



Comparative Report A (IO1)

WORK-BASED-LEARNING (WBL) AND TRAINING OF TRAINERS
(TOT) IN SPAIN, GERMANY, LITHUANIAN AND ITALY
ANDREAS SANITER (ITB UNI BREMEN) AND THE STEP-UP TEAM



Erasmus+

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1. Introduction

The Erasmus+ Project “STEP -UP Supporting Tutors Educational Profile” endorses a consistent strategy to impact on expected objectives and realises a wide range of activities, events and outputs (IO). In particular, the project involves the realization of four outputs; each of them is coordinated by a leader who, in cooperation with the other partners, contributes to achieve the project objectives.

Throughout this first output of the project, a comparative analysis, project partners gather apparent good practices and methodological approaches successfully implemented in Europe. The output produced will enable partners to build up the backbone framework for the STEP-UP Learning Training of Trainers (ToT).

This first output concerns the analysis and selection of good practices of technical, pedagogical competences and innovative approaches for the training of trainers, tutors and staff engaged into WBL practices:

- on comparing relevant aspects of VET-systems,
- on analysing apparent good practice of tutors at workplaces, where elements of digitalization are already in place,
- on analysing actual roles profile of in-company tutors involved in WBL path with particular focus on pedagogical competence requirements,
- on analysing of existing “train the trainer” approaches: outcomes of European projects, national strategies, existing training programs, and recommendations will be part of the respective national reports as well.

STEP UP moves from the assumption that there is a direct link between the effectiveness of Work-Based Learning (WBL) schemes and the pedagogical skills detained by all the different professionals involved in the planning, performance, follow up and evaluation of these paths.

Particularly important issues surround the development of pedagogical skills for in-company trainers in order to be adequately equipped for new or expanded roles – poorly skilled trainers or tutors hamper the effectiveness and quality of WBL in Europe and in particular in the four Countries (Lithuania, Italy, Spain, and Germany) targeted.

Teachers and trainers play an indispensable role in high quality apprenticeships. In-company trainers should be designated for apprenticeships, and they should be supported appropriately in this task. They should cooperate closely with vocational education and training providers and teachers to guide apprentices. A particularly important question surrounds the development of pedagogical skills for in-company trainers, although actions taken by Member States also demonstrate that also teachers may need support in order to be adequately equipped for new or expanded roles in respect of apprenticeships. Continuing professional development, however, often seems to be a neglected area for both teachers and in-company trainers. This aspect is a great challenge for quality in apprenticeships in terms of the cost for both public sector and enterprises of ensuring the supply of sufficiently competent teachers and trainers. Pedagogically skilled in-company trainers are a precondition for accreditation of WBL in some countries. This cooperation should furthermore be supported by mutual and regular feedback mechanisms.

Monitoring, how the learning outcomes are reached, should take place through continued monitoring systems, in which both teachers and in-company trainers cooperate. In particular, the assessment of apprentices during their time in the workplace should not be neglected even in school-based systems. In many countries, teachers and schools have been given a role in overseeing workplace assessment practices, but this task could also be assigned to the workplace. This suggests that the issue of assessment should be thoroughly reflected.

This project aims at developing and testing a new pedagogical model for preparation, training and support of in-company trainers. This aim is substantiated in the renewed role of in-company trainers who are involved in linking the two learning contexts (school and WBL). Additionally, step-up aims at a new way of accompanying companies; so that they can acquire more training skills and consequently greater formative responsibility.

With the expansion of apprenticeship, WBL and other dual education schemes supported by EU initiatives like the European Alliance for Apprenticeships (EAfA) and by reforms of national Technical Vocational Education and Training (TVET) systems promoted in many EU Member States (MS), more companies need support to ensure the development and improvement of competences, especially new digital competences of potential apprentice tutors.

Improving continuing professional development of in-company trainers, tutors and mentors has been on the EU policy agenda for some years but it becomes now even more important in the context of the increased policy attention (EC 2010-2012, Teachers and Training Matter EC 2018)

The country reports as well as the comparative report, focus on those primary aspects:

- Main structures of WBL Paths: aims, learning venues, alternation, and cooperation, stakeholders involved and their main tasks, funding and juridical issues, structures of curricula, examinations, approaches, involvement of research in development of the system
- Trainer/mentor training, how are trainers/mentors chosen, level of trainer/mentor training, quality standards/assessment
- Digitalized work and learning stations, learning potentials and tutoring activities
- Examples of apparent good practices of reacting within training of trainers/tutors on challenges induced by digitalization.

To reduce the amount of pages of this comparative report, findings on the latter two questions are published in separate documents.

2. WBL-based VET systems

a. Aims and main structures of the national WBL-based VET (sub-) systems

The Vocational Training Act¹ defines aims and main structures of VET in **Germany**. It was originally passed in 1969, the first amendment was made in 2005 and in order to modernize and strengthen it, it was amended for the second time in January 2020.

The aims and main structures are still as follows:

“§1 Aims and terms in vocational education:

- (1) For the purposes of this Act, the term “vocational training” shall mean vocational training preparation, initial training, further training and retraining.
- (2) Vocational training preparation shall serve to impart basic skills a changing working world. Initial training shall also enable trainees to acquire the necessary occupational experience.
- (4) Further training shall enable individuals to maintain and upgrade or broaden their vocational competence and advance their careers.
- (5) Retraining shall qualify individuals for another form of occupational activity.”

(BIBB 2005, page 4)

The last amendment (2020) of the Vocational Training Act mentioned above affect five areas:

- Introducing a minimum training wage for apprentices
- Underlining equivalence to academic qualifications
- Expanding part-time vocational training to new target groups
- Facilitating recognition of prior VET learning
- Further reduction of administrative burdens

required for the acquisition of vocational competence and thus facilitate placement in initial training in a recognized training occupation.

(3) Initial training shall, through a systematic training programme, impart the vocational skills, knowledge and qualifications (vocational competence) necessary to engage in a form of skilled occupational activity in

Dual training

Dual vocational training takes basically place at two learning venues: a company (approx. 70%) and a VET school (approx. 30%). The duration of vocational training in the dual system varies depending on the occupation chosen between two and three and a half years. There are no formal admission requirements for access to training in the dual system; training in the dual system is generally open to everybody. However, the majority of apprentices have a middle education degree or even a higher education entrance qualification when they start their apprenticeship.

An important update of not the law, but of the curricula of the 11 German industrial electronic and metal vocations took place in 2018:

¹ Berufsbildungsgesetz (BBiG)

“Digitalisation of work, data protection and information security have all now become integral components of training. Various optional additional qualifications will also enable companies occupying different positions within the digitalisation process to take a targeted approach to establishing competencies in order to embrace the digital shift. **The amendments enter into force on 1 August 2018.**” (BIBB 2018)

The optional additional qualifications are the following:

- Digitalisation of work, data protection and information security (all vocations)
- Digital networks (mechatronic and electronic vocations)
- Programming (mechatronic and electronic vocations)
- IT-security (mechatronic and electronic vocations)
- Integrated system (mechanical vocations)
- Process integration (mechanical vocations)
- Additive manufacturing (mechatronic and mechanical vocations)

Initial VET system of **Lithuania** is a school-based system. From 1990 the work-based training was more applied for the training of unemployed and job seekers and in the continuing vocational training executed by the enterprises. Apprenticeship has been introduced as alternative pathway of the initial VET by the Amendment of the VET law in 1997. The law amending the Vocational Training Act in 2007 introduced dual training as an alternative to primary schooling in Lithuania. This law defines apprenticeship training as a form of organizing vocational training at the workplace in the company, in the office, in an organization or with an independent master, if the theoretical training can take place in the vocational training institution or at another school. Dual education has always been seen by policy makers as an attractive model for reforming initial vocational training in Lithuania. However, the social, economic and institutional requirements pose a major challenge when designing and implementing such a training model. The main goal of the introduction of dual apprenticeship in 2007 and its further promotion by the amendment of legislation in 2017 is to approach the initial VET to the needs of labour market by reducing skill mismatches and improving the image of VET in society. The skills shortages caused by emigration which achieved its highest points in the post-crisis period (2014-2016) also contributed to the increasing interest of Government and businesses to develop apprenticeship and work-based learning as measures of development of the loyal workforce.

Italian WBL approaches within VET system has been regularly established, through the mandatory internships activities, according to different Regional Laws. (i.e. in Piedmont Region law n°63/1995)

In the year 2015 **two big national laws** introduced in a more structured way WBL approaches (towards apprenticeship contract, "alternating school work", simulating training company) all over Italy and in all types of educational and VET system, introducing the so-called Italian Dual System (Jobs Act, Legislative Decree no. 81/2015, Law no. 107/2015)

Apprenticeship is divided into three types:

- apprenticeship for the qualification and professional diploma, the upper secondary education diploma and the certificate of higher technical specialization, for young people from the age of 15 to the age of 25, aimed at achieving one of the above-mentioned qualifications;

- professionalising apprenticeship, for young people aged 18 to 29, aimed at learning a trade and obtaining a professional qualification under collective bargaining;
- apprenticeship in higher education and research, for young people aged 18 to 29 years old, aimed at obtaining university and higher education qualifications (degree), including PhDs, diplomas relating to the pathways to higher technical colleges, for research activities as well as apprenticeships for access to ordinary professions.

The experimentation of the Dual System, introduced by a specific Agreement approved in September 2019 by the State-Regions Conference, will allow in a two-year period about 60 thousand young people to obtain a qualification and/or a professional diploma through training courses that provide an effective alternation between training and work.

The Ministry of Labour and Social Policy through Italia Lavoro has published a public notice to select 300 vocational training centres that will concretely carry out the experimentation in Italy in the vocational education and training sector.

According to this experimentation, students involved in dual-system path are the 13,4 % of Italian IVET students.

Most of them 54,3% are students in IVET degree course, while in IVET qualification course are within 10%.

This seems to indicate a certain correspondence, by the regional administrations, to the logic underlying the policy maker experimentation, which consists in the development of a particularly "robust" alternation system, aimed at facilitating the insertion in the labour market of the more adult user, for whom a more work-based learning is more suitable.

Finally, it is relevant how the apprenticeship was introduced in a way that homogeneous from north to south, with no territorial gaps, despite the specific features of the local labour market. This trend is symptomatic of a progressive structural absorption of this training technique into the VET system. However, if we look at the number of pupils actually involved in apprenticeship courses we notice a rather national scenario varied. In some regional contexts, in fact, apprenticeship is evolving from an occasional, and often fortuitous, option to an educational model of VET, while in other regions the number of apprentices is still pretty little or almost nothing.

