



## **DITOGA**

Digital tracking of VET graduates via auto-analytics to enhance the quality and sustainability of vocational and educational training programmes

# IO.3 DITOGA ANALYTICS SOFTWARE User Manual

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## 1. Introduction

### **Project background and objectives**

All over Europe, VET centres are facing similar challenges, especially when working with disadvantaged young learners in VET. Despite their efforts to provide high quality and practical trainings, graduates often find themselves in situations where the acquired knowledge is already outdated or not sufficient at the point of their graduation. This refers to hard skills, knowledge, and competences but also to soft skills and attitudes where offer and demand are often not fully coherent. The reason for this mismatch can be found within contemporary trends like individualisation, globalisation and digitalisation. The world is changing in such a quick pace, and VET centres find it difficult to keep up due to their mere nature as educational institutes.

Without sufficient and regularly updated data, VET centres are barely able to align their training contents to the current needs of the vocational fields resulting in unsatisfied VET graduates who require additional trainings or may even change their field of work completely (CEDEFOP 2013). People working in the field of vocational education and training already know that their graduates are a deeply heterogenic group varying in age, gender, socio-economic status and level of qualification. This is why a great amount of accurate data is needed. This data has to be provided by persons who have already graduated and are now experiencing the demands of their practical work field. The information needs to be communicated to the VET centres in a clear and timely manner so it can be used to update and improve the training programmes regularly.

The DITOGA project uses auto-analytics and gamification systems, to collect the necessary data of VET graduates in order to allow VET providers to improve their programmes according to current needs of the job market.

Ditoga has been carried out through a transnational consortium in order to ensure multiple professional perspectives on the relevant elements, processes, and frameworks in vocational and educational training approaches across Europe.

The project team involves VET institutions from 5 EU countries, each well established in their region and embedded in a vast local, regional, and national network, ensuring the direct involvement of both target groups: VET professionals as well as VET learners and graduates.

The main objective of the DITOGA project is to enhance the quality and sustainability of vocational and educational training programmes by collecting relevant data from VET graduates. This data provides VET institutions with necessary information on the success but also on potential fields of improvement of their current programme contents and enables them to align their repertoire according to current needs in the labour market. To achieve these objectives, the following results and activities have been planned:

IO1) DITOGA VET Graduate Tracking Strategy: partners have identified relevant key factors that are necessary for VET centres in order to enable an ongoing alignment of training contents with actual needs of the field of work as well as the required systemic framework for implementation in the course of a transnational investigative research study. For instance: relevant soft skills (personal, social, methodological competences) and meaningful aspects of their graduate's

professional life (e.g. promotion, further training, job change) as well as internal processes of quality assurance and development of training programmes.

The result of this output has been a long-term VET graduate tracking strategy including guidelines on how the data collected can contribute to the continuous improvement of VET programmes and how the strategy can be implemented successfully.

IO2) DITOGA Mobile App: This app for mobile devices is the heart of the DITOGA project as its main purpose is the acquisition of meaningful data through self-reflecting activities of VET graduates. The data generated surpass the common types of data used in traditional graduate tracking systems by combining information of demographic, socio-economic, administrative and subjective (e.g. satisfaction, success moments, need for further education/training) nature. To acquire this data, the user interface of the mobile app features an individual profile (anonymous by default) and a personal diary function that consists of multiple choice items and a progress overview. Gamification elements motivate users to engage with the app frequently (e.g. reward badges related to learning outcomes). The app is available for free in all partner languages on Google Play (Android) and AppStore (Apple).

IO3) DITOGA Analytics Software: In order to properly analyse the data gathered through the mobile app, a special software has been developed. This User Manual completes the Ditoga Analytic Software. Thanks to the software, VET centres will be able to use the data provided by VET graduates through the APP, for updating and tailoring their training programmes fitting to the needs of the working sector following the DITOGA VET graduate tracking strategy.

Thereby, the DITOGA project breaks new ground in attempting to develop an efficient and resilient graduate tracking system allowing VET providers to increase the quality and sustainability of their training programmes by continuously adapting them to the ever-changing requirements in the working world in a flexible and timely matter. The three core outputs developed by the DITOGA project provide VET institution exactly with these opportunities. The necessary data are acquired from VET graduates through the app for mobile devices (IO2) and then evaluated and interpreted by the VET centre using a custom-made analytics software (IO3), combining the technological benefits of both instruments.

#### Utilisation of contemporary trends in the age of digitalisation

To achieve its objectives, the DITOGA project team decided to use two instruments that collect, process, and anonymize the necessary data in an innovative way. In fact, the development of IO2 exploits two increasingly popular trends of modern technology: auto-analytics and gamification. Combined, they complement the efforts of the DITOGA project in the following way:

the first trend, auto-analytics, brings a new method of data collection to the table as users voluntarily share information rather than being requested to do so, for example during a survey or interview. Interestingly, these self-tracking tools are at the moment mostly applied in the health and fitness sector and serve as introspection and even motivational instruments. People

of all ages are more and more interested in and aware of the positive effects of auto-analytics and want to engage more;

the second trend, gamification, can be observed in almost every successful marketing strategy in various levels of intensity as it adapts game-design elements and game principles to non-game contexts. Therefore, DITOGA combines gamification elements with the opportunities of autoanalytics to keep the VET graduates interested in using the mobile app for a long time. However, it is crucial to emphasise that the DITOGA app is guaranteed to be and stay available for free download and will never require the purchase of any functions or elements with real currency. The development of the DITOGA Analytics Software has been the last activity of the entire DITOGA project with the main goal to increase the quality and sustainability of training contexts in VET centres. As already mentioned, the first step concerned the identification and description of the VET Graduate Tracking Strategy which offers key factors and guidelines for VET professionals. The second product concerned the development of the mobile app to track graduates of VET programs and their entrance to the labour market, focusing on missing or essential competences in their further professional work. These collected insights are accessible and utilisable for VET providers by using the DITOGA Analytics Software. The professionals are thus enabled to enhance their vocational and educational programs due to contemporary trends and variances.

