning provision of the CVET in the analysed period, there could be distinguished the following differences between the pre-reform period and the current moment:

- 1) Increased /widened institutional options of the CVET provision, including work-based learning and apprenticeships, practical training in the sectoral practical training centres, ESF funded CVET training courses for unemployed, job seekers and employees.
- 2) Slightly increased engagement of employers and employer organizations in the provision and organization of the CVET.

What was the role of the teacher/trainer (Facilitator, coach, moderator, adviser; Lecturer, teacher (knowledge carrier)? Is the teacher/trainer involved in IVET as well?

The CVET programme for working with air conditioning and cooling equipment, thermal pumps operation developed in 2009: the VET teacher is lecturer and provider of knowledge, the VET teachers working in this programme can also be involved in the IVET, but formally the employment status of VET teacher in the labour market training centre is different from the initial VET teacher.

The formal modular CVET programmes of the operators of mechatronic of automate systems and sales assistant-cashier: increased the role of facilitator, coach, moderator of training between the VET centre and enterprise. The teacher/trainer can also be involved in IVET.

The modular non-formal CVET programme of the sales assistance and work with electronic cashiers: increased the role of facilitator, coach, moderator of training between the VET centre and enterprise. The teacher/trainer can also be involved in IVET.

Who 'controls' the learning (Self-directed; student-centred; Instruction-centred; teacher-centred)?

All the above-mentioned training programmes have remained more or less instruction-centred, because the training process is structured according to the defined standards and curricula, the theoretical knowledge is provided in the defined format at the training centre, while the practical skills – at the workplaces in the enterprises. Modularisation and recognition of the non-formal and informal learning have been expected to increase the volume of self-directed and student-centred learning, but so far these effects are not visible, because of very recent introduction of these measures.

Content of learning and how it is structured (ideally comparing the situation before and after the policy development)

How is theoretical knowledge (knowing that) incorporated (specialised/structured according to 'pure' disciplines; specialised/structured according to 'applied' disciplines; non-specialised/not systematically structured (e.g., taxi-driver knowledge))?

The CVET programme for working with air conditioning and cooling equipment, thermal pumps operation developed in 2009: there is a mix of structuring of knowledge according to pure disciplines and specialised structuring according to 'applied' discipline related to a given work process. As an example: legal regulation of usage of materials having hazardous impact on the ozone layer, characteristics of the materials having hazardous impact on the ozone layer, basics of the thermodynamics, basics of the cooling equipment technologies, characteristics and legal regulation of the application of the F-gases in the cooling, etc.

The formal modular CVET programmes of the operators of mechatronic of automate systems and sales assistant-cashier / the modular non-formal CVET programme of the sales assistance and work with electronic cashiers: the knowledge is specialised and structured according to the content of related competence/-s of the module. Examples:

1) competence - to prepare the equipment and instruments for the work at the cashiers desk; Knowledge:

Topic. Functions of commercial facilities

- *Classification of non-mechanical equipment (commercial furniture and inventory), purpose*
- *Classification of refrigeration equipment, purpose*
- *Classification of weighing equipment, purpose*
- *Classification of packing and packaging equipment, purpose*
- *Classification of lifting and transport equipment, intended use*

- *Thermal equipment Classification, purpose*
- *Classification of crushing plants, intended use*
- *Classification of cash registers, purpose*

Topic. Requirements for commercial equipment

- *Functional requirements*
- *Ergonomic requirements*
- *Safety requirements*
- *Economic requirements*

2) Competence - Describe the properties and processing methods of cast iron and steel, non-ferrous metals and their alloys.