The basic structure of the **Spanish** educational system, which includes VET studies, is determined by the Educational Law LOE (*Organic Law 2/2006 of May 3rd*), with the modifications included in the LOMCE (*Organic Law 8/2013 of December 9th*). This law also aims to promote the option of professional learning as an option for personal and professional development. It proposes as objectives the modernization of the offer of courses, its adaptation to the requirements of the different productive sectors, the involvement of companies in the training process, especially in Dual VET, and the search for an approach to the models of other countries with less youth unemployment.

In Spain, WBL is especially concentrated in Dual VET studies. Therefore, according to *Maria Angeles Caballero and Pep Lozano*, the main WBL objectives related to Dual VET are:

- Transfer part of the training content to the workplace and allow companies to take a more active role in training the apprentice.
- Facilitate access to the labour market and bring the student closer to the workplace.

- Train its future workers and achieve a generational change that allows the company to maintain and / or improve its position in a market increasingly influenced by new technologies and in permanent change.
- Generate wealth and prestige for the company.

Regarding VET studies, the Spanish education system includes the following subsystems:

1. VET SYSTEM

A. Initial VET level: these programmes are available in the last year of Compulsory Secondary Education (ESO), to learners aged 15-16. They allow students at risk of leaving education without qualifications to develop their basic skills, to be prepared for an occupation (ex. kitchen assistant, gardening...), and obtain an Initial VET qualification. Students may move on to upper secondary VET and, in some cases attaining the ESO opens up the general education path.

B. Intermediate VET level: the programmes can begin at age 16, after the end of compulsory education. These lead to technician qualifications (ex. Cookery and gastronomy, emergencies and civil protection...). It is accessed from Compulsory Secondary Education (ESO), or through an exam.

C. Higher VET level: these programmes lead to an advanced technician qualification such as logistics coordinator, 3D animations and games... Graduates can progress to bachelor programmes through an admission procedure.

D. Specialization courses: specific training programmes (500-600 hours) in image and sounds studies, and chemistry. Currently only these two courses exist.

E. Dual VET system: is relatively new in Spain. Part of the training is developed in an educational centre and another part in a company, but all the contents are evaluable.

There are 26 professional areas of VET divided by activity sector that group the 183 training courses (34 Initial VET, 60 Intermediate VET, 87 Higher VET, 2 Specialization courses) present throughout the country, although the offer may change depending on the needs of companies. Most of the VET courses last 2.000 hours, and are normally divided in 2 school years, although there are more and more Autonomous Communities that offer 3 school years VET courses. Not all the Spanish schools offer DUAL VET studies (890 centres of the 3.739 registered, source: Ministry of Education).

2. VET FOR EMPLOYMENT

The Vocational Training for Employment is the responsibility of the Ministry of Labour, Migration and Social Security (MITRAMISS), and the Autonomous Communities. It includes different training programs aimed at both employed and unemployed workers, with the objective of improving the employability of the population through training. The different initiatives of VET for employment are free for the workers (employed or unemployed).

A. The training programmed by companies for their workers is financed by discounts on the fees they pay to Social Security.

B. The training offer for employed workers, through public calls, consisting of sectoral training programs and cross-curricular training programs for employed and self-employed workers, including those working in the social economy (cooperatives).

C. Training plans for unemployed people, aimed at meeting the needs identified by public employment services and specific training programs. They are financed through public calls.

D. Other professional training initiatives for employment, such as individual training permits (PIF), training in alternation with employment, the training for public workers, or the training of people in prison, among others.

E. Occupational certificates programs: are under the Ministry of Employment through the SEPE (national public employment service) and/or the Education Administration of each Autonomous Community. The VET certificates are official, have academic and professional validity throughout the national territory, and are issued by the Ministry of Education. The occupational certificates are official, have only professional validity throughout the national territory, and are issued by the SEPE and the competent organism of the Autonomous Communities.

In all four countries work-based learning (WBL) is seen as a promising approach of closing the gap between school-based VET-programmes and labour market needs; to “bring the student closer to the workplace” (cp. ES part).

But Germany is the only country where WBL in form of the dual system is established, the other three countries are still developing their approaches or are experimenting. In Germany the dual system is established in all regions, sectors (except: health care, education and science-assistants due to historic reasons) and with standard stakeholders. Lithuania has chosen a comparable approach for reforming IVET. On the other hand, Italy and Spain are experimenting with various types of WBL, e.g. the division between “VET-system” and “VET for employment” (and each with many sub-types) in Spain. Additionally, in both countries VET is (due to the federal structure) part of the duties of the regions; engagement for WBL depends strongly on the federal governments.

b. Learning venues, alternation, and cooperation

In **Germany** are three venues within the dual training which are defined by §2 “Learning venues” of the Vocational Training Act (BBlG). It says:

“§ 2 dual training is performed:

1. in companies, a comparable facility outside of the economy, especially public services, freelancer and households [...],
2. in VET schools and
3. Independent professional training organizations beside VET schools and in-company vocational training (inter-company vocational training).

(2) The learning venues mentioned in paragraph 1 work together (cooperation of learning venues).

(3) The vocational training may be overseas, if the educational purpose is given. The total duration should not exceed one quarter of the training period stipulated in the training regulation.”

(BIBB 2005, page 4)

During **in-company training**, the apprentice is involved in real work processes and can thus better understand workflows. In-company training should be executed systematically if possible. For this purpose, there is a training framework plan for every apprenticeship occupation, which should be adhered to. The trainee should be given tasks that he can master and learn from them.

The company must provide:

„Adequate equipment (premises, machines etc.) appropriate ratio of apprentices, traineeships and professionals. Involved trainers must prove that they have personal and professional suitability, appropriate occupational, vocational and educational work skills, knowledge and skills.“

(Ordinance of trainer aptitude, AEVO)

At **VET schools** the apprentice learns the theoretical knowledge and skills needed in his profession. VET schools stick to the so-called outline curriculum of the secretariat of the Standing Conference of the Ministers.

The **inter-company training** is meant to be an additional place of learning next to the company. Since not all companies are able to convey all contents of the training framework plan, the inter-company trainings should raise quality of training. The participation of apprentices in inter-company measures is mandatory. Unless the costs are not covered otherwise, the employer pays them.

Usually apprentices are two days a week in school and 3 days in company in their 1st year, in the 2nd and 3rd year one day in a VET school and four days in company. Alternatively block-schooling is provided; alternating for example between one month in school and three months in company. Which of the alternatives is chosen depends on the amount of apprentices with this profile in the region; if the nearest VET school offering this profile is too far away to commute on a daily basis, usually block-schooling is provided.

In **Lithuania**, there can be distinguished three main learning venues of apprenticeship training: VET centre, sectoral practical training centre and enterprise.

VET centre provides the students with relevant theoretical knowledge and basic practical skills.

Using aid from EU Structural Funds, practical training centres for relevant branches of industry (sectoral practical training centres) equipped with modern facilities are being established at institutions of vocational education and training. There are established 42 sectoral practical training centres. They are used not only by students of vocational education and training institutions, but also by students of universities and colleges. The sectoral practical training centre – is a vocational education and training institution or a division thereof providing initial and continuing vocational education and training services to all residents of Lithuania and equipped with modern practical training facilities for one or several branches of industry. Sectoral practical training centres provide the possibility for VET students to acquire and develop practical skills in the real workplace environment.

Enterprises provide the students with the practical skills of different work processes by work-based learning stipulated by apprenticeship contracts.

In **Italy** two main learning venues of WBL training can be distinguished: VET centres and enterprises.

VET centre provides the students with theoretical knowledge and practical skills. Regional accreditation systems establish the appropriate requirements for laboratories instruments and

equipment that must be available all along the learning path. European Social Fund is used in order to provide appropriate furniture.

Enterprises provide the students with the practical skills of different work processes by work-based learning.

Learning issues are settled within WBL-contract and learning agreements. For dual apprentices, law documents are:

- a protocol, drawn up on the basis of the scheme approved by the inter-ministerial decree of 12 October 2015, which defines the content, duration and educational organization of internal and external training for the company and also the type of recipients of the contract
- job contract
- Individual Training Plan

The duration of the planned annual training, also reported in the Individual Training Plan (PFI), is determined in consideration of the qualification or diploma to be obtained.

Training outside the company is given in the VET centre to which the apprentice is enrolled and cannot exceed 60% of the school timetable for the second year and 50% for the third and fourth year, as well as for the following year aimed at obtaining the technical specialization certificate. Each Regional Administration is responsible for identifying the minimum standards for the apprenticeship contract, including the number of hours of external training (to be carried out within the training and educational institutions) and the evaluation methods.

In **Spain** in general, the first course of VET studies is developed in the VET Schools, and the second course is mixed between VET Schools and companies. Normally, companies do not have classrooms or spaces dedicated to training apprentices, but rather work in real environments, with the machines and tools used by the workers themselves, although there are exceptions.

For example, the **SEAT** Company has its own training school where students can obtain official VET certificates, and carry out 100% of the studies in the facilities themselves. **Gestamp** company has its own research centres (**Gestamp Technology Institute**) where workers can be trained in new technologies, but they cannot obtain official VET certificates. **Amazon** Is in talks with Salesians Barcelona for implementing a Dual VET course in mechatronics with a duration of 3 years, part of the learning will carry out in the Salesians Schools of Barcelona (Sarria and Sant Vicenç) and part in the premises of Amazon in Barcelona.

There are also cases of companies transferring their tools to VET-schools for the use of apprentices, in exchange for using their facilities to train workers. Thus, the school has the latest technology and the company has a preferential option to hire trainees who have used its tools. Example: in October 2018, the Austrian company **TGW Logistics Group** and the Salesian VET School Sant Vicenç dels Horts signed an agreement: TGW installed a logistics loop in a classroom that simulates a logistics warehouse.

Finally, there are the **Centros de Referencia Nacional**, centres of innovation and experimentation that act as an institution at the service of VET to facilitate their competitiveness and quality, and respond to changes in the demand for qualification of the productive sectors. They are distinguished by programming and executing innovative, experimental and formative actions in terms of training for employment, in the field of the productive sector that they have been assigned, so that they serve as a reference to the whole National System of Qualifications and Professional Training for development of VET system.

All countries combine three learning venues: work-processes in a company, workshops and classes. Partly (but not systematically) two of these venues are at one place: often VET-school and workshop are combined to a “VET-centre” or huge German companies run own workshops on their premises as part of their training department.

c. VET governance and stakeholders involved

In **Germany** the division of tasks can be sketched as follows:

State: Sets only the frame of apprenticeships, like:

- youth-protection (e.g. no night-shifts for youth under 18),
- mandatory amount of school-lessions
- possible structures of curricula, e. g. mono-vocation, different core areas (partly different curricula but common examination), special fields (partly different curricula and different examination)
- possible duration of apprenticeships, law states “either 24 or 36 months”
- the relatively high amount of profiles (54) that last 42 months (besides others all important profiles in metal and electrical industry) refers to an exemption clause; but this exemption became the rule; social partners argue that modern vocations need longer learning times
- internal flexibility, e. g. weeks to be spent on a vocational position are only recommendations; minor deviations are allowed or the possibility to “spend up to 1/3 of apprenticeship in a suited learning environment in a foreign country.”

