



Report on the implementation of ECVET in the Czech Republic

based on the results of Erasmus+ projects and the Pospolu National Project



This report was created in connection with fulfilling activities aimed at supporting the ECVET instrument in the period from 1 January 2015 to 31 December 2015.

Individual sections of the report were prepared by members of the National Team of ECVET Experts working under the auspices of the Centre for International Cooperation.

For the National Team of ECVET Experts

Mgr. Helena Slivková
Head of the Department of Vocational Education
Centre for International Cooperation



Contents

page

1. Introduction 4
2. The Erasmus+ Programme, An analysis of project applications under Call 2015 – Mobility projects for individuals (KA1) – Vocational education and training 6
PhDr. Hana Slámová, Ph.D.
3. The Erasmus+ Programme, An analysis of units of learning outcomes from Mobility projects for individuals (KA1) – Vocational education and training – Call 2014 12
Ing. Jaromír Coufalík, CSc.
4. Report on the implementation of ECVET elements in the Pospolu National Project 19
Mgr. Martina Kaňáková
5. Conclusion 25



1. Introduction

As in other EU countries, the European Credit System for Vocational Education and Training (ECVET) is gradually being implemented in the Czech Republic.

Through a decision by the Ministry of Education, Youth and Sports (MEYS)¹, the Coordination Centre for ECVET was set up at the National Institute of Education (NIE) in 2012. The Centre includes the ECVET professional group, the NIE working group and the National Team of ECVET Experts at the Centre for International Cooperation (CIC).

In the same year, the NIE started to implement a project by the Education, Audiovisual and Culture Executive Agency entitled “The National Team of ECVET Experts 2012–2013”.

In 2012–2013, i.e. the initial period of ECVET implementation, the National Team of ECVET Experts focused primarily on disseminating information about the nature and benefits of this European instrument among its main target groups: providers of vocational education, implementers of international projects of mobility within the European educational Lifelong Learning Programme and employers and managers of vocational education at the national and regional levels. For the purpose of disseminating information about the ECVET, informational materials explaining the main ECVET principles were developed and a series of seminars were organised at that time. The number of specific projects in which ECVET principles had been used was low at that time, because these were individual international projects in which Czech vocational schools and educational institutions participated.

2014 and 2015 can be referred to as the second period of ECVET implementation. Within this second period, projects of international mobility already started to be implemented within the new Erasmus+ European educational programme while – at the same time – the implementation of the Pospolu National System Project was expanded, aiming to improve cooperation between vocational schools and businesses, especially in practical training and work placement for students representing mobility at the national level.

The National Team of ECVET Experts at the CIC focused on practical steps related to the use of ECVET principles, including guidelines on how to properly describe the use of ECVET in aid applications for international mobility projects under the Erasmus+ Programme (hereinafter the application) and how to develop the main ECVET documents, i.e. Memorandum of Understanding, Learning agreements and units of learning outcomes and, if relevant, other analogous documents that are used in national mobilities. With the same focus, additional informational materials and seminars were prepared.

¹ Introduction to the European Credit System for Vocational Education and Training (ECVET) in the Czech Republic, proposal approved on 10 April 2012 under ref. no. MSMT – 8605/2012-2/NÚV



An analysis of the project applications approved under Call 2014 showed that 43% of implementers of international mobility projects approved under the Erasmus+ Programme had decided to use ECVET principles in their projects. That was a promising quantitative outcome. In their activities, especially in 2015, members of the National Team of ECVET Experts at the CIC also focused on important qualitative aspects of ECVET implementation.

Team members carried out an **analysis of project applications under Call 2015 – Key Action 1 in vocational education and training**² within the Erasmus+ Programme. This analysis made it possible not only to discover new information – both quantitative and qualitative in nature – on the various aspects of the ECVET in applications within the second year of the Erasmus+ Programme, but also to compare the discovered data with analogous data related to projects under Call 2014.

In addition, an **analysis of units of learning outcomes**³ as the key documents in the use of ECVET was carried out, i.e. units that have been developed within the Erasmus+ Programme, Mobility projects for individuals (KA1) in vocational education and training under Call 2014. The analysis of the units led to identifying both positive and negative qualitative characteristics and contributed to gaining a deeper understanding of the quality of the units that was achieved in the first year of the Erasmus+ Programme.

According to the MEYS document entitled Introduction of the European Credit System for Vocational Education and Training (ECVET) in the Czech Republic, the potential of ECVET is to be used to improve the attractiveness of vocational education (especially technically-oriented vocational education) and to support its quality.

In the same year, the Pospolu National Project was launched. It verified the use of ECVET elements and the possibilities for their introduction into practice within the national environment. In accordance with the above document, the ECVET system is seen as a tool that positively contributes not only to improving the quality of international internships, but also as a practical tool having the potential to improve the attractiveness of initial (especially technically-oriented) vocational education and improve its quality.

Given the National ECVET Expert's involvement in the research team of the Pospolu Project, we are also submitting a report on the **implementation of ECVET elements in that national project**⁴. The information contained in the report relates to the ways in which ECVET elements are used in the internships of students of vocational schools in companies or in practical teaching outside of school, and the creation of units of learning outcomes. In addition, the report also informs readers about questionnaire surveys among pilot schools within the Pospolu Project in 2014 and 2015.

² Slámová, Hana: Erasmus+ Programme, An analysis of project applications under Call 2015 – Mobility projects for individuals (KA1) – Vocational education and training

³ Coufalík, Jaromír: Erasmus+ Project, An analysis of units of learning outcomes from Mobility projects for individuals (KA1) – Vocational education and training – Call 2014

⁴ Kaňáková, Martina: Report on the implementation of ECVET elements in the Pospolu National Project (2012–2015)

For each of the above three analytical materials, a report was prepared in 2015 and the main findings of these reports form the crux of the contents of this present report (Sections 2 to 4). In addition, members of the National Team of ECVET Experts at the CIC have actively participated in international seminars and conferences where they received information about ECVET implementation in other countries and exchanged experiences with their foreign colleagues. These included e.g. an international seminar entitled “ECVET Peer Learning Seminar” that was held in in October 2015 in Croatia and was attended by experts from 9 countries, the ECVET Forum 2015 that was held in November 2015 in Barcelona and was attended by more than 200 experts from all EU countries, a seminar on defining educational outputs in mobility projects (Bratislava, November 2015), etc. It also allowed for making a comparison of the results achieved in the Czech Republic with the situation in other countries. The comparison shows that the results of ECVET implementation in the Czech Republic to date compare favourably with those at the European level.

2. Erasmus+ Programme, An analysis of project applications under Call 2015 – Mobility projects for individuals (KA1) – Vocational education and training

The main objective of this analysis was to determine whether ECVET principles had become a routine part of KA1 project applications (i.e. mobility projects for individuals in vocational education and training) under Call 2015, compare the results with a similar analysis of applications approved in 2014, and identify the applicants’ biggest problems with the ECVET application so that they could be better targeted and addressed by trainers within Call 2016. One by one, we present the main findings identified.

The number of applications that use the ECVET principles increased in both absolute and percentage terms. In 2015, there were 91 approved applications with ECVET principles (in 2014, there were 63 applications), which is 75 per cent of all approved KA1 projects. In 2014, this was only 43%. In comparison with 2014, ECVET implementation within KA1 projects thus increased significantly.

