

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

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IO1. AT WORK EVALUATION FRAMEWORK TO ASSESS THE SOCIAL IMPACT OF
WORK-LINKED TRAINING

Task 1. Comparative analysis of the existing evaluation on work-linked learning

Report

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1. Introduction. The applied methodology

Within the framework of the AT WORK project task 1, a Comparative analysis of the existing evaluation on work-linked learning has been developed. In five selected countries, **Austria, Scotland, Poland, Spain and Romania**, work-linked training is considered to be a valuable way to improve relevance of skills for labour markets needs among graduates and workers. This common report aims to provide an **overview of the typology of work-linked training in selected countries, main models of assessing work-linked training, as well as strengths, weaknesses, gaps and barriers in assessment practices, considering also ICT based evaluation methodologies**. For this purpose, we carried out a brief research based on primary sources (through semi-structured interviews) and secondary sources (desk research and statistical data analysis).

We focus on information on existing tools and methodologies to evaluate the work-linked learning in our countries, conclusions and lesson learned that could be useful for AT WORK project. During the evaluation of existing models, we considered: forms of work-linked training, use of the different approaches to assess benefits of work-linked training and practices; and the use of ICT based methodologies to support and monitor training.

The **methodology** framework of the qualitative research on the evaluation of work-based learning was to carry out a mix of both **desk research and semi-structured interviews** with representatives of employers, training providers, employment centres and training managers in companies. The key respondents represent relevant organisations such as work-linked training providers or employment centres. The process of selecting and analysing information lasted few months during the first half of 2018. For the purposes of the current report we tried to focus on the latest solutions implemented. The time is essential as the educational system in Poland, for instance, are experiencing a transition period that covers also Vocational Education and Training.

2. Typology of work-linked training

Austria

a) Austria's IVET system can be described as broadly three-pronged: A highly practice-focussed apprenticeship pillar and two separate pillars of secondary level vocational and technical training, one of which is conceptualized as a trade school that finishes within the confines of secondary level education while the other one provides comprehensive vocational training straddling the gap between secondary and post-secondary level education.

b) Regular Apprenticeship. After a Pre-vocational School of one year, apprenticeship in Austria takes the form of dual training at a Part-time Vocational School ("*Berufsschule*") and the actual Apprenticeship with an employer. The employment-based education component is highly diverse, as most apprenticeships take place in SMEs. This dual training takes two to four years, depending on the chosen vocation, and ties into a non-compulsory Higher Education Entrance Examination ("*Berufsreifeprüfung*") that opens up post-secondary and tertiary level education options.

Supra-company Apprenticeship. The Preparation Year for Work is followed by an Integrative Vocational Training of four years that emulates a regular apprenticeship, but is supported and monitored by the Public Employment Service Austria ("*AMS*"), which also provides incentivizing grants to employers and free training of the employer's instructors.

In total, about 34,000 members of current age cohorts are in apprenticeship training.

The School for Intermediate Vocational Education ("*BMS*") provides trade schooling in a broad range of non-academic vocations and begins directly after lower secondary level education. Although training at a School for Intermediate Vocational Education is not fully dual in nature, the theoretical education is complimented by four to twelve weeks of mandatory internships. School curricula range from general to highly specialized and usually take three to four years to complete. Shorter curricula of one to two years exist, but offer only partial vocational training. Finishing a three- or four-year training at a School for Intermediate Vocational Education allows graduates to take the Higher Education Entrance Examination.

BMS attendance figures have continued to drop over recent years and halted at around 11,000 in 2017.

At the opposite end of the spectrum of IVET to the highly practical apprenticeships are the Colleges for Higher Vocational Training (“*BHS*”). Beginning right after the lower secondary level education and taking five years, the *BHS* curricula integrate complete vocational training in accordance with EU Directive 2005/36/eg with full access to tertiary level education. As with the School for Intermediate Vocational Education, College for Higher Vocational Training training is not fully dual, but includes eight weeks of mandatory internships.

The *BHS* has seen increasing popularity, rising to approximately 16,000 attendees per age cohort last year.

Post-Secondary and Tertiary Level VET

Alternative ways to a General Higher Education Entrance Qualification

Apart from the aforementioned Higher Education Entrance Examination, there are two more ways to acquire a General Higher Education Entrance Qualification. One of these is the School for People in Employment (“*Schule für Berufstätige*”), which is principally open to everyone and provides a “second chance” to acquire a qualification equivalent to the College for Higher Vocational Training (or the Academic Secondary School (“*AHS*”). These Schools for People in Employment take six to eight semesters to complete, depending on the desired qualification, and are typically evening schools.

The other alternative is a number of Add-on Courses (“*Aufbaulehrgang*”) which, similar to the Schools for People in Employment, confer a qualification equivalent to the College for Higher Vocational Training upon completion. These Add-on Courses are available to graduates of certain types of School for Intermediate Vocational Education as well as Apprenticeships and serve more as complimentary training than a substitute, like the School for People in Employment. Accordingly, these courses only take between four and six semesters to complete and usually consist of part-time or evening classes.

If an apprenticeship was completed, it is also possible to acquire an additional post-secondary level of qualification by attending a Industrial Master College (“*Werkmeisterschule*”), Building

Craftsperson School (“*Bauhandwerkerschule*”) or Master Craftsperson School (“*Meisterschule*”). The choice of school depends on the craft of the person who plans to attend it, but they all take four semesters and are fully work-based, differing only slightly in the perks of the achieved qualification.

The Post-Secondary VET Course (“*Kolleg*”) offers additional education (usually a Higher-Level Vocational Qualification) in the space of four to six semesters to persons with a General Higher Education Entrance Qualification and graduates of certain four-year Schools for Intermediate Vocational Education. The scope of these courses is purely vocational, but not necessarily part-time or particularly practice-driven.

At the crossroads between post-secondary and tertiary level education, universities, Universities of Applied Sciences and University Colleges of Teacher Education are offering a variety of Continuing Education Courses of varying length and nature. These usually focus on teaching rather specific sets of skills and knowledge and are either part-time or evening classes.

Student figures for these courses are very difficult to translate into numbers relating to age cohorts. That being said, about 18,000 people within any recent age cohort can be assumed to currently attend a form of Continuing Education Course.

c) Vocational Training for Adults

In addition to the educational pathways outlined above, there exists a plethora of private companies offering initial and additional vocational training for adults. Such courses vary wildly in length and formal qualification acquired, but typically consist of part-time or evening classes paid for by the trainee or his employee. Under circumstances where the trainee is currently unemployed, these costs may either be refunded by labour market assistance funds or paid for outright by the Public Employment Service Austria.

In general, trainee numbers per age cohort will vary from a couple of hundred to a few thousand as a very rough estimation.

Some institutions (e.g. *WIFI*, *BFI*) also offer courses equivalent to Universities of Applied Sciences and Post-Secondary VET Courses. For all intents and purposes, these courses can be considered part of the post-secondary and tertiary level VET as outlined above.

Scotland (UK)

In Scotland (UK), we use various Work-Based Learning Programmes and Assessment Tools. The more formal Training and Assessment is attached to more specific training/learning programmes such as through School, Colleges, or other Training providers (Public and Private).

Formal Work-Based Learning is supported through the Scottish Government and much of this training is monitored by a Government Agency; Skills Development Scotland (SDS). Programmes here include a series of Apprenticeship Programmes: Foundation Apprenticeship, Modern Apprenticeship, Graduate Apprenticeship.

All are overseen, monitored and evaluation by SDs and Education Scotland (Education/Training Provider Inspectors).

The Foundation Apprenticeship Programme is aimed at Trainees who are still attending school and would like to pursue a trade, or practical vocational occupation. The programme lasts for 2 years allows young people still attending school education to continue at school, attend a local Further Education College and gain work experience through working in a company. The Foundation Apprenticeship Programme; this is aimed at Trainees who are still attending school and would like to pursue a trade, or practical vocational occupation. This model is for trainees who would normally leave school and move into Higher Education and study at Degree Level.

The Modern Apprenticeship programme is aimed at those in employment, young people or older employees. The model allows for a full Work Based Learning support as the Trainees receives training on-the-job and supported by a Training Provider such as a Further Education College or a private Training Company. This model allows the trainees to gain SVQ certification and provides trade papers on completion. There are over 80 MA Frameworks available and are monitored by the appropriate Skills Sector, which comprises of employers, experts and education providers, SQA and SCQF. It is the most successful as around 92% stay in employment on completion of training.

The Graduate Apprenticeship Programme is the latest in work-based learning and is aimed at school leavers who wish to gain a degree in a vocational subject sector. Instead of moving directly into Higher Education, the trainee secures employment with a company and has the opportunity to train and continue studies to obtain a degree. The programme works in partnership with the Company, a Further Education College and a University. It is a new programme and includes only 12 employment sectors at present.

The Scottish Government has a target of recruiting 30,000 work-based learning apprentices per year by 2020 through these programmes.

Employability Fund Supported Programmes (Mixture of Pay and Non-Paid) is another Scottish Government Programme that allows Training to gain qualifications and participate in work-based learning. The programme is available for all Training Providers to access funds to support unemployed into training and employment.

