

# DEVELOPMENT OF KEY COMPETENCES AND GENERIC WORK LIFE SKILLS OF VET LEARNERS THROUGH ERASMUS+ INTERNATIONAL LEARNING MOBILITY

Study report

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#### **FOREWORD**

#### Tiia Randma, Member of the Board of the Estonian Qualifications Authority

Coincidentally, I have read the stories of young people who have been on traineeships before. I found the following in the foreword of a collection that was compiled fifteen years ago: 'By reading the experiences of young people that have been submitted to the internship stories competition, the great added value of traineeships becomes clear – successfully coping in a different cultural and language environment builds self-confidence and the belief in oneself. Difficulties encountered in a novel situation help people notice their ability to adapt and how it is evolving. But most importantly, being away and looking at things from a distance, helps you to appreciate your home and relationships differently. Sometimes you have to go a long way to understand the most important thing – everything I want to achieve is in my own hands. All you have to do is work'.

I am very pleased that Erasmus+ and the European Solidarity Corps Agency launched a study in 2023 that systematically analysed how international mobility has supported the development of key competences for lifelong learning of VET learners and the most valued generic work life skills by employers.

What are generic work life skills and why are they important? Generic skill is the ability to plan and carry out activities of a general nature. What makes these activities more general is that they do not depend on the profession or field of activity, but are necessary in the working world and in life at large. Generic skills are like a foundation, the strength of which determines how tall of a building can be built on it using professional skills. Generic skills also help to cope with both personal and societal changes.

In Estonia, the Skills Classification, which is largely based on international examples, <sup>1</sup> divides generic work life skills into three broad groups: One group consists of self-management skills. Here are the skills that will help each of us to better understand ourselves and cope with ourselves. The keyword common denominator of the second group is thinking skills. These are the skills that help us better understand the world around us and the connections that work there. The third group includes communication skills – these support communication and understanding between people.

It is a pleasure to note that the study proved knowledge based on previously isolated cases – in the course of the learning mobility, young people develop generic skills that are important for successfully coping in the working world. Most of the generic work life skills most valued by employers, such as interpersonal skills, learning to learn, team and collaboration skills, adaptability, ability to achieve goals and analytical skills, are related to self-determination, social and learning competences in the language of education<sup>2</sup>. The study shows that it was the development of these competences that was most supported by learning mobility, and even slightly more so than the development of professional competences. In addition, learning mobility also supports learners' ability to act creatively and innovatively, as well as initiative and problem-solving skills. The (professional) foreign language skills of learners developed significantly.

Many thanks to those who conducted the study as well as those whose daily work leads young people to learning mobility!

<sup>&</sup>lt;sup>1</sup> For example, the European Skills Classification <u>ESCO</u>

<sup>&</sup>lt;sup>2</sup> Standard of Vocational Education: <a href="https://www.riigiteataja.ee/en/eli/515012020003/consolide">https://www.riigiteataja.ee/en/eli/515012020003/consolide</a>

### CONTENTS

Foreword	3
CONTENTS	4
Background to the study	5
Erasmus+ VET Learning mobility	8
Theoretical framework	10
Key competences for lifelong learning	11
Key competences for lifelong learning in vocational education curricula	13
OSKA Classification of Generic Work Life Skills	14
Generic work life skills most valued by employers	15
Purpose of the study and research questions	16
Methodology of the study	17
Analysis and results	19
Multilingual Competence	20
Personal, social and learning to learn competence	22
Literacy	24
Entrepreneurship competence	25
Competence in cultural awareness and expression	26
Citizenship competence	27
Digital and technological competences	28
Mathematical competence, competence in natural sciences and engineering	29
Generic work life skills most valued by employers	31
Summary and conclusions	33
Sources used	35
Annex 1: Overview of the learning mobilities carried out	37
Annex 2: Questionnaire 2014-2016	37
Annex 3. Questionnaire 2017-2020	38

#### **BACKGROUND TO THE STUDY**

According to the Estonian Education Strategy 2021–2035 (Ministry of Education and Research, 2021), the general objective of Estonian education is to ensure that the Estonian people have the knowledge, skills, and attitudes that enable them to realise themselves in their personal life, work and society, and support the promotion of Estonian life and global sustainable development. According to the Ministry of Education and Research<sup>3</sup>, the aim of vocational training in Estonia is to acquire knowledge, skills, attitudes, experience and social readiness for work, participation in social life and lifelong learning. In order to successfully cope with the rapidly changing world and adapt to changes in the labour market, society and life, it is important to pay attention not only to vocational and professional competences, but also to key competences and support the development of basic skills in VET. (European Commission, 2020) The basis for compiling Estonian vocational education curricula is the Vocational Education Standard<sup>4</sup>, according to which, the learning outcomes of the core and elective study modules of the curriculum are described not only through vocational and professional competences, but also through learning competence, communication competence, self-determination competence, performance competence, information technology competence, and initiative and entrepreneurial competence. In the context of the modern approach to learning (Pedaste et al., 2017), it is also important to set learning skills, cooperation skills, self-management and subjective well-being as learning objectives in education, in addition to subject-related knowledge and skills, in order to adapt to changes in society and work life. (Sutrop et al., 2019)

Vocational education and training is closely linked to the working world and it is therefore particularly important that the training acquired meets the needs and expectations of the labour market. In order for Estonian education and training to better meet the needs of the labour market, the Government of the Republic approved the concept of the labour market monitoring and future skills forecasting system (OSKA) in 2014. (Leemet and Ungro, 2022)

OSKA is systematically engaged in identifying the needs and trends of the labour market, and has also carried out important studies that include the analysis of the necessary skills. Previous OSKA studies have shown that generic skills (i.e. skills that do not depend on the occupation or field of activity, but are necessary throughout the working world) are valued in the eyes of employers and are considered important. However, Estonian employers have previously pointed out the lack of social skills among school leavers as a problem area. The lack of these skills has an impact on successful coping in the workplace —

<sup>&</sup>lt;sup>3</sup> Website of the Ministry of Education and Research: <a href="https://www.hm.ee/en/education-research-and-youth-affairs/general-education/vocational-education">https://www.hm.ee/en/education-research-and-youth-affairs/general-education/vocational-education</a>

<sup>&</sup>lt;sup>4</sup>Vocational Education Standard: <a href="https://www.riigiteataja.ee/en/eli/515012020003/consolide">https://www.riigiteataja.ee/en/eli/515012020003/consolide</a>

there is little cooperation and therefore the potential for synergies is inhibited. (Halapuu 2015) The modern working world is constantly changing and it is difficult for education to keep up with the rapid changes brought about by technological and societal developments. Adapting to the needs of the labour market and society is essential to ensure the competitiveness of VET. When acquiring formal education, it is important that the learner also acquires good learning skills and other general competences, which make it easier to acquire the skills necessary in different fields of entrepreneurship. (Sutrop et al., 2019)

The long-term problem facing vocational education in Estonia is the high dropout rate, reaching 21 per cent in 2022, whereas the share has increased by 1.5 per cent over the last five years. (Ministry of Education and Research, 2023) The share of dropouts in the first year of vocational secondary education has also increased. One of the reasons for discontinuing studies may be the poor acquisition of learning skills at an earlier stage of schooling. (OECD, 2019) When looking at the data from the OECD vocational education report, nearly 70 per cent of learners with a grade point average below 3.29 in basic school studies go on to vocational education. However, the lower the grade point average, the higher the probability of dropping out of upper secondary VET. Among learners whose grade point average in basic school studies is below 3.29, 40 per cent discontinue vocational secondary education already in the first year of their studies. For comparison, among learners with a grade point average of at least 4.3 in basic school, the dropout rate is only 9 per cent. (OECD, 2019) It is therefore important to develop the learning skills of learners, to ensure both their successful coping in professional studies and, more broadly, their participation in lifelong learning.