### **DITOGA Analytics Software: a first overview**

To access the software users simply must register at the following link

The DITOGA Analytics Software is provided to the project partners, but in the future we also hope that other VET centres and training institutions can register and access the software for free. During the project the suggestions and ideas of professionals from the partner countries concerning areas like handling, surface and design combined with a Learning, Teaching and Training Activity (LTTA) have been incorporated in the development process of the analytics software (for further details about these feedbacks please read paragraph 6 of this User Manual). This not only have ensured the feasibility and user-friendliness of the product, but also the quality and sustainability of the collected and processed data.

Once Users entry the main page of the software, named "Evaluation of VET graduates data", they find two drop down menu containing all the qualitative and quantitative data about the career paths of VET graduates, collected by the mobile app.

Users can choose between 2 drop down menu containing data organized in the following categories:

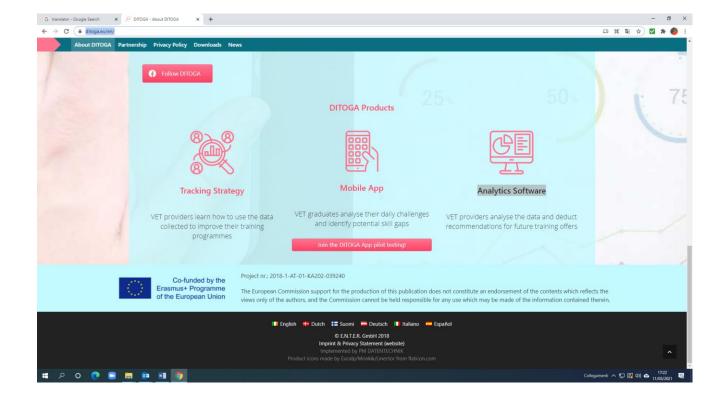
Achievements; Age Groups; VET sector; VET Center; Year of graduation; Mood tracker; Success moments....

This huge variety of selectable data enables VET professionals to select, combine and screen the requested data by simply dropping down options to guarantee an easy-to-handle use of the software. The selected data is then presented and visualized through diagrams and statistics and can be filtered to meet the specific needs of the different VET providers.

The software can be used by Microsoft Windows and Mac OS and is therefore an easy-to-access-tool for VET providers. Using the software is a huge benefit for professionals, especially because the software is an OER (Open Educational Resources) and is free of charge. Of course, the software is available in all partner languages (English, Finnish, Italian, Spanish and German) and is consequently extendable in further languages on demand. A special focus is set on the data protection policy and terms and conditions by the project partnership to ensure and keep the legal framework. Thus, the project contributes to reach the aims of the European Union concerning improving VET systems and their timely reaction to the demands and needs of the world of employment.

## 2. How it Works

The DITOGA software is a web-application accessible from the DITOGA website by clicking on the "Analytics Software" button (<a href="https://www.ditoga.eu/en/">https://www.ditoga.eu/en/</a>).



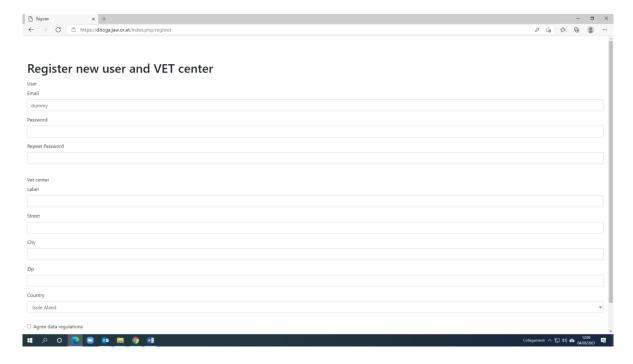
## 2.1 Registration to the analytic software

When clicking on the button, in order to have access to the software, the user has to log-in the following page for registration.



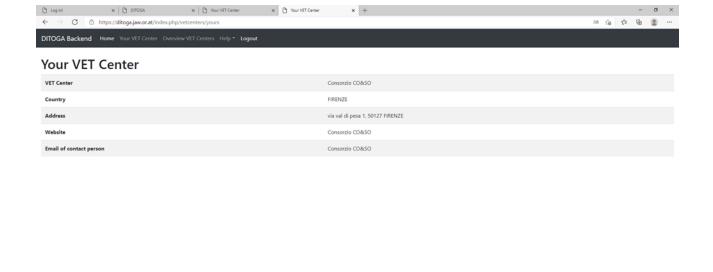


If it's the first time to use the software the user must create an account by clicking on "Register new user and VET center":



## 2.2 Your VET center

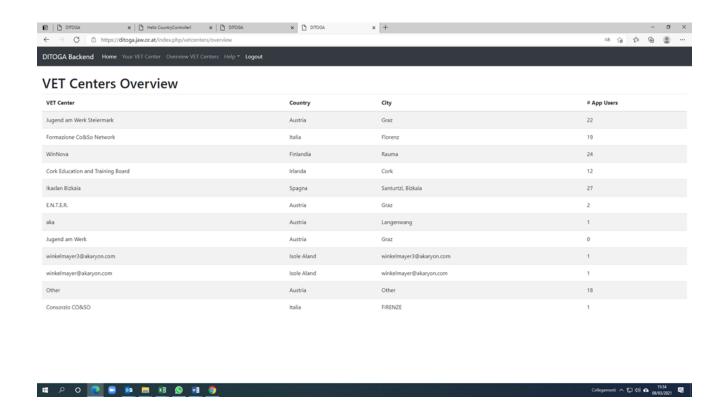
After registration, the user will access the VET Center page where he/she will be able to visualize his VET Center data. Only data of own VET Center will be visible: only the "Super-Admin" will be able to see all data. If the VET center needs to change the data it has to contact the administrator (info@ditoga.eu).