Knowledge:

Topic. Metals, alloys and their properties

- *Basics of materials science. Classification of metals according to structure, properties*
- *Ferrous metals and their alloys*
- *Non-ferrous metals and their alloys*

Topic. Methods of working cast iron and steel

- *Tools and machining techniques for working cast iron*
- *Tools and machining techniques for working different types of steel*

Topic. Machining of non-ferrous metals and their alloys

- *Tools and machining techniques for non-ferrous metals*
- *Tools and machining techniques for non-ferrous alloys*

It can be concluded, that the main change in relation to the integration of the knowledge in the curricula is a shift from the mix of structuring of knowledge according to pure disciplines and specialised structuring according to 'applied' discipline related to a given work process to the specialisation and structuring of knowledge according to the content of related competence/-s of the module. Modularization of VET curricula is the main factor of this change.

How is practical knowledge (knowing how, skills) incorporated (specialised /structured by general, context-independent purposes (e.g., scientific literacy); specialised/structured by contextual purposes (i.e., occupation-specific skills); non-specialised (general and basic key competences, e.g. literacy))?

Practical knowledge and skills in all analysed programmes are incorporated as specialised and structured by contextual purposes. In the case of the CVET programme for working with air conditioning and cooling equipment, thermal pumps operation developed in 2009, this contextualisation is based on the concrete competencies and related training objectives (elements of competence – knowledge, skills, attitudes).

Example:

Aim of the training: to teach you how to carry out a proper inspection of a capacitor and write a report.

Practical knowledge: to know the requirements of the inspection of capacitor condenser condition and know how to write reports.

In case of the formal modular CVET programmes of the operators of mechatronic of automate systems and sales assistant-cashier, as well as the modular non-formal CVET programme of the sales assistance and work with electronic cashiers the contextualisation of the practical knowledge is executed through the content of the concrete competence-based modules:

Examples:

Module: Repair and maintenance of gears and mechanisms for automated production systems.

Competence: Carry out preventive maintenance on the mechanical part of automated production systems.

Training aim: Perform preventive maintenance on the mechanical part of an automated production system.

Practical knowledge:

Topic. Schedule for preventive maintenance of mechanical parts of automatic production systems

- *Scheduling of preventive maintenance work according to the instructions for the machinery*
- *Completion of the preventive maintenance logbook for mechanical installations*

Topic. Preventive maintenance of the mechanical part of an automatic system

- *Functional diagram for the installation and adjustment of the mechanical components*
- *Directives governing the maintenance of mechatronic equipment: basic terms, methodology (ISO 12100-1:2003), technical principles (ISO 12100-2:2003)*
- *Performing preventive maintenance work in the prescribed sequence.*
- *Periodic inspection and preventive maintenance*

Module: Receiving and storing goods

Competence: to stock the goods.

Training objective: Adjust the storage regime after assessing the storage conditions of the goods in accordance with the storage rules specified by the manufacturer.

Practical knowledge:

Topic. Checking and adjusting the storage regime in the warehouse

- *Effect of storage conditions on the quality of stored goods;*
- *Storage conditions (humidity, temperature, light, air composition, mechanical pressure, state of packaging, biological agents), as specified in the manufacturer's instructions, legislation;*
- *Identification and correction of deviations from the storage regime;*
- *Removal of faulty goods from the storage area.*

Like in the previous question, here the main change of structuring practical knowledge is related to modularization, which enables more detailed and precise description of the practical knowledge and its application in the execution of work processes.

What is the relation between general and vocational subjects (vocationally related subjects; general subjects (no difference made between classical, modern or science oriented))?

When comparing the selected CVET curricula it can be concluded that in principle all these curricula are rather strongly focused on the vocationally related subjects. For example, in case of the CVET programme for working with air conditioning and cooling equipment, thermal pumps operation developed in 2009 the training of theoretical subjects comprises 28 hours, but the subjects related to more general fields of knowledge (basics of thermodynamics and knowledge on the materials hazardous for ozone layer) make in total 5 hours. Similar trends can be found in case of the analysed modular CVET curricula in mechatronics and retail trade. The only difference can be noticed in the structuring of the vocational and general knowledge areas. In case of modular training separate topics (parts of module) can be identified that focus on the provision of more general knowledge but aligned with the requirements of related competence/-s to be provided in the module. For example, module “Repair and maintenance of gears and mechanisms for automated production systems” contains such topics as:

Topic. Fundamentals of engineering graphics and drafting

- *Principles of graphic image formation*
- *Axonometric projections of mechanical parts*
- *Marking mechanisms and individual parts on drawings*

Topic. Sketching of structural details

- *Selecting the scale of the sketch*
- *Drawing a planar structural detail, marking dimensions*
- *Drawing a three-dimensional sketch of a part*
- *Drawing the part in 2D and 3D projections using a computer program*

Here it can be noticed, that modularization of the VET curricula (both for VET and CVET) brought bigger change in the initial VET in terms of stronger integration of teaching of general and vocational knowledge according to the requirements of the content of module (competencies), while in case of CVET similar integration was also more or less present before the reform.

What is the breadth or specificity of learning outcomes (occupation/profession-specific (e.g. brickmaker, nurse); broader vocational field related (e.g. construction, health); vocational preparation (various vocational fields, polytechnic))?

In the all-analysed cases the learning outcomes are occupation-specific, because of the focus on competence-based approach in curriculum design. The modularisation of the CVET curricula introduced in 2015 has not brought significant changes in the breadth orientation of the learning outcomes of the CVET curricula.

Differences between the programmes and the changes over time. The differences between the sectors and reasons why there are differences (or similarities).

It can be concluded that the introduction of the national modular VET curricula on the basis of national occupational (qualification) standards has a strong potential in fostering the integration of the initial and continuing VET provision for the several reasons: 1) reference of the curricula to the unified competence based occupational standards improve the relevance of the VET curricula to labour market needs and increase the attractiveness of training in the VET centres for the young people and adult learners (employees of enterprises, unemployed); 2) modular VET curricula applied in the IVET and CVET enable more flexible learning pathways which make CVET attractive both for young people and for adults. Another factor which should strengthen the position of the IVET providers in the field of CVET is implementation of the sectoral practical training centres with up-to-date equipment and infrastructure of training.

However, the development of the IVET and CVET provision in the last decade evidence that successful and effective involvement of the IVET centres in the provision of the CVET mainly depends on the local level cooperation and partnerships with enterprises and other social partners, while the systemic implementation of apprenticeships and WBL faces many obstacles.

Looking to the future of the IVET participation in the CVET provision, it can be estimated that the current “division of the spheres of influence” between the VET centres and labour market training centres will not change significantly. VET centres will have to be more actively engaged in the CVET provision because of the decreasing enrolments. Recent VET policy also supports the vision of the VET centres as providers of both initial and continuing VET by referring to the skills needs of the market and oriented to the development of human capital and making it more attractive for local and foreign capital.

Annex to case study report

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Annex 1: sectoral practical training centres in Lithuania

List of sectoral practical training centres:

- Kauno maisto pramonės ir prekybos mokymo centras, Viešbučių ir restoranų sektorinis praktinio mokymo centras: https://www.mpcentras.lt/?page_id=8087, Maisto pramonės (mėsos ir duonos – konditerijos) sektorinis praktinio mokymo centras: https://www.mpcentras.lt/?page_id=8087
- Karaliaus Mindaugo profesinio mokymo centras, Kirpimo, grožio ir susijusių paslaugų praktinio mokymo centras: <http://www.kaupa.lt/lt/kirpimo-grozio-ir-susijusiu-paslaugu-sektorinis-praktinio-mokymo-centras-modus>
- Klaipėdos Ernesto Galvanausko profesinio mokymo centras, Transporto, sandėliavimo ir ryšių sektorinis praktinio mokymo centras: <http://vairuotojumokymas.lt/>
- Klaipėdos paslaugų ir verslo mokykla, Variklinių transporto priemonių sektorinis praktinio mokymo centras: <http://centras.klpvm.lt>
- Klaipėdos technologijų mokymo centras, Tekstilės produkcijos gamybos sektorinis praktinio mokymo centras: <http://www.ktmc.lt/tekstiles-centras.html>
- Klaipėdos turizmo mokykla, Viešbučių ir restoranų bei prekybos sektorinis praktinio mokymo centras: <https://ktm.lt/apie-centra/>
- VšĮ Klaipėdos laivų statybos ir remonto mokykla, Inžinerinės pramonės sektorinis praktinio mokymo centras: <http://klsrm.lt/lt/sektorinis-centras>
- Šilutės žemės ūkio mokykla, Žuvininkystės sektorinis praktinio mokymo centras: <http://szum.kregzde.lt/zuvininkystes-centras/>
- Vilniaus automechanikos ir verslo mokykla, Modernaus variklinių transporto priemonių techninės priežiūros ir remonto sektorinis praktinio mokymo centras: <http://vavm.lt/spmv2015/> Transporto sektorinis praktinio mokymo centro sukūrimas Bukiškėse: <http://vavm.lt/autodromas2015/>
- Vilniaus paslaugų verslo darbuotojų profesinio rengimo centras, Aptarnavimo paslaugų sektorinis praktinio mokymo centras: <http://www.pvdprc.lt/projektai/es-strukturiniai-fondai/324-sektorinis.html>
- VšĮ Vilniaus statybininkų rengimo centras, Statybos sektorinis praktinio mokymo centras: <http://vsrc.lt/apie-mus/statybos-sektoriaus-praktinio-mokymo-centras/>
- Vilniaus technologijų ir verslo profesinio mokymo centras, Inžinerinės pramonės sektorinis praktinio mokymo centras: <http://vtvpmc.lt/index.php/lt/praktinio-mokymo-bazes/755-praktinio-mokymo-bazes> Energetikos sektorinis praktinio mokymo centras: <http://vtvpmc.lt/index.php/lt/praktinio-mokymo-bazes/756-energetikos-sektorinis-praktinio-mokymo-centras>
- Vilniaus turizmo ir prekybos verslo mokykla, Viešbučių ir restoranų skyriaus bei Prekybos ir verslo skyriaus sektorinis praktinio mokymo centrai: <http://www.vtpvm.lt/lt/spmc/>
- VšĮ Elektrėnų profesinio mokymo centras Energetikos sektorinis praktinio mokymo centras <http://www.epmc.lt/es-parama/epmc-pletros-igyvendinimas/>
- VšĮ Panevėžio profesinio rengimo centras, Statybos sektorinis praktinio mokymo centras: <http://panprc.lt/index.php/paslaugas/sektoriniai-centrai>

- Alytaus profesinio rengimo centras, Inžinerinės pramonės sektorinis praktinio mokymo centras: <http://aprc.lt/node/3130>; Darbų saugos ir statybos sektorinis praktinio mokymo centras: <http://aprc.lt/node/3131> .

Cases of sectoral practical training centres

Sectoral practical training centres of engineering industry

On the 28 September 2015 Alytus Vocational Training Centre launched the activity of the Engineering Industry Sectoral Practical Training Centre. The aim of the Engineering Industry Sectoral Practical Training Centre is to increase the accessibility of the highest quality practical training services, to improve the readiness of learners for practical activities, to enable teachers and lecturers to continuously improve their qualifications and to develop the infrastructure of the sectoral practical training centre. The state-of-the-art practical training equipment acquired through the project enables learners to be productive and efficient during their apprenticeships and to become marketable and competitive in the labour market. The Centre provides skills training for young people studying in the framework of initial vocational training, higher non-university studies and general education technological subjects; adults developing competences in formal and non-formal continuing vocational training programmes; vocational teachers; and employees of business enterprises. The modernised infrastructure enhances the attractiveness of the vocational training system and strengthens cooperation with employers, labour exchanges and municipalities.