The jobs of people with lower skill levels are more vulnerable in the labour market in view of technological developments, including automation. (Foresight Centre, 2018) In order to successfully adapt to the needs of the labour market, readiness to participate in lifelong learning is important, but readiness for it is significantly lower among people with a low level of education – while on average in Estonia 17% of the population aged 25-64 have participated in formal education or training during the last 4 weeks, only 4.4% of the population with a low level of education have done so. (Reinhold, 2016)

One of the objectives of the proposed reform of vocational education in Estonia is to develop new curricula and learning pathways that prioritise the advancement of general competencies that foster social and life skills over the course of one's lifetime. Employers consider the acquisition of competences that support successful coping to be more important than before, including problem-solving skills, cooperation and teamwork skills, which is why it is important to pay greater attention to their development in vocational education. (Vapper 2023)

In the collection *Smart and Active Estonia 2035*, expert groups have proposed to develop the field of vocational education and training, by agreeing that vocational education and training (VET) is any set of skills, knowledge, experience and values need to work in a profession. At the same time, working in any profession requires, among other things, key competences and an education system; while continuing

education institutions and the working world as a whole should take responsibility for promoting vocational education and training. Cooperation with enterprises is becoming increasingly important in vocational education and it is forecast that in 2035, vocational training will mainly take place in enterprises using the apprenticeship method. (Sutrop et al., 2019)

The development of key competences as the skills, knowledge, and attitudes is necessary for self-fulfilment, personal development, as well as for finding a job and actively participating in society (Council Recommendation...) and generic skills as the skills that are not related to a specific occupation, task, academic discipline or area of knowledge, which can be used in a wide variety of situations and work environments (UNESCO, 2023), is also an important role of the company as a real-world environment that allows for the knowledge, skills, and attitudes necessary for working in a real-life environment to be practiced and developed.

In the case of school-based learning, there is an opportunity to develop key competences more deeply in the context of traineeships. In vocational education, in addition to a traineeship in Estonia, it is possible to complete a traineeship or part of it in another country with the support of the Erasmus+ programme. One of the aims of learning mobility is not only to develop the skills needed in the labour market, but also to strengthen key competences and transversal skills (Erasmus+ Programme Guide 2022). The Estonian Education Development Plan 2021–2035 (Ministry of Education and Research, 2021) sees international learning mobility as one way to increase the quality of vocational education through the development of a common European Education Area. One of the indicators for measuring the achievement of the strategic objective of the development plan – learning opportunities are diverse and accessible, and the education system enables smooth mobility between levels and types of education – is the percentage of vocational learners participating in learning mobility. The target for 2035 is for all learners to be able to participate in learning mobility without hindrance.

<sup>&</sup>lt;sup>5</sup> European Commission. Erasmus+ Programme: https://erasmus-plus.ec.europa.eu/about-erasmus/what-is-erasmus

#### **ERASMUS+ VET LEARNING MOBILITY**

Learning mobility for learners in vocational education and training (VET) supported by the European Union started in Estonia in 1998, when the Estonian Leonardo Centre, which was established under the Estonian Vocational Education Reform Foundation, accepted the first applications for learning mobility. In the meantime, vocational education and training has undergone tremendous development in Estonia. Fewer than half of the schools from that time remain, school buildings have been modernised, and excellent opportunities for internships and studies have been created. In most VET institutions, international work is carried out systematically and learning mobility is no longer organised on a project-by-project basis, but on the basis of an Erasmus accreditation, which ensures funding from year to year and supports the achievement of strategic objectives. While in the framework of the first call for applications, 43 vocational learners carried out an internship abroad, the current number of mobile learners already exceeds 1,000 per year.

The main purpose of VET mobility is to undertake a professional traineeship. Most traineeships are carried out in a foreign company, but also, under certain conditions, in another vocational training institution. The minimum duration of the traineeship is 10 (ten) working days, the maximum duration of the traineeship is one (1) year.

The learning mobility must be preceded by appropriate preparation, for which the sending school is responsible. In addition to good professional training, it is also important to have sufficient foreign language skills, knowledge of the culture and customs of the destination country, and psychological readiness to successfully cope in a foreign environment. For many vocational learners, this is their first time being abroad, flying aboard a plane, living independently from their families for extended periods of time, and managing a fairly significant sum of money.

This study covers the Erasmus+ mobility period 2014– 2020, which took place between August 2014 and May 2023. The standard 2-year implementation period was extended by 12 months due to the outbreak of the Covid-19 pandemic. During the period under consideration, 5,408 instances of learning mobility took place, the breakdown of which by school is given in Annex 1.

The highest level of mobility during the given period was recorded by Finland (698 participants), followed by Germany (666 participants), and Spain (655 participants). At the same time, most of the countries participating in the Programme are represented among mobility target countries.

More than three quarters or 77% of the participants in learning mobility were under 30 years of age, while nearly a quarter or 23% were 30 years of age or older. Just over half, or 57% of participants, were women.



For young people, learning mobility is first and foremost a time for developing independence and social maturity. Adult learners already view the experience with a more analytical eye; their choices are more conscious, they are very motivated to learn, while also being much more demanding.

The duration of learning mobility is decided by the sending school together with the receiving institution. The majority, i.e. 58%, of learning mobility activities during the period in question were of a duration of less than 1 month. The share of longer learning mobility periods of between 1 and 6 months is remarkably high, at 41%. There were also cases of long-term mobility lasting for more than 6 months. One of the priorities of the Erasmus+ programme in vocational education is to extend the duration of learning mobility for pupils to ensure a deeper and more diverse learning experience.

Most VET institutions have Erasmus coordinators in charge of organising mobility activities, from the selection and preparation of participants to the dissemination and reporting of results. Finding reliable and professional host partners and maintaining and developing cooperation relations is also an important key element. It is also important to support participants during their mobility.

Positive feedback from participants is evidence of the high quality of work in schools. The overall satisfaction rating for learning mobility by pupils during the period was very high, with 96% of participants either completely satisfied or rather satisfied with their experience.

