European credit system for vocational education and training

Feasibility study for the Slovak Republic

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Introduction

According to SAAIC\textsuperscript{1} that commissioned this study, the purpose of this study is to ascertain whether the idea of introduction of European credit system for vocational education and training (ECVET) is clear from the operational point of view and to determine how and under what terms it will fit with the current Slovak education system. Based on regular practice the following factors should be taken into account: System feasibility (including clarification of requirements), operational feasibility (including scheduling and capacity building), financial feasibility (partly including cost/benefit analysis) and legal feasibility (including cultural aspects).

1. ECVET reflection on the European level

1.1 ECVET - what is it about?

A Commission staff working document dated 31 October 2006, the first Commission comprehensive document on ECVET, stated "Principles of ECVET" as follows:

"ECVET is a method enabling qualifications to be described in terms of transferable and accumulable learning units (knowledge, skills and competence) to which credit points are attached.

ECVET is intended to facilitate the transfer and accumulation of learning outcomes acquired by people moving from one learning context to another, from one system of qualification to another;

ECVET will be based on the voluntary participation of the Member States and of the stakeholders in their respective qualifications systems and vocational education and training.

ECVET will be a mechanism to foster a synergy between the training providers through the support it will provide for cooperation between partner organisations, with a view to the transfer and accumulation of individual learning credits."\textsuperscript{2}

This document was crucial for deepening a debate on ECVET in Europe, although the first discussion started significantly earlier, in particular after setting the political mandate for ECVET.

1.2 The political mandate for ECVET

The political mandate for ECVET goes back to 2002 Education Council Resolution adopted on 12 November 2002 and the Copenhagen Declaration of 30 November 2002, and was several times confirmed by subsequent communiqués (Maastricht 2004, Helsinki 2006, Bordeaux 2008 and Bruges 2010)\textsuperscript{3}.

\textsuperscript{1} Slovak Academic Association for International Cooperation, see also \url{http://www.saadic.sk} [cited 26.4.2012].
\textsuperscript{3} Specialised information on the Copenhagen process, its tools and principles (thus, also including information on ECVET) in the Slovak language prepared by Dagmar Jelinkova and Juraj Vantuch under the title “Kodansky process” is available at \url{http://www.referent.slovakia/files/Kodansky%20proces%2020002-2010.pdf} [cited 26.4.2012]. Links to English and, whenever they exist, also to Slovak (or Czech) translations, or later to official versions of documents, are included.
Within the 2002 Council Resolution ECVET was accepted as one of the common measures needed to promote “the transparency, comparability, transferability and recognition of competence and/or qualifications, between different countries and at different levels”\(^4\). The very important Maastricht Communiqué of 14 December 2004 recalled the Copenhagen declaration speaking about a credit system only in general and set European and National priorities of cooperation in VET among which ECVET is named as an European level priority. The paragraph iii is explicitly speaking about “the development and implementation of the European Credit Transfer system for VET (ECVET) in order to allow learners to build upon the achievements resulting from their learning pathways when moving between vocational training systems”. Furthermore, the parallel to ECTS\(^5\) is pronounced by stating that ECVET “will take into account the experience of the ECTS in the field of higher education and the Europass framework”.

Two years later, “further development of common European tools specifically aimed at VET” was required within the Helsinki Communiqué, and European Credit System for VET\(^6\) was mentioned as a “tool for credit accumulation and transfer, taking into account the specificities of VET and the experience gained with the European Credit Transfer and Accumulation System (ECTS) in higher education”\(^7\).

The 2008 Bordeaux Communiqué indicated a slight change in focus: “The expected effect is further development of intra-European mobility, more significant development of individualised careerpaths, better recognition of informal and nonformal learning, better transparency and mutual trust between education systems”\(^8\).

It strengthened developing “national qualifications systems and frameworks based on learning outcomes, in line with the European Qualifications Framework” and interlinking respective Copenhagen tools EQF, EQARF and ECVET rather than ECVET/ECTS parallel. Exploring interlinking ECVET/ECTS was left to pilot projects\(^9\) and future results of these projects: “Pilot projects could be used, in particular to ensure coherence between ECTS and ECVET, in a lifelong learning perspective”\(^10\).

The 2010 Bruges Communiqué, reflecting eight years of European cooperation within the Copenhagen process, formulated eleven strategic objectives for the next decade (2011-2020) and related 2011-2014 short-term deliverables. With regard to strategic goal No. 3 “Enabling flexible access to training and qualifications” and with relevancy to both I-VET and C-VET the following was stated:

(d) The Commission and the participating countries should work towards increasing coherence between the two European credit systems - ECVET and ECTS.\(^11\)

Furthermore, an action at national level making use of European Structural Funds and the Lifelong Learning Programme should be used according to the short-term deliverable No. 20: “Establish communication strategies for different stakeholder groups, focused on

\(^4\) Council Resolution on promoting enhanced European cooperation in vocational education and training, OJ C 13, p. 4.

\(^5\) European Credit Transfer and Accumulation System is a credit system introduced in higher education. It is based on the principle that one credit point generally corresponds to 25-30 hours of student’s work. 60 ECTS credits are attached to the student workload of a full-time year of academic year, thus e.g. first cycle of higher education comprises 180-240 ECTS points. See more at http://ec.europa.eu/education/lifelong-learning-policy/ects_en.htm [cited 26.4.2012].

\(^6\) The word “Transfer” is omitted here and, also later, not included in the title anymore.

\(^7\) Helsinki Communiqué, p. 7.

\(^8\) Bordeaux Communiqué, p. 2.

\(^9\) We will comment on these pilot projects later; a dedicated pilot projects website is at http://www.ecvet-projects.eu/ [cited 26.4.2012].

\(^10\) Bordeaux Communiqué, p. 8.

\(^11\) Bruges Communiqué, p. 11.
implementation and the added value of tools (ECVET, ECTS, referencing of NQFs to EQF, quality assurance systems in line with EQAVET).“\(^\text{12}\)

Two earlier documents dated 9 April 2008 paved the way to the selection and the subsequent adoption of an appropriate legislative instrument to establish ECVET; an ECVET impact assessment\(^\text{13}\), addressing in detail the results of earlier activities related to ECVET, and a proposal for a recommendation\(^\text{14}\), wrapping up results in a short explanatory memorandum\(^\text{15}\) and containing a proposal of the recommendation itself. Charts\(^\text{16}\) annexed to this explanatory memorandum offer a comprehensive insight, and in particular the chart 3 is worth rethinking for policy makers.

Subsequently, the Recommendation of the European Parliament and of the Council\(^\text{17}\) was adopted on 18 June 2009. The purpose of this Recommendation was declared in the following way: “to create a European Credit System for Vocational Education and Training (‘ECVET’) intended to facilitate the transfer, recognition and accumulation of assessed learning outcomes of individuals who are aiming to achieve a qualification.”\(^\text{18}\)

It was expected that this “will improve the general understanding of citizens’ learning outcomes and their transparency, transnational mobility and portability across and, where appropriate, within Member States in a borderless lifelong learning area, and will also improve the mobility and portability of qualifications at national level between various sectors of the economy and within the labour market; furthermore, it will contribute to the development and expansion of European cooperation in education and training.”\(^\text{19}\)

Furthermore, interlinking of ECVET and ECTS was again strongly highlighted: “This Recommendation should facilitate the compatibility, comparability and complementarity of credit systems used in VET and the European Credit Transfer and Accumulation System (‘ECTS’), which is used in the higher education sector, and thus should contribute to greater permeability between levels of education and training, in accordance with national legislation and practice.”\(^\text{20}\) In addition, endorsing Commission’s intention to “develop expertise for enhancing the compatibility and complementarity of ECVET and ECTS used in the higher education sector”\(^\text{21}\) was explicitly stated.

\(^{12}\) Ibid, p. 17.


\(^{15}\) Ibid, p. 2-12.

\(^{16}\) Ibid, p. 10-12. There are three charts annexed to the explanatory memorandum; Chart 1: EQF and ECVET for transparency and portability of learning outcomes (example). Chart 2: Units of learning outcomes and ECVET points (example). Chart 3: Application of ECVET for transfer and accumulation of learning outcomes.


\(^{18}\) Ibid, p. 11.

\(^{19}\) Ibid, p. 11.

\(^{20}\) Ibid, p. 12.

\(^{21}\) Ibid, p. 13.
ECVET was specified as “a technical framework for the transfer, recognition and, where appropriate, accumulation of individuals’ learning outcomes with a view to achieving a qualification. ECVET tools and methodology comprise the description of qualifications in terms of units of learning outcomes with associated points, a transfer and accumulation process and complementary documents such as learning agreements, transcripts of records and ECVET users’ guides. ECVET is intended to facilitate the recognition of learning outcomes in accordance with national legislation, in the framework of mobility, for the purpose of achieving a qualification”\textsuperscript{22}.

It was also stressed there “that ECVET does not imply any new entitlement for citizens to obtain the automatic recognition of either learning outcomes or points. Its application for a given qualification is in accordance with the legislation, rules and regulations applicable in the Member States …”\textsuperscript{23}.

From the governance and legislation point of view we have followed so far, this Recommendation is of crucial importance and, in particular, its annexes are the “must read” for all experts and executives in the field. Definitions of important terms were provided in Annex I \textsuperscript{24} (e.g. ‘Qualification’, ‘Learning outcomes’, ‘Unit of learning outcomes’ ‘Credit for learning outcomes’, ‘ECVET points’) and within Annex II principles and technical specifications\textsuperscript{25} on which ECVET should be based were set. Nevertheless, while the legislation process was successfully completed by the adoption of the Recommendation, there was room still left for further clarification of ECVET by experts and for the learning from experience gained from ECVET implementation efforts.

1.3 Experts’ discourse

Discussing ECVET implementation\textsuperscript{26} started as early as in 2002. The Credit Transfer Technical Working Group (CT TWG) was set up by the European Commission to support development of ECVET, and the virtual community was created at Cedefop to support exchange of experience among specialists and expert public interested in ECVET\textsuperscript{27}.

In its report\textsuperscript{28} dated 28 June 2005 CT TWG presented a proposal for ECVET as a system. The report addressed technical and organisational conditions for implementation of the proposed system and offered in its annex definitions of fundamental terms, as well as questions and answers explaining ECVET from the practical point of view. Despite a later shift in perceiving the ECVET utilisation this part of the study is still worth of studying for experts.

\begin{itemize}
\item \textsuperscript{22} Ibid, p.15.
\item \textsuperscript{23} Ibid, p.15.
\item \textsuperscript{24} These definitions are worth of further study indicating limits of the implications of ECVET as well as risks of confusions caused by inappropriate translations of crucial terms into the national language or by conflicting with a local scientific discourse or education culture.
\item \textsuperscript{25} We will discuss it in detail later.
\item \textsuperscript{26} This discussion contributed to further development and changes of originally declared content and philosophy, as will be demonstrated later.
\item \textsuperscript{27} Credit Transfer Technical Working Group was set up by the Commission in November 2002 and the virtual community http://www.cedefop.europa.eu/EN/about-cedefop/extranets/european-qualifications-framework-credit-transfer-in-vet/index.aspx [cited 26.4.2012] was created in January 2003 to focus on two topics together: ECVET and EQF.
\end{itemize}
This report was at the start of rush development as it was followed by the 2006 Commission staff working document quoted at the beginning of this study and by a consultation process taking place from November 2006 till 31 March 2007. The consultation process addressed trans-national institutions of social partners and countries involved in the Copenhagen process. All member states were invited to organise their own national consultation process and reports on results from these consultations were sent to the European Commission. Responses of individual countries are also available at the European Commission.29

In addition to the consultation process, two important feasibility studies, the ECVET Connexion and the ECVET Reflector30, were commissioned by DGEAC of the European Commission.

The ECVET Connexion study focused on ECVET implementation in initial vocational education. It had to
- analyse IVET in Europe from the angle of the training offer (nature, organisation, programs, offer delivering);
- identify the obstacles to the implementation of the proposed ECVET mechanism; and
- formulate recommendations favouring ECVET development.

The ECVET Connexion study31 resulted in
- main conclusion as follows “... the stakeholders of vocational education and training in Europe are favourable to the implementation of the ECVET device”32;
- identification of four leading ideas; within the third one it was stated that “mutual trust constitutes the most important element of the whole device”33; and
- conclusion that the final ECVET beneficiary is youth and apprentices, in particular: “Finally, it should be stressed that the individual is at the centre of the ECVET mechanism. Within the scope of the ECVET Connexion study, the final beneficiary is a young person in initial vocational education and training (particularly apprentices).”34

Thus, the Connexion study paved the way towards implementation of ECVET by stating general support for ECVET and by drawing attention to achieving the “mutual trust” among players as a most important precondition of success and highlighting the focus on individual trainees who should become a major beneficiary of ECVET.

The ECVET Reflector study analysed the relationship between ECVET and the national systems in order to identify both the obstacles and favourable conditions for ECVET implementation. The aims of the ECVET Reflector study included:
- “Formulating qualified proposals as to how to design ECVET for possible subsequent implementation throughout Europe in accordance with national and regional rules and regulations;
- Identifying possible needs for support during ECVET implementation and application;
- Formulating recommendations for further actions at VET stakeholder levels in national and regional contexts”35.

In contrast to the first study the second one keeps its relevance till today and is worth of study for policy makers36.

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30 The results of both studies were presented together at a European seminar held in Berlin on 30 November 2006, see http://www.ecvet.net/c.php/ecvet/documentation_berlin_seminar.rsys [cited 26.4.2012].
32 Ibid, p. 15.
33 Ibid, p. 15.
34 Ibid, p. 15.
35 Final report, p. 7; Final report in three languages is available at www.ecvet.net.
Focusing on assessment and evaluation of learning outcomes, and transfer of the learner’s achievements from abroad, and looking for answers to following key questions:

- Which is the role of “units” in the assessment and certification system? Is there any awareness of parts of qualifications?
- Does transfer (already) take place in international and/or in national contexts?

Three types of qualification systems were identified: “Unit-aware internationalist” rated “High” (7 countries); “Holistic internationalist” rated “Improving” (8 countries) and “Holistic loner” rated “Low” with regard to their degree of ECVET-readiness (15 countries). A detailed explanation of this typology is in Annex 1.

Another important finding of the study was the identification of two approaches towards ECVET implementation, a “cross-border-approach” and a “reform approach”. While the former emphasises implementing ECVET solely as an instrument to increase cross-border mobility in IVET not inducing changes in VET programmes (e.g. unit and module based transformation), the latter emphasises implementing ECVET as an instrument to push forward reforming national qualification systems in order to achieve higher accessibility and flexibility in VET. These two approaches are in more detail described in the Annex 2.

Results of the consultation process were presented at a conference held in Munich on 4 and 5 June 2007 within the German presidency, encompassing diverse responses to consultation process questions and reflections of experts relevant to ECVET.

In parallel to the consultation process, calls for proposals for awarding grants to study the ECVET development process in practice were launched in 2006, in 2008 and in 2010.

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36 A summary report of 19 pages, a very well designed comprehensive brochure of 4 pages (we recommend to read to all stakeholders) in all EU languages, as well as other documents are also available at www.ecvet.net [cited 26.4.2012].
40 It was a call for proposals for awarding grants “to support transnational cooperation with a view to putting the ECVET system into practice for the benefit of various groups”, see Call for proposals — DG EAC No 33/06. Award of grants for the promotion and coordination of projects to develop credit systems for vocational education and training (ECVET) (2006/C 144/14) 20.6.2006 C 144/19 Official Journal of the European Union at http://eur-lex.europa.eu/LexUriServ/site/en/oj/2006/c_144/c_14420060620en00190019.pdf [cited 26.4.2012].
41 It was a call for proposals concerning two types of actions that had to be “combined into one project: - actions to set up or consolidate partnerships between competent institutions to establish an operational framework to develop tests on the European credit system for vocational education and training (ECVET), - experimental measures in the vocational education and training credit system (ECVET) field with a view to putting this system into practice for the benefit of various groups (e.g. employed adults, jobseekers, young people leaving initial training without qualifications)” , see Call for proposals — EACEA/14/08 under the Lifelong Learning Programme Award of grants for projects to test and develop the credit system for vocational education and training (ECVET),...
Experience gathered through projects responding to 2006 call was studied in the aforementioned ECVET Connexion study. Detailed information on eleven 2008-2011 ECVET projects and eight 2011-2014 ECVET projects are available at the dedicated pilot projects website containing also eleven ECVET Magazines informing comprehensively about activities and initiatives to test and implement ECVET. There is only one project (CREDCHEM) with a Slovak participation among them; we will address it later.