#### 2.3 Overview of VET centers

In this section some basic information can be found about the VET Centers registered to the software. This basic information includes: the name of the VET Center, the country and the city where it is based, and the number of VET graduates from that specific Center who use the EYOU! App.



### 2.4 Evaluation of VET graduates' data

The Evaluation of VET graduates' data is the main section of the software that enables users to see and put into correlation the data inserted by VET graduates through the e-YOU! App





In this page there are two drop down menu – row metric and column metric - containing some indicators and quantitative data collected through the e-you App.

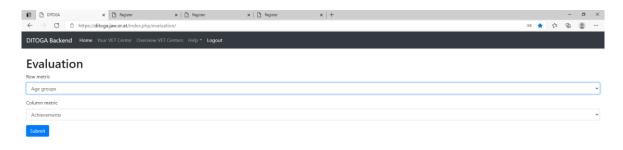
Additionally, in this page the user can find a link to the help section where all the instructions on how to use the software are described. The instructions are the same contained in the User manual and can be even downloaded as PDF.

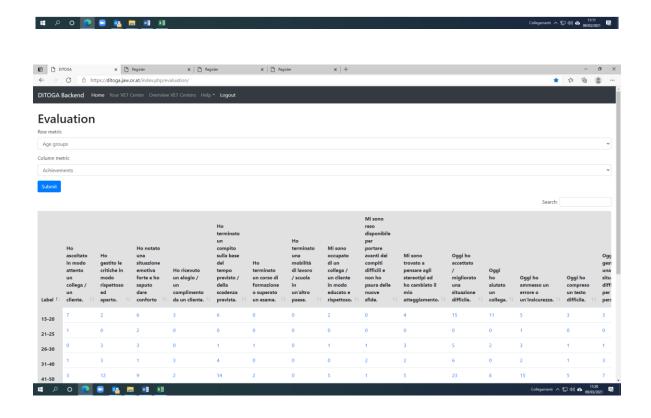
For more details, click Help button on the "How to use" (see chapter 3).

#### 2.5 How to visualise data?

In order to put into correlation VET Graduates data, the user can select a data from the row metric menu (for instance the Age groups) and, as a second step, select another data from the column metric menu (for example Achievements).

Example: correlation between "age groups" and "achievements"

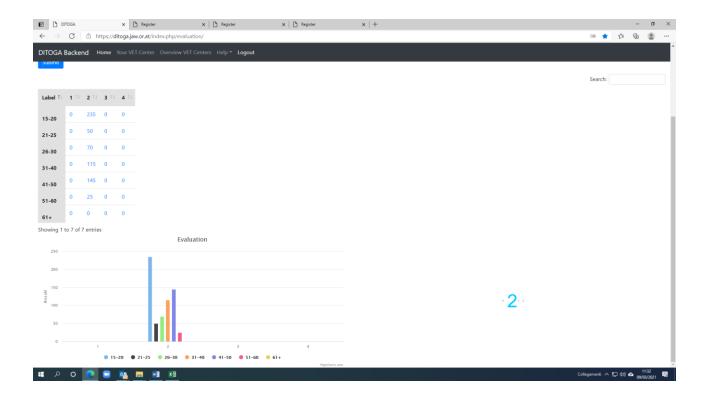




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## **Quantitative data**

A *histogram* will be displayed automatically under the table, in case the data selected is *quantitative*. You can further click on the *numbers* in each category of the table if you want to have more details on users.



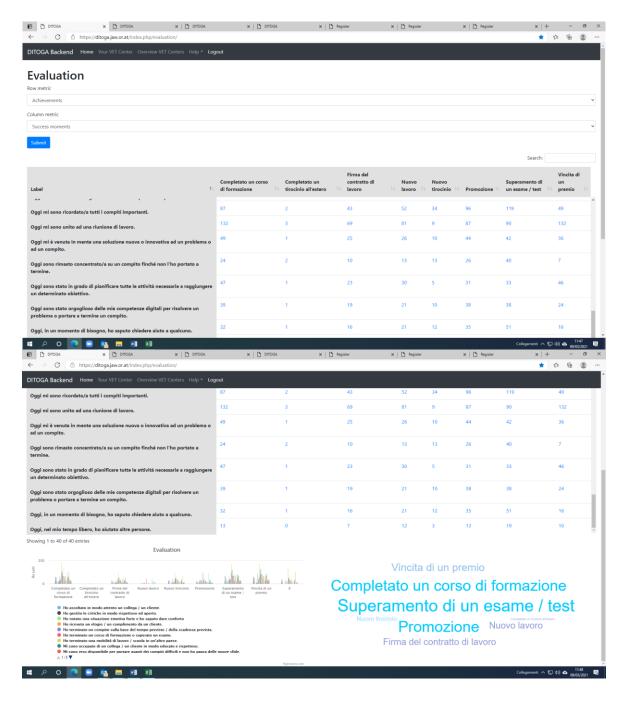
If the user needs to download the evaluation results for further data analysis, he/she can click on the button below to export the data in CSV format.



### **Qualitative data**

In the same way as described above you can put into correlation also *qualitative data*, ie. *achievements* and *success moments*. In this case a table of data will appear, just like for quantitative data and you will be able to visualise selected data in two different chart-formats: as a *word cloud* or, again, a *histogram*. The word cloud, which allows you to have an overview on the most frequent answers of users (the more frequent an answer is, the biggest the word cloud size will be).