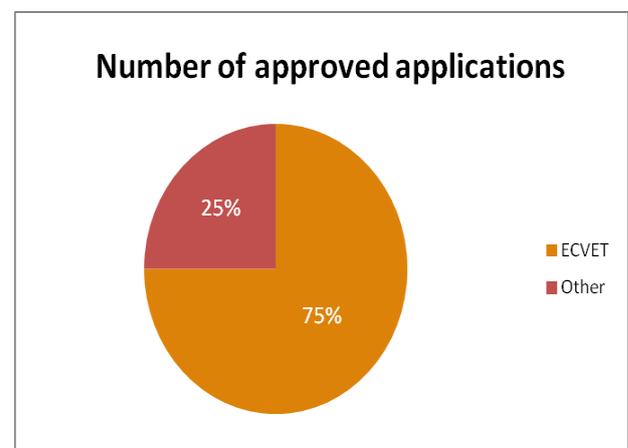
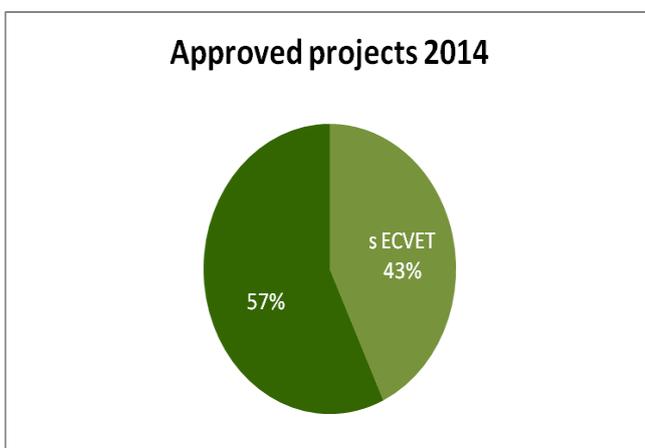


Chart 1: KA1 projects approved in 2014 and 2015

As in 2014, the sample of projects shows predominance of public schools over non-public schools (public schools accounted for 77% of the applicants), but the proportion of non-public schools increased in 2015 as well, reaching 17%. As a new phenomenon, consortia also actively participated in KA1 projects.

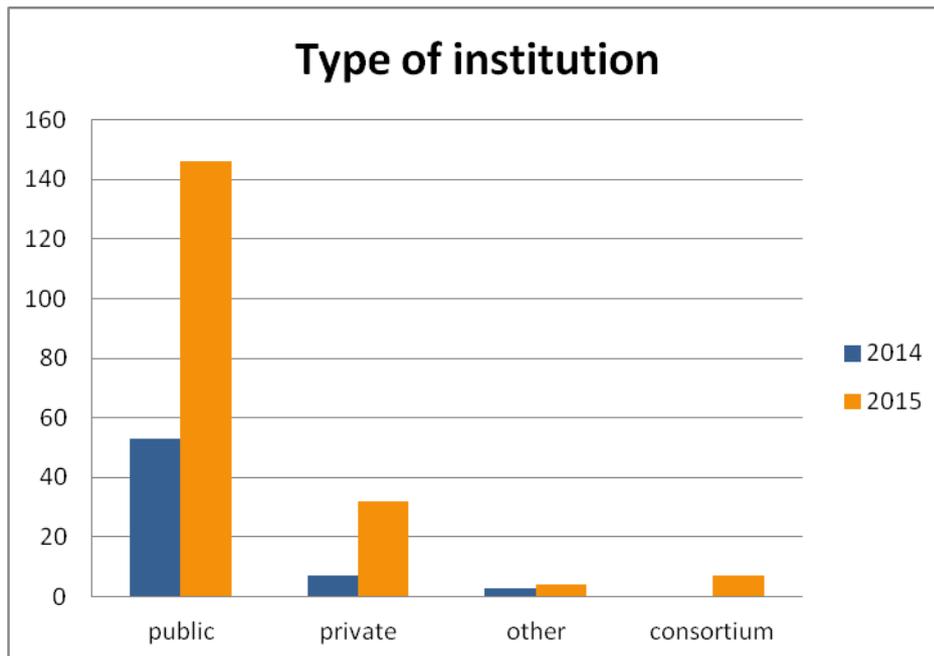


Chart 2: A comparison of ECVET projects by institution

In 2015, the most active regions were Prague, the Moravia-Silesian Region and the Central Bohemia Region (27, 27 and 21 projects). In comparison with 2014, the chart for 2015 shows a large quantitative increase. This is primarily due to the fact that in the presentation of results, the entire sample of applicants was mapped, as opposed to 2014 when the results were only collected for approved projects. However, in proportional terms, the results can be interpreted as follows: the Prague region holds a consistent leading position (11 applications in 2014 and 27 applications in 2015), the South Moravian Region is also consistently active (9 in 2014 and 21 in 2015), while the Moravia-Silesian Region (5 in 2014 and 27 in 2015) and the Central Bohemia Region (4 in 2014 and 22 in 2015) both saw an enormous increase in the number of projects. The Karlovy Vary Region (2 in 2014 and 2 in 2015) and the Plzeň Region (1 in 2014 and 2 in 2015) were the least active in both years monitored.

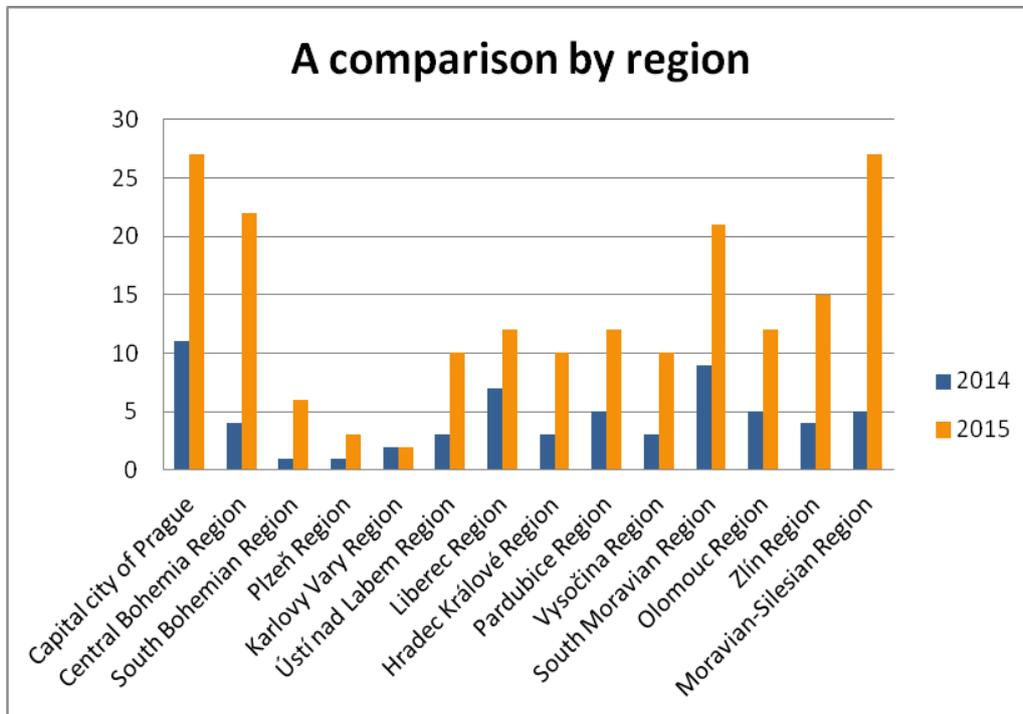


Chart 3: A comparison of projects by region

Within the project, both the number and the proportion of projects in which the content of education is equivalent to Level 4 of the European Qualifications Framework (EQF) increased as compared to projects at EQF Level 3. The number of projects with EQF Level 6 increased as well.

