

ICT BASED EVALUATION METHODOLOGY TO  
ASSESS THE SOCIAL IMPACT OF WORK-LINKED  
TRAINING

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**ATWORK project**

# ATWORK THEORETICAL FRAMEWORK TO EVALUATE THE SOCIAL IMPACT OF TRAINING



Co-funded by the  
Erasmus+ Programme  
of the European Union

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## PREFACE

Evaluation is a key component of any intervention. Measuring the results based on objectives defined at the beginning of the action is not only necessary and convenient, but also indicates whether we have achieved the proposed objectives, whether we have met a problem in our path and even the impact of our intervention on the environment. More importantly, it offers us the necessary measures to follow in the future, as the results feeds into any future intervention.

Training activities and programmes are not exempt from this requirement. Since training is considered a key element for economic and social development, different methods and theoretical frameworks have been developed to support the evaluation of training. However, these processes are more interested in measuring the satisfaction of trainees or the quality of the training received, rather than the impact that this will have not only on a "trainee" but also on his/her environment. This aspect is indeed very important at the gates of the twenty-first century where "social capital" of organisations is a differentiating element to give them their added value as well as being a key element for their sustainability and their contribution to the growth and competitiveness of organisations.

The impact of any training activity is connected to different factors such as: the development of technical and transversal skills, employability, social and intrapersonal skills, which give us a picture of how each of the students will face their work and social environment. This evaluation would also allow us to know if the training programme responds to the needs and expectations of the trainee, and to the needs of companies and the labour market. And finally, it will offer us guidelines for future interventions that are more adapted to all these factors.

If we call for its importance for training processes in general, the evaluation of impact acquires more importance in the work-linked training schemes where practical training within the company is the most relevant feature. This training, which is directly linked to the labour market, offers the most vulnerable people in the labour market the opportunity to improve and adapt their skills not only for their employability but also for their personal and social development.



With this objective in mind, the ATWORK project was born, that has developed a methodological framework to evaluate the social impact of work-linked training. This methodological framework consists of a set of criteria, areas of analysis and indicators that reinforce the evaluation methodologies already used. This will allow us not only to know the social impact of these training programs, but also to have a set of standardized data with which to analyze in depth the training activities carried out and improve them in the future.

In the following pages the reader will find the theoretical framework for the evaluation developed in the project. A theoretical framework that lays the foundations of the ATWORK training evaluation model that in a later step will be adapted to a tool based on ICTs, which will not only systematize this information, but will also manage it, analyze it and that will serve as support when analyzing training and improving it.

## PART 1. TRAINING EVALUATION. THEORETICAL PERSPECTIVE

Before starting to explain the ATWORK theoretical framework for evaluation, in order to understand better our approach we think it's important to go through some relevant theoretical and methodological assumptions on evaluation and its role on training and education schemes. In the following paragraphs, we have included a brief summary about some of the theoretical patterns about training and education evaluation.

### What we are talking about when we talk about evaluation?

We can find different definition about what evaluation is. Evaluating can be defined as "to judge or assess the worth of, appraise"<sup>1</sup>, also as "to form an idea of the amount, number, or value of; assess"<sup>2</sup> or "to determine the significance, worth, or condition of usually by careful appraisal and study"<sup>3</sup>. So, we can say that the verb **to evaluate** is closely connected to other definitions and concepts such as: to assess, to judge, to appraise, to value.

Evaluation is "the process of evaluating something or an instance of this"<sup>4</sup>. It can also be defined as "the making of a judgement about the amount, number, or value of something; assessment"<sup>5</sup>, and we can also find the following definition, in which evaluation is the "determination of the value, nature, character, or quality of something or someone"<sup>6</sup>. In brief, we can conclude that the **evaluation is the process to determine the value or quality of something or someone.**

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<sup>1</sup> Collins English dictionary

<sup>2</sup> Oxford dictionary

<sup>3</sup> Merrian webster dictionary – American meaning

<sup>4</sup> Collins English dictionary

<sup>5</sup> Oxford dictionary

<sup>6</sup> Merrian webster dictionary – American meaning



According to this broad definition, we can apply the concept to any area of our personal or professional environment. Thus, we can evaluate the suitability of an idea at a given time, a decision that will influence our near future or retrospectively evaluate a past situation to measure its effect and impact on our environment. Therefore, we will add to the concept its **timeless nature**. Thus, we can evaluate past and present processes and situations, and to determinate a future scenario about the impact of one process and/or intervention.

Now is the time to focus on the concept of evaluation as a tool applied to the professional field of public and/or private intervention. Starting from the components of the concept (assess, value, determinate) and its timeless character as common elements of the terms evaluation and assessment, we find ourselves with different definitions.

OECD defines EVALUATION as *the systematic and objective assessment of an on-going or completed project, programme or policy, its design, implementation and results. The aim is to determine the relevance and fulfilment of objectives, development efficiency, effectiveness, impact and sustainability*<sup>7</sup>. UNESCO uses an adaptation of the previous definition to define the evaluation concept as follows: *A systematic assessment of a planned, ongoing or completed intervention to determine its relevance, efficiency, effectiveness, impact and sustainability. The intent is to incorporate lessons learnt into the decision-making process.*<sup>8</sup>

Taking into consideration the previous two definitions, we can agree that **EVALUATION IS THE SYSTEMATIC AND OBJECTIVE ASSESSMENT OF A FUTURE, PAST AND PRESENT INTERVENTION TO DETERMINATE THE RELEVANCE AND FULFILMENT OF ITS OBJECTIVES; ITS EFFICIENCY AND EFFECTIVENESS AS WELL AS ITS IMPACT AND SUSTAINABILITY.**

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<sup>7</sup> OECD Development Co-operation Directorate (DAC), Glossary + [oecd.org/dac](http://oecd.org/dac).

<sup>8</sup> UNESCO Designing and Conducting Useful Self-Evaluations at UNESCO 2004

## Evaluating training

### Definition

Let us focus now on the fact of assessing training. Applying the same approach, we can define training evaluation as

*the systematic and continuous process that incorporates the analysis of processes, results and impact, as well as the perspective of the subjects towards whom the actions are directed.*

The information obtained through the evaluation process supports decision-making that allows interventions to be adjusted, scaled up, cut or replaced. It is useful for programme managers, policy makers, businesses and individuals in general in order to:

- ⇒ *Review whether the training system is supply-driven, or is a response to demand.*
- ⇒ *Contribute to the creation of better training systems and the development of skills and qualifications.*
- ⇒ *The creation of a wider and more permanent information system to support the definition of more coherent vocational training policies.*
- ⇒ *Improving programme management and opening organisational learning processes.*
- ⇒ *Accountability and transparency in the use of resources.*
- ⇒ *To know to what extent training has had an impact on improving the company's results and whether the investment made has a positive return.*
- ⇒ *Promote a culture of learning and ongoing training in organizations.*
- ⇒ *Stimulate learning so that people can make better decisions for their career development<sup>9</sup>.*

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<sup>9</sup> From GUIDE FOR IMPACT EVALUATION IN VOCATIONAL TRAINING – OIT CINTEFOR  
<http://guia.oitcinterfor.org/conceptualizacion/para-que-evaluar-impacto-formacion>

We can find different evaluation approaches and models, but most schools of thought reveal two different kinds of evaluation (depending on the purpose of the evaluation):

**Formative evaluation:** collects evidence to reorient and improve training actions during their development. It is used especially in the planning and design of a programmes and uses mainly quantitative methods. The results obtained will make it possible to improve procedures, learn how to do things better, overcome the barriers encountered, etc.

