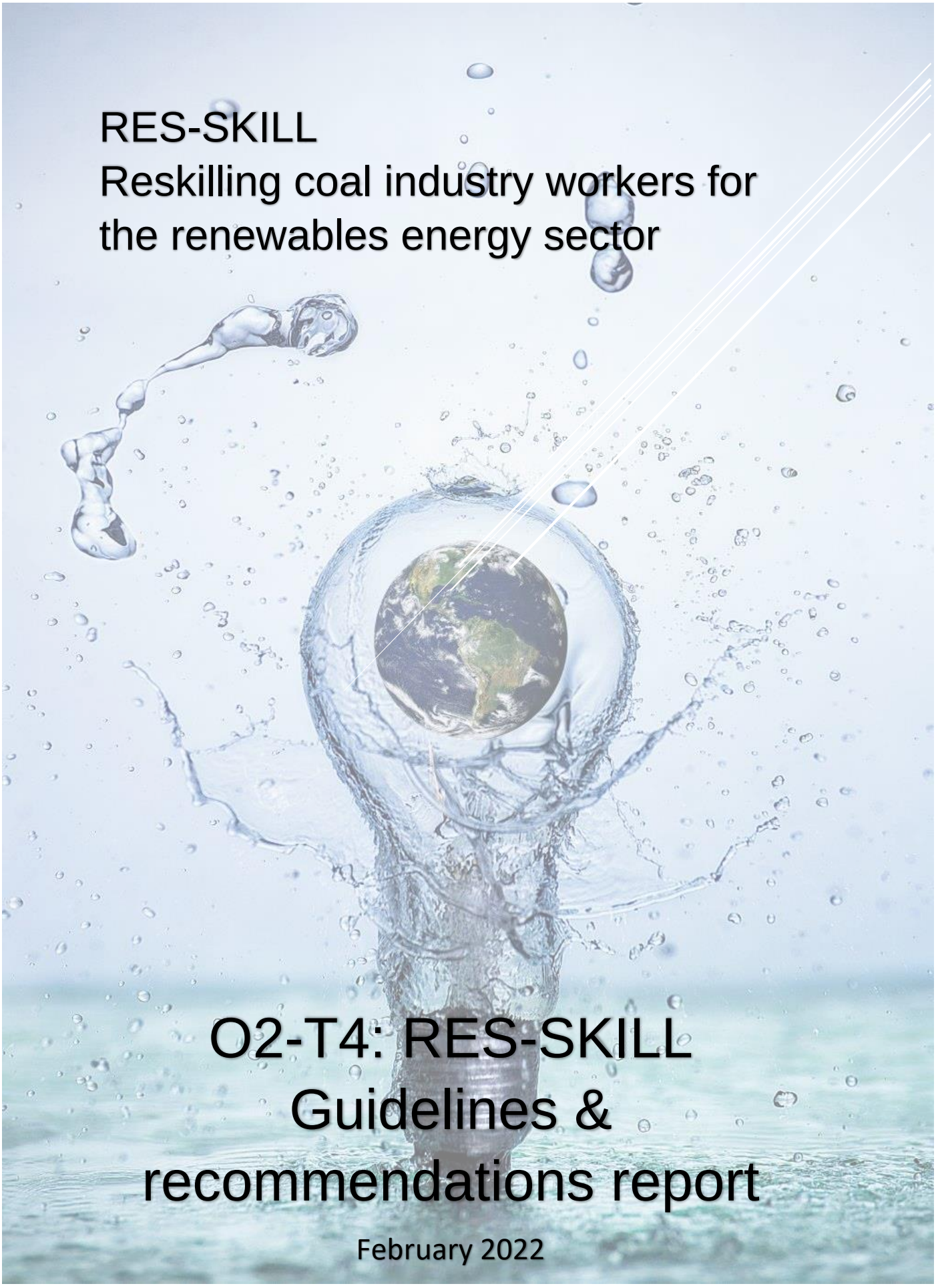
RES-SKILL

Reskilling coal industry workers for the renewables energy sector



O2-T4: RES-SKILL Guidelines & recommendations report

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Contents

1 Introduction

The skills and qualifications of coal miners or other jobs in the coal industry do not necessarily match the requirements of the RE sector. But some skills already present in their everyday work, might fit quite well with some job profiles of emerging RE and new energy technologies, primarily in electrical, mechanical tasks or beyond. It is the core ambition of this project to identify skills that can enable these former coal workers to participate in the structural change of the energy sector.

1.1 About this report

The objective of this document is to provide guidelines and recommendations to VET providers and RES sector employers on how to use the tools developed for the RES-SKILL toolkit (O2-T1/T2/T3); the task will deliver a guidelines and recommendations report. The report will explain how to practically implement and carry out successful the reskilling / transition of (former) coal workers to the RES industry, in the framework of C-VET learning. With this report, VET providers and RES sector employers will be able to evaluate individual cases of coal workers, deploying individualized interventions for skills re-orientation.

