



Title of the project: „Recognition of vocational qualifications for the transfer needs on European job market”
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Guide book

**The use of the model of the recognition
of vocational qualifications for the purpose
of their transfer on the European labor market
in relation to other jobs and chosen job markets**



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Introduction

The European Union provides, through its legal actions and harmonization, free movement of people, goods, capital and services. This is the fundamental rule written down in the Treaty on the Functioning of the European Union. In accordance with Article 45 “ Free movement of persons” freedom of movement for workers shall be secured within the Union. Such freedom of movement shall entail the abolition of any discrimination based on nationality between workers of the Member States in relation to employment, remuneration and other conditions of work and employment.

However, taking up employment by qualified workers in the profession obtained in their home countries, it is difficult or even impossible because of differences in various systems of formal vocational training occurring within Member States. Also the employers, who can hire qualified workers in another country, are not able to assess professional competences of the potential employees who were educated in other countries. In the process of free movement of qualified workers there is a barrier on the inability to evaluate and compare professional competences easily in a given profession which were gained in different countries of the European Union.

The barrier is particularly felt by young people who, because of the barrier, during the international mobility cannot obtain employment in their professions. The consequence of the above situation is undertaking work which is not related with obtained education which is usually low- wage, seasonal or requiring low competency. This situation is unfavorable and inconsistent with the accepted principle of free movement of workers. At national and European levels there is a reduction in the efficiency of funding of vocational education. While in the individual dimension it blocks the possibility of development of the professional career on the European labor market and based on the obtained profession.

In response to the above problems, a partnership of experienced organizations and institutions was formed and it consists of:

- The leader- Economic and Social Higher School in Ostrołęka,
- National partners- Regional Development Agency ltd. In Ostrołęka, The Institute of Technology and Operation of the State Research Institute in Radom,
- Transnational partners- Handwerkskammer Erfurt (Germany) Intercultural Association Mobility Friends (Portugal).



The partnership took up the challenge to develop an innovative solution that would allow the evaluation and comparison of the formal vocational education effects for the chosen professions i.e. an electrician and a car mechanic in the countries of the partners. The project also took the survey of entrepreneurs in those countries in terms of professional competences they expected. The main result of the project is an open ICT tool to support the needs of young people and employers on the open job market of the European Union in terms of the transfer of professional qualifications. At the same time, the tool contains information enabling the employers to understand and know more about the professional qualifications that young people have. On the other hand, it allows young people to meet employers' expectations from the job markets chosen in the project and at the same time to carry out a self- assessment of their competences and compare them to the employers' expectations. The results of the project facilitate the international mobility of workers in the professions of an electrician and a car mechanic on the Polish, German and Portuguese job markets and as a solution can be extended to other professions and labor markets.



1. Objectives of the project called „Recognition of vocational qualifications for the purpose of transfer on the European job market“

The aim of the “Recognition of vocational qualifications for the purpose of transfer on the European job market” project was to ensure easier identification of skills and vocational qualifications on the labor markets in Poland, Germany and Portugal on the example of the professions of an electrician and car mechanic and making their transfer to the European job market easier. The project presents not only the differences in vocational education in the chosen countries but also refers the results to the employers’ expectations in those countries. The project adopted a uniform methodology for the study of national systems of formal education, systems of vocational education, the process of obtaining vocational qualifications and competences in the professions of an electrician and car mechanic for all of the partner countries (Poland, Germany and Portugal) and taking into account the European and national qualifications framework. European Qualification Frame and the development of national qualification frames, common principles for quality assurance in vocational education and training as well as the recognition of qualifications promotes transparency and comparability of knowledge, skills as well as personal and social competences in the European Union countries. The Council of Europe Resolution (Resolution 96/C 224/04 of 15 July 1996) concerning the transparency of diplomas of vocational training enables educational and professional mobility.

The aim of vocational training is to prepare the students for life in the conditions of the modern world, preparation for professional work and active operation of the changing labor market. The duties of schools and other entities engaged in vocational training and the way they are implemented are conditioned by changes in the economic and social environment which are influenced especially by: the idea of knowledge- based economy, globalization of economic and social processes, the growing share of international trade, geographical and occupational mobility, new techniques and technologies, as well as an increase in employers' expectations in terms of skills and knowledge of their employees. In the process of vocational training it is important to integrate and correlate general and vocational education, including the improvement of key competences acquired in the process of general education, taking into account the lower stages of education. An appropriate level of general knowledge associated



with professional knowledge contributes to raising the level of professional skills of vocational school graduates and thus provides them with the opportunity to meet the challenges of a changing labor market. In the process of vocational training certain measures are taken to support the development of each learner according to his needs and abilities with particular emphasis on individual pathways of education and career, the possibility of raising the level of education and professional qualifications as well as preventing early school leaving. Flexible response of vocational training system to the needs of labor market, its openness to learning throughout life as well as educational and professional mobility of the graduates, is designed to extract the qualifications within the various professions listed in the classification of the occupations for vocational education.

The aim of the project named “Recognition of vocational qualifications for the purpose of transfer on the European job market” was also to conduct the research in the partner countries (Poland, Germany, Portugal) and specify the required professional competence typical for workplaces in the jobs of an electrician and car mechanic in Poland, an electrician and an automobile mechanic in Portugal and an electrician specialty: energy and construction technologies and an automobile mechatronics – specialty: car mechanic in Germany. In the German classification of professions and specialties for the needs of labor market there exists a profession of an electronic engineer- specialty: energy and construction technologies. The equivalent of the above mentioned German profession in Polish and Portuguese classification of occupations for vocational education is the profession of an electrician. The car mechanic in Poland is equal to Portuguese automobile mechanic and German automobile mechatronic specialization: automobile mechanic. The subject to comparative analysis were: typical workplaces, typical activities performer in these jobs and vocational competences expected by the employers (such as: knowledge, skills, social competences). The study was covered by 60 entrepreneurs from each partner country. The basic research tool which was used was a survey questionnaire (60 entrepreneurs- 100 %), and additionally an in-depth interview with the entrepreneurs was also conducted (6 entrepreneurs- 10 %). The basic research techniques were: telephone interview or personal interviews together with document analysis and working meetings.

The starting point to develop recommendations to develop the Model for the Recognition of vocational qualifications for the purpose of transfer on the European job markets in Germany,



Poland and Portugal in relation to the professions of an electrician and car mechanic in Poland, an electrician and an automobile mechanic in Portugal and an electrician specialty: energy and construction technologies and an automobile mechatronics – specialty: car mechanic in Germany was to obtain, on the basis of comparative analysis, to evaluate the extent of compliance of expectations of the employers who hire workers in the above mentioned jobs with the vocational competences obtained by the graduates in formal systems of education in those professions. The model should identify the areas of competence, within which the level of knowledge, skills, social, personal and key competences essentially differs from the expectations of the employers in these countries and which should be strengthened through lifelong learning in order to make the opportunities of the graduates equal on the European labor market.

It was thought that it would be helpful if the expectations of the employers who hire workers on the typical workplaces in the professions of an electrician and an automobile mechanic in Portugal and an electrician, specialty: energy and construction technologies and an automobile mechatronics – specialty: car mechanic in Germany and a car mechanic in Poland were compared together with the self- assessment of competences and qualifications of the graduate (self- assessment questionnaire). The analysis of how to obtain vocational qualifications in each of the countries (description of a path to obtain the profession) as well as the documents which confirm obtaining qualifications necessary for the profession were also important elements of the Model. The diversity of vocational training systems within the European Union results in the fact that professional competences obtained in the formal education system are not directly recognized in the other EU countries. the entrepreneurs from the European Union countries who are looking for workers are not able to evaluate what vocational qualifications go together with the evidence of formal qualifications in the profession. The ICT tool for recognition and validation of vocational qualifications will facilitate the transfer of professional qualifications within the European labor market and will make it possible to extend the cooperation of educational institutions with the employers.