**Summative evaluation:** it mainly uses quantitative methods to judge the results, effects and impact of an intervention. It is usually carried out after the end of the programme. By providing the respective feedback loops for the future of the intervention or for follow-up projects, summative evaluations also have a formative character.

Regardless of the approach used, any evaluation process has to take into account (at least) four key dimensions:

**Why to evaluate:** The motivations that lead us to evaluate a formative action. These can have a diverse origin, we can evaluate to know if we have fulfilled some determined objectives (previously marked), we respond to the needs of the students; if we want to improve a program; etc.

**What to evaluate:** We can evaluate one or several aspects of the training carried out (objectives, training process, resources, people, etc.).

**When to evaluate:** The time at which we are going to evaluate the training. This can be before, during or at the end of it, it depends on what our objectives are and what we want to evaluate.

**Who to evaluate:** who we will evaluate and how these people will use this information? It must be taken into account that not only will the participants use the results, but we will also meet with different actors (companies, training providers, public administration, etc.) who will be potential users of the results and conclusions of the evaluation process.

These four dimensions of the evaluation process are interconnected, because they must be adapted to different times, evaluation objectives, target group, etc. They are always

interconnected, and they self-adapt to what is required at each moment of the evaluation process.

## Training evaluation process

There are different methodologies to evaluate training, but all integrate the approaches and dimensions of which we have spoken in the previous sections. One of the most common approaches to evaluation is the well-known “Kirkpatrick model”<sup>10</sup> (revised in 2016<sup>11</sup>).

The four-level model proposes a model that defines four steps to assess a training activity. These four steps that must be implemented in sequence are the following ones:

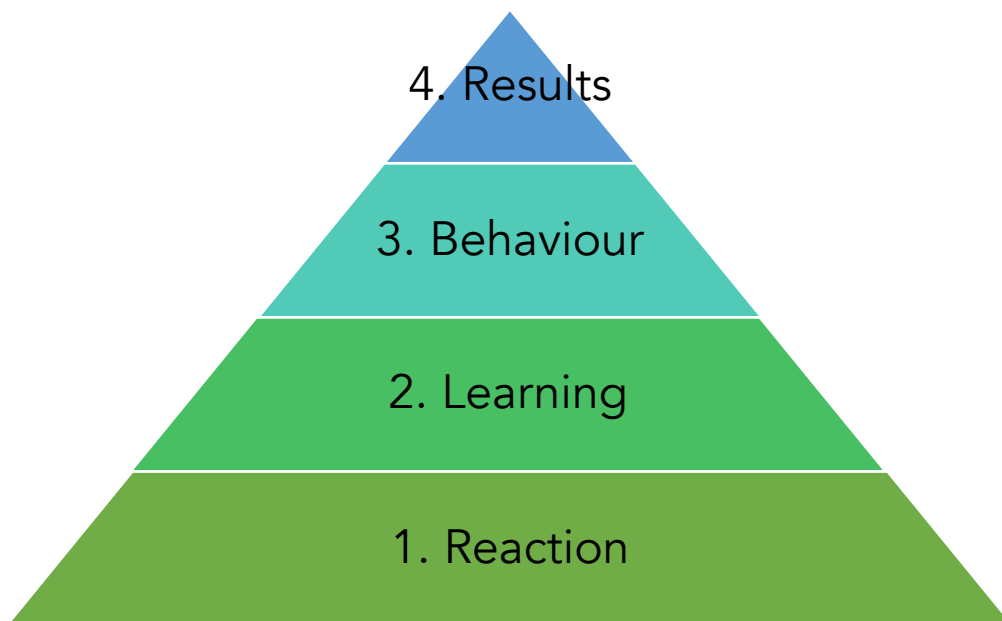


Figure 1: Kirkpatrick four level model. Source: Own production from Kirkpatrick, D.L. (1996)

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<sup>10</sup> Kirkpatrick, D. L. (1994). Evaluating training programs: the four levels. San Francisco: Berrett-Koehler. Even the first edition is dated in 1974, our reference corresponds to the 2<sup>nd</sup> edition.

<sup>11</sup> Kirkpatrick, J. D. and Kayser Krikptarick, W. (2016). Kirkpatrick's Four level of training evaluation. Association for Talent Development

1. **Reaction or satisfaction of the participants.** It is the first stage of effective training. The design is partly evaluated, and particularly the process and resources used, from the perspective of the participant. It aims to find out how the participants react to the training: how they value the relevance of the contents, the performance of the teachers, the organization, the methodology, the fulfilment of the objectives and other general aspects of the training intervention.
2. **Learning:** The first results of the training are evaluated at this stage, which in many cases are themselves the main objective of the training activities. If the participant has not acquired the knowledge, it will not be possible to advance to the next levels. It seeks to know the effectiveness of the training action in developing the competences of the participants. The evaluation tests respond to this level, increasingly linked to the demonstration, by different means, of the acquisition of a certain competence.
3. **Behaviour (transfer):** In addition to changes in people's skills, the aim is to assess the extent to which this training is being applied in the working environment. Although the training has been developed correctly, it may happen that the apprenticeships are not put into practice for different reasons. In addition to ascertaining whether the learning is transferred to work performance, the evaluation identifies the factors that influenced the transfer. It is a further step in verifying the changes generated by training.
4. **Results (Impact):** The translation of training results into impacts. At this level the "cause-effect" relationship is being assessed. It seeks to verify the achievement of training objectives with different scope according to the type of intervention. It may be the impact generated by the training action on the result of people's work, organisational results or society as a whole.

To these four levels identified by Kirkpatrick, epistemology has added. Estas diferencias se refieren a los siguientes aspectos a fifth level to the model that completes the evaluation from a cost-benefit perspective.

5. **ROI – Return of Investment**<sup>12</sup> : This level implies assigning economic values to the impacts in order to calculate the profitability of the investment made to carry out the training. It compares the costs of the investment made with the value of the benefits obtained, in monetary terms.