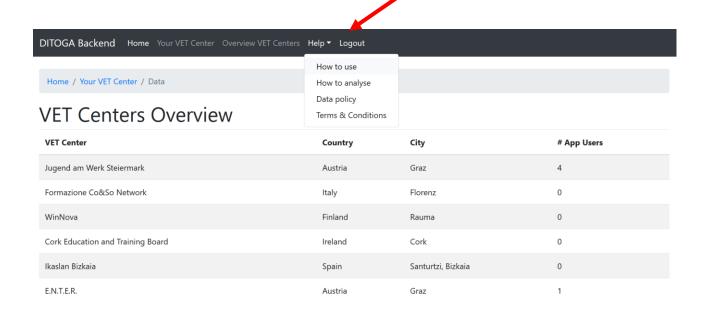
If you want to visualize even the number of answers. It is enough to place the mouse on the histogram.



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## 3. Help

In this section the user can find all useful instructions on how to use the software and analyse the data.



#### 3.1 How to use the software

The instructions are the same contained in the User Manual and can be even downloaded as PDF.

#### 3.2 How to analyse

Some suggestions on how to analyse the data collected and put them into correlation, what kind of conclusions can be deduced from such data and how this can help users to improve their VET offer (this information can be found in section 5 of this User Manual).

#### 3.3 Data Policy

#### Introduction

The DITOGA mobile app is used by VET learners and graduates and it supports to monitor their professional achievements and motivates them to excel themselves. The DITOGA software will be used by VET professionals and providers in order to obtain and interpret meaningful data concerning the career paths of their graduates.

#### What data is collected

Users of the Ditoga software ("VET centers"):

• Personal identification information (Name, e-mail, country, name of the VET center, address of VET center, website of VET center, e-mail of contact person or legal representative)

#### How data is collected

Data is collected directly from the registered person who is representing a VET center. The user manages her/his own data. Ditoga Analytics Software uses the information collected from VET graduates in the Ditoga App to obtain and interpret data concerning the career paths of the graduates. The data from VET graduates is collected directly from the registered users via Ditoga app.

#### How data is used:

- To manage the VET center's account [thereinafter 'Users']
- The VET center's account data will be used only as written in this document. Data will not be shared with third parties.
- Data inserted in the Software can't identify individual persons.

The VET centers can analyse data in order to obtain and interpret data concerning the careers paths of graduates via their VET center account. The graduates are using only Ditoga Mobile app, not the software.

#### How data is stored:

Users can not delete their account via her/his own login page, however if they want to have their account deleted, they have to contact the Super-Admin at info@ditoga.eu.

If a user asks to have his/her data deleted, all data will be deleted for that user and won't appear in the database anymore.

#### Security description of the service (Technical (IT) measures):

Appropriate and proper technical and organisational security measures are taken to ensure that there is no unauthorised access to the personal data that is hold and that it is not used, destroyed, modified, made public or misused in any other way.

#### Data protection rights of the users:

The right to be informed

The user is informed about the Data Protection policy and Terms and Conditions when she/he is signing in to the software. She/he confirms that she/he has read and accepted it.

The right of access

The user can see his/her own personal data via his own login pages.

The right to rectification

The user can ask to the Super-Admin to edit / modify his/her own personal data at info@ditoga.eu.

• The right to erasure

The user has the right to erase her/his personal data. The user can ask to the Super-Admin to delete his data at <a href="mailto:info@ditoga.eu">info@ditoga.eu</a>.

The right to data portability

Software is not collecting downloadable data from VET centers users.

Rights related to automated decision making and profiling

The software does not automatically profile the user or make automated decisions.

Marketing

The data is not used for marketing purposes.

What are cookies?

Cookies are text files placed on your computer to collect standard Internet log information and visitor behaviour information. When you visit our software, we may collect information from you

automatically through cookies or similar technology.

For further information, visit allaboutcookies.org

How Ditoga analytics software uses cookies?

Functionality:

To keep you signed in;

To remember your previously selected preferences. These could include what language you

prefer and location you are in

How to manage cookies

You can set your browser not to accept cookies, and the above website tells you how to remove cookies from your browser. However, in the few cases, some of our website features may not

function as a result.

Privacy policies of other websites

This privacy policy applies only to this software, so if you click on a link to another website, you should

read their privacy policy.

Changes to the privacy policy

The DITOGA project keeps its privacy policy under regular review and places any updates on this

document. This privacy policy was last updated on 31 Oct 2019.

How to contact us

If you have any questions about the privacy policy or the data we hold on you, please do not hesitate

to contact us via info@ditoga.eu

For more information: https://www.ditoga.eu/en/

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#### 3.4. Terms and condition

The DITOGA software will be used by VET professionals and providers in order to obtain and interpret meaningful data concerning the career paths of their graduates. The DITOGA mobile app is used by VET learners and graduates and it supports to monitor their professional achievements and motivates them to excel themselves. The ownership of the DITOGA software and application belongs to the DITOGA Partnership.

Please read these terms and conditions ("terms", "terms and conditions") carefully before using Ditoga Analytics software (the "service") operated by Ditoga project: <a href="https://www.ditoga.eu/en/">https://www.ditoga.eu/en/</a> ("us", 'we", "our").

#### **Conditions of Use**

We will provide their services to you, which are subject to the conditions stated below in this document. Every time you download Ditoga Analytics software, use it or its services, you accept the following conditions. This is why we urge you to read them carefully.

#### **Privacy Policy**

Before you continue using Ditoga Analytics software we advise you to read our privacy policy regarding our user data protection. It will help you better understand our practices.

#### Open access

The entire compilation of the content (digital downloads, images, texts, graphics, logos) found on Ditoga Analytics software is freely accessible for non-commercial usage, provided that no substantial changes are made and that full reference should be made to the source of the material (project title, grant agreement number) and that the project has been funded under the Erasmus+ programme.