Furthermore, fourteen National Agencies for the Lifelong Learning Programme run a NetECVET project coordinated by the German National LLP Agency co-financed by the European Union’s Lifelong Learning Programme. The project capitalises on the ECVET Pilot Projects and focusing on mobility practice it is aimed at support of practitioners beginning to work with ECVET.

Lessons from experience in other countries can also be learnt from CEDEFOP monitoring studies. The first one monitored and analysed the progress made – up to mid-2010, while the second one reflected inputs available until September 2011 covering 36 education and training systems from 32 countries. Table 10 offering “Overview of existing credit systems by country” and 12 boxes bringing examples of practice from 12 countries are recommended to be read first and the home page of ECVET National Contact Point for England can be recommended for those just starting National Contact Point activities (as Slovakia). Similarly, also the German ECVET National Contact Point offers a lot of supportive information for inspiration. Various network pages also offer valuable support, e.g. Guidelines for

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45 Ibid, p. 46-48, rating according to the level of development of validity is also presented: Only two systems were rated “high” and eight “medium high”. Slovakia was rated “medium high”.
describing units of learning outcomes\textsuperscript{53} elaborated by the German ECVET National Contact Point.

Following the two European recommendations, on EQF (2008) and ECVET (2009), analysing ECVET implementation in relation to EQF and examination of experiences in European countries started. A critical analysis of initiatives aimed at both EQF and ECVET was done by CEDEFOP research paper\textsuperscript{54} containing general conclusion of 8 pages\textsuperscript{55} and two pages of useful working definitions\textsuperscript{56}. This study also substantially addressed the ECVET relations to the European credit transfer and accumulation system (ECTS) already implemented in higher education. It offered a very useful presentation of differences in principles and concepts between EQF and ECVET on one side and higher education qualifications and ECTS on the other side.\textsuperscript{57}

*It must be stressed here that it is not surprising that the concept of “credits themselves” was finally questioned in secondary VET. ECTS/ECVET relations contributed and still contribute to lots of misunderstandings and it is important for all national authorities to be clear about their intentions with regard the introduction of any additional credit system using credit points.*

1.4 ECTS/ECVET relations - lessons learnt from the discourse

The European credit transfer and accumulation system (ECTS) is based on the principle that credits reflect the workload of higher education students and that 60 ECTS credits are attached to the workload of a full-time academic year.\textsuperscript{58}

ECTS credit in higher education is a measure of workload and in fact it is time of learning bound or even content related. Furthermore, credits are linked to implicit belief that an adequate workload absorbed contributes substantially to the ability of learner. This comes true in particular in fields and courses at the frontier of knowledge, where it is not clear, in which direction to move further to achieve best results for the future. This is, however, not true for secondary VET, with very clear expectations set on graduate competences. There is naturally less space left for a future graduate to shape his/her own “qualification” in secondary VET compared to university studies.

In contrast to ECTS, ECVET credit points are to be related to qualifications represented by learning outcomes, with only indirect relevance to time of learning or content of learning. Even more, for those able to demonstrate learning outcomes required for respective VET qualifications, time of learning or content of learning is irrelevant.

Originally, full compatibility of ECVET and ECTS was pronounced: “ECVET will in the medium term be integrated with the European Credit Transfer System for higher education (ECTS).”\textsuperscript{59}

Introduction of ECVET was advocated by success of the Bologna process in introduction of credit system in higher education “from Lisbon to Vladivostok”. Decision on how qualifications should be linked to ECVET, their description in terms of units of learning outcomes and the allocation of ECVET credit points, was associated with “clear commitments

\textsuperscript{55} Ibid, p. 183-190.
\textsuperscript{56} Ibid, p. 191-193.
\textsuperscript{57} Ibid, Table 4 in the page 42 and Tables 23 and 24 in pages 167-169.
\textsuperscript{58} See more at \url{http://ec.europa.eu/education/lifelong-learning-policy/ects_en.htm} [cited 26.4.2012].
\textsuperscript{59} DGEaC document on “Principles and reference framework for implementation” dated 24.9.2004, p. 3.
from competent bodies and providers, formalised at the relevant levels in each country\textsuperscript{60}, similar to the one that “has been clearly demonstrated in the Bologna process for Higher Education where voluntary commitments have contributed to the widespread implementation of ECTS\textsuperscript{61}.

The initial enthusiasm however weakened and, gradually, concerns prevailed. Two serious problems emerged just within a consultation process. The first one was discrepancy concerning the number of credit points to be set as a standard reference - 120 or 60 credit points.

Interestingly, two documents with the same day of origin demonstrate this conflict of opinions: Commission staff working document accompanying proposal to Recommendation dated 9 April 2008 speaks about “the proposed reference figure of 120 credit points associated with learning outcomes achievable in one year of formal learning”\textsuperscript{62}, however, the Recommendation itself, also dated 9 April 2008 indicate that “60 points are allocated to the learning outcomes expected to be achieved in a year of formal full time VET”\textsuperscript{63}.

The second one, which is more important, relates to hesitation to accept allocation of credits points in secondary VET universally. Indeed, as already indicated, the difference in the learning environment within the tertiary and secondary VET must be taken into account when considering the credit points allocation. Freedom in selection of opportunities to learn related to credits is inherited to the tertiary education environment, as a consequence of recognised uncertainty of “what finally works” and finally turns a student to a professional. Within secondary VET, there is substantially less space for freedom, if any. The agreement on the core of learning outcomes to be achieved by a professional in secondary VET is much stronger and wider than in tertiary education. Employers look rather for standardised results with regard the secondary VET, in comparison to many university fields, in particular those with weaker links to professions.

Thus, not surprisingly, in course of time, the allocation of credit points lost its centrality within ECVET promotion. “Credits and credit points” gradually developed to a fully different instrument than envisaged, when the compatibility with ECTS and tertiary education was stressed: “ECVET points provide complementary information about qualifications and units in numerical form. They have no value independent of the acquired learning outcomes to which they refer and they reflect the achievement and accumulation of units.”\textsuperscript{64}

Credit points allocation, outside countries with national credit tradition\textsuperscript{65}, seems only to have an information role to play in the future. In such a case, credit points are dominantly seen just

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\textsuperscript{61} Ibid, p. 14.


\textsuperscript{64} Ibid, p. 21; the same wording was also used in Annex II of Recommendation of 18 June 2009, see http://eur-lex.europa.eu/Notice.do?mode=dbl&lng1=en,sk&lang=&lng2=bg,cs,da,de,el,es,et,fi,fr,hu,it,lt,lv,mt,nl,pl,pt,ro,sk,sl,sv, &val=497718:cs&page=&&hwords=null [cited 26.4.2012].

\textsuperscript{65} E.g. in the United Kingdom, see e.g. explanation about qualifications and credit framework recognising three types of qualification (awards, decrees and diplomas in terms of the amount of credit points) at
a relative measure indicating relative weight of learning already done by an individual, replacing traditional input data, e.g. numbers of teaching hours. Thus, a credit system can approximately indicate how “close” an individual is to acquiring the desired qualification. Furthermore, a risk of increased bureaucracy is feared by practitioners, when going beyond the mobility between partners. Hence, the ECVET is seen as an instrument with positives related to mobilities rather than an instrument in support of universal permeability: “Cross-border-approach” is preferred rather than “reform approach”.

ECVET seems to be seen dominantly as a complementary measure addressing mobilities, with credit points not having substance and thus a substantial value added. Both, accumulation of credits and transfer of credits remain learning outcome based, rather than credit points based. In contrast to original expectations, the transfer of learning outcomes within a unit does not necessarily entail the transfer of ECVET points.

Regardless of the confusion accompanying the ECVET initial context, ECVET related initiatives brought valuable practice often shedding the light in the fundamentals of the provision of VET. Thus, the national authorities’ task in responding the challenge created by international promotion of ECVET is undoubtedly more complex and includes clarification of appropriate national context for ECVET.

1.5 National authorities task

Member States were recommended in 2009 to promote ECVET and progressively implement it from 2012, based on principles and technical specifications specified in the aforementioned Annex II of Recommendation and to do so in full coherence with EQF as well as linked to Europass. The content of Annex II of Recommendation is summarised concisely below:

ECVET is based on

- **Units of learning outcomes** as “a component of a qualification, consisting of a coherent set of knowledge, skills and competence that can be assessed and validated with a number of associated ECVET points”;

- **Transfer and accumulation of learning outcomes**, facilitated by competent institutions empowered “to award qualifications or units or to give credit for achieved learning outcomes for transfer and validation”;

- **ECVET partnerships** aiming to provide “a general framework of cooperation and networking between the partners, set out in Memoranda of Understanding (MoU) through which a climate of mutual trust is established” between partners, in particular by accepting “each other's quality assurance, assessment, validation and recognition criteria and procedures as satisfactory for the purposes of credit transfer” and agreeing “on the


66 We make use here the ECVET Reflector study typology already mentioned above, see also Annex 1.


69 Ibid, p.15.

70 Ibid, p.16.
comparability of qualifications concerned for the purposes of credit transfer, using the reference levels established by EQF;\(^\text{71}\);

- **Learning agreement** concluded by the institutions involved in the training and validation process and the mobile learner, in the framework of a MoU, while the ‘hosting’ institution delivers training for the learning outcomes concerned and assesses the achieved learning outcomes and the ‘home’ institution validates and recognises learning outcomes achieved by the learner. It is crucial to understand that “validation and recognition by the competent ‘home’ institution depend on the successful assessment of learning outcomes by the competent ‘hosting’ institution, in accordance with the agreed procedures and quality assurance criteria;\(^\text{72}\);

- **Personal transcript** – “a document which details the learners’ assessed learning outcomes, units and ECVET points awarded”\(^\text{73}\);

- **ECVET points** “providing complementary information about qualifications and units in numerical form”; “allocations of ECVET points are normally part of the design of qualifications and units”\(^\text{74}\) and to enable “a common approach for the use of ECVET points, a convention is used according to which 60 points are allocated to the learning outcomes expected to be achieved in a year of formal full time VET”\(^\text{75}\).

A more detailed clarification of ECVET and the assistance to implementing ECVET is offered by two guidance documents elaborated in 2011\(^\text{76}\).

Users’ guide part 1 “Get to know ECVET better: Questions and Answers”\(^\text{77}\) contains definitions of fundamental terms (see Annex 3 of this study), explanations of key concepts and processes in the question-and-answer format (see Annex 4 of this study) in its part A. Furthermore, it presents the functions of competent institutions in part B and offers examples of applications of ECVET in part C illustrating concepts and processes addressed in part A.

Users’ guide part 2 focuses on using ECVET for facilitating the transnational mobility of learners. In addition to explanations of key issues in the main part, it offers valuable annexes: Explanation of functions of competent institutions in using ECVET in a transnational context in Annex A, a very practical check list (see Annex 5 of this study) of items to tackle before, during and after mobility periods in Annex B and two examples (from Finland and Germany) of learners’ mobility experiences in Annex C.

Nevertheless, as stressed in the previous subchapter, the national authorities’ task includes clarification of appropriate national context for ECVET: The crucial challenge for all national authorities can be formulated very simply:

- **Do you fully grasp ECVET in your national community?**
- **Do you support allocation of credit points? If yes, then with what functionality, and how do you see relations of ECVET to ECTS?**
- **What benefits of ECVET do you envisage and prioritise in implementation?**
- **Do you have the infrastructure needed to support the implementation of ECVET?**

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\(^{71}\) Ibid, p.16.

\(^{72}\) Ibid, p.16.

\(^{73}\) Ibid, p.17.

\(^{74}\) Ibid, p.17.

\(^{75}\) Ibid, p.17.


2. ECVET reflection in Slovakia

2.1 Consultation process

Opinion of relevant stakeholders on the objectives, principles and technical characteristics of the future ECVET system was collected before opening the approval process on the European level. Within the consultation process that took place in 2006-2007 stakeholders were invited to respond to questions, which were considered particularly important for the development of ECVET. A list of these questions is offered in the Annex 6. Some of these questions have remained relevant until now, as appropriate answers have not yet been found, or relevant processes suggested in 2007 have not started.

It is inevitable to go back to Slovak reactions to the consultation document and on consultation process questions as some of them must also be taken into account with the highest priority during the feasibility process. Slovak responses to questions raised by the European Commission were offered in the letter of the education minister dated 30 March 2007. The education ministry response showed restraint in support of ECVET, and, in particular, concerns regarding key renewal - the credit transfer based on allocation of credit points. In response to the question “What would be the main added value of the planned ECVET system?” it is clearly visible that a shift from content based to learning outcomes based VET and subsequent national qualification system renewal still remained a priority, as main value added of ECVET was seen in “detailed clear and exact processing of qualification units ... design of professional standards”. Similarly, in the response to the question concerning practical implementation of ECVET, “implementing the system into practice” was considered “quite unclear yet” and further comments referred to “description, validation and transfer of learning outcomes”. The international discourse on learning outcomes relevancy was seen more important than the core feature of ECVET. A shift to learning outcomes was accepted as the crucial change, but “this change need not to result in a credit system” according to education ministry. In the response to the question “Which criteria or combinations of criteria for allocating credit points could be selected and used?” a cautious attitude is also clearly expressed: “For the time being we do not attach primary importance to this question, as we prioritise the creation of units and the formulations of learning outcomes.” With regard to the timeframe of ECVET implementation, the response indicates reticence or unpreparedness of authorities for implementation: “At the moment hardly predictable success of national authorities” concerning implementation is stated and “some large scale reforms and transformation of education” were envisaged as precondition. Postponement of the final decision for the second phase was suggested, with experiments advocated for the first phase of implementation.

2.2 Experience from implementation

As already mentioned, there was only one project with Slovak participation (CREDCHEM) among the aforementioned pilot projects, but there were additional projects launched in the framework of Leonardo da Vinci programme.

Looking at international projects with Slovak partners (like EU-project, LdV partnerships, LdV mobility, LdV transfer of innovation and development of innovation) we have identified 28 projects with ECVET components and/or principles. The list of these projects is in Annex 7.

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Nevertheless, a detailed investigation has shown that some of projects just mentioned ECVET rather than addressed ECVET seriously and that some other touched it just slightly. There is also a specific case among them not speaking about ECVET, however working seriously on credit transfers and credit points allocation. Out of all 28 projects the following ones could be considered as projects where ECVET components are more substantially presented and at the same time experience have been already gathered:

- Developing and testing a Credit System enhancing mobility in the chemistry sector – CREDCHEM;97
- Implementation of e-learning content for energy saving farm into vocational education - ECEVEM (with Slovak contractor – Slovak University of Agriculture);82
- Modules for vocational education and training for competences in Europe II – MOVET II;83
- Transfer of innovative European concepts for training and certification in energy-saving construction methods, in order to make qualifications acquired in vocational and advanced training more transparent - Ko-Transfer;84
- Utilisation of European ECVET initiatives' results for the vocational fields of painting, varnishing and floristry - ECVET Ma-Flo;85
- Railway operation in ECVET - RAILVET;86

We will comment in more detail on two projects to present the ECVET reflection in Slovakia on crucial examples:

The CREDCHEM project was aimed at implementation of ECVET principles capitalising on a German initiative called DE ECVET (http://www.decvet.net). It brought a valuable experience in formulation of learning outcomes and design of units related to qualification and practical training of laboratory professionals in the chemical sector. Methodology of developing units of learning outcomes necessary for mastering typical work tasks was similar to other project under the German lead SME Master Plus (http://www.sme-master.eu/). Nine units of learning outcomes have been identified. All learning outcomes of a unit were generalised in a matrix. Learning outcomes were described in terms of knowledge, skills and competences with three levels of competences (1. To follow working instruction; 2. Carrying out problem-oriented task; 3: To optimise methods / procedures). Examination tasks corresponding to learning outcomes were also elaborated.

The CREDCHEM project has not focused on credit points allocation, only very simple operational framework was adopted: 100 points are allocated to the qualification as a whole per definition, while respective units equal in total 100 points (in fact percentage distribution was applied).

Significantly, project major contribution related to learning outcomes analysis accompanied by examination tasks and to mobility technique. With regard to mobility, the project offers concrete examples of important documents. Memorandum of Understanding (see Annex 10),

Learning agreements (see Annex 11) and Europass Mobility documents (see Annex 12) were elaborated thoroughly showing the way to mastering the logistic and the process of establishing common truth necessary for successful mobility and transferring credits.