Within this document, you can find guidelines to the following tools created during O2 - Career reorientation toolkit

- O2 − T1. Skills matching analysis and transition profiles
- O2 − T2. Assessment tool to identify learning pathways
- O2 − T3. Development of RES-SKILL portfolio

2 How to use the tools developed in O2

The skills matching analysis and transition profiles developed in O2-T1 serve as a basis and starting point for the online tool developed in O2-T2, with the help of which previous professional experiences, knowledge, skills and competences are queried. The final result of this tool is a report (or several), which suggests one or several suitable jobs in the alternative energy sector. In addition, knowledge that is helpful or necessary in these areas is listed.

The portfolio developed is O2-T3 is used to create a "passport" of prior experiences, demonstrating competencies acquired based on job-specific criteria, regardless of the environment in which those experiences occurred.

Together, these two tools are the basis for various institutions (VET providers, schools, …) to plan a target-oriented retraining together with interested persons.

3 Assessment tool

3.1 About the tool

Based on O2-T1 (transition profiles report) an assessment tool (as an online assessment form), which is able to suggest the skills needed to be acquired to strengthen the employability of a coal worker in the RES sector, was developed. The tool will also indicate the most fitting (skills-wise) occupational profile in the RES industry.

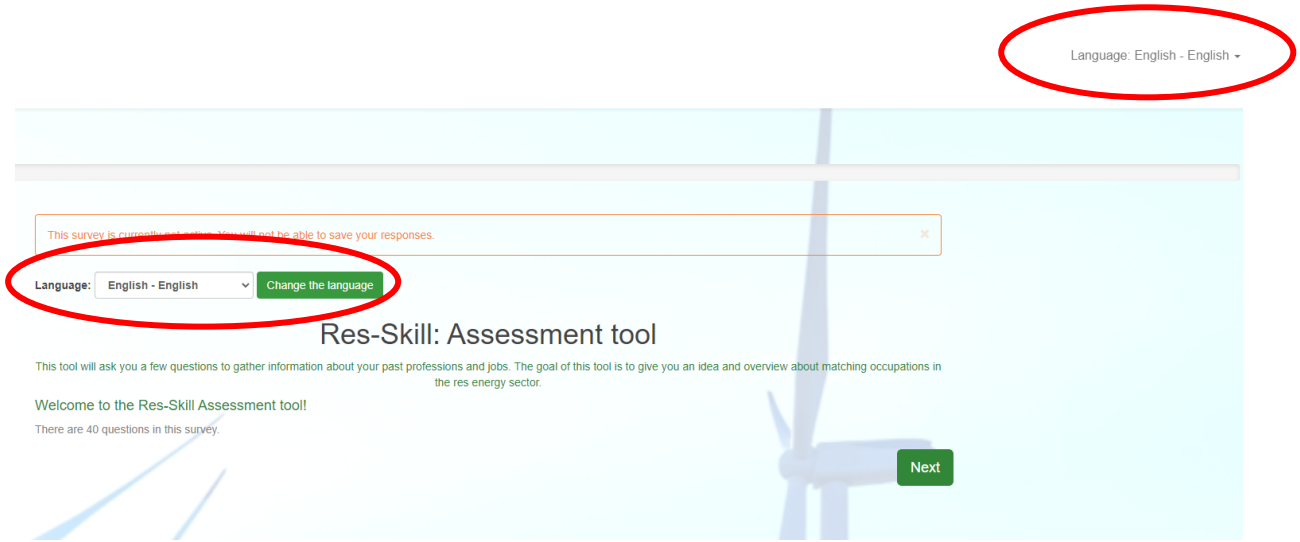
3.2 Goal of the tool

The goal of this tool is to offer to VET providers and RES sector employers a tool for identifying the most appropriate learning pathway to be followed by a learner. The tool should be as easys to use and understand as possible.

3.3 Accessing the tool and changing the language

The tool can be accessed via the following link: INSERT LINK HERE

and leads to this screen:



6 languages are available to chose from:

- English
- German
- Romanian
- Polish
- Bulgarian
- Greek

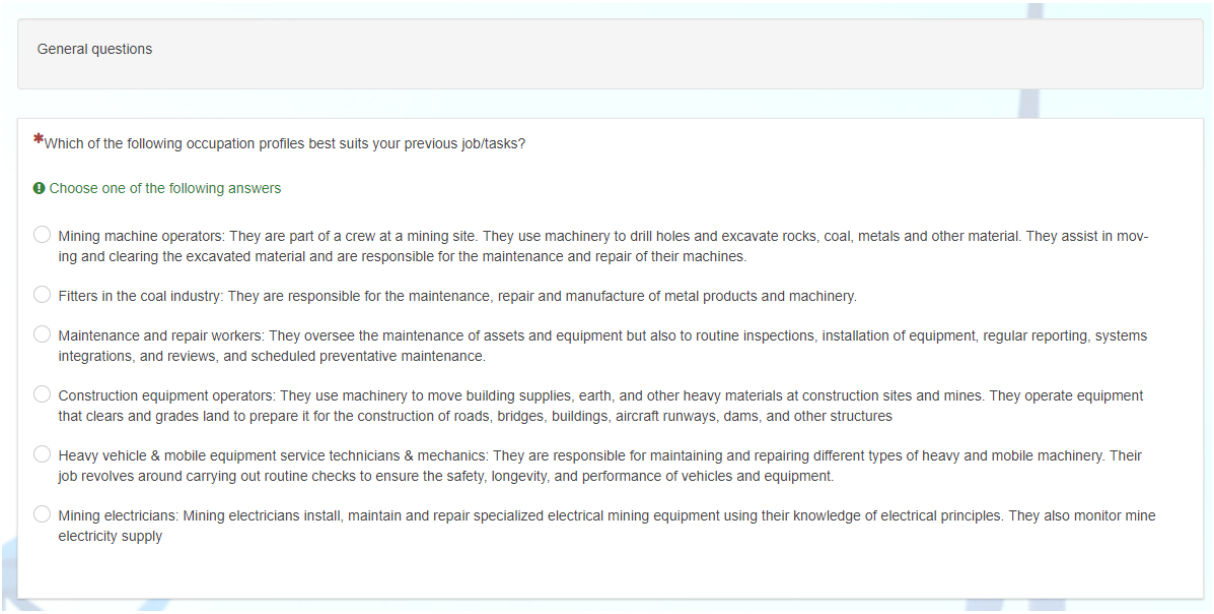
There are two possible ways to do this (see picture above).