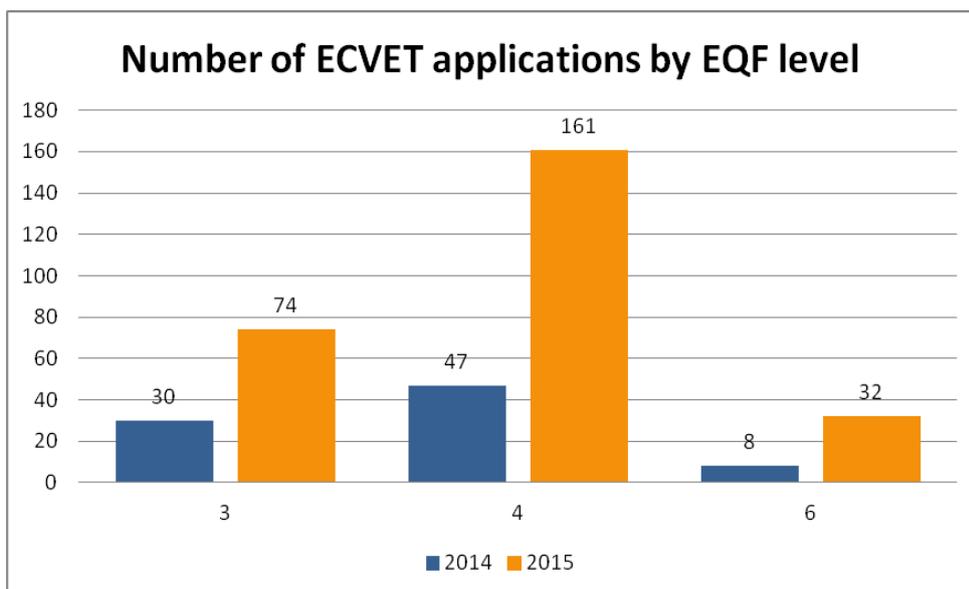


Chart 4: A comparison by EQF level

The most common length of an internship was 2 to 3 weeks, but there were also projects with a four-week internship duration.

In 2015, the structure of projects using ECVET principles significantly expanded in terms of the number of different fields. The number of vocational education fields within the projects increased and, at the same time, the numbers of projects within each group of fields became more differentiated. As the chart shows, the projects with the highest number of fields include projects in Electrical engineering (37 applications), Engineering (37), Gastronomy, hospitality and tourism. The number of projects increased in those fields belonging to the following groups: Economics (37), Agriculture and Forestry (19), Personal and operational services (17 applications), Pedagogy and teaching and social care (17 applications). The Gastronomy, hospitality and tourism group of fields consistently remains the most active group, in which 40 applications were submitted in 2015.

For most KA 1 projects, the processes associated with ECVET implementation were better thought-out in filling out their application forms. Most notably in Section F of the application (Participant’s profile – 100% of projects approved), G (Project preparation and management – 90%), significantly in Section E (Project description and objectives – 63% of projects approved), in Section D (European Development Plan – 62%) and I (Follow-up activities – 64%). Section H was prepared worse (Main activities of the project – 55%), which was surprisingly better prepared in 2014. The preparation of Section K – Project summary (only 63%) was still rather unconvincing.

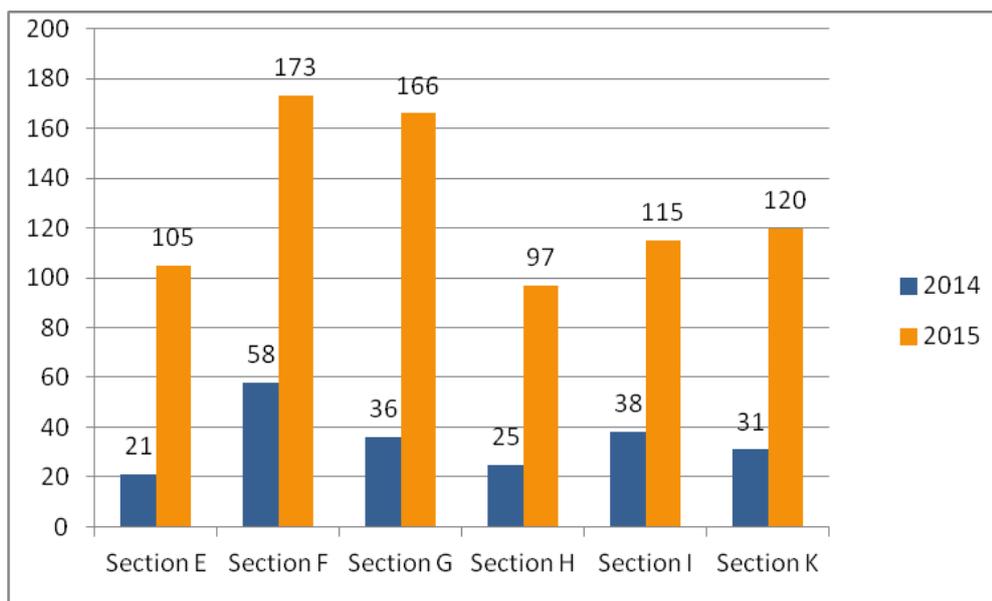


Chart 6: A comparison of prepared parts of the application

For the Memorandum of Understanding, a marked increase in awareness of this document was found as early as during application submission in 2015, especially in the case of approved applications (76%).

As compared to 2014, there was also a clear improvement in terms of the Learning agreement document in 2015 (69% for approved projects, 72% in total).

In most cases, units of learning outcomes (ULO) were not prepared when filling out the applications, as was the case in 2014 (in 2014, they were only prepared by 27% of approved projects). In 2015, this equalled 38% of all applicants (all sections of the following pie chart are included except for the 62% of zero ULO). This is still a relatively small percentage. However, it is necessary to take into account that ULO did not need to be created within the application submission deadline.

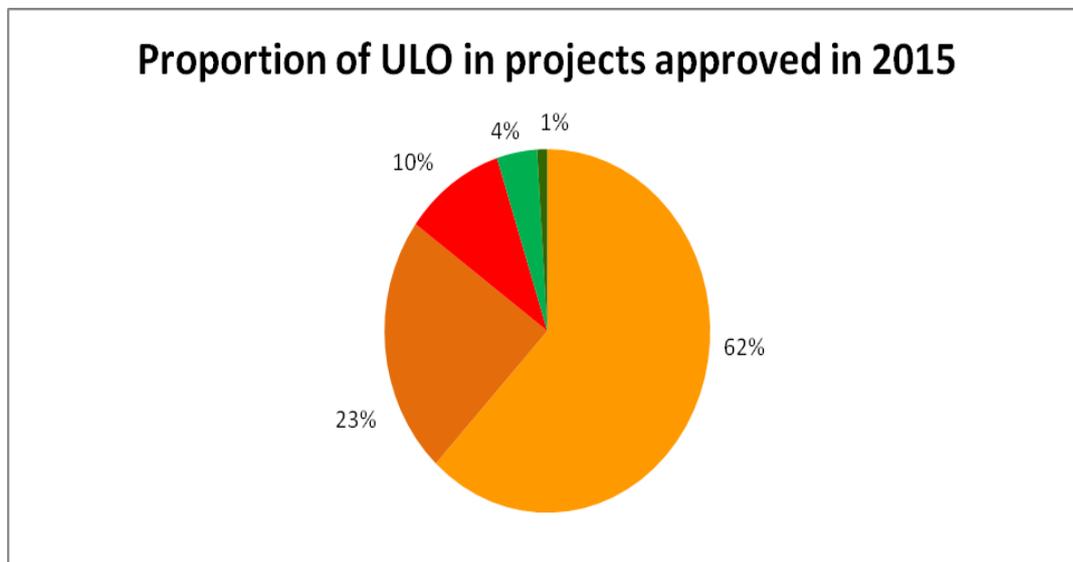


Chart 6: The distribution by ECVET projects with ULO and their numbers (includes also the numbers presented in ULO) for projects approved in 2015