The MOVET II project\(^{88}\) addressed the issues of transparency and recognition of learning outcomes by analysing common learning outcomes from national curricula. It capitalised on the experience from the earlier MOVET I project and of the very successful Leonardo da Vinci projects Vocational Qualification Transfer System I, II\(^{89}\). The previously developed Vocational Qualification Transfer System (VQTS) model\(^{90}\), in particular its competence matrix approach describing work-based competences broken down by competence areas and levels of competence development were used\(^{91}\).

The competence matrix facilitates creation of training modules. In total 7 modules were developed, one of which, a CNC module, by the Slovak partner. A taxonomy table according to format of Buchalik\(^{92}\) has to be elaborated to each module. The original learning objectives taxonomy of Bloom modified by Anderson and Krathwohl\(^{93}\) was adjusted to specific needs of vocational education by Buchalik making use of dimensions of vocational operational knowledge of Schelten (factual, casual, procedural and conditional knowledge)\(^{94}\). The taxonomy table\(^ {95}\) facilitates a precise clarification of learning outcomes through definition of the type and depth of learning. It offers an overview of categorisation of respective knowledge dimensions (factual, casual, procedural and conditional knowledge) and cognitive process dimensions related to respective learning outcomes\(^ {96}\). The project also focused on practical approaches to ECVET within mobility, like setting up ECVET partnerships, assessment and

\(^{88}\) See [www.gomovet.eu](http://www.gomovet.eu) [cited 26.4.2012].

\(^{89}\) See [http://www.vocationalqualification.net](http://www.vocationalqualification.net) [cited 26.4.2012].


validation of learning outcomes based on “Memorandum of understanding”, “Learning agreements” and “Certificates on learning outcome achievement”.
These two projects offer examples of mobility related logistics, but what makes them special and particularly important, they offer alternative know-how of learning outcomes bound analyses. Both “German” and “Austrian” approaches offer experience worth studying and, maybe, also mainstreaming.

2.3 Opinions of stakeholders

In March 2012 we addressed the Slovak stakeholders and partners from ECVET projects (including inter alia partners from four important projects mentioned above) with an interview, to provide, based on own experience, their opinion on implementation of ECVET within their projects and in Slovakia as a whole. A list of addressed experts providing their response is in Annex 13. Here are the main results wrapped up reflecting the stand points of three groups:

Reflective practitioners from VET providing institutions welcomed the opportunity to share experience. They appreciated in particular those components that were related to curriculum and programming VET. Here are typical examples of answers indicating benefits:
- “The most important precondition for ECVET implementation is a in-depth analysis of the content of education in related programme, setting modules … developing graduate profile in respective programme”97;
- “Gradual abolition of unnecessary and useless teaching units and focus on modular teaching with clearly defined learning outcomes that are measurable and comparable in the EU”98;
- “Sharing experience, methodologies of teaching vocational subjects and practical exercises in comparing levels of individual students in these disciplines under a common European concept of a matrix of knowledge, experience and practical skills”99.

They appreciate identification of learning outcomes based on curricular analysis.

People from businesses, in contrast, stress qualification related benefits:
- “… the greatest benefit would be to clearly define qualifications that could help the assertion of learners into the labour market”100; and also
- “in achieving common understanding of working positions and respective tasks to do in respective working positions in each EU Member State; using identical names to the same occupation Europe-wide; and especially to agree on skills needed for the working position”101.

Significantly, all the aforementioned opinions indirectly indicate that the core of ECVET activities is related to a “shift to learning outcomes”. In fact, ECVET is seen as vehicle for learning outcomes identification and analysis, which is considered the crucial benefit: “The most important is the work on defining learning outcomes.”102 This practised methodologist with direct experience with ECVET considers this a long-term task and therefore has estimated that positive results from ECVET implementation could be visible in a 10-year horizon.

97 Interview No. 9.
98 Interview No. 8.
99 Interview No. 10.
100 Interview No. 1.
101 Interview No. 1.
102 Interview No. 16.
Going beyond learning outcomes is seen less important and the credit system for secondary VET is questioned:

“The credit system requires a certain degree of maturity of the learner (and this rather applies to university studies). Therefore, it would take quite a long time the lay public could accept this system for secondary education.”

In contrast to both aforementioned categories, administrators and policy makers focused more on the ECVET system per se. However, their positions are therefore even more sceptical:

- “I think to a large extent justified ... fears concerning opening of formal system to non-formal alternatives ... as now we cannot ensure or measure the quality of outcomes of non-formal education or their acceptance by potential employers”;
- “ECVET implementation currently threatens the quality of formal VET and therefore we propose to focus exclusively on mobility”.

Despite reluctance towards ECTS/ECVET parallel, so loudly promoted by the European Commission, there is no reluctance towards participation at ECVET activities. ECVET initiative can

- “support transparency and cooperation of experts and providers of education and training”;
- (develop to an) “... an impetus for renewal and the transformation of the national system of qualifications ... (in Slovakia)”;
- (contribute to) “...removing inconsistency within national qualification systems and facilitating their interconnection into a unified European Qualification Framework”;
- “create an instrument in support of mobility”.

Hence, there is much more positive attitude towards ECVET stressing “cross-border-approach” than the “reform approach”. Here are two examples of statements concerning mobilities from representatives of project administrators, one positive and one rather sceptical:

- “I see benefits especially in supporting mobility, and therefore for schools, but also to promote internationalisation ... (and) ... strengthening the European identity. From the student’s perspective, it is a good option for gaining experience in a different environment, especially with another technology that is not available in a sending school. It also promotes linguistic diversity and strengthens the language skills in the professional field”.
- “I personally think that if ECVET is intended solely for recognition of the mobility of students as part of secondary VET education, then this is much ado about nothing. About 1% of students involved do not give sufficient reason for such extensive changes ...”.

And this is the voice from a school with deep experience with ECVET, and typical for the country suffering from low investment in equipment:

"Students ... within mobility acquired skills and competences that they would not have been able to acquire otherwise due to a lack of financially demanding equipment in school.”

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103 Interview No. 8.
104 Interview No. 2.
105 Interview No. 3.
106 Interview No. 3.
107 Interview No. 4.
108 Interview No. 4.
109 Interview No. 11.
110 Interview No. 4.
111 Interview No. 2.
112 Interview No. 14.
113 Interview No. 14.
Very pragmatically, it is seen as an advantage for their graduates in both admission to higher education and entering labour market, and the value added of their ECVET project. Unpreparedness of Slovakia for following the “reform approach” is documented by the opinion of two Slovak international experts:

“The biggest problem is that there are neither learning units nor modules here … There is no National Qualification Framework and no national quality assurance system”\textsuperscript{114};

“There are no learning outcome based qualification standards and, consequently, no assessment standards elaborated yet … and there is no institutional backing … it makes no sense to deal with ECVET until we are able to ensure trustworthiness and quality of education … that our VET is acknowledged as a quality system”\textsuperscript{115}.

2.4 Where we seem to stand in Slovakia in 2012

The credits allocation and subsequently also accumulation and transfer functions of ECVET credit points is questioned. Some positive features of ECVET are recognised, however in support of mobility rather than with regard to the reform in qualification practice. Too far going flexibility in learner’s choice of modules and units is feared, as it can result in undermining national qualifications truthfulness. The transparency and mutual trust, the inevitable conditions for transferring credits across systems, are indeed easier to achieve between cooperating institutions with a long history of cooperation in mobilities.

To be able to recognise credit from a different system and putting ECVET in place in a wider sense going beyond the mobility, time consuming and demanding analyses must be done concerning relevant qualifications:
- Are these qualifications comparable?
- What learning outcomes do they have in common?
- How are learning outcomes delivered and the quality ensured?
- How is the quality of learning outcomes assessment ensured?
- What are the assessment criteria and is the assessment acceptable by national authorities?

It must be stated here that these tasks are very hard to respond in particular under conditions in Slovak VET system, where the shift from content based to learning outcomes based education and learning is far from being completed. Furthermore, renewal of the national system of qualifications, its learning outcomes based transformation and alignment to the European Qualification System is still not completed. The long-term awaited National System of Qualifications (NSQ) related ESF project is still pending. The only progress visible in some relation to establishment of NSQ is in the labour sector with setting of the National System of Occupations in progress. It is however only partly relevant for those aiming to discuss learning outcomes of some particular qualification within an international discourse and comparison.

Furthermore, no experience is gathered concerning ensuring the quality of learning outcomes assessment. A detailed discussion on assessment procedures is therefore needed and recommendations for specialists responsible for learning outcomes assessment must be elaborated. One of ways is indicated in the guidelines written by GHK consulting, resulting from the experience of the aforementioned ECVET pilot projects:

- focus (e.g. assessment of each learning outcome separately, of parts of a unit, of the whole unit);
- methods (e.g. test, observation, portfolio);
- instruments (e.g. assessment grids);
- type (formative, summative);

\textsuperscript{114} Interview No. 13.
\textsuperscript{115} Interview No. 15.
- context and conditions (e.g. kind of tasks to be carried out; real working environment or workshop at school; material and tools to be used; timing and duration);
- identity of assessor (e.g. qualifications, profiles and functions - teacher, trainer, tutor in the company);
- quality assurance of the assessment process.”

Lagging behind in development compared to the countries intensively participating on international discourse on the Copenhagen process also causes scepticism concerning ECVET implementation in Slovakia:

- “The expectations related to ECVET are very high. Whether it's increasing mobility within the EU, quality and attractiveness of vocational education, cooperation in education across the EU, the transparency of qualifications, linking education with labour market requirements and increasing flexibility of education systems through diversification of ways, leading to a qualification”;
- “Expectations are, in my view, too big. Since Slovakia on this subject started to speak, nothing much was done ... It is therefore necessary to intensify work at national level to achieve the expected impact associated with ECVET”.

Not only countries with a limited experience with ECVET (and other European activities related to the Copenhagen process), as Slovakia so far, but also “big” VET nations try to find a specific way to ECVET. Peter Thiele expressed for some people a quite radical attitude, comparing ECVET to a “menu” offering alternatives for countries to select what is appropriate for national VET system. The less radical stance, however indicating the importance of narrowing the original ECVET initiative and putting it on a voluntary basis with regard to some crucial features, was expressed by the Slovak National Observatory of VET during the consultation process.

3. How to proceed with ECVET in Slovakia?

3.1 Current Slovak position assessment

We have indicated in subchapter 1.5 four crucial questions national authorities must answer before taking decisions on implementing ECVET. Here are these questions answered for Slovakia:

Do you fully grasp ECVET in your national community?

There are only very few experts in Slovakia that follow international discourse on ECVET and are knowledgeable about ECVET related documents. Very often only fragmented

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117 Interview No. 5.
118 Interview No. 1.
119 Peter Thiele’s (German Federal Ministry of Education) intervention at the ECVET Pilot Projects – 2008-2012 - Final Conference ’We have tried ECVET: Lessons from the first generation of ECVET pilot projects’, held in Brussels, 22-23 February 2012.
120 In its opinion letter dated 9 March 2007, the Slovak National Observatory of VET, a ReferNet unit, definitely rejected the parallel between ECTS and ECVET and recommended narrowing the focus of ECVET and to proceed with caution with ECVET implementation and to collect experience from identifications of learning outcomes and transfer of credits in terms of learning outcomes only.
knowledge was acquired and sometimes general rhetoric on ECVET dominated over its reflection. Thus, there is no shared understanding of ECVET within the VET community yet. Thus, the most important first steps of Lifelong Learning Programme: National Team of ECVET Experts 2012-2013\textsuperscript{121} are to train people and achieve “common understanding of the ECVET issue”.

*Do you support allocation of credit points? If yes, then with what functionality, and how do you see relations of ECVET to ECTS?*

We believe, with some others, that there is no essential value added stemming from credit points allocation to respective learning compared to earlier initiative introducing the shift from content based to learning outcomes based education/learning. We believe that learning subjected to analyses in terms of appropriately identified learning outcomes is the crucial achievement all authorities and researchers need to focus on and that credit points allocation is of marginal importance compared to the learning outcomes discourse and analysis. We do not see it important to deal with relations of ECVET to ECTS as we consider them essentially different rather than naturally compatible. Furthermore, we do not consider this issue acute for the Slovak VET system, as the translation between EQF levels 5 and 6 is not a crucial topic to solve within VET in Slovakia.

*What benefits of ECVET do you envisage and prioritise in implementation?*

Qualifications analysis is urgently needed in Slovakia. While there is some progress in preparing the National System of Occupations and competence based programming of VET, there is even no specialised platform for meeting experts working on learning outcomes based qualifications created. Thus, ECVET projects offer valuable opportunity to study international know-how and to work on identification of learning outcomes at least for some qualifications or segments of qualifications.\textsuperscript{122} Thus, ECVET can contribute to bottom up reforming of the current qualification system, putting stress on identification of learning outcomes and appropriate assessment tasks. This is a very demanding task per se, and there is a question, why to go beyond this. Why not to recognise credits based on learning outcomes solely, without taking care about credit points to be allocated to them?

In contrast to qualification analysis that is not a genuine contribution of ECVET per se, supporting mobilities can be seen a specific value added related to ECVET. Both international and intra-national mobilities can build on formalisations developed under ECVET. Although we do not consider it inevitable to base all mobilies on ECVET methodology, it should be made available for using for those interested in it. Nevertheless, and again, transfer of learning outcomes rather than transfer of credit points is seen crucial.

*Do you have the infrastructure needed to support the implementation of ECVET?*

There is neither a large enough pool of experts available, nor an institution ready to substantial breakdown. Any further progress in ECVET requires institutional support for reforming qualifications and establishment of the National System of Qualifications. Although establishment of a National Qualification Authority was suggested in the 2010 strategy paper\textsuperscript{123} commissioned by the government, no substantial progress was achieved.

\textsuperscript{121} Elaborated and submitted for approval by Slovak Academic Association for International Cooperation.

\textsuperscript{122} Two examples were identified as important for transfer and commented earlier: Projects CREDCHEM and MOVET II.

It is hoped that the aforementioned Lifelong Learning Programme: National Team of ECVET Experts 2012-2013 will pave the way for both
- agreement on core features of ECVET implementation in Slovakia (National framework);
- infrastructural backing processes in support of ECVET and gradually ECVET implementation following the agreed national framework.

Furthermore, it is also up to national authorities to streamline the National Europass Centre support for institutions involved in mobilities by provision of more focused assistance in issuing Europass mobility documents and to strengthen the work of national reference points and EQAVET-EQF-ECVET cooperation. Coordination between the European tools: EQAVET, ECVET and EQF in Slovakia is still weak, despite the fact that this is seen a priority at the international level.124

After discussing ECVET reflection on both European and Slovak national levels it is time to indicate what is considered relevant and what is suggested for implementation, i.e. to set a national framework for ECVET.

3.2 ECVET National Framework for Slovakia

According to official documents ECVET is based on transfer and accumulation of learning outcomes contained in units of learning outcomes. A unit is defined as “a component of a qualification, consisting of a coherent set of knowledge, skills and competence that can be assessed and validated with a number of associated ECVET points”125.

The crucial point of ECVET policies can be formulated as follows:
What should be the common currency concerning transfer and accumulation of credits aimed at acquiring qualification? Credit points, credits related to learning outcomes or units of qualifications?

In concord with earlier comments we do not recommend to seek for the establishment of ECVET system considering credit points a common currency. Furthermore, we reject the promotion of the parallel between ECVET/ECTS credit systems as artificial and risky due to the essential difference between functions of credits envisaged for VET and those successfully applied at universities.

Credit points allocation can however adopt an information role in the future, if required by clients and practitioners. As already mentioned earlier, in such a case the credit points are dominantly seen just a relative measure indicating a relative weight of learning amounts already achieved by an individual, and thus indicating approximately how “close” he/she is to achieving the desired qualification.

Transparency, comparability and recognition of qualifications can be better supported by credits based on learning outcomes and gradually, if appropriate, on units of qualification.

Thus, an ECVET implementation crucial prerequisite is the existence of an agreement on learning outcomes as components of qualifications. There is no such thing yet in Slovakia. There are general descriptions of qualifications, but there is no “coherent set of knowledge, skills and competence” describing respective qualification. There is no National System of Qualifications created in Slovakia based on learning outcomes, not speaking about decomposition of qualifications into units of qualifications.