Other forms of work-based/work-linked training that exists is non-paid work-based training. This is the most common type of work-based-learning, it is recognised that work-based training provides a raft of experience for trainees and that the majority of trainees attending Scottish Colleges and Universities are engaging in work-based training.

Poland

In the Polish educational system, apprenticeship and work-based learning is a part of VET. The main condition to participate in this type of training is completion of a lower secondary school and being at least 16 years old, has completed a lower secondary school (gimnazjum). Please notice, Poland is in the process of changing the educational system, which means currently two schemes are overlapping. Under the education reform that has started from the 2017/2018 school year, Poland is to return to its previous system of eight-year elementary schools followed by four-year high schools or five-year technical schools, with upper-secondary schools (gimnazjum) no longer in existence.

The apprenticeship is organised in small and medium enterprises, mainly in handicrafts. The regulatory framework for apprenticeship is provided in two regulations:

- the regulation of the Council of Ministers of 28th May 1996 on apprenticeship training of apprentices and their remuneration,
- the regulation of the Minister for National Education of 15th December 2010 on practical training for occupation, concerning the whole system of work-based learning in IVET.

The Ministry for National Education (MNE) makes most of its legal decisions regarding vocational education through ordinances.

Work-based learning (WBL) is a fundamental aspect of Polish vocational education, helping students in acquiring skills and competences needed on the labour market. It is possible to identify four main models of WBL in Polish IVET system:

- Alternance training (dual system) in which VET takes place both at school and at employers. The head of school signs a contract with an employer for practical training at employers' premises. Students themselves do not sign contracts and do not receive remuneration. Practical training must take not less than 50% (in upper secondary technical schools and post-secondary non-tertiary schools) and 60% (in basic vocational schools) of time dedicated to vocational education.
- On the job training - traineeships obligatory for all occupations at technical and post-secondary level, taking place in the enterprises characteristic for a given occupation. The period of traineeship takes from 4 to 12 weeks, depending on an occupation.
- WBL integrated in a school-based programme – vocational education and practical training take place at school laboratories and workshops, in conditions as close as possible to real working conditions. It can also take place in modern practical training centres equipped in modern technology. This model is dedicated to students from all kinds of VET schools. Practical training in basic vocational schools must take not less than 60% of time devoted to vocational education and 50% in technical and post-secondary non-tertiary schools.
- Apprenticeship (dual system) in which learners spend majority of time acquiring skills at employers' premises, (mainly craftsmen) after a contract is signed between an employer and an apprentice (juvenile worker 16-18-year olds). Learning at school takes place two days a week (theoretical knowledge: general and vocational). This type of dual system is designed for students from basic vocational schools (around 61% of them are apprentices/juvenile workers)

Apprenticeship can take either of two forms:

- (a) apprenticeship as occupational training (nauka zawodu) (ISCED 3) leading to qualification as an apprentice or a skilled worker. This comprises practical vocational training at the employer's organisation and theoretical training. Trainees/students (under the age of 18) can choose theoretical training in the school system or in non-formal education contexts. Most trainees/students (88%) complete their theoretical education in basic vocational schools. Training lasts between 24 and 36 months and finishes with the apprentice exam organised by the chamber of crafts;
- (b) apprenticeship as training to perform a specific job (przyuczenie do wykonywania określonej pracy) (ISCED 2) and covering only selected work activities. This is limited to a small group who, for different reasons, did not complete lower secondary school and are at least 15 years of age. The employer defines curriculum in line with existing core curricula. Training takes three to six months. After passing a test, the trainee receives a certificate stating acquisition of particular skills in a particular occupation. The certificate is issued by the enterprise where the training took place and is recognised by the education system. After finishing training, the young workers (between 16 and 18 years old) can continue the apprenticeship, leading to a qualification (the duration of the first is included into the duration of the latter).

Spain

The Law on the General Organization of the Educational System, adopted in 1990, aimed to establish a new framework to develop the education system to respond to the real needs of the productive world and to be an effective bridge that leads to employment and facilitating the professional progress of individuals. Thus, the regulation established three major subsystems of vocation training:

- Subsystem of regulated training, under the auspices of the Ministry of Education and Culture
- Occupational training subsystem, under the auspices of the Ministry of Labour and Social Security

- Continuous training subsystem, managed by the social partners (workers and employers)

The regulation also described the four components of vocational training in Spain, namely:

- General education aimed at the development of common general skills, attitudes and knowledge.
- Basic vocational training oriented towards the development of basic technological and scientific skills and knowledge related to a group of professions or families.
- Specific Vocational Training: With contents of skills and more professional knowledge related to a profession understood as a set of jobs; they culminate in professional training.
- On-the-job training: Skills and knowledge specific to a particular job. They are purchased at the production centre.

At present, vocational training is the training pathway closest to the reality of the labour market and responds to the need for qualified staff. That is the reason because the vocational training has the high labour market insertion potential. Currently the vocational Training system offers more than 150 training cycles within 26 professional families, with theoretical and practical contents suitable for the different professional fields.

1. Workplace Training

Workplace Training (FCT) is a compulsory vocational module that is taught in all vocational training courses, whether basic, intermediate or advanced. It is a phase of practical training in the company that takes place in the workplace and which, as a general rule, must be carried out, once all the professional modules of the training cycle have been passed, in the real environment of the company. The professional module of Workplace Training (FCT) does not have an employment or scholarship relationship; students who attend it continue to be students enrolled in regulated education. The vocational module of Workplace Training has the same structure as the rest of the modules that make up the vocational training cycles and its completion is compulsory to obtain any degree in vocational training.

The activities that the student will carry out during his or her internship are specific to the professional profile of the vocational training degree he or she is currently studying and are included in a training programme. The student will have an Education Centre Tutor and a Work Centre Tutor appointed who will previously define the training programme to be carried out by the student, coordinate its development, set the dates of the visits and evaluate its implementation, issuing the appropriate reports. This professional module is developed in the company, therefore, the student will be able to observe and carry out the activities and functions of the different jobs of the professional profile and to know the organization of the productive processes or services and the labor relations, always bearing in mind that the students who take it continue being students enrolled in regulated education. For this reason, all FCT students are covered by a civil liability and accident insurance policy taken out by each educational administration for this purpose.

The purpose of the assessment of the FCT professional module will be to determine that the student who takes it has acquired the general competence of the degree, starting from the passing of the learning results of the professional module and will carry it out for each student, the teacher who has followed it up.

The evaluation criteria will be used to accredit, once the learning process has been completed, whether the student has reached the established professional competencies.

The workplace training module may be evaluated in two calls for applications, unlike all the other professional modules that make up a degree, which will have four calls for applications.

2. Dual training in Spain

Dual Vocational Training is a new modality within vocational training. Dual vocational training projects in the educational system combine the teaching and learning processes in the company and in the training centre and are characterised by the fact that they are carried out alternately between the educational centre and the company, with a number of hours or days of stay of variable duration between the workplace and the educational centre.

With this new innovative modality, companies can support new models of organisation of Vocational Training that aim at the search for excellence in the company's relationship with VET schools and promote its Corporate Social Responsibility.

To this end, through the projects developed in the Autonomous Communities, work is being done to promote a culture of Dual Vocational Training in companies and centres that provides people with the specialised and multipurpose training required and brings the teaching of vocational training qualifications closer to the socio-economic reality of the labour market, thus responding to the personal development and qualification needs of the different productive and service sectors of the autonomous and state economies.

Article 28 of Royal Decree 1529/2012, of 8 November, which develops the contract for training and apprenticeship and establishes the basis for Dual Vocational Training, states that the aims of Dual Vocational Training projects are as follows:

- a) Increase the number of people who can obtain a post-compulsory secondary education qualification through vocational training.
- b) Achieve greater motivation in students by reducing early school leaving.
- c) Facilitate labour market insertion as a result of greater contact with companies.
- d) Increase the link and co-responsibility of the business fabric with vocational training.
- e) Strengthen the relationship between vocational training teachers and companies in the sector and encourage the transfer of knowledge.
- f) Obtain qualitative and quantitative data to enable decision-making in relation to improve the quality of vocational training.

The implementation of this modality in the supply of vocational training depends, as in the whole educational offer, on each Autonomous Community.

This report leads us to the conclusion that the dual training model is gradually becoming a strong model, enabling the skills and competences acquired to better adapt to the reality of the labour market, improving employability and contributing to sustainable social development in Spain. However, there are still many barriers to be overcome (such as bureaucratization in the creation

of dual training pathways) that should be tackled in the short and medium term to achieve the effectiveness of the system.

Romania

In Romania, the work-linked training is delivered either through the national system of education or in other forms like apprenticeship, or training in companies. Work-linked training cover a wide range of programs including initial qualification, training organized by authorized providers, in-house training provided by companies and on-the-job training. Additionally, skills acquired in other ways than through formal training can be assessed and certified in specialized centres authorized under the law.