The survey can be navigated with the “Previous” and “Next” buttons. During the survey, the participant must answer all the questions of each part, in order to move on to the next part.

3.4 Parts of the survey

3.4.1 General

The general part asks about the participant's previous job. Only one answer is possible here.



3.4.2 Knowledge

The Knowledge part asks various questions about different topics:

- Mechanics
- Computers and Electronics
- Building and Construction
- Public Safety and Security

Each question has them same 4 answer options, one of which can be selected

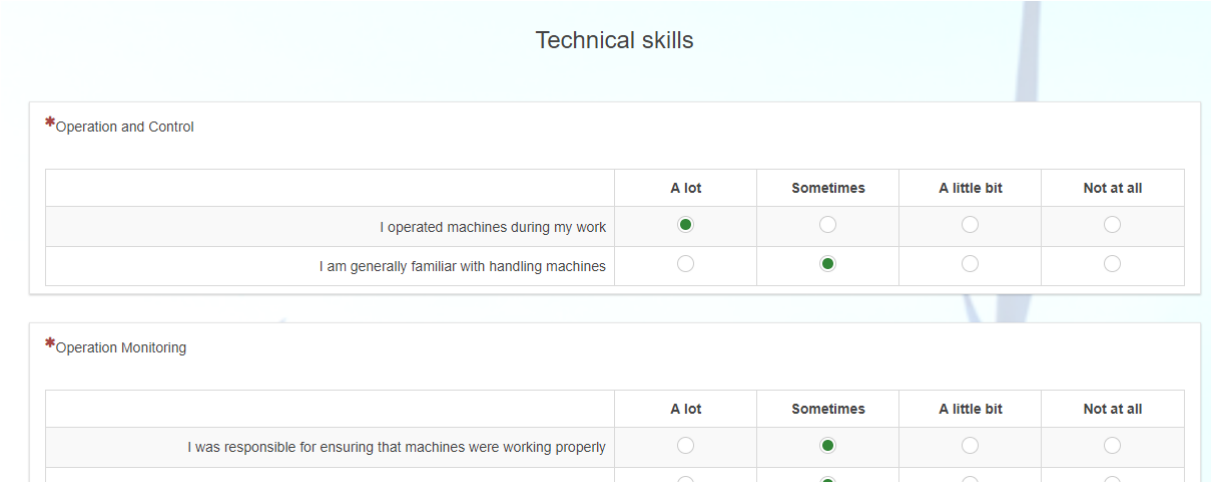
A lot	Sometimes	A little bit	Not at all
○	○	○	○

3.4.3 Technical skills

Various questions about the following topics are asked in this section:

- Operation and Control
- Operation Monitoring
- Quality Control Analysis
- Equipment Selection
- Systems Evaluation
- Equipment Maintenance
- Repairing

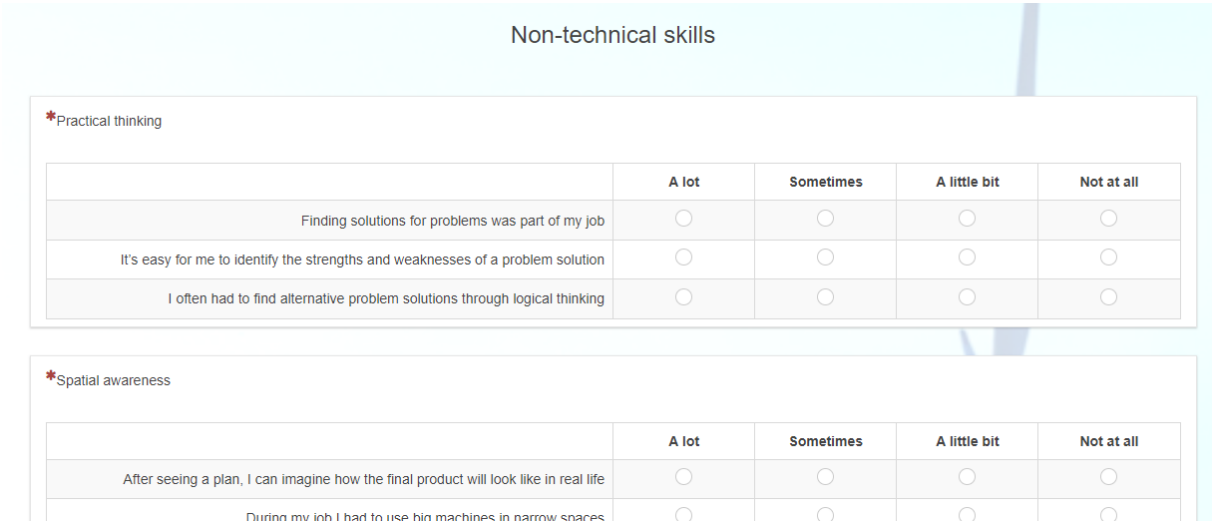
The same 4 answer options as in the previous part are available here.