#### THEORETICAL FRAMEWORK

In European and Estonian literature, including sectoral studies, different concepts are used to interpret general competences – such as key competences (CEDEFOP) and basic skills (European Commission), transversal skills (UNESCO, 2023), which can be applied in all spheres of life, and skills of the 21st century. (Haugas and Allemann, 2021)

Different sources also address different concepts such as skill, competence, and ability. The term 'competence' is often used interchangeably with the term 'competency'. The Professions Act<sup>6</sup> defines competence as a set of knowledge, skills, experience and attitudes necessary for successful professional activity. Martin Mulder (2011), a well-known competence researcher, points out that competence is expressed in successful coping, and in addition to acquiring skills and knowledge, it is also important to develop the right attitudes.

General competences are defined as attitudes, beliefs, skills and knowledge that are related to a person's cognition and action, and thus affect a person's ability to cope in various fields. (Kikas & Toomela, 2015) Key competences are also defined as a set of generic skills, knowledge, and attitudes necessary for personal development, professional and social participation. (European Commission, 2023) In Estonian education, the concept of general competence is used in the same way as the concept of key competences. General education mainly uses the concept of general competence, while vocational education uses the concept of key competence.

Skills are defined in the European Qualifications Framework as the ability to apply knowledge and thereby use know-how to perform tasks and solve problems. (ESCOpedia) Thus, skill is part of the competence, which is expressed in the ability to use what has been acquired in a certain situation or in the performance of a task. However, the concept of competence is broader and includes the ability of a person to use their acquired knowledge and skills independently and in a self-guided manner in new, unexpected, and challenging situations. Competence is a general, integrated, and internalised ability that is a necessary condition for acting and solving problems, in order to act effectively in a certain professional field, workplace, role, organisational context and task. (Mulder et al., 2009)

Differences in definitions make it difficult to understand and correctly interpret the meaning of general competence, which is why it is important to clearly define the theoretical basis. The theoretical framework of this study is based on the definition of key competences for lifelong learning (Council

<sup>&</sup>lt;sup>6</sup> Professions Act: https://www.riigiteataja.ee/en/eli/521032019015/consolide

Recommendation...) and the **OSKA Classification of Generic Work Life Skills**. (Leemet and Ungro, 2022) Generic work life skills are defined as the prerequisite skills necessary for work life, which are transferable to all known areas of the working world. (Leemet and Ungro, 2022)

#### Key competences for lifelong learning

To help people thrive in society, the Council of the European Union has issued a Recommendation on Key Competences for Lifelong Learning. (Council Recommendation...) Key competences include the generic skills, knowledge and attitudes that people need for personal fulfilment, personal development, employment and active participation in society. (European Commission, 2023) In the context of key competences for lifelong learning, 'competences' are defined as an appropriate set of knowledge, skills and attitudes in which (Council Recommendation...):

- knowledge consists of facts and figures, concepts, ideas and theories that have already been created and support the understanding of a particular field or topic;
- skills are defined as the ability to manage processes and use existing knowledge to achieve results;
- attitudes describe the willingness and mindset to act or react to ideas, persons or situations.

Support for the development of competences should be lifelong, through formal, non-formal, and informal learning.

The eight key competences for lifelong learning are (Council Recommendation...):

- literacy competence,
- multilingual competence,
- mathematical competence and competence in science, technology and engineering;
- digital competence;
- personal, social and learning to learn competence;
- citizenship competence;
- entrepreneurship competence;
- cultural awareness and expression competence.

**Literacy competence** involves the ability to identify, understand, express and interpret concepts, feelings, facts and opinions – both orally and in writing – using visual, audio and digital tools in different subject

disciplines and contexts. This means being able to communicate with others in an appropriate, creative and effective way.

**Multilingual competence** is defined as the ability to communicate in different languages in an appropriate and effective manner. To a large extent, these are the same skills as literacy competence: it is based on the ability to understand, express and interpret concepts, thoughts, feelings, facts and opinions – both orally and in writing (listening, speaking, reading and writing) – in a variety of social and cultural contexts, based on one's needs and desires.

**Mathematical competence** is the ability to develop and apply mathematical thinking and understanding to solve a wide range of issues that arise in everyday life. In order to achieve good numeracy skills, the emphasis is on process and activity, as well as knowledge. Mathematical competence also includes, to a greater or lesser extent, the ability and willingness to use mathematical thinking and methods of presentation (formulas, models, diagrams, graphs).

**Science competence** refers to the ability and willingness to explain nature using knowledge and methodology, including observation and testing, to raise issues and draw evidence-based conclusions.

**Competence in technology and engineering** is understood as the application of knowledge and methods in the service of human desires or needs. Science competence and competence in technology and engineering require an understanding of human-induced change and individual responsibility.

**Digital competence** is the ability to use digital technologies skilfully, critically and responsibly for learning, work, entertainment and participation in society. This includes information and data literacy, communication and cooperation, media literacy, digital content creation (including programming), security (including digital well-being and cybersecurity competences), intellectual property rights issues, as well as problem solving and critical thinking.

**Personal, social and learning to learn competence** is the ability to analyse oneself, manage time and information effectively, collaborate constructively, be adaptable and organise one's learning and career. This includes the ability to cope with insecurity and complexity, learn to learn, support one's physical and emotional well-being, maintain physical and mental health, and be able to lead a health-conscious and future-oriented life, show empathy, and manage conflict in an inclusive and supportive context.

**Citizenship competence** is the ability to act as a responsible citizen and to fully exercise one's civil rights and participate in society; this requires an understanding of social, economic, legal and political concepts and structures, as well as global trends and the principle of sustainability.

**Entrepreneurship competence** refers to a person's ability to act on opportunities and ideas and turn them into value for others. It is based on creativity, critical thinking and problem-solving skills, a sense of initiative

and perseverance, and the ability to work together to design and manage projects of cultural, social or financial value.

**Cultural awareness and expression competence** means understanding and respecting how creative ideas are expressed and communicated in different cultures through a variety of artistic and cultural forms. It involves understanding, developing and expressing one's own ideas and an understanding of one's place or role in society in different ways and contexts. (Council Recommendation...)

## Key competences for lifelong learning in vocational education curricula

The content and curricula of vocational education in Estonia are based on the **Vocational Education Standard**<sup>7</sup>, according to which the learning outcomes of the modules of basic and elective studies are described through vocational and professional knowledge, skills, the extent of independence and responsibility and learning competence, communication competence, self-determination competence, performance competence, IT competence and initiative and entrepreneurial competence. These key competences are defined in the VET Standard as follows:

- **learning competence** is the ability to manage one's own learning through effective learning strategies and appropriate learning styles.
- **communication competence** is the ability to communicate in oral and written form in different situations and on different topics;
- **self-determination** is the ability to understand and evaluate oneself, to make sense of one's actions and behaviour in society, to develop oneself as an individual;
- performance competence is the ability to see and solve problems, plan their activities, set
  operational objectives and anticipate expected results, select means of action, act, evaluate the
  results of their activities, and cooperate;
- information technology competence is the ability to make skilful and critical use of information technology tools and digital media;
- **initiative and entrepreneurial competence** is the ability to act with initiative and creativity, and to plan their careers in a modern economic, entrepreneurial and work environment, using the knowledge and skills acquired in different areas of life and activity.