Employers: Responsible for contracting, supervising, and training; each company which is interested in participating in the apprenticeship program must employ at least one person with a “trainer aptitude” (Ausbildereignung, AeVO) certificate (i.e. a qualified trainer holding an AeVO trainer license). This certificate is an integral part of master craftsmen degrees in all sectors; so usually this is no obstacle in industry; but partly in small enterprises.

Employers' organizations resp. trade unions: Are responsible for curriculum design of in-company part of apprenticeship, moderated by a representative from federal institute for VET (BIBB). They name assessors for final examination board (par/par + 1 teacher). Additionally, they negotiate the wages of apprentices.

Trade unions resp. workers' council: Control fair balance between learning and working of apprentices. Large companies (with more than 5 employees < 18 years or apprentices) have to establish own “youth and apprenticeship councils” (JAV) within their workers’ councils.

Apprentices: Have to apply for vacant placements (supported by parents, teachers, and employment agency) and to use their best endeavours to reach the aims of apprenticeship. Apprentices with good grades have the option to shorten apprenticeship by 6 months.

VET schools: Are responsible for teaching knowledge related to vocational and general education, for the development of school-part of curriculum, and the examinations on Learning Outcomes (LO) from schools.

Chambers (Chamber of Industry and Commerce / Chamber of Crafts): Verify whether a company is allowed to take part in apprenticeship or not. Administrate apprenticeship in the region and organize and supervise final examinations.

After the restoration of the independent **Lithuanian** state in 1990 and the introduction of market relationships, employers became very interested in practical training or apprenticeships. However, this interest was mainly driven by the intention to use cheap labour and to remedy current labour shortages.

Most Lithuanian companies primarily see training and skills development as a source of costs. In order to minimize the funding and the volume of the training in different ways, the qualification is concentrated and limited to "strategic" personnel such as managers, engineers, technology developers. Funding is restricted for other training opportunities and for other groups of people. This approach was not favourable for the introduction of apprenticeship practices in Lithuanian companies. Probably one of the legacies of the planned economy system is the attitude of employers that the primary responsibility and even sole responsibility for the preparation of fully qualified ("plug-in-and-play") workers lies with the initial vocational training institutions that employers of exempt all obligations in the area of training.

Italy

Companies

The apprenticeship introduces a polarisation between formal training and work. This is, among other things, the basis on which financial incentives to enterprises are determined: no remuneration is provided for external training hours; remuneration is reduced to 10% for internal training time; full remuneration is paid for the work component.

In addition to a general lack of information and knowledge about the scheme, there is little evidence of the potential benefits of this type of apprenticeship.

Training institutions: for classroom training.

Due to the rationale and organisation of apprenticeship for the vocational qualification and diploma, upper secondary education diploma and certificate of higher technical specialisation, there are no clear guidelines on the organisation of the curriculum, the final examination and how to adapt the curricula for school curricula and VET qualifications to the individual training plan of the apprentice.

This activity is in charge of the training institution that can develop and adapt curriculum according to specific accreditation systems.

Labour consultant:

The Labour Consultant plays a central role in the dynamics of work, promoting the development of business economic processes and the management of human resources. Unfortunately, they often have limited knowledge of dual apprenticeships, and this aspect may cause problems in spreading the use of this learning contract.

Ministry of Labour and Regions: donors

In 2017, regional administrations were involved in testing the dual system in Italy regional 101,343,935 euros of which 65,853,218 euros financed by the Ministry of Labour and Social Policy.

After national experimentation, findings from Ministry of Labour and Social Policy have been confirmed, year by year within National Economic Plan. This founding mechanism doesn't give stability to dual system path.

Social partners:

The social partners that are comparatively more representative at regional level, as they are carriers of collective interests relating to both the employer side and the workers' side contribute to the definition of the model through comparison with the Regional Administration.

A. The school: tutor in the school.

In the case of the **Spanish** Dual VET system, the school works together with the company in order to define the qualification needs to define which training to request from the administration. The school chooses one of the teachers as a tutor in charge of scheduling and following the learning and practical training together with the tutor of the company.

The requirements to the initial training to become a teacher of non-university programmes are the same throughout the entire State (*Royal Decree 1834/2008*): a university degree, although the type of degree and number of qualifications, one or two, depend on the educational level taught. Thus, for secondary level teachers, both general and VET, two qualifications are required: university degree and a master degree (University Master's Degree in teacher training for compulsory secondary education, upper secondary education, VET, and language teaching).

A period of internship training at an education centre is compulsory, but its duration differs depending on the level. Practical training for new teachers is increasingly gaining importance in alignment with the practices of our European neighbours.

For tutors of on-line VET courses, in addition to the above, they must prove their digital competencies or experience in this type of teaching, and they must be open to carry out mandatory tutorials during the student learning process since this type of teaching requires continuous monitoring to ensure the quality of student learning (Spanish Ministry of Employment and Social Security, 2013).

B. Students-Apprentices.

If a student wants to study a VET course in Spain, he must request his enrolment in a VET school that provides it, and if he/she meets the requirements and there are enough places, he/she can start the training. The VET system allows the students to apply their knowledge in a practical way and in a real working environment, especially in the Dual VET system. In addition, it shortens the time of adaptation to the working environment in an internship or training in companies, a fact that adds experience in their CV and give them the possibility to be contracted by the training company. In the Dual VET system, the students-apprentices have the educational requirements of the school and on the other hand the educational/labour commitment with the company.

C. The company: tutor in the company.

In the Dual VET system, the company plans together with the school the contents of the training; participates in the recruitment of apprentices; in case the apprentice receives a salary, the company is responsible for setting a fair payment and for contributing to Social Security according to the type of contract; selects the right workers to be tutors, trains them, and gives them the necessary resources to develop their duties; trains the apprentices according to their course, and shares information about labour risks prevention.

The tutor of the company is the worker who trains the student-apprentice and has contact with the school. Normally, it will be a person from HR department or the department of the field of work where the apprentice is accepted. The company's tutors are professionals with huge experience backed by years of work, experts in their field of work. They don't need to have teaching qualifications, although they may have had the opportunity to work in teaching students before.

D. Chambers of Commerce.

In Spain, the structure of VET is different from that of other European countries, since the educational administrations are the ones that deal with the definition, improvement and supervision of the system. However, there is a specific regulation that previses that the Chambers of Commerce and / or Business Organizations develop functions related to the selection and validation of workplaces and companies, designation and training of tutors, control and evaluation of program compliance.

In the **VET for Employment** studies, we also have the following stakeholders:

A. Public Employment Service (SEPE) and Employment Services of the Autonomous Communities. Public entities that authorize and supervise the trainings, grant the courses, and do the monitoring and evaluation.

B. Students. They can be unemployed people, workers, and self-employed workers.

C. Training Centres. They may be the National Reference Training Centres, which are centres specialized in a professional family and apart from providing training, they are also in charge of the revision of the VET courses and occupational certificates.

Regarding the involved stakeholders, it is remarkable that only Spain and Germany refer to learners (apprentices/VET-students). They, as actors, must apply for a WBL VET-programme; whilst in Lithuania and Italy these programmes are seen as part of the (state-driven) educational system and thus learners more as objects than as subjects. Another remarkable difference is the role of the state (whether on regional or national level): in Germany public bodies are only in charge of the framework of work-based learning; in the other three countries the state or regional institutions play a much bigger role; e.g. in curricula design, examinations or funding (see also below). Or, to put it different, the role of the social partners: in Germany they are responsible for curricula design and examinations – trade unions are not even mentioned as relevant actors in the national reports of the other three countries.

d. Funding of VET

In **Germany** In-company training and workshops are funded by the company the apprentice works for.

Wages/training allowances of apprentices vary significantly between the occupations and also a little within the companies sometimes (e.g. plumber: 500€ 1st year, 550€ 2nd year, 650€ 3rd year;

approx. 1/3 of starting salary of a skilled worker of ~ 1600€; banker: 970€ 1st year, 1030€ 2nd year, 1093€ 3rd year; approx. starting salary 2400€) and are borne by companies.

Company-independent workshops (external courses) are partly supported by state / region.

VET schools - as all schools in Germany- are financed by the Federal Countries (Bundesländer). Chambers are financed by companies (mandatory membership).

According to the Law on Vocational Education and Training of the Republic of **Lithuania**, vocational training is financed from the state budget, the municipal budget, the employment fund and the social partners. The flow of funds must be lawful. The funds generally come from: training funds, agricultural funds, means for assessing skills, material support funds, investment funds for the development of vocational training and qualification systems, as well as career guidance funds. Basic vocational training is financed from state and municipal budgets. Continuing vocational training is carried out at the expense of the company or the outsourced institution, with the exception of training for the unemployed or those rejected by the employment fund.

On August 28, 2019, the Government of the Republic of Lithuania adopted a resolution to change the funding method for VET. The principle that the means are calculated per student remains. The main change is that instead of hours, "credit points" are counted in vocational training. The resolution states that the volume of the one-year formal VET program is 60 learning points. If the program has less than 60 credits or the student is studying in modules, the funding allocated to them is calculated based on the number of credits. This way of calculating funds is more flexible - a person can acquire the necessary skills by selecting individual modules. The new methodology also promotes apprenticeship training (company training). If the trainee is teaching, the funding increases by 25%. The methodology also more accurately calculates the resources needed for teaching because it takes into account the actual number of students in the study group. This principle reduces the lack of money when the group has fewer students. The financing of training measures is becoming more differentiated. Publicly funded locations. In order to prevent abuse of vocational training, it is clearly defined when and how many professions can be financed from the state budget. In 2017-2018, almost 19,000 people were admitted to vocational training institutions, of which almost 2,500 have already graduated.

In **Italy**, there is a clear prevalence of resource management at regional level, a situation that confirms a trend linked to the general evolution of institutional structures, already noted in other years, to administer resources preferably at central level, with a consequent decrease in delegated management.

With regard to the allocation of resources, quotas committed are used almost exclusively by the Regions and Autonomous Provinces for training activities carried out at accredited centres. For schools, apprenticeship activities, employment services and support services (guidance, personal data, etc.) the figures allocated are not very significant. If we consider the breakdown by geographical macro-areas, it is mainly the Centre and the South that foresee a small part of economic resources to be committed for the training activities carried out in schools.

With regards to the year of testing the dual system in Italy (2017) regional administrations engaged 101.343.935,00 euros of which 65.853.218, euros financed by the Ministry of Labour and Policies social and disbursed nearly 50 million.