Within all projects analysed, a total of 111 units of learning outcomes were prepared in 2015. Most applicants prepared one ULO (21 ULOs for approved projects, 15 ULOs for backup projects) but quite a lot of applicants prepared two ULOs (18 for approved projects, 26 ULOs for backup projects). The number of projects with three prepared ULOs was also higher (9 for approved projects, 9 for backup projects) in 2015. In total, 34 ULOs were prepared for approved projects and 33 ULOs for backup projects.

Progress in implementing ECVET principles is also evident from a comparison of the number of projects with prepared units of outcomes (at application submission) in 2014 and 2015. In 2014, there were 17 projects, while in 2015, there were already 38 projects.

However, some shortcomings were also found in the ULOs that had been prepared:

- The quality of the ULOs varied greatly
- The length of the ULOs varied
- The formal arrangement of the ULOs varied
- The ULOs were influenced by international projects and foreign models were adopted
- Both vocational and general skills were included in the ULOs
- The criteria and methods for evaluating learning outcomes were poorly described
- Different concepts of learning outcomes were used within the ULOs and Europass

An overall comparison of the quality of using ECVET principles in applications of 2014 and 2015 shows that for approved applications, the quality of using ECVET in 2015 was similar to 2014. In 2014, 20% of the applications had high-quality use of ECVET principles and in 2015, it was 30%. In 2014, the proportion of applications with medium-quality use of ECVET was 60%, while in 2015, it was only 45%. The proportion of applications with lower-quality use of ECVET was 20% in 2014 and 25% in 2015.

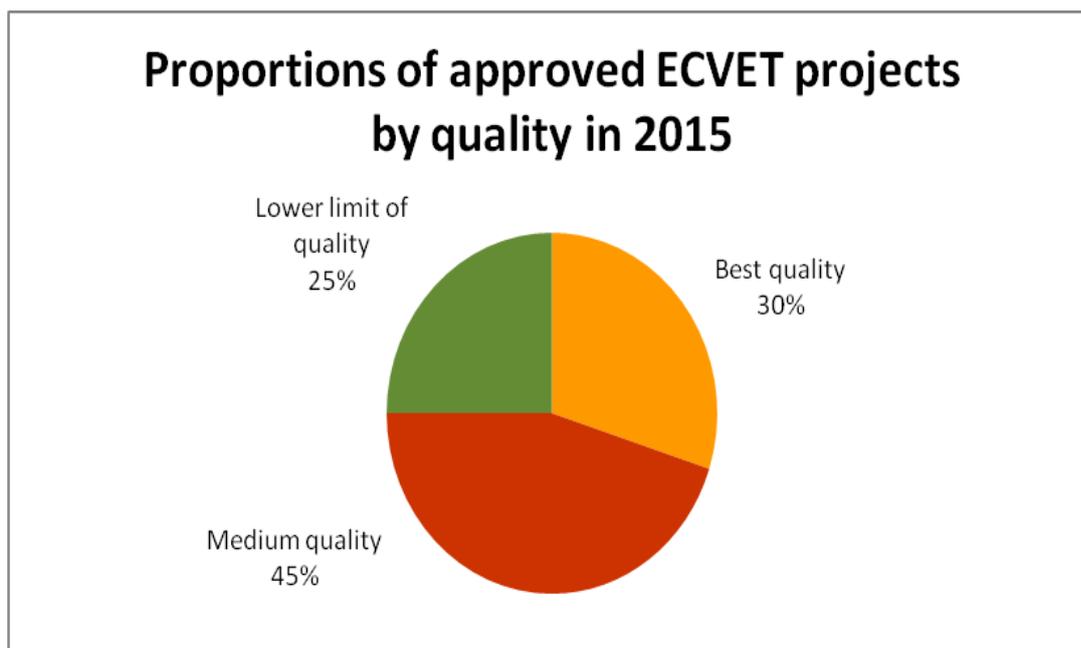


Chart 7: Distribution of ECVET projects by quality in 2015

Overall, it can thus be concluded that the implementation of ECVET principles in KA 1 applications showed a quantitative increase in 2015, but the structure of the quality of the applications remained at approximately the same level as in 2014.

The main positive characteristics identified:

- Nearly three-quarters of successful KA 1 applicants already work with ECVET
- Using ECVET principles in the project significantly increases the likelihood of project approval
- Frequent use of Europass
- All institutions within the sample monitored already have experience with international cooperation, most often with the Leonardo da Vinci and Erasmus+ Programmes
- The availability of sample documents significantly improved the awareness and use of the Memorandum of Understanding and the Learning agreement
- Knowledge of the National Register of Qualifications (NRQ) has a positive effect on the preparation of units of learning outcomes
- Applicants already commonly use knowledge about the European Qualifications Framework
- The project composition is rich in terms of both fields and regions

The main negative characteristics identified:

- About one-quarter of the applicants did not attempt to implement ECVET
- A small number of projects from the Plzeň and the Karlovy Vary Regions
- Poor use of ECVET principles in Sections K and H of the application
- Shortcomings in applications: project objectives are set inadequately, project management is not worked out in detail, the description of project impacts and dissemination methods is incomplete, the national tool for improving project quality is poorly understood etc.
- The demands associated with preparing ULOs are underestimated
- In most cases, there is a poor quality of prepared ULOs
- Less frequent evaluation of interns according to ECVET principles
- Small improvement in the quality of ECVET implementation

3. Erasmus+ Project, An analysis of units of learning outcomes from Mobility projects for individuals (KA1) – Vocational education and training – Call 2014

The aim of the analysis was to identify the positive and negative aspects of the quality of the units of learning outcomes that have been prepared, so that they could be used to improve the quality of the units and generally to improve the use of ECVET in subsequent generations of projects. In addition, the analysis can help assess the effectiveness of team instructions, guidelines and recommendations relating to designing units of learning outcomes and may also be useful to authors of other units of learning outcomes.

The authors of units of learning outcomes in mobility projects belonging to the 2014 generation obtained information about the desirable form of the units both at seminars and through written materials (brochures) in which specific examples of units from different



fields of vocational training were also published.⁵ The team also provided the authors of units of learning outcomes with consultations in which it assessed the draft versions of the units and gave recommendations to the respective authors as to how they could improve the quality of the units being proposed. This work resulted in the units of learning outcomes that formed part of the documentation of generation-2014 mobility projects within the Erasmus+ Programme.

Collecting the units that have been prepared was the initial part of the work on analysing units of learning outcomes. Project implementers were asked by the Centre for International Cooperation to submit the units they have prepared. Unfortunately, only a part of the implementers responded to the request, which is why the Centre for International Cooperation sent a reminder to non-responders in about mid-2015. While this helped to gather units from several additional projects, most implementers failed to respond even to the reminder. By mid-September 2015, units of learning outcomes had thus been collected from only 32 projects, which represents half of generation-2014 mobility projects.