124 A joint seminar of the three networks: ‘Assuring the quality of VET qualifications – The contribution of EU tools to the definition and re-definition of learning outcomes based standards’ was held on 14 and 15 November 2011 in Bonn; see http://www.eqavet.eu/gns/what-we-do/joint-seminar.aspx [cited 26.4.2012].
This is also why learning outcome based analyses and working on agreement on learning outcomes between respective players was seen a dominant benefit within the ECVET related international projects.

Thus, the following are statements marking the ECVET National Framework for Slovakia:

1. Slovakia is unprepared for wide ECVET implementation and incorporation of ECVET into qualification acquirement due to a pending reform of current qualification systems and non-existence of commonly agreed learning outcomes bound to respective qualifications units across sectors and education levels;
   1.1 Creation and agreement on learning outcomes is the first prerequisite for at least partial implementation of ECVET;
   1.2 Assessment of learning outcomes must be rethought and respective instruments developed for creation of the bank of assessment instruments, permanently enriched and adjusted in accordance with stakeholders;
   1.3 Creation of the National System of Qualifications building on the experience from the ongoing process of establishment of the National System of Occupations is the best way to progress;
2. We strongly recommend supporting implementation of ECVET with learning outcomes and not credit points as the transfer “currency”;
   2.1 We do not recommend to set a universal credit points allocation policy, thus to go beyond identification of learning outcomes;
   2.2 Only voluntary activities aimed at credit points allocation in particular concerning mobilities with countries with VET using transfer of credit points are seen as justified;
3. Efforts aimed at identification of learning outcomes and discussions of experts on learning outcomes are a value per se;
   3.1 Discussing learning outcomes contributes to better understanding of qualifications and learning leading to acquiring these qualifications;
   3.2 Existence of qualifications without inner structure of units and existence of modules of training with difficulties to align them to specific learning outcomes must be therefore recognised and “holistic” modules and approaches in education and training accepted;
4. Institutional support for recognition of informal and non-formal learning based on learning outcomes validation and recognition must be established, serving also for learning outcomes transfer and accumulations within formal learning;
5. We do not see the compatibility and complementarity between ECVET and ECTS as a hot issue, and the facilitation of interaction of two credit systems as a priority;
   5.1 We consider ECVET and ECTS related learning environments substantially different regarding the credit points’ functionality (the first one learning outcomes based, while the second one inherently also workload and content based);
   5.2 It is not acute to deal with ECVET and ECTS interaction also due to a pending decision on relations between post-secondary higher professional education level and the Bachelor level (and if appropriate, vertical permeability between the two levels);
6. ECVET own contribution to supporting mobility and lifelong learning can be undoubtedly seen in elaboration and testing ECVET technical components;
   6.1 Elaboration of the Memorandum of Understanding (to strengthen partnership), Learning agreement (to clarify purpose of the mobility), and Learners’ transcript of record (to facilitate credit transfer) should be mainstreamed, however, extensive bureaucracy prevented;
   6.2 National Europass Centre support for institutions involved in mobilities by provision of more focused assistance in issuing Europass mobility documents must be secured and
facilitate preparation of both Learning agreement and Learners’ transcript for mobilities directly contributing to qualification acquirement;
6.3 Not all mobilities must follow ECVET technicalities. It is important to prevent from unnecessary administrative load, learning agreement should be however seen as obligatory for all mobilities, including those not envisaging credit transfer.
7. Strengthening the work of national reference points and achieve coherence in EQAVET-EQF-ECVET activities is a precondition of capitalising from international experience;
7.1 Quality assurance of the assessment process must be rethought. Assessment procedures\textsuperscript{126} for assessment of individual learning outcomes separately, or of parts of units, or of the whole qualification units, must be clearly set;
7.2 Alignment of Slovak qualification system to EQF that should allow the comparison and easier understanding of different qualifications also envisages learning outcomes based analysis of qualifications.

4. Feasibility factors assessed

4.1 System feasibility (including clarification of requirements)

The ECVET reflector study put on the table two important impulses for Slovak stakeholders and we formulate two challenges for the Slovak VET in the Reflector study vocabulary as follows:
Slovakia was a country belonging to the “holistic loner” group in 2006 with a degree of ECVET-readiness assessed as “low” (see the Annex 1) moving slightly towards “holistic internationalist” group features as a consequence of reforms introduced since then. Nevertheless, this transition is controversial and needs a revision. In particular, the sets of knowledge, skills and competence, which must be acquired for respective qualifications, must be reviewed and agreed. Even more, clearer goals and priorities of VET system must be stated. Revision of qualifications and creation in cooperation with employers of National System of Qualifications encompassing qualifications and partial qualifications across sectors is a crucial priority from our point of view.
Furthermore, Slovakia must decide which of the two aforementioned approaches (“cross-border-approach” or “reform approach”; see Annex 2) is better fitting the current Slovak VET terms and which one is more supported by Slovak stakeholders. Currently, “cross-border-approach” is more appropriate; however “reform approach” interlinked with creation of the learning outcomes based National System of Qualifications should be envisaged from our point of view.
Thus, there is no “coherent set of knowledge, skills and competence that can be assessed and validated” related to respective qualification that can be subsequently subjected to “transfer and accumulation”. Furthermore, there are no units of qualifications. All this hampers “transfer and accumulation of learning outcomes”, as they must be identified first. There are only two proxies available: New competence based curricula and a partly completed National System of Occupations (NSO), which however cannot fill the gap sufficiently.
Firstly, there are competence based curricula with a “profile” of graduate and key, general and vocational competences identified. Description of these competences is complemented by sets of content standards, performance standards and assessment standards.

\textsuperscript{126} See the aforementioned guidelines “Assessment of learning outcomes in the context of ECVET implementation for transnational mobility” written up by GHK Consulting based on experience of eleven ECVET pilot projects, at \url{http://www.ecvet-projects.eu/Documents/Note%20on%20assessment%20revised.pdf} [cited 26.4.2012].
Although vocational competences encompass “knowledge, skills and personal abilities” and can be seen similar to learning outcomes their direct affiliation to particular qualification can be questioned. They dominantly refer to study programme and its learning objectives. Qualification is, according to declaration, contained in state curricular documents (so called state educational programmes) officially recognised complying with content, performance and assessment standards. In contrast to first two standards, assessment standards are not yet fully completed. There are some recommendations concerning this rather than agreed instruments available.

Secondly, there are descriptions of occupations being developed within the preparation of the National System of Occupations, containing identifications of “vocational skills”, “vocational knowledge” and “general abilities” required for “typical working position” related to respective occupation.

Thus, there is information about requirements from employers gathered to feed NSO (or precisely the system of working positions manifested on the labour market), but this is only a valuable prerequisite for subsequent normative setting of requirements (in terms of learning outcomes) related to respective qualification (covering some working position, or more positions, or a mix of several working positions requirements).

Furthermore, there are also new curricular documents based on agreements with representatives of employers, however, more broad and not addressing specific “working positions” as the NSO does. There is natural difference between achieving “content and performance” standards, still primarily linked to education and, in essence, permanently at risk of lagging behind labour market requirements. In fact, recognised changes in working positions requirements translating into redefinition of qualifications should also translate into curricula.

The National System of Qualifications should also become a crucial source of curricular changes and therefore non-existence of transformed learning outcomes based NSQ raise questions about validity of new curricular documents (state educational programmes).

Working on NSQ can also essentially contribute to discussion on learning outcomes. It must be stressed that there are different contexts within which the term “learning outcome” is used in the discourse. Therefore, it is necessary to stress that when speaking about learning outcomes it must be always clarified whether they refer to qualifications description, curriculum designing, programmed results of learning of graduates, or individual results of learning. Slovakia needs to clarify using the term “learning outcome” in experts’ discourse127 and it must redefine its policies towards the technique of requirements descriptions within the Outcome Requirements Triangle128:
NSO (tasks to perform based outcomes) – NSQ (learning outcomes) – state educational programmes (curriculum referred outcomes that should be rather named learning objectives).

To summarise:
1. Slovakia faces an urgent task to renew current qualification systems sectors-wide and to create the learning outcome based National System of Qualifications;
2. Slovakia must urgently find an agreement on know-how on learning outcomes identification, formulation and assessment.

4.2 Operational feasibility (including scheduling and capacity building)

It is not possible to fully implement the ECVET system as envisaged and recommended by European documents. Acceptance of the ECVET National Framework suggested earlier can

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127 See explanations of diverse contexts, within which the term “learning outcome” is used in Annex 8.
128 See Annex 9.
pave the way to adoption of the strategy aimed at reduced ECVET implementation and broken in two phases.

Implementation of ECVET according to the ECVET National Framework

<table>
<thead>
<tr>
<th>Phase 1: Focusing on cross-border mobility</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current status</strong></td>
</tr>
<tr>
<td><strong>Suggested goal</strong></td>
</tr>
</tbody>
</table>

**Description of activities**
Implementing ECVET as an instrument for cross-border credit transfer aimed at making mobility more system inclusive. Learning outcomes identification and learning agreements should be in focus. The credit points allocation, universally valid and recognised, is not supported. Credit points allocation information role can be however voluntarily investigated. Credit points allocation is only seen as exception and left up to partners in mobility to decide about credit points using – however without relevance to the Slovak qualification system.

Bottom up activities should be supported bringing results with the end of activity or project. Mainstreaming should be supported by authorities and good practice examples collected and presented in the dedicated website.

<table>
<thead>
<tr>
<th>Start of implementation</th>
<th>Immediately.</th>
</tr>
</thead>
</table>

**Capacity building 1**
Strengthening National Europass Centre support – reviewing current practice, compare with advanced countries and suggest improvement

Expected result: Issuing ECVET documents (see example of Learning agreement used in project CREDCHEM in Annex 11) and Europass mobility documents (see example used in project CREDCHEM in Annex 12) must be harmonised in order to prevent from excessive paperwork and double work.

**Capacity building 2**
Training of staff in schools concerning issuing paperwork based on guidelines mainstreaming good practice and capitalising on results of Capacity building 1.

**End of Implementation**
Permanent process with the first version of national format agreed within two years (2014).

**Follow up options**
Making use of the experience for supporting intra-national mobility, in particular mobility of trainees from regular schools to Centres of VET established according to Act on VET.

<table>
<thead>
<tr>
<th>Phase 2: Focusing on VET system permeability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current status</strong></td>
</tr>
<tr>
<td><strong>Suggested goal</strong></td>
</tr>
</tbody>
</table>

26
Description of activities
Implementing ECVET as an instrument for identification of learning outcomes for respective qualifications or units of qualifications, thus, for creation of pending NSQ as the crucial prerequisite for improving permeability. Experience gained from learning outcomes identification, in particular from diverse methodologies (see e.g. examples from projects CREDCHEM and MOVET) should be evaluated in order to find the best approach towards learning outcomes identification for NSQ creation. Credit points allocation national policy is not recommended.

Start of implementation
Immediately by launching NSQ project.

Capacity building 1
Informing policy makers on ECVET principles and ECVET National Framework for Slovakia to reach agreement on implementation.

Capacity building 2
Training stakeholders on ECVET National Framework for Slovakia.

Capacity building 3
Training experts and reflective practitioners on learning outcomes identification based on previous agreement on the methodology of identification of learning outcomes of NSQ, in particular the level of details in their expression (see also Annexes 8 and 9).

Capacity building 4
Training experts on achieved learning outcomes assessment procedures based on the agreed rules.

Capacity building 5
Establishing National Qualification Authority responsible for designing and awarding qualifications or recognising units.

Capacity building 6
Establishing institutional infrastructure for validation and recognition of prior learning based on assessment, validation and recognition of learning outcomes under the agreed rules.

End of implementation
With law amendments and bylaws done and validation and assessment methodology guidelines informing on agreed rules issued.
Legislative phase doable till the end of 2013.
Effective know-how adoption and functional system based on agreed rules not before 2015.

Follow up options
Making use of the experience from working on learning outcomes and NSQ for revision of national curricula. See “Outcome Requirements Triangle in VET” in Annex 9.

4.3 Financial feasibility (including cost/benefit analysis statements)

Slovakia failed to make use of European structural funds to support systemic changes in VET. No project in support of European tools, developed in response to the Copenhagen declaration, was launched in the education sector. The only Copenhagen declaration relevant ESF systemic project is in progress in the labour sector aimed at creation of the National System of Occupations. This is why the country is lagging behind in development compared to other similar countries and therefore it needs a strong impulse for change.
The following are the key cost/benefit related statements of this study:
1. Implementation of ECVET can be beneficial provided it follows the ECVET National Framework (see subchapter 3.2).
Adoption of ECVET National Framework eliminates negative impacts of original ECVET philosophy through accommodation of Slovak VET needs as well as reducing risks seen by some stakeholders and interviewees in endangering the delivery of formal VET. ECVET implemented according to the ECVET National Framework is seen beneficial to:
- individuals looking for quality VET and flexibility in ways to qualifications;
- to VET providers looking for experience exchange/sharing concerning flexibility in provision of VET;
- for authorities, to gain a momentum for reforming the VET system:
  o creation of the learning outcomes based National System of Qualifications; and
  o introduction of recognition and validation of prior learning;

2. To cover costs of ECVET implementation different approaches for Phase 1 focusing on mobility and Phase 2 focusing on reform are suggested;

2.1 Covering costs for implementing ECVET focusing on mobilities means to cover costs for mobilities themselves and to cover costs of the work of project leaders and project experts working on mobility documents. More mobilities are covered more experience for mainstreaming can be collected for implementing the future VET reform. To cover costs of work done by VET providers involved in mobility projects funding must be substantial. Complementary to this source, their work should be recognised as contributing to professional development of staff according to Act No. 317/2009 Coll. on Pedagogical Staff and Professional Staff and it should result in financial benefit. It is worth stressing that a genuine national policy in support of mobility together with explicit allocation of budget is inevitable to secure gaining experience in amount necessary for mainstreaming and creating conditions for systemic changes and translation to Phase 2;

2.2 Reforming VET to increase its permeability is very costly, as can be seen from developments in similar European countries. The first two preconditions introducing paradigmatic change:
  o creation of learning outcome based National System of Qualifications;
  o identification and alignment of assessment tasks to respective learning outcomes; should be covered by ESF. Attracting experts from businesses knowledgeable about the world of work and able to learn and willing to understand the world of education and vice versa, and paying them accordingly, is fundamentally important. A pool of experts from both education and business sectors and know-how for learning outcome based transformation must result from the project equivalent in its goals and budget to NSQ projects carried out in the Czech Republic. Capitalising from the Czech experience with NSQ and the Slovak NSO project, this ESF project can cover all substantial initial costs. Subsequent refinements in NSQ can be covered by regular institutional means and regular projects operated on the annual basis, provided the aforementioned pool of experts is stabilised and its existence is sustainable.

4.4 Legal feasibility

The most relevant legislation regulating VET and LLL are:
- A1: Act No. 568/2009 Coll. on Lifelong Learning
  This act was expected to play a fundamental role by aligning CVET/LLL to the National System of Qualifications (NSQ) and by supporting CVET/LLL in all settings. Respective bylaw setting the NSQ is still pending;
- A2: Act No. 184/2009 Coll. on Vocational Education and Training
  This act introduced the new governance of VET allowing for direct intervention of non-educational stakeholders, in particular employers represented by professional associations and chambers, into IVET;
- A3: Act No. 245/2008 Coll. on Upbringing and Education (Education Act)
  This act defines fundamentals of regional schooling including stipulation of levels of
  education aligned explicitly to ISCED levels. The most important bylaws that could be
  affected by ECVET are as follows:
  - D1: Decree of the Ministry of Education No. 282/2009 Coll. on Secondary Schools;
    this decree also includes the list of types of VET schools, lists of programmes (study
    and training branches), and the list of sectoral professional organisations responsible
    for the respective fields of study;
  - D2: Decree of the Ministry of Education No. 318/2008 Coll. on Completion of Study
    at Secondary Schools;
  - D3: Decree of the Ministry of Education No. 326/2008 Coll. on Types and
    Appropriate Characteristics of Certificates and Other Documents including the Ways
    of their Registration and Storage;
  - A4: Act No. 317/2009 Coll. on Pedagogical Staff and Professional Staff
  This act established rights and duties of teachers, trainers and other learning facilitators,
  qualification requirements for these professions as well as assessment of their
  performance. It introduced a new model of continuing professional development based on
  acquisition of credits translating into financial benefits or career path progression.
ECVET National Framework for Slovakia operationalisation suggests two phases of
implementation. Levels of regulations are tabled below.