Spanish Public VET Schools: the facilities are property of each Autonomous Community and the teachers are public workers of the Autonomous Community. For this, students pay different amounts depending on their region. In Catalonia, the students don't pay books in Intermediate VET courses, in High VET the students pay 360€ each academic year plus 25€ per Training Unit, considering that on average a cycle can have about 35 training units, this implies 875€ divided to the two academic years. In other words, they have to pay about 800€ a year.

State funded VET Schools: the facilities are owned by some entity and the government of the Autonomous Community pays the teachers' salary, but not the facilities and maintenance. It depends on each VET School; each student will pay a different amount. For example, in Salesianos Sant Vicenç dels Horts, Higher VET students pay nine fees of 142.50€ (1,282.50€) and those in the Intermediate VET pay nine fees of 126.50€ (1,138.50€).

Dual VET students can study with a Scholarship as a salary (**Beca salario**), in this case they must receive an economic support equivalent to the **IPREM** or an **employment contract**. In Spain there are many types of contracts and any one works for Dual VET students but the Government recommends **the Labour Contract for Training and Learning**, in this case the students must receive what is established in the labour agreement and at least the Minimum Professional Salary. In the case of receiving the IPREM the students receive 3.37€/hour of practice.

VET for employment depends of the different options: the training organized by companies for their workers is financed by discounts on the fees they pay to Social Security. The training offer for employed workers and training plans for unemployed people are financed through public calls. In case of **Occupational Certificates programs**, if are carried out in the VET integrated centres, they are paid by the Government.

Funding schemes depict very clear the differences between countries with established and developing WBL-schemes: whilst for Lithuania, Spain and Italy a clear prevalence of public funding has to be stated, only in Germany companies invest substantially in WBL-VET (the dual system). They do not do so because they are “different to” or “better than” companies from other countries – but as this is the only way to recruit skilled future work-forces – as there are no other (public) IVET-providers that are offering these skills to the next generation.

e. Juridical Issues

In **Germany** apprenticeship contracts fall under private law; many aspects (e.g. insurance, amount of leave days, daily working time, general behaviour, etc.) are similar to normal working contracts. Some particularities with respect to special situation of apprentices are necessary:

- Contracts are temporary, usually for the period of apprenticeship (2-3.5 years), some sectors (e. g. metal) with strong trade unions foresee another half year with a regular contract afterwards (higher dole, if apprentice doesn't receive a permanent contract).
- Attending VET school is mandatory.
- Obligation of apprentice to write a report portfolio (daily).
- Obligation of company to issue a certificate at the end of apprenticeship.
- Probationary period (where cancellation of contract is easier) is shorter; 1 to 4 months instead of 6 months as in regular employment contracts.

Legal basis for the introduction of dual training in **Lithuania**. The aforementioned law amending the Vocational Training Act (2007) provides for the division of responsibilities for the organization of apprenticeship training between companies and initial vocational training institutions. The provider of vocational training in the form of an apprenticeship concludes employment and training contracts with the trainee. The practical training is organized at the workplace, while the theoretical training at the vocational school can be carried out by signing the training contract between the instructor, the trainee and the vocational school. These contractual regulations bundle the legal responsibility for the organization and provision of apprenticeships on the side of the companies as training providers.

In 2017 the Lithuanian Parliament (das Seimas) passed a new version of the Vocational Training Act. The law changes the VET system according to the needs of the state's economic development. It has resulted in changes in the administration and funding of vocational schools to attract more social partners and to raise additional funds. Changes to the quality assurance system to increase the reputation of VET are also planned.

The Vocational Training Act provides for the conversion of VET institutions into public institutions and gives social partners and local authorities the opportunity to become stakeholders in VET provision. It is stipulated that natural persons and persons other than the government or its authorized bodies or legal entities of the municipality can be stakeholders in a state or local vocational training institution. It also strengthens the broader roles and responsibilities of VET councils, in which representatives of the social partners and local authorities are involved, and not only promotes greater accountability to the public, but also a greater focus of VET institutions on regional and business needs.

The **Italian** 2015 reform of employment contracts reviewed the legal framework for the three types of apprenticeship, which at the time of the analysis had the following characteristics:

- a) Type 1 apprenticeship: 'apprenticeship for professional qualification and diploma, upper secondary education diploma and certificate of higher technical specialisation'. This apprenticeship is aimed at young people aged between 15 and 25 and can be applied to vocational education and training (VET) programmes at upper secondary and post-secondary level.
- b) Type 2 apprenticeship: 'professionalising apprenticeship'. This is a scheme outside the VET system, leading to a qualification recognised by the national collective labour agreement applied in the company employing the apprentice. It is aimed at young people aged between 18 and 29.
- c) Type 3 apprenticeship: 'higher education and research apprenticeship'. It is aimed at young people aged between 18 and 29 and comprises two subtypes:
 - apprenticeship in higher education leading to university degrees, including PhDs and diplomas related to the pathways to higher technical colleges. The method and duration of training vary according to the course of study;
 - apprenticeship for research activities, leading to a contractual qualification outside the education and training systems.

Although it was first introduced in 2003, the old type 1 (3) has never taken off. Existing practices, of an episodic nature, covered only a few thousand cases concentrated in some areas of the country. In 2015, while the (old) type 1 covered only about 3 % of total apprenticeships, type 2 covered 95,1 %, almost without territorial differences (4). With the last reform, the legislator proposed to create the preconditions for the effective implementation of type 1.

In **Spain**, the educational competences are shared between the Central Government and the Autonomous Communities. The Central Government (Ministry of Education) is responsible for the general organization of the education system, establishes the different certificates and the requirements to obtain them, as well as the basic contents of each subject. The Autonomous Communities (Education Administrations) can develop their own regulations related with the education system, establish the educational contents, create and authorize educational centres, and can issue the certificates, among others. In addition, the education administrations are responsible to approve the Dual VET projects in their regions. It is the Ministry of Education who decides which and where studies are offered, and their different administrative aspects (documentation, selection of apprentices ...).

The educational law in place is the LOE (Organic Law 2/2006 of May 3rd), with the modifications included in the LOMCE (Organic Law 8/2013, of December 9th). According to Article 6. Bis 4 of the LOE regarding vocational training, the Government set the objectives, skills, contents, learning outcomes and assessment criteria of the core curriculum. The contents of the core curriculum will require 55% the Autonomous Communities with co-official language and 65% for those who do not. On the other hand, the VET programs are approved by Royal Decrees with a 55-65% national curricula and a 45-35% of the curricula contents settled at the Autonomous Communities, according to the socioeconomic characteristics of the immediate environment.

On the other hand, the Law that specifically regulates Dual VET studies is from 2012 (Royal Decree 1529/2012 8th November, Order ESS / 2518/2013, 26th December), and each Autonomous Community develops its own dual model adapted to their economic and social reality.

In the **VET for employment** studies, the competence to establish the curricula is the Government through the Ministry of Labour and Social Economy, which each year publishes the Annual Plan for Employment Policy, but those who implement and manage the plan are the Autonomous Communities through public employment services. For example, in Catalonia the SOC (Public Employment Service of Catalonia) and in Madrid the Community employment service.

Differing from the situation ~10 years ago, all countries established regulations on issues like contracting, insurance, assessment, etc. for WBL. But, again, in Lithuania and Germany on national level; whilst in Italy and Spain this task is (mainly) delegated to regional authorities. And again, juridical issues depict the main approaches/beliefs of the partner countries; as an example might the age restrictions in Italy serve: apprenticeship, as part of the state duty “IVET” is restricted to people at the age of 15-25 or 18-29 – whilst a German employer is free to hire an apprentice aged 50 years – with the same conditions as another apprentice aged 20.

f. Quality Standards

In **Germany** quality standards are set by the community of practice and supervised (or administrated) by chambers and BiBB. A panel of representatives from the social partners (companies and employees), sometimes of 3rd learning venues, as well as VET school teachers, is responsible for the curriculum design, moderated by BiBB. The examinations are organised by the chambers of industry or craft. On demand of the chambers, the exam questions are designed by a panel of experts (i.e. again representatives from the social partners and VET school teachers). The chamber will give the final approval for the exam questions. The exam aims at assessing not only the learning outcomes but the holistic vocational and professional competence (core subject to be proofed: is the candidate one of us, i.e. of the community workers in the given vocation). Skilled workers are responsible for the in-company training, not only by imparting knowledge,

skills and competences but also by supporting apprentices to learn how to apply what had been learned in real work processes, and they are frequently part of the expert panels. In fact, quality standards set by curricula and examination standards are quite high; but whether they are met in all work-based learning stations cannot be controlled; a central element is mutual trust; that mentors see successful training as part of their professional skills and self-estimation.

In general, the chambers are in charge to supervise whether enterprises meet VET standards or not. In practice it is impossible to survey all enterprises; additionally, some chambers were very generous in allowing enterprises to train apprentices due to a shortage of placements.

Individual or concrete control of quality standards is performed by trade unions and workers' councils; if an apprentice has the impression that he is misused as unskilled workforce his local officer might help.

In order to ensure the quality of teaching and the transparent use of resources in **Lithuania**, an external school examination, the monitoring of non-formal vocational training, the updating of professional standards and the recognition of non-formal skills are carried out every five years. There are also plans to fundamentally change the VET system and introduce dual training, promote apprenticeships and recognize self-acquired professional skills. The dual training ensures that a young person studying at a vocational school can acquire work skills in the real workplace. Apprenticeships allow trainees to work and study at the same time. A flexible system for recognizing qualifications helps a person find a job quickly. The law requires vocational guidance to become part of the general education system and is already available to first-class children.

When implementing the concept and measures of the resource development program, the VET providers have introduced internal quality assurance systems and carried out an external evaluation of the VET programs with recommendations for the national, sectoral and school level. The alignment of the quality assurance system of vocational education and training to EQAVET is ensured through activities to develop a quality culture for VET providers, to promote PDCA (Plan-Do-Check-Adjust), known nationally as a quality circle, and to promote and support the regular self-assessment of VET providers.

The PDCA is embedded in the vocational training offer and is the backbone of quality assurance. Important tools of quality assurance are currently the design and introduction of professional standards and modular vocational training curricula.

Italian legislative Decree no. 226/05 (Article 18, paragraph 1, letter b) provides, as an essential level of performance, the definition of linguistic, mathematical, scientific, technological, historical, social and economic skills. They indicate the minimum common national reference of learning outcomes as a result of second cycle VET pathways and replace the basic skills of the Agreement between the State and the Regions of 15 January 2004.

The training standards are articulated in: linguistic competence; historical, socio-economic, mathematical, scientific-technological competence.