3.4.4 Non-Technical skills

This part consists of questions about:

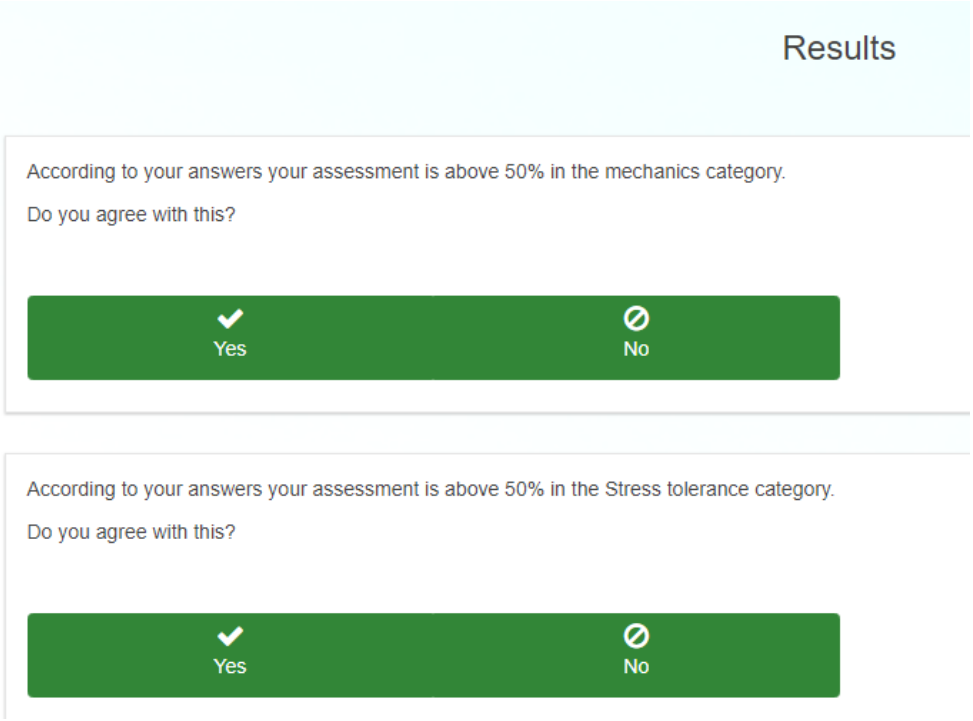
- Practical thinking
- Troubleshooting
- Spatial awareness
- Coordination
- Judgment and decision making
- Instructing
- Dependability
- Adaptability
- Persistence
- Stress tolerance



Again, the participant chooses the answers according to his or her prior knowledge in the respective areas.