The result of the research work carried out under the project entitled “Recognition of vocational qualifications for the purpose of transfer on the European job markets” , Erasmus +, which was implemented by the institutions from Poland, Germany and Portugal is the Platform which is supporting the development of human resources, processes of creating and



updating the descriptions of professional competences for creating and improving the quality of programming offer in the two professions of an electrician and a car mechanic. The work on its research focused mainly on a comparative study of formal systems of vocational education, identification of learning outcomes common and different for the partner countries, unified model of recognition of professional competences for all of the partner countries. The results of comparative studies of the formal vocational training systems (conducted by schools, crafts and other educational institutions) in Poland, Germany and Portugal in the professions of an electrician and a car mechanic showed both- similarities and differences achieved in learning outcomes.

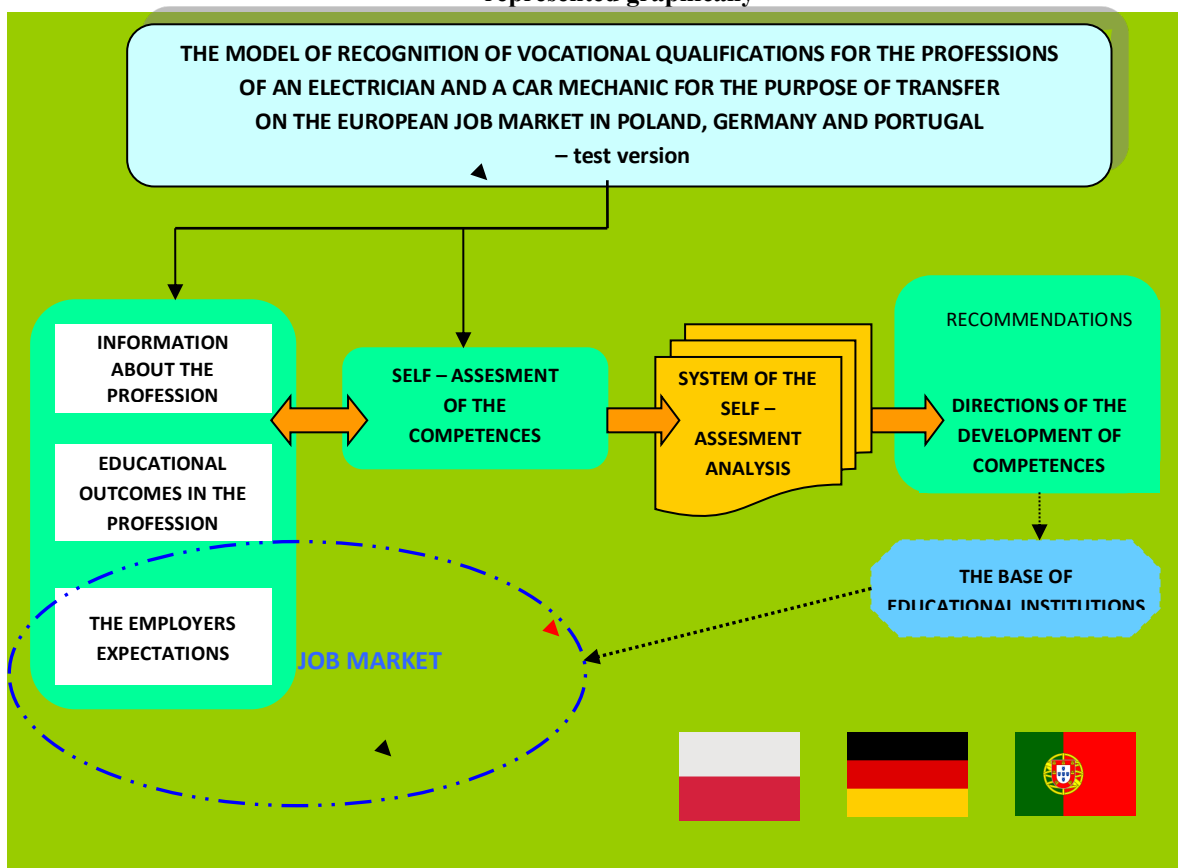
Compliance information or discrepancies in professional competence of the graduates or of the people hired or applying for the posts in above mentioned professions in relation to expectations of the employers in Poland, Germany and Portugal, recommendations for further career development may be obtained after the self-assessment of professional competences. The available search engines base of educational institutions will facilitate the right choice of the subject of vocational training according to the place of residence or professional work where new skills can be acquired and where one's competences may be evaluated by the competent certifying institutions and obtain the proof (a certificate) of these qualifications.



2. Description of the Model and ICT tools

The model of recognition of vocational qualifications for the purpose of transfer on the European job market was developed to provide easier recognition of professional qualifications expected in the labor markets in Germany, Poland and Portugal for the professions of an electrician and a car mechanic. It is aimed primarily at the graduates of formal education in the professions, employers, representatives of the educational institutions as well as the representatives of labor market.

The Model of recognition of vocational qualifications for the professions of an electrician and a car mechanic for the purpose of transfer on the European job market in Poland, Germany and Portugal represented graphically



Source: www.transvetjob.eu

When analyzing learning outcomes confirmed by the professional exam for the professions of an electrician and the car mechanic it can be stated that although these professions are differently located in the National Qualification Frameworks in each of these countries and there are differences in terminology, they have a lot in common when it comes to the outcomes in terms of occupational health and safety and consist of distinguishing concepts related to occupational health and safety, fire protection, environmental protection and ergonomics as well as compliance with the rules and procedures concerning safety rules, hygiene and environmental rules; taking up and pursuit of economic activities in the area of market economy, applying labor laws, laws relating to the protection of personal data, tax law and copyright law. Professionally oriented foreign language in all the three countries is English which is treated as the leading language and the common personal and social competences are: compliance with the principles of ethics and culture, creativity and consistency in the implementation of tasks and interaction with other team members. When taking into account the learning outcomes relevant to the qualifications specified for the given professions a lot of similarities can be observed but there are also some slight differences. The most important of them lie in the fact that in the profession of a car mechanic in Poland students have to take the professional exam in only one qualification throughout their vocational training. For the profession of an automobile mechanic in Portugal students have to take two qualifications and in Germany an automobile mechatronic has to take at least five qualifications throughout the vocation training. The qualification M. 18 as the only qualification in the profession of a car mechanic in Polish system of education indicates a far-reaching analogy to two qualifications in the profession of an automobile mechanic in Portuguese system of education. Both qualifications are based on the knowledge and skills to diagnose and repair components and assemblies of motor vehicles or passenger cars. The German education system also takes into account the diagnosis and repair of individual circuits and systems included in the vehicle. The difference, with respect to the previous two, is only in the created possibility to select at the first stage of training the specific: one or more specializations in the diagnosis which prepares the student to the first part of the exam.

Two qualifications in the whole learning circle for the profession of an electrician which can be found in Polish and Portuguese systems of education check their knowledge and skills in the installation and maintenance of electrical installations and electrical equipment, electrical



appliances, electronics and automation. In the German system of education a typical profession of an electrician does not occur, as it happens in Poland and in Portugal. The most similar learning outcomes relevant to qualifications in the profession of an electrician occur in Germany in the profession of electronic engineer specializing in energy and building technologies. In the core curriculum for this profession there is a content providing information in the field of installation and maintenance of electrical installations, electrical equipment, electronic and control engineering extended in the field of power electronics components and mechatronics. Joining the examinations in the above mentioned profession, students and graduates from Poland, Germany and Portugal should demonstrate a similar level of knowledge and possess the same skills. When comparing the professions of an electrician in Poland and in Portugal and an electronic in Germany many similarities in learning outcomes can be noticed especially if it comes to the acquired knowledge and skills. The condition for obtaining the evidence of qualifications acquired in the above mentioned professions is passing the exam from two qualifications in Poland and in Portugal and five qualifications in Germany.

The objective of the comparative analysis of the learning outcomes in each of the countries that took part in the research with the employers' expectations on the labor market was to establish the Model of recognition of vocational qualifications for the purpose of transfer on the European job market in Germany, Poland and in Portugal in relation to the professions of an electrician and a car mechanic. Therefore, the Model indicates the areas of competences within which the level of knowledge, skills, personal, social and key competences differ substantially from the expectations of the employers in the certain country and which should be strengthened by the life- long education to equalize the chances of graduates on the European labor market. In order to do that it was needed to compare the expectations of the employers who hire workers at the typical workplaces in the professions of an electrician and a car mechanic with the self- assessment of the competences.