The main vocational education and training (VET) routes leading to formally recognized qualifications in Romania are:

- initial VET (IVET), including upper secondary education programmes (school- and work-based VET programmes) and post-secondary education programmes and
- continuing VET (CVET) as part of adult education.

a) Initial VET

Initial VET is still characterised by lower attractiveness as compared with general education in Romania. However, the work-linked training is increasingly seen as an alternative as the diversification of educational routes improves. The upper secondary vocational education programmes which include work-linked training components are part of the national system of education and have emerged in the recent period as a result of the introduction of a new legislative framework. Tracking of students and their enrolment in IVET takes place at approximatively 14 years old, after graduation of lower secondary education. Work-linked training is combined with education inside schools with the aim of acquiring professional qualifications, while offering students the possibility of passing the baccalaureate exam and continuing their education.

In 2017, dual education has been recently introduced as a new educational route within initial VET. It has a 3-year duration and allow graduates to obtain qualifications of level, according to the National and European Qualifications Frameworks. The training is linked to the workplace,

in the company, on the basis of an agreement between the firm and the school and an individual contract of (vocational) training concluded between the company, the school and the young person (pupil or student).

The ratio between the theoretical and practical training emphasis the practical activities at workplace (i.e. for 3-years-period of vocational education: 1st year of vocational education - 80% theoretical and 20% practical training; 2nd year of vocational education - 40% theoretical

and 60% practical training; 3rd year of vocational education - 28% theoretical and 72% practical training). The curriculum is based on practical training and competences for faster access to employment. The graduates are to be equipped with a responsible attitude, with respect for work and professional career. The vocational training standards are based on occupational standards approved by the National Authority for Qualifications.

During the training, the pupils have the opportunity to go through compulsory education courses and gain competences for professional qualification. Companies have the opportunity to be involved in the training of students acquiring practical competences, evaluation of competences and certification. Hiring the new well-trained workers. Usually, companies involved in dual education programs hire the students after graduation.

b) Apprenticeship

Regulation of the apprenticeship at the workplace system in Romania was first put in place in 2005, followed by numerous amendments (in 2008, 2011, 2013 and 2017). Apprenticeship supports the employment and social integration of young people in accordance with their professional goals and the needs of the market.

Apprenticeship is a form of work-linked training at the workplace based on apprenticeship contract aiming to develop practical and theoretical competences at the workplace; there is a subsidy granted to employers from the unemployment insurance fund. Apprenticeship system helps young people over 16 years (apprentices) to acquire and practice a qualification.

Training periods alternate with working time allocated for the tasks specified in the job description; the theoretical and practical training of the apprentice is performed under the guidance and supervision of the trainer (from a training provider) and of a mentor (from the

company). The skills assessment and certification are made in accordance with the legal provisions in force on adult training and the apprentice gets a nationally recognized formal certificate. The apprenticeship programme includes theoretical and practical long-term training (one to three years), resulting in qualifications at NQF/EQF levels 2-4. Currently, the apprenticeship system provides:

- 12 months programs for qualifications of level 2 according to the National and European Qualifications Framework which include 360 hours of theoretical and practical training (open for persons graduating at least lower secondary education)
- 24 months programs for qualifications of level 3 according to the National Qualifications Framework and European Qualifications Framework which include 720 hours of theoretical and practical training (open for persons graduating at least lower secondary education or compulsory education)
- 36 months programs for qualifications of level 4 according to the National and European Qualifications Framework which include 1,080 hours of theoretical and practical training (open for persons graduating at least upper secondary education with no baccalaureate diploma).

In Romania, the apprenticeship system continues to be accessed by a relatively low number of employers and potential apprentices. The low level of take-up is influenced by a range of both demand and supply factors. These include the structure of the labour market, employers demand and perceptions, the needs of early school leavers, vocational education provision. So far, the very low level of participation to apprenticeship system indicates a lack of attractiveness for the companies. Recently, the value of the subsidy has been increased and according to its National Vocational Training Plan, the National Agency for Employment plans to conclude 2,064 apprentice contracts in 2018.

c) Continuing VET – adult education or training

Adult education includes training programmes for all qualification levels, organized in the public or private sector. Adult vocational training programmes are organised based on the training or qualification needs of the participating adults and on existing training standards.

Adult training programs include: (a) initiation training programmes that are focused on the acquisition of general and specific competences for a qualification, (b) qualification, and re-qualification programmes focused on a specific qualification (c) training programmes leading to the acquisition of a set of vocational competences that will allow a person to carry out activities specific for one or more occupations, and (d) improvement/ development and specialisation programmes.

Adult education or training are provided through courses organised by training providers, courses organised by employers inside their institutions, internships and specialization. The training is provided by persons or entities (private or public) acting as vocational training providers that have a legal authorization as adult trainers. CVET programmes are organized for occupations included in the Romanian Classification of Occupations (COR) or for vocational competences which are common for a set of occupations.

Adult participation in learning remains very low despite the widespread need for upskilling. Adult participation in learning continues to be very low, at 1.1 % in 2017 (from 25 to 64 years), below the EU average (10.9 %). The validation of prior learning is available for adults, but there is no database of existing courses where adults can go to supplement the competences they lack, which would make it possible to match adult learners' needs with the educational offer.

For assessing the characteristics of VET and lifelong learning in Romania as compared with European Union (EU), we analyse some indicators. Students in IVET programmes account for a relatively high share of all upper secondary education students (56.3% compared with 47.3% in the EU in 2015). At 88.4%, the share of upper secondary IVET students in programmes giving direct access to tertiary education is higher than the EU average (at 66.7%). Also, the percentage of young VET graduates in further education and training in Romania (at 48.2%) is well above the EU average (at 32.8%). Adult participation in lifelong learning is 1.2%, much lower than the EU-average of 10.8% (data for 2016). Data from CVTS 2010 indicate the extent to which employees and enterprises engage in CVET. In 2010, 24% of employers reported providing training compared with 66% in the EU; 18% of employees undertook employer sponsored CVT courses compared with 38% in the EU. A smaller share of employees engaged in on-the-job training: 10% in Romania and 20% in the EU.

3. Main models of assessing work-linked training. Please document cases and practices

I. Work-based Learning: relevance and Usefulness of Evaluation

In all selected countries, all forms of post-secondary and tertiary education are equally important but the Apprenticeship path is particularly relevant. The **trainees** themselves obviously benefit from work-based learning in many ways, ranging from the tangible to the psychological effects. It was emphasized that increasing employees' qualification levels strengthens the employer-employee relationship, increases the motivation to work and stabilizes the employment. Naturally, trainees also increase their personal career chances by acquiring best practice knowledge and increasing their formal qualifications. Expected **benefits for organisations** include the expansion of the company's skill base under minimization of work time losses and increased employee loyalty.

Evaluation brings many benefits. **Trainees** gain more valuable education and learning results and can expect a higher rate of success in optimized learning environments. Formal education gain accreditation with lower or waived attendance fees for the trainees and raise self-responsibility. **Companies** can make informed decisions about the type of work-based training and certified qualifications they provide. On a **societal** level, the labour market as a whole benefit from a professional work force. Accepted and accredited learning paths also open up opportunities for young and younger people who gain a perspective of long-term, self-sustained gainful employment.

Austria: ICT-based Evaluation Tool in Development

The Federal Ministry for Digitalization and Business Location is currently working on an ICT-based evaluation tool to be used in the gastronomy sector of the Apprenticeship education path. The tool is providing instructing employees with a pre-made framework of education plans and documentation to be filled in over the course of the apprenticeship. Both education and milestones are connected to milestones that are meant to provide hard data points in regards to timeliness and grade of success, but also serve as a connection point for mutual documented feedback of the apprentice and the instructor. The goals pursued with the implementation of this tool are threefold: Reducing drop-out rates through an improved training experience for both trainee and instructor, the possibility to tailor education plans to individual trainees and all of their specific needs (being able to account for previous work experience before beginning an apprenticeship, for example) and finally to generate data for future statistical use in evaluation and assessment.

At its core, the project aims to steer away from solely looking at “grades” to measure success, but instead focus on fields of competence. Implementing the acquisition of these will allow the ministry to identify weak points in its apprenticeship education strategy both on an individual and a systemic level. By comparing the apprentice’s progress to comparison cohorts using a percentage-based scale instead of a rigid grade system, both the apprentice and the instructor should be able to accurately gauge individual success detached from idealized norms. The ministry opines that acquisition of key competences, transversal skills and core competences are more important for long-term employment prospects than static qualification, especially considering the massive gap between IVET and post-secondary level education attendance in Austria.

The usefulness and relevance of the clustered competences will be evaluated by long-term observation of the apprentices’ careers and future connection with data from the WIBA institute. In the meantime, the ministry plans to commission an independent third party to conduct an impact study. By and large, identifying the relevant indicators to assess the impact of the tool is seen as the largest hurdle, though. Oftentimes, developments in the educational and labour sectors are hard to judge because measures that might, for example, have improved a situation will show to have no effect if the surrounding conditions worsened at the same time. Accordingly, the ministry strongly advocates for any evaluation methods to be as broad and inclusive as possible in order to lessen the impact of such outside factors on the statistics.