<sup>&</sup>lt;sup>7</sup> Vocational Education Standard: <a href="https://www.riigiteataja.ee/en/eli/515012020003/consolide">https://www.riigiteataja.ee/en/eli/515012020003/consolide</a>

#### OSKA Classification of Generic Work Life Skills

A classification of generic work life skills was developed within the framework of the OSKA study<sup>8</sup> (Leemet and Ungro, 2022), which allow skills to be systematised. According to the study report, its development has mainly been based on ESCO<sup>9</sup> (The ESCO Classification, 2023), i.e. the European Skills Classification, with the Estonian classification essentially being the further development of the latter.

Generic work life skills are prerequisite skills for the working world that are transferable to all known areas of the working world. (Leemet and Ungro, 2022) Generic skills in the working world are defined **as skills**, i.e. the ability to plan and carry out targeted work activities of a universal nature. (Leemet and Ungro, 2022)

According to the classification, generic skills in the working world are divided into three broad **skill groups**: self-management, reflective, and interpersonal skills.

The skill areas are further divided into skill categories, i.e. skills.

The first skill area, **self-management skills**, includes ten skills that contribute to self-reflection and better realization of one's own abilities. **Reflective skills include** seven cognitive skills necessary to process information and abstract concepts. **Interpersonal skills** includes ten skills that are necessary for working with people, communicating with each other and achieving common goals. (Leemet and Ungro, 2022)

<sup>&</sup>lt;sup>8</sup> OSKA study on generic work life skills: <a href="https://oska.kutsekoda.ee/en/thematic-studies/oska-study-on-generic-work-life-skills/">https://oska.kutsekoda.ee/en/thematic-studies/oska-study-on-generic-work-life-skills/</a>

<sup>&</sup>lt;sup>9</sup> European Commission, The ESCO Classification: <a href="https://esco.ec.europa.eu/en/classification">https://esco.ec.europa.eu/en/classification</a>

#### Generic work life skills most valued by employers

The main objective of the OSKA study on generic work life skills (Leemet and Ungro, 2022) was, on the one hand, to systematise and harmonise the titles, classification, and description of generic work life skills and, on the other hand, to provide a consolidated overview of what generic skills will be needed in the Estonian working world in the coming years. Within the framework of the study, 10 generic work life skills were identified, which are most appreciated by Estonian employers across different fields.

#### These are:

- learning skills;
- analytical skills,
- problem-solving skills,
- creative and innovative thinking;
- communication skills;

- teamwork and collaboration skills,
- language skills,
- adapting to change;
- achieving goals,
- taking the initiative.

Key competences for lifelong learning and generic work life skills are interlinked and thus include the generic skills most valued by employers as mentioned above. Most of the generic work life skills assessed by employers as essential (learning skills, analytical skills, interpersonal skills, teamwork and collaboration skills, adapting to change, achieving goals) relate to personal, social and learning to learn competences.

#### PURPOSE OF THE STUDY AND RESEARCH QUESTIONS

The main purpose of the study is to find out how international Erasmus+ learning mobility has supported the development of key competences for lifelong learning for VET learners and the most valued generic work life skills by employers. Based on the purpose of the study, two research questions were set:

- How has learning mobility supported the development of key competences for lifelong learning for VET learners?
- How has learning mobility supported the development of the generic work life skills most valued by employers?

#### METHODOLOGY OF THE STUDY

Both quantitative and qualitative approaches were used in the study. The research instrument was the feedback questionnaire (see Annex 2 and Annex 3), to which participants in learning mobility replied electronically after their participation in learning mobility. The questionnaire used different types of questions, including the Likert scale, multiple-choice and open-answer questions. The questionnaire was amended twice, an open question was added to the questionnaire in 2016 (Please describe what you did during your mobility? What new knowledge, skills and competences did you acquire?) and in 2017 the wording of some statements was changed (including the addition of: I believe that as a result of my participation in Erasmus+ learning mobility, I developed the following competencies: Competencies in Mathematics, Science and Technology). The statements related to different competences and skills were improved, but did not lead to any substantive changes, e.g. in the case of analytical skills, the original statement was corrected: My ability to think logically and draw conclusions improved as a result of my participation in learning mobility, in accordance with: Thanks to my participation in learning mobility, I learned ... to think more logically and draw better conclusions (analytical skills). As regards citizenship competence, the two statements previously used were combined: I believe that as a result of my participation in Erasmus+ mobility, I developed the following competencies: Social and civic competences (e.g. appreciation of different cultures and a better understanding of concepts such as democracy, justice, equality, citizenship and civil rights). The updated form is visible in Appendix 3.

Qualitative data analysis was carried out on the basis of the answers to the open-ended question and text-based content analysis was used to analyse the data. Researcher triangulation was used in the analysis — two researchers first analysed the data independently, then reached a common agreement on the results through discussions. Based on the objectives of the study, the researchers first encoded individually significant units of meaning (substantial literal extracts of free answers) by defined categories (key competences). Based on the units of meaning, generalisations were first made individually, i.e. codes were identified. To ensure reliability, they were compared, discussed and analysed until a consensus was reached. The results were then discussed again among themselves, with an agreement reached on the final results.

Quantitative data analysis used self-assessments to develop different skills, knowledge and attitudes. The questionnaire analysed 26 statements that included learners' assessments on a five-point scale (1 = strongly disagree, 5 = strongly agree) of the development of skills, knowledge and attitudes related to different key competences. The statements were grouped by different key competences and averaged scores for the statements were used in the data analysis. First, the average of each statement was calculated, then the



average of the scores of the various statements grouped by key competences. When analysing generic work life skills, the average scores of the statements were used and the proportion of positive answers (4 = I rather agree, 5 = I completely agree) was highlighted.

The study sample included 5,408 vocational learners from all over Estonia, who completed their traineeship abroad between August 2014 and May 2023. The average duration of the learning mobility was 30 days. More than half, or 57%, of the sample were women, and the arithmetic average age of the learners in the sample was 25 years and the median age was 20.

#### **ANALYSIS AND RESULTS**

The study shows that the learning mobility experience supports the development of **key competences for lifelong learning for** VET learners. Personal, social and learning to learn competences were the most developed. The average rating of VET learners for the development of this competence was 4.34 on a 5-point scale, which is even slightly higher than the rating of 4.31 for the development of professional competences. (*see Table 1*)

The development of mathematical competence, and competence in science and engineering in mobility is the lowest assessed by VET learners. However, just over a third (36%) of VET learners surveyed indicate that they tend to agree or strongly agree that these competences were developed as a result of mobility. However, the proportion and nature of tasks supporting competence development may vary from one specialisation to another. Learners from many different fields highlight the development of skills in the use of work-related equipment and machines. Technical vocational learners also developed other skills through learning mobility, such as reading drawings and schemes.