An important feature of the Model is the analysis of how to obtain vocational qualifications in each of the countries (description of a pathway of possibilities how to get the profession) and to acquire the documents which certify that the profession was obtained. In the element called The expectations of the employers the results will be also presented in a graphical way , i. e. with the use of graphs. The Base of educational Institutions shows detailed information



concerning their offer. The developed Model is available in the languages of all partners involved in the project, is friendly for the people who use it and its substantive content will ensure getting the goals for potential users.

The development of ICT tools using the described above Model of Recognition of vocational qualifications for the purpose of transfer on the European job market is the effect of research work carried out under the project entitled “Recognition of vocational qualifications for the purpose of transfer on the European job market”, Erasmus +, implemented by institutions in Poland, Germany and Portugal. The ICT tool was prepared in four language versions: English, Polish, German and Portuguese. The comparative research work focused on formal systems of vocational education, identification of learning outcomes common and different in partner countries, and on a unified model of recognition of professional competences for all the partner countries. The results of comparative studies of the formal vocational training system (conducted by schools, crafts and other educational institutions) in Poland, Germany and Portugal in the professions of an electrician and a car mechanic showed similarities and differences in achieved learning outcomes.

The platform supports the development of human resources, the processes of creating and updating directions of development of professional competences in order to create and improve the quality of programming offered in the two professions: an electrician and a car mechanic.

The knowledge base about the professions of an electrician and a car mechanic contains separately for each of the professions: information about the job (the name of the job, the level of EQF qualification, synthetic description of the profession, a description of a formal path for the profession, procedures for examinations confirming qualification in the profession, formal documentation confirming obtaining the qualifications in the profession), a description of the effects of vocational training (base of qualifications and educational outcomes for the professions gained in the formal system of vocational training), expectations of the employers (expected vocational competences by the Polish, German and Portuguese employers which were identified as a result of a research, expected personal, social and key competences), information about educational institutions where you can improve or increase the professional competences which were identified in the research showing the expectations of the employers in Poland, Germany and Portugal.

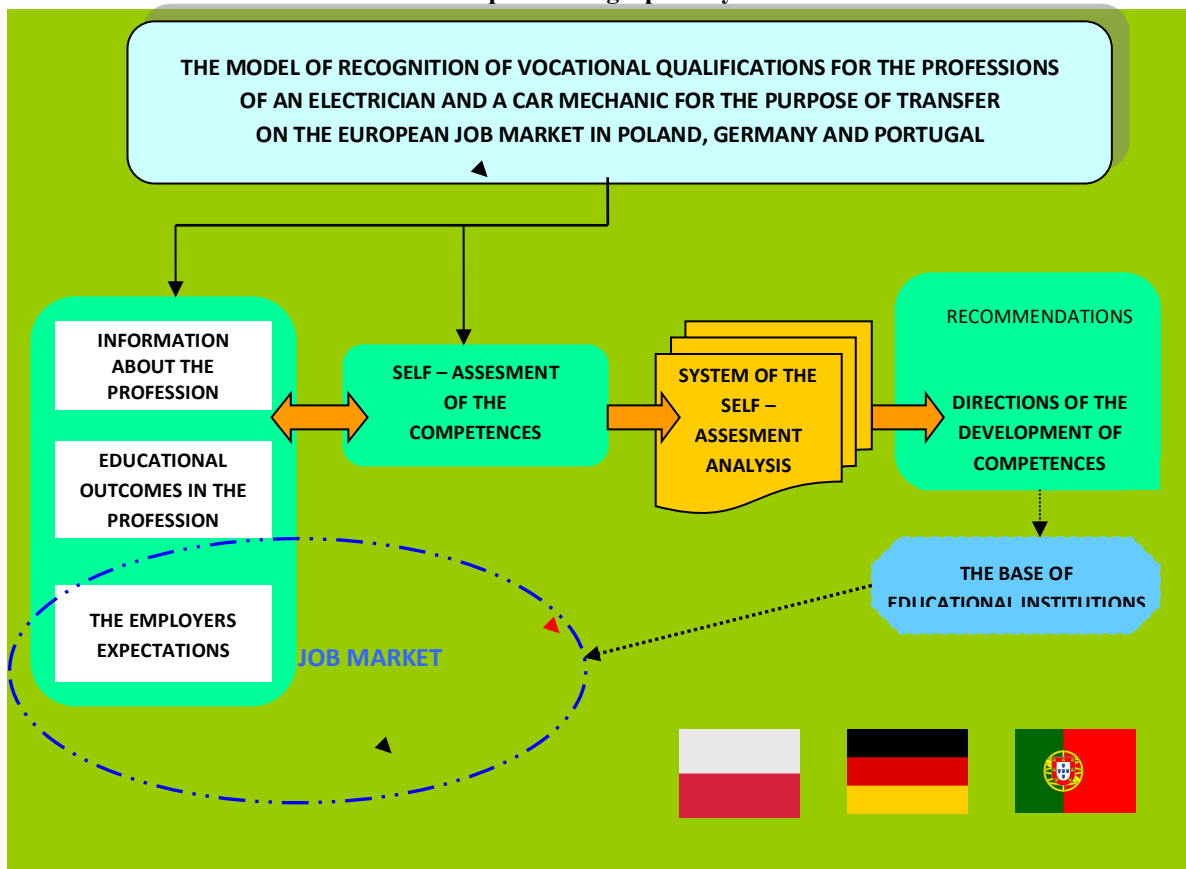


The ICT tools give you the opportunity to compare the expectations of employers in the above mentioned countries with the level of vocational skills of the portal user after performing self- assessment of vocational competences separately for each profession and is mostly designed for graduates/ people who work or want to work as electricians or car mechanics in Poland, Germany or Portugal. The portal also serves the departments of SMEs human resources management in the above mentioned countries, as well as people or institutions that support labor market, institutions responsible for education, vocational schools, educational institutions (public and private), associations, foundations working for adult education programs for those who are interested in using training programs or vocational training in the above mentioned professions, shaping educational policy, modifying the educational programs or vocational training.



3. How the Model should be used

The Model of recognition of vocational qualifications for the professions of an electrician and a car mechanic for the purpose of transfer on the European job market in Poland, Germany and Portugal represented graphically



Source: www.transvetjob.eu

The model of recognition of professional qualifications in the professions of an electrician and a car mechanic has been developed by the international task force. It serves as a tool to facilitate the recognition of professional qualifications which are expected on labor markets in Germany, Poland and Portugal. Basically, there are four target groups, which are thought to be the future users of the Model. They are:

- employees in certain professions,
- employers who employ workers in the professions,
- employment agency,
- educational institution,



For each of the target groups, the Model provides useful information, which will be discussed below.

When it comes to the information part of the model, the users will find extensive information about the profession and its characteristics in each country. These are:

- the description of a workplace,
- ID,
- The level of qualifications (the European frames of qualifications),
- The path of formal education,
- Certificates,
- Educational effects and learning content or the areas of learning,
- employers' expectations in terms of professional, social and key competences,
- training opportunities in the countries surveyed.

Interactive part of the web site, The Model, offers self- assessment which enables the users to compare their real competences with the employers' expectations connected with the employees' competences. On this basis, you can set individual profiles of competence and training needs. The results are useful for all the target groups of the Model, i.e. the web site.

Employees in the professions

The Model contains all the information in response to questions if one should work in the profession he was studying in the other European country. On the other hand, The Model also provides interactive elements which may help the user in the decision making process and show how realistic is it to start the work in other European countries and what skills should be developed in order to transfer successfully.

The project has shown that even the professional titles and typical professional activities in given countries differ significantly in some cases.

It was also showed that the possible positions differ greatly depending on the country. The voluntary skilled workers need therefore be informed about the special possibilities in the target country so that no unrealistic expectations occur. The short description of a workplace further illustrates possible new position. Even more precise information may be found in the training concerning the given profession in the target country. In this case, on the one hand,



well qualified workers from other countries gain the impression of qualifications and competences of their future friends, and on the other hand they also can at the beginning identify overlapping competences and the differences when comparing to their own vocational training. If the differences are too big at this point it becomes obvious that the gaps in qualifications and in competences in order to be able to develop a successful career in the target country.