Within these 32 projects, a total of 93 units of learning outcomes had been prepared, which became the subject of the analysis. The vast majority of the units (76.3%) were prepared in Czech, 21.5% in English and the remaining 2.2% in both Czech and English. The language version of the units is not significant for the analysis as it is not indicative of the quality of the units. The language composition only shows that the authors mostly prepared their units in Czech. However, in order to make the units understandable to foreign partners, they had to translate them – as part of project implementation – into a foreign language understandable to the foreign partner, usually into English.

Members of the National Team of ECVET Experts guided potential authors of units (through seminars and brochures) in a way to make sure the structure of their units consisted of the following five mandatory parts:

- a) The title of the unit
- b) The specification of the professional qualification to which the unit relates
- c) The European Qualifications Framework (EQF) level
- d) The expected learning outcomes
- e) The methods for verifying the learning outcomes

When analysing the quality of the units of learning outcomes, the individual parts of the desired structure of the units were analysed one by one.

The title of a unit of learning outcomes should be specified in a way that informs its readers about its content, i.e. to be fitting. This requirement was fulfilled by 84 analysed units

⁵ *Evropský systém pro zvýšení kvality mobility v odborném vzdělávání. Otázky a odpovědi.* Prague: Centre for International Cooperation, 2014. ISBN 978-80-87335-79-6.

Evropský systém pro zvýšení kvality mobility v odborném vzdělávání. Příklady ECVET v praxi. Prague: Centre for International Cooperation, 2014. ISBN 978-80-87335-67-3.

Jak vytvořit jednotku výsledků učení. Praktický průvodce pro realizátory projektů v rámci programu Erasmus+. Prague: Centre for International Cooperation, 2014. ISBN 978-80-87335-86-4.

(90.3%), i.e. the vast majority. These included titles such as Restaurant desserts, Chassis servicing, Orders for goods from suppliers, Heat pump functions, etc. The remaining 9 units (9.7%) had a title that did not meet the requirement for a fitting title. These titles included Work placement abroad – VOŠ tertiary technical school, Training stay in companies for students of the Business Academy or Work placement abroad – the hotel industry. The high proportion of units with a fitting title suggests that – from this perspective – a good result has been achieved.

Another requirement for the title of a unit of learning outcomes is specificity as opposed to undesirable generality. As before, the vast majority of the authors of the units managed to give a suitable, i.e. specific title to the unit, such as Gift wrapping for clients, Italian desserts and ice cream, Receipt of goods purchased into stock, Socket fusion welding etc. Titles that are too general may include Administrative activities, IT, Selling, Fish, Engineering, Telecommunications, Mechanic, Cattle reproduction etc. The reason is that they refer to vocational education activities that are too broad, i.e. a narrower and more specific part should be chosen from such an activity. Within the sample analysed, there were 84 specific titles of units (i.e. 90.3%), while 9 titles (i.e. 9.7%) were too general.

The third requirement for the title of a unit of learning outcomes is a reasonable length. This is certainly influenced by the degree to which the title is fitting and specific, so the length of a unit title cannot be determined in advance. An analysis of the length of the unit titles showed that, within the sample, titles were most frequently (in 22 cases) comprised of four words. About two-thirds of the unit titles (58 cases, i.e. 62%) were comprised of 3 to 6 words. This also corresponds to the average number of words in a unit title, namely 4.4 words. Unit titles comprised of only 1 or 2 words can be considered extremely short (such titles also tend to be too general or broad) and, by contrast, titles comprised of 10 or more words can be considered extremely long, but these only occurred in 2 cases (representing only 2.2%). Taking into account that prepositions and conjunctions also count as words, it can be concluded that the titles of units found were mostly of adequate length.

The requirement that within the unit of learning outcomes the qualification to which the unit relates should be specified is one of the most important requirements for the desired form of a unit, because it concerns one of the fundamental features of the entire ECVET system – specifying the relationship of the learning content to an existing qualification. Therefore, potential authors of units were guided by the team to search the Czech National Qualifications Framework (NQF) for the code and title of the relevant professional qualification of which the unit is a part, and to only specify the content of the unit using the code and field of vocational education if the search is unsuccessful.

Within the analysed sample of units, a specific professional qualification from the NRQ was specified in 23 cases, i.e. in 24.7% of the cases. For an additional 15 units (16.1%), both a qualification and a field of education were specified, while in most cases (55 units, i.e. 59.2%), a field of education was specified. The achieved result cannot be considered satisfactory, because a qualification was only specified in about one-third of the cases, while



in most cases a professional qualification was not specified. This assessment does not change even when taking into account that the NRQ does not (and cannot) contain all possible qualifications. Rather, it suggests that the vast majority of the authors of the units come from vocational schools and are mostly accustomed to working with the code and the field of the vocational education they provide, while – to date – they have worked with NQF professional qualifications to a much more limited extent.

The achieved result is a reason for the team – when working with potential authors of additional units – to guide them even more strongly towards meeting the requirement to specify the relationship of the unit to a specific NRQ professional qualification.

The information that was provided by the analysed sample of units also included information about the field composition of the units. The 93 analysed units relate to a total of 21 groups of fields. This suggests that the field composition is highly differentiated and it covers a sufficient proportion of the fields of vocational education. Within the sample in question, units in gastronomy and hospitality accounted for the largest proportion, namely 35.5% (33 units). Units in economics and administration were in second place, accounting for 12.9% (12 units). These two groups of units thus account for about one-half of the analysed sample of units. Units in agriculture (8 units, i.e. 8.6%) were the third most numerous. Units from other groups of fields occurred in numbers ranging from 1 to 5. These were units from the fields of chemistry (5 units), computer science (4 units), engineering (3 units), electrical engineering (3 units), food processing (1 unit), wood (1 unit), printing (3 units), construction (1 unit), transport 2 (units), special fields (2 units), veterinary medicine (1 unit), health care (1 unit), trade (2 units), law and public administration (2 units), services (1 unit), pedagogy (2 units), lyceums (1 unit) and art (3 units). For one unit, the field was not specified.

With regards to the specification of units of learning outcomes to a certain European Qualifications Framework (EQF) level, only Levels 3, 4 and 6 should essentially be present within the units of learning outcomes under the conditions existing in Czech vocational education – these correspond to vocational education in fields with a final examination (Level 3), in fields with a Maturita examination (Level 4) and in fields taught at tertiary technical schools (Level 6). This is also how the potential authors of units were instructed by the team.

As expected, units with EQF Levels 3 and 4 were the most frequent within the analysed sample of units. Their numbers and proportions were about even: there were 35 units (i.e. 37.6%) with EQF Level 3 and 34 units (i.e. 36.6%) with EQF Level 4. Together, they accounted for more than three-quarters of the units. Within the sample, there were 3 units with EQF Level 6, i.e. 3.2%. While these data are unambiguous and they correspond to the main target groups of vocational education, the data for the remaining 21 units, representing 22.6% of the sample, were less common. For 3 units, EQF Level 2 was indicated, which corresponds to a level of learning that is lower than learning in a field with a final examination. For another 3 units, two EQF levels were indicated (in one case these were Levels 2 and 3 and in two cases EQF Levels 3 and 4), and for 5 units as many as three EQF levels (3–5) were indicated.