#### Age of the user

The service is provided to users over age 15. When you create an account, you confirm that you are over 15 years old.

#### **User Account**

You are responsible for all activities that occur under your account or password, therefore you must ensure that no unauthorized access to the DITOGA software is obtained through your username and password and take all necessary steps to keep them confidential. You shall inform the DITOGA partnership immediately if you have any reason to believe that your password has become known to or been used by any other person.

The DITOGA administrator reserves the right, in its sole discretion, to restrict, suspend or terminate your access to all or any part of the DITOGA software without prior notice and without liability, in case of any violation of any of the terms and conditions.

#### **Communications**

The entire communication with us is electronic via email: <a href="mailto:info@ditoga.eu">info@ditoga.eu</a>

#### **Applicable Law**

By using this software, you agree that the laws of Austria without regard to principles of conflict laws,
will govern these terms and conditions, or any dispute of any sort that might come between Ditoga
project and you.

## Disputes

Ditoga analytics software disputes shall be arbitrated by Austria and you consent to exclusive jurisdiction and venue of such courts.

# 4. Indicators of the main categories of data in the Ditoga Mobile App

In order to understand the different items of the software's dropdown menus in the Evaluation of VET Graduates Data section, it is essential that VET professional know the menu on the main page of the Mobile App for VET graduates. It is subdivided into four main categories of data each of which contains several different indicators.

## I category of data - USER PROFILE

#### **Definition:**

The User Profile is default home or landing page when opening the app (IO.2). Most information is accessible by the user of the app (IO.2) here.

However, in the **analytics software** (IO.3) this provided data per person enables VET centres and training institutions to get a precise overview of the main data of the selected person.

Age	The age group inserted by the user in the app (IO.2) (N.B.: only five-years-steps are possible to select) is consequently transferred to and displayed in the <b>analytics software</b> to allow VET centres and training institutions to limit the age group for the training contents to be efficiently adapted.
VET sector	The VET sector inserted by the user in the app (IO.2) is consequently transferred to and displayed in the <b>analytics software</b> to allow VET centres and training institutions to exactly name the main job categories for the training contents to be sector-specifically adapted.
VET centre	The VET centre inserted by the user in the app (IO.2) is consequently transferred to and displayed in the <b>analytics software</b> to allow VET centres and training institutions to specifically find their own training centre.
Country	The country inserted by the user in the app (IO.2) is consequently transferred to and displayed in the <b>analytics software</b> to allow VET centres and training institutions to specify the country of the accomplished vocational education training (VET). Additionally, it allows comparison between graduates of the different countries or of the same country.
Year of graduation	The year of graduation inserted by the user in the app (IO.2) is consequently transferred to and displayed in the <b>analytics software</b> to allow VET centres and training institutions to specify the year of the accomplished vocational education

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	training (VET). Additionally, it allows the comparison between VET students graduated in the same year/in different years
Employment	The employment situation inserted by the user in the app (IO.2) is consequently transferred to and displayed in the <b>analytics software</b> as working in the field of graduation, working in a different field, looking for a job or in a work placement.

## II category of data - MOOD TRACKER

#### **Definition:**

The Mood Tracker is a quick test in the app (IO.2). Moods can be tracked daily and also via the calendar diary function in the app (IO.2).

However, in the **analytics software** (IO.3) this provided data per a certain group of persons-due to privacy reasons not for a single specific person-enables VET centres and training institutions to get a precise overview of the measurable data per person in order to see respective emotionally positive or negative trends of the selected person.

Mood	The app (IO.2) measures the mood of the selected person and consequently transfers and displays it to the <b>analytics software</b> as <i>happy, rather happy, rather unhappy</i> or <i>unhappy</i> .
Stress	The app (IO.2) measures the stress level of the selected person and consequently transfers and displays it to the <b>analytics software</b> as none, moderate, severe or overwhelming.
Motivation	The app (IO.2) measures the motivation of the selected person and consequently transfers and displays it to the <b>analytics software</b> as <i>high, moderate, barely</i> or <i>none</i> .
Productivity	The app (IO.2) measures the productivity of the selected person and consequently transfers and displays it to the <b>analytics software</b> as <i>slow to none</i> (hardly progress), medium (slow and steady) or high (busy as a bee).

## III category of data - ACHIEVEMENTS

#### **Definition:**

The Achievements section is the core of the mobile app (IO.2).

However, in the **analytics software** (IO.3) this provided data per person enables VET centres and training institutions to get a precise overview of accomplishments of a selected person or specific groups of persons and a displayed analysis of the persons knowledge, skills and competences.

Personal	The personal achievements inserted by the user in the app (IO.2) are consequently transferred to and displayed in the <b>analytics software</b> to allow VET centres and training institutions to focus more on the individual achievements of the selected person. These can be problem solving, flexibility or stress resistance, just to name a few.
Social	The social achievements inserted by the user in the app (IO.2) are consequently transferred to and displayed in the <b>analytics software</b> to allow VET centres and training institutions to focus more on the individual achievements of the selected person. These can be presentation skills, courtesy or dealing with criticism, just to name a few.
Professional	The professional achievements inserted by the user in the app (IO.2) are consequently transferred to and displayed in the <b>analytics software</b> to allow VET centres and training institutions to focus more on the individual achievements of the selected person. These can be basic arithmetic operations, self-development or language skills, just to name a few.
Sector-specific	The sector-specific achievements inserted by the user in the app (IO.2) are consequently transferred to and displayed in the <b>analytics software</b> to allow VET centres and training institutions to focus more on the individual sector-specific achievements of the selected person. These for example focus on craftsmanship skills to visualise knowledge, skills and competences, so they can be put into correlation with EQF levels.