Confrontation with the employers' expectations in the target country when it comes to skills of their workers is probably the most valuable information. It makes it possible for the professionals to get familiar with the specific activities and essential skills. At the same time it becomes obvious what results are expected from the workers in the target country and which are concentrated on work. An additional value for the skilled labor force is the self-assessment. It offers the comparison of the employers' expectations with the assessment of their own competences. As long as the subjective perception of their own competence is fair, the result contains valuable information and be help in discovering competence gaps.

According to the self- assessment the Model , i. e. the Internet site, also creates opportunities to acquire and develop skills (further training). Specifically search engines which are recommended are the ones which classify the educational institutions and educational offers of all the partner countries according to regions, aims and content. The users must perform certain tasks at this stage if they are looking for specific educational offers on the national and foreign educational market. However, the elements presented above provide a good orientation on the educational market in the target country.

The employers of the qualified workers in the certain professions

If it comes to the employers, the Model enables to facilitate the evaluation of the candidates' from other European countries qualifications and skills which are connected with them. They often have difficulties to understand the real range of individual competences and skills of the candidates from abroad. The Model or the Internet web page gives them the possibility to check which credentials and certificates from other UE countries represent certain qualifications and competences. It is also instructive to look at the plans and the training content because they may see how deep is the knowledge in each area and in the work



streams. This allows more accurate prediction of the possibility of submitting applications and matching of applicants.

Self- assessment is also a useful tool for the employers. They may use it to determine their own requirements that concern the workers or the candidates for the job. It shows how their expectations compare with other employers' requirements in their country. It is obviously also possible to compare them with the applicants' competences. The self- assessment may be also useful for the employers especially at the moment of applying for the job. Another positive feature of the tool is the availability of the information in few languages which makes the understanding of the employers' expectations and requirements easier. However, even at the later stage, e. g. at the end of the trial time, it is possible to use the tool again in order to assess the development of the new worker. What is more, the Model can be used as an instrument for the constant development of team of employees because the gaps in their competences may be easily detected and on these bases select and develop further educational activities.

Employment agencies

The Model offers to the employment agencies (from the German point of view it may be the German Public Employment Agency, German Work Officials, German Ministry of Education and even the private employment agencies) the detailed information about the real expectations and requirements that the employers demand from the candidates from other European countries. the knowledge about this topic may facilitate the process of consultation and mediation. The general information about the profession presented in the Model gives the general orientation both about the home country education system and the target country. Self- assessment may be used to classify the candidate's competences. It may be especially interesting for the Ministries of Education and similar institutions to look at the actual possibilities of the transfer to the European job markets. In some places it will certainly show that the transfer may be easy and in other places it will not happen. It may be used by different entities as an opportunity to initiate changes in the educational policy.



Educational institutions

The providers of educational services whose educational programs are used by the applicants from other European countries in order to compensate for the missing competences may acquire valuable information on the concept and content of the educational offer. This way you can develop the offers based on the needs, which on the one hand cover the eligibility requirements of the participants but also increase their chances on the labor market. In the long term, new training programs may be created.

Information about the VET system and the training content in the home country of the participants is an important source of the results of evaluation and informing the participants as well as the employers about the next steps in terms of job opportunities and related training.



4. Description of the path leading to the qualifications recognition for the purpose of their transfer on the European job market

In Poland the qualifications in the profession are possible to acquire:

- In the school system
- By the training in crafts
- In the form of life- long education.

The path of achieving qualifications in a professions of an electrician and a car mechanic in the school system

Qualifications in the profession of an electrician can be obtained by:

- Passing the professional exam qualification E. 7 Installation and maintenance of electric plant and machinery confirmed by the Regional Examination Board,
- Passing the professional exam qualification E. 8 Installation and maintenance of electrical systems confirmed by the Regional Examination Board,
- completing vocational school.

The documents that confirm qualifications in the profession of an electrician are: school leaving certificate of vocational school and the diploma that certifies qualifications gained in the profession of an electrician.

Qualifications in the profession of a car mechanic can be obtained by:

- passing the professional exam qualification M. 18 Diagnosis and repair of components and assemblies of motor vehicles confirmed by the Regional Examination Board,
- competing vocational school.

The documents that confirm qualifications in the profession of a car mechanic are: school leaving certificate of vocational school and the diploma that certifies qualifications gained in the profession of a car mechanic.



The path of achieving qualifications in a professions of an electrician and a car mechanic in the crafts

Qualification in the profession of an electrician and a car mechanic in this form includes vocational training of young workers. The vocational training might be done by:

1. training for a particular job

The training is to prepare the young person to work as a semi-skilled worker and may relate to work that does not require the completion of vocational education. The training to perform a particular job may last from 3 to 6 months. After completing the training, the worker receives an appropriate certificate for a specific job.

2. Apprenticeship

The apprenticeship is to prepare a young person to work as a skilled worker or a journeyman and it includes an apprenticeship organized by the employer as well as a theoretical training. The vocational training lasts up to 36 months but not less than 33 months.

To prepare a vocational training as an apprenticeship, the employer signs a contract, with the young employee for vocational training. The agreement contains a description of the parties, the form of further vocational training and theoretical training, the date of the planned completion of education. To conclude and resolve the juvenile employment contracts for vocational training the contract of employment for an indefinite period should be applied to .

The employer who hires young people to vocational training directed them to the theoretical training: in the vocational school, in the center of vocational training or organizes theoretical training on his own. In the case of organizing theoretical training for young people on his own, the employer is obliged to implement the core curriculum of compulsory vocational theoretical subjects.

Weekly working time for a juvenile during the period of the training may not exceed 12 hours. When participating in school activities, working time of the young person may not exceed 2 hours. While the working time of a young person during school holidays shall not exceed 7 hours a day and 35 hours a week (<http://www.infor.pl/prawo/praca/umowao-prace/89167,Co-nalezy-wiedziec-o-pracy-mlodocianych.html>).



Apprenticeship ends with an examination. Adolescents, who decided on further training in:

- vocational schools, where the exam consists of vocational training which rules are set in the regulations about examinations of vocational education and vocational training,
- other forms than vocational schools, they pass the exam for the skilled worker on the terms specified in the regulations on raising professional qualifications and general education of adults,
- other forms than school and already hired by the employers, they have to pass the journeyman exam before the Examining Chamber of Crafts.
- After completing the course and passing the examination, the employee receives the title of skilled worker or a journeyman.

(Council of Ministers of 28 May 1996 on vocational training of young people and their remuneration (Dz. U. No. 60, item. 278, as amended).

The path of achieving qualifications in the professions of an electrician and a car mechanic through lifelong learning

Obtaining qualifications in the professions of an electrician and a car mechanic in this form includes a qualifying vocational course in a qualification that complies with the profession.

Qualifying vocational course is a course run by the core curriculum and taking into account the curriculum of vocational education in the field of a single qualification (K). The minimum number of hours for the training in this course is the minimum number of hours that is specified in the core curriculum of vocational education for the given qualification. A graduate of the course receives a certificate of completing the qualifying vocational course. Completion of this course allows a person to join the qualification exam in the profession, in terms of the qualifications conducted by the Regional Examination Board.

The person who completes the qualifying vocational course and passes the exam confirming qualifications in the profession in terms of the qualifications, receives a certificate confirming his profession. Getting all qualifications, needed to get a profession, together with a confirmation of the appropriate level of education, will mean gaining the full occupation and a technician diploma in the certain profession.

(Developed on the basis of information from the <https://www.apedukacja.pl/kwalifikacyjnekursy-zawodowe,785.html>)



In Portugal the qualifications in the profession are possible to obtain:

- In the school system (divided into educational cycles,
- By the apprenticeship system,
- In a form of a life- long learning.

The student who is learning for an electrician or a car mechanic attends a selected vocational training for 3 years. The preparation of the graduate is done by the core curriculum on the basis of which every secondary school prepares the school's curriculum.