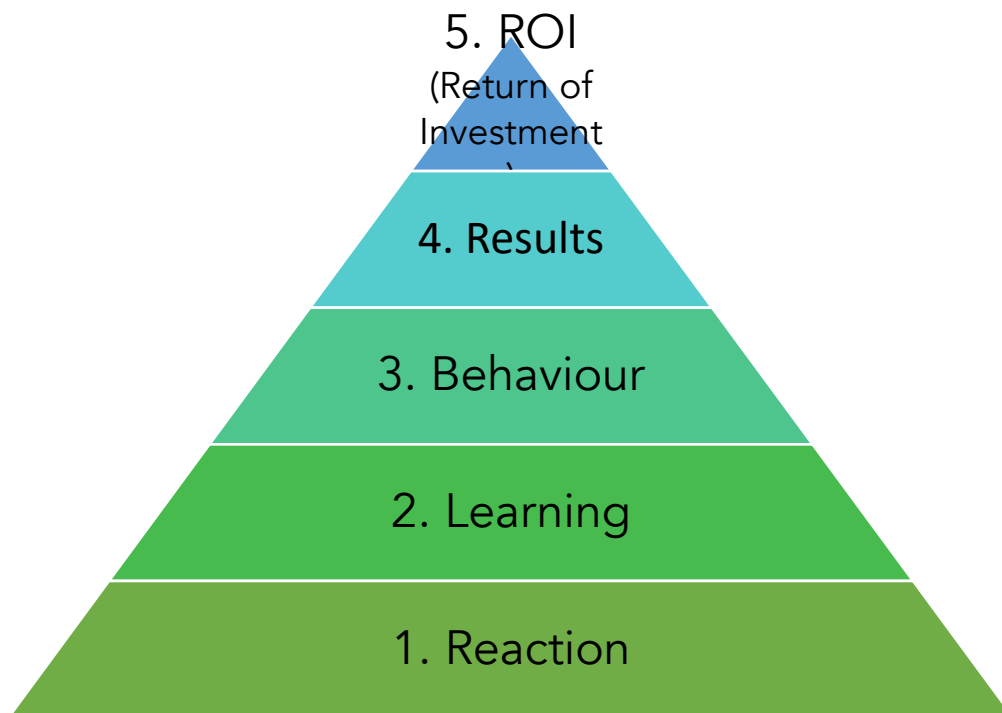


Figure 2: Fifth level model. Source: Own production

## Impact evaluation in training

According to the CEDEFOP *Impact research is different from evaluation insofar as it does not focus on assessing the results of specific programmes but investigates the impact – both material*

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<sup>12</sup> Philips, J.J. (1991): *Measuring the return on HRD* in Today Employment Relations Today, Vol. 18 – Issue 3 – Autumn 1991.

*and non-material – of education, training and skills on economic and social development as well as on company and individual performance<sup>13</sup>.*

So, we can define impact evaluation as “**an evaluation that attempts to establish a causal relationship between a programme or intervention and a series of outcomes. An impact evaluation seeks to answer the question of whether the programme is responsible for changes in the outcomes of interest.**”

When we evaluate the impact of training, it is important to highlight the following:

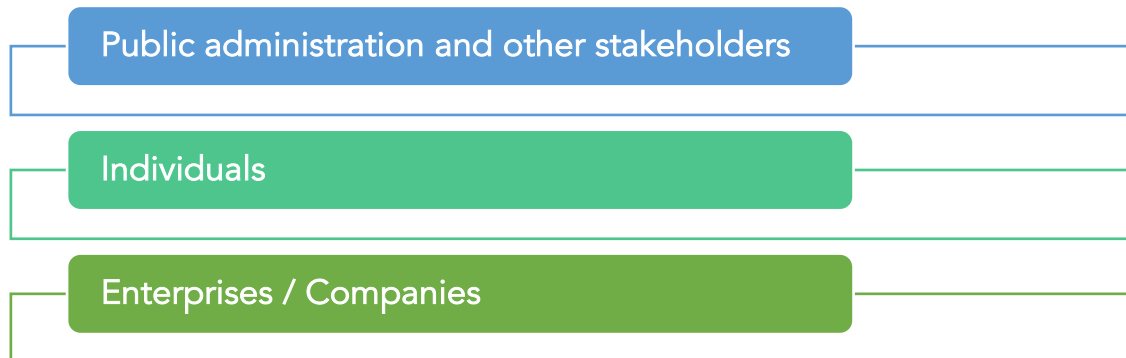
- a) **Cause-effect:** impact assessment looks for changes that occur after a specific intervention (at the social level, in organisations or in trained people) and identify to what extent these changes (effect) are a consequence of the intervention.
- b) **Diversity (impact):** impact assessment seeks to know the multiple impacts (economic, technical, social) that training can have.
- c) **Multitarget:** the impact assessment seeks to know what impacts have occurred between the different areas in which the training takes place: people, organizations, society.

Thus, impact evaluation is an approach that contrasts a starting situation and where we are once training has taken place.

As mentioned above, the impact evaluation should answer some questions about the impact on society, businesses and individuals:

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<sup>13</sup> CEDEFOP (2010). The value of learning. Evaluation and impact of education and training Third report on vocational training research in Europe:



*Figure 3: Different profiles depending of the expectations from evaluation*

**Public administration and other stakeholders** can ask:

- Has the quality of training programmes in which public funds are invested been improved?
- Have populations vulnerable to unemployment, young people, women, people with disabilities, ethnic minorities had more opportunities to access training?
- Has training facilitated access to decent jobs?
- What is the economic return on the training budget?
- Are economic and fiscal policies creating an enabling environment for training to contribute to improved productivity, employment growth and development?

**Individuals** may wonder:

- Has training been helpful in finding a job?
- Have skills been developed that are in demand in employment?
- Has income improved as a result of new skills acquired?
- Is employability better?
- Have working conditions been improved?
- What changes in welfare have taken place?

**Enterprises** can be raised:



- ⇒ What productivity improvements can be attributed to the training action?
- ⇒ Are there positive changes in working conditions?
- ⇒ Are work processes more efficient as a result of the new skills developed?
- ⇒ Did accidents at work decrease?
- ⇒ Has the work environment improved as a result of the training action?
- ⇒ Has the proportion of rejected final products decreased?
- ⇒ How much does it return for each unit invested in learning?

## Evaluating the social impact

In the previous section we outlined some ideas about the impact evaluation of training. But what we are talking about when we include the "social" variable in the impact assessment?

Different theories explain the existence of different "social" benefits of training. Training can have a greater impact on trainees than improving their skills for employment. The training also supports the development of those skills that we call "personal" or "social" that although they do not provide the student with technical skills to address their employability, they do provide the skills that will be key to the development of their activity.

People in training also have the chance to learn from other students, make new social groups and possibly modify previous ones. These connections are particularly important for knowledge transmission and improvement of some issues such as attitudes, motivations and values, which could lead to wider social benefits or social outcomes for learners.

In several countries, however, the work-linked training has been considered as a 'second best' option. This has implications for trainees' participation, engagement, and future ambitions. Positive work-linked training experience should enable individuals to have success and mobility in the labour market, both in terms of promotion within their specialised field and in terms of job change due to the transferability of skills. It is our premise that positive VET experience, promoting individuals' self-esteem, confidence, and agency (habit of self-direction), skills which

are becoming extremely valuable in the labour market, should enable labour-market success. It should lead to further learning.

Together with the “impact” measure of the training in the social ecosystem (employment, professional development, better environment of enterprises, etc.) it’s is a requirement to measure the “social” impact in the individuals.