These data are probably influenced by the information contained in the NRQ, where the description of the qualification standard for the same professional qualification may include different partial professional skills for which different EQF levels are indicated. For 10 units, no EQF level was specified.

The data collected regarding European Qualifications Framework levels are acceptable, because no serious shortcomings were identified apart from the 10 units without a specification of an EQF level.

Within the units, the formulation of the expected learning outcomes is one of their key sections and it crucially affects the overall quality of the units. During its instructional work with potential authors of units, the team focused primarily on two things: making sure that an adequate or sufficient number of expected learning outcomes was defined in the units and that individual learning outcomes were formulated as precisely as possible. Both of these requirements are associated with one significant feature and benefit of ECVET, namely with precisely defining the expected learning outcomes.

With regard to the number of expected learning outcomes in the units, the team recommended that authors of units should specify about 10 to 15 items expressing the expected learning outcomes in their units. Within the sample analysed, there were 41 units that met the above recommendation, which represented 44.1% of the units, i.e. slightly less than half. This result cannot be considered satisfactory because the desired extent of the expected learning outcomes was only achieved in a minority of cases. If 9 learning outcomes were still considered a sufficient number, the proportion of acceptable units (from this perspective) would increase to 53.8%, and if 8 were sufficient it would increase to 62.4%.

Since the second largest group of units are units with fewer than 10 expected learning outcomes (namely 30 units, 32.3% of the total number of analysed units), this suggests that the authors of the units either had trouble defining the recommended number of learning outcomes or did not pay adequate attention to that definition. In most units with fewer than 10 learning outcomes, the number of learning outcomes ranged from 5 to 9, while 1 unit with 1 expected learning outcome represented an extreme. Within the sample analysed, there were 25 units (i.e. 26.9%) with more than 15 expected learning outcomes. Of these, 13 units indicated 20 or more learning outcomes. The highest number of learning outcomes was 29, which occurred in one case.

For defining learning outcomes in units, experts have still not reached agreement on a clear opinion as to whether expected learning outcomes in units need to be classified into three categories as knowledge, skills and competences or whether it is also possible to indicate learning outcomes in units without that classification through activities. The European Commission encourages classification as knowledge, skills and competences. While this requirement is understandable from a theoretical perspective, it is not easy to fulfil in practical terms, especially because competences are not always unambiguously defined in different sources and drawing a distinction between competences and skills may be challenging. With regards to defining expected learning outcomes through activities, this is



supported by the use of activities in defining qualification standards within the NRQ. Given the above, when working with potential authors of units, the team allowed the use of both methods of defining expected learning outcomes in units.

Within the analysed sample of units, expected learning outcomes were mostly defined through activities. Such units accounted for more than two-thirds – 64 units, i.e. 71.0%. In 22 units, the authors defined the learning outcomes through knowledge, skills and competences, which accounted for exactly one-quarter of the units analysed. However, in a number of cases, the classification of learning outcomes into the above categories was not without fault, especially – as expected – in the case of competences. In five units, it was not possible to clearly determine the method of defining the learning outcomes. The result encourages further discussion on what should be recommended to potential authors of units and how.

Perhaps the most serious and also the most difficult problem in defining the expected learning outcomes is the issue of formulating each learning outcome correctly, i.e. as precisely as possible.

The team recommended that authors should use appropriate formulations, including active verbs, and provided the authors with specific examples of appropriate and inappropriate formulations. Both appropriate and inappropriate formulations can also be found in the units analysed. An appropriate formulation include, for example, is familiar with hotel reception software, is able to work with a glue gun, is able to assess the health of mammary glands in dairy cows, is able to choose and place the font in the text portion of a leaflet, knows how to organise work and how to work with drawings, etc. Inappropriate ones may include, for example, performs administrative and organisational tasks, knows work organisation in the tourism industry, will become familiar with the company as a whole, fulfils and hands in assignments at an adequate level of quality, etc.

Within the sample analysed, it is estimated that there are more than one thousand formulations of expected learning outcomes. However, these formulations unfortunately cannot be described through quantitative characteristics that could more accurately help identify the situation. Based on reading the units, it can be concluded that while the sample of units includes both appropriate and inappropriate formulations of learning outcomes, their overall proportions cannot be quantified. However, based on an estimate, it appears that inappropriate formulations are in the majority. In order to improve the current situation in this area, it is recommended that awareness of appropriate and inappropriate formulations should be further improved at seminars for potential authors of units and through written materials, and that consultations on draft units should continue to be provided.

The last “mandatory” part of units of learning outcomes should be a section specifying the methods for verifying the expected learning outcomes. These are mainly intended for those who are supposed to verify – at the end of learning – whether the person being educated has acquired the expected learning outcomes and, if relevant, to what extent. Potential

authors of units of learning outcomes were given recommendations on how to define the methods for verification, which included instructions on how to use the defined learning outcomes as a starting point and to propose a procedure (e.g. examination, practical demonstration of activities) to be used by the competent examiner in order to determine the degree to which the expected learning outcomes have been acquired. They were not requested to specify a certain number of such methods.

Within the units analysed, their authors always correctly indicated multiple verification methods. In addition, it was evident that they mostly used the specified expected learning outcomes as a starting point. While the average number of learning outcomes in the units can be estimated at about 12, the average number of verification methods ranged between 8 and 9. 2 units lacked any proposed verification method. This was in part due to the lower number of verification methods; their number varied less than the number of expected learning outcomes. The numbers 1 and 29 occurred as extreme values. Several examples of appropriate formulations of verification methods: Application of the knowledge of the history and cultural history of the region – a practical demonstration, An appropriate use of decorations and residual material – a practical demonstration, Food storage according to the principles of hygiene – a practical demonstration, Correct choice of hairstyle for a given occasion and customer type – oral and practical demonstration. And examples of inappropriate formulations: The degree of aesthetic sensibility, An assessment of the content of a term paper, Handing in a PC output on manufactured ranges of products, Complies with the principles of self-representation within the company.

Even though there are both appropriate and inappropriate formulations of verification methods within the sample of units, it can be concluded that the quality of the verification methods that were proposed is slightly higher than the formulation of the expected learning outcomes. This is probably also influenced by applying the principle that within the units, the methods for verifying the learning outcomes are largely derived from individual expected learning outcomes.

The analysis helped identify the positive and negative characteristics of the units of learning outcomes that were prepared within generation-2014 mobility projects under the Erasmus+ Programme.

The main positive characteristics identified:

- The units came from sufficiently varied fields of vocational education
- In the vast majority of cases, the titles of units were adequately fitting and specific as well as reasonably long
- In the vast majority of cases, the specification of the European Qualifications Framework level was unambiguous
- The range of most analysed units was adequate
- In a large number of units, the formulation of the methods for verifying the expected learning outcomes was adequate
- The units were reasonably large



The main negative characteristics identified:

- Not all units contained all the required data
- In most cases, the specifications of the units' relationship to an NRQ professional qualification was missing
- A sufficient number of expected learning outcomes were only defined in about half of the units
- The expected learning outcomes were classified into the categories of knowledge, skills and competences in only a minority of units
- The formulation of a large proportion of competences was not in line with the general definition of competences
- Only a part of the expected learning outcomes were formulated appropriately

The positive and, more importantly, the negative characteristics that were identified will be used in further work by the authors of units of learning outcomes.