<table>
<thead>
<tr>
<th>Phase 1: Focusing on cross-border mobility</th>
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<tbody>
<tr>
<td>Current status</td>
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<tr>
<td>Level of regulations needed</td>
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<tr>
<td>Content of guidance and recommendations</td>
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</table>
creation of future NSQ. Any regulation is premature in this period of collecting experience. Support in a form of meta-analysis and promotion of good practice on the national level, resulting in guidelines in the future, is more important. The National ECVET Point can be inspired by the NetECVET dedicated website (http://netecvet.com/).

With the increase in number of mobilities a measure addressing legal aspects of foreigners’ stays in Slovakia and facilitating respective administration should be envisaged.

3. Qualification system inherent mobility. In contrast to previously addressed mobilities that are in essence considered a business of two partners, system inherent mobilities should be gradually recognised. This kind of mobilities will require legislative background. Any kind of mobility remains solely the business of partnership until NSQ is created and VET reform (see Phase 2) is in substantial progress.

| Optional regulations          | 1. Act No. 317/2009 Coll. amendment should add community project related (including ECVET) activities with clearly identified products as eligible for awarding CPS credits. |
|                              | 2. Sectoral regulations can be issued ad hoc in support of recognition of certificates issued abroad until a systemic NSQ based regulation is done. |

Phase 2: Focusing on VET system permeability

| Current status                  | Permeability very low. No dead end problem in path, however, recognition of prior learning almost impossible without extensive periods of additional formal training. Framework legislation aimed at validation of prior learning partly done by the Act on LLL. However, without pending bylaws and creation of NSQ without impact. Legislative vacuum endangering starts of new businesses in some crafts for people without formal training in the required field. Both Act on VET and Act on LLL subjected to revision soon. |
| Level of regulations            | Amendment of all aforementioned acts A1 – A4 as well as decrees D1 – D3 are needed. |
| Content of regulation           | NSQ is not just an information source serving to better inform inhabitants about qualifications and ways leading to them, and it is not just an administrative instrument aimed at overarching sectoral administrative diversity in awarding qualification. Creation of NSQ must be seen as an important VET reform step as it envisages agreements of stakeholders on representing qualifications by sets of learning outcomes. This requires cooperation of social partners, in particular national authorities (ministries) and professional representatives of employers. This should be ensured by the amendment of Act on VET stipulating responsibility of social partners towards establishment and maintaining (renewal) of NSQ to correspond as much as possible to labour market demands for skills and comply with technological progress. The Act on VET should also highlight the central role of NSQ (currently only backed by the Act on LLL) for IVET. |
The Education Act does not impose direct obstacles for applying ECVET, however, it does not signal opportunities for transfer and accumulation of learning outcomes based credits. Creation of modules in provision of VET should be explicitly stressed as a facilitator of credit transfer and accumulation in IVET and state educational programmes representing curricular requirements of state should create room for embedding mobility related building blocks and provisions of VET offered alternatively (by other providers or enterprises) into curricula. Subsequently, the aforementioned decrees D1, D2 and D3 will require amendment.

The Act on LLL should more precisely define the NSQ to expand its coverage to all sectors and responding to all learning settings. Subsequently, additional detailed stipulation should follow (e.g. addressing validation procedure). As already mentioned, no bylaws were elaborated to make the Act on LLL operational, and therefore its stipulations concerning the creation of NSQ have no impact in practice.

Legislative changes explained in the table above are only indicative and further refinement is needed depending on details of policy makers’ decisions concerning the ECVET National Framework suggested in this study. Mainstreaming the mobility related experience can be supported in the future by a legislative backing of ECVET’s technical specifications concerning evaluation, validation and recognition procedures. At the time being, it is more important to prevent from risks of extensive bureaucracy that could endanger participation in mobility itself. Furthermore, collecting experience without risks of imposed unintended barriers is the ultimate priority. Stronger and more instrumental legislative backing of NSQ creation, compared to the current wording in the Act on LLL, is however inevitable. It is a necessary prerequisite for the first step in the systemic implementation of ECVET. No explicit mentioning of ECVET in the Slovak legislation is currently needed, in contrast to EQAVET and EQF. Both are highly relevant to ECVET, as the former can boost activities to adopt national quality assurance model and the latter can enrich the discussion on learning outcomes.

5. Final comments, findings and recommendations

Based on the information presented in this feasibility study it is recommended that national authorities approve the ECVET National Framework for Slovakia and start to implement ECVET according to the proposed framework. The findings of this feasibility study show that the original philosophy of the ECVET initiative is highly problematic. But it also indicates that the ECVET implementation in reduced version set by the ECVET National Framework for Slovakia can be highly beneficial. The key findings and recommendations are as follows:

1) Not to support initial philosophy of ECVET implementation aimed at creation of credit points system in VET (ECVET) compatible with credit system applied in higher education (ECTS);
2) To support ECVET implementation adjusted to the current status of VET in Slovakia and its needs as embedded in the ECVET National Framework for Slovakia;
3) To recognise learning outcomes based transformation of qualifications as the core of ECVET initiatives, which can subsequently focus on transfer and accumulation of learning outcomes based credits in support of permeability in VET;

4) To launch a national ESF project aimed at creation of the National System of Qualifications (with identification of learning outcomes and relevant assessment tasks);

5) Implementation of ECVET can be substantially facilitated by the Lifelong Learning Programme Project of SAAIC: National Team of ECVET Experts 2012 – 2013, and national policies should reflect its aims;

6) To support the revision of ECVET related policies in 2014 in order to focus on the core of the initiative (learning outcomes based transformation of qualifications) and to make it a priority for future community programmes.
### Annex 1

**ECVET Reflector study of typology of qualifications systems**

<table>
<thead>
<tr>
<th>Typology</th>
<th>System portrait and short characteristic of the cross-border transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit-aware internationalist</strong> (7 countries)</td>
<td>Degree of ECVET-readiness: HIGH</td>
</tr>
<tr>
<td><strong>Holistic internationalist</strong> (8 countries)</td>
<td>Degree of ECVET-readiness: (Improving)</td>
</tr>
<tr>
<td><strong>Holistic loner</strong> (15 countries)</td>
<td>Degree of ECVET-readiness: LOW</td>
</tr>
</tbody>
</table>

Source: Findings of the ECVET reflector study\(^{129}\) (this table is based on part 7 of the summary report).

Notes: * three types of qualifications systems were identified based on the two dimensions “assessment” and “transfer” and according to detailed 30 expert reports and 156 individual in-depth interviews with national experts; 30 systems from target group countries (EU27, EFTA, Croatia, Turkey) were classified.

Annex 2

**ECVET Reflector study explaining two approaches concerning ECVET implementation**

<table>
<thead>
<tr>
<th>“Cross-border-approach”</th>
<th>“Reform approach”</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Emphasising the cross-border function inherent to ECVET, i.e. highlight that identification of ECVET “units” does not require a reshaping of VET programmes in terms of modularisation</td>
<td>1. Relating credits to qualifications</td>
</tr>
<tr>
<td>2. Including all relevant stakeholders at country level, e.g. within the structures of tripartite “ECVET implementation committees”</td>
<td>2. Awarding credits for partial qualifications</td>
</tr>
<tr>
<td>3. Promoting trust by introducing accompanying quality assurance measures</td>
<td>3. Decentralising VET systems by increasing the role of VET providers in awarding qualifications</td>
</tr>
<tr>
<td></td>
<td>4. Supporting the learning outcome orientation in qualification/ VET systems</td>
</tr>
<tr>
<td></td>
<td>5. Creating outcome-oriented methods of examination and qualification awarding</td>
</tr>
<tr>
<td></td>
<td>6. Providing a basis for accumulation/transfer of learning outcomes as units</td>
</tr>
<tr>
<td></td>
<td>7. Using the potential of ECVET to enhance permeability</td>
</tr>
<tr>
<td></td>
<td>8. Individualising learning pathways</td>
</tr>
<tr>
<td></td>
<td>9. Implementing ECVET as a means of facilitating validation and recognition of prior learning</td>
</tr>
</tbody>
</table>

Source: Implementing and developing a Credit System for Vocational Education and Training – Findings of the ECVET reflector study (tabled by authors).
Annex 3

Definitions or explanation of ECVET relevant basic terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition/explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment of learning outcomes*</td>
<td>Methods and processes used to establish the extent to which a learner has attained particular knowledge, skills and competence.</td>
</tr>
<tr>
<td>Competence**</td>
<td>The proven ability to use knowledge, skills and personal, social and/or methodological abilities in work or study situations and in professional and personal development.</td>
</tr>
<tr>
<td>Competent institution*</td>
<td>Institution which is responsible for designing and awarding qualifications or recognising units or other functions linked to ECVET, such as the allocation of ECVET points to qualifications and units, assessment, validation and recognition of learning outcomes under the rules and practices of participating countries.</td>
</tr>
<tr>
<td>Credit accumulation</td>
<td>Process through which learners can acquire qualifications progressively by successive assessments of learning outcomes.</td>
</tr>
<tr>
<td>Credit for learning outcomes (credit)*</td>
<td>Set of learning outcomes of an individual which have been assessed and which can be accumulated towards a qualification or transferred to other learning programmes or qualifications.</td>
</tr>
<tr>
<td>Credit transfer</td>
<td>Process through which learning outcomes achieved in one context can be taken into account in another context. Credit transfer is based on the processes of assessment, validation and recognition.</td>
</tr>
<tr>
<td>ECVET points*</td>
<td>Numerical representation of the overall weight of learning outcomes in a qualification and of the relative weight of units in relation to the qualification.</td>
</tr>
<tr>
<td>Formal learning***</td>
<td>Is learning that occurs in an organised and structured environment (e.g. in an education or training institution or on the job) and is explicitly designated as learning (in terms of objectives, time or resources). Formal learning is intentional from the learner’s point of view. It typically leads to validation and certification.</td>
</tr>
<tr>
<td>Knowledge**</td>
<td>The outcome of the assimilation of information through learning. Knowledge is the body of facts, principles, theories and practices that are related to a field of work or study.</td>
</tr>
<tr>
<td>Learning agreement</td>
<td>Individualised document which sets out the conditions for a specific mobility period. It specifies, for a particular learner, what learning outcomes s/he should achieve and how they will be assessed, validated and recognised.</td>
</tr>
<tr>
<td>Learning outcomes*</td>
<td>Statements of what a learner knows, understands and is able to do on completion of a learning process defined in terms of knowledge, skills and competence.</td>
</tr>
<tr>
<td>Learning (education and training) programme***</td>
<td>Inventory of activities, content and/or methods implemented to achieve education or training objectives (acquiring knowledge, skills and/or competences), organised in a logical sequence over a specified period of time.</td>
</tr>
<tr>
<td>Memorandum of Understanding</td>
<td>An agreement between competent institutions which sets the framework for credit transfer and accumulation. It formalises the ECVET partnership by stating the mutual acceptance of the status and procedures of competent institutions involved. It also establishes partnerships’ procedures for cooperation.</td>
</tr>
</tbody>
</table>

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| Non-formal and informal learning**** | Non-formal learning is not provided by an education or training institution and typically does not lead to certification. However, it is intentional on the part of the learner and has structured objectives, times and support. Informal learning results from daily activities related to work, family life or leisure. It is not structured and usually does not lead to certification. In most cases, it is unintentional on the part of the learner. |
| Qualification* | Formal outcome of an assessment and validation process which is obtained when a competent institution determines that an individual has achieved learning outcomes to a given standard. |
| (National) qualifications system** | All aspects of a Member State’s activity related to the recognition of learning and other mechanisms that link education and training to the labour market and civil society. This includes the development and implementation of institutional arrangements and processes relating to quality assurance, assessment and the award of qualifications. A national qualifications system may be composed of several subsystems and may include a national qualifications framework. |
| (National) Qualification Framework** | An instrument for the classification of qualifications according to a set of criteria for specified levels of learning achieved, which aims to integrate and coordinate national qualifications subsystems and improve the transparency, access, progression and quality of qualifications in relation to the labour market and civil society. |
| Recognition of learning outcomes* | The process of attesting officially achieved learning outcomes through the awarding of units or qualifications. |
| Skills** | The ability to apply knowledge and use know-how to complete tasks and solve problems. |
| The Personal Transcript | Document containing information on credit (positively assessed learning outcomes) the learner has achieved. It is a record of his/her learning achievements. |
| Unit of learning outcomes (unit)* | Component of a qualification, consisting of a coherent set of knowledge, skills and competence, which can be assessed and validated. |
| Validation of learning outcomes* | The process of confirming that certain assessed learning outcomes achieved by a learner correspond to specific outcomes which may be required for a unit or a qualification. |
| Vocational education and training provider*** | Any organisation or individual providing education or training services. Education and training providers may be organisations specifically set up for this purpose, or they may be other, such as employers, who provide training as a part of their business activities. Training providers also include independent individuals who offer training services. |

Notes: * Definition adopted as part of the ECVET Recommendation.  
** Definition adopted as part of the EQF Recommendation.  
**** Definition from the DG EAC web-site on validation of non-formal and informal learning.
Annex 4

ECVET Questions and Answers : List of Questions

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<th>Learning Outcomes</th>
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<td>What are learning outcomes?</td>
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<tr>
<td>How are learning outcomes described?</td>
</tr>
<tr>
<td>How are learning outcomes used in ECVET?</td>
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<table>
<thead>
<tr>
<th>Units</th>
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<tbody>
<tr>
<td>What is a unit and how does it relate to a qualification?</td>
</tr>
<tr>
<td>Why does ECVET require the use of units?</td>
</tr>
<tr>
<td>How can ECVET be used in a qualifications system that does not use units?</td>
</tr>
<tr>
<td>How can learning outcomes be grouped to create units?</td>
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<tr>
<td>What information can be used for designing a unit?</td>
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<tr>
<td>How should units be described when using ECVET?</td>
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<tr>
<td>Who defines units?</td>
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<tr>
<td>What is the link between units and formal education and training programmes?</td>
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<td>Is there an ‘ideal’ size for a unit?</td>
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<tr>
<td>Are there different types of units?</td>
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<tr>
<td>Do units have a level?</td>
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<tr>
<td>Is it possible to transfer units across qualifications framework levels?</td>
</tr>
<tr>
<td>How are units used in the framework of ECVET partnerships for mobility?</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>ECVET points</th>
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<tbody>
<tr>
<td>What are ECVET points?</td>
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<tr>
<td>How many ECVET points are allocated to a qualification and how is it done?</td>
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<tr>
<td>How many ECVET points are allocated to units and how is this done?</td>
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<tr>
<td>Who allocates ECVET points?</td>
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<tr>
<td>When and how are learners awarded ECVET points?</td>
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<tr>
<td>What is the role of ECVET points in the transfer and accumulation process?</td>
</tr>
<tr>
<td>How are ECVET points used for transfer and accumulation in systems which already use credit points?</td>
</tr>
<tr>
<td>What is the difference between ECVET points and credit?</td>
</tr>
<tr>
<td>Are 10 ECVET points always worth 10 ECVET points?</td>
</tr>
<tr>
<td>What does it mean to be awarded X ECVET points?</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Credit Transfer and Accumulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is credit?</td>
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<tr>
<td>What is credit transfer?</td>
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<tr>
<td>What is credit accumulation?</td>
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<tr>
<td>Is the principle of accumulation compatible with the use of a final assessment?</td>
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<tr>
<td>How is credit transfer organised in the framework of ECVET partnerships?</td>
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<tr>
<td>What is meant by a home institution and a hosting institution?</td>
</tr>
<tr>
<td>Who organises the assessment of learning outcomes?</td>
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<tr>
<td>Where are the assessment requirements described?</td>
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<tr>
<td>Who validates the assessed learning outcomes?</td>
</tr>
<tr>
<td>How can ECVET strengthen the quality assurance of assessment?</td>
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<tr>
<td>Is it possible to transfer learning outcomes that do not correspond to a full unit?</td>
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</tbody>
</table>

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<table>
<thead>
<tr>
<th>How is credit transfer organised outside the framework of ECVET partnerships?</th>
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<tbody>
<tr>
<td>ECVET and non-formal and informal learning</td>
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<tr>
<td>Is ECVET applicable to non-formal and informal learning?</td>
</tr>
<tr>
<td>How does ECVET facilitate validation of non-formal and informal learning?</td>
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<tr>
<td>Memoranum of Understanding (MoU)</td>
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<tr>
<td>What is a Memorandum of Understanding?</td>
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<tr>
<td>Why is a Memorandum of Understanding needed?</td>
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<tr>
<td>Who concludes a Memorandum of Understanding?</td>
</tr>
<tr>
<td>Is it possible to use Memoranda of Understanding outside geographical mobility?</td>
</tr>
<tr>
<td>What does a Memorandum of Understanding contain?</td>
</tr>
<tr>
<td>Is there a template for a Memorandum of Understanding?</td>
</tr>
<tr>
<td>How can ECVET be used outside a Memorandum of Understanding?</td>
</tr>
<tr>
<td>Is it possible to use Europass documents as part of the Memorandum of Understanding?</td>
</tr>
<tr>
<td>Learning Agreement</td>
</tr>
<tr>
<td>What is a learning agreement?</td>
</tr>
<tr>
<td>Why is a learning agreement needed?</td>
</tr>
<tr>
<td>Who signs the learning agreement?</td>
</tr>
<tr>
<td>What does the learning agreement contain?</td>
</tr>
<tr>
<td>What is the difference between a learning agreement and a MoU?</td>
</tr>
<tr>
<td>Personal Transcript</td>
</tr>
<tr>
<td>What is a personal transcript?</td>
</tr>
<tr>
<td>Who keeps the personal transcript?</td>
</tr>
<tr>
<td>How does it differ from a learning agreement?</td>
</tr>
<tr>
<td>Is it possible to use Europass mobility as personal transcript?</td>
</tr>
<tr>
<td>ECVET Competent Institutions</td>
</tr>
<tr>
<td>Who are the competent institutions involved in ECVET?</td>
</tr>
<tr>
<td>Is there an accreditation process to designate competent institutions which can award ECVET points?</td>
</tr>
</tbody>
</table>
Annex 5

Checklist for using ECVET for transnational mobility

This check list could be used as a basis for reviewing the use of ECVET for mobility by the competent institutions involved. It focuses on the key aspects of using ECVET for mobility but it can be further expanded or adapted.