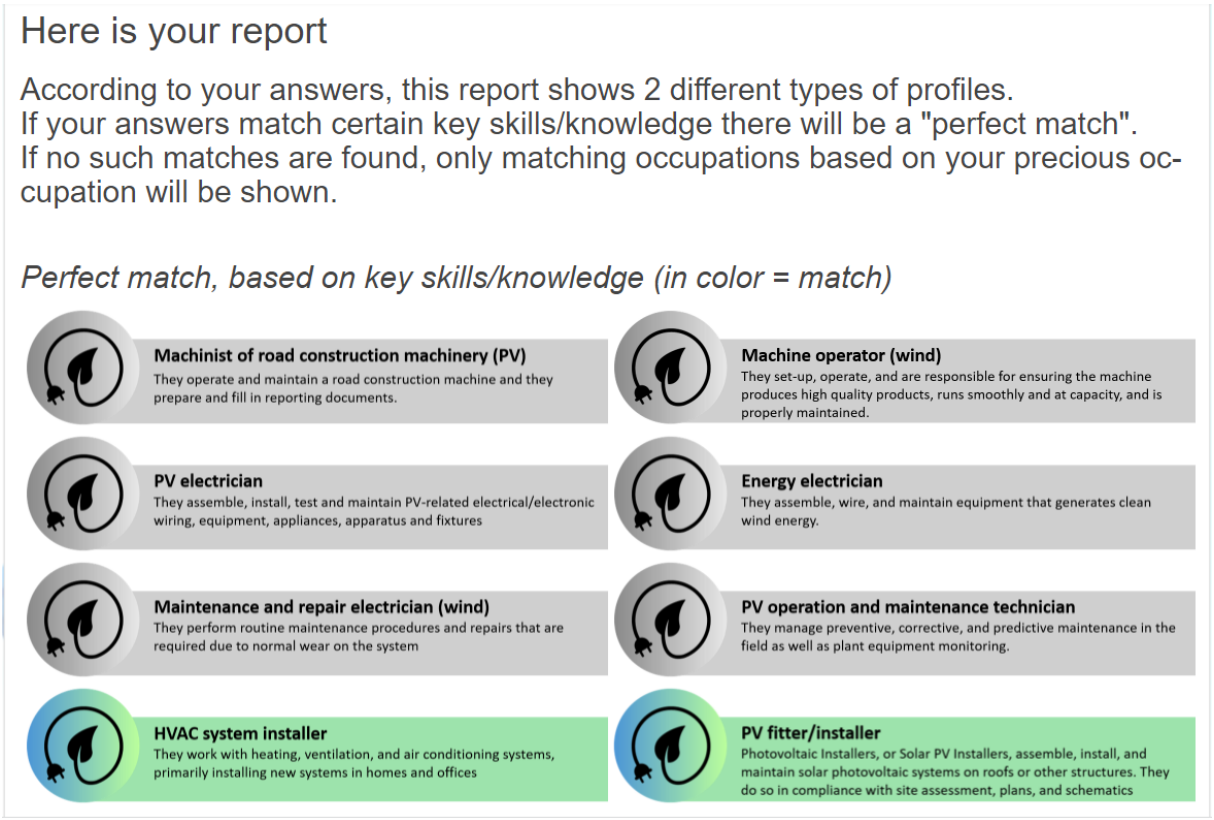
3.4.5 Results

Depending on the answers of the previous categories, several results are now displayed here. The participant is asked to accept or reject. This step is done in case the participant would rate his own knowledge and skills worse than the tool. The results can only be confirmed or rejected here, nothing else can be changed.

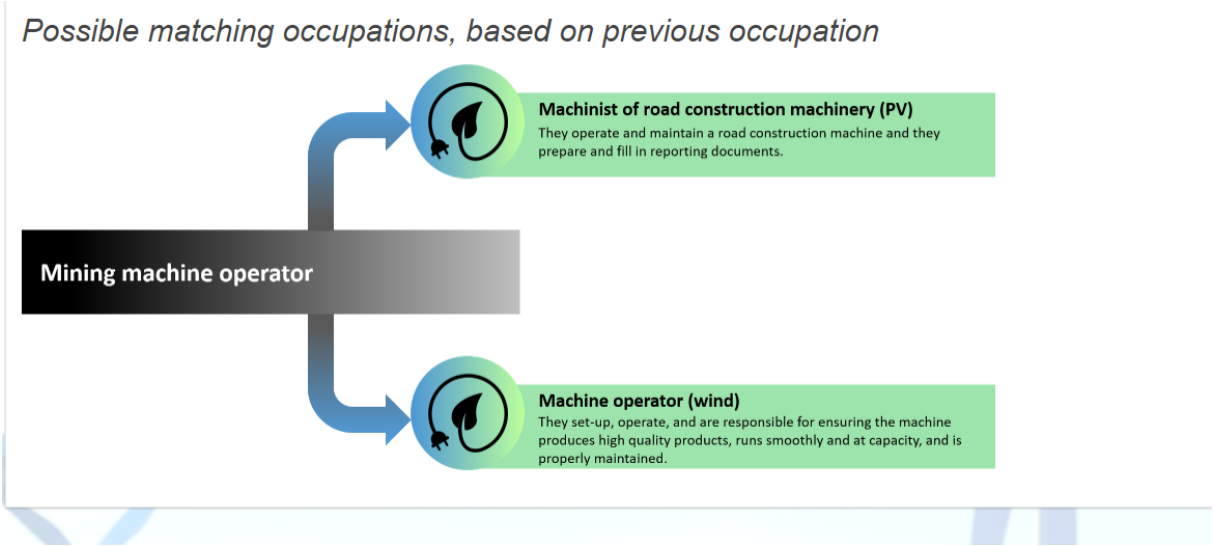


3.4.6 Report

The last shows the final results. Different graphics in color (match) or in black and white (no match) are displayed here. It is also possible that all graphics (occupations) are displayed in black and white.