Table 1: VET learners' assessments of the development of key competences through mobility

	Average	Number of
Key Competence	rating*	responses**
Personal, social and learning to learn	4.34	48,672
competence		
Literacy (i.e. the ability to critically	4.2	5,408
analyse information)		
Entrepreneurship competence	4.18	16,224
Competence in cultural awareness and	4.12	5,408
expression		
Citizenship competence	3.89	21,632
Digital and technological competences	3.54	5,408
Mathematical competence, competence	2.99	3,129
in science and engineering		

<sup>\*</sup> on a scale of 1 (totally disagree) ... 5 (totally agree)

<sup>\*\*</sup> for some competencies, the answers to a number of different questions related to the skills covered by the competency are grouped together. The question of mathematical competence, and competence in natural sciences and engineering is not included in the questionnaire for the projects funded in 2014–2017.

Based on qualitative data analysis, it appears that learning mobility generally supports the development of a number of different key lifelong learning competences and related skills, knowledge and attitudes at the same time.

'I took part in a care placement in one of the best nursing homes in Malta. I was able to use the theoretical knowledge I learned in school in real work; to see, experience and assist the local staff in everyday life. To learn to communicate and collaborate with people of different nationalities, cultures and backgrounds. I acquired new competencies in communicating and interacting with clients with special needs, including moody elderly individuals and, for example, those with dementia. I learned to use new technology and tools to help caregivers lift, transport, and move clients with reduced mobility. I gained openness, experience, courage and self-confidence to continue working in an international team, if necessary. My courage and ability to speak English improved. I learned to be and continue to be curious about new cultures, nationalities and customs, because it greatly broadens horizons, understanding, and tolerance, and makes it easier to work abroad or as part of an international team. It was a great experience and I am grateful to everyone who made this experience possible in this form!'

- Mari, Trainee in the Social Work and Counselling Study Programme Group

The following is an analysis of the development of skills, knowledge and attitudes related to different key competences in terms of key competences.

#### **Multilingual Competence**

VET learners were mainly able to express the development of multilingual competence by assessing the development of the foreign language skills used during learning mobility. A total of 18% of respondents found that they already had a good command of a foreign language prior to leaving on learning mobility. The vast majority of the remaining participants (93%) developed their foreign language skills while doing an internship abroad.

Participants most often highlight the **development of foreign language self-expression or communication skills**. The experience also gave them the **courage to** express themselves in a foreign language, while also leading to the significant acquisition of foreign vocabulary, especially professional vocabulary. Grammar and written foreign language skills were developed to a lesser extent. The latter was developed, for

example, by keeping a practice blog in a foreign language. Foreign languages were developed both by performing work tasks in the working environment and by communicating with colleagues and clients, as well as by communicating with fellow learners and local people.

'It was a very important aspect for me to get over the "language block" when speaking English, in particular to improve my speech significantly. This goal was achieved because I had daily conversations with other residents in the institution and, in order to improve my language skills, I also kept a blog in two languages (Estonian and English) to capture my impressions of travel'.

- Jete, Trainee in the Audiovisual Techniques and Media Production Study Programme Group

During learning mobility, participants developed skills in different foreign languages. The vast majority of respondents (84%) used English as the main foreign language for their traineeship abroad, but Finnish, Russian, German, Spanish and other languages were also used.

Table 2: Main foreign language during learning mobility

Main foreign language used during learning mobility	Percentage of respondents
English	84%
Finnish	4%
Russian	3%
German	2%
Spanish	2%
Italian	2%
French	1%

Vocational learners who used English as their main foreign language also developed their knowledge of the language of the destination country during their internship abroad. Depending on the previous language level, both individual (professional) words in a foreign language were acquired in the local language of the country of destination and communication skills were also developed in some cases.

'My knowledge of Spanish improved considerably, I learned how to work with the hotel program – i.e. the Spanish language program'.

- Katrin, Trainee in the Management and Administration Study Programme Group

#### Personal, social and learning to learn competence

It is the development of personal, social and learning to learn competence through learning mobility that is most appreciated by VET learners. It encompasses a range of knowledge, skills and attitudes, the development of which is interlinked and mutually reinforcing. VET learners' assessments of the development of the nine skills or attitudes of the competence group are presented in Table 3.

Table 3: Assessment of VET learners regarding the development of skills and attitudes related to personal, social and learning to learn competence

Skills and attitudes developed in learning mobility	Average rating
Open-mindedness (including interest in new challenges)	4.48
Adaptability	4.46
Teamwork skills	4.44
Self-confidence (including confidence in one's abilities)	4.43
Self-awareness (knowledge of your strengths and weaknesses)	4.37
Empathetic attitude	4.33
Learning Skills (Independent Planning and Conducting of Learning)	4.24
Analytical skills	4.15
Decision-making power	4.13

Based on qualitative data analysis, emphasis is placed on **the development of various social skills**, in particular the development of communication courage and skills by working in a multilingual work environment and with people from different (cultural) backgrounds.

Traineeship assignments in **multicultural teams were predominant**, supporting the **development of teamwork skills**. There was a perception of the importance of teamwork and interdependence, including the need to compromise in order to reach a common goal. Some participants also developed team management skills due to the specific nature of their duties.

The majority of respondents point out that coping successfully in an unfamiliar environment and performing important tasks in an external internship also helped to develop **self-confidence and courage**. The experience increased self-esteem and raised the level of confidence in one's own abilities.

Working together with people from different (cultural) backgrounds in a foreign working environment, in another linguistic and cultural space, develops **adaptability and** increases **openness**, including openness to new challenges. Working in a multicultural environment helps one **to understand differences in work cultures and values**, improves the ability to adapt and behave in accordance with the international working environment and different cultural environments, taking into account its specificities. **Positive attitudes and openness** towards cultural and national differences increase.

'In my opinion, my self-development outpaced the development of my knowledge. I learned to be more open, to communicate with people, to cope both individually and also work better as part of a team. I learned how to withstand criticism and deal with stressful situations while remaining positive'.

- Piret, trainee in the Hospitality and Catering Study Programme Group

The development of (mainly self-appropriate) skills, knowledge and attitudes related to personal, social and learning to learn competence was further highlighted as follows:

- Performance skills
- Empathetic attitude and tolerance
- Self-awareness
- Self-management skills
- Self-reflection skills
- Self-assertion skills
- Resistance to stress
- Patience
- Routine tolerance

- Ability to work independently
- Responsibility
- Ability to set and evaluate objectives
- Critical and logical thinking
- Decision-making skills
- Health awareness
- Career Awareness
- Learning to learn

Vocational learners learned to assess the **importance of both their physical and mental health** when undertaking an external traineeship. Different target countries pay varying degrees of attention to topics related to the working environment and well-being. In this way, learners point out that they learned to appreciate the importance of their well-being and how to maintain it, for example, by trying to avoid stress while working in different work cultures. By experiencing stressful and complex (occupational) situations, the ability to cope with stressful situations was developed. In addition to mental well-being, attention was paid to physical health through learning and practicing ergonomic techniques.