The evaluation of training activities is an activity that is mandatory in accordance with the legislative framework in **Spain**. It is the regulation itself that establishes the need to evaluate training activities. The evaluation has a double approach:

1. Evaluating the **knowledge** acquired by the student (and in case of obtaining a certification).
2. Evaluate the **training activity** in which they have participated in relation to the quality of the programme and its effectiveness in responding to their training needs.

While the first objective is common to all areas of training and education, the second component is linked to training activities for initial and continuing vocational training, including dual training models or work-based training.

II. Methods of Evaluation: Education and work-linked training

In selected countries, assessing education and training programs is to be done through:

- a) formal National Framework and regulated approaches,
- b) ad-hoc studies targeted to particular programs of education and training.
- c) Special attention is given to Apprenticeship evaluation.
- d) Also, in many cases, large companies assess learning results on their own, internally.

a) National regulatory framework

In Austria, more formal evaluation processes exist in connection with labour market qualification measures of the **Public Employment Service**, but only in connection to supra-company VET. It employs an ICT-supported dual feedback system open to trainees and instructors. This system, however, is designed only to track the trainee's progress and document any possible grievances rather than generate methodical insights into the training itself. In addition, the Public Employment Service Austria has access to anonymous career-related data, which it uses to assess the effectiveness of its measures on a macro-level.

The formal models used in Scotland (UK) are fully accredited through the national Scottish Qualification Authority; and levelled at both UK and EU levels with regard to the Scottish Credit Qualification Framework SCQF and the European Qualification Framework EQF. All assessment is conducted through the correct procedures and by Qualified Training Assessors and their procedures and assessments are examined by both internal and external assessors with the appropriate skill sector background; and sector experience. These formal assessed qualifications are available at all levels of training, from basic National 3 (Access 3) SVQ Level 1 through to the professional Apprenticeship (Masters Degree) SVQ Level 5. Work based assessment begins at SVQ Level 2 and conducted in the workplace (SVQ Level 1 can be conducted within a college or training organisation).

In Poland, the regulation of the Minister for National Education from 15th December 2010 on practical training in occupations concerns the quality of vocational training. The programme of practical vocational training for VET students is monitored by the school headmaster and employers organizing training in the workplace.

The quality of VET students' learning outcomes is confirmed by the exam confirming vocational qualification, supervised by Minister of Education. A new exam enables to assess one qualification distinguished in a given occupation. Learning outcomes as for knowledge and skills required from VET students are included in the core curriculum for a given occupation and are also the basis for examination process. The Central Examination Board (CKE) was set up by the Minister for National Education in 1999. The exam, consisting of both theoretical and practical part, is of external character. In case of occupations, which may be learned: at vocational schools or within apprenticeship system in the craft, or alternately at school and at employers from outside the craft, the examination requirements as for learning outcomes are defined in the core curriculum for VET.

In case of occupations that are outside the classification of occupations for VET, the quality standards for apprenticeship training in craft are designed by the Polish Craft Association, including the standards of requirements, which are the basis for the exams for journeymen and masters in craft. Polish Craft Association is also defining the rules of monitoring of the Examination Boards of Craft Chambers.

Spain: According to the rule that regulates the work based learning in Spain, the Educational Administration is responsible for to conduct monitoring and evaluation of the **training projects**, being responsibility of the teachers of the centre who, in turn, will take into account the account the contributions of tutors and trainers of the company and the trajectory and result of the activities carried out in the the same.

"In the event that the students do not exceed some of the professional modules, the Administrations educational institutions, within the framework of the regulations in force, they shall lay down the measures necessary to make it easier for them to obtain the diploma; inter alia, the extension of the duration of the project, the relocation of the site or the completion of the training programme in a centre educational. (R.D.1529/2012/Article 32)

The evaluation of the **student/apprentice** whose training is aimed at obtaining a certificate of professionalism will be "carried out in accordance with what is contemplated in Royal Decree 34/2008, of 18 December 2008. January, regulating the certificates of professionalism". In the event that the training inherent in the contract for training and apprenticeship is leads to the award of a vocational qualification" the assessment of the student body will be the responsibility

of the professors of the professional modules of the centre of adscription, having the contributions of the company's trainers and the activities carried out in the company. (R.D.1529/2012/Article 3).

But beyond the evaluation of acquired knowledge, an overall evaluation of the training programmes is required. Thus, after finalizing any training activity, training providers (training centres or companies, or both) have to evaluate the training itself. We can say that within the Spanish model, the evaluation seeks three essential purposes:

1. *Diagnosis*. This allows us to know in detail the reality where the training activity is going to be developed, the characteristics of the context and the needs of the addressees.
2. *Formative*. It focuses on evaluating the training action itself during its execution with the sole objective of detecting improvements to the training process.
3. *Summative*. Its objective is to know if the objectives have been met, the changes produced, to make decisions on the certification of the participants in the training activity and the acceptance of the programme among the participants.

Thus, all training evaluation activities seek to evaluate:

- Consistency of the programme with the objectives pursued;
- The student's satisfaction with: the training program, the facilitator and the resources used;
- The efficiency of the program (how useful it is for the student).

However, the objective of this evaluation is to meet a simple legally established requirement, and the use made of it is more or less formal or in order to improve exclusively the way of giving training (either improve the skills of the trainer or / and resources used).

Romania: Quality of IVET is monitored by the Romanian Agency for Quality Assurance in Pre-university Education. National Framework for Quality Assurance in IVET has been developed by the National Centre for IVET Development based on the European Quality Assurance Reference Framework for Vocational Education and Training (EQARF). The National Framework aims to Improve the match between the demand and supply of VET, Improve the employability of graduates, Improve the access to VET, especially for students belonging disadvantaged groups.

Also, the National Framework for Quality Assurance in IVET includes all the quality standards provided by the EQARF. The quality of IVET provided by the Romanian schools is

assessed both internally and externally. Self-assessment is based on internal monitoring of the quality of IVET carried out at the school level. External assessment is made through inspections carried out by the educational authorities (County School Inspectorates, Romanian Agency for Quality Assurance in Pre-university Education). Following the inspections, educational authorities formulate recommendations regarding the improving of the quality of VET. Authorising and accreditation are to be made for all the IVET programs, while external assessment takes place at least once in five years. Main criteria of assessment include: 1) quality management, 2) management responsibilities, 3) resources management, 4) developing and revising learning contents, 5) teaching and practical training, 6) assessment and certification of learning, 7) assessing and improving quality. Also, starting with 2007, the certification exams of IVET graduates have been monitored.

b) Ad-hoc studies

Austria. A lot of evaluation is carried out by **Universities of Applied Sciences**, which are not only accredited on an institutional level, but also have to prove the effectiveness of their individual curricula, which is done via impact analysis of graduates' career data. Furthermore, not being free of charge, the Universities of Applied Sciences have a vested interest in “customer satisfaction” and actively collect feedback on the usefulness of their education offers in the form of interviews (also see Indicators). Where data is collected by research institutions, classic interviews (personal, by phone or online) are complimented by desktop research of available secondary statistical data (e.g. Apprentice Monitor (“Lehrlingsmonitor”), career and income data from AMS, WIBA, BALI and Statistik Austria) and coherence analyses.

Indicators that are currently tracked at least in some form and in some areas include:

Personal level	Institutional level
— Career success (judged by the job position achieved, payment, time until finding employment)	— Labour market relevance and acceptance of a curriculum
— Long- and short-term employment security / employee loyalty	— Duration of curricula and hours of learning
	— Content of curricula

<ul style="list-style-type: none"> — Labour market development — Drop-out rate / graduation rate — Trainee satisfaction — Follow-up VET 	<ul style="list-style-type: none"> — Qualification of instructors — Available funding / non-financial support
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The Plan of Actions for Supporting Vocational Education and Training in Poland is an example of how to develop an awareness-raising activity with the aim to get young people to think of VET as a possible future choice. The plan was being implemented from March until June 2015.