The path of achieving qualifications in a professions of an electrician and a car mechanic in the school system

The qualifications in the profession of an electrician may be obtained:

- After finishing the 12th cycle and passing the professional examination conducted by an external committee.

Documents confirming qualifications in the profession of an electrician are high school diploma and a certificate confirming completion of the professional training and qualifications in the profession of an electrician.

The qualifications in the profession of a car mechanic may be obtained:

- After finishing the 12th cycle and passing the professional examination conducted by an external committee

Documents confirming qualifications in the profession of a car mechanic are high school diploma and a certificate confirming completion of the professional training and qualifications in the profession of a car mechanic.

The path of achieving a qualification in the professions of electrician and car mechanic through the system of apprenticeship.

Obtaining qualifications in the professions of an electrician and a car mechanic in this form includes vocational training of young workers. Classes offered through the apprenticeship system – alternating training – are designed for young people aged 15 to 25 years and are run by the Instituto do Emprego e Formação Profissional [The Institute for Employment and Vocational Training - IEFP]. Their goal is to prepare and qualify students for their first job and to facilitate their entry into professional life.



The vocational training is done by:

- preparation and signing of an agreement between the intern and the company of the internship / training, which defines the rights and responsibilities of each party
- vocational training courses have different length, depending on their nature, and contain the following elements: socio-cultural, scientific, technological and practical training (as in the working environment and is at least 30% of all hours). Training in the workplace is monitored by a caretaker appointed by the body responsible for the training component.

After successful completion of the training, the participants receive a Level 2 of vocational qualification and a certificate of completion of the 3 primary or Level 3 of vocational qualification and a secondary school certificate.

The path of achieving a qualification in the professions of electrician and car mechanic through lifelong learning

The main forms of a lifelong training and adult education are aimed at adults at the working age who are employed, unemployed, endangered with unemployment or belong to groups at risk of exclusion.

Cursos de educação e Formação are directed to adults over the age of 18 who are not qualified in the professions of an electrician and a car mechanic or whose qualifications are inadequate for integration into the labor market. The process Reconhecimento, Validação e Certificação de Competências [Recognition, validation and certification of skills - RVCC] is the most common platform to access these courses. The purpose of these activities is to increase the academic adult population and professional qualifications in the field of the professions of an electrician and a car mechanic by offering a combination of education and training, which increase their employability and certifies acquired education. The courses are based on:

- flexible training paths aimed at the recognition and validation of skills of adults acquired through formal, non-formal and informal paths;
- coordinating the training path, which includes basic training and education, technology, or simply basic training;
- the training focuses on the acquisition of knowledge, know-how and skills that complement and promote internships.



These courses lead to the completion of Cycle 3 of education and training at Level 2 and to obtaining a certificate or a certificate of secondary education and a certificate of Level 3 vocational training.

The EFA course

Participation in the course of the EFA, which does not lead to certification entitles participants to request a validation of skills certificate that lists all the skills validated during the training.

The EFA Courses are designed and led by relevant authorities or by a third party. In both cases, the training institution must be a part of a network of training institutions located in the national system of qualifications.

Other training

Regarding the vocational training for people at working age, or the unemployed, other courses are also offered in the professions of an electrician and a car mechanic, including:

- qualification or retraining courses,
- refreshing, updating or further training courses.

Training paths offered in the professions of an electrician and a car mechanic typically comprise units or modules leading to skills that can be approved for certification purposes in a lifelong learning perspective. The courses are usually designed to meet the specific needs and circumstances of the organization and employees; they may, for example, support the introduction of new equipment, technologies or organizational models for the modernization of enterprises. They implement new production methods and forms of work organization.



In Germany qualifications for the profession are possible to obtain:

- in a dual system of vocational education,
- by the system of cooperation of the employers with the chambers of commerce and industry and the chambers of crafts.

For the vocational training vocational schools are responsible and the workplaces while examinations confirming vocational qualifications are carried out in the chambers of crafts and chambers of commerce and industry. They are prepared centrally on the basis of accepted standards of requirements for certain occupations and qualifications. Generally the final examinations comprise four to five different areas of examinations. The examination boards are composed of at least three members who are representatives of employers, employees and vocational schools. The members of the boards are appointed for 5 years on a voluntary basis. The chambers of handicrafts can authorize the craft guilds to create a commission examiners to conduct the journeyman exams. The chambers of crafts or journeyman guilds establish twice-yearly the deadlines for professional examinations.

The vocational exam/ the journeyman exam consists of two parts. The first one should be taken at the end of the second year of school and for the mechatronic of car vehicles is 35% of the total score points while for the electrician- 40%. The second part of the exam should be taken at the end of education and has a value of 65% and 60% of the total score for each of the professions. At the request of the examinee the second part of the exam training can be completed with an oral exam if it can decide about the positive results of the exam. Each member of the examination board grades the exam individually and then he adds his points to the overall score of the examination. At the request of the examinee a version in English and French may be attached to the diploma. The graduate may also request to place the knowledge and skills that he has obtained during his education.

The dynamic development of the automotive industry makes the demand for people with the right qualifications increasing. Progress in techniques and technology forces the changes in the way of educating and gaining knowledge and skills for the people who are involved in automotive industry. Nowadays it is not enough to have the knowledge that were thought many years ago and a car mechanic is a person who has the knowledge about the construction, maintenance and repair of vehicles but he also has to keep up to date with the latest information and acquires new skills. Progressive increase in the number of vehicles on



roads forces the economy to increase the amount of specialists who perform their professional tasks honestly and therefore meet the demand for the services in the automotive industry.

The work of an electrician is connected with a huge responsibility because activities performed by him provide security for the people who use energy networks or machines and electrical appliances. An electrician is prepared to perform, diagnose the condition, make repairs of electrical installations and the machines and other appliance powered by the electric current. An electrician may find employment in power stations, mines, ironworks, on railway, in the companies that repair the electrical equipment, in the trading companies that sell electrical equipment, in the companies that design and assemble alarm installations, or they may run their own business (for example: repairing of household appliances, in wiring services).

The labor market needs high quality specialists. Therefore, it is necessary to model the vocational training in such a way so that it is connected to the needs of employers. It applies in particular to the practical training. Involving employers in the process of vocational education will raise the level of teaching the profession and entrepreneurs will have access to a well-skilled, young workforce.

The result of research work carried out under the project “Recognition of vocational qualifications for the purpose of transfer on the European job market”, Erasmus +, which was realized by the institutions in Poland, Germany and Portugal is the “**transVETjob.eu**” **IT Platform**. The work was related to comparative studies of formal vocational education systems, identification of the educational outcomes which are common and different in the partner countries, unifying the Model of recognition of professional competences for all the partner countries. The results of the comparative research of the formal vocational education systems (performed by schools, crafts and other educational institutions) in Poland, Germany and Portugal in the professions of an electrician and a car mechanic showed both similarities and differences in achieved learning outcomes.

To get an answer to the question “Are the professional competences sufficient to take up a job abroad as an electrician or a car mechanic?” one must enter the IT Platform. Information about the compatibility or discrepancy in professional qualifications in relation to Polish, German and Portuguese employers’ expectations, recommendations for further professional career development can be found after entering the self- assessment of professional competences. The purpose of that part of the survey is to obtain information by the graduate



of vocational school/ an employee or a person who wants to work in each of the professions in Poland, Germany and Portugal about: current level of own competences/ the level of preparation to undertake professional practice as well as the level of compliance of the competences (vocational, social, and key) in relation to the expectations of the Polish, German and Portuguese employers.

The available database of search engines of educational institutions facilitates the right choice of training topics according to the place of residence or professional work in which one can obtain new skills or evaluate his competences by the competent certifying institutions and obtain the certificate that proves the qualifications.



5. Technical instruction of the usage of ICT tool in order to compare competency requirements for the professions of the electrician and car mechanic transVETjob.eu

5.1 Introduction

The purpose of the document Technical instruction for the ICT tool support is to provide users of the transVETjob.eu portal with information on how to effectively use the knowledge base of the electrician and motor vehicles mechanic and the system of comparing competence requirements in the above professions. The instruction was developed using the effects of the project entitled *"Recognition of professional qualifications for the needs of transfer in the European labor market"*.¹ The coordinator and main contractor of the ICT tool is the Project Partner of the Institute for Sustainable Technologies - National Research Institute in Radom.