In this way, thanks in particular to the strong reference to the constitutive logic of European key competences and the European Qualifications Framework, national minimum training standards of basic skills can effectively express the "integrated" cultural and professional character of VET. Finally:

- with reference to training standards, it is possible to identify - at territorial level - different solutions of intermediate articulation or possible further specifications, in relation to the system choices and specific educational systems defined by the Regions within their exclusive competences in VET;
- like the technical-professional standards, also the basic ones are updated and maintained on the basis of the results of their application to the regional systems and, specifically, of any problems, criticalities and new needs that will emerge during the planning and implementation of the three-year and four-year courses in the various territories.

Spanish VET Schools that offer Initial VET, Intermediate VET, and High VET studies have no obligation to have any quality standard such as ISO 9001. However, many of these centres also offer VET for employment studies, the authority in charge of it requires some quality standards as ISO 9001 certificate, and very few centres, especially those in the Basque Country have an EFQM (European Foundation Quality Management) certificate.

In VET schools there are no external diagnostic tests to validate training as if it occurs at other levels of the educational system such as primary and secondary education. The only supervision is that carried out periodically by the educational services of the region through their inspectors.

In VET for employment and the trainings offers by companies for their workers, the article 21 of the Law that regulates VET for employment establishes some key points to measure the impact and training efficiency. These include:

- The measurement of the impact of the knowledge acquired, in terms of insertion of unemployed workers into a job related to the training received and improvement of performance in the position or career opportunities for employed workers.
- An evaluation of user satisfaction in which students and companies will participate. This evaluation is done through an online form.

In Germany quality standards are set by the community of practice; delegates from employer's organisations and trade unions are in charge of defining curricula, assessment methods and performing the examinations. On the one hand, this approach assures a high level of standards; on the other hand, it is (partly) excluding colleagues with unusual career pathways or new training approaches. In the other three countries minimum standards are set by public bodies (or not even that) – and rather pragmatic indicators are chosen, like in Spain: quality refers to impact “in terms of insertion of unemployed workers into a job related to the training received”.

g. Structures of Curricula and Examinations and Standards/modules/flexible approaches

Pedagogy/didactics

Content of **German** curricula is formulated in 10-20 vocational positions resp. “time frames” (learning venue company) resp. ~10 “learning fields” (school).

Formulations per frame or field are rather short (<1 page) and vague.

Time frames and learning fields have only guiding time values, e.g. “between 2 and 4 months”.

Teachers and trainers have a high degree of freedom in choosing their methods, media etc.

Recommended: Work-process oriented didactics; referring to holistic work-processes including planning, preparation, execution, quality control, documentation.

Curriculum design

Curriculum design and examination in Germany are divided for the two learning venues; teachers are responsible for school-based part, trainers for in-company (incl. workshop) part. Employers' organization or trade unions (usually both, but trade unions sometimes boycott designing of two-year vocations) apply for a reorganization of an existing profile or the development of a new one (due to new materials, methods or technologies). Ministry usually accepts such requests, and opens the procedure. The social partners name an equal number of experts (skilled workers or trainers). The experts meet and argue on the new profile for weeks or sometimes even years, aiming at a consensus. The procedure is moderated by a BIBB representative.

Assessment and examination

In each recognized training occupation intermediate and final exams take place.

There are legal regulations that give the framework for the final exams as well as the intermediate exams:

- Intermediate examination and final examination or extended final examination.
- Admission to the final examination – written record of training, participation in the intermediate examination, exceptional regulations etc.
- Object of examination – candidates are required to demonstrate employability skills.
- Examination is conducted by the examination board of the competent body.
- Final certificates – chamber certificate, certificate from company, vocational school certificate.

Successful apprentices receive three certificates at the end of apprenticeship:

- journeyman's certificate
- school certificate
- job reference certificate

A modular apprenticeship is rejected by several parties like the chambers of commerce. They follow the holistic approach of learning a profession. However, as many persons (especially coming from abroad) are skilled workers but don't have a formal degree, there are efforts to validate prior learning.

The **Lithuanian** qualifications system will be described by 25 occupational standards. 17 professional standards are adopted by December 2019 - the total number of qualifications described in professional standards is 399 (For example, Construction Sector Occupational Standard describes 76 qualifications, the Retail Trade Sector Occupational Standard - 6 qualifications).

It is worth noting standards also covers professional qualifications at level 6 and 7, signalling that the learning outcomes approach is being implemented in higher education as well as in traditional VET. The level descriptors of the LTQF (Lithuanian Qualification Framework) are used as an explicit reference point for this exercise and help to improve consistency between single qualifications and across the different sectors.

In the period of 2010-2015 the Centre for Development of Qualifications and Vocational Education and Training implemented in Lithuania the ESF funded project “Development of qualifications and creation of the modular VET system” with the goal to develop the national system of qualifications by designing and implementation of sector-based occupational standards and the corresponding national modular VET curricula.

The methodology of design of occupational standards is based on the combination of competence and work-process analysis approaches. It involved an important shift from the approach of functional analysis, which was previously applied in the design of initial VET standards to the approach of work-process analysis. One of the key advantages of this approach is that it permits to identify and to cover all qualifications that are required for the execution of work processes in the sector of economy, as well as to map the links and interrelationships between the qualifications inside the sector and between the sectors.

On 1 August 2019, an Agreement was reached in the **Italian** State-Regions Conference for the integration and modification of the National Framework of qualifications (EQF3) and diploma (EQF4) in IVET. A complex and articulated work that the Regions had started in autumn 2017 ends.

The framework comes out wider and more articulated, will be able to respond more and more to the needs of companies, and give greater impetus to the growth of those sectors production considered increasingly strategic for our economy.

The didactic model is based on the principle of personalisation of the learning path and on the strengthening of laboratory teaching activities and experiences in real operational contexts, defined in the Individual Training Plan (PFI).

Final examination

The State- Region Agreement establishes basic common rules for exams:

- compliance with the Essential Performance Levels (LEP) provided for in Chapter III of Legislative Decree 226/05
- in line with the reference framework, constituted by the national system of certification of skills referred to in Legislative Decree 13/2013
- based on common minimum elements concerning the evaluation, admission and final assessment procedures.

Admission to exams:

- minimum frequency of three quarters of the course hours (Legislative Decree 226/05 art. 20 paragraph 2)
- the formalization, on the basis of periodic assessments of learning and behaviour, of the achievement of learning outcomes provided by the training standards of the IVET courses. The formalization is carried out by the teachers and experts who have taught lessons within the IVET path.

Composition of the Examining Board:

- at least one member in a third-party position, or as President of the Commission, or external commissioner (also attributable to experts from the world of work), appointed by the competent Administration or otherwise authorized by it

- collegial character, with the presence of at least three components for the validity of the operations.

Composition of tests:

at least an interview and a professional test must be provided for the assessment of the different basic and technical-professional dimensions of the regional training standards, defined in compliance with the national training standards. The technical-professional dimension is the fundamental reference element of the exam, must have a weight of at least 50% of the total number of tests scheduled, calculated regardless of any admission score.

Assessment method: they must be aimed at verifying the competences of national and regional training standards and not only of elements of knowledge and skills.

Regarding VET studies, the **Spanish** Ministry of Education sets the basic contents of VET studies and their number of total hours, the other topics are determined by the Education Administrations to adapt to the reality of each region.

The VET programs can be studied full-time or part-time and have a modular organization, which allows flexibility to combine the personal and professional life of adult students. The schools can also offer on-line programs to facilitate learning.

The modules or subjects of each course are divided in:

- Specific technical knowledge of each VET course.
- On the job training: the objective is to apply the knowledge acquired in the classroom in a real working professional environment. The internship represents a maximum of 20% of hours of the curricula and is not remunerated, although it depends on the Autonomous Community. They qualify as “approved” or “fail”, not including their grade of other subjects. The duration of each module is established in the official program of each VET course, and differs between 160 hours (Initial VET) and 400 hours (other VET studies).
- Training and employment guidance module (FOL): its aim is that students become familiar with the work organization; the basic labour regulations, their rights and obligations, as well as with tools to facilitate their access to jobs (create a CV, motivation letters...).
- Entrepreneurship: the objective is for students to know how to create and manage a company.
- Final Project (only in Higher VET studies).

Regarding to **VET for Employment and Occupational Certificates Programs** the **National Institute of Qualifications** is responsible for defining, preparing and keeping the **National Catalogue of Professional Qualifications** updated. To prove that a worker has a qualification, there are certificates of professionalism that are divided into 3 levels. These certificates of professionalism can be obtained in two ways:

- Formal training: passing all the modules corresponding to the certificate.
- Recognition of work experience.

The Initial, Intermediate and High VET studies the courses are divided in Modules, normally between 12 and 15 modules, but it depends on each course and within each module the contents are divided into Training Units, normally each module is divided into between 1 to 3 training units, but there may be modules with more Training Units. In turn, each Training Unit is divided into learning outcomes (what is to be learnt) and assessment criteria (how it is to be assessed). The curricula of a course establishes for each module the associated Competence Units of the National Catalogue of Professional Qualifications, what allows that if a student has a recognized

Competence Unit of a compatible certificate, then he can request the validation of that module within the new course. It is a measure that can apply to workers who are interested in VET studies and have other professional certificates.

In all the VET courses there is a transversal module “Training and employment guidance module (FOL)”, once passed, it is not necessary to study it again in case the student wants to take another VET course. It applies to Initial, Intermediate and High VET studies. Many VET studies also have a “language module”, usually English, if the student has a B2 certificate in the knowledge of that language, it is not necessary to visit this module again.

In VET for employment studies, the professional certificates are divided into 3 levels. To access to level 1 studies, the student must be older than 18 years old; it is not necessary to have previous professional or training experience. To access to level 2 studies, the student must have the ESO (Secondary Education) diploma, pass the exam to access to an Intermediate VET course, or have a level 1 professional certificate from the same professional family. Finally, to access to level 3 professional certificate, the baccalaureate (post-Secondary Education) diploma is required, the student must pass the exam to access to a High VET level studies, or have a professional certificate from the same professional family.

All four countries are working on increasing the flexibility of their VET-systems, but approaches differ largely: Lithuania modularised its VET system, Germany still sticks to “vocational principle” but allows companies to vary time spent on the different spheres of activity according to their core-business, Spain sets nation-wide minimum standards to be adapted by each region according to local needs and Italy even works with “individual training plans (PFI)”, taking prior learning into account. Increased flexibility of VET-programmes is for sure a need due to technological changes, work-share between companies, etc. – but it should be always kept in mind that “tailor-made” skilled workers are only up-to-date for a certain moment in time; broad basic knowledge and skills of skilled workers are a mandatory precondition for being prepared for upcoming technological changes.

[h. Involvement of research in development of the system](#)

Basic elements, like duality, of the **German** VET system, founded/consolidated with Kerschensteiners’ reforms by the end of 19th century survived the German empire (Kaiserreich), Bismarck, Weimars’ republic, the fascist regime, the socialist period in east-Germany, the re-union and the status of Germany as the “sick man of old Europe” in 2003/2004.