## **IV category of data - SUCCESS MOMENTS**

#### **Definition:**

The Success Moments help to gain an insight in the eventful life of VET graduates. In the app (IO.2), these are inserted rather easily although they might only occur occasionally but are nevertheless inserted in the calendar diary function by the user.

However, in the **analytics software** (IO.3) this provided data per person enables VET centres and training institutions to get additional information on the selected persons performance.

The success moments could also serve as an indicator for VET centres and training institutions if the training offers is in line with the demands of the labour market, e.g. if a certain percentage of VET graduates have found a job within a given period of time after the graduation.

Signed working contract	Shows if the person has got a new job
Promotion	Shows if the person got promoted
New internship	Shows if the person has got a new internship
Further training finished	Shows if the person has accomplished a further training
Won an award	Shows if the person has won an award

# 5. How could VET centres and training institutions improve their training courses?

✓ Offer a better learning support provided by VET institutions, both internal and external to broaden the theoretical knowledge of VET students/participants/graduates.

Since many participants in the target group have incomplete basic school knowledge, targeted remedial teaching in the various training institutions is recommended. This should also prepare the participants for vocational school and, in addition to imparting basic knowledge, should also be subject-specific if possible. This requires both internal and external resources in the form of qualified lecturers, for example. It has also been shown that the use of specific computer learning programmes also contributes significantly to this. Here, however, there is a need for control and a knowledge check of the specialist personnel in the training institutions.

Concerning the area of theoretical knowledge there might be a considerable need to catch up in some areas. In some cases, the basic knowledge of the participants, such as basic arithmetic, is already lacking. Who would build a house on a completely inclined foundation? The same applies to the expansion of theoretical knowledge if the basis is not right.

Training institutions of any kind must be aware that under certain circumstances the acquisition of theoretical knowledge at school was inadequate - for whatever reason. Generally speaking, it is a question of consolidating basic competences and only then of acquiring theoretical specialist competences. Thus, it is the task of training providers to create appropriate resources to ensure this.

✓ Provide practical workshops, in-house trainings and guarantee a close cooperation with the working world to broaden the theoretical knowledge of VET students/participants/graduates.

In this area, it can be said that it must be the task of training institutions and VET centres to provide sufficient practical training for their participants, which must be as realistic as possible. Furthermore, it should be emphasised - and this is already happening widely and to a great extent - how important it is to gather practical experience locally in the partner companies. Only here is practical knowledge and experience imparted if the training facilities are not conceptually designed to offer practice.

It is absolutely important that enough attention and time is invested to train practical knowledge, skills and competences through different methods. It is also important to regularly check the progress of the trainees in cooperation with companies.

It has been shown that close cooperation with companies in the first labour market is essential in order to achieve a high standard of training for the target group. This also includes regular face-to-face company contacts for VET professionals. These also contribute to enabling good individual participant work and to being able to respond quickly to changes or new requirements.

✓ Integrating soft skills and transversal skills training in regular (technical) training with authentic learning techniques to train and encourage the use of soft skills of VET students/participants/graduates.

Here it is important that training institutions pay close attention to the development of the soft- and transversal skills of their participants. The aim is to sensitise participants and to promote and challenge them in the further development of these skills. These skills are indispensable in everyday (working) life and have a lasting influence on the professional future in this context.

This was of course taken into account by the project partnership in the development of the key data fields in the VET Graduate Tracking Strategy Guide (IO.1), which are therefore of great relevance for the parts IO.2 (mobile app) and consequently for the software analytics (IO.3) of the DITOGA project.

The sections "personal", "social" and "professional achievements" therefore also provide an overview of the VET graduates' soft- and transversal skills.

✓ Better and regular guidance/mentoring and meeting the trainee/new worker as an individual, giving enough and right kind of support to further the motivation of and minimize the drop-outs among VET students/participants/graduates.

It is immensely important that there are regular workshops and activities on work behaviour and motivation. This includes telephone training, behaviour in job interviews, but also dealing with topics such as diligence, endurance, independence, motivation, reliability, creativity/flexibility and problem-solving behaviour.

This aspect is very complex and consists of many facets. Training institutions should be aware that a sustainable professional and private career depends strongly on the perception and self-reflection of their participants. There is no 'general recipe' here, but helpful inputs which are intended to stimulate and support training institutions.

✓ Encourage VET students/participants/graduates to develop an action plan for their professional goals concerning their future career paths.

Employees in training institutions must be aware that working with the target group is always an individual case management. Accordingly, a medium to long-term strategy is

needed to guide the participants well through the training and thus minimise possible drop-outs during training or after starting work. It would be important here to take a holistic approach in order to be able to filter even better where there are blockades, internal drivers and triggers for frustration.

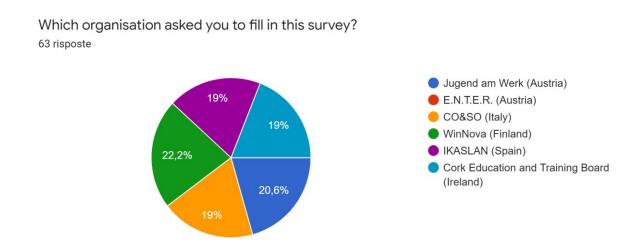
Moreover, it is very important that employees of training institutions and VET centres are aware of each other's most important circumstances and that there are no information gaps. This is the only way to ensure that everyone pulls in the same direction and everyone knows what the other is doing, so that optimal and individual participant work is achieved.

It goes without saying that there must also be an open exchange and communication with companies regarding individual target planning, although this does not involve the disclosure of health conditions or the social environment, as this would contradict the data protection guidelines on the one hand and be counterproductive on the other.