Thus, in order to assess the social impact, we should focus on the following elements:

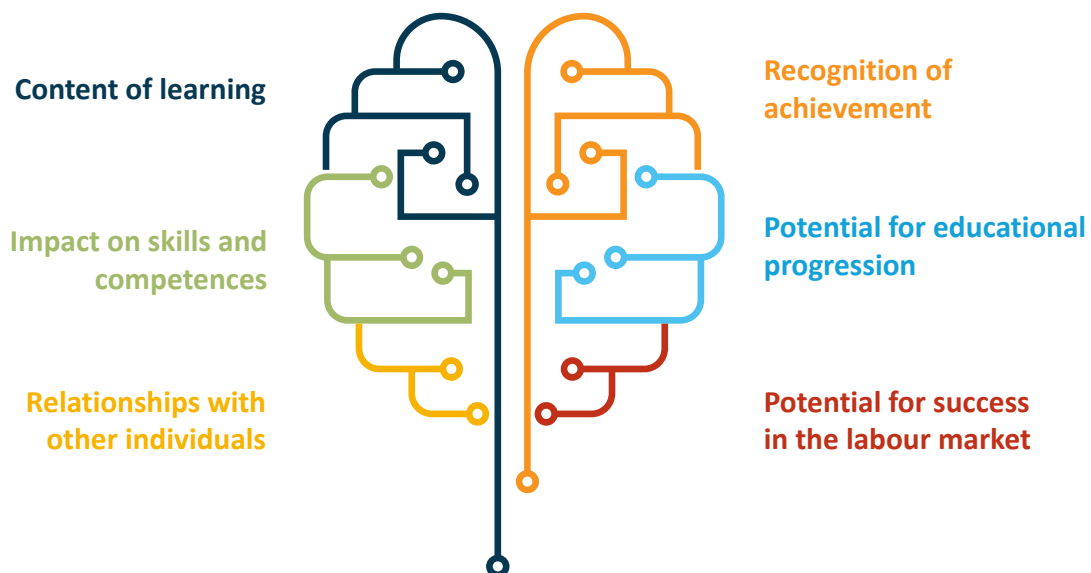


Figure 4: Elements that should support the social assessment of the work-linked training (designed by PresntationGO.com)

## PART 2. ATWORK THEORETICAL FRAMEWORK

The second part of this document is dedicated to deepening the theoretical framework used to develop the method and tools that will guide the ATWORK model for assessing the social impact of training. This part is structured in different sections that will help to explain the model. Starting from some key points to take into consideration, in the following paragraphs you will find different indicators that are proposed to assess the evaluation of the work-linked training.

### Some comments about the theoretical framework

Before providing an in-depth explanation about the theoretical framework, we must explain the edges of this model. These limits are mainly related to the differences between countries and their existing training evaluation and systems, and so, the characteristics of the work-linked training.

During the first months of the project, project partners analysed the different training systems in each country as well as their training evaluation frameworks<sup>14</sup>. After the analysis, we found very different models of work-linked training. These differences concern the following aspects:

- Training organisation: who organise this training, how is delivery, the duration, etc.;
- Goals of the training activities; and
- Actors in the training process.

We also found several differences in the requirement of evaluation of this type of training:

- Evaluation can be mandatory, required or not mandatory at all;

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<sup>14</sup> For more details, it's recommended to read the paper *Comparative analysis of the existing evaluation on work-linked* – developed within the ATWORK project framework.

- The evaluation can focus just on the quality of the evaluation or it can cover other issues as impact – even social impact;
- The evaluation process can be a continuous process, or it can be a specific activity at the end of the training process;
- Only few countries use the results obtained in the evaluation process to feed the training schemes.
- Lack of standardised indicators.

Thus, this situation will weigh the ATWORK model, because consortia decided to take into consideration the above comments to define the social impact training evaluation model. And in our case, it will affect the following issues:

- Evaluation actors: who are the participants in the evaluation process and what are their roles; and
- Indicators: even if we have defined around 30 evaluation indicators, they can be adapted according two items: the duration of the training activities and the different participants in the training process.

## Key assumptions regarding the intended use

This topic is focused on the explanation of some ideas, concepts and assumptions that will guide the future use of the ATWORK evaluation tool. The following lines we will help to understand better the model. In addition, these assumptions will define some relevant issues of the model that have to be known before starting to apply the methodology.

### Participants in the evaluation process.

The theoretical framework has been developed to involve three main “profiles” that are relevant in the evaluation process:

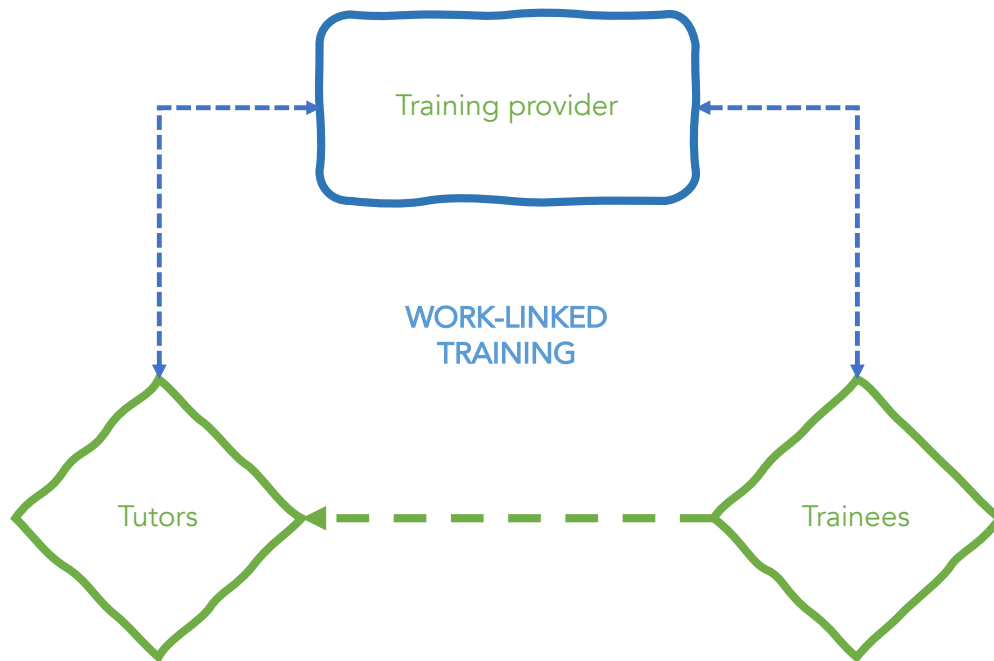


Figure 5: ATWORK evaluation framework profiles. Source: Own elaboration

**Training provider:** the organisation who organises and deliver the training activity. We can define as **any public or private organisation or body which has as one of its main activities the management of training and which defines, designs, organises and provides work-linked training on a regular basis**. Training provider is responsible to manage the course, identify the tutors, register trainees, define the indicators to be used and the evaluation steps. It's the final responsible of the data management and their safe use (under the personal data protection regulations). They receive the data from tutors and trainees and communicate to both any activity linked to the training process evaluation.