VET research aims to identify the key challenges for innovation in the German VET system and to develop concrete options for structural improvement in VET. It is defined in §84 of the Vocational Training Act:

“§ 84 Objectives of Vocational Training Research

The object of vocational training research shall be to

- 1. clarify the fundamentals of vocational training;*
- 2. track domestic, European and international developments in vocational training;*
- 3. identify standards for the subject matter and objectives of vocational training;*
- 4. pave the way for further developments in the field of vocational training to meet changing economic, societal and technical requirements;*

5. further the development of instruments and procedures for the provision of vocational training and promote the transfer of knowledge and technology."

Research tasks are carried out [beside others] by the Federal Institute for Vocational Education and Training. It is a federal institution with legal personality established under public law.

(BIBB 2005, page 21 f.)

In **Lithuania**, development of the dual apprenticeship and work-based learning is supported by the expertise provided by the Centre for Development of Qualifications and Vocational Education and Training (<http://www.kmpc.lt>) in the field of methods of training, VET policy, qualifications, modular VET curricula and organisation of training.

The transitional reforms of VET after 1990 were also supported by the research and expertise organizations established either by universities (Centre for Vocational Education and Research at Vytautas Magnus University founded in 1997) or by the Government (Labour Market Research Institute founded in 1991 by the Ministry of Social Affairs and Labour).

The Development of the **Italian** dual system has been coordinated by ANPAL National Agency of Public Employment Policies that provided a national wide experimentation with personalized consultancy for Regional Administrations, VET providers, Schools and companies too.

In **Spain**, there are different research centres, normally linked to universities. On the development of this report, we have been able to speak with **Dra. Pilar Pineda** (pilar.pineda@uab.es), she is a pedagogue, PhD in Educational Sciences, and Professor of Economics of Education at the UAB (since 2000). She is an expert on planning and evaluation of trainings. She is the director of the Group EFI (Effectiveness of Continuing Education) that is a research group, that approaches evaluation of training from different areas of knowledge and emphasizes training transfer. This group is based at the UAB (Autonomous University of Barcelona). In November of 2019 she published with PhD Anika Jansen the study "**Dual VET system in Catalonia from a business perspective. 2017-2019**" where they analyse the aims for introducing a WBL system in a factory.

There are also private entities that are very focused on the analysis, promotion, and development of WBL. To develop this report, we have contacted the "**Alliance for Dual VET**". The Alliance for Dual VET is a network of companies, educational centres and institutions committed to improving the employability of young people through the development of a quality Dual VET system. The promoters of this alliance are the Bertelsmann Foundation, the CEOE (Spanish Confederation of Business Organizations), the Chambers of Commerce and the Princess of Girona Foundation. The main activities of the Alliance for Dual VET are to support the design and implementation of Dual VET projects in companies.

An encouraging finding is that in all four countries research is involved in the development of VET-systems. Not encouraging is that research is often or even mainly undertaken by national agencies / ministerial departments, being often not free in choosing the research topics and sometimes not even the results; if the clear expectation is to deliver evidence that a certain educational reform was a success. Even in Germany, where many universities are researching in VET, the competent body (BIBB) often sells itself as the only legitimate research body; as in the

quotation above, where we had to add “and others”. A positive exemption is Spain, where in last decades a couple of independent research centres emerged (e. g. at the universities of Barcelona, Tarragona and Valencia) as there is no ministerial department for VET research.

i. Numbers of Learners in WBL-VET/related to school-based VET/University students/jobless youth/VET-propaedeutic (substitute) measures

In **Germany**, in total 722.000 persons started a vocational education in 2018. In the last decade the amount of new entries into German Dual VET regime decreased slightly from ~ 520,000 in 2005 to ~ 494,000 in 2018 (AG Bildungsbericht 2019, p. 26).

Beginner	Absolute	Percentage female (%)	Percentage migrant background (%)
Vocational and HE activity	1.990.765	48.2	16.8
Vocational education	722.684	47.3	12.0
Dual vocational education (BBiG/HwO)	494.539	37.2	12.3
School based VET in GES ² - vocations	178.718	76.2	12.4
Other school based VET (including training for civil servants)	49.427	45.0	8.2
Vocational transition system	269.991	36.3	34.2
University studies	513.998	51.3	24.2

Table 1: Beginners in German VET (iABE 2017)

Additionally, ~228.000 new entries into German school-based VET-system occurred in 2018.

In 2005 universities (and universities of applied sciences) registered ~ 370,000 new students, in 2018 ~ 514,000.

Apart from that, the incredible high number of new entries in the vocational transition system of ~ 420,000 in 2005 significantly decreased to ~ 270,000 in 2018; mainly due to the increase of university students and demographic development.

The number of apprentices following the dual pathway of training if still very low in **Lithuania**. According to the information of the Ministry of Social Security and Labour the number of apprenticeship contracts established from 2017 to the middle to 2019 is about 300.

With regard to the different **Italian** types of apprenticeship, professionalizing apprenticeship is the most widely used, involving 97.1% of apprentices in 2017. On the other hand, the share of first level apprenticeship is decreasing (from 2.8% in 2016 to 2.5% in 2017), while the trend of apprenticeship for high training and research remains stable, albeit residual (0.2%).

Since 2008, the trend in the average number of apprenticeships has remained negative (with a slight increase in the 2012-2014 period alone) in all geographical breakdowns. Finally, it should be

² GES= Gesundheits- und Sozialberufe (health care and social professions)

pointed out that the data referring to 2017 do not cover the whole year because they are affected by the surveys received by the Regions on a set date. Some data emerge as follows:

- In 2017, the number of people under apprenticeship contracts amounted to 428,933, an increase of 12.1% compared to the previous year;
- The growth in the average number of apprentices in 2017 mainly concerns the youngest. In the three-year period 2015-2017, the number of apprentices up to 24 years of age goes from almost 196,000 to about 214,000, with a positive variation of 9.3%, while the number of young people from 25 years of age onwards decreases by 0.6%. The weight of over-30s contracted by 1.2%;
- The Regions in which apprenticeship involves more subjects (about 70%) are Lombardy (17.6%), Veneto (13%), Emilia-Romagna (10.8%), Lazio (10%), Piedmont (8.5%) and Tuscany (8.5%);
- The sectors in which the best performance of apprenticeship is recorded are:
 - Commerce (20.9%);
 - Manufacturing (18.3%);
 - Accommodation and catering services (16.8%).;

In the period 2015-2017, first level apprenticeship has developed more in the VET pathways already structured in the previous years and disconnected from the school system;

The highest percentage weight for professionalising apprenticeship is recorded in the Centre (98.4%), while it is lower in the North and South (96.6%).

Between 2016 and 2017 there was an overall growth of 12.7% in professional apprenticeship training, with a significant increase of 20.1% in the South. The other types, on the other hand, continue to decline (-6.2% in the last year), at a slower pace in the North (-0.5%), more consistent in the Centre (-20.8%) and in the South (-11.8%).

In 2017, this type of contract at the higher education level, mainly concerns Masters students (64.1% of the total), while significantly lower values are found in PhDs (8.4%) and degree courses (5.6%);

The clear prevalence of professionalizing apprenticeship over other forms of apprenticeship seems to highlight the preference of companies for the instrument essentially because of its advantages in terms of labour costs. There is therefore a need to undertake systemic actions for the diffusion of dual apprenticeship;

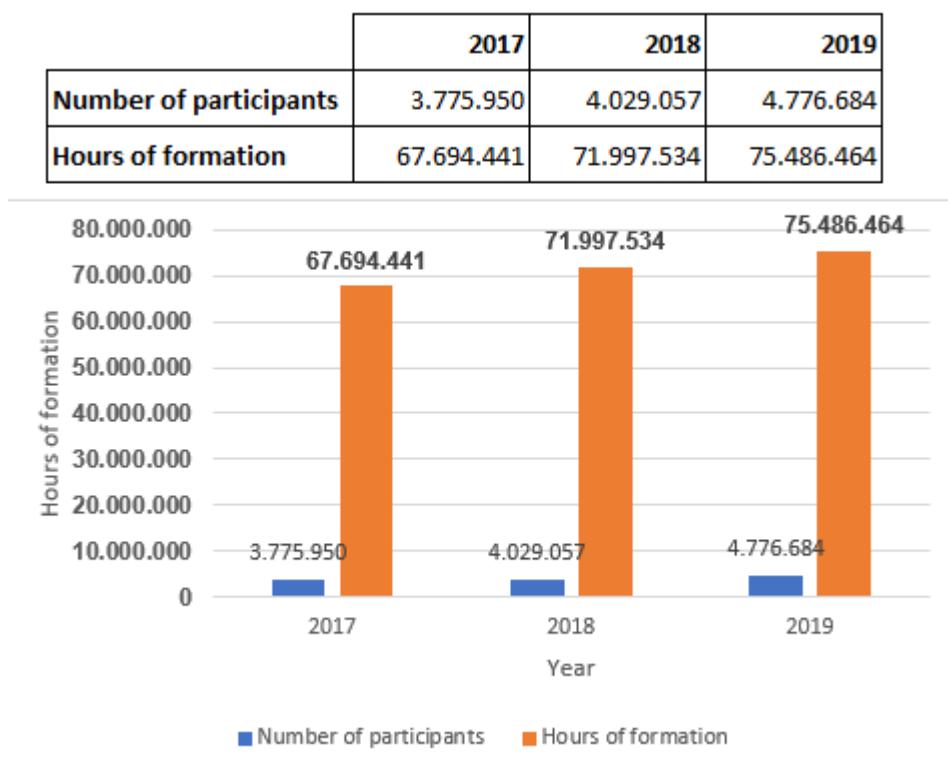
With regard to the public supply planned by the Regions, the Court of Auditors has noted a significant reduction in the resources allocated to professional apprenticeships, from 100 million in 2014 to 15 million in 2018.

Learners in **Spanish** VET Schools:

	School Year 2018-2019	School Year 2017-2018	Variation
Basic VET Level	74.009	72.180	2,53%
Intermediate VET Level (Classroom-learning)	323.262	319.269	1,25%
Intermediate VET Level (Distance-learning)	27.558	24.997	10,25%
Higher VET Level (Classroom-learning)	353.821	348.715	1,46%
Higher VET Level (Distance-learning)	60.114	50.193	19,77%
TOTAL	838.764	815.354	

Source: Instituto Nacional de Estadística (National Statistical Institute)

Learners in VET for Employment and Occupational Certificates Programs:



In this table, you can see the hours of subsidized training for the year 2018 and 2019 and the total number of participants. Source: **Fundación Estatal para la formación en el Empleo (FUNDAE)**.

Numbers of learners in dual VET (sub-system) are for Lithuania, Italy and Germany quite in-line with the findings from the previous analyses:

Very low (~300) in Lithuania as dual VET is still in very early piloting phase.