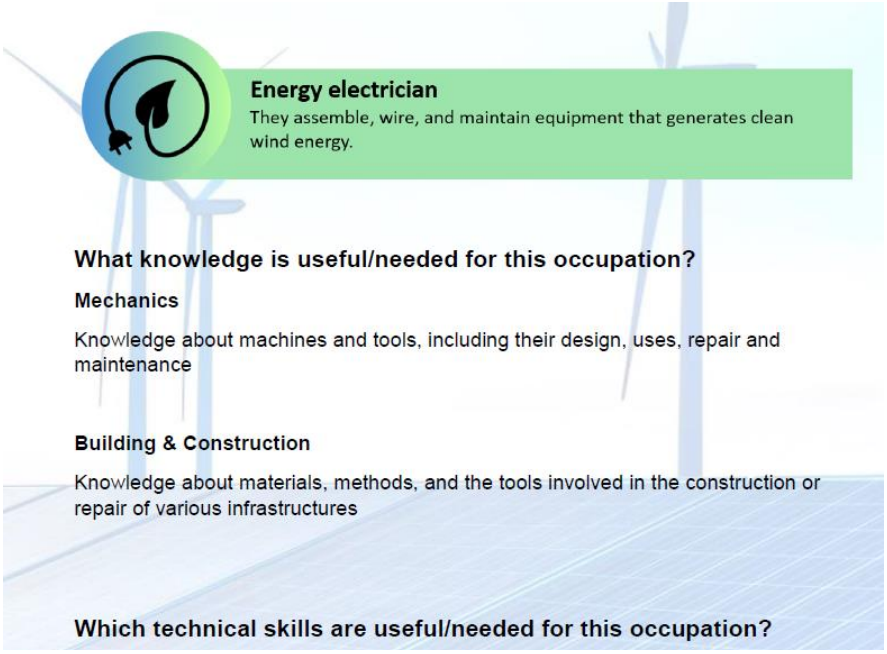


The tool also shows the most appropriate occupation in the alternative energy sector, based on the previous occupation

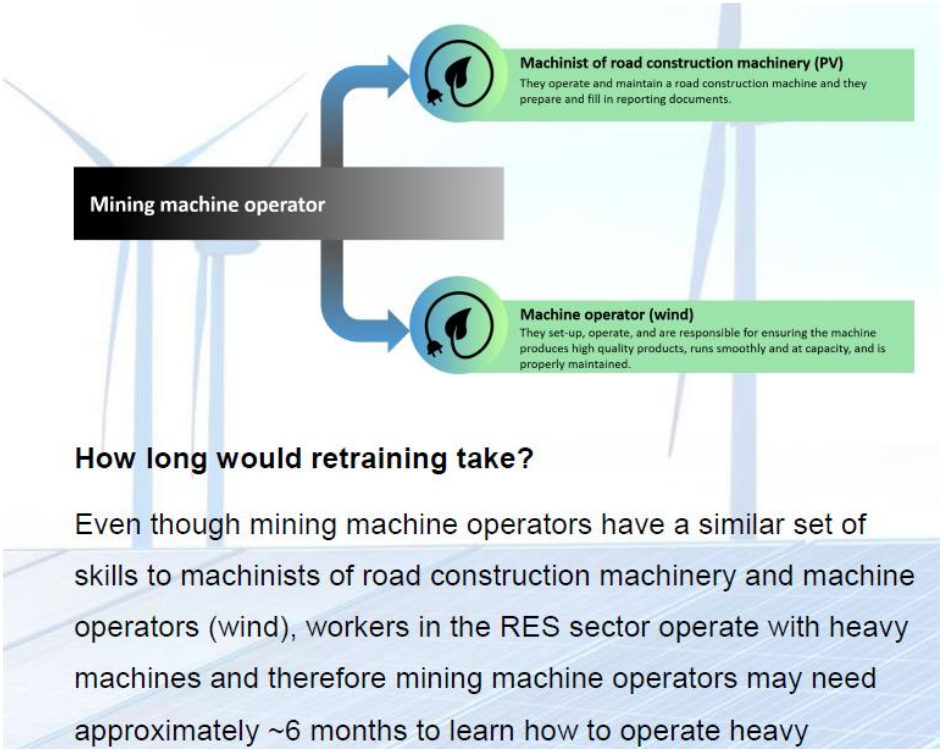


3.5 Report – Output

The final output is a downloadable document (or more than one), that show what knowledge and skills will be needed on the suggested occupation.



The second report, depending on the previous occupation, also shows the estimated time of retraining into other possible occupations



4 RES-Skill portfolio

4.1 About the portfolio

The portfolio is an online tool designed for individual usage by each coal worker so as to build their 'passport' of previous experience and thereby demonstrate competencies they have obtained against job-specific criteria, regardless of the setting in which this took place.

The tool within the RES-SKILL toolkit enables users to name their occupation in the coal power plant and with in-built assistance be able to describe the main task, technical skills, responsibilities, knowledge, soft skills and digital skills associated with the said position. It brings out the knowledge, skills and competences of coal workers in the form of a curriculum vitae (CV) using results of research and analysis of present coal workers skillsets.

It is also envisaged to be part of the documentation enabling coal workers' admission by training providers (VET, employer). Additionally, the portfolio is to help low-skilled coal workers out of exclusion and into employment by considering their specificities.

The portfolio which is prepared by the RES-SKILL consortium, is available online within the RES-SKILL toolkit.

4.2 Goal of the portfolio

The goal of the Portfolio is to support the career management and lifelong learning needs of users. This to be achieved by:

- helping individuals describe their skills, qualifications and experience.
- offering relevant information on skills and qualifications to support the lifelong learning and career development needs of users.
- Supporting the description and documentation of skills (e.g., through the CV editor),
- Identifying and understanding individuals' skills related to a particular position.
- Assisting users to better communicate and present skills and qualifications

4.3 Basis of the RES-Skill portfolio

The RES-Skill portfolio is hosted on the online platform "JotForm" and can be accessed with this link: https://form.jotform.com/213472873748366 .