**Tutors:** Tutor is **the person responsible to implement the training activity**. The definition of the role of the trainee's tutor is smooth and should be made individually on the level of the project partners. Depending on the educational institution, the tutor can be a teacher, a trainer or an employee responsible for the trainee's training at a company, but direct contact between trainee

and tutor is a mandatory part of the definition. The tutor will communicate to both trainee and training provider for feedback.

**Trainees:** Individuals that are taking part in a work-linked training activity or programme. They fill in questionnaires to evaluate the training activity and obtain the feedback form the tutors and training provider (when necessary).

## Beneficiaries of the tool

The tool could be implemented at schools, VET institutions, labour market agencies and similar educational venues.

## Continuous evaluation

The tool serves as both means of continuous evaluation and an early warning system for problems arising on an individual level. To this end, the tool comprises of a minimum of three evaluation phases.

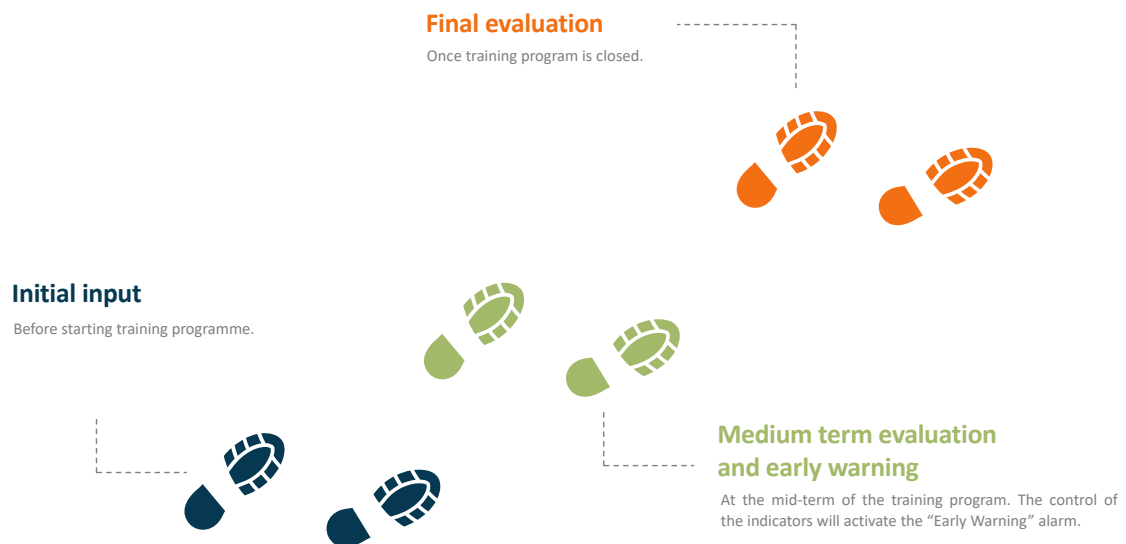


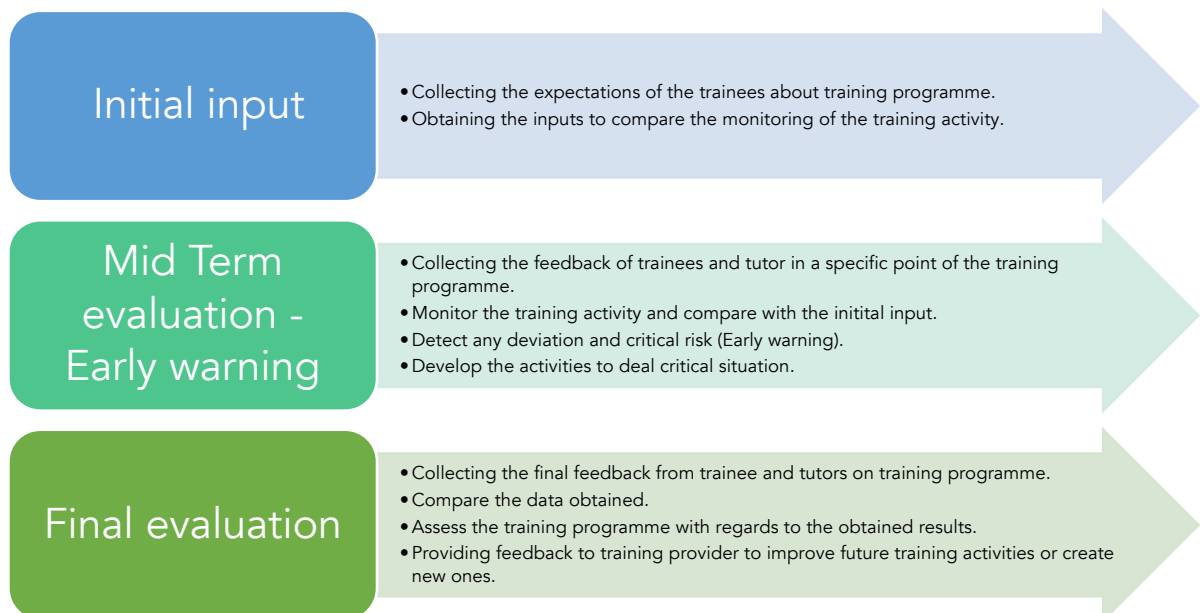
Figure 6: ATWORK evaluation phases. (designed by PresentationGO.com)

**Initial input:** Previous starting the training activity, tutor and trainees will fill in the questionnaires in order to have an initial input for the evaluation. The results obtained will be the starting point for comparison. Trainees will fill in the complete questionnaire. Tutors will only complete the section about their role in the evaluation process.

**Mid-term evaluation – “Early warning”:** In a point during the training process (training provider and tutor will agree the specific point) when trainees and tutor will fill in the mid-term questionnaire. The “Mid-Term” phase can potentially be repeated multiple times, depending on the length of the training received and the intentions of the evaluator.

**Final evaluation:** At the end of the training activity, trainees and tutor will fill in the final evaluation questionnaire. The results obtained will evaluate the training activity, an evaluator (training provider) could analyse and manage the different data. Besides, to evaluate the training activity, training providers also can compare the data obtained with other previously obtained for the same training programme.

Each evaluation step has their goals and aims. The following figure summarises them as follows:



*Figure 7: Objectives of each evaluation phases of ATWORK methodology.*

## Early warning

In order to use the early warning aspect meaningfully, the length of the training received should be at least one semester (or roughly 5 months). This means that primary and secondary VET, apprenticeships, tertiary add-on courses and long-term internships are all potentially covered by the intended use, while short-term internships and very short vocational training courses are not.

## Assessment areas and indicators

The definition of assessment areas and indicators has been the most critical task in the project. ATWORK partnership considered the previous brief theoretical introduction and other secondary sources to define these instruments that are the key elements of the training assessment model.