The reference point for the construction of the ICT tool was, in particular, one of the results of the project entitled: *Model for recognition of professional qualifications for the needs of their transfer to the European labor market in Germany, Poland and Portugal*.

The ICT tool has been prepared in four language versions: English, Polish, German and Portuguese.

The knowledge base about the professions of electrician and mechanic of motor vehicles includes (separately for each profession): information about the profession, description of effects of vocational education, information on educational institutions, where you can improve or increase professional competences identified in research (conducted within the transVETjob.eu project in 2016) expectations of Polish, German and Portuguese employers. The ICT tool gives the opportunity to compare the expectations of employers in the listed countries with the level of professional skills of the user after self-assessment of professional skills.

The services are available to all Internet users without any restrictions.

¹ The Erasmus project: Recognition of professional qualifications for the needs of transfer in the European labor market, transVETjob, implemented by the partnership of institutions: University of Economics and Social Sciences, Ostrołęka, Poland, Institute for Sustainable Technologies - National Research Institute, Radom, Poland, Regional Development Agency Spółka z.o.o, Ostrołęka, Poland, Handwerkskammer, Erfurt, Germany, Associação Intercultural Amigos da Mobilidade, Barcelos, Portugal in 2015-2018.



5.2 Basic concepts used in the handbook

The Instruction uses the concepts and terms concerning the analysis of the labor market and competences and professional qualifications in the professions of electrician and mechanic of motor vehicles, professional skills resulting from the following documents:

- Recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of a European Qualifications Framework for lifelong learning.
- Recommendation of the European Parliament and of the Council of 18 June 2009 on the establishment of a European Credit System for Vocational Education and Training ECVET - 2009 / C 155/02.

5.3 Users of the system

Every Internet user has unlimited access to the content of the www.transvetjob.eu website.

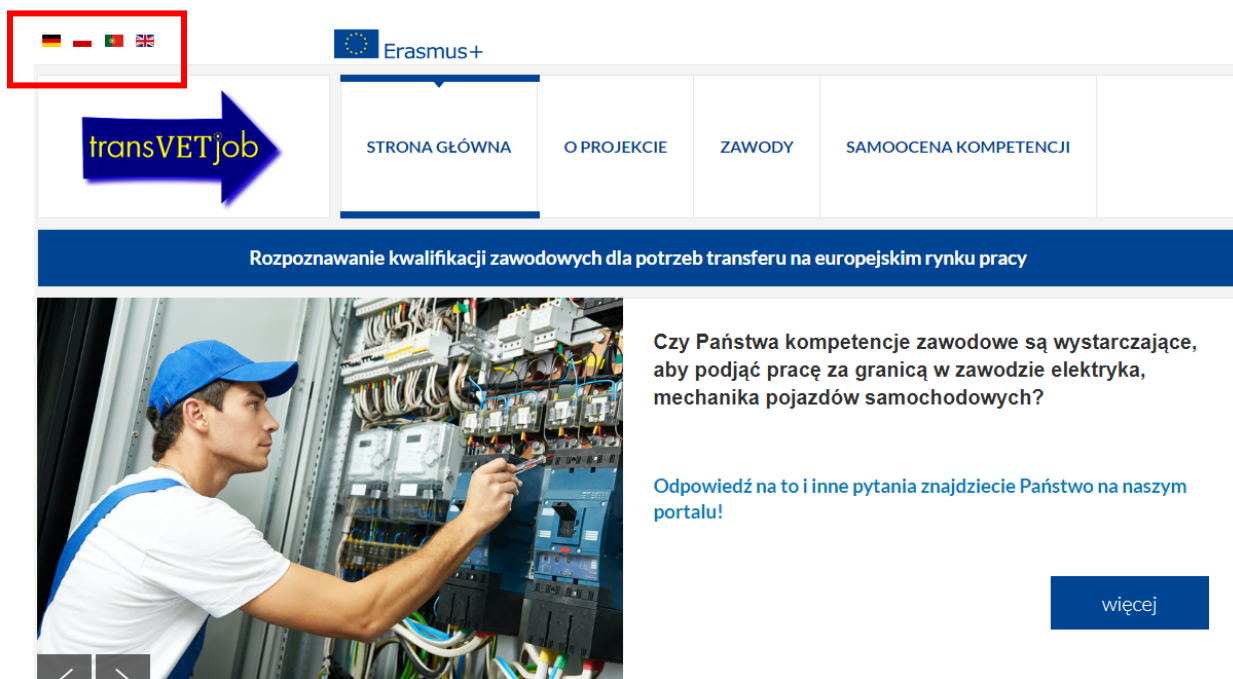
The ICT tool is intended primarily for graduates / people employed or applying for employment as an electrician and mechanic in Poland, Germany and Portugal. The portal also serves for the human resources management departments of small and medium-sized enterprises in the above-mentioned countries, persons / institutions supporting the labor market, public institutions responsible for education, vocational schools, educational institutions (public and private), associations, foundations working for adult education interested in using education / vocational training programs and development of education / further training in the aforementioned occupations, as well as shaping educational policy, modification of education / vocational training programs.



5.4 Evidence base of the professions

The IT platform www.transvetjob.eu is available in 4 language versions: Polish, German, Portuguese and English. The choice of the language version is provided by the partner country flag icons (Fig. 1).

Fig. 1. Flag icons that allow to change the language of the site



Source: www.transvetjob.eu

From the main menu at the top of the page and the additional menu in the page footer you can access the following information:

- About the project;
- IT platform;
- Partners;
- Contact;
- Dictionary of concepts;
- Instruction manual for the IT platform.



The knowledge base about the profession has been divided into the following modules:

- **Information about the profession** - name of the profession, profession code, EQF qualification level, a synthetic description of the profession, description of the formal path of education (including graphics), procedures related to exams confirming the acquisition of qualifications in the profession, formal documents confirming their achievement;
- **Learning outcomes in the profession** - a database of descriptions of qualifications and learning outcomes for the profession obtained in the formal system of vocational education;
- **Expectations of employers** - expected by Polish, German and Portuguese employers professional competences identified as a result of research², expected personal and social competences and key competences;
- **Educational institutions** - a list of educational institutions and public internet portals where you can find the right educational institution or the subject of professional development that users are interested in.

Access to the modules is possible in two ways:

- 1) by selecting the appropriate item from the main menu in the "Professions" tab (Fig. 2) – the user will be redirected to the knowledge base about the profession in the selected country,
- 2) by choosing the appropriate module for a given profession from the main page of the portal (Fig. 3) – the user will be redirected to the selected module of knowledge about the profession in the home country (the choice of language determines the country).

In the English version, the choice of module from the main page of the portal redirects to the module "Information about the profession" for the selected country or the module "Employers' expectations" (document unified for all countries) – Fig. 4.

² Report *Comparative study of assumed formal education effects for the professions of electrician and automotive technician with the expectations of employers on the labour market in Germany, Poland and Portugal*, Wyższa Szkoła Ekonomiczno - Społeczna in Ostrołęka, Instytut Technologii Eksploatacji – Państwowy Instytut Badawczy in Radom, Agencja Rozwoju Regionalnego Spółka z o.o. in Ostrołęka, Handwerkskammer in Erfurt, Associação Intercultural Amigos da Mobilidade in Barcelos, Project Title: “Recognition of vocational qualifications for the purpose of transfer on the European job market”.