It is built based on the following key points:

- It is built based on user-needs which is according to the jobs within the coal industry.
- It is multilingual with version available in English, German, Greek, Bulgarian, Romanian and Polish
- It is made available free-of-charge so that anyone can benefit from this output of the project
- It can communicate and exchange information with other web-based tools such as pdf
- It is built on a common standard which is the Europass CV.

The Profile will allow end-users to create a personal profile of their skills, qualifications and experiences in the likeness of CV in a pdf format.

4.4 RES-Skill portfolio content

Given that the portfolio is available in six languages, the first thing to do is to choose which language you would like to work in. Select either English, German, Greek, Bulgarian, Romanian and Polish.

The RES-Skill portfolio consists five section which will reflect in the PDF produced out of the online tool. These are:

- Personal Information**,**
- Contact Information
- Work Experience,
- Education and Training,
- Language skills and
- Digital skills

4.4.1 Personal Information

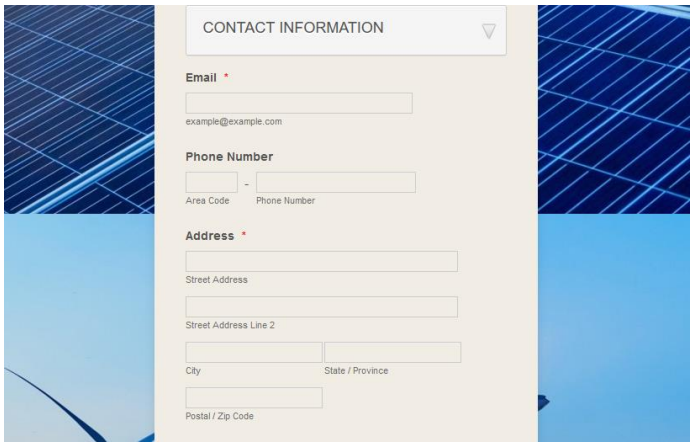
This is the first field you would see when you click on the link. Here individuals are to insert following:

Name	Fill in your first and last name
Date of birth	Simply select your date of birth from the inserted calendar
Gender	Here three options are available, male, female and not applicable. Please choose one
Nationality	From the drop-down list, choose a country

4.4.2 Contact Information

Here persons are to fill in their information on how they can be contacted. This is according to the following:

Email	Your email through which you can be easily reached. Private email is preferable
Phone number	Insert here your mobile phone number preferably
Address	Your home address should be inserted here and not the work address

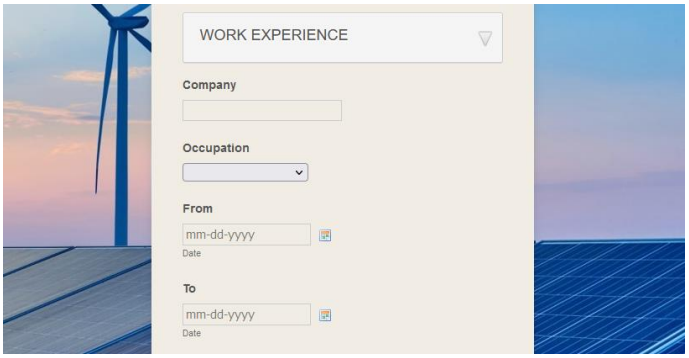


4.4.3 Work Experience

In this section, the individual is to document where he /she has been working and describe the occupation in coal power plant. The tool assist persons to describe their activities/task, responsibility, knowledge, soft skills and digital skills according to defined occupations with the industry. Here individuals are to do the following:

Company	State the coal company in which you work
Occupation	Select one of the following occupations • Supervisor • Operator • Electrician / electronics tradesperson • Fitter (mechanical structures and pipes) • Mechanic / technician • Others Once one of the above is selected, it automatically leads the user to the defined position below.
Position	User select a position from the list.
Activities/task	Selected automatically according to the identified occupation and position. This describes possible activities and task within the position

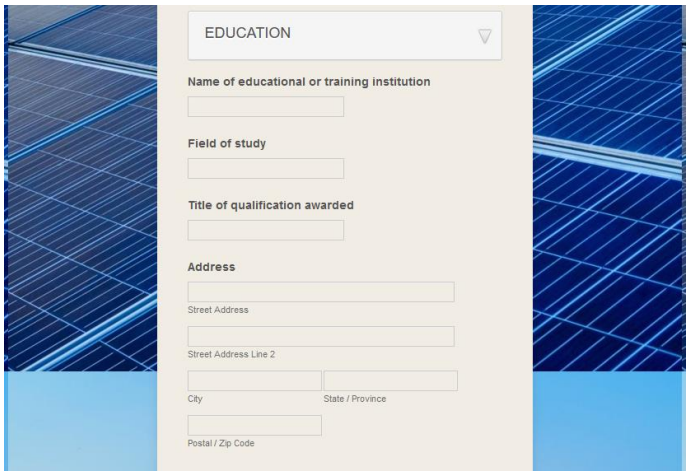
Responsibilities	Selected automatically according to the identified occupation and position. This describes possible responsibilities within the position
Knowledge	Selected automatically according to the identified occupation and position. This describes possible knowledge required for the position
Soft skills	Selected automatically according to the identified occupation and position. This describes possible soft skills required for the position
Digital skills	Selected automatically according to the identified occupation and position. This describes possible digital skills required for the position
From____to	The date at which you started occupying the position