At the beginning of the ATWORK initiative, the partnership suggested a set of criteria to evaluate the work-linked training programme:



Considering the results of the analysis developed at the beginning of the project as well as the different theoretical approaches, the partnership established the following areas that constitute the basic of the ATWORK evaluation theoretical framework:

- **Learning Progress**, encompassing a selection of skills and competences to be monitored;
- **Professional Development**, which aims to capture a picture of the training environment and impact;



- **Employability**, which collects information on prior qualification and work experience combined with future expectations regarding the labour market;
- **Social Dimension**, which covers intra- and interpersonal aspects of the vocational training received.

Learning Progress and Professional Development have had their indicators clustered in order to evaluate the received training along the lines of “quality control”, while Employability and Social Dimension are intended to gauge the social impact of the training on a societal (i.e. labour market) and personal level.

The following figure represent the relation between the three main criteria to define the evaluation areas in the ATWORK evaluation model:

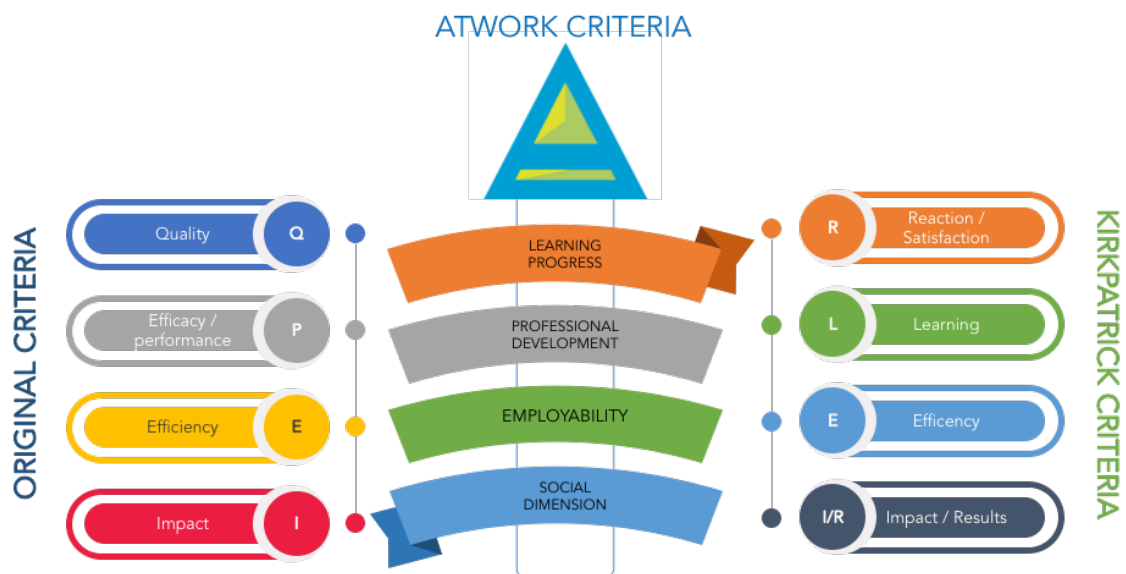


Figure 8. Comparison between the criteria for assessment.

Thus, in addition to the criteria of performance, efficiency and efficacy, we have included transversal impact areas with a “social” approach. In the following section you can find the types of indicator included in each area of analysis.

## Indicators per survey field

Here you can see the different types of indicators that we used to assess each of the areas selected.

### Learning Progress

- Transversal Skills: Interpersonal
- Transversal Skills: Intrapersonal
- Key Competences: Learning to Learn
- Key Competences: Digital Competence
- Vocational Skills: Technical
- Vocational Skills: General

### Professional Development

- Professional Confidence
- Professional Fit
- Tutor Competence
- Training Quality
- Tutoring Quality
- Tutor Role

### Employability

- Prior Qualification
- Prior Professional Experience
- Prior Labour Market Chances

- Labour Market Chances
- Labour Market Insights

### **Social Dimension**

- Age
- Gender
- Social Network & Societal Involvement
- Self-Esteem
- Motivation
- Tutor Engagement
- Training Environment

### **Indicator selection and questionnaire design**

The indicators have been selected aiming to meet the results and guidelines of the European Commission as well as the Erasmus+ framework. Following the target group definition, it must be assumed that respondents are potentially young and have not received a high level of education or belong to a vulnerable group. Accordingly, great care was taken to avoid overlapping between indicators and consolidate potentially interesting, but functionally similar indicators wherever possible; this keeps the questionnaire brief in order to avoid response corruption caused by fatigue and falling interest levels, and it should avoid misunderstandings on the respondents' side caused by similar questions.

The responses are mostly 5- and 7-stage, verbalized Likert scales as recommended by Menold and Bogner for the sake of clarity and granularity. Questions that are relevant to the early-warning aspect of the tool also offer a comment space in addition to the Likert scale in order to identify the source of the problem or grievance and filter for outliers. In the Initial Input phase, a

few non-repeatable, purely text-based response questions are introduced to provide context for the continuous and/or ex-post evaluations.

ATWORK theoretical framework for evaluation is based on two different questionnaires that will be included in the ICT based social impact evaluation tool. These indicators will be the base to evaluate and assess the work-linked training activities.

The following tables explain the relationship of indicators that we have developed. The information contained in each table is structured in the following field:

**Phase:** The phase of the evaluation process to which the chosen indicators correspond.

INITIAL INPUT – MID TERM “EARLY WARNING” – FINAL EVALUATION

**Field:** The areas in which we focus to evaluate the formative process:

LEARNING PROGRESS – PROFESSIONAL DEVELOPMENT – EMPLOYABILITY – SOCIAL  
DIMENSION

**Indicator:** A type of indicator that we use to assess each area.

**Question:** A set of questions that we used to measure each indicator.

**Response type:** A type of answer that we require from each participant.

**Response denominations:** A standardized scheme that we use to measure each indicator.

In the following sections you can find the two questionnaires elaborated to assess the social impact of the work-linked training.

## Trainees' questionnaire

Phase	Field	Indicator	Question	Response type	Response denominations
Initial Input	Social Dimension	Age	Please state your age.	Text entry space	Free/Blank
Initial Input	Social Dimension	Gender	Please state your gender.	List	"Female"; "Male"; "Other"
Initial Input	Learning Progress	Transversal Skills: Interpersonal	I am able to co-operate with others, contribute meaningfully to team efforts, and resolve conflicts in a constructive manner.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Initial Input	Learning Progress	Key Competences: Learning to Learn	I feel that I am able to organize my learning, keep pace with lessons and memorize information permanently.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Initial Input	Learning Progress	Key Competences: Digital Competence	I feel confident in my ability to use computers and the applications I need in my chosen vocational field.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"