Fig. 2. Access to modules from the main portal menu item



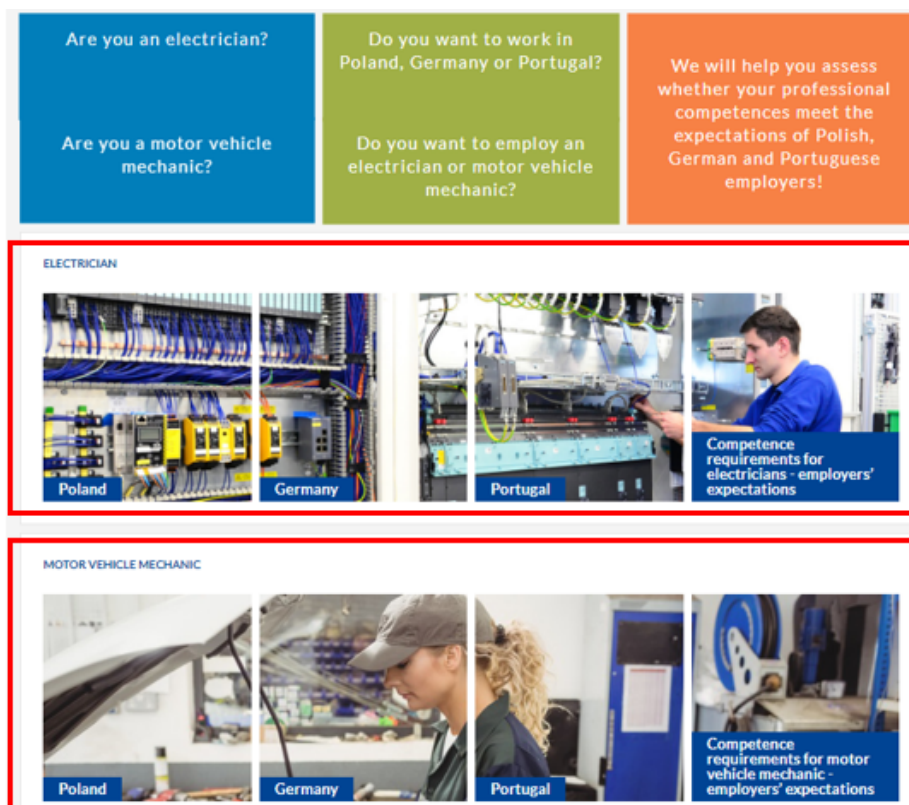
Source: www.transvetjob.eu

Fig. 3. Access to modules from the main page of the portal



Source: www.transvetjob.eu

Fig. 4. Access to modules from the main website of the portal in the English language version



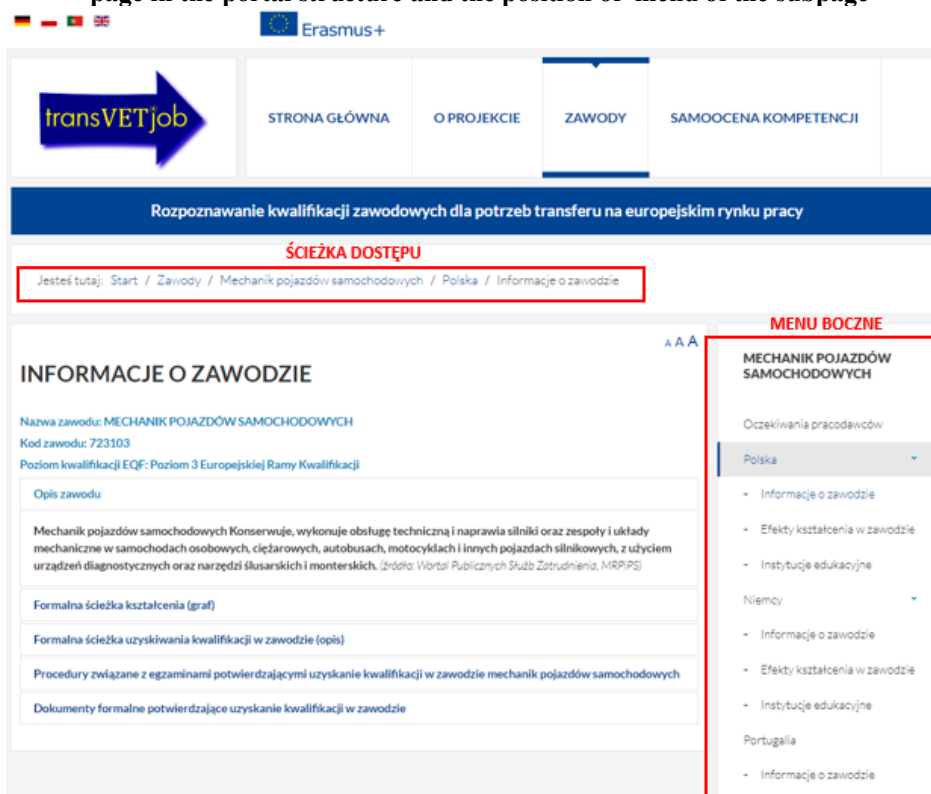
Source: www.transvetjob.eu

After selecting the appropriate position / module, the user is redirected to the subpage with available information (Figure 5). The current page in the portal structure shows the access path under the main menu of the portal and the side menu on the right.

The side menu for the chosen profession contains all 4 information modules about the profession in Poland, Germany and Portugal. The module "Employers' expectations" is a unified document for all countries and is therefore on the top of the menu. The choice of page language determines the language of the displayed content:

- for example for Polish, all information about professions in Poland is displayed in Polish, while information about professions in Germany and Portugal is displayed in English. Similarly for German or Portuguese, all information about the profession is displayed in the mother tongue and information from other countries in English,
- for English, all content throughout the portal is displayed in English.

Fig. 5. Example page with the module "Information about profession" for the profession: motor vehicle mechanic with the indication of the current page in the portal structure and the position of menu of the subpage



Source: www.transvetjob.eu

5.5 Self-assessment of the professional competence

The tool for self-assessment of professional competences, separately for the profession of electrician and mechanic of motor vehicles, enables obtaining information and compatibility of professional competences in relation to the expectations of Polish, German and Portuguese employers. Access to the self-assessment tool for a given profession is possible from the main menu of the portal (Figure 6) or from the main page (Figure 7).

After selecting the appropriate profession, the user is redirected to the page where the diagnostic questionnaire is located (Figure 8).

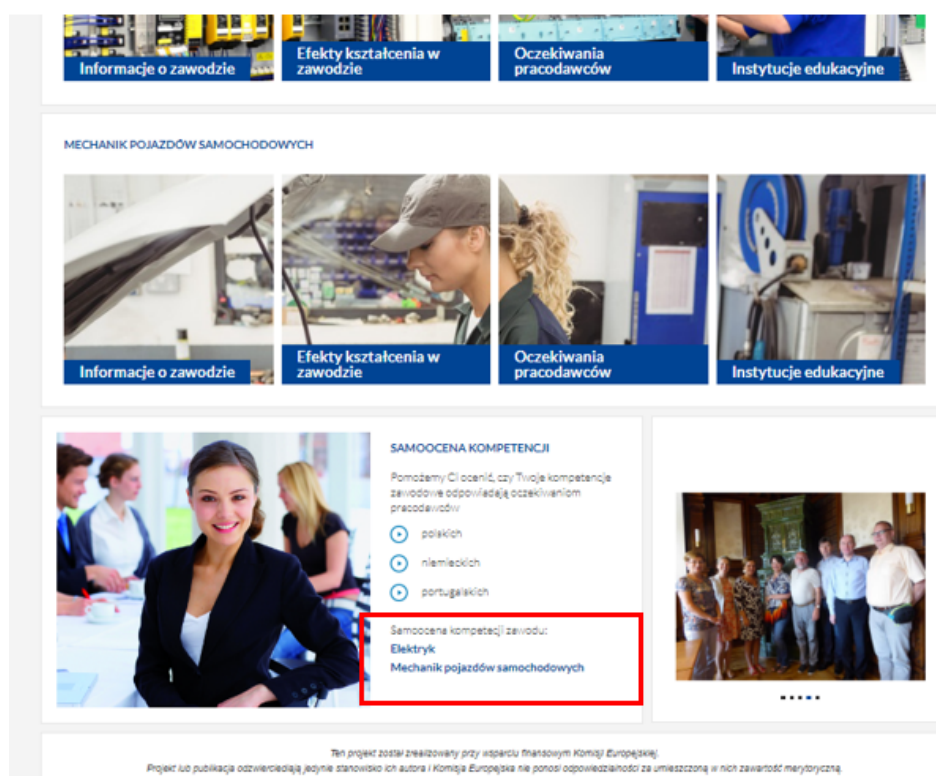


Fig. 6. Access to the self-assessment tool from the main menu



Source: www.transvetjob.eu

Fig. 7. Access to the self-assessment tool from the home page



Source: www.transvetjob.eu



Fig. 8. Self-evaluation of professional competences on the example of the motor vehicle mechanic profession (excerpt)

MECHANIK POJAZDÓW SAMOCHODOWYCH

Pomóżemy Ci ocenić, czy Twoje kompetencje zawodowe odpowiadają oczekiwaniom pracodawców polskich, niemieckich, portugalskich!