On the one hand, learning mobility supported the development of self-awareness by getting to know one's own strengths and weaknesses better in new situations, but also by being convinced of what one is capable of. On the other hand, they developed a better understanding of their personal employment and learning perspectives. Awareness of the day-to-day work and tasks of the profession was increased, as well as the confidence to work independently. They developed greater confidence in their choice of speciality, as well

as motivation and interest in continuing to study and work in their speciality. There was a better understanding of what kind of work they would like to do in the future and new foreign job opportunities were discovered. In some cases, courage and motivation for further studies or starting a business also increased.

'My ability to work with others definitely improved; I gained more self-confidence. You have to be open to everything new and then nothing is impossible, the world is full of nice people. This practice changed my mind, if before I was convinced that working in a restaurant and cheques were not suitable for me, now it is the other way around'.

- Reelika, Trainee in the Hospitality and Catering Study Programme Group

#### Literacy

During the internship, vocational learners developed their skills in searching for and processing information, which was expressed, for example, in searching for and processing reliable and relevant information in their field, using various tools, including mobile devices. For example, searching foreign language channels for information for investors or preparing excursion programmes was described.

'Life outside a familiar environment requires greater vigilance and the ability to obtain information'.

- Karl, Trainee in the Hospitality and Catering Study Programme Group

Several learners maintained a *blog* in their mother tongue or a foreign language to record their internship experience, thereby developing their **writing skills**. It was also developed by drafting texts in foreign languages, including promotional texts, which some trainees abroad had to do in the course of their work. It was also mentioned that during the traineeship the ability to **understand specialised literature or texts**, including foreign languages, was developed.

'During my internship, I blogged to develop my writing skills'.

- Reet, Trainee in the Travel, Tourism and Leisure Study Programme Group

#### Entrepreneurship competence

Entrepreneurship competence was also developed as a result of learning mobility. Respondents highlighted the **development of creativity**, which was particularly evident through **the establishment and performance of tasks**. For example, the learner was allowed to act creatively; while performing the work, he or she was given the freedom to shape the final outcome of the work and choose suitable methods and materials. Or was the opportunity was given to create something completely new during the internship and to think outside of the box.

For the first time, a large proportion of the learners participating in learning mobility had to manage money on their own for the first time, which helped them to develop their **financial literacy**, including the ability to manage money better. **Financial literacy was also developed** by performing tasks related to the field, especially in the social field – for example, planning company resources, preparing price offers, as well as performing tasks related to accounting.

Knowledge of entrepreneurship was also developed, as well as knowledge related to the start-up and management of a company, as well as knowledge of the tax system, entrepreneurial culture, business communication and the business environment of another country.

'When I was abroad, I was involved in supporting the company's goals and activities, and resource planning. We had to cope with accounting, based on the needs and peculiarities of the company, and support the activities necessary for production and service process in accordance with the company's work organisation. My internship experience is invaluable to me. Starting with an internship, I got a lot of knowledge and advice on how to start my own company in the future, and how to deal with it in a way that maximises growth. About Malta, I learned how useful it is for large companies to set up their headquarters there, as the tax burden in Malta is low. However, starting a business in the country is not as easy as it is in Estonia. The process is longer and more costly'.

- Jüri, Trainee in the Management and Administration Study Programme Group

Quantitative analysis showed that vocational learners appreciate competence skills and attitudes, and that **the most developed skills were problem-solving skills**, which were expressed in the ability to cope with both complex work tasks and challenging unexpected work-life situations.

Table 4: VET learners' assessments of the development of entrepreneurial skills and attitudes

Skills or attitudes developed during mobility	Average rating
Problem-solving skills	4.29
Planning and organizing skills	4.25
Entrepreneurial skills and taking initiative	4.01

Vocational learners who completed an internship abroad developed an entrepreneurial attitude and a sense of initiative, including **the courage to start their own business**. The shaping of readiness to start a business was pointed out by learners from several different fields, such as management and administration as well as creative disciplines.

The performance of professional tasks also supported the development of the **management and organizational skills** of vocational learners, for example, some vocational learners had the opportunity to organise an international event or lead a team, while participating in project work led to the acquisition of knowledge regarding project management and project writing. More broadly, they developed the ability to better organise their activities and plan their tasks.

#### Competence in cultural awareness and expression

The development of cultural awareness was highlighted by almost all learning mobility participants. The acquisition of knowledge and experience regarding the traditions and customs, values and history (art, architecture, literature) of other cultures was highlighted, both by visiting museums, galleries, events and various historical places, as well as by interacting with local people.

The experience of working and living in a multicultural environment developed the learners' ability to take into account cultural peculiarities in both professional and everyday life, to communicate and cooperate in a multicultural environment and to respect the norms of another cultural space. The experience also helped to develop a positive attitude and openness to cultural and national differences and beliefs, as well as an understanding of the value of different cultures and differences.

The development of competence in cultural expression was most evident among learners in creative disciplines (e.g. arts, crafts, music and literature) who highlighted the development of their creative skills and knowledge. For example, the development of performance skills was described, but well as the acquisition of knowledge regarding band communication, local (national) practices and techniques, different styles, as well as the local materials found in the country and how to use them.

'I gained experience by participating in different stages of work preparing installations/exhibitions, from stockpiling and preparing material to technical implementation. I now have a better understanding of what it means to work as an active artist, who works by recycling recyclable materials and waste, turning them into large-scale art objects. In the future, I can better estimate possible time consumption and plan my personal art projects in the future. I was inspired to continue working on my own as an artist'.

- Meeri, Trainee in the Audiovisual Techniques and Media Production Study Programme Group

#### Citizenship competence

Based on quantitative analysis, it appears that learning mobility supported more open attitudes towards world events and learners' interest in European issues in the development of citizenship competence. Interest in what is happening in Europe and the wider world is an important basis for developing a greater desire among learners to actively participate in society, including contributing to community development. Nearly 60% of respondents, felt that, as a result of their mobility, they intended to take a more active part in the social and political life of their community. VET learners' assessments of the development of skills, knowledge and attitudes related to citizenship competences are presented in Table 5.

Table 5: VET learners' assessments of the development of knowledge, skills and attitudes related to citizenship competences

After participating in learning mobility	Average rating*
As a result of my learning mobility, I developed the	
following competencies: Social and citizenship	
competences (e.g. appreciation of different cultures and a	4.22
better understanding of concepts such as democracy,	
justice, equality, citizenship and civil rights) **	
I am more interested in what is happening in the world	4
I am more interested in European issues.	3.97
I intend to take a much more active part in	3.72
the social and political life of the community	
I have a better understanding of concepts such as	
democracy, justice, equality, citizenship and civil rights***	3.53

<sup>\*</sup>on a scale of 1 (totally disagree) ... 5 (totally agree)

Some participants acquired knowledge about the functioning of the local community and the political and social situation in the country of destination.