Phase	Field	Indicator	Question	Response type	Response denominations
Initial Input	Learning Progress	Transversal Skills: Intrapersonal	I am able to focus on my assignments and stay committed.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Initial Input	Learning Progress	Vocational Skills: Technical	I possess the skills necessary for my vocational field and can apply them confidently.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Initial Input	Learning Progress	Vocational Skills: General	I possess the knowledge necessary to solve problems and make decisions within my vocational field.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Initial Input	Professional Development	Professional Confidence	I feel confident in my skills and ability to work in the field of my current vocational training.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Initial Input	Professional Development	Professional Fit	I feel that my current vocational training is right for me and will contribute to my career.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Initial Input	Employability	Prior Qualification	Please list your qualifications (education and/or vocational training).	Text entry space	Free/Blank

Phase	Field	Indicator	Question	Response type	Response denominations
Initial Input	Employability	Labour Market Chances	What do you expect your chances on the labour market to be after your current vocational training?	Likert scale	"Very Poor"; "Poor"; "Sufficient"; "Good"; "Very Good"
Initial Input	Employability	Prior Labour Market Chances	How would you rate your current chances on the labour market?	Likert scale	"Very Poor"; "Poor"; "Sufficient"; "Good"; "Very Good"
Initial Input	Employability	Prior Professional Experience	Please list your professional experience, both in and outside of your current field of vocational training.	Text entry space	Free/Blank
Initial Input	Employability	Labour Market Insights	I understand the requirements of the labour market in the field of my current vocational training.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Initial Input	Social Dimension	Social Network & Societal Involvement	I expect that my current vocational training will make me feel like I am part of a group and that it will further my interaction with the society around me.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Initial Input	Social Dimension	Self-Esteem	I expect that my current vocational training will make me proud of my achievements and garner respect in my future work environment.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"

Phase	Field	Indicator	Question	Response type	Response denominations
Initial Input	Social Dimension	Motivation	I feel motivated to learn and am already looking forward to working in my vocational field.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Mid-Term Evaluation & Early Warning	Learning Progress	Transversal Skills: Interpersonal	I am able to co-operate with others, contribute meaningfully to team efforts, and resolve conflicts in a constructive manner.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Mid-Term Evaluation & Early Warning	Learning Progress	Key Competences: Learning to Learn	I feel that I am able to organize my learning, keep pace with lessons and memorize information permanently.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Mid-Term Evaluation & Early Warning	Learning Progress	Key Competences: Digital Competence	I feel confident in my ability to use computers and the applications I need in my chosen vocational field.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Mid-Term Evaluation & Early Warning	Learning Progress	Transversal Skills: Intrapersonal	I am able to focus on my assignments and stay committed.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Mid-Term Evaluation & Early Warning	Learning Progress	Vocational Skills: Technical	I possess the skills necessary for my vocational field and can apply them confidently.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"



Phase	Field	Indicator	Question	Response type	Response denominations
Mid-Term Evaluation & Early Warning	Learning Progress	Vocational Skills: General	I possess the knowledge necessary to solve problems and make decisions within my vocational field.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Mid-Term Evaluation & Early Warning	Professional Development	Tutor Competence	My tutors are competent in their field.	Likert scale & Comment space	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Mid-Term Evaluation & Early Warning	Professional Development	Professional Confidence	I feel confident in my skills and ability to work in the field of my current vocational training.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Mid-Term Evaluation & Early Warning	Professional Development	Professional Fit	I feel that my current vocational training is right for me and will contribute to my career.	Likert scale & Comment space	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Mid-Term Evaluation & Early Warning	Professional Development	Training Quality	The structure and content of my current vocational training seem sensible and help to grow my skills and knowledge.	Likert scale & Comment space	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Mid-Term Evaluation & Early Warning	Professional Development	Tutoring Quality	My tutors are able to convey their skills and knowledge and actively further my advancement.	Likert scale & Comment space	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"

Phase	Field	Indicator	Question	Response type	Response denominations
Mid-Term Evaluation & Early Warning	Employability	Labour Market Chances	What do you expect your chances on the labour market to be after your current vocational training?	Likert scale	"Very Poor"; "Poor"; "Sufficient"; "Good"; "Very Good"
Mid-Term Evaluation & Early Warning	Employability	Labour Market Insights	I understand the requirements of the labour market in the field of my current vocational training.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Mid-Term Evaluation & Early Warning	Social Dimension	Social Network & Societal Involvement	I feel that my current vocational training makes me part of a group and that it furthers my interaction with the society around me.	Likert scale & Comment space	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Mid-Term Evaluation & Early Warning	Social Dimension	Self-Esteem	I feel that my current vocational training is making me proud of my achievements and will garner respect in my future work environment.	Likert scale & Comment space	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Mid-Term Evaluation & Early Warning	Social Dimension	Motivation	I feel motivated to learn and am already looking forward to working in my vocational field.	Likert scale & Comment space	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Mid-Term Evaluation & Early Warning	Social Dimension	Tutor Engagement	My tutors take an active interest in my advancement and are approachable if I have any problems.	Likert scale & Comment space	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"

Phase	Field	Indicator	Question	Response type	Response denominations
Mid-Term Evaluation & Early Warning	Social Dimension	Training Environment	I feel personally and professionally comfortable within my training environment.	Likert scale & Comment space	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Final Evaluation	Learning Progress	Transversal Skills: Interpersonal	I am able to co-operate with others, contribute meaningfully to team efforts, and resolve conflicts in a constructive manner.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Final Evaluation	Learning Progress	Key Competences: Learning to Learn	I feel that I am able to organize my learning, keep pace with lessons and memorize information permanently.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Final Evaluation	Learning Progress	Key Competences: Digital Competence	I feel confident in my ability to use computers and the applications I need in my chosen vocational field.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Final Evaluation	Learning Progress	Transversal Skills: Intrapersonal	I am able to focus on my assignments and stay committed.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Final Evaluation	Learning Progress	Vocational Skills: Technical	I possess the skills necessary for my vocational field and can apply them confidently.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"

Phase	Field	Indicator	Question	Response type	Response denominations
Final Evaluation	Learning Progress	Vocational Skills: General	I possess the knowledge necessary to solve problems and make decisions within my vocational field.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Final Evaluation	Professional Development	Tutor Competence	My tutors are competent in their field.	Likert scale & Comment space	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Final Evaluation	Professional Development	Professional Confidence	I feel confident in my skills and ability to work in the field of my current vocational training.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Final Evaluation	Professional Development	Professional Fit	I feel that my current vocational training is right for me and will contribute to my career.	Likert scale & Comment space	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Final Evaluation	Professional Development	Training Quality	The structure and content of my current vocational training seem sensible and help to grow my skills and knowledge.	Likert scale & Comment space	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Final Evaluation	Professional Development	Tutoring Quality	My tutors are able to convey their skills and knowledge and actively further my advancement.	Likert scale & Comment space	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"