4.4.4 Education and Training

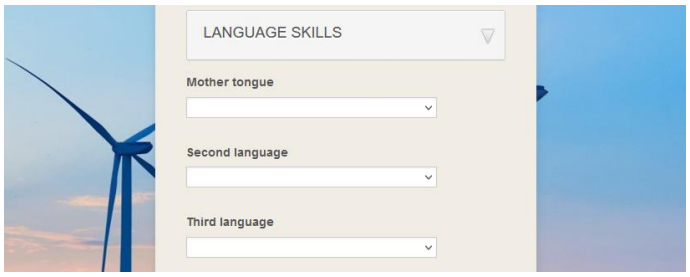
In this section, individuals are able to talk about their educational and training background according to the following:

Name of educational or training institution	Fill this information
Field of study	Indicate field of study e.g., mechanic, electricity, etc.
Title of qualification	Indicate the qualification achieved. This may vary with different country
Address	Indicate the address of the training institution



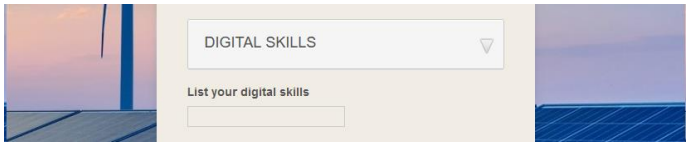
4.4.5 Language skills and

In this section the possibility of indicating a mother tongue, and two other languages

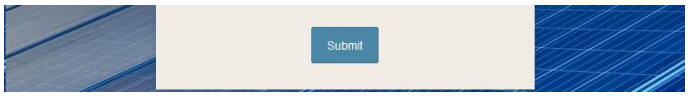


4.4.6 Digital skills

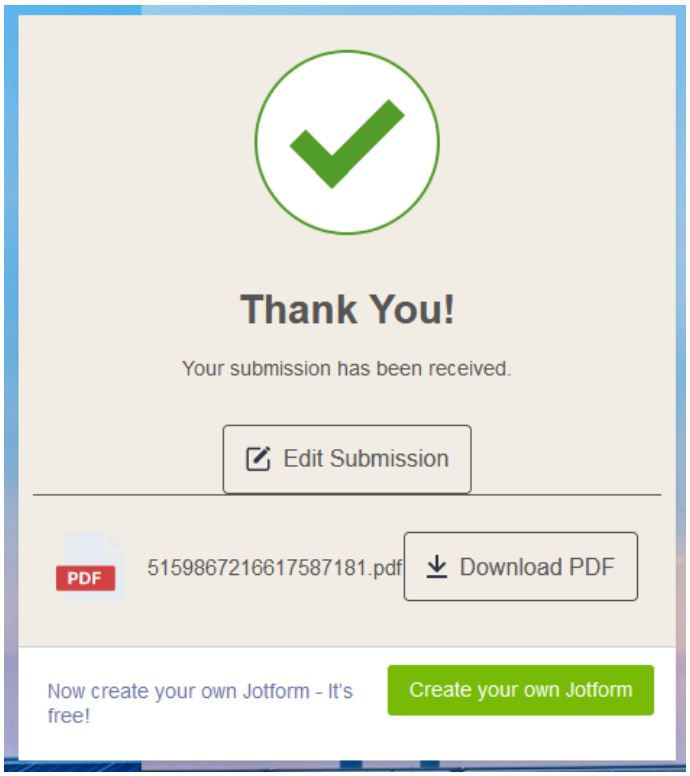
Here apart from the digital skills indicated automatically tied to occupations, individuals can insert other acquired digital skills



4.4.7 Generate your CV



The user clicks on submit at the end of the inserting all relevant information. the following window appears:



The user clicks on “download PDF” to generate a personal CV which can then be saved. User can also edit submission should there have been some errors.

4.5 Conclusion

In all the portfolio reaches its goal to assist present and formal coal workers develop a CV on their experiences in a quick way. This supports them clearly define their knowledge, skills and competences which can be useful in their quest for a new job or further education in the renewable energy sector.

5 Next steps

After the participant has successfully completed both the online tool and thus received his/her results and completed the portfolio, it is up to the counselor/teacher to compare both results and work out missing knowledge, missing competences and missing skills on the basis of the occupation profiles.

We STRONGLY suggest to clarify the mathematics skills of the interested person, as various calculations are needed in several professions of the alternative energy sector.

Basic math skills should include the following topics

- Length calculations
- Area calculations
- Volume calculations
- Converting units

The conversion of and insertion into formulas is also often required.

6 Final Conclusion

Accurate and effective counseling can only be provided on a case-by-case basis, tailored to the individual. The tools developed can only serve as support and as a basis for an adapted learning objective, as this should be tailored specifically to the person, especiall in case of this projects target groups.