'I obtained an overview of how a local community works, who is developing a port, among other things, and who is trying to revive traditions, and how the community is trying to bring this knowledge to young people'.

- Riina, Trainee in the Transport Services Study Programme Group

<sup>\*\*</sup>question set in feedback forms for 2017–2020 funded projects

<sup>\*\*\*</sup>question set up in the feedback forms for projects funded in 2014–2016

Importantly, participants highlight that the experience increased their knowledge of sustainability and sustainability-related topics, i.e. the development of green competences. In this way, knowledge was acquired about methods of environmental protection in the working environment (e.g. use of environmentally friendly or recyclable materials in the workplace) and readiness to apply them in the work. The experience also supported the development of a positive attitude towards waste management and the ability to use resources (tools, electricity, waste) economically and environmentally in the workplace.

'I gained greater appreciation for the wide range of possibilities for material reuse in saving the environment around us'.

- Marju, Trainee in the Hospitality and Catering Study Programme Group

#### Digital and technological competences

While a comparison of the averages of VET learners' assessments of the development of different key competences (see Table 1) suggests that the development of digital and technological competences of mobile participants was supported by the learning mobility experience to a slightly lesser extent than the development of most other competences, the analysis of qualitative data reveals a number of positive examples of the development of these competences.

As a result of the learning mobility, the ability to use different software or programs was developed across disciplines, i.e. for learners in the IT field as well as many other fields. In carrying out their tasks, the learners used a number of different (foreign) software and programs to which they had no previous exposure. Examples can be found in many fields, such as the acquisition of photo editing programs for learners in the field of beauty services, the development of website creation skills, the study of payroll, data entry, design, video editing programs for learners in the social field, etc.

'During my traineeship, I was mainly involved in data processing. I worked with Excel and Word, and created a user manual for the Way2Pay program. I improved my computer literacy (work with office software is now easier and faster for me), and my English also improved. I am much more confident working with computer programs'.

- Kärt, Trainee in the Management and Administration Study Programme Group

The development of skills in the use of **office software** (e.g. Excel, Word, and PowerPoint programs) as a result of mobility is also highlighted across disciplines. Both general **computer skills and the** ability to use different **virtual environments** for learning were developed. Learners' **interest in new technologies also** 

**increased**, for example, by learning to use different printing technologies (3D and laser printing). In some cases, the **development of data visualisation skills** is highlighted. IT learners developed the ability to master various **programming languages** and web development software, as well as to create new IT solutions such as web applications and games. Many learners had the opportunity to realise themselves through the implementation of various innovative IT projects.

'I was tasked with creating supportive solutions for the work of the company, based on the needs of the company. Specifically, we had to create a program that sorts the emails of the entire company into the respective project folders. In addition, we had to create a new website on WordPress, which was previously written with PHP 10 years ago and was outdated'.

- Kirke, ICT Study Programme Group

#### Mathematical competence, competence in natural sciences and engineering

Quantitative data analysis shows that VET learners rated the development of maths, science and engineering competences in mobility as the lowest compared to other competences (see Table 1), while the importance of competences and the share of tasks related to competence development may vary across disciplines. Slightly over a third (36%) of learners said they tend to or completely agree that this competence was developed as a result of mobility. The lower assessment may have been caused by the wording of the statement in the questionnaire 'I believe that as a result of my participation in Erasmus+ mobility, I developed the following competencies: Competences in Mathematics, Science and Technology'. However, competence also includes the ability to understand technological developments and their impact. Qualitative data shows that awareness of new technological opportunities and the ability to use innovative professional equipment is what VET learners highlight. The learners described the use of new technological tools and possibilities during the course of the traineeship, including equipment with which they lacked previous exposure. Examples were given of the use of modern technologies, tools and equipment in various fields, such as maintenance work and cleaning services, but also the use of robots, drones, 3D and laser printers and CNC benches in the fields of information technology and engineering.

'During my internship, I became acquainted with the task of a graphic designer, using modern technology to produce and personalize products made by national artisans, the designing of a new modern design, and the designing and manufacturing of distinctive packaging and advertising. The use of laser technology from idea to implementation, from handicrafts to the creation of a modern design, from packaging to advertising. I learned about the possibilities offered by a laser printer, from engraving to cutting on different materials – paper, cardboard, plywood, glass and leather'.

- Lenna, Trainee in the Audiovisual Techniques and Media Production Study Programme Group

Learners in technical disciplines noted an improvement in their **ability to read drawings and diagrams.**There were also few examples where an evidence-based research instrument was developed in practice, thereby developing science-based **research skills.** 

'New knowledge and skills were added by developing a questionnaire on a scientific basis, using it online, how to get the results under the graphical overview in the fastest way. How to expand the questionnaire on the basis of lessons learnt and answers, how to further develop the questionnaire to the different groups that emerged during the course of the work'.

- Reili, Trainee in the Hospitality and Catering Study Programme Group

#### Generic work life skills most valued by employers

According to the OSKA study<sup>10</sup> on generic work life skills, Estonian employers value the following generic work life skills the most across sectors: learning skills, analytical skills, problem-solving, creative and innovative thinking, interpersonal skills, teamwork and collaboration skills, language skills, adapting to change, achieving goals, and taking the initiative.

The analysis of the qualitative data showed that learning mobility resulted in the development of all ten of these skills, with the development of the ability to achieve the goals being highlighted to a slightly lesser extent. As regards language skills, foreign language skills were mainly developed, as highlighted by the majority of mobile learners.

Based on quantitative data analysis, it is possible to assess the development of seven generic work life skills. It appears that the learning mobility experience contributes significantly to the development of generic skills relevant to employers. (see Table 6)

Table 6: VET learners' assessments of generic skills development in working life

Generic skills developed during a traineeship	Average rating*	Percentage of positive responses**	Number of respondents
Adapting to change	4.46	92%	5408
Teamwork and collaboration skills	4.44	90%	5408
Problem solving	4.29	87%	5408
Learning skills	4.24	86%	5408
Creative and innovative thinking ***	4.23	85%	2277
Analytical skills	4.15	82%	5408
Taking the initiative	4.01	75%	5408

<sup>\*</sup>on a scale of 1 (totally disagree) ... 5 (totally agree)

Learning mobility takes place abroad, in another cultural space and in an environment, which is why, according to the assessments of vocational learners, the development of **adaptive skills** is the most

<sup>\*\*</sup> Percentage of options 4 (rather agree) and 5 (totally agree)

<sup>\*\*\*</sup> taken into account the responses of participants in the projects funded in 2014–2016 (question set for 2017–2020 differs)

<sup>&</sup>lt;sup>10</sup> Leemet, A., Ungro, A. (2022). Classification of generic work life skills and future needs. OSKA labour needs monitoring and forecasting system. Tallinn: SA Kutsekoda. Visited at: <a href="https://oska.kutsekoda.ee/wp-content/uploads/2022/03/Tooelu\_yldoskuste\_klassifikatsioon\_ja\_tulevikuvajadus\_terviktekst.pdf">https://oska.kutsekoda.ee/wp-content/uploads/2022/03/Tooelu\_yldoskuste\_klassifikatsioon\_ja\_tulevikuvajadus\_terviktekst.pdf</a>

prominent. Tasks are carried out in international teams, which supports the development of team and cooperation skills. The development of problem-solving skills by learners is highly valued, which is also expressed in coping with complex work tasks and challenging work-life situations. Learning skills will be developed through the learning mobility experience. The ability to organise one's learning and work activities more efficiently is highlighted, e.g. one learns to better plan one's activities in work, to plan and use time more efficiently in their performance, to reflect on one's activities, and to evaluate the results achieved.