Phase	Field	Indicator	Question	Response type	Response denominations
Final Evaluation	Employability	Labour Market Chances	What do you expect your chances on the labour market to be after your current vocational training?	Likert scale	"Very Poor"; "Poor"; "Sufficient"; "Good"; "Very Good"
Final Evaluation	Employability	Labour Market Insights	I understand the requirements of the labour market in the field of my current vocational training.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Final Evaluation	Social Dimension	Social Network & Societal Involvement	I feel that my current vocational training makes me part of a group and that it furthers my interaction with the society around me.	Likert scale & Comment space	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Final Evaluation	Social Dimension	Self-Esteem	I feel that my current vocational training is making me proud of my achievements and will garner respect in my future work environment.	Likert scale & Comment space	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Final Evaluation	Social Dimension	Motivation	I feel motivated to learn and am already looking forward to working in my vocational field.	Likert scale & Comment space	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Final Evaluation	Social Dimension	Tutor Engagement	My tutors take an active interest in my advancement and are approachable if I have any problems.	Likert scale & Comment space	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"

Phase	Field	Indicator	Question	Response type	Response denominations
Final Evaluation	Social Dimension	Training Environment	I feel personally and professionally comfortable within my training environment.	Likert scale & Comment space	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"

### Tutors' questionnaire

Phase	Field	Indicator	Question	Response Type	Response Denominators
Initial Input	Professional Development	Tutor Role	Please describe your role as person responsible for the trainee(s) in your institution or company.	Text entry space	Free/Blank
Mid-Term Evaluation & Early Warning	Learning Progress	Transversal Skills: Interpersonal	The trainee is able to co-operate with others, contribute meaningfully to team efforts, and resolve conflicts in a constructive manner.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"

Phase	Field	Indicator	Question	Response Type	Response Denominators
Mid-Term Evaluation & Early Warning	Learning Progress	Key Competences: Learning to Learn	The trainee is able to organize her/his learning, keep pace with lessons and memorize information permanently.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Mid-Term Evaluation & Early Warning	Learning Progress	Key Competences: Digital Competence	The trainee demonstrates ability to use computers and the applications she/he needs in her/his chosen vocational field.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Mid-Term Evaluation & Early Warning	Learning Progress	Transversal Skills: Intrapersonal	The trainee is able to focus on her/his assignments and stay committed.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Mid-Term Evaluation & Early Warning	Learning Progress	Vocational Skills: Technical	The trainee possesses the skills necessary for her/his vocational field and can apply them confidently.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"

Phase	Field	Indicator	Question	Response Type	Response Denominators
Mid-Term Evaluation & Early Warning	Learning Progress	Vocational Skills: General	I possess the knowledge necessary to solve problems and make decisions within my vocational field.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Mid-Term Evaluation & Early Warning	Professional Development	Professional Fit	I feel that the current vocational training is right for the trainee and will contribute to her/his career.	Likert scale & Comment space	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Mid-Term Evaluation & Early Warning	Employability	Labour Market Chances	What do you expect the trainee's chances on the labour market to be after her/his current vocational training?	Likert scale	"Very Poor"; "Poor"; "Sufficient"; "Good"; "Very Good"
Mid-Term Evaluation & Early Warning	Employability	Labour Market Insights	The trainee understands the requirements of the labour market in the field of her/his current vocational training.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"



Phase	Field	Indicator	Question	Response Type	Response Denominators
Mid-Term Evaluation & Early Warning	Social Dimension	Motivation	The trainee seems motivated to learn and to be looking forward to working in her/his vocational field.	Likert scale & Comment space	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Final Evaluation	Learning Progress	Transversal Skills: Interpersonal	The trainee is able to co-operate with others, contribute meaningfully to team efforts, and resolve conflicts in a constructive manner.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Final Evaluation	Learning Progress	Key Competences: Learning to Learn	The trainee is able to organize her/his learning, keep pace with lessons and memorize information permanently.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Final Evaluation	Learning Progress	Key Competences: Digital Competence	The trainee demonstrates ability to use computers and the applications she/he needs in her/his chosen vocational field.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"

Phase	Field	Indicator	Question	Response Type	Response Denominators
Final Evaluation	Learning Progress	Transversal Skills: Intrapersonal	The trainee is able to focus on her/his assignments and stay committed.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Final Evaluation	Learning Progress	Vocational Skills: Technical	The trainee possesses the skills necessary for her/his vocational field and can apply them confidently.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Final Evaluation	Learning Progress	Vocational Skills: General	I possess the knowledge necessary to solve problems and make decisions within my vocational field.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Final Evaluation	Professional Development	Professional Fit	I feel that the current vocational training is right for the trainee and will contribute to her/his career.	Likert scale & Comment space	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"

Phase	Field	Indicator	Question	Response Type	Response Denominators
Final Evaluation	Employability	Labour Market Chances	What do you expect the trainee's chances on the labour market to be after her/his current vocational training?	Likert scale	"Very Poor"; "Poor"; "Sufficient"; "Good"; "Very Good"
Final Evaluation	Employability	Labour Market Insights	The trainee understands the requirements of the labour market in the field of her/his current vocational training.	Likert scale	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"
Final Evaluation	Social Dimension	Motivation	The trainee seems motivated to learn and to be looking forward to working in her/his vocational field.	Likert scale & Comment space	"Disagree completely"; "Disagree"; "Rather Disagree"; "Mixed/Unsure"; "Rather Agree"; "Agree"; "Agree Completely"

## References

CEDFOP (2011): Vocational education and training is good for you The social benefits of VET for individuals. Luxembourg: Publications Office of the European Union

CEDEFOP (2010). The value of learning. Evaluation and impact of education and training Third report on vocational training research in Europe. Luxembourg: Publications Office of the European Union

CEDEFOP (2010). Employer-provided vocational training in Europe: evaluation and interpretation of the third continuing vocational training survey. Luxembourg: Publications Office of the European Union (Cedefop Research paper, No 2).

EUROPEAN COMMISSION (2018): Education and training. Monitor 2018. Luxembourg: Publications Office of the European Union

European Commission (2017). Investment in Human Capital — Assessing the Efficiency of Public Spending on Education, A Technical note for the Eurogroup discussion on investment in human capital of 6 November 2017.

HANUSHEK E. and LOCKHEED, M. E. (1994). Concepts of Educational Efficiency and Effectiveness. A Human Resources Development and Operations Policy Working Paper, No 24.

HYLAND, T. (2003). Work-based learning programmes and social capital. Journal of In-Service Education, Vol. 29, No 1, p. 49-60.

KIRKPATRICK, D. L. (1994). Evaluating training programs: the four levels. San Francisco: Berrett-Koehler.

KIRKPATRICK, J. D. and KAYSER KRIKPTARICK, W. (2016). Kirkpatrick's Four level of training evaluation. Association for Talent Development

OECD (2007). Understanding the social outcomes of learning. Paris: OECD, Centre for Educational Research and Innovation.



OIT – CINTEFOR: GUIDE FOR IMPACT EVALUATION IN VOCATIONAL TRAINING – OIT  
CINTEFOR <http://guia.oitcinterfor.org/conceptualizacion/para-que-evaluar-impacto-formacion>

PHILIPS, J.J. (1991): Measuring the return on HRD in Today Employment Relations Today, Vol.  
18 – Issue 3 – Autumn 1991.

UNESCO (2004): Designing and Conducting Useful self evaluation.