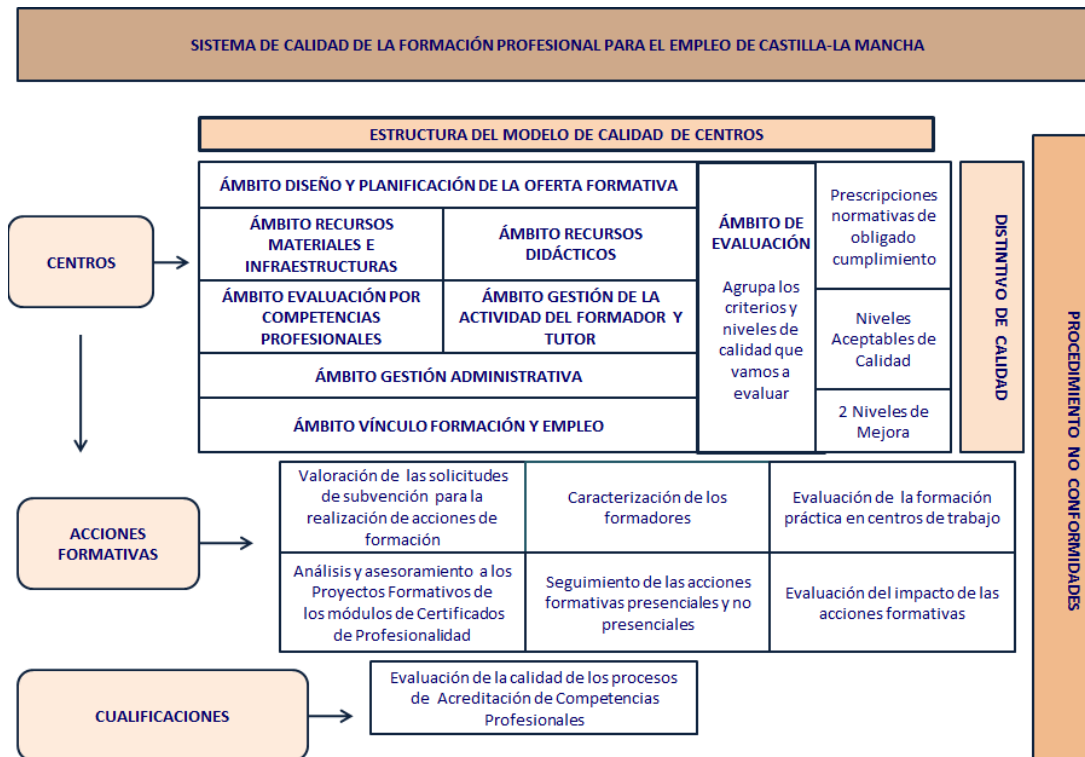
Spain

In recent years we are seeing that some private training providers (especially those linked to companies) are implementing mechanisms that involve the monitoring of the student and their training activity. For example, the definition of a set of indicators that are evaluated after the activity and that follow the professional development of the participant.

Together with this evaluation approach, some public administration institutions have developed **specific programs to evaluate the impact of the training**. First step was to take as a reference the definition of evaluation of training developed by Kirkpatrick: The "evaluation of training" is the systematized process for the analysis of the overall value of training programs that favors decision making for the improvement of professionals and the program itself.

Quality system to evaluate the training activities in Castilla La Mancha

Together with the reform of the training model for employment, the community of Castilla La Mancha implemented a quality model that involves the evaluation of training for employment. The following graph shows this scheme.



One of the most relevant aspects is the introduction of the training impact assessment.

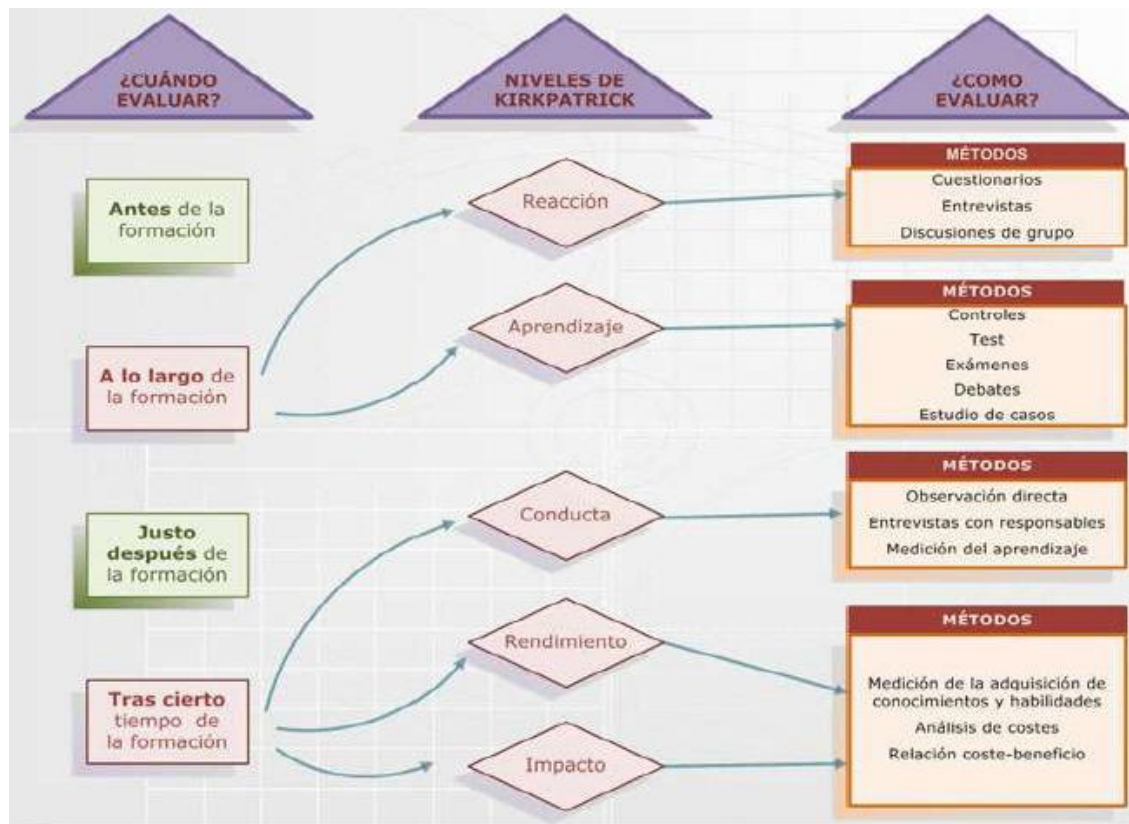
According to the model, impact evaluations make it possible to measure, through the use of rigorous methodologies, the effects that a programme may have on its beneficiary population and to know whether these effects are in fact attributable to its intervention. The main challenge of an impact assessment is to determine what would have happened to the beneficiaries if the programme had not existed. Impact evaluation is an instrument that contributes to decision making and accountability, that is, it provides information for actors at the management level as well as for citizens on the effectiveness of the programs to which a public budget is allocated. The impacts will be measured in terms of the results or products resulting from each modality in relation to the objectives characterized in a series of criteria mentioned in the introduction of the proposal as regents of the entire evaluation:

- **Effectiveness**, a measure of the modality's achievements in a given time.
- **Coverage**, proportion of population accessing the modality and total in unemployment situation.
- **Relevance**, degree of satisfaction of the specific needs of the beneficiary population in relation to the modality.

- **Adequacy**, correlation between the objectives and the resources available in the modality.
- **Satisfaction** of the participants with the modality in terms of the organisational structure of the courses (teaching staff, timetables, demand for training, etc.).
- **Scope**, degree of knowledge and ways of disseminating information on the training offer in the modality.
- **Usefulness** of the training action in terms of: employability, applicability, level of use, improvement in the workplace, etc.

Quality system to evaluate training for employment activities in Andalusia

Like the previous one, this model establishes a general evaluation model, where the impact has a special relevance. In addition, it always takes place some time after the end of the assessment.



In this case, the definition of impact is twofold:

1. Impact on the individual: This measures the impact that training has on the competences and professional practice of the person taking part in the training.

Competences: Four criteria are taken into account to evaluate competences:

1. Contents put into practice
2. New situations to practice
3. Frequency of application of new skills acquired
4. Resolution of doubts

Professional practice: these four sub-criteria are used to measure professional practice

Improved results; Assume new tasks; Autonomy; Motivation.

2. Impact on the organization: Try to measure the impact within the organization, both internal and external.

Internal: Evaluates how this training affects companies internally, analysing the following variables:

1. Improvement of the work environment
2. Process Improvement
3. Improvement in the organization of work
4. Improvement of the results of the results

External: this aspect is the most debated the most complicated to measure. But still three criteria have been established:

1. Quality improvement
2. Customer perception
3. External image of the company

Romania

One example of studies assessing IVET refers to school leavers surveys among IVET graduates implemented by County School Inspectorates. The surveys have been carried out within ESF projects in 2010-2012 period, under a common methodological approach. The surveys aimed to collect information on labour market outcomes, skills use at the workplace and subsequent

participation to education and training of graduates leaving IVET in 2010 and 2011. According to the methodology, the graduates have been surveyed twice, 6 and 12 months after graduation.

Main indicators collected include:

- share of graduates continuing education and barriers to continue education,
- perceived employment opportunities,
- job search behaviour and duration to the first job,
- current job: sector, occupation, type of contract, working hours, job satisfaction, income level,
- usage of skills at the current job, job-qualification match,
- migration intention and career expectations.

c) Assessing Apprenticeships

In **Scotland (UK)**, the “Modern Apprenticeships” is where the trainee is in full employment. The work-based learning assessment for Modern Apprenticeships is formally assessed programme organisations employ qualified assessors, this ensures that the quality of the training is up to an acceptable standard, assessors and assessment materials go through a vigorous quality process which involves Internal Verification, External Verification and Audit.

Case Study:

Glasgow Clyde College Trainee named Modern Apprentice of the year at the 2014 Scottish Apprenticeship Awards. However, she was not always planning to take that route.

The benefits of an apprenticeship: 'Earning while you're learning is a fantastic way to motivate yourself. You feel like you're getting an immediate benefit for the work you're doing. 'The best thing about a Modern Apprenticeship is that I feel as though I've given my career a head start. ... The experience of applying alone prepares you for later in life, regardless of what you want to do. It's time to give the boys some healthy competition!'