Celem niniejszego kwestionariusza ankiety jest uzyskanie przez absolwentów kształcenia zawodowego/ osobę pracującą lub zamierzającą podjąć pracę w zawodzie mechanik pojazdów samochodowych w Polsce, Niemczech i Portugalii informacji na temat:

- aktualnego poziomu swoich kompetencji/ stopnia przygotowania do podjęcia praktyki zawodowej;
- poziomu zgodności swoich kompetencji (zawodowych, społecznych, kluczowych) w odniesieniu do oczekiwań pracodawców polskich, niemieckich i portugalskich.

Kompetencje zawodowe potrzebne do wykonywania zadań zawodowych w zawodzie mechanik pojazdów samochodowych dotyczą diagnozowania usterek pojazdu samochodowego oraz naprawiania podzespołów i zespołów pojazdów samochodowych

Oceń swoje umiejętności dla dwóch kompetencji zawodowych, kompetencji społecznych i kluczowych.

Udzielone odpowiedzi na pytania pomogą określić luki kompetencyjne/ obszary wymagające dalszego rozwoju kompetencji.

Moduł „Instytucje edukacyjne” pomoże Ci odszukać właściwe instytucje oświatowe/ szkoleniowe, gdzie możesz rozwijać Twoje umiejętności.

SAMOOCENA KOMPETENCJI

Elektryk

Mechanik pojazdów samochodowych

Część 1 Część 2 Część 3 Część 4

Kompetencje kluczowe

Przyjęta skala odpowiedzi od „5” do „1”, gdzie „5” oznacza bardzo dobry poziom opanowania umiejętności a „1” bardzo niski poziom ocenianej umiejętności.

Zaznacz, proszę, rzeczywisty poziom Swoich umiejętności.

Wszystkie pola są wymagane.

Rozwiązywanie problemów	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5
Współpraca w zespole	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5
Komunikacja ustna w języku ojczystym i obcym	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5
Planowanie i organizowanie pracy	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5
Sprawność motoryczna	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5
Umiejętność czytania ze zrozumieniem i pisania	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5
Umiejętność wyszukiwania, selekcjonowania i krytycznej analizy informacji	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5
Umiejętność posługiwania się nowoczesnymi technologiami informacyjnymi i komunikacyjnymi	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5

Pokaż wykres
Wyczyść

« wstecz
4/4

Source: www.transvetjob.eu

The diagnostic questionnaire contains a list of professional, social and key skills. The user fills it in accordance with the actual state, assessing his skills on a 5-point scale: where "5" means a very good level of mastered skills, and "1" a very low level of mastered skills.

The diagnostic questionnaire has been divided into four parts: professional skills for each competence, social and key competences. When completing the questionnaire, all fields should be ticked.

After completing the questionnaire, "Show chart" should be clicked, which will allow the user to display a graphical presentation of the self-assessment. The graphs illustrate the level of self-assessment of professional, social and key competences (horizontal black lines) in relation to the competences expected by Polish, German and Portuguese employers



(bar chart). An example of a graphical presentation of the level of self-assessment of competences is presented in Fig. 9. The horizontal scale (numbers from 1 to n) are specific skills whose names are presented in the legend. At the bottom of the screen of competence self-assessment results there is general information for the user, for example about the possible need for professional development (professional, social or key competences) to meet the expectations of the employer and give yourself a chance to find employment in the selected country.

The results of the self-assessment of professional competences can be printed - icon on the right.

Fig. 9. The results of the analysis of the self-assessment of professional competences in the profession of motor vehicles mechanic in relation to the expectations of employers (excerpt)

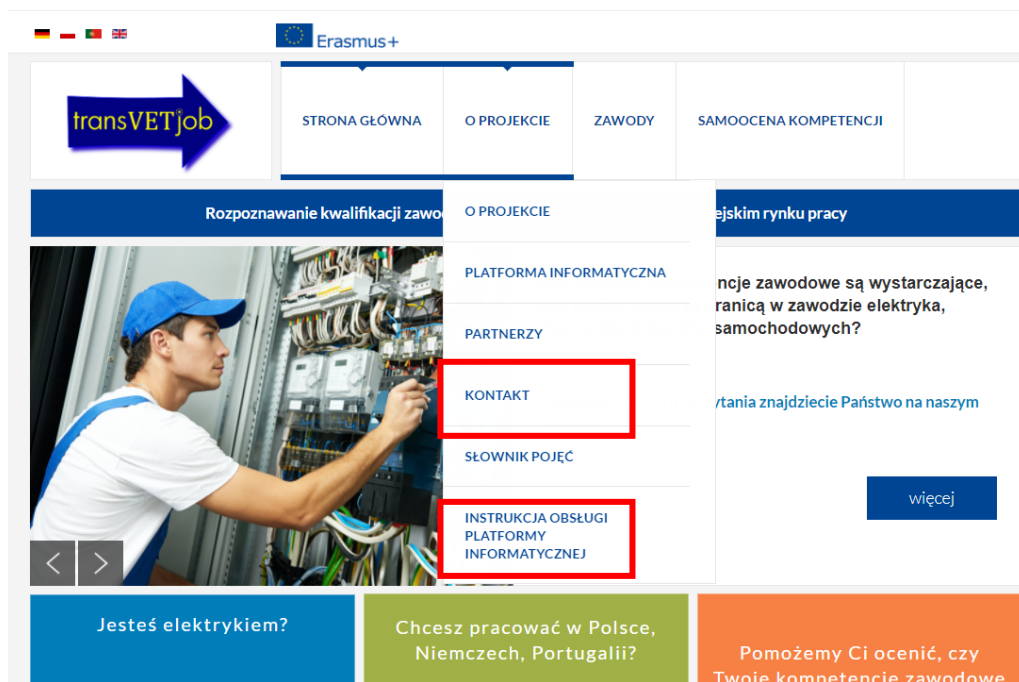
The figure indicates (red rectangle) the icon "print"



5.6 Contact

Questions and suggestions regarding the functioning of the "transVETjob.eu" portal can be directed to people indicated in the "Contact" tab - by phone or e-mail address (Figure 10).

Fig. 10. Access to the "Contact" and "IT platform instructions"



Source: www.transvetjob.eu



Summary

The guide is a kind of manual for using ICT tools for selected as a part of the project professions, i.e. electrician and motor vehicle mechanic with reference to labor markets: Polish, German and Portuguese. The methodology for identifying professional qualifications obtained as part of the project for the transfer of the needs in the European labor market can be used for the needs of other professions and other labor markets than those adopted in the project. It is therefore universal and its further application will help to reduce and eliminate barriers related to free movement and employment of especially young people in their profession in the European labor market. The results obtained as a result of the project refer to specific formal and legal conditions existing at the moment of joining the project. The use of the Model in the future in relation to other professions and other markets requires taking into account changes in the formal and legal environment related to national vocational education systems.

Within the European Union countries we observe the evolution of vocational education systems. However, there is no harmonization of these systems. On the example of national vocational education systems in Poland, Germany and Portugal, it should be stated that they are so different that employers in these countries are not able to assess the level of their professional competences, and thus the usefulness of potential educated employees in other countries.

The project is therefore important for the elimination of barriers to occupational and spatial mobility, especially for young people in the European labor market.

The partnership hopes that the results of this project will be developed and will contribute in the future to greater harmonization of national vocational education systems within the European Union.



Appendixes