Before the mobility period:

- What are the functions, including the validation and recognition of learning outcomes, that are covered by the competent institutions involved in the partnership?
- Which other institutions need to be involved to ensure credit transfer?
- Has a Memorandum of Understanding been signed?
- Has (have) unit(s) of learning outcomes for the mobility been identified?
- Is it clear how this (these) unit(s) relates to the learning outcomes of the qualification the learner is preparing for?
- Does the host institution agree with preparing the learner for the achievement of these learning outcomes?
- Are the learning outcomes linked to the assessment criteria?
- Are the assessment criteria understandable for the host and the home institution?
- Is there trust that the assessment criteria will be used for the assessment to the highest possible quality standard?
- Is it clear how learners’ credit will be validated and recognised? Is the learner aware of how this will be done?
- Is there an agreement about how the host institution will document the result of the assessment (assessment grid, written statement – in what language(s))?
- Did the learner, the home and the host institution sign a Learning Agreement? Does the Learning Agreement identify the learning outcomes to be achieved, how these will be assessed and how learners’ credit will be validated and recognised?

During the mobility period:

- Is the learner participating in learning activities that are relevant for the learning outcomes to be achieved?
- Are the teachers/assessors aware of the learning outcomes to be achieved by the learner?
- Are the assessors aware of the assessment criteria to be used to assess the learner? Do they know how to document the result of the assessment for the home institution?
- Was the Learning Agreement respected during the assessment?
- Was the learner provided with the evidence about his/her assessment which will serve as basis for the validation and recognition of credit?

After the mobility period:

- Based on the evidence of a learner’s assessment in the host institution, did the learner achieve the expected learning outcomes?
- If so, has his/her credit been validated (and recognised) in line with the Learning Agreement?
- Has the credit for (units of) learning outcomes achieved abroad been recorded in the learner’s transcript of record?

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Annex 6

Questions for the consultation process
- Are the most important objectives and functions of a European system of credits for vocational training and education and the role of competent authorities fully outlined in the consultation document? If not, what is missing?
- What would be the main added value of the planned ECVET system?
- Do some technical specifications need to be set out in greater detail with a view to the practical implementation of ECVET? If so, which ones?
- Do ECVET's technical specifications take sufficient account of the:
  - evaluation;
  - validation;
  - recognition;
  - accumulation;
  - transfer;
  of learning outcomes whether formal, non-formal or informal? If not, please give details.
- Are the allocation of credit points to qualifications and units and using a reference figure of 120 credit points sufficient to ensure the convergence of approaches and the coherence of the system at European level? If not, what would you suggest?
- Under what conditions could describing qualifications in terms of learning outcomes and expressing them in units effectively improve the transparency of qualifications and contribute to the development of mutual trust?
- Which criteria or combinations of criteria for allocating credit points could be selected and used?
- Are there any features in your qualifications system which would favour the introduction of ECVET? What constraints, if any, do you foresee?
- How and within what timeframe (launch, introduction, experimentation, widespread introduction) could ECVET be implemented in your country?
- What kind of measures should be taken at European national and sectoral levels to facilitate the implementation of ECVET?
- What documents, manuals and guides could be developed to facilitate the implementation of ECVET?
- To what extent and how will ECVET be able to contribute to the development of transnational and even national partnerships?
- To what extent and how will ECVET be able to help improve the quality of Community programmes on mobility and participation in these programmes?
- To what extent and how do you think that ECVET and Europass could complement each other to enhance mobility?
Annex 7

ECVET component containing international projects with Slovak partners

**Leonardo da Vinci (LdV) Partnerships:**

- **Title:** European Learning Partnership for Strawbale Building  
  **Project No:** 9342 0398  
  **Web:** [www.strawbale-net.eu/network/european-work-groups/leonardo/database.html](http://www.strawbale-net.eu/network/european-work-groups/leonardo/database.html)

- **Title:** Transfer von ECVET-Erfahrungen in die Arbeitspraxis von Bildungsträgern für Kreativberufe (Floristik und Maler-und Lackiererhandwerk)  
  **Project No:** 10342 0531  
  **Web:** [www.szaspn.sk](http://www.szaspn.sk)

- **Title:** Erprobung des Ansatzes des von der GD Bildung und Kultur geförderten Projekts zur Entwicklung von ECVET "CREDCHEM" in der Arbeitspraxis chemiebezogener Bildungseinrichtungen  
  **Project No:** 11342 1369  
  **Web:** [www.chemiraba.sk](http://www.chemiraba.sk)

**LdV Mobility Projects**

- **Title:** Acquiring chemical vocational skills  
  **Project No:** 11321 1226  
  **Web:** [www.chemiraba.sk](http://www.chemiraba.sk)

**EU-Project with Slovak partner (ADAM database)**

- **Title:** CREDCHEM – Entwicklung und Erprobung eines Credit-Transfer-Systems zur Verbesserung der Mobilität im Chemiesektor  
  **Project No:** 147782-LLP-1-2008-1-DE-ECVET  
  **Project web:** [www.credchem.eu](http://www.credchem.eu)

**LdV Transfer of Innovation Projects with Slovak contractor (ADAM database)**

- **Title:** ECEVE - Implementierung von e-Learning-Inhalte in der beruflichen Ausbildung für energiesparende Bauernhof  
  **Project No:** 2010-1-SK1-LEO05-01561  
  **Project web:** [www.eceve.org](http://www.eceve.org)

- **Title:** SLOVAK WINE ACADEMY PEZINOK  
  **Project No:** LLP-LdV-TOI-2008-SK-83100528  
  **Project web:** [www.svapezinok.sk](http://www.svapezinok.sk)
Title: INNOVATIVE ACCOUNTING TRAINING AND ASSESSMENT TOOLS FOR SME's
(www.adam-europe.eu/adam/project/view.htm?prj=4430)
Project web: www.inno-at.eu

Title: EU.CERTI.CON
(www.adam-europe.eu/adam/project/view.htm?prj=4456)
Project No: 2006-SK/06/B/F/PP-177437
Project web: -

LdV Transfer of Innovation Projects with Slovak partner(s) (ADAM database)

Title: SOLARIS PLUS - Innovative modular training as the specialist for renewable energies
(www.adam-europe.eu/adam/project/view.htm?prj=8540)
Project No: DE/11/LLP-LdV/TOI/147 422
Project web: -

Title: PIA - Project management as an instrument with respect to labour market for development and assurance of teaching quality in vocational education
(www.adam-europe.eu/adam/project/view.htm?prj=8840)
Project No: DE/11/LLP-LdV/TOI/147402
Project web: www.pia-project.eu

Title: ECVET Ma-Flo - Utilisation of European ECVET initiatives' results for the vocational fields of painting, varnishing and floristry
(www.adam-europe.eu/adam/project/view.htm?prj=7066)
Project No: DE/10/LLP-LdV/TOI/147332
Project web: -

Title: SLOT - Sectoral Learning Outcome Transparency
(www.adam-europe.eu/adam/project/view.htm?prj=6945)
Project No: 2010-1-LU1-LEO05-00389
Project web: https://sites.google.com/site/leonardodavincislot/home

Title: DISCO II - European Dictionary on Skills and Competences II
(www.adam-europe.eu/adam/project/view.htm?prj=7054)
Project No: 2010-1-AT1-LEO05-02879
Project web: www.disco-tools.eu

Title: MOVET II - Modules for Vocational Education and Training for Competences in Europe II
(www.adam-europe.eu/adam/project/view.htm?prj=7093)
Project No: DE/10/LLP-LdV/TOI/147341
Project web: www.gomovet.eu

Title: Hair.net - Hairdressing advice (&) internet resources (for) National (&) European Training
(www.adam-europe.eu/adam/project/view.htm?prj=6712)
Project No: UK/10/LLP-LdV/TOI-329
Project web: http://hairnet.eu.wordpress.com
<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
<th>Project No</th>
<th>Project web</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Procare</strong></td>
<td>Competence standards in the professional education and further education in the sector of geriatric care</td>
<td>DE/09/LLP-LdV/TOI/147242</td>
<td><a href="http://www.elderly-care.de">www.elderly-care.de</a></td>
</tr>
<tr>
<td><strong>Ko-Transfer</strong></td>
<td>Transfer of innovative European concepts for training and certification in energy-saving construction methods, in order to make qualifications acquired in vocational and advanced training more transparent.</td>
<td>DE/08/LLP-LdV/TOI/147181</td>
<td><a href="http://ko-transfer.eu/">http://ko-transfer.eu/</a></td>
</tr>
<tr>
<td><strong>EUROPLACEMENT</strong></td>
<td></td>
<td>LLP-LDV/TOI/08/IT/460</td>
<td><a href="http://europalement-llp.eu">http://europalement-llp.eu</a></td>
</tr>
<tr>
<td><strong>RECOGNITION IN TOURISM</strong></td>
<td>A system standard in the tourism sector for transparency of qualification and learning, for a better development, validation, recognition and certification of learning outcome</td>
<td>LLP – LDV/TOI/2007/IT/308</td>
<td><a href="http://www.recognitionintourism.eu">www.recognitionintourism.eu</a></td>
</tr>
<tr>
<td><strong>Development of a scalable internet-based solution for the evaluation, the assessment and the recognition of knowledge and competences that have been acquired through non-formal and informal learning</strong></td>
<td></td>
<td>DE/07/LLP-LdV/TOI/147050</td>
<td>-</td>
</tr>
<tr>
<td><strong>TRAMA</strong></td>
<td></td>
<td>LLP-LdV-TOI-2007-FR-005</td>
<td>-</td>
</tr>
<tr>
<td><strong>TRAINING FOR ITE INTEGRATION</strong></td>
<td>Training service for operators in the system of lifelong learning and Professional Formation and active labour politics</td>
<td>LLP-LDV/TOI/2007/IT/403</td>
<td>-</td>
</tr>
</tbody>
</table>

**LdV Development of Innovation Projects with Slovak partner(s) (ADAM database)**

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
<th>Project No</th>
<th>Project web</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>European credit point system for Vocational Training</strong></td>
<td></td>
<td>191177-LLP-1-2010-1-DE-LEONARDO-ECVET</td>
<td><a href="http://www.ecvet-professional.eu">www.ecvet-professional.eu</a></td>
</tr>
</tbody>
</table>
Title: RESYFAC - Reference System for Facilitators of Learning
(www.adam-europe.eu/adam/project/view.htm?prj=3801)
Project No: 134049 - LLP - 2007-PT-LMP
Project web: -

**LdV Pilot Project, project with multiplying effect (2000-2006) (ADAM database)**

Title: IMPEX - IMprove your Productions EXperts
(www.adam-europe.eu/adam/project/view.htm?prj=2349)
Project No: D/06/B/F/PP-146 492
Project web: -

Title: Formation Credit Points - Management Capacity Building in den handwerklichen Bauberufen
[Management Capacity Building in the building trades crafts]
(http://www.adam-europe.eu/adam/project/view.htm?prj=1942&page=1)
Project No: D/05/B/F/PP-146 294
Project web: -
Annex 8

Learning outcomes definitions

ECVET glossary (see http://www.ecvet.net/c.php/ecvet/glossary.rsys) defines learning outcomes as follows: Learning outcomes are statements of what a learner is expected to know, understand and/or be able to do, or is able to demonstrate, after completion of any learning process or at the end of a period of learning. There are different detailed categories of “what a learner is expected”. These categories are “knowledge, skills, attitudes and habits” in our traditional national discourse, sometimes also “values” are added. These categories are “knowledge, skills and competences” in the already agreed international documents. Recommendation on EQF states this: “(f) ‘learning outcomes’ means statements of what a learner knows, understands and is able to do on completion of a learning process, which are defined in terms of knowledge, skills and competence;

(g) ‘knowledge’ means the outcome of the assimilation of information through learning. Knowledge is the body of facts, principles, theories and practices that is related to a field of work or study. In the context of the European Qualifications Framework, knowledge is described as theoretical and/or factual;

(h) ‘skills’ means the ability to apply knowledge and use know-how to complete tasks and solve problems. In the context of the European Qualifications Framework, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments);

(i) ‘competence’ means the proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development. In the context of the European Qualifications Framework, competence is described in terms of responsibility and autonomy.”133.

The term “learning outcome” is dominantly related to qualifications: Learning outcomes are contained in a unit representing a component of a qualification, provided qualification is organised as containing units. Learning outcomes are also mentioned as a result of learning activities that might be contained in a module representing a component of a curriculum in case a curriculum is modularised.

Furthermore, learning outcomes are also related to individual performance. Finally, and dominantly with regard to EQF, learning outcomes are mentioned as descriptors of respective EQF levels. Thus, the term “learning outcome” is used with different contexts in experts’ discourse creating confusion and misunderstandings. It is necessary to clarify differences.

Learning outcomes in diverse contexts

<table>
<thead>
<tr>
<th>Context (relation)</th>
<th>General (expected) Context</th>
<th>Individual context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Related to learning process (regardless of the learning setting - formal, non-formal or informal)</td>
<td>LO(LP)*</td>
<td>LO(lp)</td>
</tr>
<tr>
<td>Related to curricula (learning process)</td>
<td>LO(C)</td>
<td>LO(c) = LO(lp)</td>
</tr>
</tbody>
</table>

composed of learning activities based on formal setting) sort of “learning objectives”

<table>
<thead>
<tr>
<th>Related to qualification</th>
<th>LO(Q)</th>
<th>LO(q)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Related to EQF</td>
<td>LO(EQF)</td>
<td>-</td>
</tr>
</tbody>
</table>

Although the same term is used, the contexts are different and the vocabulary and in particular the appropriate level of detailness applied as well. Decision upon the methodology of identification of learning outcomes of NSQ, in particular the level of details in their expression, is the crucial challenge Slovakia faces now.

Annex 9

Outcome Requirements Triangle in VET

Slovakia is currently in process of establishment National System of Occupations (NSO), renewal of national curricula as State educational programmes are reviewed in 2012 and should also start working on National System of Qualifications (NSQ).

Two points are to be taken into account:
1. Descriptions of requirements within triangle of NSO, NSQ and NC need a specific vocabulary and know-how each;
2. Pending establishment of NSQ create an unsound situation violating a natural procedure in alignment VET to labour market needs: NSO feeding NSQ and NSQ feeding NC as indicated below.
MEMORANDUM OF UNDERSTANDING

The Memorandum of Understanding MoU is a voluntary partnership agreement in which conditions for an international VET mobility programme are concluded between partners from different countries. The MoU establishes the partnership’s procedures for cooperation in the framework of the CREDCHEM partnership.