## 6. The process of the feedback loop: overview and results

Throughout the development of the Analytic Software, a feedback loop with 12 VET professionals in each partner country (60 at EU level) and a learning-teaching-training activity have been carried out. The aim of the feedback loop and the LTTA were to test the Ditoga software and to get opinions, suggestions and advices from the direct users (VET professionals), about the main features of the programme: design, usability, interface, functionalities, etc.... These remarks, collected through a Google form questionnaire (Annex I), were used to finalize the software and its user manual.

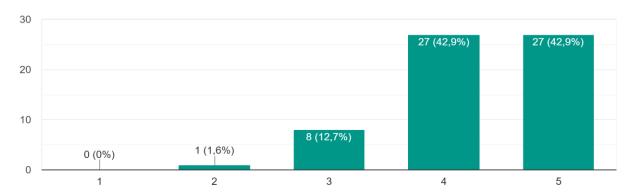
Here below, we summarize the outcomes of the feedback loop.



This chart shows the percentage of respondents per partner organization. Overall, 63 VET professionals took part into the feedback loop at EU level.

## **Software usability**

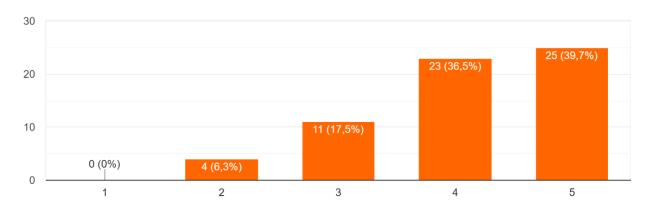
I think the structure of the software is clear and easy to navigate.
63 risposte



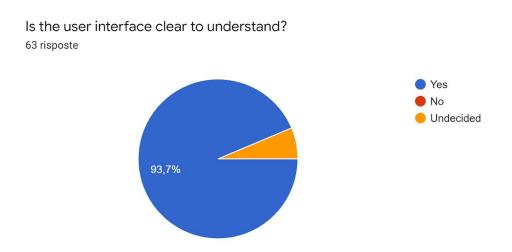
According to the answers received, the majority of the VET professionals involved in the feedback loop have found the structure of the Ditoga Analytic software very clear and easy to navigate (42%), and clear/easy to navigate (again, the 42% of respondents). Only few professionals (1,5%) stated that it is not clear and easy to navigate.

This very positive answer shows the partnership that the software has been built with a very clear structure, which makes the navigation among its sections very intuitive.

Was it easy for you to find what you were looking for (VET centre information, data Policy, etc)? 63 risposte



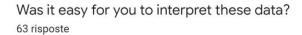
This answer demonstrates what has been expressed in the previous one, as almost the 40% of respondents stated that they could find very easily what they were looking for (VET centers information, data policy, etc), thus confirming that the software structure is very intuitive. Only the 6,34% of respondents answered that it hasn't been that easy to find what they were looking for. Overall, the majority of respondents (the 76% of professionals) gave an answer over 4,00 on a rating scale from 1,00 to 5,00.

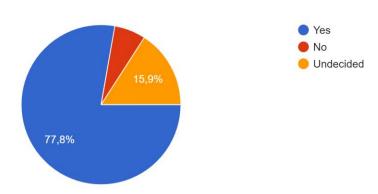


Again, the clearness of the user interface has been evaluated with a very high rate from almost all respondents: 93,7% of participants answered "Yes" and just few of them were not sure on what to answer (6,3% of them).

We can therefore conclude that both the software structure and the user interface have been highly appreciated by VET providers and professionals involved in this project activity; thus, they don't need further adjustments / modifications.

## **Data correlation and interpretation**

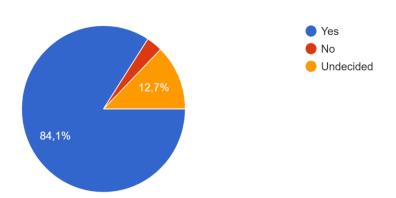




In order to interpret the data provided by VET graduates through the Ditoga App, the Analytic Software gives the possibility to select the students' data through dropdown menus and to put them into correlation. This function has been highly appreciated and has been found very useful by the 84,1% of VET professionals involved in the feedback loop.

Was it easy for you to select the students' data (e.g. country, age groups), in order to correlate them?

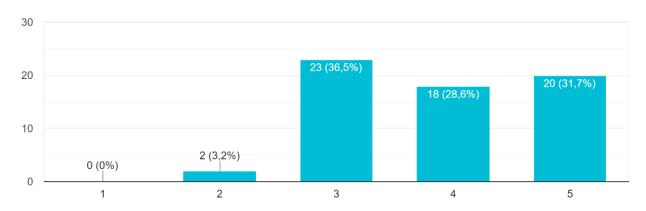
63 risposte



As for the previous question, the functionality provided by the software for the interpretation of the VET graduates' data has been found very intuitive and useful by the 77,8% of the participants: it means that word clouds and diagrams representing the correlation between VET graduates' data are clear and easy to understand.

To conclude, we can assume that this visual function provides an easy tool for the interpretation of the graduates' data, which can straightforwardly support VET centers to adjust their training offer.

Do you find it useful in order to adjust your training offer to the labour market needs? 63 risposte



When we specifically asked whether the data provided by the Ditoga Analytic Software are useful in order to adjust the VET center's training offer to the labour market needs on a rating scale from 1,00 to 5,00, the 36,5% of the VET professionals interviewed remained neutral answering the 3rd item on the rating scale (neither unusual, nor useful). However, the 28,58% of respondents and the 31,75% of respondents were very positive about the usefulness of these data (answers between 4,00 and 5,00).

Even though the answers received to this question are quite eterogeneous, we assume that participants appreciate the information they can receive by the use of the Ditoga Software and that they overall find them useful to adjust their training offer to the labour market needs.