The project involved the installation of universal and metalworking software control machines in the metalworking laboratories. The welding laboratory is equipped with different welding machines, a welding robot and plasma cutting equipment, which will enable students to master different technological welding processes. The IT classrooms are equipped with the latest computer and software equipment, 3D technology, where students can simulate various technological processes, carry out creative tasks, draw up drawings of various parts and prototype products. The infrastructure is already being used by students and teachers from other schools, employees of businesses, and learners in initial and continuing vocational training.

The following teaching laboratories are located at the Engineering Industry Sectoral Practical Training Centre:

- Metalworking Mechanical Control Laboratory
- Metalworking Software Control Laboratory
- Welding laboratory
- Mechanical laboratory
- Electrical Technology Laboratory
- Mechatronics Laboratory
- Electrical and Electronic Engineering Laboratory
- Laboratory of Electronic Control Systems
- Measurement Laboratory
- Information technology classrooms and laboratories

On the 1st September 2014 the Energy Sector Practical Training Centre was launched at the premises of the Energy and Mechatronics Department of the Vilnius Technology Training Centre in Vilnius. The modern practical training facility has been provided with funding from the European Regional Development Fund and the State Budget of the Republic of Lithuania.

The establishment of practical training facilities allows to contribute to the progress of the national energy economy, creates favourable conditions for the quality training of qualified

specialists in various fields of energy, and ensures the competitiveness of persons wishing to acquire a specialty and to retrain on the labour market.

The practical training facilities are open to all sections of society and are therefore open to the following groups of people for practical training and free of charge workshops and trainings:

- employees of companies can improve their qualifications and access training equipment and stands;

- college and university lecturers and students can improve their theoretical training by working in the practical training facilities and accessing the training equipment and stands;

- teachers and students in vocational schools can enrich their practical training by working with state-of-the-art equipment;

- teachers and pupils from general education schools can take part in non-traditional technology lessons, workshops and study visits.

Sectoral practical training centre of retail trade

In 2016, the Panevėžys Margarita Rimkevičaitė School of Services and Business implemented the project "Establishment of the Trade Sector Practical Training Centre at the Panevėžys Margarita Rimkevičaitė School of Services and Business".

The centre, which has been in operation since 2014, provides training in state-of-the-art trade equipment and accounting software. It provides training not only to students and teachers of the Margarita Rimkevičaitė School of Services and Business, but also to students and teachers of vocational training institutions in this region and whole Lithuania.





The infrastructure of the Sectoral Practical Training Centre includes:

- A laboratory for commercial equipment,
- A Trade Training Office,
- a Trade Science Classroom,
- an Accounting Office,
- Office of the Trade Consultant for Industrial Enterprises,
- Office of the Consultant in Trade for Industrial Enterprises.

The Sectoral Practical Training Centre provides training using a range of IT technologies and commercial equipment:

- NET ERP e-commerce software;
- NET ERP accounting software;
- accounting software "Stekas +" and "Rivilè";
- ERPO STURE.

The following vocational training programmes are and can be delivered in the Sectoral Centre for Practical Training:

- Assistant Manager of Commercial Enterprises;
- Accountant and cashier;
- E-commerce agent;
- Waiter and Bartender;
- Sports Club Organiser;
- Hotel assistant;
- Assistant Social Worker;
- Other programmes.

Annex 2: Employed persons participating in vocational training courses | per cent (Source: Statistics Lithuania, www.stat.gov.lt).