In this agreement all partners accept each other’s status as vocational school, training provider, enterprise and/or competent bodies and agree on common criteria and procedures for quality assurance, assessment and validation for the purpose of transferring learning outcomes at the end of a training period abroad. They agree on the general conditions such as objectives and duration and accept other actors and further institutions that may be involved.

The present MoU contains following elements:

a. General objectives of the MoU
b. Period of eligibility of the MoU
c. Information about partners
d. Information about units of learning outcome that can be completed
e. Agreement on Responsibilities
f. Quality Assurance
g. Assessment
h. Validation and recognition of results
i. Signatures
j. Annexes

a) Objectives of the MoU
This MoU sets out the general framework of cooperation and networking between the CREDCHEM project partners. It defines the general conditions under which learning outcomes can be achieved by the provision of commonly agreed units of learning outcomes in partner systems.

With support from the EU Lifelong Learning Programme. | www.credchem.eu

To design specific arrangements for each specific mobility period (unit of learning outcomes, organizational details) the involved partners and the mobile learner must prepare a Learning Agreement according to point e).
b) **Period of eligibility of the MoU**
The period of eligibility of the agreements set down in the MoU is from December 2010 to December 2013. It is automatically prolonged if none of the partners objects.

c) **Information about the partners**
The CREDCHEM MoU is concluded by partners involved in VET such as vocational schools, training providers, national VET institutes and companies aiming to enhance the mobility of their learners and to encourage the networking among VET institutions in practical experiences and research.

d) **Information about the units of learning outcomes**
The present MoU deals with units of learning outcomes which are based on typical work tasks and which are geared to enhance the mobility in the chemical sector. The description of learning outcomes and any other related information are included in the Learning Agreement. The outcomes of the mobility will be documented in the Europass Mobility.

Learners should perform an internship of at least 3 weeks at the hosting institution. During the internship period each learner will be regularly involved within the training process at the partner institution.

The following units of learning outcomes can be considered for a mobility phase:

<table>
<thead>
<tr>
<th>ULO: Working in the laboratory – Chemistry</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ULO 1</strong></td>
</tr>
<tr>
<td>Separating and mixing substances</td>
</tr>
<tr>
<td><strong>ULO 2</strong></td>
</tr>
<tr>
<td>Determining material constants/properties</td>
</tr>
<tr>
<td><strong>ULO 3a</strong></td>
</tr>
<tr>
<td>Spectroscopically analysing substances (UV-VIS spectroscopy, AAS, AES)</td>
</tr>
<tr>
<td><strong>ULO 3b</strong></td>
</tr>
<tr>
<td>Spectroscopically analysing substances (IR, NMR spectroscopy, MS)</td>
</tr>
<tr>
<td><strong>ULO 4a</strong></td>
</tr>
<tr>
<td>Volumetrically analysing substances</td>
</tr>
<tr>
<td><strong>ULO 4b</strong></td>
</tr>
<tr>
<td>Gravimetrically analysing substances</td>
</tr>
<tr>
<td><strong>ULO 5a</strong></td>
</tr>
<tr>
<td>Chromatographically separating and analysing substances (TLC, PC, CC [IC])</td>
</tr>
<tr>
<td><strong>ULO 5b</strong></td>
</tr>
<tr>
<td>Chromatographically separating and analysing substances (HPLC, GC)</td>
</tr>
<tr>
<td><strong>ULO 6</strong></td>
</tr>
<tr>
<td>Chemically producing inorganic and organic substances</td>
</tr>
<tr>
<td><strong>ULO 7</strong></td>
</tr>
<tr>
<td>Synthesis methods</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ULO Working in the laboratory – Biology</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ULO 1</strong></td>
</tr>
<tr>
<td>a)</td>
</tr>
<tr>
<td>b)</td>
</tr>
<tr>
<td>c)</td>
</tr>
<tr>
<td>d)</td>
</tr>
</tbody>
</table>

48
e) **Responsibilities**

Those responsibilities have to be clarified in the particular Learning Agreements.

<table>
<thead>
<tr>
<th>VI. Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsibility for</td>
</tr>
<tr>
<td>Signature of Learning Agreement</td>
</tr>
<tr>
<td>Sending of information package</td>
</tr>
<tr>
<td>Health insurance and travel insurance for the time abroad</td>
</tr>
<tr>
<td>Arrangements on employment (government regulations, taxes, etc.) related to the legal framework of both countries</td>
</tr>
<tr>
<td>Payment for the mobile learner (travel and subsistence expenses)</td>
</tr>
<tr>
<td>Accident insurance at the workplace and while commuting to the workplace for the time abroad</td>
</tr>
<tr>
<td>Arrangement of accommodation for the training period abroad</td>
</tr>
<tr>
<td>Providing working clothes and/or protection equipment during the training period abroad</td>
</tr>
<tr>
<td>Assessment of LO</td>
</tr>
<tr>
<td>Recognition of LO</td>
</tr>
<tr>
<td>Accompanying Tutorship</td>
</tr>
<tr>
<td>Knowledge, skills and competences of the learner needed for the particular mobility period</td>
</tr>
<tr>
<td>Language spoken during the mobility period</td>
</tr>
</tbody>
</table>

The learning agreement can be downloaded on the CREDCHEM website.

f) **Quality assurance**

The hosting provider-company during the mobility period will assure the following minimum quality-standards:

1. The hosting organization provides a safe training environment for the mobile learner, in which he/she can develop and learn;
2. The hosting organization takes into consideration the level of competence development of the mobile learner (the years of training/work experience);
3. The hosting organization allows enough time, room, means and resources for the training and coaching the mobile learner;
4. The receiving institution assures that the activities of the mobile learner aim exclusively at the completion of the units of learning outcomes;
5. The hosting organization appoints a person who will be the representative of the working place, coaching and supervising the mobile learner;
6. The hosting organization provides a detailed program/plan including an introduction program, evaluation interviews with the mobile learner on the progress of the placement and the final assessment of the mobile learner;
7. The hosting organization cooperates with the sending organization and fulfils the training agreements as described in the Learning Agreement;
8. The hosting organization gives the necessary information on the conditions and equipment concerning the work itself and the work environment (in case the hosting organization is a company) and concerning the training to be attended (in case the hosting organization is a training institute).
9. A representative of the hosting organization, on behalf of the sending organization, monitors and evaluates the achievement of the learning objectives. Europass Mobility will be used as a record of achieved learning objectives.
10. The mobile learner works under the supervision and responsibility of the hosting organization, following the specific working hours.
11. The mobile learner attends to and fulfills the tasks that are part of the agreed training plan.
12. The hosting organization obligates itself to inform the mobile learner about the rules in force and legal provisions concerning professional confidentiality. The mobile learners obligate themselves to follow the rules in force and the legal provisions.

g) Assessment

The assessment will be done as follows:
On the basis of examination tasks the mastery of the student and the capability to ensure an adequate quality of the expected results within the training/work process will be evaluated.
An overall assessment will take place during the all internship (for details see the Learning Agreement).

h) Validation and recognition

The sending institution will be in charge for validation and recognition of the learning outcomes and confirms that assessed learning outcomes achieved or competences developed by the person in training during the stay abroad correspond to specific learning outcomes that are required for the specific training programme or qualification.
i) Signatures
The signatures confirm the accuracy of all statements made on this form and agree to all principles and articles expressed therein.

CREDCHEM PARTNERS:

Name of the organization: ...........................................................................................................
Name and title of the representative: ............................................................................................
Position in organization: ...............................................................................................................
Signature and date: ....................................................................................................................... 

Stamp:

Name of the organization: ...........................................................................................................
Name and title of the representative: ............................................................................................
Position in organization: ...............................................................................................................
Signature and date: ....................................................................................................................... 

Stamp:

Name of the organization: ...........................................................................................................
Name and title of the representative: ............................................................................................
Position in organization: ...............................................................................................................
Signature and date: ....................................................................................................................... 

Stamp:

(Etc.)
Annex 11

Learning agreement – CREDCHEM Project experience

Example 1

![LEARNING AGREEMENT](image)

<table>
<thead>
<tr>
<th>I. Participant</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Veronika Gábrišová</td>
</tr>
<tr>
<td>Date of birth</td>
<td>13.10.1993</td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:nika13107@post.sk">nika13107@post.sk</a></td>
</tr>
<tr>
<td>Address</td>
<td>Šancová 31, 831 04 Bratislava</td>
</tr>
<tr>
<td>Country</td>
<td>Slovak Republic</td>
</tr>
<tr>
<td>Training programme in home country/duration</td>
<td>2840 6 biotechnológia a farmakológia (2840 6 biotechnology and pharmacology), 4 years</td>
</tr>
<tr>
<td>Year of training</td>
<td>3rd</td>
</tr>
<tr>
<td>Language skills</td>
<td>English, Spanish</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>II. Sending institution</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of the institution</td>
<td>Stredná odborná škola chemická, Vlčie hrdlo 50 Bratislava</td>
</tr>
<tr>
<td>Address</td>
<td>Vlčie hrdlo 50, 821 07 Bratislava, Slovak Republic</td>
</tr>
<tr>
<td>Country</td>
<td>Slovak Republic</td>
</tr>
<tr>
<td>Phone</td>
<td>+421 2 4055 8931</td>
</tr>
<tr>
<td>Contact person for exchange</td>
<td>Silvia Loffayová</td>
</tr>
<tr>
<td>Position</td>
<td>headmaster</td>
</tr>
<tr>
<td>E-Mail</td>
<td><a href="mailto:loffayova@chemiraba.sk">loffayova@chemiraba.sk</a></td>
</tr>
<tr>
<td>Phone</td>
<td>+421 2 4055 8927</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>III. Receiving institution</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of the institution</td>
<td>IIS Pietro Scalcerle</td>
</tr>
<tr>
<td>Address</td>
<td>Via delle Cave 174, 351 36 Padova - Veneto ITD3</td>
</tr>
<tr>
<td>Country</td>
<td>Italy</td>
</tr>
<tr>
<td>Phone</td>
<td>+39 049 720744</td>
</tr>
<tr>
<td>Contact person for exchange</td>
<td>Elisabetta Lorenzoni</td>
</tr>
<tr>
<td>E-Mail</td>
<td><a href="mailto:elisabetta.lorenzoni@gmail.com">elisabetta.lorenzoni@gmail.com</a></td>
</tr>
<tr>
<td>Position</td>
<td>teacher</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>CREDCHEM-field of action “Working in the laboratory”</td>
<td>Language</td>
</tr>
</tbody>
</table>

**IV. Period of placement abroad**

<table>
<thead>
<tr>
<th>Date of arrival</th>
<th>Date of departure</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.09.2011</td>
<td>02.10.2011</td>
</tr>
</tbody>
</table>

**V. Details of the mobility**

**Learning unit:** 5a CHROMATOGRAPHY, 5b CHROMATOGRAPHY

**Language:** English

**Tasks to be performed:**
- Paper chromatography of ink
- Column chromatography: separation of Cr^{6+}, Ni^{2+}
- TLC: separation of amino-acids
- HPLC: determination of Caffeine concentration in different beverages
- GC: determination of % alcoholic of a solution
- Determination of fatty acids in different oils

<table>
<thead>
<tr>
<th>Competence</th>
<th>Skills</th>
<th>Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>– Ability to analyse substances in the mixture using different chromatography techniques (PC, CC, TLC, HPLC, GC) by use of common procedures and ability to adjust the latter to conditions (choice of procedure according to property/structure of chemicals)</td>
<td>– Understanding tasks; organizational and planning skills; – precision and meticulousness in routine usage of lab techniques; – precision and meticulousness in routine use of substances (reference competence LE 1 and 2) – choice of procedure according to precise criteria – calculations</td>
<td>– Knowledge of substances (property and structure safety and security sentences); – knowledge of relationship between measures and the reference parameter and relative procedures (knowledge of process steps); – knowledge of instruments and how they work</td>
</tr>
</tbody>
</table>

**Examination on competence level:** A

**VI. Responsibilities**

<table>
<thead>
<tr>
<th>Responsibility for:</th>
<th>Sending institution</th>
<th>Hosting institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature of Learning Agreement</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Sending of information package</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Health insurance and travel</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

53
<table>
<thead>
<tr>
<th>Insurance for the time abroad</th>
<th>☑️</th>
<th>☑️</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrangements on employment (government regulations, taxes, etc.) related to the legal framework of both countries</td>
<td>☑️</td>
<td>☑️</td>
</tr>
<tr>
<td>Payment for the mobile learner (travel and subsistence expenses)</td>
<td>☑️</td>
<td></td>
</tr>
<tr>
<td>Accident insurance at the workplace and while commuting to the workplace for the time abroad.</td>
<td>☑️</td>
<td></td>
</tr>
<tr>
<td>Arrangement of accommodation for the training period abroad</td>
<td></td>
<td>☑️</td>
</tr>
<tr>
<td>Providing working clothes and/or protection equipment during the training period abroad</td>
<td>☑️</td>
<td></td>
</tr>
<tr>
<td>Assessment of LO</td>
<td>☑️</td>
<td></td>
</tr>
<tr>
<td>Recognition of LO</td>
<td>☑️</td>
<td></td>
</tr>
<tr>
<td>Accompanying Tutorship</td>
<td>☑️</td>
<td>☑️</td>
</tr>
<tr>
<td>Language spoken during the mobility period</td>
<td>EN</td>
<td>EN</td>
</tr>
</tbody>
</table>

**VII. Commitment of the three parties**

**The Learner**

<table>
<thead>
<tr>
<th>Place/date</th>
<th>Bratislava, 02.09.2011</th>
<th>Signature</th>
</tr>
</thead>
</table>

**Sending institution**

<table>
<thead>
<tr>
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<th>Bratislava, 02.09.2011</th>
<th>Signature /Stamp</th>
</tr>
</thead>
</table>

**Receiving institution**

<table>
<thead>
<tr>
<th>Place/date</th>
<th>Padova, 05.09.2011</th>
<th>Signature /Stamp</th>
</tr>
</thead>
</table>
**Example 2**

**LEARNING AGREEMENT**

---

### I. Participant

<table>
<thead>
<tr>
<th>Name</th>
<th>Manuele Catalano</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of birth</td>
<td>04.01.1994</td>
</tr>
<tr>
<td>Passport No./ID</td>
<td></td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:manu-v94@LIVE.IT">manu-v94@LIVE.IT</a></td>
</tr>
<tr>
<td>Telefon</td>
<td>+39090317904</td>
</tr>
<tr>
<td>Address</td>
<td>Via Guidara 77, 98155 Messina-Castanea</td>
</tr>
<tr>
<td>Country</td>
<td>Italy</td>
</tr>
<tr>
<td>Training programme in home country/duration</td>
<td>Chemical and biological secondary school, five years</td>
</tr>
<tr>
<td>Language skills</td>
<td>English</td>
</tr>
</tbody>
</table>

---

### II. Sending institution

<table>
<thead>
<tr>
<th>Name of the institution</th>
<th>IIS Scalcerle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>Via delle Cave 174, 35136 Padova</td>
</tr>
<tr>
<td>Country</td>
<td>Italy</td>
</tr>
<tr>
<td>Phone</td>
<td>0039 049720744</td>
</tr>
<tr>
<td>Contact person for exchange</td>
<td>Elisabetta Lorenzoni</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:elisabetta.lorenzoni@gmail.com">elisabetta.lorenzoni@gmail.com</a></td>
</tr>
<tr>
<td>Position</td>
<td>Teacher</td>
</tr>
<tr>
<td>Telephone</td>
<td>0039 3356016192</td>
</tr>
</tbody>
</table>

---

### III. Receiving institution

<table>
<thead>
<tr>
<th>Name of the institution</th>
<th>Stredná odborná škola chemická</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>Vlčie hrdlo 50, 821 07 Bratislava,</td>
</tr>
<tr>
<td>Country</td>
<td>a Slovak Republic</td>
</tr>
<tr>
<td>Phone</td>
<td>+421 2 4055 8931</td>
</tr>
<tr>
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<td>Silvia Loffayová</td>
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<tr>
<td>Email</td>
<td><a href="mailto:loffayova@chemiraba.sk">loffayova@chemiraba.sk</a></td>
</tr>
<tr>
<td>Position</td>
<td>Headmaster</td>
</tr>
<tr>
<td>Telefono</td>
<td>+421 2 4055 8927</td>
</tr>
<tr>
<td>Lingua</td>
<td>Inglese</td>
</tr>
</tbody>
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### IV. Period of placement abroad

<table>
<thead>
<tr>
<th>Date of arrival</th>
<th>10.09.2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of departure</td>
<td>01.10.2011</td>
</tr>
</tbody>
</table>
## Details of the mobility

### Learning unit
- **LE4a**

### Language
- **English**

### Tasks to be performed
- Volumetric titrations:
  - Potentiometric Titration
  - Conductimetric Titration
  - Acid-base Titration
  - Complexometric Titration
  - Permanganate Titration
  - Redox Titration

### Competence
- **Skills**
  - Ability to define constants and properties of chemicals by use of common procedures and ability to adjust the latter to conditions (choice of procedure according to property/structure of chemicals)
  - Understanding tasks; organizational and planning skills; precision and meticulousness in routine usage of lab techniques; precision and meticulousness in routine use of substances, calculation.