The Foundation, Modern or Graduate Apprenticeship programme supervised by a mentor/tradesperson/expert within the company or work-based training organisation. This ensures a high a high-quality training and the use of approved assessment methods ensures a highly qualified workforce and the overall impact on the company's performance and outputs.

SDS Quotes: Foundation Apprenticeship

“Foundation Apprenticeships give us a solid talent pipeline a year in advance. We get an idea of peoples' potential a year earlier and, without a doubt, it helps us find the right people.”

“Foundation Apprenticeships not only benefit pupils by giving them a qualification and valuable work experience, they also benefit employers who offer placements in their workplace - having young people come into your business can bring fresh new ideas and help shape future talent.”

"A Foundation Apprenticeship can lead straight into a job, further study at college or university, or a fast-track Modern Apprenticeship."

“With the Foundation Apprenticeship, I’ve learned lots of new skills that I didn’t think I was capable of learning, and doing things that I never thought I’d do.”

SDS Quotes: Graduate Apprenticeship

"Participating employers design academic study to their industry needs, so as well as delivering quicker and better returns in productivity they can also aid recruitment, retention and succession planning."

"As a company committed to developing its workforce Morgan Sindall is delighted to be part of the first phase of Graduate Apprenticeships, which carry on the earn-as-you-learn concept. Because it's tailored to our business's needs it has the potential to develop well-rounded individuals who are both academically and professionally qualified, with the skills to advance in a career in civil Engineering."

"Graduate Apprenticeships provide a structured development framework with qualification goals ahead. These goals can only be achieved through continuously increasing their contribution and value to the businesses for which they work."

Poland - This example shows how to cooperate to improve the legal framework for high quality work-based learning at employers:

In January 2015, the Minister of Education established an Advisory Council for VET. The members of this advisory body are representatives of ministries responsible for particular occupations taught at VET schools, representatives of employers' associations and the biggest education trade unions. The task of the Council is to give opinions and propose actions on improving employers' involvement in VET. The first outcome of the Council's work was its contribution to the amendment of regulation on practical training in an occupational field. The Minister of National Education and the Minister of Labour and Social Policy signed the

amended regulation on practical training in an occupational field in August 2015. The main aim was to extend the scope of practical training, provided by employers, to students who learn at technical schools and improve its quality. The main changes include: determining the types of contracts for work-based learning which can be signed with employers; defining the share of practical training for each type of VET schools in relation to the whole VET programme; providing employers with a possibility to influence the training programme to be carried by them; and providing information on organisational issues related to the arrangement of workplace learning.

Romania - assessing apprenticeship

Within a capacity building project, Ministry of Labour participated to an exercise of regulatory impact assessment for the national apprenticeship system in 2014-2015. Within the project, two surveys targeting employers and apprentices have been carried out for assessing the attractiveness and efficacy of the apprenticeship program. Dimensions taken into consideration in the assessment of the apprenticeship program are as follows:

COMPANY LEVEL	APPRENTICE LEVEL
→ knowledge and interest to take up apprentices,	→ motivations of apprentices for joining the program,
→ difficulties and barriers in taking up apprentices,	→ difficulties encountered,
→ sources considered for becoming involved in the apprenticeship program,	→ characteristics of training, modalities for assessing the learning process,
→ expected benefits	→ overall satisfaction with the apprenticeship experience and perceived benefits,
	→ wage
	→ employment prospects

d) at organization level

Poland: When it comes to the requirements concerning the workplace, the apprenticeship training can be provided only by employers who fulfil certain formal, technical, organisational and content conditions, enabling to fully realise the learning programme. The trainers mainly include craftsmen from different branches.

5. Strengths and weakness of the existing methodologies

The assessment of the strengths and weaknesses of current evaluation methodology revolves largely around the duality of quantitative and qualitative data. Also, formal assessment approach and Non-formal work-based assessment programmes is discussed.

	STRENGTHS	WEAKNESSES
Austria	<ul style="list-style-type: none"> - qualitative research is seen as “deeper”, producing more granular results -Results tend to be comparable and can be anchored on hard data points (like graduation, for example) to provide a reasonably objective picture 	<ul style="list-style-type: none"> -large investment of time (and financial resources) required to produce results -the diverse nature of VET in Austria with its focus on individual learning paths further compounds this issue and bears a real risk of distorting any conclusions that could potentially be drawn. -The tendency to only gather past data and a lack of insights into individual experiences - Insufficient objectivity, poor sample return rates, lack of skilled researchers, hurdles from privacy protection, difficulties with identifying impact indicators, incompatibility of macro- and micro-surveys, highly divergent criteria for success on an organisational level and diversity of the VET landscape.

<p>Scotland</p>	<ul style="list-style-type: none"> - formal assessment has outcome of completing the process and providing a fully qualified operator -the trainee gains expert vocational skills and acquires an extremely high level of training ‘on-the-job’ and is suitably monitored and supported by a professional expert and further supported by an external qualified assessor, and further monitored for quality of training by the external qualification body. - the Modern Apprenticeship programme encourages retention with an inspiring 92% of apprentices staying in work once qualified. <p>System has intensive assessment procedures, labour and paperwork to ensure the programme is conducted and performs correctly, registration with Skill sectors, Qualification Authorities, etc.</p>	<ul style="list-style-type: none"> - it can be expensive to operate, and costs can be high depending on the training Framework and Sector of training -non-formal assessment: it is non-paid, shorter training period, may not leads to full-time employment and does not provide formal qualifications in many cases.
<p>Poland</p>	<ul style="list-style-type: none"> -acquiring skills and knowledge in real life conditions; developing soft skills (such as: teamwork, managing stress, planning and organising work); a high level of trainers’ qualifications. 	<ul style="list-style-type: none"> -low awareness of the long-term benefits for the employer, including those concerning qualifications and skills of employees in the company; too little knowledge about the short-term benefits of cooperation with vocational schools; complex and lengthy procedures that accompany receiving the co-financing of training and reimbursement of employment cost of apprentices; difficulties in adjusting the programme of practical

		training to the actual capabilities of the employer.
Spain	<p>- Evaluation is mandatory: Since evaluation is a compulsory activity in training activities, an incipient culture of training evaluation has been created in the different agents that manage training. This is a positive step, because we have gone from being an exclusively compulsory tool to becoming a point of reference for managing training and other aspects related to human capital (training needs, quality of materials, etc.).</p> <p>- Positive perception of evaluation by training providers: The obligatory nature of training has meant that it is seen as not only positive but also necessary. For the agents involved in training, a certain culture of evaluation has been created (although still a minority), which leads us to consider this evaluation beyond the satisfaction and effectiveness of the training action.</p> <p>- Existence of specific staff who work in the field of information: It should be noted that the two previous ones have created the need to incorporate into the training teams an expert evaluator (person more focused on evaluation). This aspect will reinforce the importance of training in the</p>	<p>Lack of homogeneous criteria for evaluation: There is a clear lack of criteria for evaluation. Based on very general guidelines, each organization uses different criteria. This hinders a homogeneous reading of the training activities.</p> <p>Evaluation focused exclusively on the training period: The post-training period is forgotten, which is very relevant as these data are what will offer us the real impact of the training and its capacity to feed into the future training policy of the organization.</p> <p>Not too much time is devoted to evaluation: Lack of time spent evaluating beyond direct evaluation once the training activity ends. This affects the collection of data that is done automatically once the training activity ends, the main data are analyzed and forgotten.</p> <p>Collection of data: There is a wide variety of data collection. Most evaluators evaluate at the end through a questionnaire, with the limits it represents.</p> <p>Difficulty in accessing the data: There is a lot of data, collected by different administrations and it is usually very difficult to access the data, in addition to not being sufficiently standardized.</p> <p>Difficulty in exploiting the data: the lack of</p>

	company. However, this evaluator is usually an internal person who also manages the training, and for a personal interest is responsible for the evaluation. So many times it is learned and makes the evaluation not so effective.	time and the collection of data hinder this data can be exploited later and used to feedback training processes or influence the definition of training and employment policies.
Romania	- the existing methodologies of assessing work-linked training rely on rather holistic approaches that consider multiple dimensions that are well-adapted to the specific of the target group: characteristics of the training program and quality elements, difficulties, benefits, impacts, etc.	-except for quality assurance monitoring of the IVET, no systematic approach for assessing the work-linked programs exists -most of methodologies request a significant amount of resources (time, human, financial) -results of assessments are not very transparent for all interested stakeholders

5. Barriers and Gaps detected

Barriers:

Expensive; the cost and labour to deliver all assessment programme at national level	<p>Scotland (UK): The formal work-based model (although very efficient) is only viable if supported through High Level Funding from the Scottish Government, Employers Levy and other external employability grants such as ESF. Although efficient, it is a hugely expensive programme.</p> <p>Poland: the public sector, i.e. national public funds as well as European funds such as the ESF or the Lifelong Learning Programme/ Erasmus+ are the main source of finance.</p>
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It is necessary to engage employers and skill sectors	Scotland (UK): There is also the need to establish advisory boards for the development of standards and to ensure current standards maintained at a high level.
Lack of information	<p>Romania: Low number of generations of “graduates” of the work-linked training (especially, IVET) which makes more difficult for the assessment process to be implemented and validated</p> <p>Lack of available information about participants to work-linked training programs and opportunities</p> <p>Poor availability of administrative information on work-linked training programs and participants</p> <p>Low rate of response to questionnaires and interviews applied after the work-linked training program finished.</p>