A substantial amount in Italy of 428,933 (2017) in dual programmes; even with respect to the size of the country a remarkable amount as dual programmes are not the standard IVET-approach.

In Germany ~500.000 apprentices start each year; as most programmes last 3 year approx. 1.5 million people are in dual programmes – the standard and most popular IVET programmes.

Remarkable are the figures for Spain: between 3.7 and 4.7 million beneficiaries in the VET for employment system; but here it must be taken into account that many programmes are rather short (re-)trainings.

3. Sketch of established trainer/mentor training (choosing, preparing, and educating trainers/mentors)

How and by whom are trainers/mentors chosen?

In **Germany** there is a difference between mentors and trainers. Mentors in companies are people who voluntary (sometimes encouraged by financial incentives) take care of, support and help apprentices. They can be chosen by the management for different reasons: they passed the trainer aptitude, they are very popular with apprentices, they are good in explaining work processes; being a mentor does not need a degree in mentoring or to pass a training.

If a company wants to offer apprenticeships, they need a vocational trainer (Ausbilder). Related positions are training coordinator and mentors (ausbildende Fachkraft). The company can choose a person for the trainer position who matches the needed requirements for becoming a vocational trainer. However, if an appropriate person is interested in becoming a vocational trainer acquire the skills without support by the company.

According to the Vocational Training Act a VET trainer must provide vocational skills, knowledge and competences (vocational action competence) that are needed for the performance of an occupational activity in a changing work environment, and acquire this within an organized training course. They must also grant the acquisition of the necessary vocational experience (minimum EQF level 4), (BIBB 2005).

With these preconditions fulfilled one can achieve a trainer certificate (Ausbilderschein). The Ordinance on Trainers Aptitude (Ausbildereignungsverordnung, AEVO) sets the standards. Trainers need to approve their vocational and occupational pedagogical qualifications by taking a trainer aptitude test (Ausbildereignungsprüfung).

In the **Spanish** VET system, companies choose the mentors. Normally, the mentors are people linked with the Human Resources Department because they know the necessities of the company and the profiles of future workers. The mentors are responsible for brand induction, transfer of business culture, and the training in the company sector.

The trainers are employees chosen by the companies to be the responsible for the apprentice training program, and to be in communication with the educational centre to monitor the training. The trainers are usually experts in their job, with a more pedagogical profile than the mentors, they are trainers as volunteers, and they are motivated by teaching.

On which level are the curricula of trainer/mentor training? (national/regional/institutional)

The Dual Vet system in **Germany** and therefore the training of VET trainers (in-company trainers) is based on the German Basic Law (Grundgesetz), Art. 12 – free choice of occupation. Although there are restrictions, e.g. Vocational and Training Act (Berufsbildungsgesetz, BBiG, Kap.1 Abschnitt 3, §27-33), enacted by the German Bundestag with approval of the German Bundesrat which refers to the suitability of training personnel.

For this reason, the Ordinance on Trainers Aptitude (Ausbildereignungsverordnung, AEVO) as well as the curricula for the trainer aptitude test are on national level.

If the trainer aptitude test is passed as (mandatory) part of an industrial or handicraft foreman qualification, the trainer is on DQR/EQR-level 6.

In **Spain** there is not yet an official accreditation system to be a mentor or trainer in the company, although it will be essential in the future to develop a quality Dual VET system.

Since now is no academical program nor any curricula to train mentors and trainers nationwide, some regional Governments organize **workshops or short training courses for mentors and trainers**, especially **supported by the Chambers of Commerce** of the different regions and by **private Foundations** (Bertelsmann Foundation, Alliance for Dual VET, Bankia Foundation for Dual VET, ...).

On the other hand, the **companies usually organize internal trainings** to improve the intervention of mentors and trainers, and to ensure that they can perform their duties well.

There are also some **social institutions** that work for labour inclusion of youngsters at social risk such as **Pinardi**, which develop their own training programs for company mentors and trainers.

Pinardi aims to promote the social inclusion of people at risk, especially of youngsters. To do so, the organization emphasizes in social innovation at the service of inclusion, and focuses on a cooperative model that integrates the public and private actors (mostly companies in the hospitality, logistics, and catering sectors), as well as social institutions to create effective synergies of intervention.

Draft sketch of the curricula (length, structure, content).

The duration of the **German** trainer aptitude course is 115 lessons. The methodical arrangements of the learning times are the responsibility of the provider and can be adapted to specific target groups. A training course can include self-learning phases using appropriate media. This way attendance phases can be reduced to no less than 90 lessons (ZDH 2009, page 6).

There are four main areas of activities in the curricula for trainers:

- Area 1: Checking training requirements for executing an apprenticeship in a company and planning apprenticeship (20% of training course)
- Area 2: Preparing apprenticeship and participating in the recruitment of trainees (20% of training course)
- Area 3: Conducting apprenticeship (45% of training course)
- Area 4: Finishing apprenticeship (15% of training course)

(ZDH 2009, page 7)

Workshops or short training courses supported by the Spanish Chambers of Commerce or private Foundations: are usually free, and focus on the exchange of experiences and peer learning activities, they usually take 2-3 days, and are facilitated by experts in Dual VET. The

training plan includes different topics related to the Dual VET system in Spain, as well as its advantages and areas of improvement, the training plan, the selection of the apprentices and the welcoming plan. In addition, they also focus on the role of the trainers, their competences and skills, and their role in the apprenticeship evaluation process. They usually have the following structure:

- 1) Introduction of participants: their experience as trainers.
- 2) Roles of the trainer.
- 3) Dual VET system in Spain:
 - Educational system and employment
 - VET studies and occupational certificates
- 4) Dual VET:
 - Main Actors (Roles, responsibility and compromise)
 - Role of the Chambers of Commerce
 - Steps for the implementation of Dual VET system in the company
 - Dual VET models
 - Contracting modalities - training agreement
- 5) Apprentice:
 - Rights and duties of the apprentice
 - Selection of apprentices
 - Welcome in the company
- 6) Training planning and monitoring:
 - Training plan
 - Communication with the tutor of the educational centre
 - Evaluation of the apprentice
- 7) The trainer:
 - Tools
 - Learn to train
 - Competences and skills of the trainer

Quality standards/Assessment

To become a vocational trainer in **Germany** a certain personal suitability is required, as stated in the Vocational Training Act §30: a VET trainer has to possess a certain level of pedagogical and educational skills, professional skills as knowledge and abilities that are relevant for teaching the contents of the particular training occupation (BIBB 2005)

The required vocational skills, knowledge and abilities are proven by passing the final examination in a field corresponding to the occupation for which the training was provided. In addition, the person examined must have spent a reasonable amount of time in his or her profession.

As we wrote before, **Spanish** trainers and mentors of the company are workers who are in charge of the training of apprentices and are in touch with the educational or social institutions where the apprentices are coming from. Normally, people from HR department or the department of the field of work where the apprentice is working are developing the training.

They do not need a specific qualification, and often they carry out this work as volunteers. However, the companies usually provide internal trainings, and they have the option of taking courses offered by private institutions. In the case of Pinardi and the collaborating companies, it is an essential requirement that the people in charge of the internship program at the company, both mentors and trainers, carry out training activities related to raising awareness of the reality of the people participating in this WBL program.

[Numbers of trainers/mentor \(maybe referring only to a single company\)](#)

The number of trainers in **Germany** were not counted since 2011. The statistical focus lies on the numbers of apprentices.

Last data from 2011, but current numbers should be comparable:

- trainer aptitude examination was passed by 80.280 people
- master craftsman examination was passed by 35.247 people and
- the total number of trainers including unregulated professions was 665.508 in relation to the overall number of inhabitants in the Republic of Germany of approx. 82.330.000 in the same year.

Approximately 427.000 companies participated in 2017 in the DE dual system (statista 2017), offering an increasing amount of new apprenticeships: 536.271 in 2009 to 574.185 in 2018. Many of small enterprise hire a new apprentice only every 5 years; but large companies employ each year hundreds of new apprentices.

In the 2017-18 academic year, more than 12,100 companies implemented Dual FP studies in **Spain**, including a high number of SMEs. SMEs are the engine of the economy, representing the majority of the Spanish business fabric and, therefore, their participation in Dual VET is a necessary condition for its success (Report: “Programa de Apoyo a las Pymes para el desarrollo de proyectos de FP Dual de calidad”, Bertelsmann Foundation-JP Morgan Chase Foundation. 2017-2018).

The project developed by Bertelsmann Foundation and JP Morgan Chase Foundation in Andalusia, Catalonia and Madrid regions during 16 months of work (2017-2018) resulted in the participation of 232 SMEs from different sectors (industrial, technological, computer, automotive and dependency), in the promotion of 24 Dual VET studies, offering 203 apprenticeships for the 2018-19 academic year. In addition, 162 business tutors were trained through the 16-hour courses offered by the Foundation.

Currently there is no institutionalized provision of initial training of VET trainers in **Lithuania**. As apprenticeship and work-based learning make only initial steps in the VET system, the trainers are being prepared by the companies in cooperation with the VET schools mainly on the informal basis. This situation may change in the future with the spread of apprenticeship pathway. The main existing precondition for the institutionalized initial training of trainers is the descriptor of qualification of trainer (LTQF/EQF level 5) in the occupational standard of the sector of education and library activities approved in August 2019. There are also developed and experimented some

training programmes and courses for work-based learning trainers, such as training course designed by the Erasmus+ project “Training of Trainers for Work Based Learning” implemented in the period of 2017-2020 in Latvia, Lithuania and Estonia (described below). The qualification of trainer can also be acquired via recognition of the informal, non-formal and experiential learning. The main candidates to offer training programmes for trainers are universities of applied sciences, which could develop specialized short-cycle study programmes for this purpose. The alternative pathway of provision of this qualification can be developed by more advanced VET centres in cooperation with enterprises and other training providers.

In **Italy** the national legislation on the VET teachers work and competence development delegates many functions in this field to the regions. Italian legislation on VET also does not provide a mandatory teacher training course as regards vocational training (in particular with regard to VET centres), because the Italian VET system is not managed (for the most part) directly by the central government. At regional level, within the framework of the State-regions Agreement of 22 January 2015, each region and autonomous province is responsible for setting its own standards for teacher training to ensure high quality VET services financed by public funds.