Learning mobility mainly involves the use of a foreign language in communication and administration, which is why language skills are primarily developed **in foreign languages**. A total of 18% of VET learners surveyed consider that they already had a good command of a foreign language before their mobility, while a larger majority of the remaining participants (93%) consider that their knowledge of a foreign language developed during their mobility.

#### **SUMMARY AND CONCLUSIONS**

The results of the study show that VET mobility makes it possible to significantly develop the key competences for lifelong learning of VET learners and the generic work life skills valued by employers. Most of the generic work life skills most highly valued by employers, such as interpersonal skills, learning skills, teamwork and collaboration skills, adapting to change, achieving goals, and analytical skills, are related to personal, social and learning to learn competence. The study shows that the development of this competence was most supported by learning mobility, and even slightly more so than the development of professional competences. Completing an internship abroad also supports learners' ability to act creatively and innovatively, as well as initiative and problem-solving skills. Learners' (professional) foreign language skills developed significantly. It can therefore be concluded from the results of the study that during mobility, VET learners develop generic work life skills that are essential for success in the working world.

The development of key competences for lifelong learning is important in vocational education and training; these are the learning outcomes arising from vocational education standard. This study confirmed that, in addition to the development of professional competences, VET learning mobility makes it possible to significantly develop key competences for learners' lifelong learning. Thus, carrying out a traineeship in vocational education is an important learning activity that supports the achievement of the learning outcomes of the curriculum as well as the ability of learners to cope more broadly in real-life situations and in the working world. As a result of learning mobility, personal, social and learning to learn competence was developed the most, as well as literacy, entrepreneurship, cultural awareness and expression, and the citizenship competence. At least to a certain extent, digital and technological competences as well as competences in mathematics, science and engineering were developed. In the case of the latter, the proportion of tasks that allow the development of that competence may vary from one area of expertise to another. Thus, it became apparent that technical learners developed, for example, the ability to read drawings and diagrams within the framework of this competence, while the development of the ability to use new technological tools and equipment emerged across the fields.

The qualitative analysis of the study shows that most vocational learners have thought about the development of key competences with the support of foreign traineeship and understood its importance. In order to increase the efficiency of learning, it is important to make sense of and analyse the acquisition of key competences in the school together with the learners and, if necessary, to provide them with support in analysing their learning experience, both before, during and after learning mobility. This topic was not included in the focus of this study, but it would be important to address it in further studies.

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Execution of an internship in a foreign working environment develops diverse competences of the learners, which would probably not be possible in such a form of domestic internship. It appears that the learners developed, on the one hand, foreign language skills, as well as cultural awareness and, at the same time, the ability to cooperate and communicate with people from different (cultural) backgrounds, both in the working environment and more broadly. The experience of living and working in a multicultural environment also increased the overall open attitude and the ability to understand the value of different cultures. It also emerged that work cultures in different countries attach different importance to topics related to employee well-being and health, through which learners learned to value their work-related physical and mental well-being more than before. Innovative technologies, tools and equipment were also used by foreign companies and more attention was paid to sustainability and sustainability issues, which supported the development of learners' green competences, on the one hand, and the ability to use new technological tools and equipment, on the other. Thus, the foreign working and living environment made it possible to develop skills, knowledge and attitudes in many different ways, which would probably not have been caused by the home environment.

In conclusion, this study shows that international VET learning mobility is an important learning activity through which it is possible to successfully support the development of key competences for lifelong learning for VET learners and to develop skills that are essential for coping in the working world and valued by employers.

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## ANNEX 1: OVERVIEW OF THE LEARNING MOBILITIES CARRIED OUT

The table gives an overview of the number of learning mobility activities carried out in the framework of this study and the amount of support allocated to learning mobility activities by different beneficiaries.

Beneficiary	Number of	Grant amount for
	mobilities	learning mobilities
Pärnumaa Kutsehariduskeskus	636	1 650 132 €
Tartu Rakenduslik Kolledž	635	1 335 851 €
Rakvere Ametikool	440	1 179 889 €
Tallinna Teeninduskool	369	1 075 071 €
Ida-Virumaa Kutsehariduskeskus	368	730 904 €
Kuressaare Ametikool	336	718 553 €
Haapsalu Kutsehariduskeskus	290	683 558 €
Tallinna Ehituskool	250	687 683 €
Räpina Aianduskool	213	367 276 €
Tallinna Polütehnikum	206	435 464 €
Hiiumaa Ametikool	172	377 230 €
Järvamaa Kutsehariduskeskus	141	330 357 €
Võrumaa Kutsehariduskeskus	140	224 707 €
Viljandi Kutseõppekeskus	116	318 284 €
Eesti Massaaži- ja Teraapiakool	114	177 643 €
Luua Metsanduskool	106	168 777 €
Tartu Kunstikool	99	450 612 €
Tallinna Tööstushariduskeskus	91	242 324 €
Valgamaa Kutseõppekeskus	84	219 446 €
Tallinna Majanduskool	71	139 904 €
Astangu Kutserehabilitatsiooni Keskus	67	91 159 €
Olustvere Teenindus- ja Maamajanduskool	63	126 578 €
Vana-Vigala Tehnika- ja Teeninduskool	63	105 886 €
Tartu Tervishoiu Kõrgkool	61	127 502 €
Kehtna Kutsehariduskeskus	55	137 050 €
Pärnu Saksa Tehnoloogiakool	36	144 837 €
Tallinna Tervishoiu Kõrgkool	31	67 825 €
Tallinna Kopli Ametikool	30	63 028 €
Väike-Maarja Õppekeskus	28	50 754 €
Lääne-Viru Rakenduskõrgkool	24	26 336 €
Tallinna Muusika- ja Balletikool	23	46 475 €
Georg Otsa nim. Tallinna Muusikakool	19	36 324 €
Tallinna Lasnamäe Mehaanikakool	31	73 030 €
TOTAL	5408	12 610 449 €

#### **ANNEX 2: QUESTIONNAIRE 2014-2016**

The feedback questionnaire for learners used in vocational education mobility projects funded in 2014-2016 can be found in full <u>HERE</u>.

#### ANNEX 3. QUESTIONNAIRE 2017-2020

The feedback questionnaire for learners used in VET mobility projects funded from 2017–2020 can be found in full HERE.