4. Report on the implementation of ECVET elements in the Pospolu National Project

Co-financed by the ESF and the Czech Republic's state budget, the Pospolu (Support for cooperation between schools and companies focusing on vocational education in practice) National System Project was implemented in the Czech Republic from December 2012 until the end of October 2015. The project was prepared by the Ministry of Education, Youth and Sports (MEYS) of the Czech Republic in cooperation with employers' associations and it was implemented by the MEYS in cooperation with the National Institute of Education.

The purpose of the project was to promote cooperation between vocational schools and employers in order to produce school graduates who are better prepared, deepen the training of students in a real working environment (through increasing the amount of practical training and, above all, improving its quality) and facilitate their seamless transition into practice. The project's main objective was to arrive at proposals for making systemic and legislative changes that would facilitate cooperation between schools and companies, improve its effectiveness and allow for its expansion.

The Pospolu Project was inspired by ECVET principles and verified the possibilities for implementing them into practice in the national environment. It was based on a document entitled Proposal for ECVET Implementation, which was approved by the MEYS in 2012. In accordance with that recommendation, the ECVET system is seen as an instrument that



positively contributes not only to improving the quality of international internships, but also as a practical tool having the potential to improve the attractiveness of initial (especially technically-oriented) vocational education and improve its quality.

An important prerequisite for ECVET is mutual trust between the school and the company. The student (or e.g. a teacher completing an internship in a company) should not be assessed twice for the same knowledge, skill or competence and it is not the purpose to prolong their educational journey only because they have completed a portion of their vocational training in a different educational context than is usual. However, mutual trust between the school and the company should be supported by a written contract – namely a framework contract (a Memorandum of Understanding between the sending and receiving organisations) and a tripartite learning agreement (or contract) between the school, the company and the learner (student, teacher) specifying the conditions and content of the internship/training, the expected learning outcomes, the methods for their assessment, validation and recognition.

Experience of working with schools has shown that any administrative work is a burden on the schools, discouraging them from trying out new things. In the Pospolu Project, this fact was confirmed through a brief questionnaire survey sent to the pilot schools in 2014. On the contrary, ECVET aims to reduce the administrative requirements, which is why schools were allowed to use their existing contracts with social partners. Under applicable legislation (pursuant to Act No 561/2004 Sb.), the relationship between the school and the company should be governed by a contract and implemented through a contract specifying the content, scope and conditions of practical training. This contract may replace the above Memorandum of Understanding, as it is a framework contract between the host and sending organisations. A model of such a contract is attached to the Education Act and schools tend to use it, often with minor modifications.

The contract is usually concluded for an indefinite period and it specifies the term of performance and the termination options, if any. However, this is not a rule in practice. There are schools that conclude such contracts for a fixed term, mostly for 1–3 years. Their content is often problematic. Usually, the contract correctly specifies the rights and obligations of the student, the school and the company, the student's remuneration for productive activities, the number of hours to be spent by students in the workplace at the company per day, the fact that the place designated for practical training must meet hygiene requirements and safety conditions, information about the occupational safety briefing, information that the instructor evaluates the students and that practical training is provided in accordance with the curricula for the given field. However, it is known from practice that the instructors often lack the right context, are unfamiliar with the School Educational Programme and the contracts lack a clear definition of what the student is supposed to learn in the workplace.



In the case of tripartite contracts, the procedure in the Pospolu Project was as follows: the school and the company define and agree on in advance what the student will learn at the company – thus creating a unit of learning outcomes – and draw up a tripartite Learning agreement to be also signed by the student. A specifically prepared Unit of learning outcomes to be completed by the student (or teacher) within the work placement/practical training was then annexed to the Learning agreement. The Unit of learning outcomes described the specific expected learning outcomes and the relevant assessment tasks that would verify whether or not the student had acquired the given competence. The progress of training (placement, internship) was continuously monitored by the sending organisation e.g. through the practical training teacher. For describing the learning outcomes, assessment standards (individual professional skills) for vocational qualifications in the NQF were recommended to schools. They described the different learning outcomes using active verbs that related to practical tasks that were actually carried out by the employee (student) in real operation.

For the purposes of the Pospolu Project, the record or protocol and validation of acquired knowledge, skills and competences, called the Student Assessment document, was also piloted. The aim was to make it as simple as possible – assessment tasks from the ULOs were transferred into a table where the company's employee recorded the result as passed/failed/passed with reservations, which was then signed by both the employee and the student for confirmation. Based on that record, a personal transcript could be issued. On the basis of their gradual achievements, each student maintained their own Student portfolio in which they kept records of the outcomes achieved throughout the pilot period (personal transcripts for the learning outcomes obtained) and diaries from practical training (while working at the company, each student kept a work diary).

Upon successful completion of their internship/training and validation of learning outcomes defined in the specified unit of learning outcomes, and at the school's request, the participant was issued a Personal transcript confirming the learning outcomes achieved. Pursuant to a notification being sent to the European Commission, the "Europass – National mobility" document was piloted as the personal transcript. The personal transcript contains the name and address of the issuing institution, the name and date of birth of the learner and a list of the learning outcomes achieved. The company, at which students completed their mandatory practical training or placement, could issue not only a Personal transcript, but also any certificate of its own (a certificate of completion of practical training at the social partner's workplace) if requested.

In addition, a template for units of learning outcomes was also developed within the project, which is available at <http://pospolu.rvp.cz>.

As part of the verification of cooperation between schools and companies, a total of 15 partnerships consisting of schools and companies in individual regions of the Czech Republic participated in creating units of learning outcomes and implementing ECVET elements. In creating units of learning outcomes, schools were provided with advice and subsequently



also with feedback on the units delivered, either directly by the project's ECVET Expert or by pilot supervisors. Units of learning outcomes for work placement were also created in the extension of the project, i.e. both in schools that were already involved in the project and in new schools. Within individual project partnerships, a total of 82 units of learning outcomes were created for educational attainment in categories H (3 years study programmes with vocational certificate), M (4 years study programmes with matura final exam) and LQ (4 years study programmes concluded both with matura exam; mandatory part of the programme is except the work placement also the practical training) . Of that number, 65 were published in the Pospolu Module on the RVP.cz⁶ portal; of which 31 units were intended for work placement, 23 for practical training and 11 for internships for teachers.

It turned out that it is preferable to create units of learning outcomes for work placements, because their educational content is not defined specifically in the Framework Educational Programme (FEP) or the School Educational Programme (SEP). Work placements are not as extensive as practical training. They cover a shorter period of time that corresponds (in terms of length) to the international mobility of students. ECVET will make it possible to easily and reasonably plan and arrange the placement within a unit, as well as to effectively check what the student has learned in the workplace and to eliminate those work placements with whose content the school and the student were not satisfied. During the testing, 22 Europass – National mobility documents were issued by the Pospolu Project in collaboration with the National Europass Centre in 2014 and 2015.

From the end of March to June 2014, a brief questionnaire survey was conducted among 15 pilot partnerships. A total of 47 experts from schools and representatives from the social partners were approached. 14 responses were obtained; the return rate was less than 7%. 50% of the respondents believed that the ECVET system and its principles could improve mutual cooperation between secondary technical schools and businesses at the national level, 28.5% did not know and 21% thought that these principles could not help improve cooperation. 64% of the respondents were convinced that ECVET principles could be used at the international level.