In Italy, VET centres play a very important role in the training of teachers. Each VET centre and / or each VET federation is free to manage teacher training. Consequently, the training of VET teachers depends either on the will of the management of VET centres or on their free personal initiative. Governance of continuing training of VET teachers is more delegated to VET providers and social partners, although recently it is made compulsory and regulated by law (Law 107/2015). There is no national regulation and standardization of the qualifications of VET teachers, nor official register of trainers or formal recruitment procedures. There are established rather minimal requirements to the training profession by the National Collective Work: a degree or an upper secondary school diploma and work experience in the relevant sector. The training of trainers is delegated to the different training providers and social partners. Each Region and autonomous province can provide their standards for trainers' training with a view to ensuring high-quality VET services financed by public funds (at the moment, only the autonomous provinces of Trento and Bolzano have institutional VET-teachers training). University of Bolzano in particular is a rare example, if not the only, of HE institution in IT that offers a VET teacher programme. Inside the Italian VET system, the training and employment of VET teachers in State vocational schools and in Centres for adult education (Centri per l'Istruzione degli Adulti - CPIA) is regulated by the Ministry of Education and Labour — but they represent only a small part of the VET system.

Remarkable is that the questions formulated for the training of trainers could be answered only in Spain and Germany; in the other two countries either “no institutionalized provision of initial training of VET trainers” exists (Lithuania) – or too many approaches, where each region or VET-provider sets its own standards (Italy).

Regarding the first question, by whom trainers and mentors are chosen, in Spain as well as in Germany the company is the main actor; human resource departments ask/encourage colleagues to take this role.

Only for German trainers a mandatory curriculum exists (but a rather short programme of ~2 weeks full-time, focussing on rights and responsibilities, not on didactics); preparing and supporting German mentors and Spanish trainers and mentors is up to regional or company-driven initiatives.

4. Summary

With respect to the 1st aspect of this part of step-up project, the relevance and institutionalisation of work-based learning in the form of a dual system, **Germany** can be considered as “apparent good practice”. Companies and other stakeholders are highly committed to the system, roles and share of responsibilities between involved institutions are clearly negotiated and stable over a long period of time.

On the other hand, this established corporatist approach led to a certain inertness; in case of new developments, stakeholders tend to defend their claims instead of being open for new needs. A negative example for the 2nd aspect of this part of step-up project, industry 4.0, was the 3rd industrial revolution: social partners, federal states, BIBB and others needed years to develop vocations for IT-sector (until 1997); private providers like big IT companies were much faster.

So, the fast update of DE curricula in industrial electronic and metal occupations (that will be hardly influenced by digitalisation, cp. chapter 2.1) can be considered as a valuable step forward.

As the relevant question for DE VET-system in the context of digitalisation remains:
Will these additional time-frames be imparted in (real) work-based learning (and thus cover real needs of companies) or will they end up as a new business field for external training providers?

We hope that step-up can contribute to develop founded hypotheses on this question.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> * Vocational principle: Nation-wide recognised qualifications * The dual system as such; it assures accountability and commitment of companies as well as a balance between general and specific knowledge, skills and competences (KSC) * Good image of VET * Involvement of all stakeholders * Strong CVET system * Internal flexibility of VET-profiles * holistic approach: apprentices learn about all relevant aspects of a profession and therefore can development necessary competences 	<ul style="list-style-type: none"> * Market-driven: In times of economic crises companies reduce the amount of apprentices * High amount of youngsters in the substitute system * Mentors (skilled workers) not prepared for training * Low permeability to higher education (HE)
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> * Transfer of KSC from companies to schools and vice versa * Trend of bridging the gap between VET and HE * Integration of new technologies into existing VET-profiles * Digital media for new learning environments 	<ul style="list-style-type: none"> * Still: Some voices that support modularisation * Academic drift * International companies that do not accept the role of companies in DE VET system * opening scissors: digitalisation might have the effect of more need of CVET (EQF level 5 or 6) and semi-skilled workers (EQF level 3) –

	and less skilled work on EQF level 4
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Training and continuing professional development of work-based learning trainers in *Lithuania* is defined by the following main factors:

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Created infrastructure for work-based learning in the different sectors of economy-sectoral practical training centres. • Strong network of the VET schools and centres with high capacities of VET teachers. • VET curricula are based on the occupational standards developed by analysing work processes. 	<ul style="list-style-type: none"> • Domination of the school-based VET provision and undeveloped work-based learning and apprenticeship practice define comparatively peripheral role of trainers in the VET provision. Traditionally trainers are treated as supervisors of short-term practical training in the enterprises delegated by the management and with the domination of administrative and organizational responsibilities. Slow and cumbersome implementation of the dual apprenticeship started in 2007 can change this situation with the increasing share of the work-based learning. • Low activity of social partnership and social dialogue in the field of VET, what limits the potential for development of pedagogical and professional skills and competencies for VET trainers. • Absent institutionalized provision of the initial training for trainers remains a weakness and significant obstacle for systemic and sustainable preparation of trainers.
OPPORTUNITIES	THREATS

- | | |
|---|---|
| <ul style="list-style-type: none"> The engagement of employers in the field of VET (design of occupational standards and qualifications, VET curriculum design, organisation of practical training and apprenticeship, assessment of competencies) is gradually but steadily increasing (opportunity for development of training of trainers), while trade unions remain rather isolated from these processes. Institutional change of the VET provision with stronger orientation to development of apprenticeship and work-based learning leads to the establishment of the new places for practical learning and training (sectoral practical training centres), opening the governance of the public VET providers for external stakeholders (change of the legal status of the VET providers) and introduction of the dual apprenticeship as alternative pathway of VET provision in the legal regulations. All these trends create new opportunities for the training of VET trainers in the future. These factors tend to increase the demand of skilled trainers, especially for work in the sectoral practical training centres. Development of qualifications of the VET teaching staff, including trainers, especially with the approval of the occupational standard of education and library sectors in the 2019, which includes qualifications of VET teachers (EQF level 5 and 6) and trainer (EQF level 5). It opens the opportunities for implementation of the initial training programmes for training of trainers. | <ul style="list-style-type: none"> Lack of skilled and experienced trainers in the enterprises. Lack of the culture and practices of cooperation between the companies and enterprises in the provision of apprenticeship and work-based learning. Increasing domination of employers without involvement of trade unions in the WBL and apprenticeship can lead to the low-quality standards of training. |
|---|---|

Italy:

STRENGTHS	WEAKNESSES
<p>IVET system as a winning choice against early school leaving</p> <ul style="list-style-type: none"> - The Dual system contributing to the further development of this training offer. - new resources capable of expanding the offer on the territory constitutes - development of innovative strategies to increase flexibility of the didactic organization and personalize the training courses. <p>New impulses for the development of career guidance and job placement systems</p>	<p>The quality of in-company training is the focus of attention.</p> <ul style="list-style-type: none"> - it is often difficult to adapt the training management of apprentices to the work processes and company organisation, especially in case of unforeseen events during the contract. - In-company training is generally aligned to the needs of the individual company, rather than to the local labour market or sector. - The most common mode of delivery is "on-the-job training under supervision"; as a result, apprentices in micro and small enterprises generally find it difficult to distinguish between training and ordinary work. <p>The SMEs may not be able to develop the full spectrum of technical skills foreseen in the individual training plan, and even the training institution may not be able to cover them all, with the consequent risk of gaps in expected learning outcomes.</p> <p>Education and training institutions face an excessive burden in designing and implementing apprenticeship pathways of this kind, particularly when the employer is a micro or small enterprise, or when cooperation between companies and training institutions is not sufficiently stable and robust.</p>
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> - Transfer of knowledge from the company to the school and vice versa. - Creation of Academies together with Companies and Technical Schools - Recognition of the training of workers within the company by educational centres in certain VET studies. - Promote the ToT system. - Create opportunities in new sectors. 	<ul style="list-style-type: none"> - School and VET Teachers Skills obsolescence - Decreased role of Professional Workshops within VET centres - Schizophrenic learning (this focused on specific needs highlighted by companies and less on transferable skills)

SPAIN: SWOT

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> - Increase of students in Higher VET and online VET studies. - Promotion of the VET studies from public institutions. - Companies see an opportunity to create a career for future workers through VET and Dual VET studies. - The companies have begun to value the qualifications of the students of VET and above all Dual VET to do jobs that require direct and practical contact with certain technologies (robotics, 3D printers, artificial vision cameras ...). 	<ul style="list-style-type: none"> -There are no tax incentives for companies to train their own workers -Most of the Spanish companies are SMEs -Different regulations in each region of the country -Need for a specific employment contract for Dual VET, the current “Training and Learning” contract is difficult to adapt to the company -For years the curricula have not been adapted to the new needs (there are no modules on Artificial Intelligence, on Virtual Reality, etc.) -The curriculum should be less incomprehensive and should be updated more frequently -VET centres must have more pedagogical autonomy to incorporate curricula adapted to the needs and reality of the place where they are located -Lack of teaching means to work with students with special needs. -Need for training in new technologies for teachers. - No nationwide curricula or training for mentors and trainers.
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> - Transfer of knowledge from the company to the school and vice versa. - Possibility of transferring new technology (robots, artificial vision cameras, etc....) to schools, that are due to the high costs not able to compete. - Enhance that experts from the business sector participate in teaching activities in the classrooms. - Creation of research and innovation centres in the VET system with involvement of centres, 	<ul style="list-style-type: none"> -Changes of educational laws too often. -The constant and rapid technological changes in industry 4.0 can cause that teaching of knowledge is outdated if the company does not adapt to them. -We are realizing that it would be interesting to have 3 years Dual VET courses to carry out the curriculum in the educational center and the 1,000 hours of Dual training because the 2 years courses are very stressful for the students.

<p>companies and administrations.</p> <ul style="list-style-type: none"> - Create opportunities for teachers of schools to expend time in companies so that they know the technological innovations and the place where the students are trained. To do this, the Education Administration would have to replace these teachers during the time that they are in the company. - Promote at the local level technological centres financed by public funds and SMEs where the companies can train their workers as well as use their technology to develop prototypes or manufacture products. - Recognition of the training of workers within the company by educational centres in certain VET studies. Example: Celsa - SVH: Celsa workers validate part of the internal training in the company with the curriculum of mechanical VET studies (intermediate VET) in SVH school. - Promote the ToT system. - Give support to schools. - Create opportunities in new sectors. 	<p>- Little interest of the students and little training offer in very manual works that cannot be replaced with technology. Example: in the case of TEMSA, the final polishing phase of the dies and the punches is manual and there is no way to automate this last phase of the process. In the department the average age is 55 years, what will happen when the polishers retire?</p>
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The summaries respective SWOT analyses mirror very well the elements of the national reports/conclusions drawn for comparison: in our four countries, dual approaches in VET are more or less established/appreciated.

But some similarities are obvious: independent of the status of dual VET in the countries, in-company mentors, and partially also trainers, are a weak link in providing dual VET – and that neither trainers, mentors nor VET-teachers are prepared for training in the age of digitalisation.

Thus, our summary of comparisons as well as of the national summaries is: next deliverable (IO), the development of grounded Training of Trainers (ToT) units with respect to digitalisation is a really burning issue.

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