Gaps:

need to increase frameworks across some sectors to meet demand	Scotland (UK): The Foundation and Graduate Apprenticeship models are relatively new, in 3rd and 2nd year of development and further engagement with both employers and trainees is necessary along with additional frameworks developed.
Benefits unknown	Poland: employers are reluctant to take on apprentices because they do not think the benefits outweigh the costs and because good-quality apprenticeships require large investments
Insufficient development	Romania: Work-linked training is still under development in Romania (recent introduction of dual education and apprenticeship) which makes more difficult for the assessment process to be implemented and validated
trainers/tutors interact	Poland: Optimally trainers/tutors are usually appointed

appropriately	by the company, although in Poland the vocational school has the right to assess whether the person is suitable for the training and the supervising duties involved.
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6. Key issues and needs in relation with assessment of work-linked training

In the view of to the analysis results and the contributions of the experts, there are many key points in relation to the evaluation of work-based training:

Competition to be a provider	Scotland: To deliver the work-based assessment programme you must be an approved provider or employer, it is a competitive bidding process to be a provider and the providers bid scored on past performance and efficiency of delivery.
Robust delivery programmes	Scotland: Observing a robust delivery programmes and Qualification Framework set by the Scottish Qualification Authority, Skills Development Scotland monitored by the Scottish Government Education system. <i>For non-formal word-based assessment, the data evidence and resources is not so robust and is seen more as the gaining of 'Soft-Skills' as much of the assessment is undertaken by non-vocational assessors.</i>
Need for approval: frameworks, minimum standards of competence	Scotland (UK): Frameworks are subject to approval by the appropriate Skill Sector Alliance comprising of Employers, Educationalist, Skills Development Scotland (SDS), the Scottish Qualification Authority and the Scottish Credit and Qualification Framework who level formal qualifications. Training packages meet a minimum standards of

	competence as defined by licensed Sector Skills Organisations or Standards Setting Organisations officially recognised by UK Commission for Employment and Skills (UKCES).
The need of better engagement of SMEs for apprenticeship assessment	Poland: report „Cooperation of vocational schools with employers” by National centre for supporting vocational and continuing education with adequate recommendations on national, regional, local and school levels. Organizations need support required mainly for funding opportunities, training alliances, brokerage consultation as well as assistance in formal handling of apprenticeship.
Involving employers in designing the educational offer	Poland: involving employers in identifying and forecasting skills and qualification needs of the labour market, which would constitute guidelines for vocational schools in designing their educational offer; • increasing the engagement of employers in organising practical training in VET and developing the cooperation of VET schools with HE institutions;
Encouraging traineeships for teachers and trainers in enterprises	Poland: fostering access to professional development of VET teachers and trainers
Skills gap and skills mismatch	Romania: Low rate of participation in VET of adults lead to lack of new skills required by the modern labour market, technological developments and new working environments. Complex changes in the Romanian economy means that a different mix of skills will be required in the future for the labour force.
Assessment of learning results and impact on employment	Romania: Graduates of IVET and apprenticeship programs undergo through an exam of assessment of their learning results. In this context, a methodology assessment needs to

	<p>analyse impacts on short and medium term at the level of employability, wage, career advancement, job mobility, productivity.</p> <p>Spain: To evaluate the acquired competences and their influence on the labour market: that is to say, to what extent the labour market has the capacity to assume these people (capillarity) and how, in turn, the labour market uses training to respond to their needs.</p>
Criteria, scope, data	<p>Spain: Include internal and external impact assessment criteria: Impact assessment needs to be included in a standardized way. And especially what happens after the training and how the results of the training are manifested in the labour market and in the training itself.</p> <p>Scope of the evaluation: clearly define the scope of the evaluation, which we evaluate and use the data that already exist and we have and complement them with others that can give added value to it.</p> <p>Comparable and verifiable data: It is necessary to obtain a set of comparable and verifiable data that help us to effectively evaluate training and its impact.</p>

7. The usage of ICT based tools for assessing the work-linked training

ICT based tools is useful in many fields: Volume, Individuality, and Integration

- a) ICT-based tools for evaluation would allow for evaluation of **large groups of trainees** without generating too much overhead. Here, the aid the tool can provide to the experts collecting data takes centre-stage: databank applications, central administration of privacy protection measures, automation-assisted qualitative interviewing and increased accessibility were mentioned. In addition, there is hope that other data sources, like pre-existing databanks, registers and other statistical data can in the future more easily be linked with each other and any prospective new tools.
- b) ICT-based tools permit to measure the success of VET on **an individual level** before, during and after the education process itself. By doing this it would be possible to assess existing competences and skills before training is begun in order to reduce drop-out rates and gauge the level of tutoring needed, check on the trainee during education and make changes to the learning path to facilitate the trainee's progress and gather granular, individual data on the trainee's further career to identify possible problems with the courses and adjust them accordingly.
- c) **Integrated approach.** Assessment at individual (competences, learning results), activity of providing (trainers, funds, employers) and permit coordination at national level (prognosis, up-dates).

In **Scotland (UK)**, there is an integrated system to allow all the **trainee results and details** to be uploaded and shared with the Training Provider and the Funders. This is backed-up with Training providers' in-house ICT systems to monitor the **trainees progress, attendance and general abilities**. A dedicated system (FIPS Funding Information and Processing System) is used to ensure the trainee details are correct, training providers are accessing the correct **funds**, it customizes **reports** and has a **national support team** in place to assist with problems and faults. Assessment information is recorded in the system and stored at national level and automatically generates reports on trainee progress and performance. ICT based tools helps the Scottish

Government monitor the overall effect of the programme and feed ideas back to the Training provider, employers and any external funders. The Scottish tool (FIPS) is used to monitor the overall programme and registers around 85,000 trainees at any one time. ICT tools are used to support the Training Providers, Employers, assessors and the staff who monitor the programme at both Regional and National levels and provides instant up-dates to the Scottish Government.

d) **Need for** integrated ICT based tools to facilitate the assessing process.

In Poland and Romania, there are some isolated initiatives undertaken that may assure the bases to improve the system and provide ICT tools.

In **Poland**, for instance, Społeczna Akademia Nauk (University of Social Sciences) in Lodz conducts project on developing so-called QualiTools presented during “Work-based Learning 2020” 3rd European Monitoring Conference NetWBL, 28 - 29 June 2016, Berlin. 20 quality tools transferred in QualiTools were developed, tested and evaluated in 3 EU projects (Resyfac, Qualivet, SEALLL) and identified as good practice in the network project QALLL. They will be supplemented with 30 additional tools and provided in an online database as free of charge, ready-to-use tools for quality improvement of VET with detailed descriptions & PDF materials all available for free on this website. To build QA capacity on how to apply the tools for practitioners, a face-to-face (f2f) training programme and webinar will be developed, implemented & evaluated in each partner country. Furthermore VET/QM managers in schools, colleges, and enterprises will receive a manager guideline on how to combine "classic" QM with a bottom-up approach and how to support ICT teachers/trainers in applying the QA tools in practice. A training programme on how to apply the guidelines in practice will be developed. For more, please see: <http://www.qualitools.net> .

Additionally, in **Romania**, considering the availability of information regarding the impact of training and the nature of the needed data, an ICT based tool for assessing work-linked training represents a valid approach for the matter at stake.

e) Better management of **data**: optimise data collection, standardize, access, continuous updating, data exploitation.

Spain: - Optimise data collection: Until now, the majority of people dedicated to evaluation collect data manually through questionnaires. The treatment of the data depends on the person who is managing them (whether or not they use an ICT tool for their collection and exploitation). The ICT tool will make it possible to optimise data collection and storage.

- Standardize data: All training providers and evaluators will be able to use standard data, which they themselves will customise depending on their needs.

- Access to data: Considering the amount of data that can be obtained it is necessary to access them to plan any aspect related to training and employability without a limited time.

- Continuous updating of these data: The use of ICTs will allow a continuous update of the data in a shorter period of time.

- Data exploitation: facilitates the exploitation of the data and its use in other areas of political decision making.

8. Conclusions and lesson learned (what could be useful for AT WORK project)

1. A holistic approach of assessment (social) impact of training evaluation

Austria – suggest a “modular” methodology

A holistic approach that aims to account for as many indicators / parameters and target groups as possible was repeatedly identified as the optimal outcome.

The suggested solution is a “**modular**” **methodology** that changes according to the type of education the **trainee** is in, the size of the **employer’s** business, whether one is trying to gather hard data on the present (warranting a quantitative approach) or make assumptions about **future** trends and developments (where a qualitative approach is more advisable) etc.

Such a “modular” methodology would have the added benefit of **flexibility**; it would be possible to modify **specific parts of the data** gathering process in order to respond to new questions without having to rework the whole or risk generating junk data from the sources for which these new questions are not applicable.