The respondents indicated the following items as being the greatest benefits of the ECVET system at the national level: improvement of the quality of students' practical experience, motivation, standardisation of students' competences, acquiring new skills in a real environment, opportunities for the exchange of students between schools and companies, improvement of the existing system and its precision, if there is a link between the Framework Educational Programme (FEP) and the National Qualifications Framework (NQF), pressure on completion of the NQF, defining the content through learning outcomes, etc. One frequent response was that ECVET would be useful as soon as there was some rule or regulation that was valid and generally introduced at the national level. The respondents indicated the following items as being the greatest benefits of the ECVET system at the international level: defining the content through learning outcomes and ULOs, better

⁶ <http://pospolu.rvp.cz>



chances in the labour market, gaining new experience in corporate culture, new technologies and management, opportunities for the exchange of students between schools and companies, experience from other working environments, specific experience and skills that deepen relevant qualifications, etc.

The questionnaire survey also addressed the potential difficulties of the ECVET system (e.g. validation, internship recognition, technical facilities – persons accompanying minors etc.). The respondents' responses included the following: Occupational Safety and Health (OSH) pursuant to applicable legislation, recognition of knowledge acquired during internships or acquired qualifications (general recognition of acquired qualifications), expertise of the company's employees, instructor funding, administrative burden on the company, the existence of in-house standards (e.g. in Škoda Auto) etc.

Also, the questionnaire was used to identify how schools provided and implemented practical training and work placements for students. In most cases, schools enter into general cooperation contracts for 1–3 school years and also e.g. a contract with individual workplaces at the company or contracts with companies that define the content and scope of practical training, its length and organisational aspects. Almost all respondents stated that the contracts were based on FEP and SEP as well as the specific conditions existing in the company and the school.

Regarding the question concerning the method of student assessment, the respondents responded that assessments were made by the instructor through an opinion or a description of the level of knowledge and skills acquired by the student; they most often indicated that assessments were made by the instructor in cooperation with the professional training teacher according to established classification criteria. 43% of the respondents said that students received no proof of completion of practical training or work placement. However, 50% of the respondents believed that such a proof of completion of practical training or work placement would be useful. 85.7% of the respondents took the view that if there was a good record of the knowledge, skills and competences (e.g. in the form of a standardised document) acquired during an internship (practical training / work placement) in our country or abroad, it could help in finding a job (e.g. even if they did not complete their studies at the given secondary school).

At the end of February 2015, i.e. when partnerships between schools and companies had already tried to create a unit or units of learning outcomes and many of them had also tried them out in practice, another questionnaire survey was carried out. A total of 25 authors of units of learning outcomes were addressed and the response rate was 100%. The results of this survey showed a significant increase in the proportion of respondents believing that ECVET and its principles can improve mutual cooperation between schools and enterprises, even at the national level (from 50% in the first survey to 88% in the second survey). Most of all, the respondents appreciated the following about ECVET: clearly defined content through learning outcomes (along with the establishment of a standard and uniform assessment



criteria), better links to the world of work, flexibility to respond to new things and trends and transfer them to the educational sphere, and ensuring quality control.

Based on their experience, pilot schools also indicated the main problems that were associated with using the ECVET system under the conditions existing at the national level. These included an increased administrative burden (56% of the respondents), reluctance to share units (own know-how) with other schools and enterprises (40% of the respondents), poor knowledge of working with learning outcomes and defining them (40% of the respondents), and unwillingness to change the established order of things (32%). However, there were also other opinions, such as that national mobility would not work due to an increased organisational burden (substitute teaching, funding and accommodation) or because this was not a systemic element, there was no overall authority etc.

The respondents agreed that the ECVET principles that could be used included, above all, units of learning outcomes, learning agreements between the student, the school and the company, recognition of completed units, and mutual trust and improved relationships with the company. The Memorandum of Understanding, which already exists in the Czech Republic in the form of a contract specifying the content and scope of practical training and the conditions for its implementation, was quite logically singled out by the respondents as being the least useful ECVET element.

Within the survey, respondents were asked to describe what they had achieved thanks to ECVET. 64% of the respondents admitted that they had managed to bring order into work placements and improve their content and quality. 20% of the respondents had created a unit of learning outcomes that would also be used for retraining (20% of the respondents). The same percentage of respondents had created a quality assurance cycle thanks to the pilot (20% of the respondents). Only 8% of the schools were planning to offer their unique unit of outcomes to other schools (8% of the respondents). A high proportion of respondents (88%) highlighted the positive benefits of the proof of completion of practical training / work placement (a personal transcript of specific knowledge, skills and competences, which can help students in finding employment). A total of 80% of the respondents want to use ECVET even after the completion of the Pospolu Project.

Suggestions for further implementation of ECVET in the Czech Republic.

Awareness and support by relevant authorities at the national and regional levels is still inadequate. At present, it is necessary to further promote ECVET and make the units of learning outcomes that have already been created available to other interested parties, so that they can be used by schools and businesses either directly or as a source of inspiration for creating their own units. Not only the MEYS, but also the Ministry of Labour and Social Affairs, the Chamber of Commerce of the Czech Republic, employers' associations and their representatives in the regions should all be involved in disseminating information on ECVET.



Both enterprises and schools show little interest in intensifying mutual cooperation and improving its effectiveness. There is a reluctance by schools to share the created units of learning outcomes with other schools – there is a competitive environment between the schools in attracting students.

In the Czech environment, ECVET has not yet been generally and systematically introduced; these are recommended principles on a voluntary basis. However, it is obvious that the system meets the needs of schools and enterprises. Schools can improve teaching through adding practically oriented units of learning outcomes that are completed by students in a different environment, which may also help boost the school's reputation. Through cooperation, enterprises may use units of learning outcomes to educate good-quality future employees who have the necessary practical skills.

In accordance with the above risks, it is advisable to develop a single methodology for creating units and define the meaning and purpose of their creation, i.e. whether the units are created as a supplement to the SEP or as cross-cutting units, etc. It is also important to raise awareness about the significance of validation. Also, it is necessary to encourage the Czech School Inspectorate (CSI) to focus more on inspecting the implementation of practical training in the workplace at companies. Furthermore, it is necessary to define how schools should proceed in validating the created units of learning outcomes with respect to the school's existing educational documents and the content of the FEP.

5. Conclusion

From the information contained in the above sections of the report, it is clear that the ongoing ECVET implementation in the Czech Republic has been largely successful. This is evidenced, for example, by the increasing number of projects of international mobility that use ECVET principles and their proportion in the total number of projects, the results achieved within the Pospolu Project with regard to the possibility of using ECVET in practical training and work placements for students of technical schools, as well as in the international comparison of ECVET implementation in the Czech Republic and in other countries. Within the target group of technical schools, which is the crucial target group of providers of initial vocational education, awareness about ECVET and its use has been successfully raised. Poorer awareness about ECVET was found among the target group of employers and representatives of employment services that focuses on continuing vocational education for adults, including job seekers with little or no qualifications. In future periods, it will therefore be useful to also focus on this group.

Furthermore, it is apparent that the quality of using ECVET in preparing and implementing projects of international mobility and in preparing units of learning outcomes within national and international mobility is improving only slowly. In future periods, the National Team of ECVET Experts will therefore seek to improve the quality of using ECVET. In doing so, it will mainly focus on the quality of defining the learning outcomes and the methods for verifying them as a part of creating units of learning outcomes as key ECVET documents.



Issued by: Centre for International Cooperation, 2015

The author of this document has exclusive responsibility for its content. The document does not represent the views of the European Commission and the European Commission is not responsible for the use of any information contained therein.

Co-financed by the European Union Erasmus+ Programme and the Ministry of Education, Youth and Sports.