				Employed persons participating in vocational training courses per cent	
				2010	2015
In all enterprises	Males and females	TOTAL	All NACE branches	18.6	25.6
		B	Mining and quarrying	14.5	30.6
		C	Manufacturing	13.2	23.3
		D_E	Electricity, gas, water supply and waste management activities	35.5	45.7
		F	Construction	17.7	19.8
		G	Wholesale and retail trade; repair of motor vehicles and motorcycle	18.2	25.4
		H	Transportation and storage	13.7	22.2
		I	Accommodation and food service activities	9.1	14.9
		J	Information and communication	29.9	43.6
		K	Financial and insurance activities	53.9	58.9
		L_TO_N	Real estate activities; professional, scientific and technical activities; administrative and support service activities	23.1	30.7
		R_S	Arts, entertainment and recreation	23.1	19.4
		Males	TOTAL	All NACE branches	18.8
	B		Mining and quarrying	14	30.9
	C		Manufacturing	14.9	26.4
	D_E		Electricity, gas, water supply and waste management activities	38.8	49.4

		F	Construction	18.5	19.8
		G	Wholesale and retail trade; repair of motor vehicles and motorcycle	17.4	21.4
		H	Transportation and storage	13.1	22.3
		I	Accommodation and food service activities	10.4	13.7
		J	Information and communication	34.9	45.3
		K	Financial and insurance activities	53.1	52.4
		L_TO_N	Real estate activities; professional, scientific and technical activities; administrative and support service activities	24.6	29.8
		R_S	Arts, entertainment and recreation		13.3
	Females	TOTAL	All NACE branches	18.4	25.8
		B	Mining and quarrying	17	29.1
		C	Manufacturing	11.3	19.8
		D_E	Electricity, gas, water supply and waste management activities	26.6	35.7
		F	Construction	13.4	19.8
		G	Wholesale and retail trade; repair of motor vehicles and motorcycle	18.8	28.2
		H	Transportation and storage	15.4	21.8
		I	Accommodation and food service activities	8.7	15.3
		J	Information and communication	23.8	41.4
		K	Financial and insurance activities	54.3	61.7

		L_TO_N	Real estate activities; professional, scientific and technical activities; administrative and support service activities	21.5	31.7
		R_S	Arts, entertainment and recreation		23
In enterprises providing CVT courses	Males and females	TOTAL	All NACE branches	30.8	37.7
		B	Mining and quarrying	20.7	48.1
		C	Manufacturing	23.5	36.1
		D_E	Electricity, gas, water supply and waste management activities	44.5	53.1
		F	Construction	28.6	32.3
		G	Wholesale and retail trade; repair of motor vehicles and motorcycle	32.7	36.3
		H	Transportation and storage	23.7	34.1
		I	Accommodation and food service activities	23.8	36.9
		J	Information and communication	41.8	56.9
		K	Financial and insurance activities	56.4	64.2
		L_TO_N	Real estate activities; professional, scientific and technical activities; administrative and support service activities	32.5	38.2
		R_S	Arts, entertainment and recreation	37.8	29.3
	Males	TOTAL	All NACE branches	32.1	37.9
		B	Mining and quarrying	20	49
		C	Manufacturing	26.4	39.2

		D_E	Electricity, gas, water supply and waste management activities	49	57.4
		F	Construction	29.9	32.2
		G	Wholesale and retail trade; repair of motor vehicles and motorcycle	35.2	32.9
		H	Transportation and storage	25.3	35.5
		I	Accommodation and food service activities	26	33.9
		J	Information and communication	46.7	57.8
		K	Financial and insurance activities	57	58.8
		L_TO_N	Real estate activities; professional, scientific and technical activities; administrative and support service activities	35	38.3
		R_S	Arts, entertainment and recreation		19.3
	Females	TOTAL	All NACE branches	29.4	37.4
		B	Mining and quarrying	24	43.6
		C	Manufacturing	20.3	31.8
		D_E	Electricity, gas, water supply and waste management activities	32.7	41.6
		F	Construction	21.7	32.5
		G	Wholesale and retail trade; repair of motor vehicles and motorcycle	31.2	38.4
		H	Transportation and storage	21	30.5
		I	Accommodation and food service activities	23.1	37.8
		J	Information and communication	35.1	55.7

		K	Financial and insurance activities	56.1	66.4
		L_TO_N	Real estate activities; professional, scientific and technical activities; administrative and support service activities	30	38
		R_S	Arts, entertainment and recreation		35.4