Scotland (UK) – suggest that a Modern programme have to be open to all-level-of-education persons

From an Employer and Trainee point, the most effective Work Based Learning programme is the formal processes developed through the Scottish Government Apprenticeship programmes.

- a) Modern Apprentice programme is open to **all trainees, school leavers and others interested in gaining a fulltime employment in a particular skill sector**. This programme allows for all levels of trainees to enter the programme.
- b) The other two Apprenticeship programmes are more selective: The Foundation Apprenticeship targets the **higher educated school leaver** who would normal aim to enter into Higher Education/University level training. This programme opens the door to encourage more young people to enter into vocational training leading to fulltime employment in a number of growth sectors (civil engineering, software development and financial services). Foundation Apprenticeships links to sectors of the Scottish economy, so young people are getting industry experience, which will help them kick-start a successful career in their chosen field (SDS).
- c) The Graduate Apprenticeship programme aims at encouraging employers to take on an apprentice for a longer period and take them through to degree level study. This programme intends to **equip employees and employers with a higher level of academic staff to support the growth of a company**. Employers can develop their workforce and support staff to develop their skills to industry and professional standards.

Poland - examples of good practice and reforms in the education sector

There are some that may lead to more systematic improvements in the future. For instance, Świętokrzyskie Voivodship participates in a pilot project for so called ‘Catching Up’ (low income & low growth) European Regions where work-linked training is identified as a **key factor for the socio-economic development within Lagging Regions Initiative**. In 2016, the World Bank started to implement technical assistance to the authorities of Świętokrzyskie

voivodship to support the work-based learning. Following the change of government in 2015 in Poland, extensive reforms in the education sector were announced at the end of 2015. The aim of the reforms is to raise the quality of education in upper secondary schools, including vocational schools. Under the education reform, starting from the 2017/2018 school year, Poland has returned to its previous system of eight-year elementary schools followed by four-year high schools or five-year technical schools. In addition, the school year **2014–2015 was declared as the 'Year of Vocational Schools'**, which was marked by a programme of improvement of the quality of vocational education. The sector, neglected and underfunded until recently, now has a chance to adjust to conditions in the contemporary labour market, both in Poland and in Europe. Efforts to increase the attractiveness and quality of vocational education in Poland are being made, however still systematic cooperation with companies remains an issue. The mismatch between qualifications required by the labour market and those provided by VET schools remains significant. The funding method for VET means that Powiat authorities fund VET programmes even if qualifications are not in demand, while it discourages them from funding vocational qualifications that are costlier to provide and often more in demand. However, within the framework of the current reform of vocational education it is planned to strengthen actions aimed at closer linking education with the labour market.

Spain: need to evaluate training and especially that which will have most **influence on the labour market.**

Although important steps have already been taken for the evaluation of training, it is necessary to continue deepening this aspect so that the lessons learned in the process have an impact beyond training. But other important aspects of it are forgotten, such as:

- What is the impact on the individual?
- What is the impact on the organizations where the training takes place?
- What is the impact on the environment of that individual and those organizations?
- Work-based training has a clear objective, to respond to the needs of the labour market and organisations in a fast and permeable way, adapting to changes in skills and occupations and offering quality and practical training to groups especially affected by their exclusion from the labour market. In this case the evaluation is presented as something key since it will allow us:
 - To know the competences acquired and their permeability in the labour market;

- To know the impact on the individual (improvement of their employability, increase in skills and knowledge, contribution to the organisation, etc.);
- Knowing the impact on their environment (how to assess this impact on employment, respond to the needs of the labour market, create new employment opportunities, etc.).

Romania –**suggest that the future tool** aiming to assess work-linked training programs should consider:

- Who are the main stakeholders' potential users of the assessment results
- The information needs of the relevant stakeholders
- To address various existing information gaps
- To provide key findings presented in a friendly manner
- To facilitate implication of various stakeholders in training domain.

Importance of work-based training for socio-economic environment and for involved persons and companies is essential. However, there is a considerable lack of tools assessing its social impact. Therefore, the AT WORK project is needed in order to address the identified gaps and challenges. **In the view of the results of the comparative analysis, the AT WORK tool for assessing the social impact of work-linked training will be based on a holistic approach, allowing the assessment to take place in key moments of the training, integrating multiple points of views (trainees, mentors) and enabling evaluation and results reporting at various levels (individual, program, national).**

Annex: Summary of interviews

Name and surname	Organisation
Puy Jimenez Fernandez Sesma	Fundación Laboral de la Construcción
M ^a Jesús Bascuñan Cogollos	Employment agency of Madrid
Montserrat García	Foro De Formación Y Ediciones
Maria José Soler	Fundación Santa María La Real
María Huertas de la Gándara	Fundacion Exit Madrid
Juan Carlos Tejeda	CEOE – Training director
Alexander Hölbl	Federal Ministry for Digitalization and Business Location
Robert Frasch	Independent expert on dual education
Roland Löffler	Austrian Institute for Vocational Education Research (ÖIBF)
Silvia Seyer-Weiß	Business Institute for Education Research (IBW)
Anna Sołtys	Instytut Nowych Technologii (Institute of New Technologies in Lodz)
Renata Figlewicz	Infosys BPO Ltd in Lodz
Rafał Nykiel	Team Coaching
Arkadiusz Trzuskowski	Łódzkie Centrum Doskonalenia Nauczycieli i Kształcenia Praktycznego (Lodz Center for Teachers' Training and Practical Education)
Elżbieta Czarnul	Wojewódzki Urząd Pracy (Regional Labour Office in Lodz)
Maggie Lennon	Bridges Programme
Douglas Taylor	Yoker Community Campus
Kenneth Stevenson	Work Based Learning Group (CDN)
Maria Roushias	Work Based Learning Group (CDN)
Diana Mitu	Independent expert on training, trainer
Elena Baboi	National Agency for Employment
Speranta Pirciog	Scientific Manager of National Research Institute for Labour and Social Protection
Adrian Stoica	Stefanini ADC Romania

References

1. ALIANZA PARA LA FP DUAL (2017): Propuestas de regulación Mejoras en el marco legal para garantizar el desarrollo de una Formación Profesional Dual sólida y de calidad
2. Apprenticeship-type schemes and structured work-based learning programmes Poland, FFW (2014),
3. BIENCINTO, C. Y CARBALLO, R. (2004). Revisión de modelos de evaluación del impacto de la formación en el ámbito sanitario: de lo general a lo específico. RELIEVE: v. 10, n. 2, p. 101-116 ,
4. CAMARAS DE COMERCIO (et al) (2014). Guía para la formación dual,
5. CEDEFOP (2015) Wspieranie kształcenia dorosłych.
6. Cedefop (2016). Vocational Education and Training in Europe – Romania,
7. Cedefop (2018). Developments in vocational education and training policy in 2015-17: Romania. Cedefop monitoring and analysis of VET policies,
8. Cedefop, Statistical overviews on VET – Romania
<http://www.cedefop.europa.eu/en/publications-and-resources/country-reports/statistical-overviews-vet-romania> ,
9. High-performance apprenticeships & work-based learning: 20 guiding principles, European Commission, Brussels (2017),
10. Jak dostrzec zmianę społeczną, czyli o mierzeniu wpływu społecznego w NESsT,
11. Kryteria Oceniania Przedmiotów Zawodowych w podmiotach przyjmujących, CDN Piła (2014),
12. National Report on Apprenticeship in Poland, OIC Foundation (2017),
13. NESsT Poland, Warszawa (2015),
14. NetWBL Needs and Gaps Report, NetWBL (2016),
15. Ocenianie uczniów z przedmiotu PRAKTYKA ZAWODOWA, Szkoły Ekonomiczno-Handlowe im. Macierzy Szkolnej, Gdańsk (2011),
16. Organizowanie praktycznej nauki zawodu od 1 września 2017, Portal Kadrowy (2017),
17. Pracodawca – kluczowy partner w kształceniu zawodowym, MEN (2017),
18. Quali Tools, SAN (2016),
19. REGO AGRASO, L, BARREIRA CERQUEIRAS; E.M., RIAL SÁNCHEZ, A.F. (2015): Formación profesional dual: comparativa entre el sistema alemán y el incipiente modelo español en Revista Española de Educación Comparada, 25 (2015), 149-166,
20. Rozwój kształcenia w miejscu pracy jako instrumentu doskonalenia kształcenia zawodowego w województwie świętokrzyskim, Poland Catching Up Regions, International Bank for Reconstruction and Development / The World Bank, Washington DC (2017),
21. Standardy Jakości Kształcenia zawodowego. Szkoła zawodowa pozytywnego wyboru, KOWEŻiU, Warszawa (2013),
22. TEJADA FERNÁNDEZ, J.; FERNÁNDEZ LA FUENTE, E. (2007): La evaluación del impacto de la formación como estrategia de mejora en las organizaciones en REDIE, Vol. 9 Numero 2,
23. Work Based Learning, FRSE (2015),
24. Work-Based Learning 2020, NetWBL, Berlin (2016),
25. Work-based Learning in Poland, Hanzeatycka Szkoła Zarządzania, Słupsk (2015).