# Comments and suggestions of VET professionals provided through an open question:

## What would you change or suggest to have the software more suitable to your needs?

needs?			

Personalized evaluation for the users

No comment

I think that easy to use and understand

I like it so

no

Posibilidad de

I miss more specific information as which kind on formation could you need....

Maybe one option could be in Employment status: in army, maternity leave or some else similar "forced" situation

None

We need an individual account

Possibility to divide metrics to sub-groups, e.g. choose 5 countries instead of all of them.

"Evaluation" in the top menu to help navigation. It was unclear what you can search. I tried to search with the word "Finland", and there were no results. Possibility to transform data to xls, doc, pdf etc. formats.

Anything. The app is very clear and easy tu use with the students

Too much countries/years of graduation, mood-tracker is not understandable

I would suggest to add some images or to use some colours for the pages.

It would be useful to include something in relation to the learning process of the technical skills.

Anyway the software is interesting and, if improved, could be very useful. Please, make it more colourful!

may be more my country oriented

### **Conclusions**

In past years, the challenge of skill mismatches and skill gaps was addressed by the European Commission through different initiatives which aim at defining essential skills and competences (e.g. ESCO) or at collecting data of graduates to learn more about their careers paths and opportunities (e.g. European Labour Force Survey, Eurograde Feasibility Survey, various CEDEFOP Surveys) or a combination of both like the European Skills Panorama.

However, these existing approaches are on one hand mainly available and widespread for the tracking of graduates of higher education, leaving the VET sector nearly neglected, and on the other hand centre about administrative and economical information deduced from educational, social security and tax databases or interrogative surveys among graduates. But quantitative and qualitative data from different sources must be combined and linked in order to construct a full picture of individual career paths of VET graduates and to allow substantial deductions for the enhancement of VET programmes in Europe.

The DITOGA partnership developed and set up this innovative VET graduate tracking system, including a comprehensive implementation strategy (IO1), an instrument for qualitative and quantitative data collection, the mobile app (IO2), and the analytics software (IO3). The DITOGA project has therefore supplied a ground-breaking contribution to the European goals concerning the quality and efficiency of vocational and educational training in favour of ET2020, the Riga Conclusions, and the proposal for a Council Recommendation on tracking graduates published in May 2017 by the European Commission.

In particular, the Ditoga Analytic software is a free-of-charge OER (Open Educational Resource). So, the usage of the Ditoga software is a huge benefit for professionals for two reasons:

- at first as it has been built as open educational resource;
- secondly because, as stated by the Ditoga joint-staff training event participants' in March 2021, it allows VET providers to pay a close attention to the development of the soft- and transversal skills of their graduates.

Thus, thanks to the Ditoga software, VET providers are able to better integrate soft skills and transversal skills in their training offer, encouraging the use of soft skills of VET students / graduates in the labour market. These skills are indispensable in everyday (working) life and have a lasting influence on the professional future of VET students.

The Analytic software concretely helps VET professionals to organize activities in relation to topics such as diligence, endurance, independence, motivation, reliability, creativity/flexibility and problem-solving. In this way, VET professionals can provide a customized and tailored support and personalized guidance to their VET graduates/students. The benefit pointed out by the VET professionals who tested the software in the partner organization, can hopefully be extended to further EU VET centers after the project end.

## **Annex I**

## **Feedback Loop for VET Professionals**

31/3/2021

IO3 - Ditoga Analytic Software - Feedback loop for VET professionals

103 - Ditoga Analytic Software - Feedback loop for VET professionals DEAR participant, in this form you can provide us your opinion about the Ditoga Analytic Software. Please be aware that it is still a work in progress and several adjustments will be made in the next weeks. You can find the software prototype at the following link: https://ditoga.jaw.or.at/index.php/evaluation/ Time to submit your feedback: 15.03.-26.03.2021 Thank you so much for your contribution! The Ditoga project team \*Campo obbligatorio Software usability 1. I think the structure of the software is clear and easy to navigate. \* Contrassegna solo un ovale. Not at All Very clear and Easy 2. Was it easy for you to find what you were looking for (VET centre information, data Policy, etc)?\*

https://docs.google.com/forms/d/1wFojDHMLan5KisfSaBiFW7z6Q4UeoZebpnEFJidWlvQ/editalited for the control of th

Contrassegna solo un ovale.

1/3

31/3/2021	IO3 - Ditoga Analytic Software - Feedback loop for VET professionals
3.	Is the user interface clear to understand? *
	Contrassegna solo un ovale.
	Yes
	◯ No
	Undecided
2	ata correlation and interpretation
4.	Was it easy for you to select the students' data (e.g. country, age groups), in order to correlate them? *
	Contrassegna solo un ovale.
	Yes
	○ No
	Undecided
5.	Was it easy for you to interpret these data? *
	Contrassegna solo un ovale.
	Yes
	○ No
	Undecided
6.	Do you find it useful in order to adjust your training offer to the labour market needs? $^{\star}$
	Contrassegna solo un ovale.
	1 2 3 4 5
	Completely unuseful Completely useful
Co	mments and suggestions
	gle.com/forms/d/1wFojDHMLan5KisfSaBIFW7z6Q4UeoZebpnEFJidWlvQ/edit 2/3

31/3/2021	IO3 - Ditoga Analytic Software - Feedback loop for VET professionals
7.	What would you change or suggest to have the software more suitable to your needs?
8.	Which organisation asked you to fill in this survey? *
	Contrassegna solo un ovale.
	Jugend am Werk (Austria)
	E.N.T.E.R. (Austria)
	CO&SO (Italy)
	WinNova (Finland)
	IKASLAN (Spain)
	Cork Education and Training Board (Ireland)
	Questi contenuti non sono creati né avallati da Google.

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3/3