### Examination on competence level: (A,B,C)
- **A**

## V. Responsibilities

<table>
<thead>
<tr>
<th>Responsibility for</th>
<th>Sending institution</th>
<th>Receiving institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature of Learning Agreement</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Sending of information package</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Health insurance and travel insurance for the time abroad</td>
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<td>X</td>
</tr>
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<td>X</td>
</tr>
<tr>
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<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Accident insurance at the workplace and while commuting to the workplace for the time abroad</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Assessment of LO</td>
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<td>X</td>
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<tr>
<td>Recognition of LO</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Accompanying Tutorship</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Language spoken during the mobility period</td>
<td>EN</td>
<td>EN</td>
</tr>
</tbody>
</table>

## VI. Commitment of the three parties
<table>
<thead>
<tr>
<th>Participant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place/date</td>
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</tbody>
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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Place/date</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Receiving institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place/date</td>
</tr>
</tbody>
</table>
### Example 1

**EUROPASS MOBILITY**

1. **This Europass Mobility Document is awarded to**

<table>
<thead>
<tr>
<th>Surname(s)</th>
<th>First name(s)</th>
<th>Photograph</th>
</tr>
</thead>
<tbody>
<tr>
<td>GABRIŠOVÁ</td>
<td>Veronika</td>
<td></td>
</tr>
</tbody>
</table>

**Address (house number, street name, postcode, city, country)**

| Šancová 31 | SK-831 04 Bratislava | Slovenská republika |

**Date of birth**

| 13 | 10 | 1993 |

**Nationality**

Slovenská republika

**Signature of the holder**

| |

---

2. **This Europass Mobility Document is issued by**

**Name of the issuing organisation**

Stredná odborná škola chemická, Vlčie hrdlo 50, Bratislava

**Europass Mobility number**

1248/2011/NEC/5436

**Issuing date**

| 03 | 10 | 2011 |

---

**Explanatory note**

Europass Mobility is a standard European document, which records details the contents and the results - in terms of skills and competences or of academic achievements - of a period that a person of whatever age, educational level and occupational status has spent in another European country (UE/EFTA/EEA and candidate countries) for learning purposes.

The Europass Mobility was established by the decision of the European Parliament and of the Council of 00 Aaaa 2004 on a single framework for the transparency of qualifications and competences (Europass) - 2004/xxx/EC.

For more information on Europass, including on the Europass curriculum vitae and the Europass language Passport: http://europass.cedefop.eu.int

© European Communities 2004

3. **The Partner organisations of the Europass Mobility experience (No 1248/2011/NEC/5436) are**

**Sending partner** (organisation initiating the mobility experience in the country of origin)

Name, type (if relevant faculty/department) and address

| Stamp and/or signature |

---
### 4. Description of the Europass Mobility Experience (No 1248/2011/NCE/5436)

**Objective of the Europass Mobility experience**

(23) Carry out laboratory work (learning units) in analytical chemistry focused on chromatography.

**Initiative during which the Europass Mobility experience is completed, if applicable**

(24) Study at the Secondary Vocational School of Chemistry, Study field - Biotechnology and pharmacology

**Qualification (certificate, diploma or degree) to which the education or training leads, if any**

(25) School-Leaving Certificate, Study field - Biotechnology and pharmacology

**Community or mobility programme involved, if any**

(26) Program Leonardo da Vinci Mobility

**Duration of the Europass Mobility experience**
## 5.a Description of Skills and Competences Acquired During the Europass Mobility Experience

**No 1248/2011/NEC/5436**

<table>
<thead>
<tr>
<th>Date</th>
<th>Signature of the reference person/mentor</th>
<th>Signature of the holder</th>
</tr>
</thead>
<tbody>
<tr>
<td>From 12 09 2011 to 02 10 2011</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Activities/tasks carried out

- Carrying out laboratory work - an analysis of substances using chromatography. Laboratory works are learning units created in the project CREDCHEM.
- Carrying out test units for verification of acquired skills.

### Job-related skills and competences acquired

- Analysis of substances using chromatography (three weeks):
  - planning and carrying out an analysis,
  - preparation of lab report.
- Results of the analysis were checked by mentor, the record indicates professional skills at a good level.

### Language skills and competences acquired (if not included under ‘Job-related skills and competences’)

- Improving the level of social and professional communication in English language.

### Computer skills and competences acquired (if not included under ‘Job-related skills and competences’)

- Using MS Office™ tools for processing the documents:
  - lab report,
  - evaluation of measured data.

### Organisational skills and competences acquired (if not included under ‘Job-related skills and competences’)

- Good ability to organize tasks performed during the traineeship:
  - determining priorities,
  - effective team members’ relationship management.

### Social skills and competences acquired (if not included under ‘Job-related skills and competences’)

- Team collaboration.

### Other skills and competences acquired

- Ability to adapt to the new cultural and working conditions.

## 5.b Record of Courses Completed and Individual Grades/Marks/Credits Obtained

(based on the transcript of records of the European Credit Transfer System - ECTS)
<table>
<thead>
<tr>
<th>Course unit code (1)</th>
<th>Title of the course unit (31b) (*)</th>
<th>Duration (2)</th>
<th>Local grade (3)</th>
<th>ECTS/ECV ET grade (4)</th>
<th>ECTS/ECV ET credits (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Add or remove lines if required

Essay/report/dissertation

Certificate/diploma/degree awarded if any

Surname(s) and first name(s) of mentor/administration officer

Date of validation

Name, address and status of the institution

Stamp or seal

<table>
<thead>
<tr>
<th>dd</th>
<th>mm</th>
<th>Yyy</th>
</tr>
</thead>
</table>

NB: This table is not valid without the signature of the mentor/administration officer and/or the official stamp of the institution.

NB: Headings marked with an asterisk are mandatory.

EXPLANATION OF THE HEADINGS ON PREVIOUS PAGE (Table 5.b)

(1) COURSE UNIT CODE:
Refer to the ECTS information Package provided on the website of the host institution

(2) DURATION OF COURSE UNIT:
Y = 1 full academic year
1S = 1 semester  2S = 2 semesters  
1T = 1 term/trimester  2T = 2 terms/trimesters

(3) DESCRIPTION OF THE INSTITUTIONAL GRADING SYSTEM:

ECTS GRADING SCALE:

<table>
<thead>
<tr>
<th>ECTS Grade</th>
<th>% of successful students normally achieving the grade</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>10</td>
<td>EXCELLENT - outstanding performance with only minor errors</td>
</tr>
<tr>
<td>B</td>
<td>25</td>
<td>VERY GOOD - above the average standard but with some errors</td>
</tr>
<tr>
<td>C</td>
<td>30</td>
<td>GOOD - generally sound work with a number of notable errors</td>
</tr>
<tr>
<td>D</td>
<td>25</td>
<td>SATISFACTORY - fair but with significant shortcomings</td>
</tr>
<tr>
<td>E</td>
<td>10</td>
<td>SUFFICIENT - performance meets the minimum criteria</td>
</tr>
<tr>
<td>FX</td>
<td>-</td>
<td>FAIL - some more work required before the credit can be awarded</td>
</tr>
<tr>
<td>F</td>
<td>-</td>
<td>FAIL - considerable further work is required</td>
</tr>
</tbody>
</table>

(5) ECTS CREDITS:

1 full academic year = 60 credits
1 semester = 30 credits
1 term/trimester = 20 credits
Example 2

**EUROPASS MOBILITÀ**

1. **IL PRESENTE DOCUMENTO EUROPASS MOBILITÀ È RILASCIATO A**

<table>
<thead>
<tr>
<th>Cognome(i)</th>
<th>Nome(i)</th>
<th>Fotografia</th>
</tr>
</thead>
<tbody>
<tr>
<td>CATALANO</td>
<td>Manuele</td>
<td></td>
</tr>
</tbody>
</table>

Indirizzo (numero, via, codice postale, città, paese)

Via Guidara N° 77
CAP. 98155
Messina – Castanea

<table>
<thead>
<tr>
<th>Data di nascita</th>
<th>Nazionalità</th>
<th>Firma del titolare</th>
</tr>
</thead>
<tbody>
<tr>
<td>04 01 1994</td>
<td>Italiano</td>
<td></td>
</tr>
</tbody>
</table>

N.B.: le voci contraddistinte da un asterisco devono essere compilate obbligatoriamente.

2. **IL PRESENTE DOCUMENTO EUROPASS MOBILITÀ È RILASCIATO DA**

<table>
<thead>
<tr>
<th>Nome dell'organizzazione</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.I.S. Pietro Scalcerle</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Numero dell'Europass Mobilità</th>
<th>Data di rilascio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>00 00 2004</td>
</tr>
</tbody>
</table>

N.B.: le voci contraddistinte da un asterisco devono essere compilate obbligatoriamente.

**Nota**

Europass Mobilità è un documento europeo standard; registra dettagliatamente contenuto e risultati, espressi in termini di competenze o di titoli accademici, ottenuti da una persona – a prescindere da età, livello di studio o situazione professionale – in un periodo trascorso in un altro paese europeo (UE, EFTA/SEE o paesi candidati) a fini di studio.

Il formato di Europass Mobilità è conforme alla Decisione n. 2241/2004/CE del Parlamento europeo e del Consiglio, del 15 dicembre 2004, relativa ad un quadro comunitario unico per la trasparenza delle qualifiche e delle competenze (Europass)

Per maggiori informazioni su Europass, compreso curriculum vitae Europass e Passaporto delle lingue Europass: http://europass.cedefop.eu.int

© Comunità europee 2004

3. **ORGANIZZAZIONI PARTNER DEL PERCORSO DI MOBILITÀ (N.) SONO**

**PARTNER NEL PAESE D'ORIGINE** (organizzazione che dà inizio al percorso di mobilità)

Nome, tipologia di organismo (se del caso, facoltà/dipartimento) e indirizzo

<table>
<thead>
<tr>
<th>Timbro e/o firma</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Obiettivo del percorso Europass Mobilità</strong></td>
</tr>
<tr>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>Acquisire una prima esperienza professionale in un contesto internazionale.</td>
</tr>
<tr>
<td>Studio dell'unità di apprendimento 4a CREDCHEM</td>
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</table>

<table>
<thead>
<tr>
<th><strong>Iniziative nell’ambito del quale si svolge il percorso Europass Mobilità (se del caso)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage di 3 settimane a Bratislava</td>
</tr>
</tbody>
</table>

**NB:** Questa parte non è valida senza il timbro delle due organizzazioni partner e/o la firma delle persone di riferimento/tutors. Le voci contraddistinte da un asterisco devono essere compilate obbligatoriamente.
5.a DESCRIZIONE DELLE CAPACITÀ E COMPETENZE ACQUISTE DURANTE IL PERCORSO EUROPASS MOBILITÀ (N.)

**Attività/compiti svolti:**

Svolgimento e realizzazione dei compiti di lavoro della Unità di apprendimento 4a CREDCHEM nel campo di azione “Lavorare in laboratorio”
- Titolazione potenziometrica
- Titolazione conduttimetrica
- Titolazione acido-base
- Titolazione complessometrica
- Titolazione permanganometrica
- Titolazione di ossidoriduzione

**Capacità e competenze professionali o tecniche acquisite:**

**Livello di competenze A:**

Capacità di definire le costanti e le proprietà delle sostanze con l’ausilio delle comuni procedure e di adeguare queste ultime alle condizioni (scelta della procedura a seconda delle proprietà / della struttura delle sostanze).

**Capacità e competenze linguistiche acquisite (al di fuori di quelle professionali o tecniche):**

Lingua Inglese: acquisizione di micro-lingua specifica relativa alle attività descritte, miglioramento delle capacità di ascolto, comprensione sia della lingua scritta che parlata.

**Capacità e competenze informatiche acquisite (al di fuori di quelle professionali o tecniche):**

Rafforzamento delle competenze informatiche già in possesso del partecipante
- Produzione di relazioni tramite Word
- Lettura e invio di posta elettronica e allegati
- Ricerca di informazioni on-line

**Capacità e competenze organizzative acquisite (al di fuori di quelle professionali o tecniche):**

Lavoro di gruppo
- Capacità di confronto e apprendimento in un contesto diverso da quello usuale

**Capacità e competenze sociali acquisite (al di fuori di quelle professionali o tecniche):**

Accettazione e rispetto delle opinioni dei diversi componenti del gruppo
- Adattamento a differenti metodologie di lavoro e comunicazione
5.a DESCRIPTION OF SKILLS AND COMPETENCES ACQUIRED DURING THE EUROPASS MOBILITY EXPERIENCE

Activities/tasks carried out

Execution and carrying out of the tasks provided for by the 4° CREDCHEM Learning Unit in the “working in the Lab” action field.
- Potentiometric Titration.
- Conductimetric Titration
- Acid-base Titration
- Complexometric Titration
- Permanganate Titration
- Redox Titration

Job-related skills and competences acquired

Ability to define constants and properties of chemicals by use of common procedures and ability to adjust the latter to conditions (choice of procedure according to property/structure of chemicals).

Language skills and competences acquired (if not included under ‘Job-related skills and competences’)

English language: acquisition of the specific micro-language concerning the tasks described above, improvement of listening ability and comprehension in written and spoken English.

Computer skills and competences acquired (if not included under ‘Job-related skills and competences’)

Improvement of IT skills already possessed by trainee:
- Writing reports using Word
- Reading and sending e-mails
- Searching for information online

Organisational skills and competences acquired (if not included under ‘Job-related skills and competences’)

Team working
Learning and confronting other people’s opinions in a new environment.

Social skills and competences acquired (if not included under ‘Job-related skills and competences’)

NB: Questa parte non è valida senza la firma della persona di riferimento/tutor e del titolare di Europass Mobilità.
Le voci contraddistinte da un asterisco devono essere compilate obbligatoriamente.
| (34a) (*) | Accepting and respecting other people’s opinions  
Adapting to different working and communication methods |
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<td>(35a) (*)</td>
<td>Adapting to different cultures and ideas</td>
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Other skills and competences acquired

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NB: Questa parte non è valida senza la firma della persona di riferimento/tutor e del titolare di Europass Mobilità

Le voci contraddistinte da un asterisco devono essere compilate obbligatoriamente.
Annex 13

A list of interviewees providing their expert opinion (out of total 26 experts addressed)

Judita Dömötörová, Secondary Vocational School of Chemistry, Bratislava
Irena Fonodová, Slovak Academic Association for International Cooperation, Bratislava
Marián Galan, Regional Education Division, Ministry of Education, Science, Research and
Sport of the Slovak Republic, Bratislava
Elena Globanová, Regional Development Agency Senec – Pezinok
Monika Hodnická, Technical Academy, Spišská Nová Ves
Gabriela Jakubová, State Institute of Vocational Education, Bratislava
Alexandra Junášková, State Institute of Vocational Education, Bratislava
Tomáš Kobela, Regional Development Agency Senec – Pezinok
Pavel Korbas, Secondary Vocational School, Senec; State Institute of Vocational Education,
Michal Macháč, EUROFORMES, a. s., Žilina
Zuzana Palková, Slovak University of Agriculture in Nitra
Miroslav Repovský, Regional Education Division, Ministry of Education, Science, Research
and Sport of the Slovak Republic, Bratislava
Zuzana Sležáková, Health Care Education Section, Ministry of Health, Bratislava
Eva Stručková, Secondary Vocational School of Horticulture, Piešťany
Ladislav Šatka, State Institute of Vocational Education, Bratislava
Jozef Zajac, Technical University of Košice
Viera Žatkovičová, State Institute of Vocational Education, Bratislava